2022/23

LAB-WARE

CARL ROTH®

You can contact us directly

Or get in touch with your local distributor!

Your local distributor:

Phone
+49 (0) 721/5606 - 0

Fax
+49 (0) 721/5606 - 149

Roth-E-Mail
info@carlroth.com

Internet
www.carlroth.com

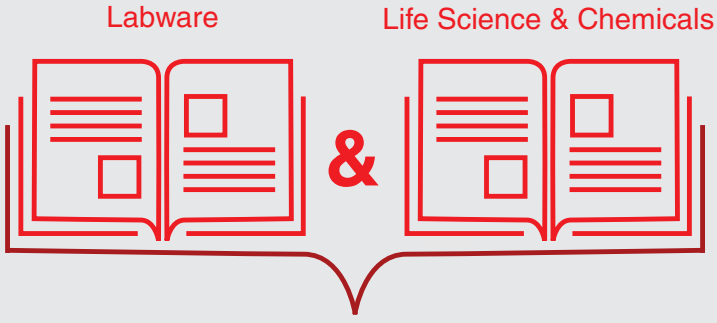
Carl Roth GmbH + Co. KG
Schoemperlenstraße 3-5 · 76185 Karlsruhe · Germany

Future, sustainability and **innovation** at the heart of **CARL ROTH.**

Managing Director
André Houdelet

A challenging year lies behind us as we look forward into the new business year 2022 with drive and optimism. The pandemic has challenged us all; we must be ready to adapt to the situation at any moment and to react immediately to any new developments, so that we can serve you as quickly and reliably as ever. The satisfaction of our customers and staff is always our top priority. This is why we continually optimise our range, designing it to suit you.

This year, we will continue to offer you catalogues in both digital and physical formats, as well as special offers. We have divided our catalogue into two sections to help you find the products you need even more quickly and easily: Life Sciences/Chemicals and laboratory equipment. You can choose from an extensive range of laboratory equipment.



Total product portfolio 2022/2023

As always, you will find a wide variety of existing and new products to make your everyday work easier. If you require suitable life sciences products or chemicals, simply take a look at our corresponding catalogue.

What‘s more, our online shop is always available and well-stocked; here, you can purchase your products efficiently and easily. Our ordering processes are designed with you in mind. It offers a wealth of information, documents, images and videos on many of our products. In addition, we are more than happy to provide you with individual support and are here to help whenever you need us.

We would like to take this opportunity to thank you for your loyalty and ever-successful cooperation. We look forward to remaining your reliable partner in the laboratory equipment and chemicals sector this year.

Kind regards,
André Houdelet

Your partner for high-quality performance

With 5 plus points to your advantage:

Quality

All products in the ROTH product range are subjected to strict in-house checks. This enables us to ensure you receive consistently high product quality.

Logistics

Direct dispatch! Delivery fast, simple and reliable!

Special rates & Discount

Fair and calculable, i. e. a quantity discount of 5 % from 6 packs and 10 % from 24 packs of same items will be granted. Please check with us for special rates on bulk amounts or standing orders.

Customer advice

Customer proximity and competence, i. e. we are here to advise you before and after buying.

Returned & Take-Back Goods

You can take advantage of our 10-day exchange and take-back guarantee. Just send the goods to us in their original packaging together with a copy of the invoice or delivery note and your modified order. We are unfortunately unable to pay the costs for postage and packing. We request you to get in touch with us for any legitimate complaints which require goods to be returned. We shall then authorize our forwarding agent immediately to pick up the goods in question. In the event of goods being returned independently and without prior notice, postage and packing costs can only be refunded for the same amount as agreed upon with our forwarding agent. Further information on returning goods can be found in the terms of sale and delivery at the back of this catalogue.

Discover the **CARL ROTH** webshop.

Comprehensive product information, recommendations, images, videos, certificates of analysis, special offers and the most up-to-date prices are available at www.carlroth.com.

Have you tried our subscription service yet?

www.carlroth.com

A private enterprise with tradition

Best service for 143 years

1879

CARL ROTH is established as a “material goods, colonial goods and dyes merchant and chemists” in Karlsruhe.

1891

CARL ROTH is appointed as an “official purveyor to the Grand Duke of Baden“.

1899

ROTH publishes its first sales and mailorder catalogue.

1907

CARL ROTH operates the first delivery van in Karlsruhe.

1928

The laboratory chemicals department opens.

Quality, Environment, Safety

We take responsibility

Our QM system celebrated its 25th birthday in 2020. Over this time, we have continuously adapted our QM system to the growing market demands in order to meet quality requirements and to continue to deliver a high standard of quality.

CERTIFICATE

The Certification Body
of TÜV SÜD Management Service GmbH
certifies that

Carl Roth GmbH + Co. KG
Schoemperlenstraße 1-5, 76185 Karlsruhe
Germany
An der Mole 5, 76187 Karlsruhe
Germany

has established and applies
a Quality and Environmental Management System
for the following scope of application:

Development, production and distribution of labware and chemicals.

Performance of audits (Order No. 70001407)
has furnished proof that the requirements under:

ISO 9001:2015
ISO 14001:2015

are fulfilled.

The certificate is valid from 2019-07-06 until 2022-07-05.
Certificate Registration No.: 12 100/104 20247 TMS.

Product Compliance Management
Munich, 2019-06-27

The guiding principle for an environmentally conscious corporate management has always been a fundamental part of our business conduct. In addition to fulfilling our statutory environmental commitments, therefore, we always strive to define environmental protection targets and to optimise our operating procedures taking into account environmental aspects.

Our certified environmental management system helps us to systematically pursue this aim.

By participating in the *Responsible Care*® programme of the chemical industry, we have undertaken a commitment to meet the goals set by the programme.

These goals are to promote sustainability, to show product responsibility, to ensure safety, to improve health protection in the workplace and to better protect the environment.

Innovative use of combined heat and power technology when printing this product reduced CO_2 emissions by up to 52% in comparison to conventional methods in Germany.

minus 52% CO_2

RESPONSIBLE CARE®
OUR COMMITMENT TO SUSTAINABILITY

SOLVAGREEN® - Green Solvents
Our brand for alternative solvents

Green Solvents serve as an alternative for environmentally hazardous and harmful reagents, and thus contribute to risk minimisation.

1945

The highly efficient manufacturing and bottling department enters service.

1958

ROTH unveils its proprietary high-pressure laboratory autoclaves at the ACHEMA Fair.

1971

ROTH is awarded a patent on its Mercurisorb-ROTH® high-speed mercury absorber.

1989

The „Association of Independent Businesses“ presents its award to ROTH in recognition of its environmentally friendly business practices.

1990

CARL ROTH publishes its first general product catalogue for its Labware, Life Science and Chemicals product lines.

Plastics – Technical data / Key to symbols

What about the packaging material?

We are making our contribution to the environment:

- By trying to use as little packaging material as possible. Unfortunately we cannot do without packaging completely as it has the important function of not only protecting the product, but also man and environment from any harm.

- By using environmentally friendly and recyclable packaging material as far as possible. As early as the beginning of the 80s, we stopped using polystyrene inserts for packing solvents, acids and alkaline aolution. We now use special boxes for hazardous goods made of 100 % recyclable corrugated cardboard. Paper is used as stuffing material.

Please also help by putting the **packaging in the recycling container after use**. Our boxes are labelled with the recy-symbol; they can be easily stored when cut open and pressed together without taking up much space, prior to being put out for recycling.

Our **plastic containers made of polyethylene (PE)** can also be turned in for recycling after they have been completely emptied and cleaned of all harmful substances.

The same applies to **tin flasks and canisters** once emptied and pollutent-free.

Sterilizing plastics – Autoclaving

Recommended autoclave cycle:
20 minutes at 121 °C, 1 bar

1. Clean autoclave goods thoroughly prior to sterilizing.
2. Rinse off used detergent with distilled water.
3. Unscrew caps to enable pressure compensation.
4. Only autoclave containers with stop-cock when empty, screw off stop-cocks.

   Following plastics can be autoclaved repeatedly: ETFE, PFA, PTFE, FEP, E-CTFE, PMP/TPX®, PP, SI, PVDF; PES, PSU

Note:
Polycarbonate PC and Polysulfone PSU are also autoclavable, however this reduces the mechanical stability. This can result in material failure particularly when under high mechanical strain, e.g. during centrifuging.

Please contact us should you have any further questions regarding packaging.

1993
Construction of a modern high-bay warehouse.

1995
First certification of the quality management system to DIN EN ISO 9001.

2005
The chemicals department moves into modern premises on the Karlsruhe-Rheinhafen industrial estate.

2013
An extension with an automated small parts warehouse is added to the Chemicals and Life Science building, enlarging its area to approx. 8,000 m². CARL ROTH now stocks over 21,000 products in its warehouse.

Abbreviations / temperature resistance of plastics

DIN-Abbrev.	Description	Application temperature (°C)		
		from	to	
ABS	acrylonitrile butadiene styrene	-40	+85	(+100)
EPDM	ethylene propylene diene monomer rubber	-45	+150	
ETFE	ethylene tetrafluoroethylene copolymer	-100	+150	(+180)
FEP	fluorinated ethylene propylene	-100	+205	
FKM	fluorocarbon rubber	-20	+200	
HDPE	high-density polyethylene	-40	+80	(+120)
LDPE	low-density polyethylene	-40	+75	(+90)
MF	melamine	-60	+80	(+120)
NR	natural rubber	-40	+80	
PA	polyamide (PA6)	0	+80	
PBT	polybutylene terephthalate	-45	+140	(+150)
PC	polycarbonate	-40	+115	
PE	polyethylene	-40	+80	(+90)
PES	polyethersulfone	-100	+150	
PET	polyethylene terephthalate	0	+60	
PETG	polyethylene terephthalate modified with glycol	0	+65	
PFA	perfluoroalkoxy alkane	-200	+260	
PMMA	polymethyl methacrylate	-40	+85	(+90)
PMP (TPX®)	polymethylpentene	0	+150	(+180)
POM	polyoxymethylene	-40	+90	
PP	polypropylene	-10	+110	(+140)
PS	polystyrene	-20	+70	(+80)
PSU	polysulfone	-50	+150	(+180)
PTFE	polytetrafluoroethylene	-200	+260	
PU	polyurethane	-30	+60	(+70)
PVC	polyvinyl chloride	-20	+80	
PVDF	polyvinylidene fluoride	-40	+105	
SAN	styrene acrylonitrile	-20	+85	(+95)
SI	silicone rubber	-50	+180	
TPE	thermoplastic elastomer	-50	+121	

Temperature in ( ) short-term

All data in this table are approximate data and refer exclusively to raw plastic products; they can therefore only be regarded as indicative recommendations. As the temperature resistance may vary with different conditions of manufacturing or chemical influences, suitability tests by the user are highly recommanded.

No legal claims can be derived from this information; nor do we accept any liability for it.

Key to symbols

NEW / +
News and programme extensions

A 121 °C
Autoclavable products. Please also note any additional instructions when autoclaving.

Temperature resistance:
Safe to freeze (approx. -10/-20 °C)

Suitable for low temperatures (approx. -70/-80 °C)

Suitable for liquid nitrogen (gaseous phase / -196 °C)

See catalogue text for detailed information.

ready-to-use
Ready-to-use products and reagents

S
Sterile products

All products identified as being particularly temperaturesensitive are shipped **in special ice boxes with freezer packs or in dry ice.**

ROTH for Future
Products, with optimised manufacturing process in terms of sustainability.

2014
Succsesfull participation in the ECOfit programme sponsored by the state of Baden-Württemberg.

2014
Participation in the Responsible Care® programme.

2015
Relaunch of the new ROTH Online Shop.

2016
Certification of the corporate environmental management system according to ISO 14001 for the sustainable environmental protection.

2019
140th anniversary of CARL ROTH.

2020
Opening of the third plant with new logistics centre and automatic small parts warehouse and approx. 7,000 m² of additional storage space.

Labware

Laboratory glass, vessels & consumables	7 – 504
Sampling, pumps & liquid handling	505 – 706
Filtration, water recycling & dialysis	707 – 798
Occupational safety & personal protection	799 – 1004
Laboratory equipment, transport, tools	1005 – 1046
Optical instruments & lamps	1047 – 1084
Measuring instruments	1085 – 1242
Laboratory equipment	1243 – 1496
Cleaning, care & aids	1497 – 1582

Chemical resistance of plastics, hazard symbols, labelling acc. to GHS	1583 – 1592
Sales and delivery terms and conditions	1594 – 1595
Numerical index	1596 – 1625
Alphabetical index	1626 – 1635
Imprint	1636

Laboratory Glass, Vessels, Consumables & Application-specific Products

Vessels and Glass Bottles
- Autosamplervials, glass vials . . . 81
- Beakers . . . 10
- Tins and sample vials . . . 171
- Stainless steel bins, safety tab vessels . . . 127
- Erlenmeyer flasks . . . 18
- Dessiccators . . . 72
- Plastic and metal bottles . . . 141
- Glass bottles and accessories . . . 35
- Large containers (barrels, canisters) . . . 132
- Volumetric flasks and cylinders . . . 22
- Test tubes and centrifuge tubes . . . 105
- Stirring bars, wipers . . . 101
- Stoppers . . . 111
- Tubs, bowls and buckets . . . 189

Laboratory glass, porcelain and ground glass joint equipment
- Büchner funnels, filter crucibles . . . 257
- Chromatography columns . . . 244
- Distillation . . . 232
- Extraction . . . 240
- Gas wash bottles . . . 265
- Stopcocks and plugs . . . 243
- Coolers . . . 237
- Laboratory porcelain . . . 277
- Ground glass joint components . . . 225
- Ground joint flasks . . . 208
- Standard ground glass joint stoppers and clamps . . . 221
- Filtering flasks and accessories . . . 262
- Trays, mortars . . . 268
- Melting point capillary . . . 242
- Crucibles . . . 281
- Funnels and holders . . . 249
- Separating and dropping funnels . . . 245

Universal Labware
- Weighting rings . . . 332
- Cryo racks and storage boxes . . . 354
- Racks, stands and boxes . . . 334
- Laboratory jacks . . . 313

Universal Labware
- Cooling / insulating . . . 365
- Sample bags and foils . . . 382
- Floating racks . . . 333
- Sieves, spoons and spatulas . . . 291
- Material for stands . . . 316
- Weighing accessories and brushes . . . 283
- Tongs, clips and holders . . . 330

Microbiology and Cell Culture
- Inoculation loops and applicators . . . 426
- Colony counters . . . 424
- Culture vessels . . . 406
- Petri dishes and accessories . . . 415
- Petri dish revolving tables . . . 423
- Pestles and homogenizers . . . 429
- Sterilisation . . . 391
- Cell culture bottles and trays . . . 397

Microscopy and Histology
- Adhesive microscope slides . . . 445
- Cover slips . . . 440
- Embedding cassettes and accessories . . . 459
- Staining racks / Staining chambers . . . 453
- Cuvettes, cuvette stands . . . 433
- Microscopy accessories . . . 446
- Microscope slides . . . 443
- Preparation storage . . . 449
- Transport boxes for microscope slides . . . 448
- Cell counting chambers . . . 437

Instruments
- DUMONT®-tweezers . . . 462
- Clamps . . . 496
- Micro scissors . . . 488
- Suture material . . . 497
- Tweezers . . . 468
- Dissecting accessories . . . 500
- Dissecting sets . . . 502
- Scissors and forceps . . . 486
- Scalpels and blades . . . 481

DURAN
WHEATON
KIMBLE

Excellence in your hands

DURAN Group is DWK Life Sciences

Since the 1st June 2017, the companies DURAN Group, WHEATON Industries and KIMBLE Chase united under the new company name DWK Life Sciences. DWK Life Sciences is now a leading international manufacturer of premium laboratory products, packaging and storage solutions for a broad range of scientific and technical applications. The offer of DWK Life Sciences covers more than **25,000 laboratory products, which are manufactured at 12 locations** and marketed under the renowned brands **DURAN®, WHEATON®** and **KIMBLE®**. The leading global and field-tested range of laboratory products is supplemented by an innovative research and Life Science portfolio

The material of glass

General properties

In comparison with other materials such as stainless steel or plastic, glass offers near-universal chemical resistance to water, saline solutions, acids, alkalis and other organic solvents. It is only affected by hydrofluoric acid and at increased temperatures by strong alkalis and concentrated phosphoric acids.
Glass is dimensionally stable and safe even at high temperatures and does not release harmful substances when heated. Glass also exhibits high transparency.
In the laboratory, various types of glass are used depending on application. These are chiefly soda-lime glass (AR®-glass) as well as various types of borosilicate glass.

Soda-lime glass has less chemical and thermal load capacity than borosilicate glass. Due to its high thermal expansion, soda-lime glass has a low thermal shock resistance and can incur stresses and crack when heated or cooled. Soda-lime glass is well suited to applications involving temporary chemical contact at room temperature as well as to disposable articles.

Borosilicate glass is to a large extent chemically inert and suitable for use up to very high temperatures. The various types of borosilicate glass mainly differ from one another in terms of their linear coefficient of expansion and hence their resistance to changes in temperature. The most commonly used types of borosilicate glass are borosilicate glass 3.3 (DURAN®, SIMAX), borosilicate glass 4.9 (Fiolax®) and borosilicate glass 5.1.

The following factors are critical to the quality of laboratory glassware:

- The glassware and glass type
- The shape obtained during the production process
- Even distribution of wall thickness in all areas of the article (particularly in critical areas such as in the neck/shoulder area and at the transitions to the base). This ensures:
  - better mechanical stability
  - higher thermal shock resistance
  - freedom from stresses, which can cause the vessel to burst when heated

These quality characteristics not only increase safety for employees in the laboratory, but also extend the useful life of the laboratory glassware and protect valuable substances.

Comparison of DURAN® and soda-lime glass

Chemical properties:

	DURAN®	Soda-lime glass
Chemical composition	81 % SiO_2 13 % B_2O_3 4 % Na_2O/K_2O 2 % Al_2O_3 No added heavy metals	69 % SiO_2 1 % B_2O_3 3 % K_2O 4 % Al_2O_3 13 % Na_2O 2 % BaO 5 % CaO 3 % MgO
Hydrolytic resistance to DIN ISO 719	Class 1	Class 3
Acid resistance to DIN 12116	Class 1	Class 1
Alkali resistance to ISO 695	Class 2	Class 2

Physical properties:

Transformation temperature [°C]	525	
Coefficient of expansion α (20 to 300 °C) [10^{-6} K^{-1}]	3,3	9,1

Usage instructions:

Max. allowable usage temperatures	500 °C	ca. 100 °C
Maximum negative temperature	-70 °C	ca. 0 °C
Maximum temperature difference ΔT	100 K	30 K
Use in the microwave	Suitable	Unsuitable
Pressure and vacuum operation	Only products indicated as such are suitable for use under pressure/vacuum due to their geometry and wall thickness (e.g. suction bottles, dessicators, DURAN® pressure plus bottles)	Unsuitable
Cleaning in dishwashers	Suitable	Unsuitable

The thermal shock resistance of glass is dependent on the shape, wall thickness, surface characteristics and finish of the glassware used.

Rapid changes in temperature cause high temporary stress in the glass, meaning that rapid cooling processes are very dangerous, since in this case a thin outer layer of the glass is placed under tensile stress over the still hot inner core. Glass is much more susceptible to tensile stress than to compressive stress.

DURAN® is much more resistant to rapid changes in temperature than soda-lime glass due to its lower thermal expansion.

Laboratory glass

The special features of DURAN®

Very high chemical resistance, nearly inert behaviour, a high usage temperature, minimal thermal expansion and the resultant high resistance to thermal shock are its most significant properties. Excellent physical and chemical performance makes DURAN® the ideal material for use in the laboratory and for the manufacture of chemical apparatus used in large-scale industrial plants. It is also widely used on an industrial scale in all other application areas in which extreme heat resistance, thermal shock resistance, mechanical strength and exceptional chemical resistance are required. The properties of DURAN® meet the specifications of DIN ISO 3585. Compared to other types of borosilicate 3.3. glass, DURAN® is noted for its highly constant and technically reproducible quality.

Chemical properties

DURAN® glass is more chemically resistant that all other known materials. DURAN® borosilicate glass is highly resistant to water, acids, saline solutions, organic substances and halogens, such as chlorine or bromine. It also has good resistance to alkaline solutions.
Only hydrofluoric acid, concentrated phosphoric acid and strong alkalis break down the glass surface (glass corrosion) at temperatures >100 °C. Their near-inert behaviour means that there are no interactions (e.g. ion exchange) between the medium and glass and it is thus possible to practically rule out any influence on the experiments.

Physical Properties:

Temperature stability under heating

The maximum permissible operating temperature for DURAN® is 500 °C. As it has a very low coefficient of linear expansion (α = 3.3 x 10^{-6} K^{-1}), a feature of DURAN® is its high thermal shock resistance up to ΔT = 100 K. This is also dependent on the wall thickness and the geometry of the products.

Temperature stability under freezing

DURAN® can be cooled down to the maximum possible negative temperature and is thus suitable for use with liquid nitrogen (approx. -196 °C). When doing so, bear in mind the product geometry and the properties of any additional components used (e.g. screw caps). In general, DURAN® products are recommended for use down to -70 °C.
When cooling down and thawing, care must be taken to ensure that the temperature difference does not exceed 100 K. In practice, therefore, it is recommended that they be cooled and heated gradually.
When freezing substances such as DURAN® bottles, the container should only be filled to max. 3/4 full and frozen at an angle of 45 ° (in order to enlarge the surface area).

Use in the microwave

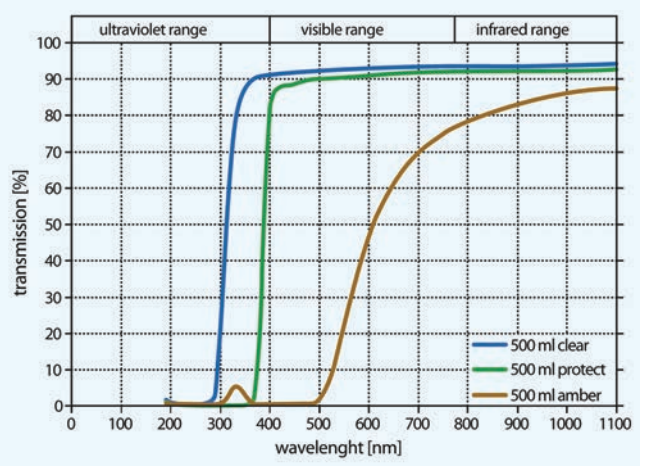
DURAN® laboratory glassware is suitable for use in microwaves. This also applies to plastic coated DURAN® products.

Conformity with standards and guidelines

DURAN® is a neutral glass with high hydrolytic resistance and therefore belongs to glass type 1 according to the European Pharmacopoeia (EP, Section 3.2.1), the Japanese Pharmacopoeia (JP, Section 7.01), the United States Pharmacopeia (USP, Section: 660) and the National Formulary. In addition to being in conformity with the DIN ISO 3585 international standard, in which the properties of borosilicate glass 3.3 are defined, many items of DURAN® laboratory glassware meet the standards for glass laboratory equipment.

Optical properties

In the spectral range from approx. 310 to 2200 nm the absorption of DURAN® clear glass is negligibly low. In photochemical processes the light transmission of DURAN® in the ultraviolet range is of particular importance. The transmissivity in the UV range indicates the ease with which photochemical reactions, such as chlorinations and sulfochlorinations, can be carried out. The chlorine molecule absorbs in the range from 280 to 400 nm and thus serves as a carrier of the radiation energy.



Amber colouring of DURAN® laboratory glassware

The amber colouring allows the storage of light-sensitive substances in DURAN® products. In the wavelength band between 300 and 500 nm, light transmission compared to DURAN® clear glass is <10 %. Accordingly, the amber DURAN® glass meets USP/EP/JP guidelines. Since the amber diffusion ink is applied to the outside of the clear glass article by means of spray coating, the proven DURAN® properties inside the bottle remain unaffected; there is no contact or interaction between contents and amber coating.
The coating is then stove enamelled, and therefore is resistant to chemicals and cleaning in a dishwasher.

Safety instructions

DURAN® glassware is safe to use. The guidelines applicable for the use of special glass in laboratories in the country in question should always be observed. The following points should, however, always be observed:

- Before using DURAN® laboratory glassware, it should be checked to ensure that it is suitable for the intended purpose and that it will function properly.
- Faulty laboratory glassware can present a hazard (e. g. risk of cuts, burns, infection) which should not be underestimated. If appropriate repairs to any item cannot be carried out or cannot be justified on grounds of cost, it must be disposed of in the proper manner (as household waste or, depending on possible contamination, in accordance with the applicable guidelines; never as waste glass).
- Glassware should only be subjected to sudden changes in temperature taking into account a thermal shock resistance of ΔT=100K. This applies in particular to thick-walled glassware, such as suction bottles or dessicators.
- Make sure that apparatus stands firmly and is not subjected to stress by using appropriate support material.

Glass beakers

Beaker DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Graduated, with a spout (Art. No. C108.1 and C109.1 not graduated). According to DIN 12331, ISO 3819 (Art. No. C122.1 not according to DIN). With retrace code.

A 121 °C

DURAN WHEATON KIMBLE

Low form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
5	22	30	DIN 12331, ISO 3819	**C108.1**	10 unit(s)	51,40
10	26	35	DIN 12331, ISO 3819	**C109.1**	10 unit(s)	58,55
25	34	50	DIN 12331, ISO 3819	**C110.1**	10 unit(s)	49,95
50	42	60	DIN 12331, ISO 3819	**C111.1**	10 unit(s)	47,90
100	50	70	DIN 12331, ISO 3819	**C112.1**	10 unit(s)	47,35
150	60	80	DIN 12331, ISO 3819	**C113.1**	10 unit(s)	50,25
250	70	95	DIN 12331, ISO 3819	**C114.1**	10 unit(s)	51,85
400	80	110	DIN 12331, ISO 3819	**C115.1**	10 unit(s)	62,05
600	90	125	DIN 12331, ISO 3819	**C116.1**	10 unit(s)	77,10
800	100	135	DIN 12331, ISO 3819	**C117.1**	10 unit(s)	106,40
1,000	105	145	DIN 12331, ISO 3819	**C118.1**	1 unit(s)	12,95
2,000	132	185	DIN 12331, ISO 3819	**C119.1**	1 unit(s)	22,20
3,000	152	210	DIN 12331, ISO 3819	**C120.1**	1 unit(s)	39,65
5,000	170	270	DIN 12331, ISO 3819	**C121.1**	1 unit(s)	67,30
10,000	217	350	not in acc. with DIN	**C122.1**	1 unit(s)	189,00

High form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
50	38	70	DIN 12331, ISO 3819	**C123.1**	10 unit(s)	48,40
100	48	80	DIN 12331, ISO 3819	**C124.1**	10 unit(s)	49,00
150	54	95	DIN 12331, ISO 3819	**C125.1**	10 unit(s)	51,90
250	60	120	DIN 12331, ISO 3819	**C126.1**	10 unit(s)	54,90
400	70	130	DIN 12331, ISO 3819	**C127.1**	10 unit(s)	65,25
600	80	150	DIN 12331, ISO 3819	**C128.1**	10 unit(s)	80,15
800	90	175	DIN 12331, ISO 3819	**C129.1**	10 unit(s)	113,40
1,000	95	180	DIN 12331, ISO 3819	**C130.1**	1 unit(s)	13,15
2,000	120	240	DIN 12331, ISO 3819	**C131.1**	1 unit(s)	23,45
3,000	135	280	DIN 12331, ISO 3819	**C132.1**	1 unit(s)	49,20

Beaker DURAN® Super Duty

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

- Proven DURAN® properties
- Glass type I, Neutral glass according to USP, EP and JP
- High mechanical stability
- Reinforced, stable rim
- Regular wall-thickness
- Autoclavable, sterilisable
- With retrace code
- Easily readable scale
- Fired-on highly durable labelling

A 121 °C

DURAN WHEATON KIMBLE

Notes for use:
To avoid thermal stresses in the glass, uniform and slow heating of Super Duty products is recommended. When working at very high temperatures, or if rapid temperature changes are expected, standard DURAN® beakers and Erlenmeyer flasks should be used, as these have excellent thermal shock resistance. However, their mechanical sturdiness is limited compared with the Super Duty range.

Glass beakers

Low form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	60	80	**PC33.1**	10 unit(s)	59,65
250	70	95	**PC34.1**	10 unit(s)	59,65
400	80	110	**PC35.1**	10 unit(s)	78,45
600	90	125	**PC36.1**	10 unit(s)	91,45
1,000	105	145	**PC37.1**	10 unit(s)	145,75
2,000	132	185	**PC38.1**	10 unit(s)	255,00
5,000	170	270	**PC39.1**	1 unit(s)	141,80

High form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	54	95	**CHL2.1**	10 unit(s)	61,45
250	60	120	**CHL3.1**	10 unit(s)	62,60
600	80	150	**CHL4.1**	10 unit(s)	95,00

Beaker ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Graduated, with spout (Art. No. X685.1, X686.1, X687.1, and X700.1 not graduated). According to DIN 12331, ISO 3819 (Art. No. ACK7.1 not according to DIN).

A 121 °C

Low form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
5	22	30	DIN 12331, ISO 3819	**X685.1**	10 unit(s)	31,50
10	26	35	DIN 12331, ISO 3819	**X686.1**	10 unit(s)	34,65
25	34	50	DIN 12331, ISO 3819	**X687.1**	10 unit(s)	37,30
50	42	60	DIN 12331, ISO 3819	**X688.1**	10 unit(s)	28,30
100	50	70	DIN 12331, ISO 3819	**X689.1**	10 unit(s)	24,20
150	60	80	DIN 12331, ISO 3819	**X690.1**	10 unit(s)	26,65
250	70	95	DIN 12331, ISO 3819	**X691.1**	10 unit(s)	28,85
400	80	110	DIN 12331, ISO 3819	**X692.1**	10 unit(s)	33,40
600	90	125	DIN 12331, ISO 3819	**X693.1**	10 unit(s)	45,15
800	100	135	DIN 12331, ISO 3819	**X694.1**	10 unit(s)	54,15
1,000	105	145	DIN 12331, ISO 3819	**X695.1**	10 unit(s)	58,00
2,000	130	185	DIN 12331, ISO 3819	**X696.2**	1 unit(s)	11,05
3,000	150	210	DIN 12331, ISO 3819	**X697.1**	1 unit(s)	36,90
5,000	170	270	DIN 12331, ISO 3819	**X698.1**	1 unit(s)	47,05
10,000	217	350	not in acc. with DIN	**ACK7.1**	1 unit(s)	93,10

High form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
25	30	55	DIN 12331, ISO 3819	**X700.1**	10 unit(s)	33,55
50	38	70	DIN 12331, ISO 3819	**X701.1**	10 unit(s)	24,85
100	48	80	DIN 12331, ISO 3819	**X702.1**	10 unit(s)	26,20
150	54	95	DIN 12331, ISO 3819	**X703.1**	10 unit(s)	29,40
250	60	120	DIN 12331, ISO 3819	**X704.1**	10 unit(s)	30,35
400	70	130	DIN 12331, ISO 3819	**X705.1**	10 unit(s)	32,00
600	80	150	DIN 12331, ISO 3819	**X706.1**	10 unit(s)	38,60
800	90	175	DIN 12331, ISO 3819	**X707.1**	10 unit(s)	58,35
1,000	95	180	DIN 12331, ISO 3819	**X708.1**	10 unit(s)	64,45
2,000	120	240	DIN 12331, ISO 3819	**X709.2**	1 unit(s)	11,50
3,000	135	280	DIN 12331, ISO 3819	**X710.2**	1 unit(s)	34,05

Beakers

121 °C

DURAN WHEATON KIMBLE

Beaker without spout

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Tall variant with easy-to-read graduations and large labelling surface for easy product identification. Graduation markings are kiln-fired onto the glass for maximum durability. Ideal for heating applications thanks to even wall thickness distribution. With retrace code.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	38	70	**CCK5.1**	10 unit(s)	48,40
100	48	80	**CCK6.1**	10 unit(s)	49,00
150	54	95	**CCK7.1**	10 unit(s)	51,90
250	60	120	**CCK8.1**	10 unit(s)	54,90
400	70	130	**CCK9.1**	10 unit(s)	65,25
600	80	150	**CCL0.1**	10 unit(s)	80,15
1,000	95	180	**CCL1.1**	10 unit(s)	128,30

121 °C

Beaker ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Short, graduated, with spout and handle.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	70	95	**NT29.1**	6 unit(s)	33,80
400	80	110	**NT30.1**	6 unit(s)	35,80
600	90	125	**NT31.1**	6 unit(s)	41,70
1,000	105	145	**NT32.1**	2 unit(s)	18,30

121 °C

Beaker ROTILABO®

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

With spout. Chemically inert. Temperature stable from -200 to +260 °C. Low gas permeability. Anti-adhesive.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	13	18	**T643.1**	1 unit(s)	9,45
5	20	26	**T645.1**	1 unit(s)	10,75
10	24	33	**T646.1**	1 unit(s)	11,80
25	32	47	**T647.1**	1 unit(s)	15,10
50	43	60	**1183.1**	1 unit(s)	17,65
100	54	68	**1184.1**	1 unit(s)	20,20
150	59	69	**T648.1**	1 unit(s)	26,35
250	66	97	**1185.1**	1 unit(s)	31,40
400	80	106	**T649.1**	1 unit(s)	49,05
500	80	125	**T650.1**	1 unit(s)	50,40
600	90	125	**T651.1**	1 unit(s)	69,05
1,000	100	155	**1187.1**	1 unit(s)	96,55
2,000	120	210	**T652.1**	1 unit(s)	176,30
5,000	170	280	**T653.1**	1 unit(s)	326,80

121 °C

Beaker ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Suitable for foodstuffs.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
75	50	50	**YX59.1**	1 unit(s)	7,05
125	60	60	**YX60.1**	1 unit(s)	7,45
150	65	65	**YX61.1**	1 unit(s)	8,20
250	75	100	**YX58.1**	1 unit(s)	7,15

Beakers

121 °C

Beaker ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

With crimped edge and contact base for magnet and heater stirrers. Good chemical and temperature resistance.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	50	60	**HT90.1**	1 unit(s)	78,95
250	65	85	**HT91.1**	1 unit(s)	82,30
500	80	110	**HT92.1**	1 unit(s)	110,65
1,000	100	130	**HT93.1**	1 unit(s)	133,00
2,000	120	180	**HT94.1**	1 unit(s)	190,30
3,000	150	180	**HT95.1**	1 unit(s)	224,70
5,000	180	210	**HT96.1**	1 unit(s)	302,10

121 °C

Beaker ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.

With spout. Max. Temperature stability up to +1,000 °C.

Low form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
275	70	85	**XX35.1**	1 unit(s)	13,40
400	80	99	**XX36.1**	1 unit(s)	15,90
620	90	116	**XX37.1**	1 unit(s)	19,15
860	100	129	**XX38.1**	1 unit(s)	24,60
950	123	100	**XX39.1**	1 unit(s)	31,70

High form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
170	52	90	**XX40.1**	1 unit(s)	11,45
225	57	106	**XX41.1**	1 unit(s)	12,55
450	70	143	**XX42.1**	1 unit(s)	15,55
1,100	101	157	**XX43.1**	1 unit(s)	24,40

121 °C

Silicone covers DURAN®

DWK Life Sciences. Material: Silicone. Autoclavable: Yes.

For covering and closing vessels with different shapes. Thanks to its outstanding elasticity, the DURAN® silicone cover can be used for covering various vessel diameters and shapes. The wide overlapping edge of the silicone cover engages well with the vessel wall.

- Protects against dust entering or the medium spraying out
- Samples can be marked easily using different colours and an additional labelling field on the tab
- Easy to clean, dishwasher-safe and reusable, therefore environmentally friendly and economical

Version	Colour	Art. No.	Pack Qty.	€
for Ø 43-61 mm	pink	**KNH4.1**	1 unit(s)	2,15
for Ø 43-61 mm	cyan	**KNH7.1**	1 unit(s)	2,15
for Ø 43-61 mm	green	**KNK0.1**	1 unit(s)	2,15
for Ø 64-76 mm	pink	**KNH5.1**	1 unit(s)	2,70
for Ø 64-76 mm	cyan	**KNH8.1**	1 unit(s)	2,70
for Ø 64-76 mm	green	**KNK1.1**	1 unit(s)	2,70
for Ø 84-116 mm	pink	**KNH6.1**	1 unit(s)	3,20
for Ø 84-116 mm	cyan	**KNH9.1**	1 unit(s)	3,20
for Ø 84-116 mm	green	**KNK2.1**	1 unit(s)	3,20

Set

Three sizes for Ø 43-61 mm, Ø 64-76 mm and Ø 84-116 mm.

Colour	Art. No.	Pack Qty.	€
cyan	**KNH2.1**	1 set	7,15
pink	**KNH1.1**	1 set	7,15
green	**KNH3.1**	1 set	7,15

Measuring beakers

Griffin beakers

Vitlab. Material: PP, transparent. Autoclavable: Limited.

With spout and blue scale. Cleaning at max. 60 °C recommended to protect the printing. Suitable for foodstuffs.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	2	30	36	**2870.1**	1 unit(s)	2,20
25	5	38	50	**2871.1**	1 unit(s)	2,20
50	10	47	60	**2872.1**	1 unit(s)	2,30
100	10	55	70	**2873.1**	1 unit(s)	2,40
150	20	66	80	**2874.1**	1 unit(s)	2,65
250	25	77	95	**2875.1**	1 unit(s)	3,00
400	50	87	112	**2876.1**	1 unit(s)	3,60
500	50	94	118	**HX26.1**	1 unit(s)	3,95
600	50	100	127	**2877.1**	1 unit(s)	4,00
1,000	100	120	147	**2879.1**	1 unit(s)	5,75
2,000	200	149	187	**P804.1**	1 unit(s)	9,80
3,000	250	170	212	**P805.1**	1 unit(s)	19,15
5,000	500	203	247	**P806.1**	1 unit(s)	25,00

Griffin beakers assortment

Vitlab. Material: PP.

10 pieces (one beaker each from 10 to 1000 ml).

Version	Art. No.	Pack Qty.	€
Griffin beakers assortment	**2880.1**	1 set	26,20

A 121 °C

Griffin beakers

Vitlab. Material: PFA, transparent. Autoclavable: Yes.

With raised scale. Highly resistant to chemicals. Temperature-stable from -200 to +250 °C.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	5	32	50	**A862.1**	1 unit(s)	22,55
50	10	39	59	**A863.1**	1 unit(s)	28,45
100	20	50	72	**A864.1**	1 unit(s)	39,70
250	50	67	96	**A865.1**	1 unit(s)	67,20
500	100	88	122	**A866.1**	1 unit(s)	104,15
1,000	100	105	143	**A867.1**	1 unit(s)	178,45

Griffin beakers

Vitlab. Material: PMP, transparent. Autoclavable: Limited.

With spout and printed red scale. Cleaning at max. 60 °C, recommended to protect the printing. Good chemical resistance.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	2	30	36	**2890.1**	1 unit(s)	2,50
25	5	38	50	**2891.1**	1 unit(s)	2,65
50	10	47	60	**2892.1**	1 unit(s)	2,90
100	10	55	70	**2893.1**	1 unit(s)	3,20
150	20	66	80	**2894.1**	1 unit(s)	4,05
250	25	77	95	**2895.1**	1 unit(s)	4,30
400	50	87	112	**2896.1**	1 unit(s)	5,55
500	50	94	118	**HX27.1**	1 unit(s)	6,40
600	50	100	127	**2897.1**	1 unit(s)	7,30
1,000	100	120	147	**2899.1**	1 unit(s)	10,00
2,000	200	149	187	**P807.1**	1 unit(s)	16,35
3,000	250	170	212	**P808.1**	1 unit(s)	28,80
5,000	500	203	247	**P809.1**	1 unit(s)	38,70

Griffin beakers assortment

Vitlab. Material: PMP.

10 pieces (one beaker each from 10 to 1000 ml).

Version	Art. No.	Pack Qty.	€
Griffin beakers assortment	**2900.1**	1 set	42,05

Griffin beakers

BRAND. Material: ETFE, transparent. Autoclavable: Limited.

With spout and printed black scale. Cleaning at max. 60 °C recommended to protect the printing. Very good chemical resistance. Temperature-stable from -100 to +150 °C.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	5	32	50	**2881.1**	1 unit(s)	12,95
50	10	39	59	**2882.1**	1 unit(s)	13,25
100	20	50	72	**2883.1**	1 unit(s)	19,65
250	50	67	96	**2884.1**	1 unit(s)	33,40
400	50	77	109	**2885.1**	1 unit(s)	46,40
500	100	88	122	**HX28.1**	1 unit(s)	54,75
600	100	91	125	**2886.1**	1 unit(s)	62,85
1,000	100	105	143	**2887.1**	1 unit(s)	89,60

Measuring beakers

121 °C

Griffin beakers

Vitlab. Material: PP, transparent. Autoclavable: Yes.

With spout and embossed scale. Temperature-stable from 0 to +125 °C. Suitable for foodstuffs.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	5	38	50	**CKK4.1**	1 unit(s)	2,05
50	10	47	60	**CKK5.1**	1 unit(s)	2,35
100	10	55	70	**CKK6.1**	1 unit(s)	2,40
150	20	66	80	**CKK7.1**	1 unit(s)	2,65
250	25	77	95	**CKK8.1**	1 unit(s)	2,85
400	50	87	111.5	**CKK9.1**	1 unit(s)	3,55
500	50	94	117.5	**CKL0.1**	1 unit(s)	4,00
600	50	100	126.5	**CKL1.1**	1 unit(s)	4,20
1,000	100	120	147	**CKL2.1**	1 unit(s)	5,55
2,000	200	149	187	**CKL3.1**	1 unit(s)	9,60
3,000	250	170	212	**CKL4.1**	1 unit(s)	19,00
5,000	500	203	247	**CKL5.1**	1 unit(s)	25,00

Measuring beakers ROTILABO®

ROTH SELECTION. Material: PP, Transparent. Autoclavable: Limited.

With smooth surface and raised, red embossed scale. Cleaning at max. 60 °C recommended to protect the printing. Suitable for foodstuffs.

Vol. (ml)	Gradua-tions (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	2	40	70	**YA29.1**	1 unit(s)	2,20
100	2	50	80	**YA30.1**	1 unit(s)	2,50
250	5	70	120	**YA31.1**	1 unit(s)	3,60
500	10	91	133	**0757.1**	1 unit(s)	4,25
1,000	10	116	170	**0758.1**	1 unit(s)	5,75
2,000	20	150	215	**0768.1**	1 unit(s)	10,15
3,000	50	170	242	**0779.1**	1 unit(s)	13,30
5,000	100	210	270	**0780.1**	1 unit(s)	19,15

121 °C

Measuring beakers

Vitlab. Material: PP, Highly transparent. Autoclavable: Yes.

With embossed scale and sturdy handle with good grip. Temperature-stable from 0 to +125 °C. Suitable for foodstuffs.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	2	40	70	**CKL6.1**	1 unit(s)	2,35
100	2	50	80	**CKL7.1**	1 unit(s)	2,50
250	5	70	120	**CKL8.1**	1 unit(s)	3,95
500	10	91	133	**CKL9.1**	1 unit(s)	4,20
1,000	20	116	170	**CKN0.1**	1 unit(s)	5,90
2,000	50	150	215	**CKN1.1**	1 unit(s)	10,75
3,000	50	170	242	**CKN2.1**	1 unit(s)	14,55
5,000	100	210	270	**CKN3.1**	1 unit(s)	20,45

Measuring beakers

ROTH SELECTION. Material: PP, Highly transparent. Autoclavable: Limited.

With black scale printed on two sides. Stackable due to open handle. Cleaning at max. 60 °C recommended to protect the printing.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	5	75	115	**XY21.1**	1 unit(s)	3,75
500	10	100	140	**P800.1**	1 unit(s)	4,35
1,000	10	125	167	**P801.1**	1 unit(s)	5,85
2,000	20	148	212	**P802.1**	1 unit(s)	10,65
3,000	50	170	242	**P803.1**	1 unit(s)	14,45

Measuring beakers

Measuring beakers

Vitlab. Material: PP, transparent.

With clearly legible scale printed on both sides and stable handle. Stackable. To preserve the imprint, cleaning at temperatures not exceeding 60 °C is recommended. Suitable for foodstuffs.

Vol. (ml)	Colour	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	blue	10	100	140	**APH6.1**	1 unit(s)	4,75
500	yellow	10	100	140	**APH7.1**	1 unit(s)	4,35
500	red	10	100	140	**APH8.1**	1 unit(s)	4,35
500	green	10	100	140	**APH9.1**	1 unit(s)	4,35

Measuring beakers

Vitlab. Material: SAN, transparent.

With embossed scale and sturdy handle with good grip. Temperature-stable between -40 and +70 °C. Suitable for foodstuffs.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	5	70	120	**CKN4.1**	1 unit(s)	4,60
500	10	91	133	**CKN5.1**	1 unit(s)	6,30
1,000	10	116	170	**CKN6.1**	1 unit(s)	7,65
2,000	20	150	215	**CKN7.1**	1 unit(s)	12,60
3,000	50	170	242	**CKN8.1**	1 unit(s)	16,15

A 121 °C

Measuring jugs

Hünersdorff. Material: PP, transparent. Autoclavable: Yes.

With injected, transparent measuring scale and additional blue stamped scale. Closed handle. Temperature-stable between -20 and +100 °C.

Delivery without lid, please order separately.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	10	117	165	**EKE7.1**	1 unit(s)	6,35
2,000	20	151	206	**EKE8.1**	1 unit(s)	12,20

Accessories lid for measuring jugs

Hünersdorff. Material: PP.

Designation	Art. No.	Pack Qty.	€
Lid for 1000-ml jug EKE7.1	**EKE9.1**	1 unit(s)	3,45
Lid for 2000-ml jug EKE8.1	**EKH0.1**	1 unit(s)	4,25

A 121 °C

Measuring beakers ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, polished. Autoclavable: Yes.

Graduated inside. With open handle, stackable. Suitable for foodstuffs.

Vol. (ml)	Graduations (ml)	Height (mm)	Art. No.	Pack Qty.	€
100	50	50	**YY00.1**	1 unit(s)	5,00
250	50	70	**YY01.1**	1 unit(s)	5,95
500	100	110	**YY02.1**	1 unit(s)	11,40
1,000	500	135	**YY03.1**	1 unit(s)	15,25
2,000	500	195	**YY04.1**	1 unit(s)	26,15

Measuring beakers

A 121 °C

Measuring beakers ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Cylindrical. Graduated inside and outside.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
700	100	100	100	**9472.1**	1 unit(s)	32,80
1,300	100	120	120	**9473.1**	1 unit(s)	40,50
2,100	200	140	140	**9475.1**	1 unit(s)	53,05
3,200	200	160	160	**9476.1**	1 unit(s)	69,45
4,000	500	180	180	**9478.1**	1 unit(s)	85,80
5,000	1,000	200	200	**9479.1**	1 unit(s)	100,75

A 121 °C

Measuring beakers ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Inside graduated. Suitable for foodstuffs.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	10	50	25	**LT24.1**	5 unit(s)	19,55
50	10	53	45	**LT25.1**	5 unit(s)	25,65

A 121 °C

Measuring beakers 51

Haldenwanger. Material: Porcelain, glazed (outside surface non-glazed). Autoclavable: Yes.
Graduated. Temperature stable up to +400 °C.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	80	100	**XL85.1**	1 unit(s)	96,90
500	95	125	**XL86.1**	1 unit(s)	117,20
1,000	110	165	**XL87.1**	1 unit(s)	155,90
2,000	140	193	**XL88.1**	1 unit(s)	233,30

A 121 °C

Erlenmeyer flasks disposable

Simport. Material: PP, transparent. Autoclavable: Yes.
Graduated from 0 to 170 ml. Specially shaped edge enables drip-free pouring. Can also be used for cultivating drosophila.

Delivery without snap-on lid, please order separately.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
55	55	105	**AYP4.1**	500 unit(s)	233,30

Erlenmeyer flasks

Erlenmeyer flasks ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Graduated.

A 121 °C

Wide neck

According to DIN ISO 24450 (Art. No. X734.1, X739.1 and X742.2 as a supplement to DIN).

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
25	42	32	70	in addition	**X734.1**	10 unit(s)	49,20
50	51	34	85	DIN EN ISO 24450	**X735.1**	10 unit(s)	49,20
100	64	34	105	DIN EN ISO 24450	**X736.1**	10 unit(s)	28,20
200	79	50	131	DIN EN ISO 24450	**X737.1**	10 unit(s)	34,35
250	85	50	135	DIN EN ISO 24450	**X738.1**	10 unit(s)	36,80
300	87	50	156	in addition	**X739.1**	10 unit(s)	43,45
500	105	50	170	DIN EN ISO 24450	**X740.1**	10 unit(s)	46,05
1,000	131	50	215	DIN EN ISO 24450	**X741.1**	10 unit(s)	53,30
2,000	153	72	280	in addition	**X742.2**	6 unit(s)	65,65

Narrow neck

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	42	22	70	**X745.1**	10 unit(s)	49,20
50	51	22	85	**X746.1**	10 unit(s)	49,20
100	64	22	105	**X747.1**	10 unit(s)	25,45
200	79	34	131	**X748.1**	10 unit(s)	33,35
250	85	34	140	**X749.1**	10 unit(s)	34,55
300	87	34	156	**X750.1**	10 unit(s)	41,95
500	105	34	175	**X751.1**	10 unit(s)	45,65
1,000	131	42	220	**X752.1**	10 unit(s)	65,40
2,000	166	50	280	**X753.2**	6 unit(s)	58,10
3,000	187	50	310	**X754.1**	1 unit(s)	32,10
5,000	220	50	365	**X755.1**	1 unit(s)	49,45

Erlenmeyer flasks DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes. With retrace code.

A 121 °C DURAN WHEATON KIMBLE

Wide neck

According to DIN ISO 24450 (Art. No. C144.1, C152.2, AAA3.1, AAA4.1 and AAA5.1 not according to DIN). Flasks up to 2000 ml, graduated.

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
25	42	31	70	not in acc. with DIN	**C144.1**	10 unit(s)	55,00
50	51	34	85	DIN EN ISO 24450	**C145.1**	10 unit(s)	54,85
100	64	34	105	DIN EN ISO 24450	**C146.1**	10 unit(s)	55,35
200	79	50	131	DIN EN ISO 24450	**C147.1**	10 unit(s)	58,95
250	85	50	140	DIN EN ISO 24450	**C148.1**	10 unit(s)	62,50
300	87	50	156	DIN EN ISO 24450	**C149.1**	10 unit(s)	71,35
500	105	50	175	DIN EN ISO 24450	**C150.1**	10 unit(s)	83,50
1,000	131	50	220	DIN EN ISO 24450	**C151.2**	1 unit(s)	13,55
2,000	153	72	276	not in acc. with DIN	**C152.2**	1 unit(s)	24,70
3,000	190	106	285	not in acc. with DIN	**AAA3.1**	1 unit(s)	80,25

Erlenmeyer flasks

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
5,000	220	108	322	not in acc. with DIN	**AAA4.1**	1 unit(s)	105,35
10,000	285	147	420	not in acc. with DIN	**AAA5.1**	1 unit(s)	213,00

Narrow neck
Graduated. According to ISO 1773 (Art. No. PY97.1, C136.1, C138.1 and XT08.1 not according to DIN).

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
25	42	22	75	DIN ISO 1773	**C133.1**	10 unit(s)	54,90
50	51	22	90	DIN ISO 1773	**C134.1**	10 unit(s)	55,00
100	64	22	105	DIN ISO 1773	**C135.1**	10 unit(s)	53,90
125	67	28	112	not in acc. with DIN	**PY97.1**	10 unit(s)	52,35
150	74	28	118	DIN ISO 1773	**XT07.1**	10 unit(s)	53,50
200	79	34	131	not in acc. with DIN	**C136.1**	10 unit(s)	55,00
250	85	34	145	DIN ISO 1773	**C137.1**	10 unit(s)	55,55
300	87	34	156	not in acc. with DIN	**C138.1**	10 unit(s)	64,00
500	105	34	180	DIN ISO 1773	**C139.1**	10 unit(s)	72,60
800	120	42	200	not in acc. with DIN	**XT08.1**	10 unit(s)	92,00
1,000	131	42	220	DIN ISO 1773	**C140.2**	1 unit(s)	12,90
2,000	166	50	280	DIN ISO 1773	**C141.2**	1 unit(s)	23,45
3,000	187	52	310	DIN ISO 1773	**C142.2**	1 unit(s)	43,35
5,000	220	52	365	DIN ISO 1773	**C143.1**	1 unit(s)	64,85

Erlenmeyer flasks DURAN® Super Duty

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

- Proven DURAN® properties
- Glass type I, neutral glass according to USP, EP and JP
- High mechanical stability
- Reinforced, stable rim
- Regular wall thickness
- Autoclavable, sterilisable
- With retrace code
- Easily readable scale
- Fired-on highly durable labelling

A 121 °C

DURAN WHEATON KIMBLE

Notes for use:
To avoid thermal stresses in the glass, uniform and slow heating of Super Duty products is recommended. When working at very high temperatures, or if rapid temperature changes are expected, standard DURAN® beakers and Erlenmeyer flasks should be used, as these have excellent thermal shock resistance. However, their mechanical sturdiness is limited compared with the Super Duty range.

Narrow neck

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	42	22	75	**PC40.1**	10 unit(s)	99,65
50	51	22	90	**PC41.1**	10 unit(s)	101,10
100	64	22	105	**PC42.1**	10 unit(s)	92,90
250	85	34	145	**PC43.1**	10 unit(s)	80,60
500	105	34	180	**PC44.1**	10 unit(s)	96,45
1,000	131	42	220	**PC45.1**	10 unit(s)	152,00
2,000	166	50	280	**PC46.1**	10 unit(s)	282,00
5,000	220	52	365	**PC47.1**	1 unit(s)	134,40

Wide neck

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	64	34	105	**PC48.1**	10 unit(s)	73,50
250	85	50	140	**PC49.1**	10 unit(s)	80,60
500	105	50	175	**PC50.1**	10 unit(s)	96,45
1,000	131	50	220	**PC51.1**	10 unit(s)	152,00

Erlenmeyer flasks

A 121 °C

Erlenmeyer flasks ROTILABO® with ground glass joint

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
25	42	70	14/23	**Y643.1**	10 unit(s)	91,00
25	42	70	19/26	**NT33.1**	10 unit(s)	85,65
50	51	85	14/23	**Y644.1**	10 unit(s)	131,45
50	51	85	29/32	**X769.1**	10 unit(s)	109,40
100	51	105	19/26	**X770.1**	10 unit(s)	150,10
100	64	105	29/32	**X771.1**	10 unit(s)	125,45
200	79	130	29/32	**NT34.1**	10 unit(s)	147,85
250	85	140	14/23	**NT35.1**	10 unit(s)	149,05
250	85	135	29/32	**X773.1**	10 unit(s)	116,55
250	85	135	45/40	**X774.1**	10 unit(s)	176,30
500	105	170	29/32	**X776.1**	10 unit(s)	134,95
500	105	175	45/40	**NT36.1**	10 unit(s)	186,00
1,000	131	215	29/32	**X778.1**	10 unit(s)	222,55
1,000	131	215	45/40	**X779.1**	10 unit(s)	238,65
2,000	166	275	29/32	**Y684.1**	6 unit(s)	165,55
2,000	166	275	45/50	**NT37.1**	6 unit(s)	177,40

A 121 °C

Iodine determination flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With ground glass joint.

Delivery incl. hollow glass stopper.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	64	105	29/32	**E535.1**	1 unit(s)	16,10
250	85	139	29/32	**E536.1**	1 unit(s)	17,15
300	87	150	29/32	**EPY7.1**	1 unit(s)	21,50
500	105	165	29/32	**E537.1**	1 unit(s)	20,40
1,000	131	223	29/32	**EPY8.1**	1 unit(s)	34,95

A 121 °C

Iodine determination flasks with neck

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With division.

Delivery incl. taper stopper.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	60	135	29/32	**TK12.1**	1 unit(s)	75,80
250	81	170	29/32	**TK13.1**	1 unit(s)	78,30
500	101	205	29/32	**TK14.1**	1 unit(s)	85,15

A 121 °C

Erlenmeyer flasks with ground glass joint

Lenz. Material: DURAN® glass. Autoclavable: Yes.
Graduated.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
10	30	60	14/23	**KX15.1**	10 unit(s)	81,70
25	42	70	14/23	**KT59.1**	10 unit(s)	95,60
25	42	70	19/26	**KT98.1**	10 unit(s)	101,60
50	51	85	14/23	**KT60.1**	10 unit(s)	96,65
50	51	85	19/26	**KT99.1**	10 unit(s)	103,10
50	51	85	24/29	**KX17.1**	10 unit(s)	102,80
50	51	85	29/32	**KT62.1**	10 unit(s)	102,15
100	64	105	14/23	**KT97.1**	10 unit(s)	103,75
100	64	105	19/26	**KT61.1**	10 unit(s)	107,00
100	64	100	24/29	**KX18.1**	10 unit(s)	109,65
100	64	105	29/32	**KT63.1**	10 unit(s)	93,45
250	85	145	19/26	**KX16.1**	10 unit(s)	188,15
250	85	140	24/29	**KX19.1**	10 unit(s)	149,45
250	85	139	29/32	**KT64.1**	10 unit(s)	100,00
250	85	128	45/40	**KT68.1**	10 unit(s)	179,55
300	87	150	29/32	**KX00.1**	10 unit(s)	107,00
500	105	170	29/32	**KT65.1**	10 unit(s)	123,65
500	105	165	45/40	**KX01.1**	10 unit(s)	220,40
1,000	131	223	29/32	**KT66.1**	10 unit(s)	192,45
1,000	131	208	45/40	**KT69.1**	1 unit(s)	33,80
2,000	166	284	29/32	**KT67.1**	1 unit(s)	51,10
5,000	220	360	45/40	**KX20.1**	1 unit(s)	188,15

Erlenmeyer flasks

121 °C

Erlenmeyer flasks ROTILABO® with screw closure

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. With GL thread and graduation.

Delivery incl. screw closure made of PP.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	64	100	GL 25	**NY86.1**	1 unit(s)	10,35
250	85	140	GL 32	**NY87.1**	1 unit(s)	12,35
500	105	175	GL 32	**NY88.1**	1 unit(s)	14,80
1,000	131	215	GL 32	**NY89.1**	1 unit(s)	17,00

121 °C

Erlenmeyer flasks with screw closure

Lenz. Material: DURAN® glass. Autoclavable: Yes.

Graduated.
Note: Do not autoclave with closed cap.

Delivery incl. screw closure made of PBT with PTFE-coated seal.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	64	109	GL 25	**E531.1**	1 unit(s)	30,65
250	85	149	GL 32	**E532.1**	1 unit(s)	31,10
500	105	180	GL 32	**E533.1**	1 unit(s)	32,80
1,000	131	225	GL 32	**E534.1**	1 unit(s)	48,40

121 °C

Erlenmeyer flasks made of fluoroplastics

Saint-Gobain. Material: PFA, highly transparent. Autoclavable: Yes.

Graduated. Microwave-safe.

- Temperature stable from -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Vol. (ml)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	18	97	**YY57.1**	1 unit(s)	85,20
200	23	123	**YY58.1**	1 unit(s)	149,50
300	23	130	**YY59.1**	1 unit(s)	190,30

121 °C

Erlenmeyer flasks made of fluoroplastics

Bohlender. Material: PTFE. Autoclavable: Yes.

Thick-walled, with standard ground joint. Highly pure, chemically inert. Hydrophobic, anti-adhesive surface. Temperature stable from -200 to +250 °C.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	54	86	19/26	**NP91.1**	1 unit(s)	151,80
100	63	128	19/26	**NP92.1**	1 unit(s)	229,00
250	85	144	29/32	**NP93.1**	1 unit(s)	342,95
500	107	190	29/32	**NP94.1**	1 unit(s)	629,95

Measuring cylinders

A 121 °C

Measuring cylinders class A blue graduations

Isolab. Material: Borosilicate glass 3.3. Autoclavable: Yes.

High form. With hexagonal base. Certified conformity, with retrace code. Calibrated to IN. Acc. to DIN ISO 4788.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,05	13	115	**Y303.1**	2 unit(s)	14,60
10	0.2	±0,10	16	135	**Y304.1**	2 unit(s)	14,60
25	0.5	±0,25	21	160	**Y305.1**	2 unit(s)	15,70
50	1.0	±0,50	26	195	**Y306.1**	2 unit(s)	17,95
100	1.0	±0,50	31	240	**Y307.1**	2 unit(s)	19,50
250	2.0	±1,00	41	320	**Y308.1**	2 unit(s)	31,80
500	5.0	±2,50	53	380	**Y309.1**	2 unit(s)	41,15
1,000	10.0	±5,00	65	465	**Y310.1**	2 unit(s)	63,00
2,000	20.0	±10,00	84	500	**Y311.1**	1 unit(s)	60,60

A 121 °C

Measuring cylinders class A brown graduations

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

High form. Acc. to DIN ISO 4788. Certified conformity, with retrace code. Calibrated to IN. With hexagonal base and spout.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,05	13	115	**AN01.1**	2 unit(s)	23,45
10	0.2	±0,10	14	140	**AN02.1**	2 unit(s)	23,20
25	0.5	±0,25	21	170	**AN03.1**	2 unit(s)	23,20
50	1.0	±0,50	25	200	**AN04.1**	2 unit(s)	24,70
100	1.0	±0,50	29	260	**AN05.1**	2 unit(s)	25,85
250	2.0	±1,00	39	335	**AN06.1**	2 unit(s)	44,80
500	5.0	±2,50	53	390	**AN07.1**	2 unit(s)	77,25
1,000	10.0	±5,00	65	470	**AN08.1**	1 unit(s)	58,05
2,000	20.0	±10,00	85	500	**AN09.1**	1 unit(s)	101,30

A 121 °C

Measuring cylinders class A blue graduations

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

High form. Acc. to DIN ISO 4788. Certified conformity, with retrace code. Calibrated to IN. With hexagonal base and spout.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,05	13	115	**Y568.1**	2 unit(s)	23,45
10	0.2	±0,10	14	140	**Y569.1**	2 unit(s)	22,25
25	0.5	±0,25	21	170	**Y570.1**	2 unit(s)	22,25
50	1.0	±0,50	25	200	**Y571.1**	2 unit(s)	24,30
100	1.0	±0,50	29	260	**Y572.1**	2 unit(s)	25,35
250	2.0	±1,00	39	335	**Y573.1**	2 unit(s)	44,65
500	5.0	±2,50	53	390	**Y574.1**	2 unit(s)	74,85
1,000	10.0	±5,00	65	470	**Y575.2**	1 unit(s)	60,40
2,000	20.0	±10,00	85	500	**Y576.1**	1 unit(s)	103,40

A 121 °C

Measuring cylinders class A blue graduations

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

High form. With **Schellbach stripe** for enhanced legibility and more exact meniscus configuration. Acc. to DIN ISO 4788. Certified conformity, with retrace code. Calibrated to IN. With hexagonal base and ring graduations.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,05	115	**CNX1.1**	2 unit(s)	28,50
10	0.2	±0,10	140	**CNX2.1**	2 unit(s)	26,90
25	0.5	±0,25	170	**CNX3.1**	2 unit(s)	28,10
50	1.0	±0,50	200	**CNX4.1**	2 unit(s)	29,20
100	1.0	±0,50	260	**CNX5.1**	2 unit(s)	36,95
250	2.0	±1,00	335	**CNX6.1**	2 unit(s)	58,00
500	5.0	±2,50	390	**CNX7.1**	2 unit(s)	97,40
1,000	10.0	±5,00	470	**CNX8.1**	1 unit(s)	65,20
2,000	20.0	±10,00	500	**CNX9.1**	1 unit(s)	124,55

Measuring cylinders

121 °C

DURAN WHEATON KIMBLE

Measuring cylinders DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Acc. to DIN ISO 4788. **High form.** With hexagonal base and spout. Standardised wall thickness over the complete measurement range prevents wedge error. Calibrated to IN. Temperature stable up to 250 °C without change in volume.

Class A
With blue graduations. Conformity certified, with mark of conformity.

Delivery incl. batch certificate.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,05	13	112	**AKA2.1**	2 unit(s)	19,65
10	0.2	±0,10	14	137	**AKA3.1**	2 unit(s)	19,40
25	0.5	±0,25	21	167	**AKA4.1**	2 unit(s)	20,60
50	1.0	±0,50	25	196	**AKA5.1**	2 unit(s)	22,00
100	1.0	±0,50	29	256	**AKA6.1**	2 unit(s)	23,40
250	2.0	±1,00	39	331	**AKA7.1**	2 unit(s)	45,60
500	5.0	±2,50	53	360	**AKA8.1**	2 unit(s)	76,40
1,000	10.0	±5,00	65	460	**AKA9.1**	1 unit(s)	58,95
2,000	20.0	±10,00	85	500	**AKC0.1**	1 unit(s)	102,60

Class B
With white graduations.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,10	13	112	**AKC1.1**	2 unit(s)	18,95
10	0.2	±0,20	14	137	**AKC2.1**	2 unit(s)	20,20
25	0.5	±0,50	21	167	**AKC3.1**	2 unit(s)	21,00
50	1.0	±1,00	25	196	**AKC4.1**	2 unit(s)	21,70
100	1.0	±1,00	29	256	**AKC5.1**	2 unit(s)	24,95
250	2.0	±2,00	39	331	**AKC6.1**	2 unit(s)	34,15
500	5.0	±5,00	53	360	**AKC7.1**	2 unit(s)	54,10
1,000	10.0	±10,00	65	460	**AKC8.1**	1 unit(s)	51,75
2,000	20.0	±20,00	85	500	**AKC9.1**	1 unit(s)	86,20

121 °C

Measuring cylinders class A blue graduations

Hirschmann. Material: DURAN® glass, Hexagonal base and protective PP rim. Autoclavable: Yes.

High form. With spout and ring markings to show the main points. Acc. to DIN ISO 4788. Certified conformity, with retrace code. Calibrated to IN. Autoclavable (without hexagonal base).

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	±0,10	14	140	**CX74.1**	2 unit(s)	18,50
25	0.5	±0,25	21	170	**CX75.1**	2 unit(s)	18,90
50	1.0	±0,50	25	200	**CX76.1**	2 unit(s)	22,20
100	1.0	±0,50	29	260	**CX77.1**	2 unit(s)	24,50
250	2.0	±1,00	39	335	**CX78.1**	2 unit(s)	42,75
500	5.0	±2,50	53	390	**CX79.1**	2 unit(s)	68,80
1,000	10.0	±5,00	65	470	**CX80.1**	1 unit(s)	54,70

121 °C

Measuring cylinders class B blue graduations

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

High form. Acc. to DIN ISO 4788. Calibrated to IN.
With hexagonal base and spout.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	13	115	**C173.2**	2 unit(s)	19,10
10	0.2	14	140	**C174.2**	2 unit(s)	18,50
25	0.5	21	170	**C175.2**	2 unit(s)	19,05
50	1.0	25	200	**C176.2**	2 unit(s)	20,20
100	1.0	29	260	**C177.2**	2 unit(s)	21,85
250	2.0	39	335	**C178.2**	2 unit(s)	38,95
500	5.0	53	390	**C179.2**	2 unit(s)	63,40
1,000	10.0	65	470	**C180.1**	1 unit(s)	51,00
2,000	20.0	85	500	**C181.1**	1 unit(s)	90,00

Measuring cylinders

A 121 °C

Measuring cylinders class B brown graduations

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

High form. Acc. to DIN ISO 4788. Calibrated to IN.
With hexagonal base and spout.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	13	115	**AN10.1**	2 unit(s)	19,75
10	0.2	14	140	**AN11.1**	2 unit(s)	18,95
25	0.5	21	170	**AN12.1**	2 unit(s)	19,40
50	1.0	25	200	**AN13.1**	2 unit(s)	19,75
100	1.0	29	260	**AN14.1**	2 unit(s)	21,35
250	2.0	39	335	**AN15.1**	2 unit(s)	39,10
500	5.0	53	390	**AN16.1**	2 unit(s)	63,95
1,000	10.0	65	470	**AN17.1**	1 unit(s)	49,95
2,000	20.0	85	500	**AN18.1**	1 unit(s)	88,05

Measuring cylinders class B blue graduations

Hirschmann. Material: DURAN® glass, Hexagonal base and protective PP rim. Autoclavable: Limited.

High form. With spout and line graduation. Acc. to DIN ISO 4788. Calibrated to IN. Autoclavable (without hexagonal base).

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	14	140	**CX81.1**	2 unit(s)	14,35
25	0.5	21	270	**CX82.1**	2 unit(s)	16,15
50	1.0	25	200	**CX83.1**	2 unit(s)	17,15
100	1.0	29	260	**CX84.1**	2 unit(s)	20,90
250	2.0	39	335	**CX85.1**	2 unit(s)	33,95
500	5.0	53	390	**CX86.1**	2 unit(s)	53,75
1,000	10.0	65	470	**CX87.1**	1 unit(s)	46,10

NEW / +

A 121 °C

Measuring cylinders class B, blue graduations

Hirschmann. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Low form. With a hexagonal base, line graduation and spout, blue graduations. Acc. to DIN ISO 4788.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	1.0	21	100	**1K0C.1**	2 unit(s)	20,90
25	1.0	25	125	**1K0E.1**	2 unit(s)	20,25
50	2.0	29	150	**1K0H.1**	2 unit(s)	21,45
100	2.0	39	170	**1K0K.1**	2 unit(s)	24,30
250	5.0	54	220	**1K0L.1**	2 unit(s)	41,60
500	10.0	65	255	**1K0N.1**	2 unit(s)	70,35
1,000	20.0	85	295	**1K0P.1**	1 unit(s)	58,90
2,000	50.0	105	345	**1K0T.1**	1 unit(s)	97,25

A 121 °C

Measuring cylinders class B, brown graduations

Hirschmann. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Low form. With a hexagonal base, line graduation and spout, brown graduations. Acc. to DIN ISO 4788.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	1.0	21	100	**K255.2**	2 unit(s)	18,25
25	1.0	25	125	**K256.2**	2 unit(s)	18,25
50	2.0	29	150	**K257.2**	2 unit(s)	19,00
100	2.0	39	170	**K258.2**	2 unit(s)	22,00
250	5.0	54	220	**K259.2**	2 unit(s)	38,10
500	10.0	65	255	**K260.2**	2 unit(s)	62,10
1,000	20.0	85	295	**K261.1**	1 unit(s)	50,45
2,000	50.0	105	345	**K262.1**	1 unit(s)	86,60

Measuring cylinders

121 °C

DURAN WHEATON KIMBLE

Measuring cylinders DURAN® Super Duty class B

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Low form, with line graduations and hexagonal base. Autoclavable.

- Proven DURAN® properties
- Glass type I, Neutral glass according to USP, EP and JP
- High mechanical stability
- Higher impact resistance through reinforced, stable rim
- Regular wall-thickness
- Autoclavable, sterilisable
- Easily readable scale
- Fired-on highly durable labelling

Vol. (ml)	Gradu-ations (ml)	Tole-rance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	2	1	39	168	**HKL1.1**	2 unit(s)	78,45
250	5	2	54	205	**HKL2.1**	2 unit(s)	101,05
500	10	5	66	253	**HKL3.1**	2 unit(s)	126,10
1,000	20	10	85	290	**HKL4.1**	2 unit(s)	187,00

Nessler cylinder

Marienfeld. Material: Soda-lime glass.

With spout. Filling volume is adjusted to IN, with white ring mark.

High form

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	21	265	**TX39.1**	1 unit(s)	16,50
100	26	320	**TX40.1**	1 unit(s)	17,90

Low form

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	26	175	**TX37.1**	1 unit(s)	17,45
100	32	200	**TX38.1**	1 unit(s)	18,90

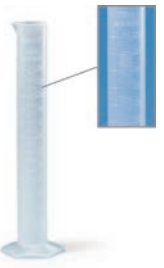
121 °C

Measuring cylinders ROTILABO® low form

ROTH SELECTION. Material: PP, transparent. Autoclavable: Yes.

With embossed scale and a round base.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	0.25	16	88	**K846.1**	1 unit(s)	3,95
25	1.0	22	107	**K847.1**	1 unit(s)	4,25
50	2.5	29	143	**K848.1**	1 unit(s)	4,60
100	5.0	34	178	**K849.1**	1 unit(s)	5,30
250	10.0	44.5	264	**K850.1**	1 unit(s)	9,15
500	10.0	55.5	305	**K851.1**	1 unit(s)	10,95
1,000	25.0	70	332	**K852.1**	1 unit(s)	13,90
2,000	50.0	92	370	**K853.1**	1 unit(s)	19,30



Measuring cylinders ROTILABO® high form

ROTH SELECTION. Material: PP, transparent.

With embossed scale and a hexagonal base. Ring markings to show the main points. Calibrated to IN. Class B tolerance according to DIN 12681/ ISO 6706. Exposure to temperatures up to 80 °C will not cause tolerance limits to be permanently exceeded.

Vol. (ml)	Gradu-ations (ml)	Tole-rance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	±0,20	15	145	**8357.1**	1 unit(s)	3,10
25	0.5	±0,50	22	170	**8359.1**	1 unit(s)	3,75
50	1.0	±1,00	27	200	**1666.1**	1 unit(s)	3,90
100	1.0	±1,00	33	250	**1667.1**	1 unit(s)	4,80
250	2.0	±2,00	44	315	**8362.1**	1 unit(s)	7,35
500	5.0	±5,00	58	360	**1668.1**	1 unit(s)	9,60
1,000	10.0	±10,00	68	440	**1669.1**	1 unit(s)	12,85
2,000	20.0	±20,00	97	482	**8363.1**	1 unit(s)	29,55

Measuring cylinders

A 121 °C

Measuring cylinders class A

Vitlab. Material: PMP, Transparent. Autoclavable: Yes.

According to DIN 12681/ISO 6706. **Conformity certified.** With hexagonal base, embossed scale and ring markings to show the main points.

Delivery incl. batch certificate.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	0.5	±0,25	22	170	**P148.1**	2 unit(s)	16,85
50	1.0	±0,50	27	200	**P149.1**	2 unit(s)	17,80
100	1.0	±0,50	33	250	**P150.1**	2 unit(s)	23,90
250	2.0	±1,00	44	315	**P151.1**	2 unit(s)	37,40
500	5.0	±2,50	58	360	**P152.1**	1 unit(s)	28,60
1,000	10.0	±5,00	69	440	**P153.1**	1 unit(s)	40,70
2,000	20.0	±10,00	97	482	**P154.1**	1 unit(s)	67,40

A 121 °C ❄❄❄

Measuring cylinders

Saint-Gobain. Material: PFA, Highly transparent. Autoclavable: Yes.

With easy-to-read graduations and wide base.

- Temperature resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Vol. (ml)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	20.0	216.7	**YY73.1**	1 unit(s)	470,85
100	25.7	231.8	**YY74.1**	1 unit(s)	554,70
200	33.6	281.8	**YY75.1**	1 unit(s)	664,35

A 121 °C

Measuring cylinders with handle

Bel-Art Products. Material: PP. Autoclavable: Yes.

With hexagonal base and handle (hand opening 89 x 29 mm). For safe, effortless pouring. Double scale for IN and EX, correctness ±5 %.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	10	64	439	**YC27.1**	1 unit(s)	47,30
2,000	20	89	490	**YC28.1**	1 unit(s)	83,35

Mixing cylinders class A

Hirschmann. Material: DURAN® glass.

Acc. to DIN ISO 4788. Certificate of conformity with batch identification. Blue graduations. Calibrated to IN. With hexagonal base. With standard ground glass joint.

Delivery incl. PE stoppers.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	±0,10	10/19	160	**Y585.1**	2 unit(s)	46,20
25	0.5	±0,25	14/23	193	**Y586.1**	2 unit(s)	49,05
50	1.0	±0,50	19/26	226	**Y587.1**	2 unit(s)	54,70
100	1.0	±0,50	24/29	290	**Y588.1**	2 unit(s)	59,15
250	2.0	±1,00	29/32	367	**Y589.1**	2 unit(s)	88,05
500	5.0	±2,50	34/35	425	**Y590.1**	2 unit(s)	125,35
1,000	10.0	±5,00	45/40	510	**Y591.2**	1 unit(s)	109,25
2,000	20.0	±10,00	45/40	540	**Y592.1**	1 unit(s)	181,70

Mixing cylinders class B

Hirschmann. Material: DURAN® glass.

With ground glass joint and line graduation. Acc. to DIN ISO 4788. Blue graduations. Calibrated to IN. With hexagonal base.

Delivery incl. PE stoppers.

Mixing cylinders

Vol. (ml)	Graduations (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	10/19	160	**Y577.1**	2 unit(s)	39,90
25	0.5	14/23	193	**Y578.1**	2 unit(s)	39,90
50	1.0	19/26	226	**Y579.1**	2 unit(s)	44,70
100	1.0	24/29	290	**Y580.1**	2 unit(s)	47,35
250	2.0	29/32	367	**Y581.1**	2 unit(s)	71,50
500	5.0	34/35	425	**Y582.1**	2 unit(s)	112,00
1,000	10.0	45/40	510	**Y583.2**	1 unit(s)	86,25
2,000	20.0	45/40	540	**Y584.1**	1 unit(s)	159,05

A 121 °C

DURAN WHEATON KIMBLE

Mixing cylinders DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Acc. to DIN EN ISO 4788. Standardised wall thickness over the complete measurement range prevents wedge error. With hexagonal base, standard taper and line graduations. Calibrated to IN. Temperature stable up to 250 °C without change in volume.

Delivery incl. PE stoppers.

Class A

With blue graduations. Conformity certified, with mark of conformity and enclosed batch certificate.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	±0,10	10/19	156	**AKE0.1**	2 unit(s)	42,50
25	0.5	±0,25	14/23	190	**AKE1.1**	2 unit(s)	45,15
50	1.0	±0,50	19/26	222	**AKE2.1**	2 unit(s)	50,90
100	1.0	±0,50	24/29	287	**AKE3.1**	2 unit(s)	56,85
250	2.0	±1,00	29/32	363	**AKE4.1**	2 unit(s)	82,60
500	5.0	±2,50	34/35	398	**AKE5.1**	2 unit(s)	116,05
1,000	10.0	±5,00	45/40	500	**AKE6.1**	1 unit(s)	103,15
2,000	20.0	±10,00	45/40	540	**AKE7.1**	1 unit(s)	182,00

Class B

With white graduations.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	±0,20	10/19	156	**AKE8.1**	2 unit(s)	38,20
25	0.5	±0,50	14/23	190	**AKE9.1**	2 unit(s)	39,20
50	1.0	±1,00	19/26	222	**AKH0.1**	2 unit(s)	44,30
100	1.0	±1,00	24/29	287	**AKH1.1**	2 unit(s)	46,70
250	2.0	±2,00	29/32	363	**AKH2.1**	2 unit(s)	70,35
500	5.0	±5,00	34/35	398	**AKH3.1**	2 unit(s)	111,90
1,000	10.0	±10,00	45/40	500	**AKH4.1**	1 unit(s)	81,55
2,000	20.0	±20,00	45/40	540	**AKH5.1**	1 unit(s)	160,00

Volumetric flasks class A

Hirschmann. Material: DURAN® glass.

Certificate of conformity with batch identification. Calibrated to IN. Acc to DIN EN ISO 1042.

Delivery incl. PE stoppers.

Clear glass

Blue graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	±0,025	7/16	**Y231.1**	2 unit(s)	30,40
5	±0,040	10/19	**Y232.1**	2 unit(s)	30,40
10	±0,025	7/16	**C162.1**	2 unit(s)	29,65
10	±0,040	10/19	**Y233.1**	2 unit(s)	30,40
20	±0,040	10/19	**C163.1**	2 unit(s)	29,65
25	±0,040	10/19	**C164.1**	2 unit(s)	29,65
25	±0,060	12/21	**Y234.1**	2 unit(s)	31,50
50	±0,060	12/21	**C165.1**	2 unit(s)	32,75
50	±0,080	14/23	**Y235.1**	2 unit(s)	31,90
100	±0,100	12/21	**C166.1**	2 unit(s)	34,10
100	±0,100	14/23	**Y236.1**	2 unit(s)	32,80
200	±0,150	14/23	**C167.1**	2 unit(s)	42,90
250	±0,150	14/23	**C168.1**	2 unit(s)	46,45
500	±0,250	19/26	**C169.1**	2 unit(s)	54,10
1,000	±0,400	24/29	**C170.1**	2 unit(s)	86,85
1,000	±0,600	29/32	**Y237.1**	2 unit(s)	104,30
2,000	±0,600	29/32	**C171.1**	2 unit(s)	130,10
5,000	±1,200	34/35	**C172.1**	1 unit(s)	150,25

Trapezoidal shape

Clear glass, blue graduated.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
1	±0,025	7/16	**Y239.2**	2 unit(s)	37,05
2	±0,025	7/16	**Y240.2**	2 unit(s)	37,05
5	±0,040	10/19	**Y241.1**	2 unit(s)	37,60
10	±0,040	10/19	**Y242.1**	2 unit(s)	37,60
20	±0,040	10/19	**Y243.1**	2 unit(s)	37,60
25	±0,040	10/19	**Y244.1**	2 unit(s)	37,60
50	±0,060	12/21	**Y245.1**	2 unit(s)	37,60

Brown glass

Ring marking and graduation in white ceramic colour. Order No. L453.2 not acc. to DIN.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	±0,04	10/19	**L450.2**	2 unit(s)	52,55
10	±0,04	10/19	**L452.2**	2 unit(s)	52,55
20	±0,04	10/19	**L453.2**	2 unit(s)	52,55
25	±0,04	10/19	**L454.2**	2 unit(s)	52,55
50	±0,06	12/21	**L455.2**	2 unit(s)	54,70
50	±0,08	14/23	**L456.2**	2 unit(s)	54,70
100	±0,10	12/21	**L457.2**	2 unit(s)	55,90
100	±0,10	14/23	**L458.2**	2 unit(s)	57,60
200	±0,15	14/23	**L459.2**	2 unit(s)	65,95
250	±0,15	14/23	**L460.2**	2 unit(s)	70,65
500	±0,25	19/26	**L461.2**	2 unit(s)	93,00
1,000	±0,40	24/29	**L462.1**	1 unit(s)	69,05
2,000	±0,60	29/32	**L463.1**	1 unit(s)	104,20

Volumetric flasks

Volumetric flasks class A

Isolab. Material: Borosilicate glass 3.3.

Certificate of conformity with batch identification. Calibrated to IN. Acc. to DIN EN ISO 1042.

Delivery incl. HDPE stopper.

Clear glass

Blue graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	±0,025	10/19	**Y274.1**	2 unit(s)	13,40
10	±0,025	7/16	**Y275.1**	2 unit(s)	14,60
10	±0,025	10/19	**Y276.1**	2 unit(s)	14,60
20	±0,040	10/19	**Y277.1**	2 unit(s)	14,85
25	±0,040	10/19	**Y278.1**	2 unit(s)	15,70
50	±0,060	12/21	**Y279.1**	2 unit(s)	16,85
50	±0,060	14/23	**Y280.1**	2 unit(s)	17,95
100	±0,100	12/21	**Y281.1**	2 unit(s)	17,95
100	±0,100	14/23	**Y282.1**	2 unit(s)	19,10
200	±0,150	14/23	**Y283.1**	2 unit(s)	24,60
250	±0,150	14/23	**Y284.1**	2 unit(s)	24,95
500	±0,250	19/26	**Y285.1**	2 unit(s)	31,40
1,000	±0,400	24/29	**Y286.1**	2 unit(s)	50,65
2,000	±0,600	29/32	**Y287.1**	2 unit(s)	84,40
5,000	±1,200	34/35	**Y288.1**	1 unit(s)	98,90

Brown glass

White graduated.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	±0,025	10/19	**Y290.1**	2 unit(s)	18,95
10	±0,025	10/19	**Y292.1**	2 unit(s)	19,05
20	±0,040	10/19	**Y293.1**	2 unit(s)	21,25
25	±0,040	10/19	**Y294.1**	2 unit(s)	21,85
50	±0,060	12/21	**Y295.1**	2 unit(s)	25,75
50	±0,060	14/23	**Y296.1**	2 unit(s)	25,75
100	±0,100	12/21	**Y297.1**	2 unit(s)	29,35
100	±0,100	14/23	**Y298.1**	2 unit(s)	29,95
200	±0,150	14/23	**Y299.1**	2 unit(s)	44,85
250	±0,150	14/23	**Y300.1**	2 unit(s)	47,95
500	±0,250	19/26	**Y301.1**	2 unit(s)	63,25
1,000	±0,400	24/29	**Y302.1**	2 unit(s)	88,45

NEW / +

Volumetric flasks BLAUBRAND® class A

BRAND. Material: Borosilicate glass 3.3.

Conformity-certified with batch number and an enclosed batch certificate per packaging unit. Calibrated to IN. Acc. to DIN EN ISO 1042.

Delivery incl. plastic stopper.

Clear glass, PP stopper

Blue graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	0,04	10/19	**1KX5.1**	2 unit(s)	31,75
10	0,025	7/16	**1KX6.1**	2 unit(s)	31,75
10	0,04	10/19	**1KX7.1**	2 unit(s)	31,95
20	0,04	10/19	**1KX8.1**	2 unit(s)	32,80
20	0,06	12/21	**1KX9.1**	2 unit(s)	33,15
25	0,04	10/19	**1KXA.1**	2 unit(s)	32,80
25	0,06	12/21	**1KXC.1**	2 unit(s)	36,15
50	0,06	12/21	**1KXE.1**	2 unit(s)	35,05
50	0,1	14/23	**1KXH.1**	2 unit(s)	36,15
100	0,1	12/21	**1KXK.1**	2 unit(s)	38,70
100	0,1	14/23	**1KXL.1**	2 unit(s)	38,70
150	0,15	14/23	**1KXN.1**	2 unit(s)	48,95
200	0,15	14/23	**1KXP.1**	2 unit(s)	44,30
250	0,15	14/23	**1KXT.1**	2 unit(s)	46,45
500	0,25	19/26	**1KXX.1**	2 unit(s)	55,40
1,000	0,4	24/29	**1KXY.1**	1 unit(s)	48,70
1,000	0,6	29/32	**1KY0.1**	1 unit(s)	53,25
2,000	0,6	29/32	**1KY1.1**	1 unit(s)	66,45

Clear glass, HPDE stopper

Blue graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5,000	1,2	34/35	**1KY2.1**	1 unit(s)	152,30
10,000	2,0	45/40	**1KY3.1**	1 unit(s)	299,95

Brown glass, PP stopper

White graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	0,04	10/19	**1KY4.1**	2 unit(s)	68,55
10	0,04	10/19	**1KY5.1**	2 unit(s)	68,55
20	0,04	10/19	**1KY6.1**	2 unit(s)	68,55
20	0,04	12/21	**1KY7.1**	2 unit(s)	74,15
25	0,04	10/19	**1KY8.1**	2 unit(s)	68,30
25	0,06	12/21	**1KY9.1**	2 unit(s)	74,15
50	0,1	12/21	**1KYA.1**	2 unit(s)	71,55
50	0,1	14/23	**1KYC.1**	2 unit(s)	73,70
100	0,1	14/23	**1KYE.1**	2 unit(s)	72,75
200	0,15	14/23	**1KYH.1**	2 unit(s)	90,00
250	0,15	14/23	**1KYK.1**	2 unit(s)	101,10
500	0,25	19/26	**1KYL.1**	2 unit(s)	125,75
1,000	0,4	24/29	**1KYN.1**	1 unit(s)	97,15

Volumetric flasks

DURAN WHEATON KIMBLE

Volumetric flasks DURAN®

DWK Life Sciences. Material: DURAN® glass, clear.

Calibrated to IN. Acc. to DIN 12 600. Temperature stable up to 250 °C without change in volume.

Delivery incl. PE stopper, temperature-stable from -40 to +80 °C.

Class A,with batch certificate

With blue graduations and white ring marking. Conformity certified, with mark of conformity and enclosed **batch certificate**.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
1	±0,025	7/16	65	**AHL8.1**	2 unit(s)	55,90
2	±0,025	7/16	70	**AHL9.1**	2 unit(s)	55,90
5	±0,040	10/19	70	**AHN0.1**	2 unit(s)	31,15
10	±0,040	10/19	90	**AHN1.1**	2 unit(s)	31,35
20	±0,040	10/19	110	**AHN2.1**	2 unit(s)	32,25
25	±0,040	10/19	110	**AHN3.1**	2 unit(s)	32,25
50	±0,060	12/21	140	**AHN4.1**	2 unit(s)	35,40
100	±0,100	12/21	170	**AHN5.1**	2 unit(s)	39,35
100	±0,100	14/23	170	**AHN6.1**	2 unit(s)	39,60
200	±0,150	14/23	210	**AHN7.1**	2 unit(s)	44,95
250	±0,150	14/23	220	**AHN8.1**	2 unit(s)	46,60
500	±0,250	19/26	260	**AHN9.1**	2 unit(s)	55,05
1,000	±0,400	24/29	300	**AHP0.2**	2 unit(s)	97,35
1,000	±0,600	29/32	300	**AHP1.2**	2 unit(s)	105,30
2,000	±0,600	29/32	370	**AHP2.2**	2 unit(s)	131,30
5,000	±1,200	34/35	475	**AHP3.1**	1 unit(s)	133,40

Class A, with individual certificate

With blue graduations and white ring marking. Conformity certified, with mark of conformity and enclosed **individual certificate**.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
1	±0,025	7/16	65	**AHP4.1**	2 unit(s)	108,80
2	±0,025	7/16	70	**AHP5.1**	2 unit(s)	108,80
5	±0,040	10/19	70	**AHP6.1**	2 unit(s)	76,40
10	±0,040	10/19	90	**AHP7.1**	2 unit(s)	77,60
20	±0,040	10/19	110	**AHP8.1**	2 unit(s)	77,60
25	±0,040	10/19	110	**AHP9.1**	2 unit(s)	77,60
50	±0,060	12/21	140	**AHT0.1**	2 unit(s)	80,55
100	±0,100	12/21	170	**AHT1.1**	2 unit(s)	85,00
100	±0,100	14/23	170	**AHT2.1**	2 unit(s)	85,95
200	±0,150	14/23	210	**AHT3.1**	2 unit(s)	90,80
250	±0,150	14/23	220	**AHT4.1**	2 unit(s)	91,85
500	±0,250	19/26	260	**AHT5.1**	2 unit(s)	101,45
1,000	±0,400	24/29	300	**AHT6.2**	2 unit(s)	142,65
1,000	±0,600	29/32	300	**AHT7.2**	2 unit(s)	151,00
2,000	±0,600	29/32	370	**AHT8.2**	2 unit(s)	175,00
5,000	±1,200	34/35	475	**AHT9.1**	1 unit(s)	155,00

Class B

With white labelling and white ring marking.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
5	±0,08	10/19	70	**AHX0.1**	2 unit(s)	26,35
10	±0,08	10/19	90	**AHX1.1**	2 unit(s)	26,80
20	±0,08	10/19	110	**AHX2.1**	2 unit(s)	27,90
25	±0,08	10/19	110	**AHX3.1**	2 unit(s)	27,90
50	±0,12	12/21	140	**AHX4.1**	2 unit(s)	32,05
100	±0,20	14/23	170	**AHX5.1**	2 unit(s)	35,70
200	±0,30	14/23	210	**AHX6.1**	2 unit(s)	39,70
250	±0,30	14/23	220	**AHX7.1**	2 unit(s)	41,70
500	±0,50	19/26	260	**AHX8.1**	2 unit(s)	50,55
1,000	±0,80	24/29	300	**AHX9.2**	2 unit(s)	84,65
2,000	±1,20	29/32	370	**AHY0.2**	2 unit(s)	118,00
5,000	±2,40	34/35	475	**AHY1.1**	1 unit(s)	125,15

DURAN WHEATON KIMBLE

Volumetric flasks DURAN® class A, USP<31>

DWK Life Sciences. Material: DURAN® glass, clear.

With blue graduations and white ring marking. Calibrated to IN. Acc. to DIN 12 600. USP<31> compliant, conformity certification and USP individual certificate enclosed. Temperature-stable up to +250 °C without change in volume.

Delivery incl. PE stopper, temperature-stable from -40 to +80 °C.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
5	±0,02	10/19	70	**AHY2.1**	2 unit(s)	80,85
10	±0,02	10/19	90	**AHY3.1**	2 unit(s)	80,85
25	±0,03	10/19	110	**AHY4.1**	2 unit(s)	81,55
50	±0,05	12/21	140	**AHY5.1**	2 unit(s)	84,65
100	±0,08	14/23	170	**AHY6.1**	2 unit(s)	89,75
200	±0,10	14/23	210	**AHY7.1**	2 unit(s)	95,20
250	±0,12	14/23	220	**AHY8.1**	2 unit(s)	97,35
500	±0,15	19/26	260	**AHY9.1**	2 unit(s)	106,60
1,000	±0,30	24/26	300	**AKA0.2**	2 unit(s)	148,65
2,000	±0,50	29/32	370	**AKA1.2**	2 unit(s)	186,00

Volumetric flasks

Volumetric flasks with glass stopper, class A

Hirschmann. Material: DURAN® glass.

Certificate of conformity with batch identification. Calibrated to IN. With standard ground glass joint. Acc. to DIN EN ISO 1042.

Delivery incl. hollow glass stoppers.class

Clear glass

Blue graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
5	±0,025	7/16	70	**CNY0.1**	2 unit(s)	37,75
5	±0,040	10/19	70	**CNY1.1**	2 unit(s)	37,80
10	±0,025	7/16	90	**CNY2.1**	2 unit(s)	37,80
10	±0,040	10/19	90	**CNY3.1**	2 unit(s)	37,80
20	±0,040	10/19	110	**CNY4.1**	2 unit(s)	37,80
20	±0,060	12/21	105	**CNY5.1**	2 unit(s)	43,50
25	±0,040	10/19	110	**CNY6.1**	2 unit(s)	36,90
25	±0,060	12/21	110	**CNY7.1**	2 unit(s)	37,15
50	±0,060	12/21	140	**CNY8.1**	2 unit(s)	36,95
50	±0,080	14/23	140	**CNY9.1**	2 unit(s)	38,40
100	±0,100	12/21	170	**CPA0.1**	2 unit(s)	38,50
100	±0,100	14/23	170	**CPA1.1**	2 unit(s)	39,40
200	±0,150	14/23	210	**CPA2.1**	2 unit(s)	50,50
250	±0,150	14/23	220	**CPA3.1**	2 unit(s)	52,90
500	±0,250	19/26	260	**CPA4.1**	2 unit(s)	65,05
1,000	±0,600	19/32	300	**CPA5.1**	1 unit(s)	59,50
1,000	±0,400	24/29	300	**CPA6.1**	1 unit(s)	51,15
2,000	±0,600	29/32	370	**CPA7.1**	1 unit(s)	72,60
5,000	±1,200	34/35	470	**CPA8.1**	1 unit(s)	160,80
10,000	±2,000	45/40	570	**CPA9.1**	1 unit(s)	305,30

Trapezoidal shape

Clear glass, blue graduated.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
1	±0,025	7/16	60	**CPC0.1**	2 unit(s)	45,90
2	±0,025	7/16	70	**CPC1.1**	2 unit(s)	45,90
5	±0,025	7/16	70	**CPC2.1**	2 unit(s)	45,90
5	±0,040	10/19	70	**CPC3.1**	2 unit(s)	45,90
10	±0,025	7/16	90	**CPC4.1**	2 unit(s)	45,90
10	±0,040	10/19	90	**CPC5.1**	2 unit(s)	45,90
20	±0,040	10/19	110	**CPC6.1**	2 unit(s)	45,90
25	±0,040	10/19	110	**CPC7.1**	2 unit(s)	45,90
50	±0,060	12/21	140	**CPC8.1**	2 unit(s)	45,90

Brown glass

White graduated.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
5	±0,025	7/16	70	**CPC9.1**	2 unit(s)	79,15
5	±0,040	10/19	70	**CPE0.1**	2 unit(s)	66,95
10	±0,025	7/16	90	**CPE1.1**	2 unit(s)	79,15
10	±0,040	10/19	90	**CPE2.1**	2 unit(s)	66,95
20	±0,040	10/19	110	**CPE3.1**	2 unit(s)	66,95
20	±0,040	12/21	110	**CPE4.1**	2 unit(s)	66,95
25	±0,040	10/19	110	**CPE5.1**	2 unit(s)	66,95
25	±0,060	12/21	110	**CPE6.1**	2 unit(s)	66,95
50	±0,060	12/21	140	**CPE7.1**	2 unit(s)	67,50
50	±0,080	14/23	140	**CPE8.1**	2 unit(s)	67,70
100	±0,100	12/21	170	**CPE9.1**	2 unit(s)	67,75
100	±0,100	14/23	170	**CPH0.1**	2 unit(s)	67,75
200	±0,150	14/23	210	**CPH1.1**	2 unit(s)	77,80
250	±0,150	14/23	220	**CPH2.1**	2 unit(s)	85,30
500	±0,250	19/26	260	**CPH3.1**	2 unit(s)	109,40
1,000	±0,400	24/26	300	**CPH4.1**	1 unit(s)	77,30
2,000	±0,600	29/32	370	**CPH5.1**	1 unit(s)	119,70

A 121 °C

Volumetric flasks with screw cap, class A

Vitlab. Material: PFA. Autoclavable: Yes.

With ring marking individually calibrated to “IN”. Tolerance class A acc. to DIN EN ISO 1042. Exposure to temperatures up to 121 °C (autoclaving) will not cause tolerance limits to be permanently exceeded.

Transparent

High temperature and chemical resistance. Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning. High purity, ideal for use in trace analysis and for storage of reference solutions. No memory effect.

Vol. (ml)	Tolerance (ml)	Thread	Height (mm)	Art. No.	Pack Qty.	€
10	±0,04	GL 18	90	**XY51.1**	1 unit(s)	145,40
25	±0,04	GL 18	115	**XY52.1**	1 unit(s)	149,00
50	±0,06	GL 18	150	**XY53.1**	1 unit(s)	152,50
100	±0,10	GL 18	180	**XY54.1**	1 unit(s)	191,35
250	±0,15	GL 25	235	**XY55.1**	1 unit(s)	236,50
500	±0,25	GL 25	270	**XY56.1**	1 unit(s)	274,15

Volumetric flasks

A 121 °C

Volumetric flasks class A

Vitlab. Material: PMP. Autoclavable: Yes.

With ring marking individually calibrated to “IN”. Tolerance class A according to DIN EN ISO 1042. With imprinted lot number and batch certificate. Cleaning at max. 60 °C recommended to protect the printing. Exposure to temperatures up to 121 °C (autoclaving) will not cause tolerance limits to be permanently exceeded.

Delivery incl. standard ground joint made of PP.

Transparent

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	±0,04	10/19	90	**XY30.1**	1 unit(s)	12,05
25	±0,04	10/19	115	**XY31.1**	1 unit(s)	12,20
50	±0,06	12/21	150	**XY32.1**	1 unit(s)	16,20
100	±0,10	14/23	180	**XY33.1**	1 unit(s)	18,30
250	±0,15	19/26	235	**XY34.1**	1 unit(s)	22,80
500	±0,25	19/26	270	**XY35.1**	1 unit(s)	23,65
1,000	±0,40	24/29	310	**XY36.1**	1 unit(s)	27,35

Opaque

UV-absorbent for storage of light-sensitive substances.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	±0,04	10/19	90	**XY37.1**	1 unit(s)	21,70
25	±0,04	10/19	115	**XY38.1**	1 unit(s)	23,05
50	±0,06	12/21	150	**XY39.1**	1 unit(s)	25,40
100	±0,10	14/23	180	**XY40.1**	1 unit(s)	27,10
250	±0,15	19/26	235	**XY41.1**	1 unit(s)	32,70
500	±0,25	19/26	270	**XY42.1**	1 unit(s)	38,40
1,000	±0,40	24/29	310	**XY43.1**	1 unit(s)	67,30

Volumetric flasks class B

Vitlab.

With ring marking individually calibrated to “IN”. Tolerances in compliance with DIN EN ISO 1042. Temperatures up to 60 °C will not cause tolerance limits to be permanently exceeded.

Delivery incl. standard ground joint made of PP.

Crystal clear

Material: PMP. Autoclavable: Yes.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
25	±0,08	10/19	115	**8374.1**	1 unit(s)	10,25
50	±0,12	12/21	150	**8375.1**	1 unit(s)	13,25
100	±0,20	14/23	180	**8377.1**	1 unit(s)	15,00
250	±0,30	19/26	235	**8378.1**	1 unit(s)	19,10
500	±0,50	19/26	270	**8380.1**	1 unit(s)	20,00
1,000	±0,80	24/29	310	**8381.1**	1 unit(s)	22,95

Transparent

Material: PP.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
25	±0,08	10/19	115	**8364.1**	1 unit(s)	9,15
50	±0,12	12/21	150	**8365.1**	1 unit(s)	11,75
100	±0,20	14/23	180	**8366.1**	1 unit(s)	12,55
250	±0,30	19/26	235	**8368.1**	1 unit(s)	15,45
500	±0,50	19/26	270	**8370.1**	1 unit(s)	16,30
1,000	±0,80	24/29	310	**8372.1**	1 unit(s)	18,95

A 121 °C

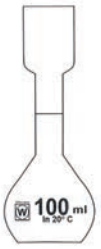
Volumetric flasks ROTILABO® with scaled neck

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With heavy duty rim. Brown graduated.

Vol. (ml)	Neck volume (ml)	Height (mm)	Gradua-tions (ml)	Art. No.	Pack Qty.	€
50	+ 5	155	0.2	**ACA7.1**	1 unit(s)	20,30
100	+ 10	205	0.2	**ACA8.1**	1 unit(s)	21,55
200	+ 20	245	0.2	**ACA9.1**	1 unit(s)	29,20
250	+ 25	280	0.5	**ACC0.1**	1 unit(s)	37,90
500	+ 50	320	1.0	**ACC1.1**	1 unit(s)	37,00
1,000	+ 100	400	1.0	**ACC2.1**	1 unit(s)	50,05

Volumetric flasks



Volumetric flasks acc. to Kohlrausch class A

Winzer. Material: Borosilicate glass 3.3.

For sugar examinations acc. to Kohlrausch. With ring marking, accuracy within official test tolerance.

Vol. (ml)	Art. No.	Pack Qty.	€
100	**AAN3.1**	1 unit(s)	29,20
200	**AAN4.1**	1 unit(s)	36,05

Pycnometer acc. to Gay-Lussac

Marienfeld. Material: Borosilicate glass 3.3.

For determining the density of non-volatile, low-viscosity liquids. Pear-shaped. With recessed glass stopper, edge Ø at top 9 mm, at bottom 7 mm. Calibrated at 20 °C. Total volume is engraved on the pycnometer, three decimal places, tolerance ± 0.001 ml.

Vol. (ml)	Art. No.	Pack Qty.	€
1	**P224.1**	1 unit(s)	34,40
2	**P225.1**	1 unit(s)	36,95
5	**P226.1**	1 unit(s)	36,45
10	**P227.1**	1 unit(s)	37,80
25	**P228.1**	1 unit(s)	39,00
50	**P229.1**	1 unit(s)	43,55
100	**P230.1**	1 unit(s)	50,35

Pycnometer ROTILABO® acc. to Reischauer

ROTH SELECTION. Material: Borosilicate glass 3.3.

With graduation in the neck. Acc. to DIN ISO 3507.

Vol. (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
25	10/13	105	**TP46.1**	1 unit(s)	35,55
50	10/13	115	**TP47.1**	1 unit(s)	38,70

Pycnometer acc. to Gay-Lussac with thermometer

Lenz. Material: Borosilicate glass 3.3.

Calibrated to IN. With thermometer and side capillaries with conical ground joint NS 7/16. Thermometer with blue Toluene filling, measuring range 10-35 °C, graduation 0.2 °C. Volume data in cm^3 (3 decimal places).

Delivery incl. individual certificate.

Vol. (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
10	10/19	**EXP7.1**	1 unit(s)	192,45
25	10/19	**EXP8.1**	1 unit(s)	194,60
50	10/19	**EXP9.1**	1 unit(s)	199,95
100	10/19	**EXY0.1**	1 unit(s)	205,35

Pycnometer ROTILABO®

Winzer. Material: Borosilicate glass 3.3.

For bituminous masses and minerals. With ring marking. Non-calibrated.

Vol. (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
500	45/40	**AAN8.1**	1 unit(s)	99,65
1,000	60/46	**AAN9.1**	1 unit(s)	126,10
2,000	60/46	**AAP0.1**	1 unit(s)	153,05

A 121 °C

Fermentation saccharometer acc. to Einhorn

Hecht. Material: Soda-lime glass. Autoclavable: Yes.

For determining the sugar content in liquids. With indelibly branded white graduations (0.2-5 ml).

Delivery incl. measuring glass with ring marking at 10 ml.

Vol. (ml)	Art. No.	Pack Qty.	€
5	**CKY9.1**	1 unit(s)	22,90

Measuring vessels

DURAN WHEATON KIMBLE

BOD bottles

DWK Life Sciences. Material: Borosilicate glass acc. to USP type I.

With labelling area. For determination of the biochemical oxygen requirement. The extension at the bottle neck holds water displaced by stoppers or electrodes and thus protects against air entering the bottle. Neck inside Ø 16.5 mm.

Delivery incl. stoppers.

Non-coated

Vol. (ml)	Ø (mm)	Height (mm)	Stopper type	Art. No.	Pack Qty.	€
60	43	115	Pennyhead	**EXT8.1**	1 unit(s)	30,95
60	43	115	Robotic	**EXT9.1**	1 unit(s)	30,60
300	69	165	Pennyhead	**EXX0.1**	1 unit(s)	18,05
300	69	165	Robotic	**EXX1.1**	1 unit(s)	17,90

With black PVC coating

Light protection up to 800 nm, prevents potential oxygen production due to algae. With additional sealing cap made of LDPE.

Vol. (ml)	Ø (mm)	Height (mm)	Stopper type	Art. No.	Pack Qty.	€
300	73	167	Robotic	**EXX2.1**	1 unit(s)	29,30

Accessories stoppers for BOD bottles

DWK Life Sciences. Material: PE with foam insert.

Prevents the evaporation of the water in the bottle neck extension so that air cannot enter the bottle during incubation.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
40	35	**EXX5.1**	50 unit(s)	70,50

Accessories stopper safety clip for BOD bottles

DWK Life Sciences. Material: Rubber.

Version	Art. No.	Pack Qty.	€
Stopper safety clip for BOD bottles	**EXX6.1**	25 unit(s)	31,20

DURAN WHEATON KIMBLE

Racks for BOD bottles

DWK Life Sciences. Material: Steel, epoxide-coated.

For storage or transportation of 60 ml or 300 ml BOD bottles. Stackable. Dimensions: L 330 x W 254 x H 178 mm, height up to top level 143 mm.

No. of slots	Art. No.	Pack Qty.	€
12	**EXX4.1**	1 unit(s)	85,90
20	**EXX3.1**	1 unit(s)	104,30

Oxygen bottles

Winzer. Material: Borosilicate glass.

For the determination of water dissolved oxygen. With rounded PE stoppers at the bottom and labelling space. Total volume in engraved on the cone, two decimal places, tolerance ±0.01 ml.

Volume (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
100 to 150	14/23	**AAP3.1**	1 unit(s)	20,80
100 to 150	29/22	**AAP4.1**	1 unit(s)	23,90
250 to 300	19/26	**AAP5.1**	1 unit(s)	22,00

Oxygen bottles acc. to Winkler

Marienfeld. Material: Glass, clear.

With recessed stopper and labelling space. Total volume engraved on the cone, two decimal places, tolerance ±0.1 ml.

Volume (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
100 to 150	14/23	**HH78.1**	1 unit(s)	29,25
250 to 300	19/26	**HH79.1**	1 unit(s)	32,15

DURAN WHEATON KIMBLE

Sedimentation cone acc. to Imhoff

DWK Life Sciences. Material: DURAN® glass.

Graduated. Acc. to DIN 12672 part 1. Ø top 120 mm.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	120	465	**K618.1**	1 unit(s)	92,10

Sedimentation cone acc. to Imhoff with stop cock

Lenz. Material: Borosilicate glass 3.3.

Acc. to DIN 2672. Graduation up to 100 ml. Ring marking at 1000 ml. Stop cock with ground glass joint. Dimensions: H (with stop cock) 510 mm, H (without stop cock) 465 mm, Ø top 120 mm. Ø spout outside: 10 mm, inside 6.5 mm.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	120	510	**AK68.1**	1 unit(s)	188,15

Sedimentation cone ROTILABO® acc. to Imhoff

ROTH SELECTION. Material: SAN, crystal clear.

With raised scale and screw connection for emptying.
Graduation:

- 0-2 ml = 0.1 ml
- 2-10 ml = 0.5 ml
- 10-40 ml = 1.0 ml
- 40-100 ml = 2.0 ml
- 100-1000 ml = 50.0 ml

Vol. (ml)	Art. No.	Pack Qty.	€
1,000	**9144.1**	1 unit(s)	29,50

Frame for sedimentation cones

Kartell. Material: PMMA.

No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	300	150	290	**9147.1**	1 unit(s)	95,85

Frame for sedimentation cones

ROTH SELECTION.

Made of epoxide-coated wire.

No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
3	45	17	41	**YA75.1**	1 unit(s)	112,90
4	58	17	41	**YA76.1**	1 unit(s)	127,95

Glass bottles

Settling bottle DURAN® with tap

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

For storage and dispensing of aqueous media and aggressive liquids. Design according to DIN EN ISO 4796-3. With retrace code.

A 121 °C

DURAN WHEATON KIMBLE

With ground glass joint

Delivery incl. NS tap and stopper.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Standard ground glass joint	Bottom tube NS	Art. No.	Pack Qty.	€
500	86	164	24/29	19/26	**CCN4.1**	1 unit(s)	129,45
1,000	107	200	29/32	19/26	**CCN5.1**	1 unit(s)	134,60
2,000	134	249	29/32	19/26	**CCN6.1**	1 unit(s)	176,00
10,000	228	398	60/46	29/32	**CCN8.1**	1 unit(s)	357,00
20,000	289	492	60/46	29/32	**CCN9.1**	1 unit(s)	569,00

With GL 45 thread

Delivery incl. screw closure, silicone seal, drainage tap and PTFE shaft.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
1,000	101	225	GL 45	**CCP0.1**	1 unit(s)	133,35
2,000	136	260	GL 45	**CCP1.1**	1 unit(s)	164,00
5,000	182	330	GL 45	**CCP2.1**	1 unit(s)	236,00
10,000	230	410	GL 45	**CCP3.1**	1 unit(s)	377,00

Settling bottle

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

With beaded edge and glass connection for hoses with an inside Ø of 10 mm.

A 121 °C

DURAN WHEATON KIMBLE

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
250	73	131	18.8	**PK81.1**	1 unit(s)	38,60
500	89	162	24	**PK82.1**	1 unit(s)	46,75
1,000	111	200	29.2	**PK83.1**	1 unit(s)	62,95

Wide mouth jars Twist-off

ROTH SELECTION. Material: Glass from hydrolytic class 3, clear.

For sampling, packaging and storing solids, pastes or non-aggressive liquids. Wide mouth opening makes filling and cleaning easy.

Delivery without screw cap, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
210	69.5	74.5	53	TO 66	**AYC0.1**	12 unit(s)	22,05
380	75.5	112	53	TO 66	**AYC1.1**	12 unit(s)	40,35

Accessories screw caps for Twist-Off wide-necked bottles

ROTH SELECTION. Material: Metal with rubber seal.

Suitable for Twist-Off wide-necked bottles Art. No. AYC0.1 and AYC1.1. Good sealing properties.

Thread	Art. No.	Pack Qty.	€
TO 66	**AYC2.1**	12 unit(s)	14,45

Wide mouth jars

ROTH SELECTION. Material: Glass from hydrolytic class 3.

For sampling, packaging and storing solids, pastes or non-aggressive liquids.
Wide mouth opening makes filling and cleaning easy. Round thread according to DIN 168.

Delivery incl. anti-spill PP closure with LDPE seal.

Clear glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	36	68	GL 32	**KAY3.2**	126 unit(s)	144,95
50	44	75	GL 32	**KCY6.1**	85 unit(s)	88,65
125	54	98	GL 40	**AYC3.1**	80 unit(s)	133,30
250	70	113	GL 55	**AYC4.1**	48 unit(s)	123,80
500	84	154	GL 55	**AYC5.1**	20 unit(s)	82,45
1,000	103.5	180.5	GL 68	**AYC6.1**	18 unit(s)	118,40

Brown glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	36	68	GL 32	**KAY4.1**	126 unit(s)	152,80
50	44	75	GL 32	**KCY7.1**	85 unit(s)	101,10
125	54	98	GL 40	**AYC7.1**	84 unit(s)	164,50
250	70	113	GL 55	**AYC8.2**	30 unit(s)	81,10
500	84	154	GL 55	**AYC9.1**	20 unit(s)	83,90
1,000	103.5	180.5	GL 68	**AYE0.1**	12 unit(s)	100,10

DURAN WHEATON KIMBLE

Wide mouth jars

DWK Life Sciences. Material: Soda-lime glass acc. to USP Type III, caps made of PP with seals made of PTFE-coated PE foam.

Straight walls enable a complete removal of the contents, ideal for soil samples and larger solids.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
60	55	48	53-400	**ETN7.1**	24 unit(s)	75,05
125	60	68	58-400	**ETN8.1**	24 unit(s)	76,20
250	73	88	70-400	**ETN9.1**	12 unit(s)	52,25
500	91	95	89-400	**ETP0.1**	12 unit(s)	79,15
1,000	95	170	89-400	**ETP1.1**	12 unit(s)	85,65

Glass bottles

DURAN WHEATON KIMBLE

Wide mouth bottle standard

DWK Life Sciences. Material: Soda-lime glass, caps made of PP with seals made of PTFE-coated PE foam.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	52	86	48-400	**ETK7.1**	24 unit(s)	59,30
250	63	112	58-400	**ETK8.1**	24 unit(s)	87,70
500	79	135	63-400	**ETK9.1**	24 unit(s)	99,40
2,000	122	215	83-400	**ETL0.1**	6 unit(s)	50,15
4,000	157	258	89-400	**ETL1.1**	4 unit(s)	44,95

DURAN WHEATON KIMBLE

Wide mouth bottle

DWK Life Sciences. Material: Soda-lime glass acc. to USP Type III, caps made of PP with seals made of PTFE-coated PE foam.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	34	70	33-400	**ETL6.1**	48 unit(s)	86,15
60	42	85	38-400	**ETL7.1**	48 unit(s)	97,90
125	51	104	48-400	**ETL8.1**	24 unit(s)	79,20
250	62	129	58-400	**ETL9.1**	24 unit(s)	83,05
500	76	147	70-400	**ETN0.1**	24 unit(s)	92,50

DURAN WHEATON KIMBLE

Wide mouth bottle brown glass

DWK Life Sciences. Material: Soda-lime glass acc. to USP Type III, caps made of PP with seals made of PTFE-coated PE foam.

For storing light-sensitive substances.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	37	65	28-400	**ETN1.1**	24 unit(s)	36,85
60	44	75	33-400	**ETN2.1**	24 unit(s)	42,70
125	54	95	38-400	**ETN3.1**	24 unit(s)	51,05
250	66	119	45-400	**ETN4.1**	24 unit(s)	64,90
500	80	146	53-400	**ETN5.1**	12 unit(s)	45,10
1,000	99	178	53-400	**ETN6.1**	12 unit(s)	55,85

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Glass bottles

Narrow mouth bottle DURAN® with ground glass joint

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
According to DIN EN ISO 4796-2. With NS glass stopper, solid glass (NS 10 to 24) or semi-hollow (in NS 29 or larger). With retrace code.

A 121 °C

DURAN WHEATON KIMBLE

Clear glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	42	80	14/15	**Y622.1**	1 unit(s)	25,25
100	52	96	14/15	**Y623.1**	1 unit(s)	25,25
250	70	130	19/26	**Y624.1**	1 unit(s)	27,80
500	86	164	24/29	**Y625.1**	1 unit(s)	35,80
1,000	107	200	29/32	**Y626.1**	1 unit(s)	40,65
2,000	134	248	29/32	**Y835.1**	1 unit(s)	58,85
5,000	182	323	45/40	**CCT2.1**	1 unit(s)	184,00
10,000	227	398	60/46	**CCT3.1**	1 unit(s)	295,00
20,000	288	492	60/46	**CCT4.1**	1 unit(s)	555,00

Brown glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	42	80	14/15	**Y627.1**	1 unit(s)	39,50
100	52	96	14/15	**Y628.1**	1 unit(s)	40,25
250	70	130	19/26	**Y629.1**	1 unit(s)	53,45
500	86	164	24/29	**Y630.1**	1 unit(s)	62,60
1,000	107	200	29/32	**Y631.1**	1 unit(s)	75,20
2,000	134	248	29/32	**Y836.1**	1 unit(s)	123,95
5,000	182	323	45/40	**CCT6.1**	1 unit(s)	269,00
10,000	227	398	60/46	**CCT7.1**	1 unit(s)	429,00
20,000	288	492	60/46	**CCT8.1**	1 unit(s)	799,00

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Glass bottles

Narrow mouth bottle with ground glass joint

DWK Life Sciences. Material: Soda-lime glass.

According to DIN EN ISO 4796-2. With NS glass stopper, solid glass (NS 14 to 24) or semi-hollow (in NS 29 or larger).

DURAN WHEATON KIMBLE

Clear glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	52	96	14/15	**H055.1**	10 unit(s)	84,95
250	72	130	19/26	**H056.1**	10 unit(s)	102,50
500	89	165	24/29	**H057.1**	10 unit(s)	127,80
1,000	110	200	29/32	**H058.1**	1 unit(s)	16,10

Brown glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	42	80	14/15	**H060.1**	10 unit(s)	122,65
100	52	96	14/15	**H061.1**	10 unit(s)	125,05
250	72	130	19/26	**CCX3.1**	10 unit(s)	134,40
500	89	165	24/29	**H063.1**	10 unit(s)	167,00
1,000	110	200	29/32	**H064.1**	1 unit(s)	19,75

Wide mouth bottle with ground glass joint

DWK Life Sciences. Material: Soda-lime glass.

With NS glass stopper, solid glass (NS 24) or semi-hollow (in NS 29 or larger). According to DIN EN ISO 4796-2.

DURAN WHEATON KIMBLE

Clear glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	44	79	24/20	**H044.1**	10 unit(s)	105,80
100	52	97	29/22	**H045.1**	10 unit(s)	115,00
250	71	129	34/24	**H046.1**	1 unit(s)	18,40
500	86	164	45/40	**H047.1**	1 unit(s)	22,10
1,000	107	200	60/46	**H048.1**	1 unit(s)	28,25

Brown glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	52	97	29/22	**H050.1**	10 unit(s)	149,15
250	71	129	34/24	**H051.1**	1 unit(s)	22,65
500	86	164	45/27	**H052.1**	1 unit(s)	26,25
1,000	107	200	60/46	**H053.1**	1 unit(s)	34,95

Glass bottles

Wide mouth bottle DURAN® with ground glass joint

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

According to DIN EN ISO 4796-2. With NS glass stopper, solid glass (NS 24) or semi-hollow (in NS 29 or larger). With retrace code.

A 121 °C DURAN WHEATON KIMBLE

Clear glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	44	79	24/20	**Y612.1**	1 unit(s)	29,75
100	52	97	29/22	**Y613.1**	1 unit(s)	31,45
250	70	133	34/35	**Y614.1**	1 unit(s)	42,15
500	86	163	45/40	**Y615.1**	1 unit(s)	51,85
1,000	107	201	60/46	**Y616.1**	1 unit(s)	69,60
2,000	133	247	60/46	**Y833.1**	1 unit(s)	82,95
5,000	182	358	85/55	**CCP4.1**	1 unit(s)	231,00
10,000	229	443	85/55	**CCP5.1**	1 unit(s)	365,00
20,000	290	570	85/55	**CCP6.1**	1 unit(s)	618,00

Brown glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	44	79	24/20	**Y617.1**	1 unit(s)	52,40
100	52	97	29/22	**Y618.1**	1 unit(s)	45,85
250	70	133	34/35	**Y619.1**	1 unit(s)	74,15
500	86	163	45/40	**Y620.1**	1 unit(s)	87,55
1,000	107	201	60/46	**Y621.1**	1 unit(s)	113,50
2,000	133	247	60/46	**Y834.1**	1 unit(s)	165,00
5,000	182	358	85/55	**CCP7.1**	1 unit(s)	343,00
10,000	229	443	85/55	**CCP8.1**	1 unit(s)	491,00
20,000	290	570	85/55	**CCP9.1**	1 unit(s)	909,00

Acid cap bottle

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

With standard taper stopper and additional ground glass cap, providing a tight seal and protection against acid vapours.

A 121 °C DURAN WHEATON KIMBLE

Clear glass

Vol. (ml)	Ø (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	55	145	19/17	**CCL6.1**	1 unit(s)	70,85
250	75	180	19/17	**CCL7.1**	1 unit(s)	85,95
500	82	220	24/20	**CCL8.1**	1 unit(s)	96,45

Brown glass

Vol. (ml)	Ø (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	55	145	19/17	**CCN0.1**	1 unit(s)	94,20
250	75	180	19/17	**CCN1.1**	1 unit(s)	109,50
500	82	220	24/20	**CCN2.1**	1 unit(s)	124,40
1,000	109	260	29/32	**CCN3.1**	1 unit(s)	169,00

Glass bottles

Narrow mouth bottle square

DWK Life Sciences. Material: Soda-lime glass.
Temperature stability up to +100 °C.

DURAN WHEATON KIMBLE

Delivery without screw cap, please order separately.

Clear glass

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	49	49	119	32, high form	**EEK8.1**	10 unit(s)	37,45
250	64	64	155	32, high form	**EEK9.1**	10 unit(s)	64,10
500	77	77	186	32, high form	**EEL0.1**	10 unit(s)	71,05
1,000	97	97	223	45, high form	**EEL1.1**	10 unit(s)	107,05

Brown glass

Delivery incl. pouring ring and dust cap.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	49	49	119	32, high form	**EEL2.1**	10 unit(s)	37,20
250	64	64	155	32, high form	**EEL3.1**	10 unit(s)	64,10
500	77	77	186	32, high form	**EEL4.1**	10 unit(s)	71,05
1,000	97	97	223	45, high form	**EEL5.1**	10 unit(s)	107,35

Accessories tamper evident screw caps for narrow neck bottles, square

DWK Life Sciences. Material: PP.
Colour: blue.

DURAN WHEATON KIMBLE

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
32, high form	45	32	**EEL6.1**	10 unit(s)	13,10
45, high form	60	35	**EEL7.1**	10 unit(s)	14,05

Accessories safety screw caps for narrow neck bottles square

DWK Life Sciences. Material: PP.
Colour: red. The safety valve opens above a pressure of 0.1 bar.

DURAN WHEATON KIMBLE

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
32, high form	45	32	**EEL8.1**	10 unit(s)	37,65
45, high form	60	35	**EEL9.1**	10 unit(s)	43,05

Accessories pouring rings for narrow neck bottles square

DWK Life Sciences.

DURAN WHEATON KIMBLE

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
32, high form	45	32	**EEN0.1**	10 unit(s)	5,35
45, high form	60	35	**EEN1.1**	10 unit(s)	6,45

Glass bottles

Wide mouth bottle square

Material: Soda-lime glass.
Temperature stability up to +100 °C.

Delivery without screw cap, please order separately.

Clear glass

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	48	48	70	32, short form	**EEN2.1**	10 unit(s)	19,40
100	49	49	111	32, short form	**EEN3.1**	10 unit(s)	24,70
250	64	64	146	45, short form	**EEN4.1**	10 unit(s)	45,65
500	76	76	173	54, short form	**EEN5.1**	10 unit(s)	56,05
1,000	97	97	213	60, short form	**EEN6.1**	10 unit(s)	82,75

Brown glass

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	49	49	111	32, short form	**EEN7.1**	10 unit(s)	25,60
250	64	64	146	45, short form	**EEN8.1**	10 unit(s)	47,30
500	76	76	173	54, short form	**EEN9.1**	10 unit(s)	48,95
1,000	97	97	213	54, short form	**EEP0.1**	10 unit(s)	54,70

Accessories tamper-evident screw caps for wide mouth bottle, square

DWK Life Sciences. Material: PP.
Colour: blue.

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
32, short form	44	23	**EEP1.1**	10 unit(s)	10,10
45, short form	58	27	**EEP2.1**	10 unit(s)	14,35
54, short form	69	29	**EEP3.1**	10 unit(s)	16,20
60, short form	78	29	**EEP4.1**	10 unit(s)	16,05

Screw top bottle ROTILABO® clear glass

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Acc. to 4796-1. Graduated, with DIN thread.

A 121 °C

Delivery incl. screw cap and PP pouring ring.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	46	91	GL 32	**ANP4.1**	10 unit(s)	56,85
100	56	105	GL 45	**X712.1**	10 unit(s)	43,55
250	70	143	GL 45	**X713.1**	10 unit(s)	50,65
500	86	182	GL 45	**X714.1**	10 unit(s)	57,65
1,000	101	230	GL 45	**X715.1**	10 unit(s)	92,25
2,000	136	265	GL 45	**X716.1**	10 unit(s)	184,90
5,000	186	355	GL 45	**Y682.1**	1 unit(s)	86,65
10,000	234	435	GL 45	**Y683.1**	1 unit(s)	178,45
20,000	299	505	GL 45	**TK83.1**	1 unit(s)	247,25

Glass bottles

Narrow mouth bottle ROTILABO®

ROTH SELECTION. Material: Glass from hydrolytic class 3, brown.
Acc. to DIN 12111.

Delivery incl. tamper-evident screw caps made from PP with sealing lip.

Vol. (ml)	Height (mm)	Thread	Version	Art. No.	Pack Qty.	€
250	160	32 mm	square	**0328.1**	6 unit(s)	31,95
500	180	32 mm	square	**0329.1**	4 unit(s)	23,35
1,000	230	45 mm	square	**0330.1**	2 unit(s)	18,90
2,500	270	45 mm	round	**A849.1**	1 unit(s)	12,75

Screw top bottle ROTILABO® brown glass

ROTH SELECTION. Material: Borosilicate glass 3.3, outside coloured brown. Autoclavable: Yes.
Acc. to 4796-1. Graduated, with DIN thread.

A 121 °C

Delivery incl. screw cap and PP pouring ring.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	46	91	GL 32	**ANP3.1**	10 unit(s)	136,35
100	56	100	GL 45	**NY57.1**	10 unit(s)	130,40
250	70	138	GL 45	**NY58.1**	10 unit(s)	158,80
500	86	176	GL 45	**NY59.1**	10 unit(s)	229,00
1,000	101	225	GL 45	**NY60.1**	10 unit(s)	265,55
2,000	136	260	GL 45	**NY61.1**	10 unit(s)	340,80
5,000	186	330	GL 45	**NY62.1**	1 unit(s)	141,55
10,000	234	410	GL 45	**NY63.1**	1 unit(s)	247,25
20,000	299	505	GL 45	**NY64.1**	1 unit(s)	308,55

Screw top bottle DURAN® square

DWK Life Sciences. Material: DURAN® glass, transparent. Pouring ring and PP screw cap. Autoclavable: Yes.
With retrace code. Space-saving alternative to the round screw top bottles. Saves up to 44% per bottle on the shelf, in the fridge and in the autoclave. Stable and slip-resistant thanks to the knobbly base. Pouring ring and screw cap, temperature stable from -40 to +140 °C.

A 121 °C DURAN WHEATON KIMBLE

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	50	50	109	GL 32	**P770.1**	10 unit(s)	69,35
250	64	64	143	GL 45	**P771.1**	10 unit(s)	77,85
500	78	78	181	GL 45	**P772.1**	10 unit(s)	97,45
1,000	94	94	222	GL 45	**P773.1**	10 unit(s)	138,30

Glass bottles

Wide mouth bottle ROTILABO® GL 80

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
Graduated.
Note: Autoclave only with lock screwed off completely.

A 121 °C

Delivery incl. screw cap and PP pouring ring.

Clear glass

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
500	94	94	141	63	GL 80	**APK8.1**	10 unit(s)	117,50
1,000	105	105	187	63	GL 80	**APK9.1**	10 unit(s)	136,45
2,000	115	115	260	63	GL 80	**APL0.1**	1 unit(s)	23,50
5,000	160	160	357	63	GL 80	**APL1.1**	1 unit(s)	131,65

Brown glass

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
500	94	94	141	63	GL 80	**APL2.1**	10 unit(s)	352,60
1,000	105	105	187	63	GL 80	**APL3.1**	10 unit(s)	407,45
2,000	115	115	260	63	GL 80	**APL4.1**	1 unit(s)	67,05
5,000	160	160	357	63	GL 80	**APL5.1**	1 unit(s)	269,85

Screw top bottle DURAN® brown glass

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Amber coloured with unaltered DURAN® characteristics inside the bottle as only the exterior is coated. Long useful life and brown colouring has good chemical resistance. Light protection: Absorption in short wave range up to 500 nm.

- With DIN GL thread and pitch
- Bottles up to 25 ml, with a specially shaped glass edge, so no pouring ring is required
- Bottles from 100 to 2000 ml: Ring-shaped reinforcement in the bottles' shoulder, shows the bottles' nominal content
- With printed retrace code (batch code)
- Acc. to ISO 4796-1

A 121 °C DURAN WHEATON KIMBLE

With pouring ring and PP screw cap

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
10	36	50	GL 25	**AAC1.1**	10 unit(s)	200,00
25	36	74	GL 25	**A366.1**	10 unit(s)	192,00
50	46	91	GL 32	**A367.1**	10 unit(s)	197,00
100	56	105	GL 45	**A368.1**	10 unit(s)	222,00
150	62	110	GL 45	**PC85.1**	10 unit(s)	261,00
250	70	143	GL 45	**A369.1**	1 unit(s)	31,05
500	86	181	GL 45	**A370.1**	1 unit(s)	39,65
750	95	203	GL 45	**PC86.1**	10 unit(s)	427,00
1,000	101	230	GL 45	**A371.1**	1 unit(s)	48,75
2,000	136	265	GL 45	**A372.1**	1 unit(s)	76,20
3,500	160	295	GL 45	**PC87.1**	1 unit(s)	159,00
5,000	182	335	GL 45	**A373.1**	1 unit(s)	220,00
10,000	227	415	GL 45	**A374.1**	1 unit(s)	345,00

Without pouring ring and screw cap

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
20,000	288	510	GL 45	**A375.1**	1 unit(s)	609,00

Glass bottles

Screw top bottle DURAN® clear glass

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

- With DIN GL thread and pitch
- Bottles up to 25 ml, with a specially shaped glass edge, so no pouring ring is required
- Bottles from 100 to 2000 ml: Ring-shaped reinforcement in the bottles' shoulder, shows the bottles' nominal content
- With printed retrace code (batch code)
- Acc. to ISO 4796-1

121 °C

DURAN WHEATON KIMBLE

With pouring ring and PP screw cap

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
10	36	50	GL 25	**AAA9.1**	10 unit(s)	87,95
25	36	74	GL 25	**A356.1**	10 unit(s)	71,40
50	46	91	GL 32	**A357.1**	10 unit(s)	74,90
100	56	105	GL 45	**A358.1**	10 unit(s)	66,50
150	62	110	GL 45	**PC79.1**	10 unit(s)	70,75
250	70	143	GL 45	**A359.1**	10 unit(s)	73,15
500	86	181	GL 45	**A360.1**	10 unit(s)	91,30
750	95	203	GL 45	**PC80.1**	10 unit(s)	114,65
1,000	101	230	GL 45	**A361.1**	10 unit(s)	127,80
2,000	136	265	GL 45	**A362.1**	1 unit(s)	30,55
3,500	160	295	GL 45	**PC81.1**	1 unit(s)	96,05
5,000	182	335	GL 45	**A363.1**	1 unit(s)	137,75
10,000	227	415	GL 45	**A364.1**	1 unit(s)	246,00
20,000	288	510	GL 45	**A365.1**	1 unit(s)	531,00

Without pouring ring and screw cap

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
10	36	50	GL 25	**AAC0.1**	10 unit(s)	68,45
25	36	70	GL 25	**T424.1**	10 unit(s)	52,10
50	46	87	GL 32	**T425.1**	10 unit(s)	52,15
100	56	100	GL 45	**T426.1**	10 unit(s)	41,70
150	62	110	GL 45	**PC82.1**	10 unit(s)	47,55
250	70	138	GL 45	**T427.1**	10 unit(s)	49,90
500	86	176	GL 45	**T428.1**	10 unit(s)	68,15
750	95	203	GL 45	**PC83.1**	10 unit(s)	91,65
1,000	101	225	GL 45	**T429.1**	10 unit(s)	108,40
2,000	136	260	GL 45	**T430.1**	1 unit(s)	27,80
3,500	160	295	GL 45	**PC84.1**	1 unit(s)	94,40
5,000	182	330	GL 45	**T431.1**	1 unit(s)	133,30
10,000	227	410	GL 45	**T432.1**	1 unit(s)	241,00
15,000	268	445	GL 45	**T433.1**	1 unit(s)	296,00
20,000	288	505	GL 45	**T434.1**	1 unit(s)	508,00

Glass bottles

Screw top bottle DURAN® Protect

DWK Life Sciences. Material: DURAN® glass, PU-coated.
Autoclavable: Yes.

Acc. to 4796-1. The plastic casing protects against mechanical damage (scratch protection), minimises loss of fluid in the event of glass breakage (leak and splash protection), prevents scattering of glass shards and provides light protection up to a wavelength of 380 nm. With retrace code.
Temperature stability -30 to +135 °C. Microwave safe.

A 121 °C

DURAN WHEATON KIMBLE

Note:
Do not expose DURAN® Protect bottles to naked flames or direct heat. Avoid continuous thermal exposure for longer than 30 min. DURAN® Protect bottles can be cleaned in industrial dishwashers (average resistance: 30 cycles at max. 95 °C). Autoclavable at 121 °C and 1.1 bar for 20 minutes (average resistance: 30 cycles).

Clear glass

Delivery incl. PP pouring ring and screw cap.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**1076.1**	10 unit(s)	180,00
150	62	110	GL 45	**PC88.1**	10 unit(s)	183,00
250	70	138	GL 45	**A378.1**	10 unit(s)	195,00
500	86	176	GL 45	**1077.1**	1 unit(s)	22,10
750	95	203	GL 45	**PC89.1**	10 unit(s)	264,00
1,000	101	225	GL 45	**1078.1**	1 unit(s)	31,40
2,000	136	260	GL 45	**A379.1**	1 unit(s)	59,05
3,500	160	295	GL 45	**PC90.1**	1 unit(s)	215,00
5,000	182	330	GL 45	**A380.1**	1 unit(s)	299,00

Clear glass

Delivery without pouring ring or screw cap, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
10	36	50	GL 25	**AAA6.1**	10 unit(s)	182,00
25	36	70	GL 25	**AAA7.1**	10 unit(s)	164,00
50	46	87	GL 32	**AAA8.1**	10 unit(s)	165,00
10,000	227	410	GL 45	**AKN0.1**	1 unit(s)	439,00
15,000	268	445	GL 45	**AKN1.1**	1 unit(s)	727,00
20,000	288	505	GL 45	**AKN2.1**	1 unit(s)	959,00

Brown glass

DURAN® characteristics inside the bottle remain unaltered as only the exterior is coated. Light protection up to 500 nm.

Delivery without pouring ring or screw cap, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
25	36	70	GL 25	**AKK5.1**	10 unit(s)	316,00
50	46	87	GL 32	**AKK6.1**	10 unit(s)	318,00
100	56	100	GL 45	**AKK7.1**	10 unit(s)	318,00
250	70	138	GL 45	**AKK8.1**	10 unit(s)	411,00
500	86	176	GL 45	**AKK9.1**	10 unit(s)	513,00
1,000	101	225	GL 45	**AKL0.1**	10 unit(s)	659,00
2,000	136	260	GL 45	**AKL1.1**	10 unit(s)	1.026,00
5,000	182	330	GL 45	**AKL2.1**	1 unit(s)	380,00

Glass bottles

121 °C

DURAN WHEATON KIMBLE

Screw top bottle DURAN® pressure plus

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Vacuum and pressure-resistant in the range from -1 to +1.5 bar (in the case of pressure relief, the max. service temperature is 140 °C and the thermal shock resistance is 30 K). With graduation and labelling field, burned-in and thus permanent print image. With Retrace Code.

Delivery without pouring ring or screw cap, please order separately.

Clear glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**EXK1.1**	1 unit(s)	9,25
250	70	138	GL 45	**CK34.1**	1 unit(s)	10,45
500	86	176	GL 45	**CK35.1**	1 unit(s)	14,05
1,000	101	225	GL 45	**H995.1**	1 unit(s)	16,65

Brown glass

DURAN® characteristics inside the bottle remain unaltered as only the exterior is coated. Light protection up to 500 nm.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**EXK2.1**	1 unit(s)	25,10
250	70	138	GL 45	**CK36.1**	1 unit(s)	35,85
500	86	176	GL 45	**CK37.1**	1 unit(s)	44,20
1,000	101	225	GL 45	**CK38.1**	1 unit(s)	53,40

121 °C

DURAN WHEATON KIMBLE

Screw top bottle DURAN® pressure plus Protect

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Vacuum- and pressure-resistant in the range of -1 to +1.5 bar (in the case of pressure relief, the max. service temperature is 140 °C and the thermal shock resistance is 30 K).
With graduation and labelling field, burned-in and thus permanent print image. The plastic casing protects against mechanical damage (scratch protection), minimises loss of fluid in the event of glass breakage (leak and splash protection), prevents scattering of glass shards and provides light protection up to a wavelength of 380 nm. With Retrace Code.

Note:
Do not expose DURAN® pressure plus Protect bottles to naked flames or direct heat. Avoid continuous thermal exposure for longer than 30 min. DURAN® pressure plus Protect bottles can be cleaned in industrial dishwashers (average resistance: 30 cycles at max. 95 °C). Autoclavable at 121 °C and 1.1 bar for 20 minutes (average resistance: 30 cycles).

Delivery without pouring ring or screw cap, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**EXK3.1**	1 unit(s)	16,45
250	70	138	GL 45	**CCX5.1**	1 unit(s)	20,10
500	86	176	GL 45	**CCX6.1**	1 unit(s)	25,45
1,000	101	225	GL 45	**CCX7.1**	1 unit(s)	32,70

Glass bottles

121 °C DURAN WHEATON KIMBLE

Screw top bottles DURAN® Premium

DWK Life Sciences. Material: DURAN® glass, transparent. Autoclavable: Yes.

Acc. to 4796-1. Pouring ring and screw cap without colour additives and colour pigments. Temperature stability -196 to +260 °C. Especially suited to demanding sterilisation processes like, for example, hot air or dry sterilisation and depyrogenisation, thanks to the guaranteed temperature change resistance of 160 K.
Corresponds to USP/FDA standards. Scaling accurate up to ±5%. Additional reverse scale allows you to read off the current fill level and the amount removed. With retrace code. Autoclavable.

Delivery incl. pouring ring and screw cap made from TPCh260 with PTFE-coated silicone seal.

Delivery incl. batch certificate

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**HL99.2**	10 unit(s)	195,00
250	70	138	GL 45	**HT00.2**	10 unit(s)	203,00
500	86	176	GL 45	**HT01.2**	10 unit(s)	229,00
1,000	101	225	GL 45	**HT02.2**	10 unit(s)	274,00

Delivery without batch certificate

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**HL99.1**	1 unit(s)	20,55
250	70	138	GL 45	**HT00.1**	1 unit(s)	22,15
500	86	176	GL 45	**HT01.1**	1 unit(s)	24,25
1,000	101	225	GL 45	**HT02.1**	1 unit(s)	28,55

121 °C DURAN WHEATON KIMBLE

Screw top bottle DURAN® PURE

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Made from DURAN® (borosilicate glass type I), with a HDPE dust cap. With DIN-GL thread, pitch (accuracy ±5%) and printed retrace code (batch code). Acc. to DIN ISO 3585, USP <660>, Ph. Eur. 3.2.1 and JP 7.01 Method 1.
Autoclavable, hot air and plasma sterilisable(H_2O_2).

Delivery incl. batch certificate.
Delivery without screw cap and pouring ring, please order separately.

Clear glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
25	36	70	GL 25	**HNK3.1**	10 unit(s)	88,55
100	56	100	GL 45	**HNK4.1**	10 unit(s)	80,65
250	70	138	GL 45	**HNK5.1**	10 unit(s)	90,65
500	86	176	GL 45	**HNK6.1**	10 unit(s)	109,80
1,000	101	225	GL 45	**HNK7.1**	10 unit(s)	158,00
2,000	136	260	GL 45	**HNK8.1**	10 unit(s)	363,00
5,000	182	330	GL 45	**HNK9.1**	1 unit(s)	153,00
10,000	227	410	GL 45	**HNL0.1**	1 unit(s)	260,00
20,000	288	505	GL 45	**HNL1.1**	1 unit(s)	548,00

Brown glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
25	36	70	GL 25	**HNL2.1**	10 unit(s)	224,00
100	56	100	GL 45	**HNL3.1**	10 unit(s)	258,00
250	70	138	GL 45	**HNL4.1**	10 unit(s)	371,00
500	86	176	GL 45	**HNL5.1**	10 unit(s)	458,00
1,000	101	225	GL 45	**HNL6.1**	10 unit(s)	578,00
2,000	136	260	GL 45	**HNL7.1**	10 unit(s)	873,00
5,000	182	330	GL 45	**HNL8.1**	1 unit(s)	249,00
10,000	227	410	GL 45	**HNL9.1**	1 unit(s)	352,00
20,000	288	505	GL 45	**HNN0.1**	1 unit(s)	641,00

Glass bottles

A 121 °C

DURAN WHEATON KIMBLE

DURAN WHEATON KIMBLE

Screw top bottle DURAN® YOUTILITY

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

- Specially shaped recessed grips for easier and safer handling
- Slim bottle shape allows more space-saving use
- Scale indicating total volume
- Predefined labelling space
- Ergonomically shaped screw cap with leak-proof sealing system for optimal handling, even by users with small or gloved hands
- Optimised thread (compatible with DIN GL 45 closures) for faster bottle opening and closing
- With retrace code

Delivery incl. optimised screw cap and PP pouring ring.

Clear glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	55	124	GL 45	**AEY2.1**	4 unit(s)	29,70
250	66	158	GL 45	**AEY3.1**	4 unit(s)	31,95
500	78	193	GL 45	**AEY4.1**	4 unit(s)	39,20
1,000	93	253	GL 45	**AEY5.1**	4 unit(s)	55,55

Brown glass

for storing light-sensitive substances. Meets the requirements of USP <660> and Eur. Ph. 3.2.1. with regard to light protection. DURAN® characteristic inside the bottle remain unaltered as only the exterior is coated; long useful life and brown colouring has good chemical resistance. Light protection: Absorption in short wave range up to 500 nm.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	55	124	GL 45	**CCT9.1**	4 unit(s)	92,15
250	66	158	GL 45	**CCX0.1**	4 unit(s)	126,60
500	78	193	GL 45	**CCX1.1**	4 unit(s)	165,00
1,000	93	253	GL 45	**CCX2.1**	4 unit(s)	202,00

Labels DURAN® YOUTILITY can be printed on

DWK Life Sciences. Material: Polyester.

High adhesive strength, easy to remove again. Can be printed on with office printers or photocopiers and can be written on with most laboratory pens. High resistance to disinfectants and solvents. Suitable for use in refrigerators, freezers, autoclaves, incubators and water baths. Web-app for individual design, available at: www.duranlabels.com. Dimensions: 36 x 70 mm. Temperature stability -40 to +150 °C. Delivered in resealable packaging on DIN A4 sheets (five sheets of 20 labels).

Version	Pack.	Art. No.	Pack Qty.	€
DURAN® YOUTILITY labels for printing on	5 x 20 pieces	**KCT0.1**	1 pack(s)	18,25

DURAN WHEATON KIMBLE

Hybridisation vial

DWK Life Sciences. Material: Borosilicate glass acc. to USP type I.

Wall thickness 3.2 mm. Suitable for use in most common hybridisation ovens. With flat bottom. Caps made of white PBT (35 mm) or PP (70 mm) with seals made of PTFE-coated silicone.

Not a medical device / Not an IVD product

Non-coated

Temperature stability up to +135 °C.

Ø Internal (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
35	75	45 mm	**ETH4.1**	1 unit(s)	67,80
35	100	45 mm	**ETH5.1**	1 unit(s)	73,75
35	150	45 mm	**ETH6.1**	1 unit(s)	76,15
35	300	45 mm	**ETH7.1**	1 unit(s)	80,25
70	300	70-400	**ETH8.1**	1 unit(s)	102,05

PVC-coated

Temperature stability up to +121 °C.

Ø Internal (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
35	75	45 mm	**ETH9.1**	1 unit(s)	89,10
35	100	45 mm	**ETK0.1**	1 unit(s)	93,90
35	150	45 mm	**ETK1.1**	1 unit(s)	95,60
35	300	45 mm	**ETK2.1**	1 unit(s)	100,70
70	300	70-400	**ETK3.1**	1 unit(s)	135,85

Glass bottles

Wide mouth bottle DURAN® GLS 80

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

With labelling space, graduations and retrace code. Large inside neck Ø (65 mm) makes it safe to fill and remove powders, paste-like media, granulate and liquids. Microwave safe.

A 121 °C | DURAN WHEATON KIMBLE

Delivery incl. screw cap and PP pouring ring.

Clear glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
250	95	109	65	GLS 80	**XT02.1**	10 unit(s)	105,30
500	101	152	65	GLS 80	**ET99.1**	10 unit(s)	140,20
1,000	101	222	65	GLS 80	**EX00.1**	10 unit(s)	183,00
2,000	136	252	65	GLS 80	**EX01.1**	1 unit(s)	35,90
3,500	160	275	65	GLS 80	**PY89.1**	1 unit(s)	106,70
5,000	182	314	65	GLS 80	**EX02.1**	1 unit(s)	147,85
10,000	227	389	65	GLS 80	**EX03.1**	1 unit(s)	262,00
20,000	288	484	65	GLS 80	**EX04.1**	1 unit(s)	571,00

Brown glass

For storing light-sensitive media. DURAN® characteristics inside the bottle remain unaltered as only the exterior is coated; long useful life and brown colouring has good chemical resistance.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
250	95	109	65	GLS 80	**XT03.1**	1 unit(s)	43,00
500	101	152	65	GLS 80	**HT11.1**	1 unit(s)	46,05
1,000	101	222	65	GLS 80	**HT12.1**	1 unit(s)	56,05
2,000	136	252	65	GLS 80	**HT13.1**	1 unit(s)	80,60
3,500	160	275	65	GLS 80	**PY91.1**	1 unit(s)	174,00
5,000	182	314	65	GLS 80	**HT14.1**	1 unit(s)	252,00
10,000	227	389	65	GLS 80	**HT15.1**	1 unit(s)	379,00
20,000	288	484	65	GLS 80	**HT16.1**	1 unit(s)	617,00

Wide mouth bottle DURAN® GLS 80 Protect

DWK Life Sciences. Material: DURAN® glass, PU-coated, clear. Autoclavable: Yes.

With labelling space, graduations and retrace code. Large inside neck Ø (65 mm) makes it safe to fill and remove powders, paste-like media, granulate and liquids.
The plastic casing protects against mechanical damage (scratch protection), minimises loss of fluid in the event of glass breakage (leak and splash protection) and prevents scattering of glass shards. Light protection up to a wavelength of 380 nm.
Temperature stability -35 to +135 °C. Microwave safe.

A 121 °C | DURAN WHEATON KIMBLE

Note: Do not expose DURAN® Protect bottles to naked flames or direct heat. Avoid continuous thermal exposure for longer than 30 min.

Delivery incl. screw cap and PP pouring ring.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
250	95	105	65	GLS 80	**XT04.1**	10 unit(s)	222,00
500	101	152	65	GLS 80	**LC00.1**	10 unit(s)	261,00
1,000	101	222	65	GLS 80	**KY97.1**	10 unit(s)	343,00
2,000	136	252	65	GLS 80	**KY98.1**	10 unit(s)	568,00
3,500	160	275	65	GLS 80	**PY90.1**	1 unit(s)	238,00
5,000	182	314	65	GLS 80	**KY99.1**	1 unit(s)	284,00

Glass bottles

Wide mouth screw top bottle DURAN® PURE GLS 80®

DWK Life Sciences. Material: DURAN® glass (borosilicate glass 3.3, type I). Autoclavable: Yes.

High-quality wide mouth screw top bottle with GLS 80 thread. Developed for the needs of the pharmaceutical and biotech industry. The 80-mm-wide external diameter of the bottle neck opening allows easy filling and emptying of bottles. DWK Life Sciences provides analysis certificates with every delivery, guarantees 100% traceability and change control management. DURAN® PURE bottles are available with the documentation required by the regulatory authorities and fulfil the requirements of international pharmacopoeias.

- Closed with dust cap to avoid contamination
- With labelling area, graduations and retrace code

NEW / +

A 121 °C

DURAN WHEATON KIMBLE

Applications:

- Suitable for the production of pharmaceutical and biotech products, and for the storage and transport of active substances, intermediate products, excipients and media
- Intended for use with DURAN® PURE GLS 80® quick rel. screw-cap closure

Delivery incl. batch certificate. **Delivery without** screw cap and pouring ring, please order separately.

Clear glass

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
500	101	148	GLS 80	**1HN0.1**	10 unit(s)	186,00
1,000	101	218	GLS 80	**1HN1.1**	10 unit(s)	245,00
2,000	136	248	GLS 80	**1HN2.1**	10 unit(s)	518,00
5,000	182	310	GLS 80	**1HN3.1**	1 unit(s)	197,00
10,000	227	385	GLS 80	**1HN4.1**	1 unit(s)	325,00
20,000	288	480	GLS 80	**1HN5.1**	1 unit(s)	700,00

Brown glass

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
500	101	148	GLS 80	**1HLL.1**	10 unit(s)	617,00
1,000	101	218	GLS 80	**1HLN.1**	10 unit(s)	744,00
2,000	136	248	GLS 80	**1HLP.1**	10 unit(s)	1.146,00
5,000	182	310	GLS 80	**1HLT.1**	1 unit(s)	341,00
10,000	227	385	GLS 80	**1HLX.1**	1 unit(s)	463,00
20,000	288	480	GLS 80	**1HLY.1**	1 unit(s)	755,00

Wide mouth bottle DURAN® GLS 80 with baffles

DWK Life Sciences. Material: DURAN® glass, Clear. Autoclavable: Yes.

Graduated, with three vertical baffles on the inside walls. The baffles increase the vertical circulation and produce a much more efficient and homogeneous mix. With retrace code.

A 121 °C

DURAN WHEATON KIMBLE

Delivery incl. screw cap and PP pouring ring.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
250	95	105	GLS 80	**EXK4.1**	1 unit(s)	22,50
500	101	152	GLS 80	**EXK5.1**	1 unit(s)	29,80
1,000	101	222	GLS 80	**EXK6.1**	1 unit(s)	39,00

Glass bottles

Wide mouth bottle GLS 80 double-wall

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Integrated glass shell enables temperature regulation of the bottle contents by pumping warm or cold tempering liquid through the shell.

- Temperature stability -40 to +120 °C or -45 to +180 °C when using the fast-screw cap GLS 80 (Art. No. PC52.1)
- Suitable for use with magnetic vane stir bars or the DURAN® GLS 80 magnetic stirrer reactor cap
- Compatible with GLS 80 connection systems for adding and/or removing liquids
- Easy-to-read scale on the inner vessel

A 121 °C

DURAN WHEATON KIMBLE

Delivery incl. pouring ring and GLS 80 PP screw cap, as well as two PBT screw caps with PTFE hose connectors (GL 18, for hose with inside Ø of 10 mm).

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
500	110	170	GLS 80	**ETP2.1**	1 unit(s)	387,00
1,000	110	270	GLS 80	**ETP3.1**	1 unit(s)	485,00

Screw top bottle DURAN® GL 45 with high-temperature closures

DWK Life Sciences. Material: DURAN® glass (Borosilicate glass 3.3, corresponds to USP/EP Type I). Autoclavable: Yes.

Exceptional thermal behaviour and high chemical resistance. With easy-to-read volume scale and labelling field made from durable white enamel. With retrace code. Autoclavable at 121 or 134 °C, hot air sterilisable to 180 °C.

A 121 °C

DURAN WHEATON KIMBLE

Delivery incl. red, high-temperature screw cap (glass-fibre strengthened PBT with PTFE-coated silicone seal) and ETFE pouring ring.

Vol. (ml)	Ø ext. (mm)	Total height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	105	GL 45	**KCN6.1**	10 unit(s)	118,75
250	70	143	GL 45	**KCN7.1**	10 unit(s)	127,30
500	86	181	GL 45	**KCN8.1**	10 unit(s)	145,95
1,000	101	230	GL 45	**KCN9.1**	10 unit(s)	186,00
2,000	136	265	GL 45	**KCP0.1**	10 unit(s)	359,00
5,000	182	335	GL 45	**KCP1.1**	1 unit(s)	142,75
10,000	227	415	GL 45	**KCP2.1**	1 unit(s)	248,00

Glass bottles

HPLC reservoir bottle DURAN® GL 45

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Outstanding chemical resistance, extremely low profile of extractable inorganic ions; free from organic extractable substances.
Safe and practical alternative to media bottles with a flat bottom. The central cavity in the base of the bottle enables mobile phases and solvents to be dispensed without having to tilt the bottle. The side opening on the base of the bottle prevents the bottle from floating during degassing in an ultrasonic bath and enables water to drain away after cleaning. With retrace code. Autoclavable at 121 °C or 134 °C.

A 121 °C

DURAN WHEATON KIMBLE

Delivery without cap, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
1,000	110	295	GL 45	**KCP3.1**	1 unit(s)	183,00
2,000	145	309	GL 45	**KCP4.1**	1 unit(s)	225,00
5,000	190	386	GL 45	**KCP5.1**	1 unit(s)	374,00
10,000	235	481	GL 45	**KCP6.1**	1 unit(s)	1.200,00

Multi-neck HPLC bottle DURAN® GL 45

DWK Life Sciences. Material: DURAN® glass (borosilicate glass 3.3), screw caps made of PP, blue. Autoclavable: Yes.

Ideal for storage and dispensing of mobile phases and solvents suitable for high performance liquid chromatography (HPLC).

- Practical - side neck allows filling of bottles without removing the main connection. The Hydra multi-neck bottle can take up to five HPLC caps, which increases safety when working and reduces the risk of cross-contamination and air intake
- Safe - closed bottles reduce the risk of escape and spillage of volatile organic compounds (VOC)
- Compatible - GL 45 thread appropriate for standard HPLC-connection caps
- Produced from the material of choice for HPLC solvent bottles: Borosilicate glass 3.3 has a very low profile of extractable inorganic ions
- DURAN® is a borosilicate glass type 3.3 according to the specification in international standard ISO 3585, which is classified according to ASTM-E438-1992 as „borosilicate glass type I, class A with low expansion“
- With Retrace Code and certificate for tracing the production batch
- Long-lasting scaling through permanently fired-on print image
- Autoclavable at 121 °C or 134 °C

NEW / +

A 121 °C

DURAN WHEATON KIMBLE

Applications:

- Reservoirs for mobile phases for HPLC
- HPLC flushing bottle
- Supply of reagents to systems and analysers that work with liquids

Delivery incl. screw caps made of PP.

Round with a GL 45 side neck

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Version	Art. No.	Pack Qty.	€
2,000	136	265.5	GL 45	One side neck	**1HK1.1**	1 unit(s)	75,60

Square with four GL 45 side necks

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Version	Art. No.	Pack Qty.	€
1,000	94	94	222.5	GL 45	Four side necks	**1HK0.1**	1 unit(s)	267,00

Screw caps and olives

A 121 °C | DURAN WHEATON KIMBLE

Screw caps

DWK Life Sciences. Material: PP. Autoclavable: Yes.

Features a lip seal. Temperature stable from -40 to +140 °C.
Autoclavable up to 140 °C steam.

Thread	Colour	Art. No.	Pack Qty.	€
GL 25	blue	**E752.1**	10 unit(s)	13,85
GL 32	blue	**E753.1**	10 unit(s)	13,55
GL 45	yellow	**CK22.1**	10 unit(s)	16,15
GL 45	grey	**CK23.1**	10 unit(s)	16,15
GL 45	green	**CK24.1**	10 unit(s)	16,15
GL 45	blue	**E754.1**	10 unit(s)	16,15
GLS 80	blue	**KY95.1**	10 unit(s)	26,35

A 121 °C | DURAN WHEATON KIMBLE

Pouring rings

DWK Life Sciences. Material: PP. Autoclavable: Yes.

Temperature stable from -40 to +140 °C.
Autoclavable up to 140 °C steam.

Thread	Colour	Art. No.	Pack Qty.	€
GL 32	blue	**K752.1**	10 unit(s)	4,80
GL 45	yellow	**CK25.1**	10 unit(s)	5,35
GL 45	grey	**CK26.1**	10 unit(s)	5,35
GL 45	green	**CK27.1**	10 unit(s)	5,35
GL 45	blue	**K753.1**	10 unit(s)	5,80
GLS 80	blue	**KY96.1**	10 unit(s)	16,75

A 121 °C | DURAN WHEATON KIMBLE

Screw caps

DWK Life Sciences. Material: PBT, with PTFE-coated silicone seal. Autoclavable: Yes.

Temperature stable from -45 to +180 °C, can be hot air sterilised up to +180 °C.

Thread	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 14	20	17	**TX90.1**	10 unit(s)	19,35
GL 18	23	20	**TX91.1**	10 unit(s)	22,35
GL 25	33	23	**TX92.1**	10 unit(s)	27,70
GL 32	42	26	**TX93.1**	10 unit(s)	41,95
GL 45	54	28	**TX94.1**	10 unit(s)	63,50

A 121 °C | DURAN WHEATON KIMBLE

Pouring rings

DWK Life Sciences. Material: ETFE. Autoclavable: Yes.

Temperature stable from -100 to +180 °C.

Thread	Art. No.	Pack Qty.	€
GL 32	**N542.1**	10 unit(s)	12,90
GL 45	**N543.1**	10 unit(s)	13,60

Screw caps and olives

A 121 °C ❄

Screw caps

Lenz. Material: PBT, with PTFE coated seal. Autoclavable: Yes.
Temperature stable from -45 to +150 °C.

Thread	Colour	Art. No.	Pack Qty.	€
GL 14	red	**E695.1**	10 unit(s)	26,15
GL 18	red	**E696.1**	10 unit(s)	31,40
GL 25	red	**E692.1**	10 unit(s)	37,65
GL 32	red	**E693.1**	10 unit(s)	57,00
GL 45	red	**E694.1**	10 unit(s)	84,95

A 121 °C ❄❄❄ DURAN WHEATON KIMBLE

Screw caps DURAN® Premium

DWK Life Sciences. Material: TPCh260, with PTFE-coated silicone seal. Autoclavable: Yes.

With no colour additives. Temperature stable from -196 to +200 °C, high chemical resistance.
For laboratory bottles with DIN standard thread. Characteristics ideal for application in pharmaceutical industry, for storing aggressive media as well as for demanding sterilisation procedures. FDA and USP-compliant. Autoclavable, hot-air and dry-sterilisable and capable of depyrogenation. With retrace code.

Thread	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 25	32	22	**PY85.1**	5 unit(s)	29,75
GL 45	51	26	**CK79.1**	5 unit(s)	59,05

DURAN WHEATON KIMBLE

Pouring rings DURAN® Premium

DWK Life Sciences. Material: TPCh260.

Thread	Art. No.	Pack Qty.	€
GL 45	**CK80.1**	5 unit(s)	14,40

A 121 °C ❄

Screw caps

Bohlender. Material: PPS, with PTFE-coated silicone seal. Autoclavable: Yes.

Temperature stable from -20 to +230 °C.

Thread	Art. No.	Pack Qty.	€
GL 14	**NT01.1**	10 unit(s)	27,70
GL 18	**NT02.1**	10 unit(s)	24,95
GL 25	**NT03.1**	10 unit(s)	41,35
GL 32	**NT04.1**	10 unit(s)	42,40
S 40	**NT05.1**	5 unit(s)	32,25
GL 45	**NT06.1**	5 unit(s)	38,70

A 121 °C ❄ DURAN WHEATON KIMBLE

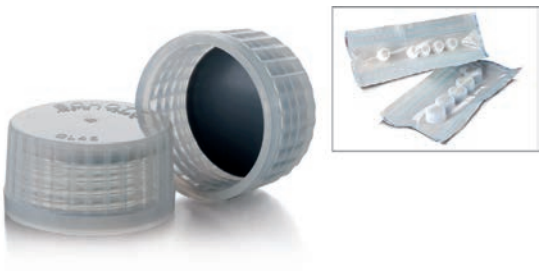
Tamper-evident caps

DWK Life Sciences. Material: PP. Autoclavable: Yes.

For laboratory bottles with GL 45 DIN thread. Autoclavable up to +140 °C steam.

Version	Thread	Art. No.	Pack Qty.	€
with lip seal, red tamper-evident ring	GL 45	**AH99.1**	10 unit(s)	17,45
with PTFE coated silicone seal, yellow tamper-evident ring	GL 45	**KE51.1**	10 unit(s)	53,30

Screw caps and olives



121 °C ❄❄❄ DURAN WHEATON KIMBLE

Screw caps DURAN® PURE Premium

DWK Life Sciences. Material: TPCh260 (similar to PFA).
Autoclavable: Yes.

With no colour additives. Manufactured in ISO Class 7 clean rooms. Temperature stable from -196 to +260 °C, high chemical resistance. For laboratory bottles with DIN standard thread. Characteristics ideal for application in pharmaceutical industry, for storing aggressive media as well as for demanding sterilisation procedures. FDA and USP-compliant. Autoclavable and hot-sterilisable. With retrace code, batch certificates available.

Standard packaging

Thread	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 25	32	22	**HNN1.1**	5 unit(s)	31,40
GL 45	51	26	**HNN2.1**	5 unit(s)	60,70

STERICLIN® sterile barrier system packaging

Caps are sealed in packs of 5 and can be sterilised directly in the STERICLIN® packaging. No pre-cleaning necessary. Can be stored for up to 6 months after sterilising. Can be sterilised by STEAM, EO and FORM sterilisation; the corresponding indicators are imprinted on the STERICLIN® packaging. Recommended sterilisation process: Steam sterilisation with pre-vacuum, from 121 °C for 20 minutes up to 134 °C for 20 minutes.

Thread	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 25	32	22	**XT05.1**	20 unit(s)	140,40
GL 45	51	26	**XT06.1**	20 unit(s)	283,00

NEW / + 121 °C ❄ DURAN WHEATON KIMBLE

Quick rel. screw-cap DURAN® PURE GLS 80®

DWK Life Sciences. Material: PSU, with PTFE-coated silicone seal.
Autoclavable: Yes.

High-quality quick release screw-cap closure made of PSU in thread size GLS 80. Colour: white. Autoclavable and compatible with other common sterilisation methods. Temperature stable from -45 to +180 °C. DWK Life Sciences provides analysis certificates with every delivery and guarantees 100% traceability and change control management. This DURAN® PURE GLS 80® quick release screw-cap closure is available with the documentation required by the regulatory authorities and fulfils the requirements of international pharmacopoeias.

Applications:

- High-quality cap developed for the needs of the pharmaceutical and biotech industry
- Intended for use with DURAN® PURE GLS 80® wide mouth screw top bottles

Delivery incl. batch certificate.

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
GLS 80	88	40	**1HK5.1**	5 unit(s)	129,75

121 °C ❄ DURAN WHEATON KIMBLE

Pouring rings GLS 80

DWK Life Sciences. Material: PTFE. Autoclavable: Yes.

Thread	Height (mm)	Art. No.	Pack Qty.	€
GLS 80	6.85	**PC53.1**	5 unit(s)	73,75

Screw caps and olives

121 °C

DURAN WHEATON KIMBLE

Screw caps DURAN® PURE

DWK Life Sciences. Material: PFA. Autoclavable: Yes.

Without colour additives and pigments. Features a lip seal. For laboratory bottles with GL 45 thread. Retrace code and batch certificate available.

- Temperature resistance: -196 to +260 °C
- Can be autoclaved and dry-heat sterilised (at 260 °C)
- High chemical resistance
- Comply with FDA 21 CFR V, section 177.1550, and USP class VI

Thread	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 45	52	27.5	**EEE3.1**	5 unit(s)	75,25

121 °C

DURAN WHEATON KIMBLE

Quick-release screw-caps GLS 80

DWK Life Sciences. Autoclavable: Yes.

Made of polyarylsulfone plastic. Significantly improved chemical, thermal and mechanical properties compared with PP caps; temperature stable from -45 to +180 °C. Seal PTFE-coated on both sides. Thread permits opening and closing with only a three-quarter turn.

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
GLS 80	86	40	**PC52.1**	5 unit(s)	124,10

121 °C

Screw closures GLS 80

Bohlender. Material: PP, with sealing insert made of PTFE. Autoclavable: Yes.

High chemical resistance since medium only comes into contact with PTFE. Temperature stable from -20 to +140 °C.

Thread	Art. No.	Pack Qty.	€
GLS 80	**NY56.1**	1 unit(s)	45,45

121 °C

DURAN WHEATON KIMBLE

Ventilation screw caps DURAN® with ePTFE membrane

DWK Life Sciences. Material: PP with welded-in PTFE membrane. Autoclavable: Yes.

The membrane, made of expanded PTFE with a pore size of 0.2 µm enables a sterile gas exchange and prevents aqueous liquids with high surface tension from passing through it.
During the autoclaving process, the caps can be securely screwed on to the laboratory glass bottles.
Autoclavable at 121 °C (20 minutes) or 134 °C (3 minutes).

Applications:

- Pressure equalisation during steam sterilisation/autoclaving of media or buffer solutions in bottles up to a volume of 5 litres
- Sterile gas exchange for aerobic micro-organism, shaken and suspended cell cultures
- Short-term storage of sterilised media
- Storage of gas-forming substances

Version	Thread	Colour	Art. No.	Pack Qty.	€
1 hole	GL 25	blue	**KCL9.1**	5 unit(s)	27,70
1 hole	GL 32	blue	**KCN0.1**	5 unit(s)	28,15
3 holes	GL 45	blue	**CK81.1**	5 unit(s)	23,95
3 holes	GL 45	turquoise	**KCN2.1**	4 unit(s)	22,35
3 holes	GL 56	white	**KCN3.1**	4 unit(s)	31,55
3 holes	GLS 80	blue	**KCN4.1**	2 unit(s)	19,25

Screw caps and olives

NEW / +

A 121 °C

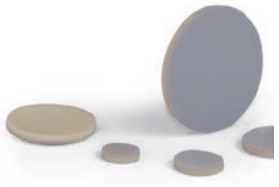
Screw caps with hole

Material: PBT. Autoclavable: Yes.

With GL thread, for connecting connectors, pipes or stopcocks. Autoclavable, temperature stable from -45 to +180 °C.

Delivery without seal, please order separately.

Thread	Ø Hole (mm)	Art. No.	Pack Qty.	€
GL 14	9.5	**L993.2**	10 unit(s)	14,40
GL 18	11	**EL61.1**	1 unit(s)	3,55
GL 25	15	**LL40.2**	10 unit(s)	19,45
GL 32	20	**H396.2**	10 unit(s)	22,80
GL 45	34	**L994.2**	10 unit(s)	65,10



A 121 °C

Seals

Bohlender. Material: Silicone (Elastomer) with PTF coating. Autoclavable: Yes.

Suitable for screw caps, Art. No. NT01.1 ff or screw caps with hole Art. No. NT07.1 ff.
Temperature stable from -60 to +230 °C.

Thread	Ø ext. (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
GL 14	13	3.3	**NT13.1**	25 unit(s)	13,90
GL 18	16.8	3.3	**NT14.1**	25 unit(s)	21,65
GL 25	23.5	3.3	**NT15.1**	25 unit(s)	43,75
GL 32	30.2	3.3	**NT16.1**	5 unit(s)	12,80
S 40	38	3.3	**NT17.1**	5 unit(s)	11,05
GL 45	43.2	3.3	**NT18.1**	5 unit(s)	15,25

A 121 °C

Seals with hole

Material: Silicone rubber with cured-on PTFE cuff. Autoclavable: Yes.
For screw caps with a hole and GL thread.

Thread	Ø Hole (mm)	Art. No.	Pack Qty.	€
GL 14	6	**AK96.1**	1 unit(s)	4,95
GL 18	6	**AK97.1**	1 unit(s)	5,70
GL 18	8	**AK98.1**	1 unit(s)	5,50
GL 18	10	**AK99.1**	1 unit(s)	5,50
GL 25	8	**LL92.1**	2 unit(s)	12,05
GL 25	10	**LL93.1**	2 unit(s)	12,05
GL 25	12	**LL94.1**	2 unit(s)	12,05
GL 32	12	**H397.1**	1 unit(s)	8,50
GL 32	10	**LL95.1**	2 unit(s)	17,45
GL 32	14	**LL96.1**	2 unit(s)	17,45
GL 32	16	**LL97.1**	2 unit(s)	16,40
GL 32	18	**LL98.1**	2 unit(s)	16,65
GL 45	26	**LL99.1**	1 unit(s)	16,15
GL 45	32	**LN00.1**	1 unit(s)	15,20

A 121 °C

DURAN
WHEATON
KIMBLE

Seals

DWK Life Sciences. Material: Silicone rubber. Autoclavable: Yes.
Can be pierced with the cannula. For screw caps with a hole and GL thread.

Thread	Ø ext. (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
GL 14	12	2	**LL48.1**	20 unit(s)	15,95
GL 18	16	2	**LL49.1**	20 unit(s)	17,30
GL 25	22	2	**LL50.1**	10 unit(s)	11,90
GL 32	29	2	**LL51.1**	10 unit(s)	12,70
GL 45	42	3	**LL52.1**	5 unit(s)	17,90

Screw caps and olives

A 121 °C ❄❄ DURAN WHEATON KIMBLE

Septa DURAN® GL 45 with PTFE coating

DWK Life Sciences. Material: Silicone rubber with PTFE coating. Autoclavable: Yes.

For use with GL 45 screw caps with hole (Art. No. L994.1). Easy to pierce, reliable resealing. Temperature-stable from -50 to +180 °C. Autoclavable at 121 °C for 15 minutes or sterilisable up to 180 °C in dry heat.

Version	For screw-cap closures	Art. No.	Pack Qty.	€
GL 45 septa	GL 45	**KCP9.1**	10 unit(s)	58,30

A 121 °C

Screw caps with hole

Bohlender. Material: PPS. Autoclavable: Yes.

Temperature stable from -20 to +230 °C.

Delivery without seal, please order separately.

Thread	Ø Hole (mm)	Art. No.	Pack Qty.	€
GL 14	9.2	**NT07.1**	10 unit(s)	15,10
GL 18	11	**NT08.1**	10 unit(s)	18,25
GL 25	15	**NT09.1**	10 unit(s)	28,95
GL 32	20	**NT10.1**	10 unit(s)	40,10
S 40	28	**NT11.1**	10 unit(s)	85,10
GL 45	34	**NT12.1**	10 unit(s)	36,05

A 121 °C ❄ DURAN WHEATON KIMBLE

Bottle stopper DURAN®

DWK Life Sciences. Material: Butyl rubber. Autoclavable: Yes.

Made of bromobutyl rubber. Can be used with all DURAN® laboratory glass bottles with a GL 45 thread. Can additionally be secured with a screw cap with hole (recommended only for non-pressurised applications). Low permeability for air, gases and moisture.
Top side has seven numbered semi-circular depressions to be pierced with tubes, good self-sealing characteristics when pierced repeatedly. Temperature stable from -50 to +121 °C.

Applications:

- Storage of oxygen-sensitive materials
- Applications which require gas flushing or samples to be decanted using a syringe
- Cultures with anaerobic micro-organisms (the use of pressure-resistant bottles is recommended)
- Storage of anaerobic culture media (the use of brown glass bottles is recommended)
- Investigation of aerobic methane oxidation (MOx)

Version	Thread	Art. No.	Pack Qty.	€
DURAN® bottle stopper	GL 25	**KNK4.1**	10 unit(s)	17,50
DURAN® bottle stopper	GL 45	**KCN5.1**	10 unit(s)	25,55

NEW/+

A 121 °C

Connectors

Material: PP with silicone rubber seal. Autoclavable: Yes.

For screw caps with a hole and GL thread. Autoclavable, temperature stable from -40 to +140 °C.

Version	Thread	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
curved	GL 18	10.8	6.8	**LL45.1**	2 unit(s)	12,55
straight	GL 18	10.8	6.8	**EL60.1**	1 unit(s)	7,40
straight	GL 14	8.6	5.0	**L992.2**	10 unit(s)	13,15
	GL 14	8.6	4.0	**LL46.2**	10 unit(s)	13,90

Screw caps and olives

NEW / +

A 121 °C

DURAN WHEATON KIMBLE

Connectors with screw cap

DWK Life Sciences. Material: PTFE, Seal made of silicone rubber and screw cap made of PBT. Autoclavable: Yes.

With GL thread. Temperature stable between -45 and +180 °C.

Version	Thread	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
curved	GL 14	9.0	5.0	**LK74.2**	10 unit(s)	81,10
curved	GL 18	10.5	7.5	**LK75.1**	2 unit(s)	20,15
straight	GL 14	9.0	5.0	**LK72.2**	10 unit(s)	59,05
straight	GL 18	10.5	7.5	**LK73.2**	10 unit(s)	68,15
straight	GL 25	13.0	10.0	**LN34.1**	2 unit(s)	25,20

A 121 °C ❄❄❄

Connectors with screw cap

Bohlender. Autoclavable: Yes.

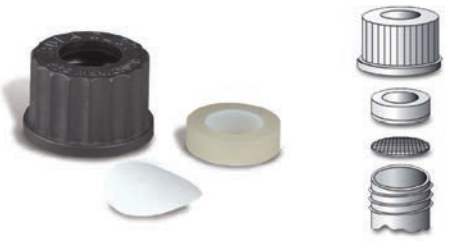
Near-universal chemical resistance since medium only comes into contact with PFA or PTFE. Temperature stable from -20 to +230 °C.

Connectors made of PFA
Material: PFA with FPM-O-ring and screw cap made of PPS.

Version	Thread	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
curved	GL 14	8.7	6.0	**NY34.1**	2 unit(s)	16,75
curved	GL 18	10.4	7.0	**NY36.1**	2 unit(s)	26,35
straight	GL 14	8.7	6.0	**NY33.1**	2 unit(s)	13,40
straight	GL 18	10.4	7.0	**NY35.1**	2 unit(s)	26,55

Connectors made of PTFE
Material: PTFE with FPM-O-ring and screw cap made of PPS.

Version	Thread	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
straight	GL 25	16.0	10.0	**NY37.1**	2 unit(s)	32,50
straight	GL 32	21.0	16.0	**NY38.1**	2 unit(s)	64,70



A 121 °C ❄❄❄

Pressure equalisation sets

Bohlender. Material: PPS (screw cap) with **PTFE/silicone** seal and replaceable filter-membrane made of **PTFE**. Autoclavable: Yes.

For pressure equalisation after the removal or addition of liquid samples from sealed containers or for the storage of out-gassing media. Pressure is equalised from a differential pressure of 0.1 bar. High chemical resistance, the medium only comes into contact with PTFE. Filter-membrane pore size 2.5 µm. Temperature stable from -200 to +250 °C.

Thread	Ø Membrane (mm)	Art. No.	Pack Qty.	€
GL 14	12	**NX61.1**	1 unit(s)	9,90
GL 18	16	**NX62.1**	1 unit(s)	10,90
GL 25	23	**NX63.1**	1 unit(s)	14,25
GL 32	29	**NX64.1**	1 unit(s)	32,70
GL 45	45	**NX65.1**	1 unit(s)	46,05

❄❄❄

Dispensers GL 45

Bohlender. Material: PTFE with screw cap made of PPS.

Free rotating dispenser with stopcock and vent for controlled and safe pouring of aggressive or highly pure liquids. Surfaces are chemically inert, hydrophobic, anti-adhesive and therefore easy to clean. Temperature stable from -20 to +230 °C.

Delivery incl. slip cap made of PTFE to close the outlet.

Thread	Ø Outlet (mm)	Art. No.	Pack Qty.	€
GL 45	4	**NT22.1**	1 unit(s)	150,50

Thread adapter for dispensers with GL 45 thread

ROTH SELECTION.

Suitable for	Materialspecification	Art. No.	Pack Qty.	€
Containers with S 38-430 thread (e.g. AE00.3, HN44.3, HN60.3, HN54.1)	PTFE	**KY68.1**	1 unit(s)	64,25
Containers with GL 40 thread	Fluorinated rubber	**P321.1**	1 unit(s)	24,25

Bottle multi-dispensers

121 °C DURAN WHEATON KIMBLE

Multiple distributor for bottles GL 45 with connectors

DWK Life Sciences. Material: PP. Autoclavable: Yes.

Features two continuous connectors, angled at the top to prevent kinking of tubes. Withstands temperatures up to +140 °C, dishwasher safe.

- Safe transfer of liquid media within closed systems
- The core rotates freely and allows a container to be replaced without twisting the fixed tubes
- Ideal for use with soft elastic tubes with ID 6-9 mm (Viton®, Tygon®, Silicone), e.g. when using peristaltic pumps
- Pressure equalisation filter attachment available as an option

For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
6-9	GL 45	**PY86.1**	2 unit(s)	50,75

Accessories pressure equalisation filter attachment

DWK Life Sciences.

Suitable for multiple distributor for GL 45 bottles with connectors.

Art. No.	Pack Qty.	€
PY87.1	2 unit(s)	46,10

121 °C

Multiple distributor for bottles GL 45 with connectors

Bohlender. Material: PP. Autoclavable: Yes.

With curved connectors at the top and straight connectors at the bottom. Temperature stability -20 to +110 °C.

Number of connections	For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
2	7-11	GL 45	**NP98.1**	1 unit(s)	43,95
3	6-9	GL 45	**NP99.1**	1 unit(s)	56,25

121 °C DURAN WHEATON KIMBLE

Multiple distributor for bottles DURAN® GL 45 with stainless steel connectors

DWK Life Sciences. Autoclavable: Yes.

Screw cap made of PBT with silicone seal (platinum coated, USP <88> Class VI) and connections and centre part made of stainless steel (type 316L or 1.4404 / S31603).
Sturdy hose connection system for laboratory bottles with a GL 45 thread for the transfer of liquids in closed or sterilised systems. Connections for flexible hoses with inner Ø 8 mm. Freely rotating centre part enables bottles to be replaced without twisting the hoses. Temperature stability up to +180 °C. With retrace code.

Version	For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
With 1 stainless steel connector	8	GL 45	**KCL5.1**	1 unit(s)	208,00
With 2 stainless steel connectors	8	GL 45	**KCL6.1**	1 unit(s)	206,00
With 3 stainless steel connectors	8	GL 45	**KCL7.1**	1 unit(s)	206,00

121 °C DURAN WHEATON KIMBLE

Screw coupling

DWK Life Sciences. Material: PBT. Autoclavable: Yes.

With GL threads and silicone seal, flexible and freely rotatable. Autoclavable, temperature stable from -45 to +180 °C.

Thread	Art. No.	Pack Qty.	€
GL 14	**LL41.1**	1 unit(s)	18,55
GL 18	**LL42.1**	1 unit(s)	20,60
GL 25	**LL43.1**	1 unit(s)	24,70
GL 32	**LL44.1**	1 unit(s)	29,30
GL 45	**PY98.1**	1 unit(s)	41,95

Bottle multi-dispensers

121 °C

DURAN WHEATON KIMBLE

Multiple distributor for bottles GL 25 with connectors

DWK Life Sciences. Material: PBT, PTFE insert with stainless steel connectors. Autoclavable: Yes.

With 2, 3 or 4 connections, suitable for hose inner Ø 3.2 mm. For GL 25 glass threaded bottles (10 ml or 25 ml).
Suitable for medium preparation for small bioreactors, for cell cultures with perfusion circuit, for fed-batch-bioreactors and for oxygenation/ ventilation of very small sample volume.
Temperature stable up to 180 °C.

Delivery without GL 25 laboratory glass bottle, please order separately.

Number of connections	For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
2	3,2	GL 25	**EXK7.1**	1 unit(s)	46,10
3	3,2	GL 25	**EXK8.1**	1 unit(s)	47,95
4	3,2	GL 25	**EXK9.1**	1 unit(s)	49,50

121 °C

DURAN WHEATON KIMBLE

HPLC bottle with multiple distributor

DWK Life Sciences. Material: DURAN® glass, cap made of PP, sealing inserts made of silicone. Autoclavable: Yes.

Vacuum and pressure resistant. With retrace code. Suitable for the safe transfer of liquids, e.g. for loading HPLC machines. The sealing insert is freely rotatable and prevents hoses from twisting when changing the bottle.

Delivery incl. HPLC screw cap (GL 45, four metric M8 threaded necks) with hose connection set (each set includes 4 silicone sealing inserts for hose of Ø 1.6 mm and Ø 3.2 mm, 4 silicone closure seals and 4 screw caps with hole). Pressure equalisation set; please order separately, if required.

Version	Art. No.	Pack Qty.	€
HPLC bottle 500 ml	**KY94.1**	2 unit(s)	97,50
HPLC bottle 1000 ml	**KY93.1**	2 unit(s)	102,60

121 °C

Multiple distributor for bottles GL 45

Autoclavable: Yes.

GL 45 screw cap with 2 or 3 GL 14 threaded necks. Suitable for the transfer of liquids, e.g. for loading a HPLC machine with solvents or for use in titration systems. Also usable as a Woulff bottle. Hoses with an outer Ø of between 1.6 and 6.0 mm can be attached to the multiple distributor for bottles by means of a GL 14 laboratory screw joints. The sealing insert is freely rotatable and prevents hoses from twisting when changing the bottle.

Delivery without bottles, laboratory screw joints and pressure equalisation set; please order separately.

Insert and screw cap made of PP

Material: PP. Good chemical resistance, temperature stable from -40 to +140 °C.

Number of connections	Thread	Art. No.	Pack Qty.	€
2	GL 45	**HX84.1**	2 unit(s)	48,10
3	GL 45	**HX85.1**	2 unit(s)	51,45

Insert made of PFA

Material: PFA Screw cap made of polyphenylene sulphide. Universally applicable, chemically inert and temperature stable from -20 to +230 °C.

Number of connections	Thread	Art. No.	Pack Qty.	€
2	GL 45	**K094.1**	1 unit(s)	102,75

Insert made of PTFE

Material: PTFE Screw cap made of polyphenylene sulphide. Universally applicable, chemically inert and temperature stable from -20 to +230 °C.

Number of connections	Thread	Art. No.	Pack Qty.	€
3	GL 45	**K095.1**	1 unit(s)	142,30

121 °C

DURAN WHEATON KIMBLE

Laboratory screw joints GL 14

DWK Life Sciences. Material: PP, Inserts made of PTFE with silicone ring. Autoclavable: Yes.

Each consists of 2 GL 14 threaded caps and 2 inserts for varying hose diameters.

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
1.6	GL 14	**HX86.1**	2 unit(s)	27,85
3.0	GL 14	**HX87.1**	2 unit(s)	27,85
3.2	GL 14	**HX88.1**	2 unit(s)	27,85
6.0	GL 14	**HX89.1**	2 unit(s)	27,85

Bottle multi-dispensers

121 °C

Multiple distributor for bottles GLS 80

Autoclavable: Yes.

GLS 80 screw cap with four GL 18 threaded necks. Suitable for the transfer of liquids, e.g. for loading HPLC machines with solvents or for use in titration systems. Also usable as a Woulff bottle. Hoses with an outer Ø of between 3.2 and 12.0 mm can be attached to the multiple distributor for bottles by means of GL 18 laboratory screw joints.

Delivery without bottles, laboratory screw joints and pressure equalisation set; please order separately.

Insert and screw cap made of PP
Material: PP. Temperature stability -40 to +140 °C.

Number of connections	Thread	Art. No.	Pack Qty.	€
4	GLS 80	**KE52.1**	1 unit(s)	60,95

Insert made of PTFE
Material: PTFE PP screw caps. Temperature stability 0 to +110 °C.

Number of connections	Thread	Art. No.	Pack Qty.	€
4	GLS 80	**NY20.1**	1 unit(s)	114,35

121 °C

DURAN WHEATON KIMBLE

Laboratory screw joints GL 18

DWK Life Sciences. Material: PP, Inserts made of PTFE with silicone ring. Autoclavable: Yes.

Each consists of 2 GL 18 threaded caps and 2 inserts for varying hose diameters.

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
3.2	GL 18	**KE53.1**	2 unit(s)	34,80
6.0	GL 18	**KE54.1**	2 unit(s)	34,80
8.0	GL 18	**KE55.1**	2 unit(s)	35,35
10.0	GL 18	**KE56.1**	2 unit(s)	35,35
12.0	GL 18	**KE57.1**	2 unit(s)	34,80

NEW / +

121 °C

HPLC screw cap b.safe GL 45

Bohlender. Material: PPS, PTFE, PFA. Autoclavable: Yes.

Screw cap for GL 45 bottle thread made of PPS with freely rotating distributor body made of PTFE, selectable with two, three or four connections. Connections with UNF ¼″ 28G inner thread for connecting PFA-fittings for hoses (external diameter 3.2 mm), PFA dummy stoppers for the closure of unnecessary connections or a venting valve with change indicator. Temperature resistance: -20 to +200 °C.

- For removing solvents for HPLC
- Freely rotating distributor bodies, prevents the hoses twisting when replacing the bottle
- Using the fittings, hoses can be introduced up to the base of the bottle; conical nipple clamps the hose and seals reliably at the connection
- The venting valve is specially adapted to the flow rates in HPLC; integrated non-return valve prevents the evaporation of solvents and lets ambient air flow into the bottle in the event of a vacuum. The upstream membrane made of porous PTFE effectively keeps out dirt particles and other contaminations from outside
- Venting valve with change indicator after activation at the press of a button and with labelling area

With two connections

Delivery incl. 1 x fitting (PFA) and 1 x venting valve with change-indicator.

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
2	3.2	UNF ¼″ G28	**1HPC.1**	1 unit(s)	67,30

With three connections

Delivery incl. 2 x fittings (PFA), 1 x dummy stopper (PFA) and 1 x venting valve with change indicator.

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
3	3.2	UNF ¼″ G28	**1HPA.1**	1 unit(s)	77,25

With four connections

Delivery incl. 3 x fittings (PFA), 2 x dummy stoppers (PFA) and 1 x venting valve with change indicator.

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
4	3.2	UNF ¼″ G28	**1HP9.1**	1 unit(s)	80,25

Bottle multi-dispensers

NEW / +

A 121 °C

HPLC screw caps starter box b.safe GL 45

Bohlender. Material: PPS, PTFE, PFA. Autoclavable: Yes.

Initial equipment box for HPLC with four HPLC b.safe screw caps made of PPS each, with freely rotating distributor heads made of PTFE, for GL 45 bottle thread. Selectable with two, three or four connections. The items supplied also include PFA fittings for easy connection of transfer hoses (external diameter 3.2 mm), dummy stoppers made of PFA for the closure of unnecessary connections and venting valves with change indicator. Every starter box allows undisturbed HPLC eluent removal from up to four supply bottles with GL 45.
Temperature resistance: -20 to +200 °C.

Starter box 1

Contents:

- 3 x HPLC GL 45 b.safe screw caps with two connections each (UNF ¼″ 28G)
- 1 x HPLC GL 45 b.safe screw caps with three connections (UNF ¼″ 28G)
- 4 x venting valve with change indicator
- 5 x PFA fittings (yellow) for external hose Ø 3.2 mm
- 1 x PFA dummy stopper (white)

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
2/3	3.2	UNF ¼″ G28	**1HPP.1**	1 unit(s)	253,70

Starter box 2

Contents:

- 4 x HPLC GL 45 b.safe screw caps with three connections each (UNF ¼″ 28G)
- 4 x venting valve with change indicator
- 8 x PFA fittings (yellow) for external hose Ø 3.2 mm
- 4 x PFA dummy stoppers (white)

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
3	3.2	UNF ¼″ G28	**1HPX.1**	1 unit(s)	284,90

Starter box 3

Contents:

- 4 x HPLC GL 45 b.safe screw cap with four connections each (UNF ¼″ 28G)
- 4 x venting valve with change indicator
- 12 x PFA fittings (yellow) for external hose Ø 3.2 mm
- 8 x PFA dummy stoppers (white)

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
4	3.2	UNF ¼″ G28	**1HPT.1**	1 unit(s)	316,05

NEW / +

HPLC flushing bottle distributor b.safe

Bohlender. Material: PPS, PP, PFA.

GL 45 flushing bottle distributor made of PPS, GLS 80 flushing bottle distributor made of PP. Each with freely rotating distributor head made of PP with four side connections (GL 45) appropriate for HPLC GL 45 b.safe screw caps. Distributor heads are additionally provided with three central capillary openings each (UNF ¼″ 28G). Temperature resistance: 0 to +110 °C.

Application:
Flushing the HPLC system without contamination or loss of solvents. For this, a distributor head is placed on a flushing bottle, the HPLC b.safe screw caps are removed from the eluent bottles and these are installed on the connections of the flushing bottle distributor. Passage at the distributor neck is sufficiently measured so that the capillary hoses installed on the HPLC screw cap along with filter can be introduced into the flushing bottle. With the GL 45 flushing bottle distributor, the use of intake filters that are as small as possible (max. Ø 14 mm) makes introducing the capillaries through the bottle neck easier. Should a connection of the flushing bottle distributor not be used, this can be closed with a GL 45 screw cap. The escape of solvent vapours that are hazardous to health or a contamination of the flushing solution with ambient air is prevented by the HPLC b.safe screw caps with venting valve. In addition, the flushing bottle distributor can also be used directly for rear flask and needle seat flushing. For this, connect the desired capillaries and a venting valve to the central capillary connections using fittings.

Delivery incl. 3 x PFA dummy stoppers (white).

Version	Number of connections	Thread	Art. No.	Pack Qty.	€
Four flushing head connections (GL 45)	3 (UNF ¼″ 28G)	GL 45	**1HPY.1**	1 unit(s)	245,10
Four flushing head connections (GL 45)	3 (UNF ¼″ 28G)	GLS 80	**1HT0.1**	1 unit(s)	262,30

NEW/+

A 121 °C

HPLC screw cap b.safe Waste Cap GL 45

Bohlender. Material: PPS, PTFE, PFA. Autoclavable: Yes.

Screw cap made of PPS for GL 45 threads with freely rotating distributor element made of PTFE. Available with 3, 2 or 4 capillary connections with UNF ¼″ 28G internal thread for connecting PFA fittings for Ø capillary hoses (external Ø 1.6 mm (green)/2.2 mm (purple)/3.2 mm (yellow)). With PFA dummy stopper (white) to seal capillary connections that are not needed. Depending on the version, with 1 x hose connector (NPT ⅛″ thread) for hose internal Ø 5.5-8 mm. 1 x connection (GL 14 thread) to screw in a b.safe exhaust air filter. Temperature resistance: -20 to +200 °C.

- For safe disposal of waste solvents without leaks of harmful solvent vapours
- Freely rotating distributor bodies, prevents the hoses twisting when replacing the collecting bottle
- Using the fittings, hoses can be easily introduced into the collecting container; conical nipple clamps the hose and reliably seals at the connection
- Large quantities of fluid can optionally be disposed of by connecting hoses with internal Ø 5.5-8 mm, via the hose connectors
- Suitable exhaust air filter available as an option; its activated carbon filling binds harmful solvent vapours

Type A: 3 x capillary connection (UNF ¼″ 28G), 1 x exhaust air filter connection (GL 14)

Delivery incl. PFA fittings: 3 x 1.6 mm, 3 x 2.2 mm, 3 x 3.2, 2 x PFA dummy stopper. **Delivery without** exhaust air filter, please order separately.

Version	Number of connec-tions	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
Without hose-connector	3	1.6 mm/ 2.2 mm/ 3.2	UNF ¼″ G28	**1HT3.1**	1 unit(s)	76,45

Type B: 2 x capillary connection (UNF ¼″ 28G), 1 x hose connector (NPT ⅛″), 1 x exhaust air filter connection (GL 14)

Delivery incl. PFA fittings: 2 x 1.6 mm, 2 x 2.2 mm, 2 x 3.2 mm, 1 x hose connector (NPT ⅛″) 2 x PFA dummy stopper. **Delivery without** exhaust air filter, please order separately.

Version	Number of connec-tions	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
With hose connector (Ø 5.5-8 mm)	2	1.6 mm/ 2.2 mm/ 3.2	UNF ¼″ G28	**1HT4.1**	1 unit(s)	67,40

Type C: 4 x capillary connection (UNF ¼″ 28G), 1 x hose connector (NPT ⅛″), 1 x exhaust air filter connection (GL 14)

Delivery incl. PFA fittings: 4 x 1.6 mm, 4 x 2.2 mm, 4 x 3.2 mm, 1 x hose connector (NPT ⅛″), 3 x PFA dummy stopper. **Delivery without** exhaust air filter, please order separately.

Version	Number of connec-tions	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
With hose connector (Ø 5.5-8 mm)	4	1.6 mm/ 2.2 mm/ 3.2	UNF ¼″ G28	**1HT5.1**	1 unit(s)	117,25

NEW/+

Accessories for b.safe Waste Cap HPLC screw cap b.safe exhaust air filter

Bohlender. Material: PP, PE and activated carbon.

Filter housing made of PP with connection (GL 14 thread) suitable for b.safe Waste Cap HPLC screw caps. Lid with integrated splash-proof ventilation openings and change indicator with labelling area for monitoring service life. The activated carbon filling is protected with two filter membranes made of porous PE. The exhaust air can circulate unobstructed around the activated carbon at the same time, so that the solvent components are reliably absorbed by the activated carbon and only filtered exhaust air escapes into the surrounding area via the ventilation openings. Temperature resistance: 0 to +110 °C.

Small
Service life three months, for up to five litres of capacity

Version	Thread	Art. No.	Pack Qty.	€
Small	GL 14	**1HX5.1**	2 unit(s)	98,20

Medium
Service life six months, for up to 5-10 litres of capacity

Version	Thread	Art. No.	Pack Qty.	€
Medium	GL 14	**1HX6.1**	2 unit(s)	149,75

Large
Service life six months, for more than 10 litres of capacity

Version	Thread	Art. No.	Pack Qty.	€
Large	GL 14	**1HX7.1**	2 unit(s)	223,60

Bottle multi-dispensers

NEW / +

A 121 °C

Accessories for b.safe HPLC screw caps b.safe venting valve

Bohlender. Material: PP, PTFE. Autoclavable: Yes.

Valve housing made of PP with threaded connection (UNF ¼″ 28G) suitable for b.safe HPLC screw caps. Lid with ventilation opening and Luer-Lock fitting, integrated non-return valve with upstream membrane made of porous PTFE (1 µm). Includes attachable change indicator.

Application:
The b.safe venting valve is specially adapted to the volume flow in HPLC. The integrated non-return valve prevents evaporation of solvents and allows ambient air to flow into the bottle if there is a vacuum. The upstream membrane made of porous PTFE keeps out dirt particles and other contaminations from outside. The clip-on change indicator enables six-month monitoring of service life: Activate the change indicator by pressing the button and replace the valve when the display is completely red.

Version	Thread	Art. No.	Pack Qty.	€
Suitable for b.safe HPLC screw caps	UNF ¼″ G28	**1HT1.1**	2 unit(s)	36,95

NEW / +

A 121 °C

Accessories for b.safe Waste Cap HPLC screw cap b.safe corrugated hose coupling

Bohlender. Material: PP, FEP. Autoclavable: Yes.

Three-piece coupling comprising coupling, locknut made of PP and clamping ring made of FEP. Corrugated hose coupling to connect hard-walled corrugated hoses to the b.safe Waste Cap HPLC screw cap via the NPT ⅛″ threaded connection. Locknut with ergonomic gripping surfaces, additional recessed grips with SW10 at the coupling. Temperature stable: 0 to +110 °C.
Select the b.safe corrugated hose coupling suitable for the hoses of your HPLC. Corrugated hoses with 6.5 mm internal Ø, for example, are included with devices from Agilent Technologies; corrugated hoses with 8.5 mm internal Ø, for example, with devices from Thermo Scientific.

For hoses with outer Ø (mm)	Art. No.	Pack Qty.	€
6,5	**1HXA.1**	1 unit(s)	44,55
8,5	**1HXC.1**	1 unit(s)	44,55

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Bottle multi-dispensers

HPLC cap GL 45

Bohlender. Material: PTFE, Screw cap made of PPS, stopcocks (optional) with cock plug made of FEP.

Connections with UNF ¼″ 28G internal thread on top and bottom for attaching connecting hoses. Freely rotatable distributor element, cap can be screwed on and off without twisting the hoses. Excellent chemical resistance, Temperature stability -50 to +200 °C.

Delivery without connecting hoses, please order separately.

Connections without stopcocks

Number of connections	For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
2	1.6	0,8	GL 45	**NX21.1**	1 unit(s)	60,00
2	3.2	1,6	GL 45	**NX25.1**	1 unit(s)	57,55
4	1.6	0,8	GL 45	**NX22.1**	1 unit(s)	68,75
4	3.2	1,6	GL 45	**NX26.1**	1 unit(s)	70,25

Connections with stopcocks

Number of connections	For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
2	1.6	0,8	GL 45	**NX23.1**	1 unit(s)	120,00
2	3.2	1,6	GL 45	**NX27.1**	1 unit(s)	78,75
3	1.6	0,8	GL 45	**NX24.1**	1 unit(s)	139,40
3	3.2	1,6	GL 45	**NX28.1**	1 unit(s)	149,90

HPLC connecting hose

Bohlender. Material: PTFE, Banjo screw made of PP, thrust washers made of PA.

Flanged hoses with preassembled black banjo screws, UNF ¼″ 28G, and thrust washers. Ready to use straight from the box, no need for time-consuming assembly in the lab. Temperature stable from -50 to +120 °C, pressure resistant up to 30 bar.

Inner x outer Ø 0.8 x 1.6 mm (1/32″ x 1/16″)

Ø Internal (mm)	Ø ext. (mm)	Total length (mm)	Art. No.	Pack Qty.	€
0.8	1.6	100	**NX29.1**	1 unit(s)	16,45
0.8	1.6	250	**NX30.1**	1 unit(s)	17,05
0.8	1.6	500	**NX31.1**	1 unit(s)	18,20
0.8	1.6	750	**NX32.1**	1 unit(s)	21,40
0.8	1.6	1,000	**NX33.1**	1 unit(s)	19,10

Inner x outer Ø 1.6 x 3.2 mm (1/16″ x 1/8″)

Ø Internal (mm)	Ø ext. (mm)	Total length (mm)	Art. No.	Pack Qty.	€
1.6	3.2	100	**NX34.1**	1 unit(s)	14,55
1.6	3.2	250	**NX35.1**	1 unit(s)	15,10
1.6	3.2	500	**NX36.1**	1 unit(s)	16,10
1.6	3.2	750	**NX37.1**	1 unit(s)	17,60
1.6	3.2	1,000	**NX38.1**	1 unit(s)	18,10

Bottle multi-dispensers

HPLC screw

Bohlender.

Dummy screws

Material: PTFE. With UNF ¼″ 28G external thread. For sealing unused HPLC distributor cap connections. Temperature stable from -200 to +260 °C.

For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Colour	Art. No.	Pack Qty.	€
1.6	0.8	white	**NX39.1**	10 unit(s)	57,60
3.2	1.6	white	**NX40.1**	10 unit(s)	57,60

Banjo screws made of PP

Material: PP with thrust washers made of PA. With UNF ¼″ 28G external thread. Temperature stable from -10 to +100 °C.

For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Colour	Art. No.	Pack Qty.	€
1.6	0.8	black	**NX43.1**	10 unit(s)	31,80
1.6	0.8	white	**NX44.1**	10 unit(s)	15,35
1.6	0.8	red	**NX45.1**	10 unit(s)	14,05
3.2	1.6	black	**NX46.1**	10 unit(s)	14,10
3.2	1.6	white	**NX47.1**	10 unit(s)	14,60
3.2	1.6	red	**NX48.1**	10 unit(s)	13,90

Banjo screws made of PTFE

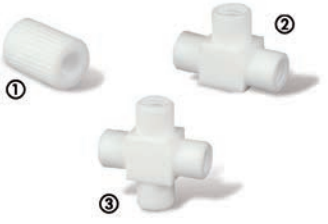
Material: PTFE with thrust washers made of PA. With UNF ¼″ 28G external thread. Temperature stable from -200 to +260 °C.

For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Colour	Art. No.	Pack Qty.	€
1.6	0.8	white	**NX41.1**	10 unit(s)	65,45
3.2	1.6	white	**NX42.1**	10 unit(s)	64,75

HPLC screw coupling

Bohlender. Material: PTFE.

With UNF ¼″ 28G internal thread. For connecting or extending HPLC connecting hoses.



❄❄❄

Version	Number of connections	For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
straight	2	1.6	0.8	**NX49.1**	1 unit(s)	9,95
straight	2	3.2	1.6	**NX50.1**	1 unit(s)	9,95
T-shape	3	1.6	0.8	**NX51.1**	1 unit(s)	33,45
T-shape	3	3.2	1.6	**NX52.1**	1 unit(s)	37,10
X-shape	4	1.6	0.8	**NX53.1**	1 unit(s)	47,00
X-shape	4	3.2	1.6	**NX54.1**	1 unit(s)	44,55

Laboratory screw joint HT (high-temperature)

Bohlender. Material: PPS, FKM, PTFE.

Screw cap (PPS, black) with interior comprising clamping ring (PPS), sealing wedge and sealing plate (both made of PTFE) and additional O-ring (FKM) for screwed connections for hose outer Ø smaller than 3 mm (without coming into contact with flow medium).
High chemical resistance since medium only comes into contact with PTFE. Temperature stable -50 °C up to +250 °C.
Pressure stable up to max. 10 bar, suitable for use in a vacuum.

Application

For connecting apparatus and fittings with GL thread to hard-walled hoses made of glass, plastic or metal. For fixing in place probes, thermometers, immersion tubes and cable feeds that have been inserted in reaction vials.

Delivery incl. screw cap, clamping ring, sealing wedge and sealing plate, as well as additional O-ring for laboratory screw joints for hose outer Ø smaller than 3 mm.

Thread GL 14

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
0.8	GL 14	**KKN3.1**	1 unit(s)	45,40
1.0	GL 14	**KKN4.1**	1 unit(s)	42,10
1.6	GL 14	**KKN5.1**	1 unit(s)	28,30
2.0	GL 14	**KKN6.1**	1 unit(s)	28,35
3.0	GL 14	**KKN7.1**	1 unit(s)	23,10
3.2	GL 14	**KKN8.1**	1 unit(s)	21,00
4.0	GL 14	**KKN9.1**	1 unit(s)	23,65
5.0	GL 14	**KKP0.1**	1 unit(s)	36,45
6.0	GL 14	**KKP1.1**	1 unit(s)	22,80
6.35	GL 14	**KKP2.1**	1 unit(s)	34,70
8.0	GL 14	**KKP3.1**	1 unit(s)	34,10

Thread GL 18

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
1.6	GL 18	**KKP4.1**	1 unit(s)	50,35
2.0	GL 18	**KKP5.1**	1 unit(s)	38,55
3.0	GL 18	**KKP6.1**	1 unit(s)	25,00
3.2	GL 18	**KKP7.1**	1 unit(s)	28,40
4.0	GL 18	**KKP8.1**	1 unit(s)	27,45
6.0	GL 18	**KKP9.1**	1 unit(s)	21,05
6.35	GL 18	**KKT0.1**	1 unit(s)	61,50
8.0	GL 18	**KKT1.1**	1 unit(s)	23,85
9.52	GL 18	**KKT2.1**	1 unit(s)	59,45
10.0	GL 18	**KKT3.1**	1 unit(s)	24,95

Thread GL 25

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
1.6	GL 25	**KKT4.1**	1 unit(s)	49,60
2.0	GL 25	**KKT5.1**	1 unit(s)	48,30
3.0	GL 25	**KKT6.1**	1 unit(s)	58,65
3.2	GL 25	**KKT7.1**	1 unit(s)	60,20
4.0	GL 25	**KKT8.1**	1 unit(s)	39,75
6.0	GL 25	**KKT9.1**	1 unit(s)	35,10
6.35	GL 25	**KKX0.1**	1 unit(s)	60,70
8.0	GL 25	**KKX1.1**	1 unit(s)	32,90
9.52	GL 25	**KKX2.1**	1 unit(s)	62,80
10.0	GL 25	**KKX3.1**	1 unit(s)	37,00

Connecting piece GL

Bohlender. Material: PTFE.

With GL thread. Unlimited chemical resistance since medium only comes into contact with PTFE. Temperature stable from -200 °C to +250 °C. Pressure stable up to max. 10 bar, suitable for use in a vacuum.

Application

For the distribution of liquids or gases. As a reducer for connecting various tube and hose outer Ø.

Delivery without laboratory screw joints. Please order separately.

Straight

Two connections with GL thread

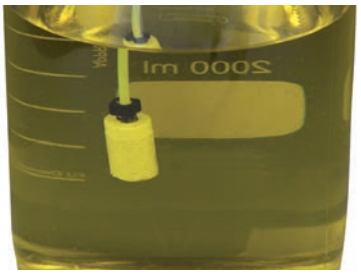
Thread	Ø Hole (mm)	Total length (mm)	Width across flats	Art. No.	Pack Qty.	€
GL 14	6.5	50	Hexagon, 15 mm	**KKX4.1**	1 unit(s)	31,05
GL 18	10.5	50	Hexagon, 19 mm	**KKX5.1**	1 unit(s)	29,20

T-shape

Three connections with GL thread

Thread	Ø Hole (mm)	Height (mm)	Total length (mm)	Width across flats	Art. No.	Pack Qty.	€
GL 14	6.5	37	54	Hexagon, 20 mm	**KKX6.1**	1 unit(s)	42,10
GL 18	10.5	39	56	Hexagon, 20 mm	**KKX7.1**	1 unit(s)	48,15

Bottle multi-dispensers



HPLC intake filter

Bohlender. Material: PTFE.

Filter cartridge holder with UNF ¼″ 28G internal thread with replaceable filter cartridge made of porous PTFE. Protects HPLC-systems, pumps, seals, pistons and membranes against contamination by particles or crystallising residues. Filter-Ø 14 mm. Filter length 25 mm.

Delivery without connecting hose (Art. No. NX29.1 ff or . NX34.1 ff); please order separately.

For hoses with inner Ø (mm)	Pore size (µm)	Art. No.	Pack Qty.	€
0,8 mm (1/32″)	2	**NX55.1**	1 unit(s)	95,25
0,8 mm (1/32″)	10	**NX57.1**	1 unit(s)	68,30
1,6 mm (1/16″)	2	**NX56.1**	1 unit(s)	102,85
1,6 mm (1/16″)	10	**NX58.1**	1 unit(s)	72,75

Multiple distributor for bottles

Bohlender. Material: PE Screw cap, Distributor body made of PTFE.

Excellent chemical resistance, temperature stable from -50 °C to +80 °C.

Application

For drawing and filling aggressive or pure liquids and for inserting hoses, tubes and probes into carboys or vacuum bottles by the manufacturer Nalgene® with thread types 53 B or 83 B.

Delivery without HT laboratory screw joints with GL thread, please order separately.

Suitable for Nalgene® 53 B thread

Number of connections	Thread	Art. No.	Pack Qty.	€
2	GL 14	**KKL2.1**	1 unit(s)	67,10

Suitable for Nalgene® 83 B thread

Number of connections	Thread	Art. No.	Pack Qty.	€
3 / 1	GL 18 / GL 25	**KKL3.1**	1 unit(s)	102,50

Multiple distributor for barrels

Bohlender. Screw cap made of PTFE glass fibre..

Suitable for barrels and bins with internal thread. Movable distributor body with GL connecting necks made of PTFE. Very high chemical resistance since medium only comes into contact with PTFE. Temperature-stable from -20 °C to +200 °C.
Pressure-stable up to max. 1 bar, suitable for use in a vacuum.

Application

For drawing and filling aggressive or pure liquids and for inserting hoses, tubes and probes into barrels.

Delivery without HT laboratory screw joints with GL thread, please order separately.

For barrel inner thread R2″/G2″/BSP 2″

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
3	8	GL 14	**KKL4.1**	1 unit(s)	273,05
4	10	GL 18	**KKL5.1**	1 unit(s)	354,75
2 / 1	2x10 / 1x14	GL 18 / GL 25	**KKL6.1**	1 unit(s)	331,10

For Mauser 2" barrel inner thread

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
4	10	GL 18	**KKL7.1**	1 unit(s)	322,50
2 / 1	2x10 / 1x14	GL 18 / GL 25	**KKL8.1**	1 unit(s)	334,35

For Tri-Sure 2" barrel inner thread

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
3	8	GL 14	**KKL9.1**	1 unit(s)	275,20
4	10	GL 18	**KKN0.1**	1 unit(s)	331,10
2 / 1	2x10 / 1x14	GL 18 / GL 25	**KKN1.1**	1 unit(s)	338,65

Barrel aeration

Bohlender. Material: PTFE Basic body suitable for R¾″ internal thread, with GL32 cap thread, with PTFE/silicone gasket and replaceable filter membrane (pore size 2.5 µm) made of PTFE, screw cap made of PPS.

High chemical resistance, the medium only comes into contact with PTFE. Membrane outer Ø 29, membrane thickness approx. 0.2 mm. Temperature stability from -20 °C to +230 °C, autoclavable.
Pressure compensation from 0.1 bar differential pressure.

Maximum flow rate:
· At 0.5 bar differential pressure: 80 l/h
· At 1.0 bar differential pressure: 320 l/h

Application

For pressure compensation during liquid removal or when filling containers. The integrated filter membrane prevents contamination of the medium with dust or dirt particles.

Version	Art. No.	Pack Qty.	€
Barrel aeration	**KKN2.1**	1 unit(s)	65,90

Stirrer reactors

A 121 °C

DURAN WHEATON KIMBLE

Stirrer reactor sets

DWK Life Sciences. Material: PP, PTFE, PEEK, Stainless steel, DURAN® glass. Autoclavable: Yes.

Significantly better mixing compared to standard magnetic stir bars. Suitable for mixing solutions, dissolving solids and fermentation processes. Driven by a magnetic stirrer. An additional media bottle or a sterile pressure equaliser can be connected using the DURAN® connector system.

- Materials used: PP/PTFE/PEEK/stainless steel/DURAN® glass
- Parts in direct contact with media are FDA-compliant
- Speed range up to 500 rpm
- System is fully autoclavable
- Temperature-stable up to +140 °C

Thread GL 45

- 2 GL 14 connections
- Variable stirrer shaft, fits 500 ml and 1000 ml DURAN® GL 45 threaded bottles
- Compatible with the DURAN® connector system
- Connection of hoses with Ø 1.6 to 6.0 mm possible

Delivery incl. 500-ml or 1000-ml DURAN® threaded bottle GL 45, 2-port GL 45 screw joint PP with magnetic folding stirrer and 2 x GL 14-screw cap (PBT, red). Matching laboratory screw connections HX86.1-HX89.1, please order separately.

Version	Thread	Art. No.	Pack Qty.	€
Stirrer reactor set 1000 ml	GL 45	**PK86.1**	1 unit(s)	276,00
Stirrer reactor set 500 ml	GL 45	**PK85.1**	1 unit(s)	266,00

Thread GLS 80

- 4 connections: 2 x GL 18, 2 x GL 14
- Variable stirrer shaft, fits 1000 ml and 2000 ml DURAN® GLS 80 wide-neck threaded bottles
- Interchangeable stirrer element (anchor stirrer is standard, impeller stirrer is optional)
- Compatible with the DURAN® connector system
- Connection of hoses with Ø 1.6 to 12.0 mm possible

Delivery incl. 1000 ml or 2000 ml DURAN ®GLS 80 wide-neck threaded bottle, GLS 80 4-port screw joint made of PP with magnetic anchor stirrer and GL 14 screw joint (PP, blue), 2 x GL 14 and 2 x GL 18 screw cap (PBT, red). Matching laboratory screw connections HX86.1-HX89.1 and KE53.1-KE57.1, please order separately.

Version	Thread	Art. No.	Pack Qty.	€
Stirrer reactor set 1000 ml	GLS 80	**PK87.1**	1 unit(s)	283,00
Stirrer reactor set 2000 ml	GLS 80	**PK88.1**	1 unit(s)	291,00

A 121 °C

DURAN WHEATON KIMBLE

Laboratory screw joints GL 14

DWK Life Sciences. Material: PP, Inserts made of PTFE with silicone ring. Autoclavable: Yes.

Each consists of 2 GL 14 threaded caps and 2 inserts for varying hose diameters.

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
1.6	GL 14	**HX86.1**	2 unit(s)	27,85
3.0	GL 14	**HX87.1**	2 unit(s)	27,85
3.2	GL 14	**HX88.1**	2 unit(s)	27,85
6.0	GL 14	**HX89.1**	2 unit(s)	27,85

A 121 °C

Triple neck culture bottles

Bohlender. Material: Borosilicate glass 3.3, Screw cap made of PP/glass fibre (centre neck) and PPS (side necks). With height-adjustable stirrer insert made of PTFE and stainless steel. Autoclavable: Yes.

For gentle mixing of cell cultures. High chemical resistance, fully autoclavable. Hoses, probes or sensor probes can be inserted into the side necks. The drive is produced using commercially available magnetic stirrers (max. speed 1,000 rpm) centre neck thread GL 45, inside-Ø 30 mm.

Usable volume (ml)	Thread	Side neck thread	Art. No.	Pack Qty.	€
50	GL 45	GL 14	**NY29.1**	1 unit(s)	182,75
125	GL 45	GL 18	**NY30.1**	1 unit(s)	204,25

Desiccators

Desiccator ROTILABO® glass

ROTH SELECTION. Material: Borosilicate glass 3.3.
Suitable for simple applications and a slight vacuum.

Delivery incl. glass desiccator stopcock, plastic cap with hole (9 mm) and perforated plate made of porcelain.

Type	Nominal volume (l)	Outer flange Ø (mm)	Ø Lower (mm)	Total height (mm)	Art. No.	Pack Qty.	€
DN 100	0.6	151	90	169	**NX07.1**	1 unit(s)	99,25
DN 150	1.5	210	140	201	**NX08.1**	1 unit(s)	132,60
DN 200	4.0	269	190	269	**NX09.1**	1 unit(s)	138,60
DN 250	8.0	329	240	320	**NX10.1**	1 unit(s)	194,60
DN 300	12.5	392	290	341	**NX11.1**	1 unit(s)	264,45

Desiccator base DURAN®

DWK Life Sciences. Material: DURAN® glass.
With flat flange. Thanks to precise machining, parts such as lids, bases, stopcocks and caps can be interchanged as many times as necessary on DURAN® desiccators of the same type and size. With its combination of various individual parts, the DURAN® system can be varied as necessary for each individual application.
DURAN® desiccators are used in numerous fields, for example the drying or dry preservation of substances, as a growing room for plants, bacteria, cell cultures, as a handling room under vacuum, for storing sensitive substrates, components, high-purity metals, in semiconductor development or production, in material and environmental research, in chip technology, etc.
Designed for use under the maximum possible technical vacuum (0 mbar).

DURAN
WHEATON
KIMBLE

(1) Without connection

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Usable height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
DN 100	0.7	153 ±2	118.5	58	112	**H356.1**	1 unit(s)	64,50
DN 150	2.4	215 ±2	172	81	154	**H357.1**	1 unit(s)	69,60
DN 200	5.8	270 ±2	224	115	202	**H358.1**	1 unit(s)	115,25
DN 250	10.5	320 ±2	274	120	235	**H359.1**	1 unit(s)	215,00
DN 300	18.5	380 ±2	332	150	283	**H360.1**	1 unit(s)	338,00

(2) Novus with NS 24/29 tube

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Usable height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
DN 100	0.7	153 ±2	118.5	58	112	**H361.1**	1 unit(s)	117,35
DN 150	2.4	215 ±2	172	81	154	**H362.1**	1 unit(s)	120,25
DN 200	5.8	270 ±2	224	115	202	**H363.1**	1 unit(s)	174,00
DN 250	10.5	320 ±2	274	120	235	**H364.1**	1 unit(s)	313,00
DN 300	18.5	380 ±2	332	150	283	**H365.1**	1 unit(s)	472,00

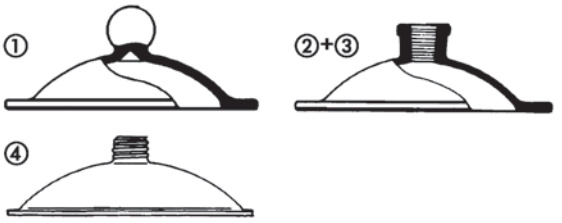
(3) Mobilex with GL 32 thread

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Usable height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
DN 150	2.4	215 ±2	172	81	154	**H366.1**	1 unit(s)	112,70
DN 200	5.8	270 ±2	224	115	200	**H367.1**	1 unit(s)	155,00
DN 250	10.5	320 ±2	274	120	250	**H368.1**	1 unit(s)	265,00
DN 300	18.5	380 ±2	332	150	300	**H369.1**	1 unit(s)	402,00

Desiccators

Desiccator lid DURAN®

DWK Life Sciences. Material: DURAN® glass.
With flat flange.



DURAN
WHEATON
KIMBLE

(1) With knob

Type	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 100	153 ±2	118.5	75	**H371.1**	1 unit(s)	66,05
DN 150	215 ±2	172	98	**H372.1**	1 unit(s)	85,00
DN 200	270 ±2	224	107	**H373.1**	1 unit(s)	84,00
DN 250	320 ±2	274	122	**H374.1**	1 unit(s)	89,15
DN 300	380 ±2	332	150	**H375.1**	1 unit(s)	118,05

(2) Novus with NS 24/29 tube

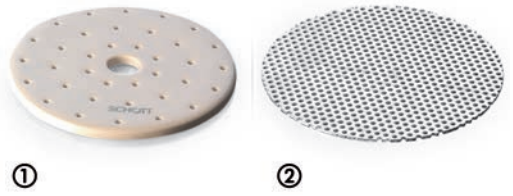
Type	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 100	153 ±2	118.5	62	**H376.1**	1 unit(s)	77,25
DN 150	215 ±2	172	85	**H377.1**	1 unit(s)	87,05
DN 200	270 ±2	224	94	**H378.1**	1 unit(s)	93,20
DN 250	320 ±2	274	109	**H379.1**	1 unit(s)	114,90
DN 300	380 ±2	332	137	**H380.1**	1 unit(s)	164,00

(3) Mobilex with GL 32 screw thread

Type	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 150	215 ±2	172	85	**H386.1**	1 unit(s)	81,40
DN 200	270 ±2	224	94	**H387.1**	1 unit(s)	81,95
DN 250	320 ±2	274	109	**H388.1**	1 unit(s)	87,05
DN 300	380 ±2	332	137	**H389.1**	1 unit(s)	117,35

(4) Wertex with special NS 24/29 tube

Type	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 150	215 ±2	172	85	**H382.1**	1 unit(s)	98,00
DN 250	320 ±2	274	109	**H384.1**	1 unit(s)	127,90



DURAN WHEATON KIMBLE

Desiccator plate DURAN®

DWK Life Sciences.

Made of porcelain according to DIN 12911 or metal according to DIN EN 10142. Suitable for DURAN® desiccators with corresponding nominal diameters (DN).

Type (1)
Material: Porcelain. Hole Ø 5 mm.

Type	Ø Insert (mm)	Art. No.	Pack Qty.	€
DN 100	90	**H403.1**	1 unit(s)	28,75
DN 150	140	**H404.1**	1 unit(s)	44,75
DN 200	185	**H405.1**	1 unit(s)	87,05
DN 250	235	**H406.1**	1 unit(s)	120,25
DN 300	280	**H407.1**	1 unit(s)	164,00

Type (2)
Material: Metal galvanised. Hole Ø 3 mm.

Type	Ø Insert (mm)	Art. No.	Pack Qty.	€
DN 100	90	**H408.1**	1 unit(s)	8,40
DN 150	140	**H409.1**	1 unit(s)	15,70
DN 200	185	**H410.1**	1 unit(s)	20,75
DN 250	235	**H411.1**	1 unit(s)	26,70
DN 300	280	**H412.1**	1 unit(s)	34,35

Accessories valve stopcocks for Novus desiccators

Lenz. Material: DURAN® glass, with PTFE spindle.

Pic.	Version	Height (mm)	Standard ground glass joint	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
(1)	for side tube	108	24/29	8	**H399.1**	1 unit(s)	36,05
(2)	for lid tube	124	24/29	8	**H400.1**	1 unit(s)	41,40

DURAN WHEATON KIMBLE

Accessories for Mobilex desiccators

DWK Life Sciences.

Spindle stopcock
Material: DURAN® glass PTFE spindle.

Version	Art. No.	Pack Qty.	€
Length 160, Ø 8 mm olive	**H401.1**	1 unit(s)	30,25

Screw cap GL 32
Material: PBT red, with PTFE coated seal. Optional. For closing the threaded connections in the lid and lower section of a Mobilex desiccator.

Version	Art. No.	Pack Qty.	€
PBT with PTFE seal	**H398.1**	1 unit(s)	4,75

DURAN WHEATON KIMBLE

Accessories sealing plug for Wertex desiccators

DWK Life Sciences.

Ø ext. (mm)	Total height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
70	76	24/29	**H402.1**	1 unit(s)	45,75

Desiccator grease white

Carl ROTH.

Suitable for applications under normal pressure or low vacuum.

Version	Art. No.	Pack Qty.	€
medium viscosity	**1477.1**	1 kg	21,40

Desiccators

Desiccator set DURAN® without porcelain plate

DWK Life Sciences. Material: DURAN® glass.

Designed for use up to the maximum technically possible vacuum (0 mbar).

DURAN WHEATON KIMBLE

Delivery without porcelain plate, please order separately.

(1) With knob in lid, without connection

For drying moist products and storage of moisture-sensitive substances.

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 100	0.7	153 ±2	118.5	187	**AHK8.1**	1 unit(s)	127,60
DN 150	2.4	215 ±2	172	252	**AHK9.1**	1 unit(s)	149,15
DN 200	5.8	270 ±2	222	209	**AHL0.1**	1 unit(s)	184,00
DN 250	10.5	320 ±2	272	357	**AHL1.1**	1 unit(s)	279,00
DN 300	18.5	380 ±2	332	433	**AHL2.1**	1 unit(s)	431,00

(2) NOVUS with tube and stopcock in the lid

To accelerate the drying process or to degas samples, a vacuum can be applied to the tap.

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 100	0.7	153 ±2	118.5	174	**AHL3.1**	1 unit(s)	194,00
DN 150	2.4	215 ±2	172	239	**AHL4.1**	1 unit(s)	205,00
DN 200	5.8	270 ±2	222	296	**AHL5.1**	1 unit(s)	247,00
DN 250	10.5	320 ±2	272	344	**AHL6.1**	1 unit(s)	366,00
DN 300	18.5	380 ±2	332	420	**AHL7.1**	1 unit(s)	523,00

Desiccator set DURAN® with porcelain plate

DWK Life Sciences. Material: DURAN® glass.

Designed for use up to the maximum technically possible vacuum (0 mbar). For drying moist products and storage of moisture-sensitive substances. To accelerate the drying process or to degas samples, vacuum can be applied via the tap.

DURAN WHEATON KIMBLE

Delivery incl. base, lid with stopcock and porcelain plate.

(1) NOVUS with tube (NS 24/29) and stopcock in the lid

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 150	2.4	215 ±2	172	239	**ETP4.1**	1 unit(s)	237,00
DN 200	5.8	270 ±2	222	296	**ETP5.1**	1 unit(s)	318,00
DN 250	10.5	320 ±2	272	344	**ETP6.1**	1 unit(s)	457,00
DN 300	18.5	380 ±2	332	420	**ETP7.1**	1 unit(s)	662,00

(2) MOBILEX with GL 32 thread and stopcock in the lid

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 150	2.4	215 ±2	172	239	**ETP8.1**	1 unit(s)	220,00
DN 200	5.8	270 ±2	222	296	**ETP9.1**	1 unit(s)	312,00
DN 250	10.5	320 ±2	272	344	**ETT0.1**	1 unit(s)	441,00
DN 300	18.5	380 ±2	332	420	**ETT1.1**	1 unit(s)	610,00

Desiccators

Desiccator Polycarbonate

Nalgene. Material: PC, transparent.

For normal pressure and vacuum applications up to max. 10 mbar. Holds a vacuum of 0.95 bar (95 kPa) for 24 hours. Resistant to implosion during proper use. No greasing needed. Connections for hoses with internal Ø from 6.35 to 9.53 mm in lid and base. Suitable for room-temperature applications only.

Delivery incl. silicone O-ring, vacuum tap made of PP (removable) and 2 TPE plugs for sealing hose connections while not in use. Please order desiccator plate separately.

Ø ext. (mm)	Ø Internal (mm)	Usable height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
280	251	195	329	**PK30.1**	1 unit(s)	117,80

Accessories desiccator plate for polycarbonate desiccator

Nalgene. Material: Ceramic-metal compound.

Resistant to temperature shocks, corrosion and breakage during proper use in the desiccator. Colour: Light green.

Ø (mm)	Art. No.	Pack Qty.	€
230	**PK31.1**	1 unit(s)	77,65

Desiccator ROTILABO® plastic

ROTH SELECTION. Material: PP, PC lid.

Suitable for use with water jet pumps.

Delivery incl. rubber seal made of neoprene, desiccator plate, insert for desiccants and vacuum tap.

Nominal volume (l)	Ø Internal (mm)	Usable height (mm)	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
2.15	150	135	190	520	**1008.1**	1 unit(s)	69,95
4.35	200	175	230	825	**1827.1**	1 unit(s)	108,10
9.20	250	225	300	1250	**1009.1**	1 unit(s)	130,70

Vacuum bells

Nalgene.

Low-pressure chambers for degassing or drying samples. Resistant to implosion during proper use. For use without vacuum grease.

Delivery incl. base plate with seal and hose adapter for hoses with a 6.4 mm internal Ø.

Crystal clear bell
Material: PC transparent, plate made of white PP.

Nominal volume (l)	Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
4.7	191	170	237	**ATL5.1**	1 unit(s)	144,45

Brown-transparent bell
Material: Polyetherimide brown-transparent, plate made of white PP.

Nominal volume (l)	Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
8.3	330	222	254	**ATL6.1**	1 unit(s)	291,35
18.9	330	305	305	**ATL7.1**	1 unit(s)	491,30

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Desiccators

Desiccator Mini

Bohlender. Material: PC, transparent.

For drying and safe storage of moisture-sensitive products. Available with one, two or three connected chambers.

- Ideal for small items, easy to use and transportable
- One-touch revolving door with all-round seal
- Rugged and lightweight design, shatterproof
- Transparent, visible all round, glare-free
- Stackable

Technical specifications:

Art. No.	NT23.1	NT24.1	NT25.1	NT26.1	NT27.1	NT28.1
Type	1 Basic	2 Basic	3 Basic	1 Premium	2 Premium	3 Premium
Number of chambers	1	2	3	1	2	3
Usable volume	6,2 l	2 x 6,2 l	3 x 6,2 l	6,2 l	2 x 6,2 l	3 x 6,2 l
Inner width	212 mm					
Inner depth	180 mm					
Inner height	162 mm					
Temperature stability from	-35 °C					
Temperature stability up to	+70 °C					
Total all-over load	3 kg					
Weight	0.9 kg	1.8 kg	2.7 kg	0.9 kg	1.8 kg	2.7 kg

(1) Basic

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
1 Basic	221	214	183	**NT23.1**	1 unit(s)	149,30
2 Basic	221	214	362	**NT24.1**	1 unit(s)	313,90
3 Basic	221	214	540	**NT25.1**	1 unit(s)	475,15

(2) Premium

Delivery incl. two shelves and digital thermal hygrometer with min./ max. function for monitoring current temperature and humidity values.

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
1 Premium	221	214	183	**NT26.1**	1 unit(s)	153,15
2 Premium	221	214	362	**NT27.1**	1 unit(s)	299,95
3 Premium	221	214	540	**NT28.1**	1 unit(s)	424,65

Desiccator Star

Bohlender. Material: PMMA, Aluminium.

Panels made of transparent PMMA, frame made of reinforced aluminium. All-round rubber door seal with magnetic strip. For drying and safe storage of moisture-sensitive products (e.g. reference solutions, retained samples, metallographic samples, tobacco leaves, DNA samples, etc.). Integrated digital thermal hygrometer with min./ max. function for monitoring current temperature and moisture levels.

Technical specifications:

Art. No.	CT04.1	NX18.1
Type	Star	Star Horizontal
Total volume	45 l	
Usable volume	40 l	42 l
Inner width	260 mm	480 mm
Inner depth	330 mm	
Inner height	480 mm	260 mm
Temperature stability from	-20 °C	
Temperature stability up to	+70 °C	
Max. number of shelves	26 unit(s)	13 unit(s)
Max. all-over load per shelf	10 kg	1.5 kg
Total all-over load	30 kg	
Weight	7 kg	

Delivery incl. four (or two with Star Horizontal desiccator) adjustable intermediate shelves made of PMMA and 1 bottom pan for desiccants.

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Star	310	375	525	**CT04.1**	1 unit(s)	863,25
Star Horizontal	525	375	340	**NX18.1**	1 unit(s)	1.148,10

Dry box ROTILABO®

ROTH SELECTION. Material: PMMA, transparent.

With lockable door and drawer for filling with dry beads or molecular sieves. Wall thickness 4 mm, polished edges.

Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
175	230	175	**6121.1**	1 unit(s)	320,35
305	410	175	**6123.1**	1 unit(s)	403,15

Desiccator Star Vitrum

Bohlender. Material: Aluminium, Borosilicate glass 3.3.

Panels made of type 3.3 borosilicate glass, frame made of reinforced aluminium. All-round rubber door seal with magnetic strip. For drying and safe storage of moisture-sensitive products (e.g. reference solutions, retained samples, metallographic samples, tobacco leaves, DNA samples, etc.). Ideal for storing hot materials (max. 300 °C), excellent resistance to chemicals. Integrated digital thermal hygrometer with min./max. function for monitoring current temperature and moisture levels.

Technical specifications:

Art. No.	**NX19.1**
Type	Star Vitrum
Total volume	45 l
Usable volume	42 l
Inner width	260 mm
Inner depth	330 mm
Inner height	480 mm
Temperature stability from	-20 °C
Temperature stability up to	+150 °C
Max. number of shelves	26 unit(s)
Max. all-over load per shelf	10 kg
Total all-over load	30 kg
Weight	14 kg

Delivery incl. four adjustable intermediate shelves made of stainless steel and one bottom pan for desiccants.

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Star Vitrum	310	375	525	**NX19.1**	1 unit(s)	1.261,00

Inert gas desiccator Super Star

Bohlender. Material: PMMA, Aluminium.

Panels made of transparent PMMA, frame made of reinforced aluminium. All-round rubber door seal with magnetic strip and barrel lock. Nitrogen or noble gases can be introduced through two gassing connections with quick couplings and self-closing valves. This allows the safe storage of air- and moisture-sensitive substances as well as highly reactive or toxic chemicals in an inert gas atmosphere. Large integrated digital thermal hygrometer with min./max. function for monitoring temperature and moisture levels. Additional space requirement for couplings: 150 mm per side.

Technical specifications:

Art. No.	**NX20.1**
Type	Super Star
Total volume	45 l
Usable volume	42 l
Inner width	260 mm
Inner depth	330 mm
Inner height	480 mm
Temperature stability from	-20 °C
Temperature stability up to	+70 °C
Max. number of shelves	26 unit(s)
Max. all-over load per shelf	10 kg
Total all-over load	30 kg
Weight	7.1 kg

Delivery incl. four adjustable intermediate shelves made of PMMA, bottom pan for desiccants and hoses with quick couplings for gassing.

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Super Star	310	375	525	**NX20.1**	1 unit(s)	1.151,35

Desiccators

Desiccator Auto Star

Bohlender. Material: PMMA, Aluminium.

Panels made of transparent PMMA, frame made of reinforced aluminium. All-round rubber door seal with magnetic strip. For long-term storage of moisture-sensitive substances, reference samples, electronic components, photographic equipment, paper, cultural goods, etc.
The automatic drying guarantees a consistently low humidity and compensates for the frequent opening of the door. In the event of a power failure, the humidity level inside the desiccator does not increase for several hours, thereby giving valuable samples extra protection.
No need for manual regeneration of the silica gel, no need for frequent checks, the space for desiccant dish can also be used. Digital thermal hygrometer with min./max. function for monitoring actual temperature and moisture levels.
Additional space requirement for drying unit: 60 mm to the rear.

Technical specifications:

Art. No.	NP95.1
Type	Auto Star
Total volume	45 l
Usable volume	42 l
Inner width	260 mm
Inner depth	330 mm
Inner height	480 mm
Temperature stability from	-20 °C
Temperature stability up to	+70 °C
Max. number of shelves	26 unit(s)
Max. all-over load per shelf	10 kg
Total all-over load	30 kg
Weight	7.3 kg
Mains connection	230 V, 50 Hz

Delivery incl. four adjustable shelves made of PMMA, drying unit and thermal hygrometer.

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Auto Star	310	375	525	**NP95.1**	1 unit(s)	1.592,10

Vacuum desiccator

Bohlender. Material: PMMA, transparent.

Wall thickness 25 mm. With all-round silicone door seal and four or five safety hinge locks. For contamination-free storage of air-, moisture- and heat-sensitive products as well as for gentle drying of easily degradable and reactive substances. Display on analogue vacuum meter shows 0.1 to 0.001 MPa = 1000 to 10 mbar. Needle valves with connections for internal hose Ø 9 mm. Additional space requirement for valves and vacuum meter 150 mm.

Technical specifications:

Art. No.	YT39.1	YT40.1
Type	17.5 l	24.5 l
Usable volume	17.5 l	24.5 l
Inner width	260 mm	
Inner depth	260 mm	
Inner height	260 mm	360 mm
Temperature stability from	-20 °C	
Temperature stability up to	+70 °C	
Max. all-over load per shelf	9 kg	
Total all-over load	30 kg	40 kg
Weight	15 kg	18 kg

Delivery incl. two (or three with type 2) intermediate shelves made of PMMA, analogue vacuum meter and needle valves.

Pic.	Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
(1)	17.5 l	300	300	340	**YT39.1**	1 unit(s)	4.443,00
(2)	24.5 l	300	300	440	**YT40.1**	1 unit(s)	4.966,50

Ampoules

DURAN WHEATON KIMBLE

Ampoules pre-scored

DWK Life Sciences. Material: Borosilicate glass.

With tear-off cap for easy opening. Neck lockable by removing or flaming the tip.

Clear glass

With low-extractable components, compliant with USP type I and ASTM E 438 type I, class A.

Vol. (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
1	67	10.5	**ETE6.1**	144 unit(s)	57,00
2	75	12	**ETE7.1**	144 unit(s)	57,00
5	84	16.5	**ETE8.1**	144 unit(s)	88,10
10	107	19	**ETE9.1**	144 unit(s)	120,25
20	130	22.5	**ETH0.1**	144 unit(s)	175,25

Brown glass

Meets the requirements of USP type I for storing light-sensitive substances.

Vol. (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
1	67	10.5	**ETH1.1**	144 unit(s)	64,00
2	75	12	**ETH2.1**	144 unit(s)	64,00
3	84	16.5	**ETH3.1**	144 unit(s)	128,80

DURAN WHEATON KIMBLE

Ampoule opener

DWK Life Sciences. Material: PE.

Disposable ampoule opener for ampoules with volumes 1 to 2 ml. Protects against glass splinters and prevents cross-contamination. Inside Ø 9.7 x H 25.2 mm.

Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
25.2	9.7	**EPN8.1**	144 unit(s)	26,80

DURAN WHEATON KIMBLE

Ampoules Cryule® pre-scored

DWK Life Sciences. Material: Borosilicate glass.

With low-extractable components, compliant with USP type I and ASTM E 438 type I, class A. With tear-off cap for easy opening. Suitable for sample storage in the gas phase of liquid nitrogen. Neck lockable by removing or flaming the tip.

Vol. (ml)	Height (mm)	Ø (mm)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
1.2	58	11.8	5	**ETE4.1**	144 unit(s)	107,95
2.0	70	11.5	5	**ETE5.1**	144 unit(s)	122,60

Ampoule opener

ROTH SELECTION.

Opens ampoules from 1 to 10 ml easily and safely. Single-handed opening of up to three ampoules at the same time.

Delivery incl. one ampoule box and four inserts for opening 1 ml, 2 ml, 5 ml and 10 ml ampoules.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
95	76	83	**CXT2.1**	1 unit(s)	62,15

Sample vials/autosample vials

Test tubes

Greiner Bio-One. Material: PS transparent, screw caps made of white **HDPE**.

Liquid-tight, with conical bottom. Centrifugable up to 3,500 x g. Temperature-stable from -20 °C to 60 °C. For universal use in laboratories for non-humane and non-medical samples.

Not a medical device / Not an IVD product

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Sterility	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
23	30	24	90	Non-sterile	3,500	**HYL2.1**	400 unit(s)	104,20
23	30	24	90	**Sterile**	3,500	**HYL3.1**	400 unit(s)	149,90

Sample vials ROTILABO®

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

Screw top vials with flat base.

Delivery without caps, please order caps separately.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
Brown glass	5	8	17	9.5	61	ND 15	**XC38.1**	100 unit(s)	35,30
Clear glass	5	8	17	9.5	61	ND 15	**XC37.1**	100 unit(s)	32,80
Brown glass	10	12	19	9.5	66	ND 15	**XC40.1**	100 unit(s)	36,05
Clear glass	10	12	19	9.5	66	ND 15	**XC39.1**	100 unit(s)	33,90
Clear glass	15	16	21	11.5	71	ND 18	**XC41.1**	100 unit(s)	38,60
Clear glass	20	20	23	13.5	86	ND 20	**XC42.1**	100 unit(s)	43,00

Accessories for sample vials ROTILABO®

ROTH SELECTION. Material: PP.

Screw caps with sealing pad, closed. Suitable for sample vials Art. No. XC37.1 ff with corresponding thread.

Version	Septum material	Thread	Art. No.	Pack Qty.	€
Black lid	Natural rubber orange red / TEF transparent	ND 15	**XC43.1**	100 unit(s)	26,35
Black lid	Butyl red / PTFE grey	ND 15	**XC44.1**	100 unit(s)	28,20
Black lid	Butyl red / PTFE grey	ND 18	**XC45.1**	100 unit(s)	38,20
Lid, white	Butyl red / PTFE grey	ND 20	**XC46.1**	100 unit(s)	38,70

Sample vials/autosample vials

S

Sample vials

Nalgene. Material: PET Copolymer, HDPE screw cap. **Sterile**.

Type 2035. For sampling and storage of reagents and buffer solutions. **Leak-proof**.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
5	22.5	46	20-415	**ATK0.1**	100 unit(s)	217,15
10	24	57	20-415	**ATK1.1**	100 unit(s)	221,45
20	30	65	20-415	**ATK2.1**	100 unit(s)	238,65

Test tubes ROTILABO®

ROTH SELECTION.

With flat bottom (Art. No. H992.1 with conical bottom) and tight-fitting lids. The conical recess in the lid allows penetration with a syringe, whereby the needle is centred automatically. Easy to open and/or close. For storing samples or for using autosamplers. Sample vials 2 ml suitable for autosamplers such as Perkin Elmer ISS-100 and ISS-200.

Clear glass
Material: Borosilicate glass lid made of PE.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	8	40	**H300.1**	200 unit(s)	42,45
2	12	32	**H303.1**	100 unit(s)	31,30
4	15	45	**H306.1**	100 unit(s)	33,55

Brown glass
Material: Borosilicate glass lid made of PE.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	8	40	**H301.1**	200 unit(s)	49,85
2	12	32	**H304.1**	100 unit(s)	35,60
4	15	45	**H307.1**	100 unit(s)	35,65

Plastic
Material: PP lid made of PE.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.7	8	40	**H992.1**	100 unit(s)	25,75
1	8	40	**H302.1**	200 unit(s)	47,35
2	12	32	**H305.1**	100 unit(s)	33,45
4	15	45	**H308.1**	100 unit(s)	34,30

Sample vials ROTILABO® 0.1 ml with thread

ROTH SELECTION. Material: PP.

With thread and integrated micro-insert. Flat base.

Delivery without lid and septum, please order separately.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
0.1	12	32	8 mm	**C518.1**	200 unit(s)	50,35

Sample vials ROTILABO® 2 ml with thread

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

With flat bottom and thread. For automatic samplers. Wall thickness 0.9 mm.

Delivery without lid and septum, please order separately.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Brown glass	1.5	2	11.5	32	**E160.1**	200 unit(s)	47,85
Clear glass	1.5	2	11.5	32	**E159.1**	200 unit(s)	46,45

Accessories for ROTILABO® sample vials 0.1 and 2 ml

ROTH SELECTION.

For Rotilabo® sample vials (Art. No. E159.1, E160.1 and C518.1).

Version	Art. No.	Pack Qty.	€
Septa PTFE, Ø 8 mm	**E163.1**	1,000 unit(s)	55,40
Screw caps with hole	**E161.1**	200 unit(s)	15,40
Screw caps without hole	**E162.1**	200 unit(s)	17,45
Septum silicone rubber/PTFE coated, single use	**E164.1**	200 unit(s)	39,40
Septum Silicone white/PTFE red, pierceable several times	**E165.1**	200 unit(s)	44,95

Sample vials/autosample vials

Micro-inserts ROTILABO® 100 µl

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I. For sample vials 2.0 ml (Art. No. E159.1, E160.1 and C514.1).

Version	Vol. (µl)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
with plastic spring	100	5	30	**C516.1**	100 unit(s)	56,35

Sample vials ROTILABO® 4 ml with thread

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I. With flat bottom and thread. For automatic samplers. Wall thickness 0.95 mm.

Delivery without lid and septum, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Brown glass	4	14.75	8.5	45	**E153.1**	200 unit(s)	52,25
Clear glass	4	14.75	8.5	45	**E152.1**	200 unit(s)	44,45

Sample vials ROTILABO® with beaded rim

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I. With beaded rim and flat bottom.

Delivery without aluminium caps and septum, please order separately.

Vol. (ml)	Ø (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	12	11	32	**C514.1**	200 unit(s)	44,05
4	15	13	45	**H511.1**	200 unit(s)	47,30
6	22	20	38	**H512.1**	200 unit(s)	88,15
10	23	20	46	**H513.1**	200 unit(s)	96,45
20	23	20	75	**H514.1**	200 unit(s)	102,85

Crimp caps ROTILABO® with septum

ROTH SELECTION. Material: Aluminium.
For ROTILABO® sample vials (Art. No. C514.1 to H514.1).

Suitable for	Septum material	Art. No.	Pack Qty.	€
Ø neck outside 11 mm	Silicone/PTFE	**C515.1**	200 unit(s)	64,35
Ø neck outside 11 mm	Silicone rubber/PTFE	**H522.1**	200 unit(s)	32,50
Ø neck outside 13 mm	Silicone rubber/PTFE	**H518.1**	200 unit(s)	74,40
Ø neck outside 13 mm	Silicone/PTFE	**H519.1**	200 unit(s)	89,00
Ø neck outside 20 mm	Butyl/PTFE	**H520.1**	200 unit(s)	197,80
Ø neck outside 20 mm	Silicone/PTFE	**H521.1**	200 unit(s)	139,05

Sample vials/autosample vials

Sample vials ROTILABO® with thread ND8

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.
Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. Standard autosampler vials for GC and HPLC.

Delivery without micro-inserts, screw caps and septa, please order separately.

Screw top vials ND8

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass, conical bottom	1.1	11.6	5.2	32	**KE28.1**	100 unit(s)	61,20
Brown glass	1.5	11.6	5.2	32	**KE29.1**	100 unit(s)	16,60
Clear glass	1.5	11.6	5.2	32	**KE26.1**	100 unit(s)	15,40
Brown glass, with labelling space	1.5	11.6	5.2	32	**KE30.1**	100 unit(s)	17,75
Clear glass, with labelling space	1.5	11.6	5.2	32	**KE27.1**	100 unit(s)	16,60

Micro-inserts ROTILABO® ND8

ROTH SELECTION. Material: Borosilicate glass, clear.
For screw top vials ND8.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
With metal spring	0.11	0.05	4	27.5	**KE33.1**	100 unit(s)	34,30
15 mm conical tip	0.15	0.1	5	31	**KE31.1**	100 unit(s)	28,95
With plastic spring	0.15	0.1	5	29	**KE32.1**	100 unit(s)	65,60

Screw caps ROTILABO® ND8 closed

ROTH SELECTION. Material: PP, black.
Without borehole. For screw top vials ND8.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.3	55	**TY73.1**	100 unit(s)	21,45
Natural rubber orange red / TEF transparent	1.3	60	**TY72.1**	100 unit(s)	19,90
Silicone white / PTFE red, UltraClean	1.3	45	**NL96.1**	100 unit(s)	33,15

Screw caps ROTILABO® ND8 with borehole

ROTH SELECTION. Material: PP, black.
For screw top vials ND8.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.3	55	5.5	**KE38.1**	100 unit(s)	20,00
Natural rubber orange red / TEF transparent	1.3	60	5.5	**KE37.1**	100 unit(s)	18,60
PTFE red / silicone white / PTFE red	1.0	45	5.5	**KE34.1**	100 unit(s)	42,50
Silicone cream / PTFE red, UltraClean	1.5	55	5.5	**KE36.1**	100 unit(s)	32,60
Silicone white / PTFE red, UltraClean	1.3	45	5.5	**KE35.1**	100 unit(s)	32,60
Silicone white / PTFE red, slotted	1.3	45	5.5	**NL97.1**	100 unit(s)	47,85

Screw caps ROTILABO® ND8

ROTH SELECTION. Material: PP, black.
For screw top vials ND8.

Delivery without septum, please order separately.

Version	Art. No.	Pack Qty.	€
With borehole Ø 5.5 mm	**KE40.1**	100 unit(s)	6,90
Without borehole	**KE39.1**	100 unit(s)	7,50

Sample vials/autosample vials

Septa ROTILABO® for ND8 Ø 8 mm

ROTH SELECTION.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
PTFE	0.25	53	**KE41.1**	1,000 unit(s)	36,55
Butyl red/PTFE grey	1.3	55	**KE43.1**	1,000 unit(s)	104,85
Natural rubber orange red / TEF transparent	1.3	60	**KE42.1**	1,000 unit(s)	84,85
Silicone white/PFTE red	1.3	45	**KE44.1**	1,000 unit(s)	220,40
Silicone white / PTFE blue, slotted	0.9	55	**KE45.1**	1,000 unit(s)	493,45

Sample vials ROTILABO® with short thread ND9

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.
Wide opening for easy filling. Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. Standard autosampler vials for GC and HPLC.

Delivery without micro-inserts and screw caps, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass, with integrated micro insert	0.2	11.6	6.2	32	**LC04.1**	100 unit(s)	117,20
Clear glass, with solid conical base	1.1	11.6	6.2	32	**LC05.1**	100 unit(s)	84,40
Clear glass	1.5	11.6	6.2	32	**LC02.1**	100 unit(s)	16,45
Brown glass, with labelling space	1.5	11.6	6.2	32	**LC06.1**	100 unit(s)	18,95
Brown PP, with graduations	1.5	11.6	6.2	32	**NL99.1**	100 unit(s)	24,85
Clear glass, with labelling space	1.5	11.6	6.2	32	**LC03.1**	100 unit(s)	17,00
Transparent PP, with graduations	1.5	11.6	6.2	32	**NL98.1**	100 unit(s)	23,65

Micro-inserts ROTILABO® ND9/ND10/ND11

ROTH SELECTION. Material: Borosilicate glass, clear.
For short-thread screw top vials ND9, ND10 and ND11.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15 mm conical tip	0.25	0.1	6	31	**LC07.1**	100 unit(s)	27,85
With plastic spring	0.25	0.1	5.7	29	**LC08.1**	100 unit(s)	75,15
Flat base	0.35	0.2	6	31	**LC09.1**	100 unit(s)	23,45

Screw caps ROTILABO® ND9 closed

ROTH SELECTION. Material: PP, blue.
For ND9 short threaded vials.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
PTFE virginal	0.2	53	**TY74.1**	100 unit(s)	20,90
Silicone white / PTFE red, UltraClean	1.0	55	**TY75.1**	100 unit(s)	37,55

Sample vials/autosample vials

Screw caps ROTILABO® ND9 with borehole

ROTH SELECTION. Material: PP, blue.

For ND9 short threaded vials. Also suitable for robot gripper arms.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
PTFE (shore D)	0.2	53	6	**LC12.1**	100 unit(s)	17,15
Natural rubber orange red / TEF transparent	1.0	60	6	**LC13.1**	100 unit(s)	20,40
PTFE red / silicone white / PTFE red	1.0	45	6	**LC10.1**	100 unit(s)	39,35
Silicone white / PTFE blue, slotted	1.0	55	6	**LC14.1**	100 unit(s)	47,25
Silicone white / PTFE red, UltraClean	1.0	55	6	**LC11.1**	100 unit(s)	33,15

Screw-cap closures ROTILABO® ND9 with borehole UltraBond

ROTH SELECTION. Material: PP, blue.

For ND9 short threaded vials. Cap and septum form a unit, the septum cannot be pressed into the flask by thick or blunt needles.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Silicone beige / PTFE white, slotted	1.3	45	6	**LC15.1**	100 unit(s)	56,45

Screw caps ROTILABO® ND9 for the LC/GC-MS

ROTH SELECTION.

Inert, non-bleed single-component cap, LC/GC-MS certified.
Transparent, with thinned penetration area, penetrable like a septum.
For ND9 short threaded vials.

Version	Art. No.	Pack Qty.	€
with thinned penetration area	**NN00.1**	100 unit(s)	38,85

Screw-cap closures ROTILABO® ND9 magnetic with borehole

ROTH SELECTION. Material: PP.

Blue colour, with magnetic cap attached, golden colour. For ND9 short threaded vials.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Silicone white / PTFE red, UltraClean	1.0	55	6	**PT62.1**	100 unit(s)	56,05

Sample vials/autosample vials

Sample vials ROTILABO® with short thread ND9 silanised

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I, silanised.

The surface of the vials is deactivated by silanisation. This minimises the adsorption of polar compounds (proteins, amines, phenols etc.) by the glass and prevents the loss of valuable specimens.
Wide opening for easy filling. Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. Suitable for automatic samplers.

Delivery without micro-inserts and screw caps, please order separately.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass, with solid conical base	1.1	11.6	32	**XC48.1**	100 unit(s)	120,40
Clear glass	1.5	11.6	32	**XC47.1**	100 unit(s)	51,40
Brown glass, with labelling space	1.5	11.6	32	**XC49.1**	100 unit(s)	52,35

Micro-inserts ROTILABO® ND9/ND10/ND11 silanised

ROTH SELECTION. Material: Borosilicate glass, silanised, clear.

The surface of the vials is deactivated by silanisation. This minimises the adsorption of polar compounds (proteins, amines, phenols etc.) by the glass and prevents the loss of valuable specimens.
For ND9 short-thread screw top vials, ND10 screw top vials, and ND11 rolled edge vials snap ring vials.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Conical 15 mm tip	0.25	0.1	6	31	**XC50.1**	100 unit(s)	66,15
With plastic spring	0.25	0.1	5.7	29	**XC51.1**	100 unit(s)	100,55

Sample vials with short thread ND9 Vial kit, HPLC-certified

ROTH SELECTION. Material: Borosilicate glass, PP.

HPLC and GC-certified, tested for blank values and impurities.
Kits each with 100 short-thread screw top vials ND9 made of borosilicate glass from hydrolytic class I with UltraClean screw caps made of PP.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Brown glass, with labelling space	1.5	11.6	32	Silicone white/ PTFE red	1.0	55	6	**XC65.1**	1 set	57,55
Clear glass, with labelling space	1.5	11.6	32	Silicone white/ PTFE red	1.0	55	6	**XC64.1**	1 set	57,55

Sample vials/autosample vials

Sample vials ROTILABO® with thread ND10

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

Wide opening for easy filling. Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. Standard autosampler vials for GC and HPLC.

Delivery without micro-inserts and screw caps, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass	1.5	11.6	8.8	32	**LC16.1**	100 unit(s)	16,90
Brown glass, with labelling space	1.5	11.6	8.8	32	**LC17.1**	100 unit(s)	19,60
Clear glass, with labelling space	1.5	11.6	8.8	32	**NN01.1**	100 unit(s)	17,75

Screw caps ROTILABO® ND10

ROTH SELECTION. Material: PP, black.

Without borehole. For screw top vials ND10.

Delivery incl. septum, mounted.

Version	Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Without borehole	Natural rubber orange red / TEF transparent	1.3	60	**TY76.1**	100 unit(s)	28,20

Screw caps ROTILABO® ND10 with borehole

ROTH SELECTION. Material: PP, black.

For screw top vials ND10.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Natural rubber orange red / TEF transparent	1.3	60	7	**LC20.1**	100 unit(s)	24,65
PTFE red / silicone white / PTFE red	1.0	45	7	**NN37.1**	100 unit(s)	47,45
Silicone white / PTFE beige	1.5	45	7	**LC19.1**	100 unit(s)	38,60
Silicone white / PTFE blue, slotted	1.5	55	7	**LC21.1**	100 unit(s)	54,30
Silicone white / PTFE red, UltraClean	1.3	45	7	**LC18.1**	100 unit(s)	37,60

Sample vials/autosample vials

Sample vials ROTILABO® with beaded rim ND11

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

With heavy duty rim**.** Wide opening for easy filling. Flat base. Clean-Pack, vials are packed in a clean room under class 10 000 conditions. Standard autosampler vials for GC and HPLC.

Delivery without micro-inserts and caps, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass	1.5	11.6	8.3	32	**LC22.1**	100 unit(s)	14,20
Brown glass, with labelling space	1.5	11.6	8.3	32	**LC24.1**	100 unit(s)	17,45
Clear glass, with labelling space	1.5	11.6	8.3	32	**LC23.1**	100 unit(s)	15,35
Clear glass	2.5	11.6	8.3	41	**TY77.1**	100 unit(s)	23,15

Crimp caps ROTILABO® ND11 with borehole

ROTH SELECTION. Material: Aluminium, clear coated.

For ND11 rolled edge vials.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.3	55	5.5	**LC30.1**	100 unit(s)	21,00
Natural rubber orange red / butyl red / TEF transparent	1.0	45	5.5	**LC28.1**	100 unit(s)	13,55
Natural rubber orange red / TEF transparent, Agilent quality	1.0	60	5.5	**LC29.1**	100 unit(s)	13,35
PTFE red / silicone white / PTFE red	1.0	45	5.5	**LC26.1**	100 unit(s)	40,65
Silicone white / PTFE blue, slotted	1.5	55	5.5	**NN02.1**	100 unit(s)	64,00
Silicone white / PTFE red, UltraClean	1.3	45	5.5	**LC27.1**	100 unit(s)	31,95

Crimp caps ROTILABO® ND11 with borehole, phthalate-free

ROTH SELECTION. Material: Aluminium, clear coated.

Free of phthalates, halogens, elastomers, plasticisers, silicone, butyl rubber, PTFE, FEP, TEF. Recommended for GC/LC-MS, for the storage of standards and analysis of halogenated compounds, VOC's, plastics, phthalates, polymerisation catalysts and silicones. For ND11 rolled edge vials.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Art. No.	Pack Qty.	€
Aluminium (with O-ring seal)	0.06	**NN03.1**	100 unit(s)	41,10

Sample vials/autosample vials

Sample vials ROTILABO® with snap-on ring ND11

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

Wide opening for easy filling. Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. Standard autosampler vials for GC and HPLC.

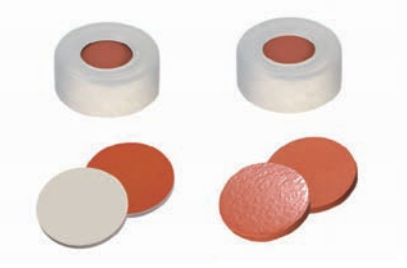
Delivery without micro-inserts and caps, please order separately.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
TPX, with integrated glass micro insert	0.2	11.6	32	**TY82.1**	100 unit(s)	74,75
Clear glass	1.5	11.6	32	**TY79.1**	100 unit(s)	15,95
Brown glass, with labelling space	1.5	11.6	32	**TY81.1**	100 unit(s)	18,85
Clear glass, with labelling space	1.5	11.6	32	**TY80.1**	100 unit(s)	17,35

Snap ring caps ROTILABO® ND11 hard version

ROTH SELECTION. Material: PE, transparent.

With borehole. For ND11 snap ring vials. Hard version for optimal leak tightness. No crimping tool is required.



Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Natural rubber orange red / TEF transparent	1.0	60	**TY84.1**	100 unit(s)	20,45
RedRubber / PTFE beige, AGILENT quality	1.0	45	**TY83.1**	100 unit(s)	21,40

Snap ring caps ROTILABO® ND11 soft version

ROTH SELECTION. Material: PE, blue.

With borehole. For ND11 snap ring vials. Soft version for easier push-on or removal. No crimping tool is required.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Natural rubber orange red / TEF transparent	1.0	60	**TY86.1**	100 unit(s)	21,95
RedRubber / PTFE beige, AGILENT quality	1.0	45	**TY85.1**	100 unit(s)	23,35

Push-on caps ROTILABO® ND11

ROTH SELECTION. Material: PE.

Blue colour, for pushing on. For ND11 crimp top and snap ring vials. No crimping tool is required. Closed, with thinned puncture area instead of a septum. For non-critical analyses.

Version	Art. No.	Pack Qty.	€
Push-on	**TY78.1**	100 unit(s)	9,45

Sample vials/autosample vials

Sample vials ROTILABO® with thread ND13

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.
Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. For automatic samplers.

Delivery without micro-inserts, screw caps and septa, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Brown glass	4	14.7	8.5	45	**LC33.1**	100 unit(s)	21,00
Clear glass	4	14.7	8.5	45	**LC31.1**	100 unit(s)	19,80
Brown glass, with labelling space	4	14.7	8.5	45	**LC34.1**	100 unit(s)	22,50
Clear glass, with labelling space	4	14.7	8.5	45	**LC32.1**	100 unit(s)	21,50

Micro-inserts ROTILABO® ND13

ROTH SELECTION. Material: Borosilicate glass, clear.
For screw top vials ND13.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Conical 15 mm tip, with metal spring	0.4	0.3	6	40	**LC35.1**	100 unit(s)	47,20

Screw caps ROTILABO® ND13 closed

ROTH SELECTION. Material: PP, black.
Without borehole. For screw top vials ND13.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.3	55	**TY89.1**	100 unit(s)	28,20
Natural rubber orange red / TEF transparent	1.3	60	**TY88.1**	100 unit(s)	25,60
Silicone cream / PTFE red	1.5	55	**NN04.1**	100 unit(s)	41,40

Screw caps ROTILABO® ND13 with borehole

ROTH SELECTION. Material: PP, black.
For screw top vials ND13.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl red/PTFE grey	1.3	55	8.5	**LC39.1**	100 unit(s)	27,85
Natural rubber orange red/TEF transparent	1.3	60	8.5	**LC38.1**	100 unit(s)	24,85
PTFE red/silicone white/PTFE red	1.0	45	8.5	**LC36.1**	100 unit(s)	54,20
Silicone cream/PTFE red	1.5	55	8.5	**LC37.1**	100 unit(s)	42,90

Screw caps ROTILABO® ND13

ROTH SELECTION. Material: PP, black.
For screw top vials ND13.

Delivery without septum, please order separately.

Version	Art. No.	Pack Qty.	€
With borehole Ø 8.5 mm	**LC41.1**	100 unit(s)	10,55
Without borehole	**LC40.1**	100 unit(s)	11,80

Sample vials/autosample vials

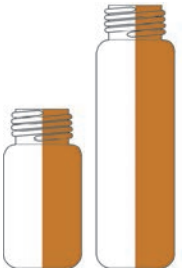
Septa ROTILABO® for ND13 Ø 12 mm

ROTH SELECTION.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
PTFE (shore D)	0.25	53	**LC42.1**	1,000 unit(s)	46,05
Butyl red/PTFE grey	1.3	55	**LC44.1**	1,000 unit(s)	153,75
Natural rubber orange red / TEF transparent	1.3	60	**LC43.1**	1,000 unit(s)	111,80
Silicone blue transparent/PTFE white	1.3	45	**LC45.1**	1,000 unit(s)	295,65
Silicone cream/PTFE red	1.5	55	**LC46.1**	1,000 unit(s)	295,65

Sample vials ROTILABO® with fine thread ND18

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.
CleanPack, vials are packed in a clean room under class 10 000 conditions. For automatic samplers.



Delivery without screw caps and septa, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Brown glass	10	22.5	11.5	46	**LC48.1**	100 unit(s)	56,45
Clear glass	10	22.5	11.5	46	**LC47.1**	100 unit(s)	36,05
Brown glass	20	22.5	11.5	75.5	**LC50.1**	100 unit(s)	61,25
Clear glass	20	22.5	11.5	75.5	**LC49.1**	100 unit(s)	40,65

Screw-cap closures ROTILABO® ND18 magnetic closed

ROTH SELECTION. Material: Metal, magnetic, silver.
Without borehole.
For fine threaded bottles ND18 (Art. No. LC47.1-LC50.1).

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.6	55	**TY90.1**	100 unit(s)	46,80

Screw caps ROTILABO® ND18 magnetic with borehole

ROTH SELECTION. Material: Steel, magnetic, silver.
For fine screw thread vials ND18 (Art. No. LC47.1 to LC50.1).

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.6	55	8	**LC53.1**	100 unit(s)	47,85
Silicone transparent blue / PTFE white, UltraClean	1.3	45	8	**LC51.1**	100 unit(s)	79,05
Silicone white / PTFE blue, UltraClean	1.5	55	8	**LC52.1**	100 unit(s)	94,50
Silicone white / PTFE red, slotted	1.5	55	8	**NN06.1**	100 unit(s)	92,45

Sample vials/autosample vials

Sample vials ROTILABO® with thread ND18

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.
Round base. CleanPack, vials are packed in a clean room under class 10 000 conditions. For automatic samplers.

Delivery without screw caps and septa, please order separately.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass	20	23	75.5	**LY52.1**	100 unit(s)	43,55

Screw caps ROTILABO® ND18 with septum

ROTH SELECTION. Material: PP, black.
Suitable for screw thread vials Art. No. LY52.1 only.

Delivery incl. septum, mounted.

Version	Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
With borehole Ø 12.5 mm	Butyl red / PTFE grey	1.6	55	**TY92.1**	100 unit(s)	40,65

Screw caps ROTILABO® ND18

ROTH SELECTION. Material: PP, black.
Suitable only for thread screw vials Art. No. LY52.1.

Delivery without septum, please order separately.

Version	Art. No.	Pack Qty.	€
Without borehole	**LC54.1**	100 unit(s)	15,40

Septa ROTILABO® for ND18 Ø 16 mm

ROTH SELECTION.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red/PTFE grey	1.3	55	**LC56.1**	1,000 unit(s)	209,65
Silicone blue transparent/PTFE white	1.7	45	**LC58.1**	1,000 unit(s)	471,95

Sample vials/autosample vials

Headspace vials ROTILABO® with beaded rim ND20

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

Made of hydrolytic class 1 borosilicate glass. Wall thickness 1.2 mm. CleanPack, vials are packed in a clean room under class 10 000 conditions. For automatic samplers.

Delivery without crimp caps, please order separately.

Rounded bottom

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass, bevelled headspace edge	5	22	38.2	**LC60.1**	100 unit(s)	32,20
Brown glass, DIN rolled edge	10	22.5	46	**NN07.1**	100 unit(s)	37,55
Clear glass, DIN rolled edge	10	22.5	46	**LC62.1**	100 unit(s)	33,90
Brown glass, DIN rolled edge, long neck	20	22.5	75.5	**NN09.1**	100 unit(s)	38,50
Clear glass, bevelled headspace edge	20	23	75.5	**LC61.1**	100 unit(s)	34,65
Clear glass, DIN rolled edge, long neck	20	22.5	75.5	**LC63.1**	100 unit(s)	34,95
Clear glass with labelling area, bevelled headspace edge	20	23	75.5	**NN08.1**	100 unit(s)	37,55

Flat Headspace bottom

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DIN rolled edge	5	20	38	**LC64.1**	100 unit(s)	32,20
DIN rolled edge	10	54.5	20	**NN10.1**	100 unit(s)	32,80
DIN rolled edge, long neck	10	22.5	46	**LC65.1**	100 unit(s)	34,20
DIN rolled edge, long neck	20	22.5	75.5	**LC66.1**	100 unit(s)	34,95
DIN rolled edge	50	31	101	**LC67.1**	100 unit(s)	68,80
DIN rolled edge, not suitable for overpressure	100	51.6	94.5	**LC68.1**	88 unit(s)	57,95

Crimp caps ROTILABO® ND20 with borehole

ROTH SELECTION. Material: Aluminium.

For rolled-edge headspace vials ND20.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl / PTFE	3.0	50	10	**LC70.1**	100 unit(s)	35,70
Butyl / PTFE, partially coated	3.0	50	10	**LC71.1**	100 unit(s)	49,80
Dark grey butyl rubber	3.0	50	10	**LC69.1**	100 unit(s)	22,05
Silicone transparent blue / PTFE white, UltraClean	3.0	45	10	**LC72.1**	100 unit(s)	65,50
Silicone white / PTFE beige, AGILENT HT quality	3.25	45	10	**LC73.1**	100 unit(s)	66,65

Crimp caps ROTILABO® ND20 Headspace with borehole

ROTH SELECTION. Material: Aluminium.

For rolled-edge Headspace vials ND20. With break lines that open at 3.0 ±0.5 bar to release overpressure.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl/PTFE	3.0	50	8	**LC74.1**	100 unit(s)	36,55
Butyl / PTFE, partially coated	3.0	50	8	**LC75.1**	100 unit(s)	51,10
Silicone transparent blue/PTFE white, UltraClean	3.0	45	8	**LC76.1**	100 unit(s)	67,20
Silicone white/PTFE beige, AGILENT HT quality	3.25	45	8	**LC77.1**	100 unit(s)	68,80

Sample vials/autosample vials

Crimp caps ROTILABO® ND20 centre tear-off

ROTH SELECTION. Material: Aluminium.
For rolled-edge Headspace vials ND20.

Delivery incl. septum, mounted.

Centre tear-off crimp caps

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl dark grey	3.0	55	**NN11.1**	100 unit(s)	22,90

Crimp caps ROTILABO® ND20 complete tear-off

ROTH SELECTION. Material: Aluminium.
For rolled-edge headspace vials ND20.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Dark grey butyl rubber	3.0	55	**NN13.1**	100 unit(s)	23,45
Silicone transparent blue / PTFE white, UltraClean	3.0	45	**NN14.1**	100 unit(s)	66,15

Crimp caps ROTILABO® ND20 magnetic with bore-hole

ROTH SELECTION. Material: Aluminium, magnetic, golden colour.
For rolled-edge Headspace vials ND 20.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl / PTFE	3.0	50	5	**LC78.1**	100 unit(s)	39,90
Butyl / PTFE	3.0	50	8	**LC79.1**	100 unit(s)	39,90
Silicone transparent blue / PTFE white, UltraClean	3.0	45	5	**LC80.1**	100 unit(s)	68,80
Silicone transparent blue / PTFE white, UltraClean	3.0	45	8	**LC81.1**	100 unit(s)	68,80

Hollow stoppers ROTILABO® ND20

ROTH SELECTION. Material: Butyl, grey.

Suitable for	Art. No.	Pack Qty.	€
Rolled-edge headspace vials ND20	**TY94.1**	100 unit(s)	13,95

Sample vials/autosample vials

Sample vials ROTILABO® with thread ND24 (EPA)

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

CleanPack, vials are packed in a clean room under class 10 000 conditions. For automatic samplers.

Delivery without screw caps and septa, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Brown glass	20	27.5	17.5	57	**LC89.1**	100 unit(s)	82,25
Clear glass	20	27.5	17.5	57	**LC88.1**	100 unit(s)	46,80
Brown glass	30	27.5	17.5	72.5	**LC91.1**	100 unit(s)	87,65
Clear glass	30	27.5	17.5	72.5	**LC90.1**	100 unit(s)	47,85
Brown glass	40	27.5	17.5	95	**LC93.1**	100 unit(s)	94,10
Clear glass	40	27.5	17.5	95	**LC92.1**	100 unit(s)	50,00
Brown glass	60	27.5	17.5	140	**LC95.1**	100 unit(s)	100,00
Clear glass	60	27.5	17.5	140	**LC94.1**	100 unit(s)	84,40

Screw caps ROTILABO® ND24 closed

ROTH SELECTION. Material: PP, white.

Without borehole. For screw top vials ND24.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	2.5	55	**LE02.1**	100 unit(s)	53,65
Natural silicone / PTFE beige, EPA quality	3.2	45	**LE03.1**	100 unit(s)	75,15

Screw-cap closures ROTILABO® ND24 UltraBond

ROTH SELECTION. Material: PP, white.

For screw top vials ND24. Cap and septum form a unit, the septum cannot be pressed into the flask by thick or blunt needles.

Delivery incl. septum, mounted.

Version	Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
With borehole Ø 15 mm	Natural silicone / PTFE beige, EPA quality	3.2	45	**LE05.1**	100 unit(s)	75,15
Without borehole	Natural silicone / PTFE beige, EPA quality	3.2	45	**LE04.1**	100 unit(s)	76,90

Screw caps ROTILABO® ND24

ROTH SELECTION. Material: PP, white.

For screw top vials ND24.

Delivery without septum, please order separately.

Version	Art. No.	Pack Qty.	€
With borehole Ø 15 mm	**LC97.1**	100 unit(s)	14,55
Without borehole	**LC96.1**	100 unit(s)	15,60

Septa ROTILABO® for ND24 Ø 22 mm

ROTH SELECTION.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.6	55	**LC98.1**	1,000 unit(s)	299,95
Butyl red / PTFE grey	2.5	55	**LC99.1**	1,000 unit(s)	310,70
Natural silicone / PTFE beige (EPA quality)	3.2	45	**LE00.1**	1,000 unit(s)	504,20
Silicone white / PTFE blue, cross slit	1.5	55	**LE01.1**	1,000 unit(s)	826,70

Crimping tools for autosample vials

Opening pliers ROTILABO®

ROTH SELECTION.

For removing crimped aluminium caps of 8, 11, 13 or 20 mm. Coloured handle.

Suitable for	Colour	Art. No.	Pack Qty.	€
Crimp caps ND 8	white	**C776.1**	1 unit(s)	71,65
Crimp caps ND 11	red	**C777.1**	1 unit(s)	71,65
Crimp caps ND 13	green	**C778.1**	1 unit(s)	71,65
Crimp caps ND 20	blue	**C779.1**	1 unit(s)	71,65

Crimping pliers ROTILABO®

ROTH SELECTION. Material: Steel tempered, with special, chemical-resistant paint.

For sealing and opening standard aluminium crimp caps with ND 8, 11, 13 or 20 mm.

- Special surface coating for excellent grip
- Effortless working thanks to resetting spring
- Adjusting screws in crimping head and handle for optimal sealing and reproducible crimping results

(1) Closing pliers

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 8	**C780.1**	1 unit(s)	230,05
Crimp caps ND 11	**C781.1**	1 unit(s)	230,05
Crimp caps ND 13	**5001.1**	1 unit(s)	230,05
Crimp caps ND 20	**C782.1**	1 unit(s)	230,05

(2) Opening pliers

Allow controlled opening of crimped sample vials without risk of breaking the glass.

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 8	**ATN3.1**	1 unit(s)	230,05
Crimp caps ND 11	**ATN4.1**	1 unit(s)	230,05
Crimp caps ND 13	**ATN5.1**	1 unit(s)	230,05
Crimp caps ND 20	**ATN6.1**	1 unit(s)	230,05

A 121 °C

Crimping pliers Clean-room

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.

Made entirely of stainless steel, corrosion and heat resistant. The tool is tolerant to repeated sterilisation for cleanroom use. Free of lubricant and uncoated; no particles are released during use and therefore no increase in particle density occurs in the cleanroom. Crimping pressure and height are adjustable for optimal crimping results, even when using different types of vial.

Closing pliers

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**XC66.1**	1 unit(s)	876,15
Crimp caps ND 13	**XC67.1**	1 unit(s)	826,70
Crimp caps ND 20	**XC68.1**	1 unit(s)	826,70

Opening pliers

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**XC69.1**	1 unit(s)	826,70
Crimp caps ND 13	**XC70.1**	1 unit(s)	826,70
Crimp caps ND 20	**XC71.1**	1 unit(s)	826,70

Cordless crimping tools ND11 and ND20

Macherey-Nagel.

Mobile, electronic crimping tools for 11 mm and 20 mm aluminium crimp caps (not suitable for magnetic or bimetal crimp caps).

- Even and reproducible crimping results
- Control unit for adjusting the crimping pressure
- Long-life lithium batteries

Delivery incl. charger and socket set.

Closing pliers

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**APC4.1**	1 unit(s)	918,00
Crimp caps ND 20	**APC5.1**	1 unit(s)	918,00

Opening pliers

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**APC6.1**	1 unit(s)	918,00
Crimp caps ND 20	**APC7.1**	1 unit(s)	918,00

Crimping tools for autosample vials

High-performance crimping tool ND11 and ND20

Macherey-Nagel.

For safe and reproducible crimping and decapping of crimp caps on sample vials and autosampler vials.

- Very high motor power, also suitable for magnetic and bimetal crimp caps
- Interchangeable crimping and decapping heads
- Digital LED display
- Memory function for various crimping settings
- Optional tripod for comfortable and safe handling

Delivery incl. 12 V connector and cable. Please order crimping and decapping heads separately.

Version	Art. No.	Pack Qty.	€
High-performance crimping tool	**APE8.1**	1 unit(s)	1.428,00

Accessories

Macherey-Nagel.

Suitable for APE8.1 high-performance crimping tool.

Closing heads

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**APE9.1**	1 unit(s)	408,00
Crimp caps ND 20	**APH0.1**	1 unit(s)	408,00

Opening heads

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**APH1.1**	1 unit(s)	408,00
Crimp caps ND 20	**APH2.1**	1 unit(s)	408,00

Stand

Suitable for	Art. No.	Pack Qty.	€
High-performance crimping tool	**APH3.1**	1 unit(s)	210,00

Glass vials with rolled rim

Hecht. Material: Soda-lime glass, clear.

Delivery incl. snap-on lid made of LDPE.

Tall

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
3	19	30	**CLA8.1**	200 unit(s)	49,00
5	19	40	**CLA9.1**	200 unit(s)	50,55
10	22	45	**CLC0.1**	200 unit(s)	52,75
25	30	50	**CLC1.1**	200 unit(s)	71,65
30	28	75	**CLC2.1**	200 unit(s)	74,00
40	30	80	**CLC3.1**	200 unit(s)	86,20
50	30	100	**CLC4.1**	200 unit(s)	92,65
100	34	145	**CLC5.1**	100 unit(s)	117,30

Short

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	11.5	36	**CLA0.1**	690 unit(s)	133,35
5	24	24	**CLA1.1**	154 unit(s)	49,85
8	24	34	**CLA2.1**	154 unit(s)	51,95
10	24	41	**CLA3.1**	154 unit(s)	47,25
15	26	48	**CLA4.1**	130 unit(s)	44,75
20	26	60	**CLA5.1**	130 unit(s)	48,65
30	28	72	**CLA6.1**	108 unit(s)	46,70
60	32	106	**CLA7.1**	84 unit(s)	67,90

Glass vials with rolled rim brown glass

Hecht. Material: Soda-lime glass, brown.

Delivery incl. snap-on lid made of LDPE.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
3	19	30	**ENK0.1**	200 unit(s)	70,85
5	19	40	**ENK1.1**	200 unit(s)	70,85
10	22	45	**ENK2.1**	200 unit(s)	79,35
25	30	50	**ENK3.1**	200 unit(s)	111,10
30	28	75	**ENK4.1**	200 unit(s)	120,70
40	30	80	**ENK5.1**	200 unit(s)	153,15
50	30	100	**ENK6.1**	200 unit(s)	164,50
100	34	145	**ENK7.1**	100 unit(s)	140,75

Welted glasses

Glass vials with rolled rim ROTILABO® ND18/ND22

ROTH SELECTION. Material: Soda-lime glass from hydrolytic class III, clear.

For storing powders and solids.

Delivery without lid, please order separately.

Vol. (ml)	Version	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	ND18	20	13.1	40	**LC82.1**	100 unit(s)	15,95
10	ND18	22	13.1	50	**LC83.1**	100 unit(s)	17,75
15	ND22	26	18.2	48	**LC84.1**	100 unit(s)	26,80
25	ND22	26	18.2	65	**LC85.1**	100 unit(s)	27,75

Accessories snap-on lid

ROTH SELECTION. Material: PE, transparent.

Suitable for	Art. No.	Pack Qty.	€
Glass vials with rolled rim ND18	**LC86.1**	100 unit(s)	5,30
Glass vials with rolled rim ND22	**LC87.1**	100 unit(s)	6,75

Glass vials with rolled rim

ROTH SELECTION. Material: Soda-lime glass, clear.

Delivery incl. snap-on lid made of PE, tight-sealing.

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	19	13	40	**X654.1**	200 unit(s)	51,95
10	22	17	45	**X655.1**	200 unit(s)	55,55
15	24	17	52	**X656.1**	200 unit(s)	62,95
20	25	17	70	**X657.1**	200 unit(s)	66,40
20	27	17	55	**X658.1**	200 unit(s)	68,60
25	29	22	50	**X659.1**	200 unit(s)	71,15
30	28	17	75	**X660.1**	200 unit(s)	90,60
35	28	22	65	**X661.1**	200 unit(s)	91,35
40	29	22	80	**X662.1**	200 unit(s)	92,30
50	29	22	100	**X663.1**	200 unit(s)	99,25

NMR tube ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3, clear.

With lenticular-shaped based. For applications involving high throughput.

Technical specifications:

Art. No.	HX58.1
Version	NMR tubes ROTILABO®
Length	178 ±0,5 mm
Ø ext.	4,95 ±0,05 mm
Ø Internal	4,15 ±0,05 mm
Straightness	±0,07 mm
Wall thickness	0,38 mm
MHz	100-300

Delivery without cealing caps, please order separately.

Version	Art. No.	Pack Qty.	€
NMR tubes ROTILABO®	**HX58.1**	50 unit(s)	88,05

Screw caps for NMR tubes

ROTH SELECTION.

Designation	Art. No.	Pack Qty.	€
Screw caps for NMR tubes, material: EVA	**HX59.1**	1,000 unit(s)	106,70

NMR tube ROTILABO® brown

ROTH SELECTION. Material: Borosilicate glass 3.3.

Coloured brown with resilient silver diffusion colour. Specially designed for light-sensitive samples. With lenticular base, fire polished rim.

Technical specifications:

Art. No.	ATP0.1
Version	NMR tubes ROTILABO®, brown
Length	178 ±0,5 mm
Ø ext.	4,97 +0,02/-0,05 mm
Ø Internal	4,15 ±0,05 mm
Straightness	±0,07 mm
Wall thickness	0,38 mm
MHz	100-300

Delivery incl. sealing cap made of EVA.

Version	Art. No.	Pack Qty.	€
NMR tubes ROTILABO®, brown	**ATP0.1**	1 unit(s)	48,60

NMR vials

DURAN WHEATON KIMBLE

A 121 °C

NMR tubes

DWK Life Sciences.

Tubes do not contain any paramagnetic substances. Excellent straightness, uniform wall thickness, good diameter regularity. With retrace code.

Technical specifications:

Art. No.	EP54.1	KNK9.1	KNL0.1	EP55.1
Version	Economic	Economic 5.1	Professional	Scientific
Length	178 mm			
Ø ext.	4,95 ±0,05 mm	4,94 ± 0,04 mm	4,97 ± 0,025 mm	4,97 ±0,013 mm
Ø Internal	4,20 ±0,05 mm	4,20 ± 0,04 mm	4,20 ± 0,025 mm	4,20 ±0,025 mm
Straightness	±0,07 mm		±0,03 mm	0,013 mm
MHz	300	100	400	500

Delivery incl. sealing caps.

Economic

Material: Borosilicate glass 3.3. For single use in fully automated sample changers or for high throughput.

Version	Art. No.	Pack Qty.	€
Economic	**EP54.1**	250 unit(s)	535,00

Scientific

Material: Borosilicate glass 3.3. For multiple use. Tubes can be cleaned and sterilised. Optimum substance utilisation in highest resolution range.

Version	Art. No.	Pack Qty.	€
Scientific	**EP55.1**	5 unit(s)	73,60

Economic 5.1

Material: Borosilicate glass 5.1. For economical use with high throughput in the low-frequency range.

Version	Art. No.	Pack Qty.	€
Economic 5.1	**KNK9.1**	100 unit(s)	163,00

Professional

Material: Borosilicate glass 3.3. For use in industry and research in the medium and high-resolution range.

Version	Art. No.	Pack Qty.	€
Professional	**KNL0.1**	250 unit(s)	1.990,00

Stirring bars ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

For stirring different specimens.

Made of flexible PTFE

Material: PTFE flexible. With spade-shaped ends.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	8	**EX96.1**	1 unit(s)	6,10
200	8	**EX97.1**	1 unit(s)	6,85
250	8	**EX98.1**	1 unit(s)	7,75
300	8	**EX99.1**	1 unit(s)	9,05

Made of PTFE with stainless steel core

Material: PTFE with stainless steel core. Bendable acc. to use. Bend remains permanently. Round ends.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	6	**EY00.1**	1 unit(s)	8,50
200	6	**EY01.1**	1 unit(s)	9,25
250	6	**EY02.1**	1 unit(s)	9,75
300	6	**EY03.1**	1 unit(s)	12,50
350	6	**EY04.1**	1 unit(s)	14,20
400	6	**EY05.1**	1 unit(s)	15,70

Stirring bars

Kartell. Material: PVC, rigid.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
250	7.15	**TT38.1**	10 unit(s)	28,85
300	7.15	**TT39.1**	10 unit(s)	28,85
350	7.15	**TT40.1**	10 unit(s)	32,50

Stirring staff and wipers

Stirring spatulas

ROTH SELECTION. Material: PP.
For stirring different specimens. Rod Ø 6 mm.

Total length (mm)	Art. No.	Pack Qty.	€
244	**TT16.1**	10 unit(s)	11,65

Stirring bars ROTILABO® glass

ROTH SELECTION. Material: Borosilicate glass.
Both ends fused. Few inclusions.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	6	**P210.1**	10 unit(s)	7,75
200	6	**P211.1**	10 unit(s)	8,85
250	7	**P212.1**	10 unit(s)	12,70
250	8	**P213.1**	10 unit(s)	13,35
300	8	**P214.1**	10 unit(s)	16,25

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Wiper ROTILABO® rubber

ROTH SELECTION. Material: Natural rubber.
Suitable for glass rods Ø 5-6 mm.

Rod-shaped

Total length (mm)	Colour	Art. No.	Pack Qty.	€
38	grey	**9548.1**	10 unit(s)	12,85
38	red	**9550.1**	10 unit(s)	12,85

Spade-shaped

Thickness approx. 2 mm.

Total length (mm)	Upper width (mm)	Lower width (mm)	Colour	Art. No.	Pack Qty.	€
32	25	36	grey	**9552.1**	10 unit(s)	12,85
32	25	36	red	**9553.1**	10 unit(s)	12,85

Wiper ROTILABO® silicone

ROTH SELECTION. Material: Silicone, Handle made of stainless steel.
For removing or wiping sticky substances and paste-like media. Temperature-resistant up to +260 °C. Suitable for foodstuffs.

Total length (mm)	Width (mm)	Colour	Art. No.	Pack Qty.	€
200	25	white	**HY10.1**	1 unit(s)	18,80
260	48	white	**KEY0.1**	1 unit(s)	16,60
320	72	white	**KEY1.1**	1 unit(s)	18,30
200	26	black	**KEY2.1**	1 unit(s)	14,30
260	50	black	**KEY3.1**	1 unit(s)	16,45
320	68	black	**KEY4.1**	1 unit(s)	17,65

Analytical and scintillation vessels

NEW / +

Sample vessels for analysis systems

Ratiolab. Material: PS, clear.

For use in automatic analysers.

Not a medical device / Not an IVD product

Vol. (ml)	Material	Suitable for	Art. No.	Pack Qty.	€
0.5	PS	Gemsaec G1	**1E92.1**	1,000 unit(s)	20,45
2	PS	Technicon T1	**1E94.1**	1,000 unit(s)	16,15
3	PS	Hitachi H1	**1E95.1**	1,000 unit(s)	20,20
3.5	PS	Technicon T2	**1E93.1**	1,000 unit(s)	23,50

Sample vessels for cell counters

Simport. Material: PS.

Optically clear, with parallel sides. For use in analyser systems.

Delivery incl. snap-on lid made from PE.

Not a medical device / Not an IVD product

Vol. (ml)	Material	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	PS	35	56	**AYX2.1**	1,000 unit(s)	213,95

Scintillation vials

Kartell. Material: HDPE, PP screw caps.

Compatible with all conventional liquid scintillation counters. The screw cap of the 20 ml tubes seals with as little as a quarter turn.

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
4	HDPE	14	54	**HEE8.1**	2,000 unit(s)	123,00
20	HDPE	27	61	**HEE9.1**	1,000 unit(s)	160,95

Scintillation vials

Simport.

All-purpose vials for liquid and gamma scintillation counters or for sample storage. Cylindrical shape allows easy filling and residue-free drainage. **Leak-proof.**

Not a medical device / Not an IVD product

Volume 20 ml
Material: PP transparent, cap made of HDPE. Opening or inner Ø 22 mm. Screw cap is sealed and leak-proof after only 1/4 turn.

Version	Vol. (ml)	Material	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	20	PP	27	61	**AYX3.1**	500 unit(s)	123,65

Volume 6.5 ml
Type 2 vials made from HDPE with PP caps or type 3 vials made from transparent PP with HDPE caps. Opening or inner Ø 12 mm. Special push-on cap for quick closing, can be opened again with a quarter turn.

Version	Vol. (ml)	Material	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	6.5	HDPE	16	57	**AYX4.1**	1,000 unit(s)	127,95
3	6.5	PP	16	57	**AYX5.1**	1,000 unit(s)	101,60

Analytical and scintillation vessels

Scintillation vials

ROTH SELECTION. Material: HDPE.

For use in automatic analysers.
5 ml vial with transparent screw cap, suitable for putting into 20 ml carrier vial.
20 ml vial with white sealable screw cap.

Not a medical device / Not an IVD product

Vol. (ml)	Material	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	HDPE	14	53	**5404.1**	2,000 unit(s)	144,10
20	HDPE	27	60	**HEN0.1**	1,000 unit(s)	139,20

DURAN WHEATON KIMBLE

Scintillation vials 6 ml

DWK Life Sciences. Material: HDPE, caps made from PP.

Caps seal with as little as a quarter turn. Hook-in vessels can be attached via the cap extension in 20 ml scintillation vials with thread 22-400.

Delivery incl. caps, included.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Standard	6	HDPE	17	57	**EPA7.1**	1,000 unit(s)	440,75
Inserta-ble	6	HDPE	17	57	**EPA8.1**	1,000 unit(s)	440,75

A 121 °C

DURAN WHEATON KIMBLE

Scintillation vials Omni-Vial®

DWK Life Sciences. Material: PP. Autoclavable: Yes.

Suitable for liquid, beta and gamma-scintillation counters, for RIA or for sample storage.

Delivery incl. caps.

Not a medical device / Not an IVD product

Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
4	PP	13	57	**EXY7.1**	1,000 unit(s)	255,85

DURAN WHEATON KIMBLE

Scintillation vials Sampule®

DWK Life Sciences.

Type 1 vials made from borosilicate glass (acc. to USP type I and ASTM E 438 type I, class A) with urea caps and seal made from aluminium-coated cellulose cardboard.
Type 2 vials made from HDPE with PP caps.

Delivery incl. caps.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	6	Boro-silicate glass	17	58	**EXY8.1**	1,000 unit(s)	500,95

Analytical and scintillation vessels

DURAN WHEATON KIMBLE

Scintillation vials 20 ml

DWK Life Sciences.

Made of borosilicate glass (acc. to USP type I and ASTM E 438 type I, class A), HDPE or PET. Caps made of PP with seals made of PE foam or aluminium-coated cellulose cardboard, assembled.

Not a medical device / Not an IVD product

Caps made from PP with aluminium seal
Suitable for solvents, hydrocarbons, oils, ketones and alcohols.

Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	Borosili-cate glass	28	61	**EXY4.1**	500 unit(s)	268,75
20	HDPE	27	61	**EXY5.1**	500 unit(s)	190,30
20	PET	27	61	**EXY6.1**	500 unit(s)	231,15

Caps made from PP with PE foam seal
Suitable for aqueous, acid, alkaline or alcoholic solutions.

Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	Borosili-cate glass	28	61	**EXY1.1**	500 unit(s)	264,45
20	HDPE	27	61	**EXY2.1**	500 unit(s)	190,30
20	PET	27	61	**EXY3.1**	500 unit(s)	231,15

Test tubes ROTILABO®

ROTH SELECTION. Material: Soda-lime glass.
With flat bottom and fused rim.

Delivery incl. Lupolen stoppers.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2.5	10	50	0,6	**0425.1**	496 unit(s)	101,80

Test tubes acc. to Durham

Marienfeld. Material: Soda-lime glass.
With round bottom and straight edge. For detecting gas production in micro-organisms.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.5	6	35	0,7	**TX27.1**	250 unit(s)	32,80
0.5	7	25	0,7	**TX28.1**	250 unit(s)	52,45
0.75	6	50	0,7	**TX29.1**	350 unit(s)	40,65

Test tubes

Kartell. Material: PE, natural colours.
With attached press-in lids.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	9	32	**5862.1**	100 unit(s)	30,75
2.5	14	32	**5863.1**	100 unit(s)	33,00
5	15	50	**5866.1**	100 unit(s)	42,40
7	22	32	**5867.1**	100 unit(s)	46,75
8	17	58	**TT12.1**	100 unit(s)	46,90
20	25	75	**TT13.1**	100 unit(s)	53,40
25	31	53	**TT14.1**	50 unit(s)	42,30
35	31	75	**TT15.1**	50 unit(s)	46,90

Test vials

121 °C

Test tubes

Boettger. Material: PP, transparent. Autoclavable: Yes.

Delivery without screw caps, please order separately.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
40	30	85	**PT32.1**	500 unit(s)	58,40
60	30	126	**PT33.1**	300 unit(s)	47,60
120	44	115	**PT34.1**	250 unit(s)	52,15

121 °C

Accessories screw caps

Boettger. Material: PP. Autoclavable: Yes.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Standard	PT29.1, PT30.1, PT32.1 and PT33.1	**PT35.1**	500 unit(s)	34,85
With stand for tube-Ø 16 mm	PT29.1, PT30.1, PT32.1 and PT33.1	**PT36.1**	300 unit(s)	24,25
With stand for tube-Ø 25 mm	PT31.1 and PT34.1	**PT38.1**	250 unit(s)	24,10
With attachment Ø inside 16 mm	PT29.1, PT30.1, PT32.1 and PT33.1	**PT37.1**	300 unit(s)	31,50

DURAN WHEATON KIMBLE

Culture vials with screw cap

DWK Life Sciences.

With DIN thread.

Delivery incl. screw caps.

Not a medical device / Not an IVD product

Soda-lime glass

Material: Soda-lime glass screw cap made of PP with white rubber seal. Autoclavable: Limited. Note: Can cause glass corrosion when autoclaved several times. Heat resistant up to approx. 100 °C.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
6	12	100	GL 14	**K251.1**	100 unit(s)	43,70
12	16	100	GL 18	**K252.1**	100 unit(s)	46,75
20	16	160	GL 18	**K253.1**	100 unit(s)	57,75
30	18	180	GL 18	**K254.1**	100 unit(s)	67,35

DURAN® glass

Material: DURAN® glass screw caps made of PBT with PTFE-coated seals. Autoclavable: Yes. Hot air sterilization to max. 180 °C.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
6	12	100	GL 14	**K248.1**	50 unit(s)	174,00
9	13	100	GL 14	**PY94.1**	50 unit(s)	174,00
20	16	160	GL 18	**K249.1**	50 unit(s)	226,00
20	16	150	GL 18	**PY95.1**	50 unit(s)	174,00
30	18	180	GL 18	**K250.1**	50 unit(s)	248,00
34	20	150	GL 18	**PY96.1**	50 unit(s)	257,00

Test vials

Test tubes made of fluoroplastic

Vitlab.

Highly transparent. Optionally with screw cap GL 25, available with or without stopper.

Not a medical device / Not an IVD product

With screw cap made of PFA

Material: PFA. Autoclavable: Yes.

Version	Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
Without ring marking	15	22	110	GL 25	**YA28.1**	1 unit(s)	58,10
With ring marking at 10 ml	15	22	110	GL 25	**YA27.1**	1 unit(s)	69,70

With stopper made of PE

Material: PFA, PE.

Version	Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
With ring marking at 10 ml	12	16	110	**YA25.1**	1 unit(s)	47,90

Without stopper

Material: PFA. Autoclavable: Yes.

Version	Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
Without ring marking	12	16	110	**YA26.1**	1 unit(s)	36,50

Test tubes made of fluoroplastic

Saint-Gobain. Material: PFA, Highly transparent. Autoclavable: Yes.

- Temperature-stable from -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

A 121 °C ❄❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	10	8	132	**YY79.1**	1 unit(s)	73,70
15	16	14	162	**YY81.1**	1 unit(s)	102,80
20	16	14	175	**YY82.1**	1 unit(s)	103,15
25	19	16	185	**YY83.1**	1 unit(s)	126,35
50	22	19	235	**YY84.1**	1 unit(s)	162,35
60	22	19	245	**YY85.1**	1 unit(s)	168,80

Test vials

121 °C

Test tubes with tamper-evident seal

Camlab. Material: PP. Autoclavable: Yes.

Temperature-stable from -90 to +121 °C. Cap dimensions: Ø 24 mm, height 2 mm.

- Leak-proof tamper-evident seal
- Free-standing, conical base for optimal sample recovery
- Frosted label field
- Graduated in 1 ml increments

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Lid colour	Art. No.	Pack Qty.	€
5	16	57	pink	**X327.1**	250 unit(s)	100,35
5	16	57	blue	**X328.1**	250 unit(s)	100,35
5	16	57	white	**X329.1**	250 unit(s)	100,35
10	15	94	pink	**X330.1**	250 unit(s)	100,35
10	15	94	blue	**X331.1**	250 unit(s)	100,35
10	15	94	white	**X332.1**	250 unit(s)	100,35

DURAN WHEATON KIMBLE

Culture vials with screw cap

DWK Life Sciences. Material: Borosilicate glass acc. to USP type I and ASTM E 438 type I class B; seals made of black phenol resin with seals made of PTFE-coated rubber.

With round bottom, suitable for use in shakers and tilt/roller mixers.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
11	16	100	15-415	**ETK4.1**	144 unit(s)	260,15
14	16	125	15-415	**ETK5.1**	144 unit(s)	266,60
27	20	150	18-415	**ETK6.1**	144 unit(s)	534,30

121 °C

Test tube ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

Good temperature stability.

Not a medical device / Not an IVD product

With beaded rim, thick-walled
Material: Borosilicate glass 3.3.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4	10	75	0,8-1,0	**HA87.1**	100 unit(s)	29,85
5	10	100	0,8-1,0	**HA88.1**	100 unit(s)	32,05
8	12	100	0,8-1,0	**HA90.1**	100 unit(s)	31,00
16	14	130	0,8-1,0	**HA91.1**	100 unit(s)	39,20
17	16	130	1,0-1,2	**HA92.1**	100 unit(s)	42,75
21	16	160	1,0-1,2	**HA93.1**	100 unit(s)	46,20
32	18	180	1,0-1,2	**HA94.1**	100 unit(s)	53,20
34	20	150	1,0-1,2	**HA95.1**	100 unit(s)	56,20
40	20	180	1,0-1,2	**HA96.1**	100 unit(s)	62,05
55	25	150	1,0-1,2	**HA97.1**	50 unit(s)	34,60
70	25	200	1,0-1,2	**HA98.1**	50 unit(s)	46,25
100	30	200	1,0-1,4	**HA99.1**	50 unit(s)	55,70

With beaded rim, thin-walled
Material: Borosilicate glass 5.1.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,4-0,5	**HC00.1**	100 unit(s)	23,20
4	10	75	0,4-0,5	**HC01.1**	100 unit(s)	23,15
6	10	100	0,4-0,5	**HC02.1**	100 unit(s)	23,10
6.5	12	75	0,4-0,5	**HC03.1**	100 unit(s)	23,10
9	12	100	0,4-0,5	**HC04.1**	100 unit(s)	23,10
16	14	130	0,4-0,5	**HC05.1**	100 unit(s)	28,85
20	16	130	0,5-0,6	**HC06.1**	100 unit(s)	28,70
25	16	160	0,5-0,6	**HC07.1**	100 unit(s)	26,65
35	18	180	0,5-0,6	**HC08.1**	100 unit(s)	32,40
45	20	180	0,5-0,6	**HC10.1**	100 unit(s)	37,00
60	25	150	0,6-0,7	**HC11.1**	50 unit(s)	24,35
80	25	200	0,6-0,7	**HC12.1**	50 unit(s)	29,85
110	30	200	0,7-0,8	**HC13.1**	50 unit(s)	56,20

Test tubes

With straight edge, thin-walled
Material: Borosilicate glass 3.3.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4	10	75	0,8-1,0	**HA73.1**	100 unit(s)	28,80
5	10	100	0,8-1,0	**HA74.1**	100 unit(s)	32,05
6	12	75	0,8-1,0	**HA75.1**	100 unit(s)	29,85
8	12	100	0,8-1,0	**HA76.1**	100 unit(s)	31,65
16	14	130	1,0-1,2	**HA77.1**	100 unit(s)	40,60
17	16	130	1,0-1,2	**HA78.1**	100 unit(s)	48,35
21	16	160	1,0-1,2	**HA79.1**	100 unit(s)	52,90
32	18	180	1,0-1,2	**HA80.1**	100 unit(s)	67,00
34	20	150	1,0-1,2	**HA81.1**	100 unit(s)	62,05
40	20	180	1,0-1,2	**HA82.1**	100 unit(s)	62,55
55	25	150	1,0-1,2	**HA83.1**	50 unit(s)	34,70
70	25	200	1,0-1,2	**HA84.1**	50 unit(s)	47,35
100	30	200	1,0-1,4	**HA85.1**	50 unit(s)	54,65

Test tube

Marienfeld. Material: Soda-lime glass.
With round bottom and straight edge.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4	10	75	0.6	**TX18.1**	1,000 unit(s)	67,85
6	12	75	0.6	**TX19.1**	500 unit(s)	27,35
9	12	100	0.6	**TX20.1**	500 unit(s)	40,50
14	16	100	0.8	**TX21.1**	310 unit(s)	33,90
20	16	130	0.8	**TX22.1**	100 unit(s)	17,05
23	16	150	0.8	**TX23.2**	100 unit(s)	17,10
25	16	160	0.8	**TX24.2**	100 unit(s)	18,05
35	18	180	1.0	**TX25.1**	100 unit(s)	30,85
75	25	200	1.2	**TX26.1**	63 unit(s)	45,70

Test tube ROTILABO®

ROTH SELECTION. Material: Soda-lime glass.
With round bottom and smooth rim, slightly narrowed at the top.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
20	16	160	0,6	**0486.2**	250 unit(s)	29,30

A 121 °C

DURAN WHEATON KIMBLE

Test tube DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Thick-walled, therefore particularly resistant to mechanical loads. Good temperature stability.

Not a medical device / Not an IVD product

With beaded rim

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,8-1,0	**C196.1**	100 unit(s)	38,60
4	10	75	0,8-1,0	**C197.1**	100 unit(s)	41,70
5	10	100	0,8-1,0	**C198.1**	100 unit(s)	43,70
6	12	75	0,8-1,0	**C199.1**	100 unit(s)	45,75
8	12	100	0,8-1,0	**C205.1**	100 unit(s)	48,80
9	13	100	0,8-1,0	**PY92.1**	100 unit(s)	57,30
16	14	130	0,8-1,0	**C206.1**	100 unit(s)	62,95
17	16	130	1,0-1,2	**C207.1**	100 unit(s)	73,70
21	16	160	1,0-1,2	**C208.1**	100 unit(s)	71,40
32	18	180	1,0-1,2	**C209.1**	100 unit(s)	86,55
34	20	150	1,0-1,2	**C210.1**	100 unit(s)	90,65
40	20	180	1,0-1,2	**C211.1**	100 unit(s)	95,85
55	25	150	1,0-1,2	**C212.1**	50 unit(s)	69,15
70	25	200	1,0-1,2	**C213.1**	50 unit(s)	71,70
100	30	200	1,0-1,4	**C214.1**	50 unit(s)	112,75

With straight edge

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,8-1,0	**C182.1**	100 unit(s)	37,45
4	10	75	0,8-1,0	**C183.1**	100 unit(s)	41,70
5	10	100	0,8-1,0	**C184.1**	100 unit(s)	43,70
6	12	75	0,8-1,0	**C185.1**	100 unit(s)	44,15
8	12	100	0,8-1,0	**C186.1**	100 unit(s)	48,80
9	13	100	0,8-1,0	**PY93.1**	100 unit(s)	57,30
16	14	130	0,8-1,0	**C187.1**	100 unit(s)	62,95
17	16	130	1,0-1,2	**C188.1**	100 unit(s)	71,55
21	16	160	1,0-1,2	**C189.1**	100 unit(s)	72,65
32	18	180	1,0-1,2	**C190.1**	100 unit(s)	86,25
34	20	150	1,0-1,2	**C191.1**	100 unit(s)	90,65
40	20	180	1,0-1,2	**C192.1**	100 unit(s)	100,90
55	25	150	1,0-1,2	**C193.1**	50 unit(s)	66,05
70	25	200	1,0-1,2	**C194.1**	50 unit(s)	71,70
100	30	200	1,0-1,4	**C195.1**	50 unit(s)	112,75

Test tubes

121 °C

DURAN WHEATON KIMBLE

Test tube Fiolax®

DWK Life Sciences. Material: Borosilicate glass 4.9. Autoclavable: Yes.

With beaded rim. Thin-walled and relatively resistant to sudden temperature changes and localised heating.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,4-0,5	**K223.1**	100 unit(s)	20,70
4	10	75	0,4-0,5	**K224.1**	100 unit(s)	21,35
6	10	100	0,4-0,5	**K225.1**	100 unit(s)	21,35
6.5	12	75	0,4-0,5	**K226.1**	100 unit(s)	22,65
9	12	100	0,4-0,5	**K227.1**	100 unit(s)	23,65
16	14	130	0,4-0,5	**K228.1**	100 unit(s)	29,40
20	16	130	0,5-0,6	**K229.1**	100 unit(s)	34,05
25	16	160	0,4-0,5	**K230.1**	100 unit(s)	33,35
35	18	180	0,4-0,5	**K231.1**	100 unit(s)	40,65
39	20	150	0,4-0,5	**K232.1**	100 unit(s)	46,25
45	20	180	0,4-0,5	**K233.1**	100 unit(s)	46,75
60	25	150	0,6-0,7	**K234.1**	50 unit(s)	34,80
80	25	200	0,6-0,7	**K235.1**	50 unit(s)	39,35
110	30	200	0,7-0,8	**K236.1**	50 unit(s)	77,30

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

NEW / +

DURAN WHEATON KIMBLE

Test tube with flat bottom

DWK Life Sciences. Material: Soda-lime glass.

Colourless, without rim. For use as reaction vials for chemical reactions and for storing small amounts of liquids.

Not a medical device / Not an IVD product

Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
11	43	0,7-0,8	**1H3A.1**	200 unit(s)	50,70
15	65	0,7-0,8	**1H3H.1**	300 unit(s)	95,35
16	40	0,7-0,8	**1H39.1**	200 unit(s)	52,90
16	50	0,9-1,0	**1H3C.1**	100 unit(s)	24,85
19	50	0,7-0,8	**1H3E.1**	100 unit(s)	29,75
19	70	0,7-0,8	**1H3K.1**	100 unit(s)	35,05
24	100	0,9-1,0	**1H3L.1**	50 unit(s)	21,50
30	100	1,1-1,2	**1H3N.1**	81 unit(s)	46,30

121 °C

Test tube with ground glass stopper

BRAND. Material: Borosilicate glass 3.3, stopper made of PP. Autoclavable: Yes.

With standard ground sleeve and PP stopper. White graduated.

Not a medical device / Not an IVD product

Vol. (ml)	Gradu-ations (ml)	Ø ext. (mm)	Height (mm)	Wall thick-ness (mm)	Stan-dard	Art. No.	Pack Qty.	€
10	0.1	15	165	1,2	12/21	**Y752.1**	1 unit(s)	11,95
20	0.2	17	200	1,2	14/23	**Y753.1**	1 unit(s)	14,75
25	0.2	17	220	1,2	14/23	**Y754.1**	1 unit(s)	16,95
30	0.5	19	220	1,2	14/23	**Y755.1**	1 unit(s)	18,45

A 121 °C

Test tube with ground glass stopper

Bohemia. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With ground glass sleeve, ground glass stopper and white labelling space.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thick-ness (mm)	Stan-dard ground glass joint	Art. No.	Pack Qty.	€
10	16	150	1.8	12/21	**NY90.1**	1 unit(s)	19,05
20	18	180	1.8	14/23	**NY91.1**	1 unit(s)	19,15
30	22	150	1.8	19/26	**NY92.1**	1 unit(s)	19,05
50	22	200	1.8	19/26	**NY93.1**	1 unit(s)	19,05
100	34	200	2.0	29/32	**NY94.1**	1 unit(s)	22,15

Test tubes

Kartell. Material: PS.

In vitro diagnostic medical device according to IVDD

Version	Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thick-ness (mm)	Art. No.	Pack Qty.	€
Round base	1	11.5	55	1	**K940.1**	1,000 unit(s)	25,80
Round base	2	11	70	1	**K939.1**	1,000 unit(s)	27,75
Round base	4	12	75	1	**K937.1**	1,000 unit(s)	33,95
Conical	10	16	105	1	**K935.1**	1,000 unit(s)	59,85
Round base	10	16	100	1	**K936.2**	500 unit(s)	28,35
Round base	15	16	150	1	**K938.2**	850 unit(s)	100,20

Test tubes with rim

Kartell.

In vitro diagnostic medical device according to IVDD

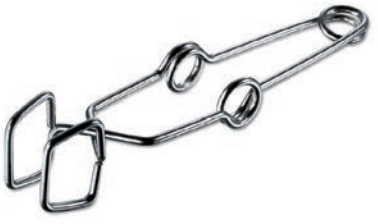
Version	Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
Conical, material: PS	10	16	100	**TT74.1**	2,000 unit(s)	140,40
Cylindrical material: PP	10	16	100	**TT73.1**	2,000 unit(s)	114,70

Test tube clips ROTILABO®

ROTH SELECTION. Material: Wood.

Length 180 mm.

Version	Art. No.	Pack Qty.	€
For test tubes Ø 12-20 mm	**0645.1**	12 unit(s)	11,00



Test tube holder ROTILABO® with finger grip

ROTH SELECTION. Material: Steel nickel-plated.

Length 130 mm.

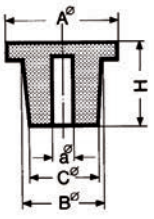
Version	Art. No.	Pack Qty.	€
For test tubes up to Ø 30 mm	**X114.1**	1 unit(s)	5,60

Plugs ROTILABO® natural cork

ROTH SELECTION. Material: Cork.

Made of natural cork. Conical shape. Lightweight and robust, easy to drill through

Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
3	6	16	**PL40.1**	25 unit(s)	6,75
5	8	16	**PL41.1**	25 unit(s)	6,75
6	9	17	**PL42.1**	25 unit(s)	6,75
9	12	20	**PL43.1**	25 unit(s)	5,60
10	13	22	**PL44.1**	25 unit(s)	5,60
12	15	22	**PL45.1**	25 unit(s)	5,60
13	16	22	**PP70.1**	25 unit(s)	6,00
14	17	22	**PL46.1**	25 unit(s)	6,15
16	19	23	**PL47.1**	25 unit(s)	6,60
17	20	26	**PL48.1**	25 unit(s)	7,80
18	22	26	**PL49.1**	25 unit(s)	8,95
20	24	27	**PL50.1**	10 unit(s)	6,60
22	26	27	**PL51.1**	10 unit(s)	7,15
24	28	27	**PL52.1**	10 unit(s)	7,75
26	30	27	**PL53.1**	10 unit(s)	10,05
28	32	27	**PL54.1**	10 unit(s)	10,70
32	36	27	**PL55.1**	10 unit(s)	13,35



A 121 °C

Plugs ROTILABO® semi-hollow

ROTH SELECTION. Material: Natural rubber. Autoclavable: Yes.

Colour red. Elastic. Compliant with DIN 12871. Hardness Shore A. Borehole not continuous. Temperature-stable from -35 to +70 °C.

Ø Lower (mm)	Ø Upper (mm)	Ø ext. (mm)	Ø Hole (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	14	19	6	18	**TL43.1**	10 unit(s)	7,75
14	16	21	8	19	**TL44.1**	10 unit(s)	8,30
17	19	27	10	20	**TL45.1**	10 unit(s)	8,60

A 121 °C

Plugs ROTILABO®

ROTH SELECTION. Material: Natural rubber. Autoclavable: Yes.

Colour red. Elastic. Compliant with DIN 12871. Hardness: 40 Shore A. Silicone free. Temperature-stable from -35 to +70 °C.

Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
3.5	6.5	15	**TL09.1**	100 unit(s)	13,85
5	9	20	**TL10.1**	100 unit(s)	16,80
8	12	20	**TL11.1**	100 unit(s)	22,45
10.5	14.5	20	**TL12.1**	25 unit(s)	7,85
12.5	16.5	20	**TL13.1**	25 unit(s)	8,95
14	18	20	**TL14.1**	25 unit(s)	9,30
17	22	25	**TL15.1**	25 unit(s)	15,45
18	24	30	**TL16.1**	25 unit(s)	18,05
21	27	30	**TL17.1**	25 unit(s)	23,35
23	29	30	**TL18.1**	25 unit(s)	29,80
26	32	30	**TL19.1**	25 unit(s)	36,00
29	35	30	**TL20.1**	25 unit(s)	40,60
31	38	35	**TL21.1**	25 unit(s)	54,45
36	44	40	**TL22.1**	25 unit(s)	64,90
41	49	40	**TL23.1**	25 unit(s)	85,55
47	55	40	**TL24.1**	5 unit(s)	25,30
50.5	59.5	45	**TL25.1**	5 unit(s)	31,65
56	65	45	**TL26.1**	5 unit(s)	37,70
60	70	50	**TL27.1**	5 unit(s)	46,50
64.5	73.5	55	**TL28.1**	5 unit(s)	52,55
71	83	60	**TL29.1**	1 unit(s)	14,90
79	92	65	**TL30.1**	1 unit(s)	20,75
87	100	65	**TL31.1**	1 unit(s)	23,95
94	107	65	**TL32.1**	1 unit(s)	26,15

A 121 °C

Plugs ROTILABO®

ROTH SELECTION. Material: Natural rubber. Autoclavable: Yes.
Elastic. Temperature-stable from -35 to +70 °C (+120 °C with moist heat).
Hardness: 40 Shore A. Silicone free. In acc. with DIN 12871.

Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
3.5	6.5	15	**C367.2**	100 unit(s)	11,20
5	9	20	**C368.2**	100 unit(s)	13,80
8	12	20	**C377.2**	100 unit(s)	17,15
10.5	14.5	20	**C378.2**	25 unit(s)	5,60
14	18	20	**0395.2**	25 unit(s)	7,75
17	22	25	**C379.2**	25 unit(s)	13,20
18	24	30	**C380.2**	25 unit(s)	15,30
21	27	30	**C381.2**	25 unit(s)	19,90
26	32	30	**C382.2**	25 unit(s)	30,70
29	35	30	**C383.2**	25 unit(s)	36,95
31	38	35	**C384.1**	25 unit(s)	43,30
36	44	40	**C385.1**	25 unit(s)	54,15
41	49	40	**C386.1**	25 unit(s)	65,80
47	55	40	**EK04.1**	5 unit(s)	20,75
56	65	45	**Y843.1**	1 unit(s)	7,70
64.5	73.5	55	**Y844.1**	1 unit(s)	10,45
71	83	60	**TK97.1**	1 unit(s)	11,35
79	92	65	**TK98.1**	1 unit(s)	16,10
87	100	65	**TK99.1**	1 unit(s)	18,50
94	107	65	**TL00.1**	1 unit(s)	20,95

A 121 °C

Plugs ROTILABO® with 2 boreholes

ROTH SELECTION. Material: Natural rubber, elastic. Autoclavable: Yes.
With two boreholes. Compliant with DIN 12871. Hardness: 40 Shore A. Silicone free. Colour grey. Temperature-stable from -35 to +70 °C.

Ø Lower (mm)	Ø Upper (mm)	Ø Hole (mm)	Height (mm)	Art. No.	Pack Qty.	€
14	18	3	20	**TL01.1**	25 unit(s)	7,80
17	22	4	25	**TL02.1**	25 unit(s)	12,30
18	24	4	30	**TL03.1**	25 unit(s)	14,10
21	27	5	30	**TL04.1**	10 unit(s)	8,75
23	29	5	30	**TL05.1**	10 unit(s)	11,00
26	32	6	30	**TL06.1**	10 unit(s)	12,95
29	35	6	30	**TL07.1**	10 unit(s)	15,20
31	38	7	35	**TL08.1**	10 unit(s)	18,75

Plugs with turn-up lip

Saint-Gobain. Material: Rubber.
For tight sealing of glass, plastic or metallic vessels with or without beaded rim or glass ground joint.
Firm fit to prevent unintentional opening. The rubber stoppers can be penetrated for sampling and also remain water-tight even after several perforations.
Temperature-stable from -20 to +100 °C.

Version	Ø Lower (mm)	Ø Upper (mm)	Suitable for	Art. No.	Pack Qty.	€
7,1	4.5	7.5	NS 5/13	**EC92.1**	100 unit(s)	47,60
10,2	9.8	10.7	NS 10/19	**EC93.1**	50 unit(s)	29,50
12,7	12.3	13.3	NS 12/21	**EC94.1**	50 unit(s)	42,45
14,9	14.2	15.5	NS 14/23	**EC95.1**	20 unit(s)	22,75
15,9	14.5	16.5	NS 14/23	**EC96.1**	20 unit(s)	54,05
19,4	15.8	17.8	NS 19/26	**EC97.1**	20 unit(s)	29,55
23,7	21.2	24.4	NS 24/29	**EC98.1**	10 unit(s)	41,15
30,7	28.0	31.4	NS 29/32	**EC99.1**	5 unit(s)	26,80

Stoppers

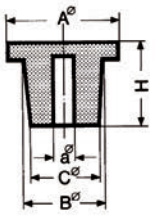
121 °C

Plugs ROTILABO® With borehole

ROTH SELECTION. Material: Natural rubber, elastic. Autoclavable: Yes.

With borehole. Hardness: 40 Shore A. Silicone free. Colour grey. Temperature stability -35 to +70 °C.

Ø Lower (mm)	Ø Upper (mm)	Ø Hole (mm)	Height (mm)	Art. No.	Pack Qty.	€
10.5	14.5	3	20	**Y846.1**	25 unit(s)	6,10
12.5	16.5	3	20	**Y847.1**	25 unit(s)	7,35
14	18	3	20	**Y848.1**	25 unit(s)	8,25
17	22	4	25	**Y849.1**	25 unit(s)	13,80
18	24	4	30	**Y850.1**	25 unit(s)	14,75
21	27	5	30	**Y851.1**	10 unit(s)	9,65
23	29	5	30	**Y852.1**	10 unit(s)	12,70
26	32	6	30	**Y853.1**	10 unit(s)	14,15
29	35	6	30	**Y854.1**	10 unit(s)	16,30
31	38	7	35	**Y855.1**	10 unit(s)	21,10



121 °C

Plugs ROTILABO® semi-hollow

ROTH SELECTION. Material: Silicone rubber. Autoclavable: Yes.

Compliant with DIN 12871. Hardness: 50 Shore A. Bioinert. Resistant to ageing, ozone and repeated sterilisation. Borehole not continuous. Temperature-stable from -60 to +180 °C (+250 °C for a short time).

Ø Lower (mm)	Ø Upper (mm)	Ø ext. (mm)	Ø Hole (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	14	19	6	18	**TL46.1**	10 unit(s)	13,20
14	16	21	8	19	**TL47.1**	10 unit(s)	14,45
17	19	27	10	20	**TL48.1**	10 unit(s)	15,30

121 °C

Plugs ROTILABO®

ROTH SELECTION. Material: Silicone rubber. Autoclavable: Yes.

Compliant with DIN 12871. Hardness: 50 Shore A. Bioinert. Resistant to ageing, ozone and repeated sterilisations. Temperature-stable from -60 to +180 °C (+250 °C for a short time).

Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
3.5	6.5	15	**C388.1**	250 unit(s)	50,60
5	9	20	**C389.1**	250 unit(s)	53,25
8	12	20	**C390.1**	100 unit(s)	27,80
10.5	14.5	20	**C391.1**	100 unit(s)	32,70
14	18	20	**0396.1**	50 unit(s)	24,30
17	22	25	**C392.1**	50 unit(s)	41,80
18	24	30	**C393.1**	50 unit(s)	55,70
21	27	30	**C394.1**	25 unit(s)	36,50
26	32	30	**C395.1**	25 unit(s)	56,55
29	35	30	**C396.1**	5 unit(s)	17,90
31	38	35	**C397.1**	5 unit(s)	21,40
36	44	40	**C398.1**	5 unit(s)	28,40
41	49	40	**TL33.1**	5 unit(s)	35,35
47	55	40	**TL34.1**	5 unit(s)	44,40
50.5	59.5	45	**TL35.1**	1 unit(s)	12,55
56	65	45	**TL36.1**	1 unit(s)	16,35
60	70	50	**TL37.1**	1 unit(s)	23,45
64.5	75.5	55	**TL38.1**	1 unit(s)	27,15
71	83	60	**TL39.1**	1 unit(s)	32,45
79	92	65	**TL40.1**	1 unit(s)	44,65
87	100	65	**TL41.1**	1 unit(s)	59,90
94	107	65	**TL42.1**	1 unit(s)	79,80

A 121 °C

Plugs ROTILABO®

ROTH SELECTION. Material: Silicone rubber. Autoclavable: Yes.

With borehole. Compliant with DIN 12871. Hardness: 50 Shore A. Bioinert. Resistant to ageing, ozone and repeated sterilisations. Temperature-stable from -60 to +180 °C (+250 °C for a short time).

Ø Lower (mm)	Ø Upper (mm)	Ø Hole (mm)	Height (mm)	Art. No.	Pack Qty.	€
10.5	14.5	3	20	**TL49.1**	25 unit(s)	9,10
12.5	16.5	3	20	**TL50.1**	25 unit(s)	10,70
14	18	3	20	**TL51.1**	25 unit(s)	12,55
17	22	4	25	**TL52.1**	25 unit(s)	20,20
18	24	4	30	**TL53.1**	25 unit(s)	25,30
21	27	5	30	**TL54.1**	10 unit(s)	15,00
23	29	5	30	**TL55.1**	10 unit(s)	19,65
26	32	6	30	**TL56.1**	10 unit(s)	22,65
29	35	6	30	**TL57.1**	10 unit(s)	27,85
31	38	7	35	**TL58.1**	10 unit(s)	34,70

Plugs ROTILABO® with lamella

ROTH SELECTION. Material: LDPE.

Temperature resistant in the range -50 to +80 °C.

For tubes with inside Ø 9-11 mm (outside Ø approx. 12 mm)

Colour	Art. No.	Pack Qty.	€
red	**E025.1**	1,000 unit(s)	15,05
blue	**E027.1**	1,000 unit(s)	15,05
green	**E026.1**	1,000 unit(s)	15,05
yellow	**E024.1**	1,000 unit(s)	15,05
natural	**E023.1**	1,000 unit(s)	14,90

For tubes with inside Ø 13-14 mm (outside Ø approx. 16 mm)

Colour	Art. No.	Pack Qty.	€
red	**E030.1**	1,000 unit(s)	18,95
blue	**E032.1**	1,000 unit(s)	18,95
green	**E031.1**	1,000 unit(s)	18,95
yellow	**E029.1**	1,000 unit(s)	18,95
natural	**E028.1**	1,000 unit(s)	18,95

A 121 °C

Plugs with turn-up lip

Saint-Gobain. Material: Silicone. Autoclavable: Yes.

For tight sealing of glass, plastic or metallic vessels with or without beaded rim or glass ground joint.
Firm fit to prevent unintentional opening. The silicone stoppers can be penetrated for sampling and also remain water-tight even after several perforations.
Temperature-stable from -60 to +220 °C.

Version	Ø Lower (mm)	Ø Upper (mm)	Suitable for	Art. No.	Pack Qty.	€
7,1	4.5	7.5	NS 5/13	**EE00.1**	100 unit(s)	50,45
10,2	9.8	10.7	NS 10/19	**EE01.1**	50 unit(s)	29,40
12,7	12.3	13.3	NS 12/21	**EE02.1**	50 unit(s)	49,40
14,9	14.2	15.5	NS 14/23	**EE03.1**	20 unit(s)	25,85
15,9	14.5	16.5	NS 14/23	**EE04.1**	20 unit(s)	27,25
19,4	15.8	17.8	NS 19/26	**EE05.1**	20 unit(s)	39,15
23,7	21.2	24.4	NS 24/29	**EE06.1**	10 unit(s)	34,70
30,7	28.0	31.4	NS 29/32	**EE07.1**	5 unit(s)	25,80

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Centrifuge tubes and bottles

Centrifuge glasses thick-walled

Marienfeld.
With straight rim, no graduations.

Not a medical device / Not an IVD product

With round bottom
Material: Borosilicate glass 3.3. Autoclavable: Yes.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
12	16	100	1,2	**CKA3.1**	100 unit(s)	49,70
50	34	100	2,8	**CKA4.1**	10 unit(s)	55,05

With conical bottom, 30° angle
Material: Soda-lime glass.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
10	17	98	1,2	**CKA2.1**	100 unit(s)	54,10

Centrifuge glasses 15 ml

Marienfeld. Material: Soda-lime glass.
Long conical version. With or without graduations (white, 0.1 ml resolution).

Not a medical device / Not an IVD product

With straight rim, without graduations

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
15	17	113	1	**CHY6.1**	100 unit(s)	42,40

With straight rim, with graduations

Vol. (ml)	Ø ext. (mm)	Graduation range (ml)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
15	17	1-15	113	1	**CHY7.1**	100 unit(s)	177,40

With beaded rim, without graduations

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
15	17	113	1	**CHY8.1**	100 unit(s)	42,60

With beaded rim, with graduations

Vol. (ml)	Ø ext. (mm)	Graduation range (ml)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
15	17	1-10	113	1	**CHY9.1**	100 unit(s)	160,20
15	17	1-15	113	1	**CKA0.1**	100 unit(s)	160,20

Centrifuge tubes and bottles

Centrifuge glasses with screw cap

Hecht. Material: Soda-lime glass, PP screw cap. Autoclavable: Yes.
With DIN 14 thread.

A 121 °C

Not a medical device / Not an IVD product

With round bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
15	17	98	3,000	**CLC7.1**	100 unit(s)	69,00

With conical bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
15	17	112	3,000	**CLC6.1**	100 unit(s)	83,70

Centrifuge glasses DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Can be centrifuged up to a max. relative centrifugal acceleration RZB = 4000 in fixed angle rotor. Suitable for specimens with max. density 1.2 g/ml.

A 121 °C DURAN WHEATON KIMBLE

Not a medical device / Not an IVD product

With round bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
6	12	100	1 ± 0,04	**C101.1**	50 unit(s)	188,00
12	16	100	1,2 ± 0,05	**C102.1**	50 unit(s)	192,00
25	24	100	1,8 ± 0,1	**C103.1**	10 unit(s)	56,20
50	34	100	2,8 ± 0,2	**C104.1**	10 unit(s)	102,50
80	40	115	3,2 ± 0,3	**C105.1**	10 unit(s)	129,65
80	44	100	3,2 ± 0,3	**C106.1**	10 unit(s)	129,65
250	56	147	3,5 ± 0,3	**C107.1**	10 unit(s)	227,00

With conical bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
12	16	100	30° angle	**K211.1**	50 unit(s)	204,00
25	24	100	60° angle	**K212.1**	10 unit(s)	72,30
50	34	100	60° angle	**K222.1**	10 unit(s)	115,10

Centrifuge tubes and bottles

Centrifuge tubes

Kartell. Material: PP, transparent. Autoclavable: Yes.

NEW / +

A 121 °C

In vitro diagnostic medical device according to IVDD

With round bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
7	12	100	3,500	**K941.1**	100 unit(s)	49,60
16	17	100	3,500	**K943.2**	500 unit(s)	127,15
30	24	95	3,500	**K944.2**	50 unit(s)	73,60
50	30	100	3,500	**K945.1**	25 unit(s)	45,20
70	35	100	3,500	**K946.1**	20 unit(s)	46,90
110	40	120	3,500	**K947.1**	25 unit(s)	54,90

With conical bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
13	16	108	3,500	**K948.2**	500 unit(s)	112,00
16	17	120	3,500	**K949.2**	500 unit(s)	120,95

Centrifuge tubes

Kartell. Autoclavable: Yes.

Conical shape. With graduations, 0.2 ml increments (10 ml tube additionally up to 1 ml with 0.1 ml increments).

A 121 °C

In vitro diagnostic medical device according to IVDD

Made of PMP

Material: PMP transparent. Temperature resistant up to +150 °C.

Vol. (ml)	Ø ext. (mm)	Graduation (ml)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	16	0.2	107	3,000	**TT17.1**	50 unit(s)	44,10
15	18	0.2	118	3,000	**TT18.1**	50 unit(s)	48,20

Made of PP

Material: PP transparent. Temperature resistant up to +120 °C.

Vol. (ml)	Ø ext. (mm)	Graduation (ml)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	16	0.2	107	3,000	**TT19.1**	100 unit(s)	41,30
15	18	0.2	118	3,000	**TT20.1**	100 unit(s)	60,80

Centrifuge tubes and bottles

Centrifuge tubes with round bottom

Nalgene. Material: PP. Autoclavable: Yes.
Centrifugable to 50,000 x g when at least 80% full.

A 121 °C

Not a medical device / Not an IVD product

Type 3110
Material: (copolymer), transparent.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Version	Art. No.	Pack Qty.	€
12	16	103	50,000	without border	**APN1.1**	10 unit(s)	32,85
15	16	114	50,000	without border	**APN2.1**	10 unit(s)	34,60
16	18	99	50,000	without border	**APN3.1**	10 unit(s)	35,00
38	25	89	50,000	without border	**APN4.1**	10 unit(s)	37,05
50	29	103	50,000	without border	**APN5.1**	10 unit(s)	38,65
50	28.5	104	50,000	with rim	**APN6.1**	10 unit(s)	48,60
100	32	164	50,000	with rim	**APN7.1**	10 unit(s)	82,75

Accessories stoppers for nalgene centrifuge tubes™

A 121 °C

Nalgene. Material: PP. Autoclavable: Yes.
Suitable of centrifuge tube types 3103, 3105, 3110 and 3117 with corresponding diameters.
Note: Only leak-tight to a limited degree during high speed centrifugation.

Suitable for	Art. No.	Pack Qty.	€
Ø outside 16 mm	**APP5.1**	20 unit(s)	35,65
Ø outside 18 mm	**APP6.1**	20 unit(s)	43,65
Ø outside 25/26 mm	**APP7.1**	20 unit(s)	45,55
Ø outside 28.5/29 mm	**APP8.1**	20 unit(s)	47,10
Ø outside 32 mm	**APP9.1**	20 unit(s)	49,35

Centrifuge tubes 15 ml

Simport.
Conical, with graduations at 0.25, 0.5, 1.0, 2.5, 5, 10, 12 and 15 ml.
Metal-free (< 100 ppm Sb, As, Ba, Cd, Cr, Pb).

Delivery without plugs.

Not a medical device / Not an IVD product

Made of visually transparent PS
Material: PS clear. Can be centrifuged up to 1200 x g. Temperature stable from 0 to 90 °C.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
15	17	120	1,200	**AYX6.1**	1,000 unit(s)	134,40

Made of transparent PP
Material: PP transparent. Autoclavable: Yes. Centrifugable up to 3000 x g. Autoclavable.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
15	17	120	3,000	**AYX7.1**	1,000 unit(s)	127,95

Centrifuge tubes and bottles

Accessories plugs for 15 ml centrifuge tubes

Simport. Material: PE.

Suitable for centrifuge tubes Order No. AYX6.1 and AYX7.1.
Temperature-stable from 0 to 80 °C.

Colour	Art. No.	Pack Qty.	€
red	**AYY1.1**	1,000 unit(s)	57,55
blue	**AYX8.1**	1,000 unit(s)	57,55
green	**AYX9.1**	1,000 unit(s)	57,55
white	**AYY2.1**	1,000 unit(s)	57,55
yellow	**AYY3.1**	1,000 unit(s)	57,55
colourless	**AYY0.1**	1,000 unit(s)	57,55

Centrifuge tubes ROTILABO®

ROTH SELECTION. Material: PP highly transparent, cap made of PE.

With printed black graduations and white labelling area. Supplied with lid fitted. Certified nuclease-, endotoxin- and metal-free (<1 ppm), not cytotoxic. Temperature stable from -80 to +122 °C.

Not a medical device / Not an IVD product

Without rim

Can be centrifuged in fixed angle rotor up to 17,000 x g (15 ml tube) or 20,000 x g (50 ml tube).

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	Non-sterile	17	120	17,000	Bag	10 x 50	**N458.1**	500 unit(s)	137,90
15	**Sterile**	17	120	17,000	Bag	10 x 50	**N459.1**	500 unit(s)	151,60
15	Non-sterile	17	120	17,000	Rack	20 x 25	**N460.1**	500 unit(s)	172,00
15	**Sterile**	17	120	17,000	Rack	20 x 25	**N461.1**	500 unit(s)	186,00
50	Non-sterile	29	115	20,000	Bag	10 x 50	**N462.1**	500 unit(s)	164,50
50	**Sterile**	29	115	20,000	Bag	10 x 50	**N463.1**	500 unit(s)	182,75
50	Non-sterile	29	115	20,000	Rack	20 x 25	**N464.1**	500 unit(s)	195,65
50	**Sterile**	29	115	20,000	Rack	20 x 25	**N465.1**	500 unit(s)	201,05

With rim

Centrifugable in fixed angle rotor up to 10,000 x g.

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50	Non-sterile	29	117	10,000	Bag	10 x 50	**X063.1**	500 unit(s)	195,65
50	**Sterile**	29	117	10,000	Bag	10 x 50	**X064.1**	500 unit(s)	229,00

Centrifuge tubes and bottles

Centrifuge tubes

Ratiolab. Material: PP, cap made of HDPE.
Temperature stable from -80 to 120 °C.

Not a medical device / Not an IVD product

Conical, without rim
With red screw cap, printed graduations and labelling field. Free of RNase, DNase, endotoxin, pyrogen and ATP.

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	Non-sterile	17	120	17,000	Bag	30 x 25	**1E4L.1**	750 unit(s)	142,05
15	**Sterile**	17	120	17,000	Bag	30 x 25	**1E4N.1**	750 unit(s)	168,80
50	Non-sterile	30	115	20,000	Bag	12 x 25	**1E4P.1**	300 unit(s)	67,90
50	**Sterile**	30	115	20,000	Bag	12 x 25	**1E4T.1**	300 unit(s)	76,30

Conical, with rim
With red screw cap, printed graduations and labelling field. Free of RNase, DNase, endotoxin, pyrogen and ATP.

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50	Non-sterile	30	115	7,000	Bag	10 x 25	**1E4X.1**	250 unit(s)	62,75
50	**Sterile**	30	115	7,000	Bag	10 x 25	**1E4Y.1**	250 unit(s)	73,05

Round base, without rim
With plugs.

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
12	Non-sterile	18	98	30,000	Bag	1 x 100	**1E50.1**	100 unit(s)	68,00

Centrifuge tubes ROTILABO® made of fluoroplastic

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

A 121 °C ❄❄❄

Delivery incl. screw cap.

Not a medical device / Not an IVD product

With round bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Centrifugability in g (max.)	Outer lid Ø (mm)	Art. No.	Pack Qty.	€
8	12	100	1,0	20,000	22	**LT74.1**	1 unit(s)	22,50
17	18	100	1,5	20,000	24	**LT75.1**	1 unit(s)	25,30
50	25	140	2,0	20,000	31	**LT76.1**	1 unit(s)	41,55

With conical bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Centrifugability in g (max.)	Outer lid Ø (mm)	Art. No.	Pack Qty.	€
13	16	100	1,5	20,000	22	**LT77.1**	1 unit(s)	24,65
18	18	120	1,5	20,000	24	**LT78.1**	1 unit(s)	28,85
45	25	150	2,0	20,000	31	**LT79.1**	1 unit(s)	43,60

Centrifuge tubes and bottles

Centrifuge tubes Metal Free

Labcon. Material: PP highly pure, cap made of PE. **Sterile**.

With white labelling area. Supplied with lid fitted.
Heavy metal content <1 ppb, suitable for sample preparation and storage for trace analysis, ICP-MS and other applications which require an extremely low metal content.
Nuclease- and endotoxin-free, non-cytotoxic. Temperature stable from -80 to +122 °C.

S

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	**Sterile**	17	120	12,500	Bag	10 x 50	**XX96.1**	500 unit(s)	178,45
15	**Sterile**	17	120	12,500	Rack	20 x 25	**XX97.1**	500 unit(s)	197,80
50	**Sterile**	29	115	12,500	Bag	10 x 50	**XX98.1**	500 unit(s)	197,80
50	**Sterile**	29	115	12,500	Rack	20 x 25	**XX99.1**	500 unit(s)	225,75

Centrifuge tubes

Kartell. Material: PP.

With raised graduations. **Sterile** (γ sterilised) with red cap or non-sterile with blue cap.

In vitro diagnostic medical device according to IVDD

With rim

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Art. No.	Pack Qty.	€
50	Non-sterile	29	115	3,000	Bag	**AN80.1**	100 unit(s)	36,05
50	**Sterile**	29	115	3,000	Bag	**AN81.1**	100 unit(s)	38,35

Without rim

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Art. No.	Pack Qty.	€
15	Non-sterile	17	120	3,000	Bag	**AN76.1**	150 unit(s)	37,85
15	**Sterile**	17	120	3,000	Bag	**AN77.1**	150 unit(s)	44,20
50	Non-sterile	29	115	3,000	Bag	**AN78.1**	100 unit(s)	31,15
50	**Sterile**	29	115	3,000	Bag	**AN79.1**	100 unit(s)	36,00

Centrifuge tubes Flip cap

Cole-Parmer. Material: PP, Cap made of HDPE. **Sterile**.

- Screw/snap-on lid enables single-handed opening and also complete removal
- RNase-/DNase-free, pyrogen-free
- With white labelling area
- Accuracy of graduations: ±2%
- Additional engraved graduations in cone: 0.1 to 1 ml for 15 ml tube, 0.5 to 3 ml for 50 ml tube
- Temperature stable from -80 to +120 °C

S

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Graduation range (ml)	Height (mm)	Centrifuga-bility in g (max.)	Outer lid Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	**Sterile**	17	1-15	124	9,400	24	Bag	20 x 25	**EKY1.1**	500 unit(s)	204,00
50	**Sterile**	29	5-50	118	9,400	36	Bag	20 x 25	**EKY2.1**	500 unit(s)	244,00

Centrifuge tubes and bottles

Centrifuge tubes 50 ml

Simport. Material: PS, visually transparent, with screw cap made of HDPE.

Graduated from 2.5 to 50 ml. Temperature stable from 0 to 90 °C.
Sterile tubes also suitable for storage of biological samples.
Non-sterile tubes: Yellow cap. Sterile tubes: Green cap.

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50	Non-sterile	29	118	1,000	Bag	1 x 500	**AYY4.1**	500 unit(s)	165,55
50	**Sterile**	29	118	1,000	Rack	20 x 25	**AYY5.1**	500 unit(s)	278,45

Centrifuge tubes CELLSTAR®

Greiner Bio-One. Material: PP, HDPE screw cap (blue). **Sterile**.

Conical bottom, blue graduations and white labelling area.
DNase-/RNase- and human DNA-free, non-pyrogenic and non-cytotoxic.
Good thermal, mechanical and chemical stability. Temperature stable from -50 to +100 °C.

Max. centrifugability:

- 15 ml tube: 4000 x g in swing-out rotor, 15,000 x g in fixed angle rotor
- 50 ml tube: 3200 x g in swing-out rotor, 9000 x g in fixed angle rotor
- 50 ml tube with rim: 2800 x g in swing-out rotor, 11,500 x g in fixed angle rotor

S

Not a medical device / Not an IVD product

Transparent, without rim

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	**Sterile**	17	120	4,000	Rack	10 x 50	**XH97.1**	500 unit(s)	110,25
15	**Sterile**	17	120	4,000	Bag	20 x 50	**XH97.2**	1,000 unit(s)	177,40
50	**Sterile**	29	115	3,200	Bag	25 x 20	**XH98.1**	500 unit(s)	99,15
50	**Sterile**	29	115	3,200	Rack	12 x 25	**XH98.2**	300 unit(s)	85,90

Transparent, with rim

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50	**Sterile**	29	115	2,800	Bag	18 x 25	**XH99.1**	450 unit(s)	116,00
50	**Sterile**	29	115	2,800	Rack	12 x 25	**XH99.2**	300 unit(s)	90,15

Light Protection Tubes, brown, without rim

For light-sensitive substances and reactions.

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	**Sterile**	17	120	4,000	Bag	1 x 100	**KL46.1**	100 unit(s)	48,65
15	**Sterile**	17	120	4,000	Rack	1 x 50	**KL46.2**	50 unit(s)	28,80
50	**Sterile**	29	115	3,200	Bag	1 x 20	**KL47.1**	20 unit(s)	14,80
50	**Sterile**	29	115	3,200	Rack	1 x 25	**KL47.2**	25 unit(s)	19,20

Centrifuge tubes and bottles

Centrifuge tubes Oak Ridge

Nalgene. Autoclavable: Yes.

Suitable for **high-speed centrifugation** up to 50,000 x g.

Note:
Tubes must be at least 80% full during centrifuging; FEP tubes must be 100% full.
When centrifuging at over 10,000 x g, screw caps with seals must be used.
Always fully unscrew the cover during autoclaving.

A 121 °C

Not a medical device / Not an IVD product

Type 3119
Material: PP (copolymer), translucent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	10	16.0	81.4	50,000	**PH36.1**	10 unit(s)	55,40
28	28	25.4	101.9	50,000	**PH37.1**	10 unit(s)	61,50
30	30	25.5	94.3	50,000	**PH38.1**	10 unit(s)	59,60
42	50	28.8	106.7	50,000	**PH39.1**	10 unit(s)	77,70

Type 3118
Material: PC transparent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	10	16.1	81.7	50,000	**PH26.1**	10 unit(s)	70,00
28	28	25.4	101.8	50,000	**PH27.1**	10 unit(s)	74,40
30	30	25.7	94.5	50,000	**PH28.1**	10 unit(s)	74,40
43	50	28.8	107.0	50,000	**PH29.1**	10 unit(s)	85,90
81	85	38.2	105.7	50,000	**PH30.1**	10 unit(s)	98,15

Type 3115
Material: PSF transparent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
30	30	25.7	94.5	50,000	**ATC6.1**	10 unit(s)	89,25
50	43	29.0	107.7	50,000	**ATC7.1**	10 unit(s)	107,90

Type 3114
Material: FEP with screw cap made of ETFE. Resistant to acids, bases and solvents. Ideal for chloroform and phenol extractions.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	10	16.0	81.5	50,000	**PH40.1**	2 unit(s)	60,85
30	30	25.7	93.7	50,000	**PH41.1**	2 unit(s)	93,35
46	50	28.8	107.7	50,000	**PH42.1**	2 unit(s)	122,90

Accessories leak-tight closures

Nalgene. Material: PP, with silicone seal. Autoclavable: Yes.

Leak-tight closures ensure leak-free use of Oak Ridge centrifuge tubes.
Recommended from 10,000 x g or higher.

A 121 °C

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Oak Ridge tubes Art. No. PH27.1, PH28.1, PH37.1, PH38.1, PH98.1 and PK02.1	**PH43.1**	2 unit(s)	25,35
Oak Ridge tubes Art. No. PH29.1, PH39.1, PH99.1 and PK03.1	**PH44.1**	2 unit(s)	28,60

Centrifuge tubes and bottles

Centrifuge tubes Oak Ridge with leak-tight closure

Nalgene. Autoclavable: Yes.

Suitable for **high-speed centrifugation** up to 50,000 x g.

Note:
Tubes must be at least 80% full during centrifuging.
Always fully unscrew the cover during autoclaving.

A 121 °C

Not a medical device / Not an IVD product

Type 3139
Material: PP Copolymer, translucent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
16	16	17.9	106.6	50,000	**PK01.1**	10 unit(s)	101,50
30	30	25.5	101.4	50,000	**PK02.1**	10 unit(s)	130,15
42	50	28.8	114.1	50,000	**PK03.1**	10 unit(s)	152,05

Type 3138
Material: PC transparent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	10	16.1	82.3	50,000	**PH96.1**	10 unit(s)	91,15
16	16	18.2	106.9	50,000	**PH97.1**	10 unit(s)	110,95
30	30	25.7	101.6	50,000	**PH98.1**	10 unit(s)	142,65
42	50	28.8	115.0	50,000	**PH99.1**	10 unit(s)	152,65

Type 3137
Material: PSF transparent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
42	50	29.0	115.3	50,000	**ATC5.1**	10 unit(s)	191,35

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Centrifuge tubes and bottles

Centrifuge bottles

Nalgene. Autoclavable: Yes.

Note:
Bottles must be at least 80% full during centrifuging; PPCO bottle, Art. No. PH81.1 must be filled to max 75%. FEP bottles must be 100% full.
Always fully unscrew the cover during autoclaving.

A 121 °C

Not a medical device / Not an IVD product

Type 3120
Material: PP Copolymer, translucent, with screw cap made of PP.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
250	61.8	127.7	13,200	**PH79.1**	4 unit(s)	44,35
500	73.8	169.8	4,800	**PH80.1**	4 unit(s)	53,50
500	69.5	170.2	4,800	**PH81.1**	4 unit(s)	51,80
1,000	97.5	184.5	7,100	**PH82.1**	4 unit(s)	94,80
1,000	97.7	179.0	7,100	**PH83.1**	4 unit(s)	97,70

Type 3122
Material: PC transparent, with screw cap made of PP.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
250	61.8	127.6	27,500	**PH84.1**	4 unit(s)	58,20
500	69.5	169.6	13,700	**PH85.1**	4 unit(s)	92,90
1,000	97.6	188.4	7,100	**PH86.1**	4 unit(s)	121,40

Type 3127
Material: FEP with screw cap made of ETFE.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
250	60.0	128.8	4,000	**PH88.1**	1 unit(s)	131,65

Accessories Leak-tight closures

Nalgene. Material: PP, with silicone gaskets.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Centrifuge bottles Art. No. PH89.1 and PH91.1	**PH93.1**	2 unit(s)	36,15
Centrifuge bottles Art. No. PH82.1, PH83.1, PH86.1, PH90.1 and PH92.1	**PH94.1**	2 unit(s)	49,45

Suitable for	Art. No.	Pack Qty.	€
Centrifuge bottles Art. No. PH79.1, PH84.1, PH88.1, PH89.1 and PH91.1	**PH95.1**	6 unit(s)	86,65

Centrifuge tubes and bottles

Centrifuge bottles with leak-tight closure

Nalgene. Autoclavable: Yes.

Note:
Bottles must be at least 80% full during centrifuging.
Always fully unscrew the cover during autoclaving.

A 121 °C

Not a medical device / Not an IVD product

Type 3140
Material: PC transparent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
250	250	61.5	135.1	27,500	**PH89.1**	4 unit(s)	98,05
450	500	69.5	160.0	13,700	**PH90.1**	4 unit(s)	120,65

Type 3141
Material: PP Copolymer, translucent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
250	250	60.7	133.4	27,500	**PH91.1**	4 unit(s)	88,20
450	500	69.5	160.0	13,700	**PH92.1**	4 unit(s)	117,35

Cytology funnel CytoSep™

Simport.

Disposable sample chambers for producing thin-layer preparations by means of centrifugation. For sample volumes up to 0.5 ml. Cells are applied directly to a slide. Cell application range approx. Ø 6 mm (area approx. 28 mm^2). With white filter cards to absorb excess liquid.

- Suitable for the examination of blood, spinal chord fluid, saliva, urine and gastric fluids
- Disposable material, therefore no time-consuming cleaning necessary
- Prevents cross-contamination and contamination through pathogenic samples

Compatible with the Thermo Cytospin™ 3 and 4, Tharmac Cellspin® cyto centrifuges as well as the Hettich Cyto system.

Delivery incl. press-in plug for sealing the funnel. Please order slides and metal clips separately.

In vitro diagnostic medical device according to IVDD

Version	Packaging type	Pack.	Art. No.	Pack Qty.	€
Cytology funnel	Box	1 box of 50	**HNY3.1**	50 unit(s)	96,25
Cytology funnel	Box	10 boxes of 50	**HNY3.2**	500 unit(s)	697,70

Accessories metal clips for cytology funnel CytoSep™

A 121 °C

Simport. Autoclavable: Yes.

For fixing the microscope slide at the cytology funnel.

In vitro diagnostic medical device according to IVDD

Version	Art. No.	Pack Qty.	€
metal clips	**HNY4.1**	6 unit(s)	184,90

Safety vessels

Safety barrel

Rötzmeier. Material: Stainless steel 1.4301, 10 l vessels made from 1.4404, seals made of PTFE. With removable flame arrestor made of stainless steel 1.4571 and 1.4301.

For safe storage or filling of flammable liquids. Safety barrels with volumes 25 and 50 litres stackable.

With microdispenser, overpressure valve (opening pressure approx. 0.3 bar) and separate aeration.

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (kg)	Art. No.	Pack Qty.	€
10D2	10	260	340	0,8	2,253	**1E0N.1**	1 unit(s)	289,20

With microdispenser, overpressure valve (opening pressure approx. 0.3 bar), separate aeration and fill level indicator.
Filling level display made of PFA.

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (kg)	Art. No.	Pack Qty.	€
10DI	10	260	340	0,8	2,450	**1E0X.1**	1 unit(s)	504,20

With screw cap and overpressure valve
Opening pressure approx. 0.3 bar.

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (kg)	Art. No.	Pack Qty.	€
10K	10	260	330	0,8	2.20	**HPN6.1**	1 unit(s)	278,45
25K	25	315	540	1,2	6.40	**HPN7.1**	1 unit(s)	364,45
50K	50	365	600	1,5	12.10	**HPN8.1**	1 unit(s)	454,75
100K	100	395	950	1,5	21	**1E0H.1**	1 unit(s)	1.558,75
200K	200	550	1,060	1,5	30	**1E0L.1**	1 unit(s)	2.418,75

Transport containers with UN-X approval
Type-approved acc. to GGVSEB, air, ADR, RID, IMDG code and ICAO-TI. With screw cap (moving shaft secures against loss) and venting screw for manual air feed.

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	UN approval	Weight (kg)	Art. No.	Pack Qty.	€
10TZ	10	260	330	0,8	1A1/X2/400	2.25	**HPN9.1**	1 unit(s)	326,80
25TZ	25	300	530	1,2	1A1/X1,6/400	6.40	**HPP0.1**	1 unit(s)	402,05

With self-closing tap
With ventilating screw cap and overpressure valve (opening pressure approx. 0.3 bar).

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (kg)	Art. No.	Pack Qty.	€
10Z	10	260	330	0,8	2.48	**HPP1.1**	1 unit(s)	504,20
25Z	25	315	540	1,2	6.54	**HPP2.1**	1 unit(s)	611,70
50Z	50	365	600	1,5	12.20	**HPP3.1**	1 unit(s)	694,45
100Z	100	395	950	1,5	21	**1E0E.1**	1 unit(s)	1.773,75
200Z	200	550	1,060	1,5	30	**1E0K.1**	1 unit(s)	2.687,50

With self-closing stop cock and filling level display
Filling level display made of PFA. With ventilating screw cap and overpressure valve (opening pressure approx. 0.3 bar).

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (kg)	Art. No.	Pack Qty.	€
10ZI	10	260	330	0,8	2.78	**HPP4.1**	1 unit(s)	729,95
25ZI	25	315	540	1,2	7.45	**HPP5.1**	1 unit(s)	858,95
50ZI	50	365	600	1,5	12.90	**HPP6.1**	1 unit(s)	934,20
100ZI	100	395	950	1,5	21,5	**1E0P.1**	1 unit(s)	2.042,50
200ZI	200	550	1,060	1,5	30,5	**1E0T.1**	1 unit(s)	2.956,25

Accessories plug-in funnel for safety barrels

Rötzmeier. Material: Stainless steel 1.4571.

Straight. Wall thickness 0.6 mm. Weight 350 g.
Suitable for: type 10D, 10DI, 10K, 25K, 50K, 10Z, 25Z, 50Z, 10ZI, 25ZI, 50ZI, 10TZ, 25TZ.

Type	Ø Outer upper (mm)	Ø Outer outlet (mm)	Total height (mm)	Art. No.	Pack Qty.	€
TR3	120	34	120	**HPP7.1**	1 unit(s)	69,90

Safety vessels

Safety canisters

Rötzmeier. Material: Stainless steel 1.4571, all 20 litre canisters made of stainless steel 1.4301. Polished. Wall thickness 0.8 mm, seals made of PTFE.

For safe storage, filling and dosing of flammable liquids. With removable flame arrestor in the filler. Models with screw cap have a flexible shaft to secure the cap against loss.

With self-closing microdispenser for standing storage

For standing storage and convenient retrieval. With flame protection and overpressure valve. 20 litre canister (Art. No. 1CT2.1), also with venting screw for manual pressure compensation.

Type	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
05KD	5	130	200	310	1650	**1CT0.1**	1 unit(s)	306,40
10KD	10	130	280	380	2500	**1CT1.1**	1 unit(s)	348,30
20KDL	20	175	345	470	3700	**1CT2.1**	1 unit(s)	439,70

With self-closing tap for storage lying down

For storage lying down. With flame protection and separate ventilation screw for manual pressure compensation.

Type	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
05KZ	5	130	200	310	1650	**PC10.1**	1 unit(s)	346,15
10KZ	10	130	280	380	2500	**PC11.1**	1 unit(s)	381,65
20KZ	20	175	345	470	3700	**PC12.1**	1 unit(s)	471,95

With screw cap

For safe storage of solvents. With overpressure valve.

Type	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
05KK	5	130	200	310	1650	**1CT3.1**	1 unit(s)	264,45
10KK	10	130	280	380	2500	**1CT4.1**	1 unit(s)	307,45
20KK	20	175	345	470	3700	**1CT5.1**	1 unit(s)	396,70

With screw cap and UN-X approval

Type-approved for the transport of liquid hazardous substances acc. to GGVSEB, GGVSee, ADR, RID and IMDG code.

20-litre canister (Art. No. PC09.1) also with venting screw for manual pressure relief.

Type	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	UN approval	Weight (g)	Art. No.	Pack Qty.	€
05KT	5	130	200	310	3A1/X1.6/300	1650	**PC07.1**	1 unit(s)	266,60
10KT	10	130	280	380	3A1/X1.6/300	2500	**PC08.1**	1 unit(s)	310,70
20KTL	20	175	345	470	3A1/X2.0/300	3700	**PC09.1**	1 unit(s)	423,55

Accessories plug-in funnel for safety canister

Rötzmeier. Material: Stainless steel 1.4305 and 1.4404, unpolished.

Angled. Wall thickness 0.6 mm. Without flame protection. **Suitable for:** Type 05KD, 10KD, 20KDL, 05KK, 10KK, 20KK, 05KZ, 10KZ, 20KZ, 05KT, 10KT, 20KT, 20KTL.

Plug-in funnel

Weight 350 g.

Type	Ø Upper (mm)	Ø Outer outlet (mm)	Height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
TR2	140	34	120	240	**PC13.1**	1 unit(s)	73,10

Plug-in funnel with overfill protection

With 1½″ thread, with PTFE seal. Weight 428 g.

Type	Ø Upper (mm)	Ø Outer outlet (mm)	Height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
TR2V	140	28	120	240	**1E1X.1**	1 unit(s)	129,00

Safety vessels

Accessories for safety canisters and safety barrels

Rötzmeier.

Pouring spouts 1½″
Material: Stainless steel 1.4301 and 1.4305, seals made of PTFE. Rotatable. **Suitable for:** Type 05KD, 10KD, 20KDL, 05KK, 10KK, 20KK, 05KZ, 10KZ, 20KZ, 05KT, 10KT, 20KT, 20KTL, 10D, 10DI, 10K, 25K, 10Z, 25Z, 10ZI, 25ZI, 10TZ, 25TZ.

Type	Art. No.	Pack Qty.	€
A15	**YE02.1**	1 unit(s)	83,35

Microdispensers 1½″
Material: Stainless steel 1.4305, seals made of PTFE. **With aeration: YE01.1 (type D150) suitable for :** type 05KD, 10KD, 05KK, 10KK, 20KK, 05KT, 10KT, 20KT, 10K.
Without aeration: 1E1E.1 (type D151) suitable for: Type 10D, 10DI, 20KDL, 20KTL.

Type	Art. No.	Pack Qty.	€
D150	**YE01.1**	1 unit(s)	88,15
D151	**1E1E.1**	1 unit(s)	89,25

Screw cap 1½″ and 2″TPI
Material: Stainless steel 1.4305, seals made of PTFE. With overpressure valve.
YE04.1 (type K150) suitable for: Type 05KD, 10KD, 20KDL, 05KK, 10KK, 20KK, 05KZ, 10KZ, 20KZ, 10D, 10DI, 10K, 25K.
1E1H.1 (type K200) suitable for: Type 50K, 100K, 200K.

Type	Art. No.	Pack Qty.	€
K150, 1½″ thread	**YE04.1**	1 unit(s)	64,00
K200, 2″TPI thread	**1E1H.1**	1 unit(s)	74,20

Safety laboratory canister

Rötzmeier. Material: Stainless steel 1.4571, polished or unpolished.
Seals made of PTFE, handle made of powder-coated aluminium.

With removable flame arrestor in the filler. Models with screw cap have a flexible shaft to secure the cap against loss.

Polished, with microdispenser and overpressure valve

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (g)	Art. No.	Pack Qty.	€
OHD	0.5	99	198	1,0	665	**1CN3.1**	1 unit(s)	208,55
01D2	1	111	235	0,6	700	**5791.1**	1 unit(s)	209,65
02D2	2	131	295	0,6	800	**0544.1**	1 unit(s)	226,85
05D2	5	165	400	0,6	1200	**0157.1**	1 unit(s)	254,80

Polished, with screw cap and overpressure valve

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (g)	Art. No.	Pack Qty.	€
OHK	0.5	99	198	1,0	665	**1CN4.1**	1 unit(s)	174,15
01K	1	111	235	0,6	650	**1192.1**	1 unit(s)	169,85
02K	2	131	295	0,6	750	**1193.1**	1 unit(s)	186,00
05K	5	165	400	0,6	1150	**1194.1**	1 unit(s)	219,30

Non-polished, with screw cap and UN-X approval
Type-approved for the transport of liquid hazardous substances acc. to GGVSEB, GGVSee, ADR, RID and IMDG code.

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	UN approval	Weight (g)	Art. No.	Pack Qty.	€
01T	1	111	235	0,6	1A1/X2.0/400	650	**PC01.1**	1 unit(s)	166,65
02T	2	131	305	0,6	1A1/X2.0/400	750	**PC02.1**	1 unit(s)	182,75
05T	5	165	400	0,6	1A1/X2.0/400	1150	**PC03.1**	1 unit(s)	213,95

Accessories for safety laboratory canisters

Rötzmeier.

Microdispensers 1¼″
Material: Stainless steel 1.4305, Seals made of PTFE. Self-closing. With overpressure valve. **Suitable for:** Type 0HD, 01D, 02D, 05D, 0HK, 01K, 02K, 05K, 01T, 02T, 05T, SP1, SP2, SP5, SP10.

Type	Art. No.	Pack Qty.	€
D125	**YE05.1**	1 unit(s)	78,50

Economical moistener with pump
Material: Stainless steel 1.4301. For economical soaking of cleaning cloths. Minimizes hazardous solvent vapours; liquid that is not required runs back into the can. Spring-mounted soaking tray. **PC05.1 (type P1) suitable for:** Type SP1, 01D, 01DU, 01K, 01KU, 01T. **PC06.1 (type P2) suitable for:** Type SP2, 02D, 02DU, 02K, 02KU, 02T. **1E16.1 (type P5) suitable for:** 05D, 05K, 05T.

Type	Art. No.	Pack Qty.	€
P1	**PC05.1**	1 unit(s)	134,40
P2	**PC06.1**	1 unit(s)	136,55
P5	**1E16.1**	1 unit(s)	134,40

Accessories funnel inserts for safety laboratory cans

Rötzmeier. Material: Stainless steel 1.4305 and 1.4404, unpolished.
Straight. Wall thickness 0.6 mm. Without flame protection. **Suitable for:** type 0HD, 01D, 02D, 05D, 0HK, 01K, 02K, 05K, 01T, 02T, 05T.

Plug-in funnel with overfill protection
With 1¼″ thread, with PTFE seal. Weight 362 g.

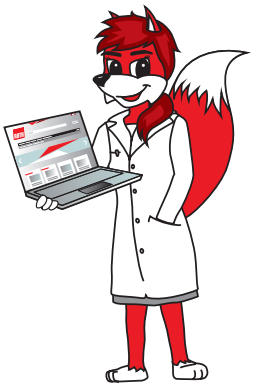
Type	Ø Upper (mm)	Ø Outer outlet (mm)	Height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
TR1V	140	22	120	220	**1E1Y.1**	1 unit(s)	118,25

Plug-in funnel
Weight 300 g.

Type	Ø Upper (mm)	Ø Outer outlet (mm)	Height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
TR1	140	22	120	220	**PC04.1**	1 unit(s)	66,15

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Safety vessels

Safety bottle

Material: Aluminium 99.5 %, with screw cap and self-closing pouring spout and venting valve made of plastic. Inside seal made of Viton®.
Suitable for benzine, turpentine oil and acid-free oils.

Vol. (ml)	Ø (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
400	60	225	130	**2984.1**	1 unit(s)	54,15
1,000	78	280	190	**2985.1**	1 unit(s)	61,55

Safety cleaning container

Rötzmeier. Material: Stainless steel 1.4571, unpolished.
Material thickness: 0.8 mm.

Soaking container

For controlled soaking of cloths and wipes with flammable solvents, e.g. for cleaning parts and tools. The soaking container keeps solvent use to a minimum. Highly stable container, flame protection in the soaking tray, spring-mounted soaking tray.

Type	Vol. (l)	Ø (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
TB4	4	260	130	1,4	**1E34.1**	1 unit(s)	211,80

Washing container

For safe cleaning of parts and tools with flammable liquids. Lid closes automatically in case of fire.

Type	Vol. (l)	Ø (mm)	Height (mm)	Weight (kg)	Art. No.	Pack Qty.	€
WB4	4	260	130	1,6	**1E35.1**	1 unit(s)	186,00

Accessories for safety cleaning containers

Rötzmeier. Material: Stainless steel 1.4571. Material thickness: 1 mm.

Washing basket

Suitable for: Safety washing containers type WB4.

Type	Ø (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
WK	190	10	200	**1E36.1**	1 unit(s)	58,05

Mixing barrel ROTILABO®

ROTH SELECTION. Material: LDPE natural colours, rubber seals.
With wide-neck thread opening Ø 120 mm and screw-on lid with integrated filler neck H 20 mm, internal Ø 38 mm. Side opening at the base with same dimensions. Either filler neck or base opening can be fitted with a screw cap or spigot as required.
External Ø incl. handle 370 mm. Weight 1800 g. Suitable for foodstuffs.

Delivery incl. screw cap and drain valve.

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	370	120	520	**1089.1**	1 unit(s)	64,70

A 121 °C

Wide-neck barrel ROTILABO®

ROTH SELECTION. Material: Stainless steel 1.4541, cover seal made of silicone, clamping ring made of 1.4301 stainless steel. Autoclavable: Yes.

Ground and brushed inside and out. Surfaces that come into contact with the product Ra ≤0.6 µm. Stackable. Impervious to fluids.

Vol. (l)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	192	170	85	**A859.1**	1 unit(s)	295,65
3	192	170	156	**A860.1**	1 unit(s)	310,70
5	275	250	145	**0489.1**	1 unit(s)	349,40
10	275	250	280	**0490.1**	1 unit(s)	446,15
30	343	315	425	**0491.1**	1 unit(s)	600,95

Wide-neck barrel ROTILABO® with UN approval

ROTH SELECTION. Material: HDPE, blue.

With UN X approval corresponding to German regulations pertaining to the transportation of hazardous goods by road and rail (GGVSE) for the conveying of solid materials with a density of at least 1.5 g/cm³. Suitable for foodstuffs.

Delivery incl. lid made of PE and galvanised clamping ring.

Version	Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
with handle	30	313	251	518	1H2/X61/S	**T970.1**	1 unit(s)	49,45
with handle	60	398	325	620	1H2/X88/S	**T971.1**	1 unit(s)	63,45
without handle	120	503	393	791	1H2/X200/S	**T972.1**	1 unit(s)	95,70
without handle	150	503	393	965	1H2/X255/S	**T973.1**	1 unit(s)	106,45

Wide-neck barrel

CurTec. Material: HDPE with rubber seal.

UN approval (X approval) for storage and transportation of solid materials and pastes. Suitable for foodstuffs and chemical and pharmaceutical products. Resistant to air, water and steam. Maximum filling temperature 70 °C. Sealable.

Without handles

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
3.6	198	136	171	1H2/X12/S	**K280.1**	1 unit(s)	17,05
6	198	136	263	1H2/X20/S	**0788.1**	1 unit(s)	20,65
10	274	203	238	1H2/X22/S	**L958.1**	1 unit(s)	32,30
15	274	203	327	1H2/X22/S	**0789.1**	1 unit(s)	36,40
20	274	203	417	1H2/X27/S	**L959.1**	1 unit(s)	41,25
26	316	203	425	1H2/X33/S	**0790.1**	1 unit(s)	46,70

With handles

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
42	410	282	418	1H2/X51/S	**CY90.1**	1 unit(s)	66,90
55	410	282	520	1H2/X66/S	**CY91.1**	1 unit(s)	71,60
68	410	282	634	1H2/X81/S	**5459.1**	1 unit(s)	76,00

Barrels

Containers Click Pack with UN approval

CurTec. Material: HDPE.

Container can be nested, white, smooth inside, with handles. Dark blue screw cap with rubber seal can be easily opened and closed with a quarter turn. For storing and dispatching solids and pastes.

- cGMP certification / ISO 15378 (primary packaging of pharmaceutical products)
- With UN approval (1H2) for solids
- Compliant with food regulations
- Resistant to steam
- Stackable
- With sealing eyelets on the screw cap and handles
- Maximum filling temperature is 70 °C
- Its contents must be cooled to 30 °C before the container can be closed and stacked

Delivery without screw cap and sealing button bordeaux red, please order separately.

Not a medical device / Not an IVD product

UN-Y approval

Vol. (l)	Ø ext. (mm)	Ø Internal (mm)	Total height (mm)	UN approval	Art. No.	Pack Qty.	€
10	318	288	210	1H2/X8/Y12/Z18/S	**1A62.1**	1 unit(s)	11,20
15	318	288	278	1H2/X14/Y21/Z30/S	**1A63.1**	1 unit(s)	12,40
20	318	288	361	1H2/X17,5/Y26/Z39/S	**1A64.1**	1 unit(s)	16,50

UN-X approval

Vol. (l)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
15	333	295	297	1H2/X30/S	**1A65.1**	1 unit(s)	15,05
20	333	295	377	1H2/X30/S	**1A66.1**	1 unit(s)	19,10

Accessories lids for Click Pack containers with UN approval

CurTec. Material: HDPE seal: TPE.

Dark blue screw cap with white inner seal. The container can be opened and closed with a quarter turn. The lid is sealed when it passes the safety button. This is confirmed by a click. The container can be opened again by pressing the safety button and turning the container again.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Click Pack container: Art. No. 1A62.1, 1A63.1, 1A64.1	**1AN2.1**	1 unit(s)	7,05
Click Pack container: Art. No. 1A65.1, 1A66.1	**1AN3.1**	1 unit(s)	10,45

Accessories seal button for Click Pack container with UN approval

CurTec. Material: PS.

For tamper-proof sealing of click pack containers with UN approval. Suitable for single use.

Not a medical device / Not an IVD product

Suitable for	Colour	Art. No.	Pack Qty.	€
Click Pack container: Art. No. 1A62.1, 1A63.1, 1A64.1, 1A65.1, 1A66.1	bordeaux red	**1EN3.1**	800 unit(s)	264,45

Nestable barrel with UN approval

CurTec. Material: HDPE, screw cap with an EPDM seal.

Nestable barrel, white with a blue screw cap closure. With black HDPE handles. Barrel with a large filling opening and small floorspace requirements. For storing and dispatching solids and pastes.

- cGMP-certified/ISO 15378 (primary packaging materials for pharmaceutical products)
- With UN approval (1H2) for solids
- Compliant with food regulations
- Resistant to steam
- With sealing eyelets on the screw cap closure and handles
- Stackable

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
30	374	326	408	1H2/X40/Y40/Z40/S	**1A37.1**	1 unit(s)	44,85
40	374	326	570	1H2/X65/Y65/Z65/S	**1A38.1**	1 unit(s)	55,40
50	374	326	660	1H2/X65/Y65/Z65/S	**1A39.1**	1 unit(s)	64,35
60	374	326	770	1H2/X65/Y90/Z90/S	**1A3A.1**	1 unit(s)	71,70

Extremely wide-neck barrel

CurTec. Material: HDPE, screw cap closure with EPDM seal.

Barrels with extra large filling opening. With handles made of black HDPE. For storing and dispatching solids and pastes.

- cGMP certification / ISO 15378 (primary packaging of pharmaceutical products)
- With UN approval (1H2) for solids
- Compliant with food regulations
- Resistant to steam
- With sealing eyelets on the screw cap closure and handles
- Stackable

White with a red screw cap

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
26	338	295	358	1H2/X38/S	**1A34.1**	1 unit(s)	72,90
34	338	295	449	1H2/X48/S	**1A35.1**	1 unit(s)	80,15

Brown with a beige screw cap

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
55	410	354	495	1H2/X69/S	**1A36.1**	1 unit(s)	108,40

Canisters

ROTH SELECTION. Material: HDPE natural colours.

For storing, packaging and transporting. Suitable for foodstuffs.

Delivery incl. screw closure.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Thread	Ø Inner neck (mm)	UN approval	Art. No.	Pack Qty.	€
2	109	145	181	DIN 45	34.5	3H1/Y1.9/150	**T391.1**	1 unit(s)	5,85
2.5	115	153	208	DIN 45	34.5	3H1/Y1.6/150	**T392.1**	1 unit(s)	7,10
3	115	153	240	DIN 45	34.5	3H1/Y1.6/150	**T393.1**	1 unit(s)	7,30
5	145	190	251	DIN 51	43.0	3H1/X1.9/250	**T394.1**	1 unit(s)	8,65
6	149	191	292	DIN 51	43.0	3H1/Y1.9/200	**T395.1**	1 unit(s)	9,75
8	190	230	270	DIN 45	34.5	without	**T396.1**	1 unit(s)	11,00
10	190	230	310	DIN 51	43.0	3H1/X1.9/250	**T397.1**	1 unit(s)	14,65
20	190	290	385	DIN 61	48.5	3H1/X1.9/250	**PY06.1**	1 unit(s)	25,20
30	293	358	432	DIN 61	48.5	3H1/X1.8/250	**HCC7.1**	1 unit(s)	40,25

Canisters

Canisters Uritainer™

Simport. Material: HDPE, lid made of PP.

Push-pull valve enables easy, comfortable and drop-free pouring. Graduated, graduation 50 ml. External Ø wide neck opening 79 mm. Purpose: For use as urine collection vessel.

In vitro diagnostic medical device according to IVDD

(1) With vertical and horizontal graduation

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
3	245	115	160	50	**HT07.1**	1 unit(s)	5,35
4	245	115	201	50	**HT08.1**	1 unit(s)	5,35

(2) With vertical graduation

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
2.5	133	133	232	50	**HT09.1**	1 unit(s)	5,35
3.5	133	133	295	50	**HT10.1**	1 unit(s)	5,35

Canisters ROTILABO®

ROTH SELECTION. Material: HDPE natural colour, UV stabilised.

With blue screw cap.

(1) Wide neck

Large opening enables simple filling, emptying and cleaning. With stopper for stop cock connection thread at bottom.

Canister Art. No. C944.1 and 0572.1 additionally with venting opening (Ø outside 18 mm, Ø inside 13 mm) with screw cap.

Delivery without outlet pipe, please order separately.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
5	135	297	280	85	**C944.1**	1 unit(s)	25,30
10	140	302	397	85	**0572.1**	1 unit(s)	35,45
22	180	370	475	85	**EPK0.1**	1 unit(s)	40,05

(2) Narrow neck

Without stop cock connection option.

Delivery incl. outlet pipe, L 250 mm, Ø drain 20 mm.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
10	160	290	331.5	25	**1590.1**	1 unit(s)	11,50

Accessories draincocks for canisters

ROTH SELECTION. Material: HDPE.

For wide-neck canisters C944.1, 0572.1 and EPK0.1. Inside Ø outlet pipe 10 mm, connection option for hoses with inside Ø 12 mm.

Version	Art. No.	Pack Qty.	€
angled	**HA38.1**	1 unit(s)	13,95
straight	**0573.1**	1 unit(s)	16,70

Canisters

Fuel canister made of metal

Hünersdorff. Material: Steel, powder-coated with inside paint, wall thickness 0.9 mm.

With safety seal, prevents unintentional opening of the canister. UN approval 3A1/Y/100/... for transporting hazardous goods such as petrol, diesel, E10.

Type Classic

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	UN approval	Weight (g)	Art. No.	Pack Qty.	€
5	120	230	310	3A1/Y/100	1850	**EPL8.1**	1 unit(s)	39,95
10	165	350	283	3A1/Y/100	3000	**EPL9.1**	1 unit(s)	48,25
20	165	343	469	3A1/Y/100	4280	**EPN0.1**	1 unit(s)	47,85

Type EXPLO-SAFE

With aluminium mesh filling to reduce the risk of explosion.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	UN approval	Weight (g)	Art. No.	Pack Qty.	€
5	120	230	310	3A1/Y/100	1980	**EPN1.1**	1 unit(s)	63,30
10	165	350	283	3A1/Y/100	3260	**EPN2.1**	1 unit(s)	77,30
20	165	343	469	3A1/Y/100	4790	**EPN3.1**	1 unit(s)	90,90

Fuel canister

Hünersdorff. Material: HDPE black.

Heavy-duty, industry quality. With UN approval.

Delivery incl. outlet pipe and attached screw cap.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	UN approval	Art. No.	Pack Qty.	€
3	100	215	205	29	3H1/ X1.0 Y1.0 Z1.0/250	**EY70.1**	1 unit(s)	11,10
5	147	265	247	29	3H1/Y1.0/250	**EY71.1**	1 unit(s)	9,65
10	164	333	324	29	3H1/Y1.2/200	**EY72.1**	1 unit(s)	12,15
20	178	365	435	29	3H1/Y/150	**EY73.1**	1 unit(s)	18,95

Canisters

Compact canister electrically conductive

Bürkle. Material: HDPE.

Antistatic, colour black. Electrically conductive compact canister with litre scale, specifically for use in explosion-proof areas. High electrical conductivity at a specific surface resistance of >10^5 ohm. Correct earthing can prevent the risk of ignition resulting from electrostatic charging. For filling and storing flammable and flammable liquids of explosion groups IIA, IIB and IIC. Particularly space-saving, ideal for use in confined space. Horizontal storage possible.
Note! When working with flammable liquids, the canister must be earthed! Use antistatic set (Art. No. 0213.1)!

Delivery without stop cock. For versions with threaded connections ¾″ please order the stop cock separately.
Delivery incl. sealing cap.

Total volume 5 l

Colour	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Version	Art. No.	Pack Qty.	€
black	5	65	335	335	720	With threaded connection ¾″	**KEY7.1**	1 unit(s)	54,45
black	5	65	335	335	700	Without threaded connection	**KEY8.1**	1 unit(s)	52,55

Total volume 10 l

Colour	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Version	Art. No.	Pack Qty.	€
black	10	125	335	335	820	With threaded connection ¾″	**KEY9.1**	1 unit(s)	70,15
black	10	125	335	335	840	Without threaded connection	**KHA0.1**	1 unit(s)	68,80

Compact canister

Bürkle. Material: PP, Transparent.

For storing and filling a range of liquids in small spaces. Suitable for foodstuffs. With litre scale.

Delivery without stop cocks and sealing cap for threaded connections, please order separately.

Total volume 5 l

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Weight (g)	Version	Art. No.	Pack Qty.	€
5	65	335	335	41	800	With threaded connection ¾″	**9267.1**	1 unit(s)	37,45
5	65	335	335	41	800	Without threaded connection	**T974.1**	1 unit(s)	35,05

Total volume 10 l

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Weight (g)	Version	Art. No.	Pack Qty.	€
10	125	335	335	41	870	With threaded connection ¾″	**KEY5.1**	1 unit(s)	45,20
10	125	335	335	41	850	Without threaded connection	**KEY6.1**	1 unit(s)	43,65

Canisters

Canisters Flat

Nalgene.

Ideal for storing and filling reagents, titration solutions and distilled water. Due to their flat design, the canisters fit into narrow shelves and refrigerators. Stacking height max. three canisters. With practical handle for easy and safe carrying.

Delivery incl. drain outlet and screw cap made of PP.

Type 2323
Material: HDPE.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
8	368	305	165	63 mm	**E193.1**	1 unit(s)	142,20

Type 2324
Material: PP. Autoclavable: Yes.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
8	368	305	165	63 mm	**E195.1**	1 unit(s)	187,05

Folding canisters ROTILABO®

ROTH SELECTION. Material: PE.

Stable design through resistant, flexible walls. Easy to carry with solid, integrated handle. Folds when empty, therefore economic and space-saving. Optimum residual emptying through smooth side walls and rounded container corners. Recyclable, since handle and container are made of the same material. Stop cock connection possible. Connection Ø 30 mm, with screw cap.

Delivery without tap, please order separately.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
10	230	230	230	1 handle	**N369.1**	1 unit(s)	7,00
20	280	280	280	2 handles	**N370.1**	1 unit(s)	8,20

Canisters

Nalgene.

Robust, space-saving design with graduation and handle made of non-corrosive stainless steel. Easy to fill and clean due to wide-neck opening. **Leak-proof**.

Type 2211, without stop cock connection
Material: HDPE.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**K646.1**	1 unit(s)	82,75
20	219	318	381	100 mm	90	**K647.1**	1 unit(s)	118,30

Type 2212, without stop cock connection
Material: PP. Autoclavable: Yes.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**K644.1**	1 unit(s)	113,70
20	219	318	381	100 mm	90	**K645.1**	1 unit(s)	157,65

Type 2213, without stop cock connection
Material: PC transparent. Autoclavable: Yes. Particularly suitable for making nutrient and culture media, if exposure to light or transparency is required.

Can also be used in cold storage rooms.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**K651.1**	1 unit(s)	175,25
20	219	318	381	100 mm	90	**K652.1**	1 unit(s)	252,65

Canisters

Type 2320, with stop cock connection
Material: HDPE.

Delivery incl. drain outlet made of PP.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**K648.1**	1 unit(s)	131,15
20	219	318	381	100 mm	90	**K649.1**	1 unit(s)	173,10

Type 2321, with stop cock connection
Material: PP. Autoclavable: Yes.

Delivery incl. drain outlet made of PP.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**E191.1**	1 unit(s)	154,00
20	219	318	381	100 mm	90	**E192.1**	1 unit(s)	195,65

Type 2322, with stop cock connection
Material: PC transparent. Autoclavable: Yes. Particularly suitable for making nutrient and culture media, if exposure to light or transparency is required.

Can also be used in cold storage rooms.

Delivery incl. drain outlet made of PP.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**K653.1**	1 unit(s)	202,10
20	219	318	381	100 mm	90	**K654.1**	1 unit(s)	245,10

Canisters fluorinated with drain outlet

Nalgene. Material: HDPE transparent, fluorinated, with stop cock made of ETFE and screw cap made of fluorinated PP.

Type DS 2327. For safe storage and dispensing of solvents or distilled water. Space-saving rectangular design.
The fluorinated outside and inside surfaces enhance the barrier properties and reduce solvent absorption and permeation. **Leak-proof**. With graduation and non-corrosive stainless steel handle. 20 l container, additionally with robust handles.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
9	146	216	343	100 mm	**E189.1**	1 unit(s)	210,70
20	219	318	381	100 mm	**E190.1**	1 unit(s)	245,10

Canisters

Canisters fluorinated

Nalgene. Material: HDPE fluorinated inside and outside, with screw cap made of fluorinated PP.

Type 2242. Good barrier properties, low solvent diffusion and penetration, ass well as high resistance to chemicals. Very robust, suitable for use under extreme loads when working with acids and aggressive solvents. Stable due to large footprint. Easy pouring through long spout and handle integrated in the canister bottom. graduated in litres and gallons. **Leak-proof**.

Vol. (l)	Graduations (l)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
10	2	229	229	368	53 B	**E187.1**	1 unit(s)	78,65
20	4	305	305	445	53 B	**E188.1**	1 unit(s)	115,20

Carboy

Kautex. Material: HDPE.

Natural colours. Available without a tap connector or with a tap connector and faucet.

With a tap connector

Delivery incl. stopcock.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
5	167	330	50	S 65	**K980.1**	1 unit(s)	56,15
10	206	427	50	S 65	**5645.1**	1 unit(s)	60,60
25	278	580	50	S 65	**5646.1**	1 unit(s)	105,35
60	346	823	50	S 65	**5651.1**	1 unit(s)	160,25

Without a tap connector

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
5	167	330	50	S 65	**K981.1**	1 unit(s)	38,25
10	206	427	50	S 65	**K982.1**	1 unit(s)	41,15
25	278	580	50	S 65	**K983.1**	1 unit(s)	85,95
60	346	823	50	S 65	**K984.1**	1 unit(s)	136,30

Carboy fluorinated

Nalgene. Material: HDPE, fluorinated. Screw top made of PP.

Type 2097. 83 B thread, neck interior Ø of 64 mm. Especially suited to storing and transporting aggressive chemicals. The fluorinated interior and exterior surfaces reduce the diffusion and penetration of solvents and ensure long-term storage with low loss from evaporation. Especially resistant to rips and breaks as well as puncture damage. Suitable for most acids and aggressive organic solvents. **Leak-proof.**

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	289	64	83 B	**C476.1**	1 unit(s)	114,20
20	287	628	64	83 B	**C477.1**	1 unit(s)	147,80

Carboys

Carboy

Nalgene.

For storing chemicals, standard solutions, culture media, distilled water and liquids. Also suitable for storing large amounts of powder and other solids. Graduated in 1 gallon and 5 litre intervals. **Leak-proof**.

Type 2210

Material: LDPE screw top made of PP. 83B thread, neck inside Ø: 64 mm. Wide-handled design makes carrying and emptying easy.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	389	64	83 B	**K633.1**	1 unit(s)	60,25
15	287	432	64	83 B	**K634.1**	1 unit(s)	88,85
20	287	528	64	83 B	**K635.1**	1 unit(s)	98,30
25	287	597	64	83 B	**K636.1**	1 unit(s)	105,85
50	376	673	64	83 B	**K637.1**	1 unit(s)	232,20

Type 2234

Material: LDPE screw top made of PP. 100 mm thread, neck inside Ø: 88 mm. Wide-handled design makes carrying and emptying easy.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	338	88	100 mm	**K638.1**	1 unit(s)	56,60
20	287	483	88	100 mm	**K640.1**	1 unit(s)	106,80

Type 2235

Material: PP. Autoclavable: Yes. 100 mm thread, neck inside Ø: 88 mm. Wide-handled design makes carrying and emptying easy.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	343	88	100 mm	**K642.1**	1 unit(s)	82,45
20	287	483	88	100 mm	**K643.1**	1 unit(s)	134,40

Type 2250

Material: PP. Autoclavable: Yes. 83B thread, neck inside Ø: 64 mm. Wide-handled design makes carrying and emptying easy.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	289	64	83 B	**C478.1**	1 unit(s)	87,05
20	287	521	64	83 B	**C479.1**	1 unit(s)	147,35
50	376	673	64	83 B	**C480.1**	1 unit(s)	242,95

Type 2251

Material: PC transparent, screw-cap closure made of PP. Autoclavable: Yes. 83B thread, neck interior Ø of 64 mm. Especially suited to producing large quantities of culture media for cultures requiring light. Can also be used in cold storage rooms at temperatures below 0 °C.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	389	64	83 B	**C469.1**	1 unit(s)	142,10
20	287	521	64	83 B	**C470.1**	1 unit(s)	201,05

Dual tubing connector assembly sets

Nalgene. Autoclavable: Yes.

Suitable for retrofitting Nalgene® vacuum flasks (PK40.1ff) or carboys with 53 mm or 83 mm screw caps. To do so, two holes (Ø 10 mm for PP13.1 or Ø 16 mm for PP14.1) must be made in the screw cap and the hose connectors fitted inside them. For hoses with inner Ø 6 or 13 mm. 53 mm screw caps can only be fitted with 6 mm hose connectors, 83 mm screw caps with 6 mm and/or 13 mm hose connectors.

A 121 °C

Delivery incl. connectors made of PP, nuts made of acetal, seals made of silicone and caps made of TPE. **Delivery excludes** screw cap.

Version	Art. No.	Pack Qty.	€
For hoses with inner Ø 13 mm	**PP14.1**	2 unit(s)	20,05
For hoses with inner Ø 6 mm	**PP13.1**	2 unit(s)	18,60

Carboys

Carboy with tap

Nalgene.

Graduated. Ideal for storing distilled water, reagents and culture media. **Leak-proof**. For increasing the stability and sealing, the drain tap thread is worked into a piece of the bottle rather than welded on.

Type 2318

Material: LDPE. Thread: 83 B (K655.1: 38-430).

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
4	152	328	28	38-430	**K655.1**	1 unit(s)	58,20
10	249	389	64	83 B	**K656.1**	1 unit(s)	97,45
20	287	521	64	83 B	**K657.1**	1 unit(s)	136,80
25	287	597	64	83 B	**K658.1**	1 unit(s)	161,05
50	376	673	64	83 B	**K659.1**	1 unit(s)	240,80

Type 2317

Material: PC transparent. Autoclavable: Yes. 83 B thread.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	389	64	83 B	**K663.1**	1 unit(s)	208,55
20	287	521	64	83 B	**K664.1**	1 unit(s)	275,20

Type 2319

Material: PP. Autoclavable: Yes. 83 B thread.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	389	64	83 B	**K660.1**	1 unit(s)	149,80
20	287	521	64	83 B	**K661.1**	1 unit(s)	183,85
50	376	673	64	83 B	**K662.1**	1 unit(s)	323,60

Filler/venting cap

Nalgene. Material: PP. Autoclavable: Yes.

For liquid transfer of culture media, biological reagents and other aqueous solutions. Can be used with vacuum bottles and carboys with cap sizes of 53 B or 83 B.

A 121 °C

Delivery incl. TPE seals, 2 platinum coated silicone hoses for aspiration and dispensing, filler splash guard and 3 blind plugs.

Number of connections	For hoses with inner Ø (mm)	Thread	Height (mm)	Colour	Art. No.	Pack Qty.	€
3	6,3	53 B	68.6	white	**PK44.1**	1 unit(s)	35,70
3	6,3	83 B	98.0	white	**PK45.1**	1 unit(s)	41,35
3	12,7	83 B	98.0	white	**PK46.1**	1 unit(s)	45,65

Plastic bottles, LDPE

Narrow mouth bottle LaboPlast® Bio

Bürkle. Material: LDPE Green, transparent.

Made of renewable raw material and fully recyclable. With fully-sealing screw cap. Suitable for foodstuffs.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	26	47	9	14 mm	**HEN6.1**	10 unit(s)	12,00
20	32	58	9	14 mm	**HEN7.1**	10 unit(s)	13,90
50	40	86	13	18 mm	**HEN8.1**	10 unit(s)	18,05
100	45	106	13	18 mm	**HEN9.1**	10 unit(s)	19,15
250	60	140	18	25 mm	**HEP0.1**	10 unit(s)	26,55
500	75	173	18	25 mm	**HEP1.1**	5 unit(s)	21,80
1,000	95	213	21	28 mm	**HEP2.1**	5 unit(s)	31,75

Narrow mouth bottle

Kartell. Material: LDPE, transparent.

Acc. to DIN 168, ISO 13316. With screw cap and graduations.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	10	38	92	GL 18	**A207.1**	6 unit(s)	9,60
100	20	48	108	GL 18	**A751.1**	6 unit(s)	11,20
250	25	60	150	GL 25	**A208.1**	4 unit(s)	11,15
500	100	75	182	GL 25	**A752.1**	4 unit(s)	12,55
1,000	100	95	224	GL 32	**A209.1**	4 unit(s)	19,65

Wide mouth bottle

Kartell. Material: LDPE, transparent.

With thread according to DIN 168. The wide mouth design makes them easy to fill with solids or liquids. With screw cap and graduations.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	10	38	88	GL 32	**E217.1**	12 unit(s)	21,75
100	20	48	105	GL 32	**E218.1**	12 unit(s)	24,20
250	25	60	140	GL 45	**E219.1**	6 unit(s)	14,60
500	100	75	170	GL 45	**E220.1**	6 unit(s)	20,55
1,000	100	95	206	GL 63	**E221.1**	6 unit(s)	28,60
2,000	100	120	252	GL 63	**PE88.1**	5 unit(s)	28,30

Plastic bottles, LDPE

Wide mouth bottle

Nalgene. Material: LDPE, translucent. Screw-cap closure made of PP.

Type 2103. Universally suitable for laboratory use and taking samples. For storing chemicals and standards and for collecting and storing distilled water. The very low trace element content of LDPE makes these bottles ideal for trace element analysis. Wide neck opening for quick filling and removal of powders, paste-like substances and liquids.

- Flexible, high breaking strength
- Leak-proof

NEW / +

Delivery incl. screw-cap closure.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
30	34	63	21	28 mm	**1L27.1**	12 unit(s)	11,35
60	39	86	21	28 mm	**1L28.1**	12 unit(s)	13,45
125	50	99	28	38 mm	**1L29.1**	12 unit(s)	18,65
250	61	131	33	43 mm	**1L2A.1**	12 unit(s)	24,00
500	73	168	44	53 mm	**1L2C.1**	12 unit(s)	38,65
1,000	91	199	53	63 mm	**1L2E.1**	6 unit(s)	26,10

Narrow mouth bottle

Nalgene. Material: LDPE, screw top made of PP.

Type 2003. Higher transparency, flexibility and impact strength than HDPE bottles. LDPE has a low trace element content and, therefore, is suitable for use in trace analysis after appropriate cleaning. **Leak-proof**.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
8	25	45	20 mm	**ATH1.1**	12 unit(s)	11,85
15	25	58	20 mm	**ATH2.1**	12 unit(s)	12,80
30	34	63	20 mm	**ATH3.1**	12 unit(s)	13,80
60	39	86	20 mm	**ATH4.1**	12 unit(s)	16,05
125	50	101	24 mm	**ATH5.1**	12 unit(s)	18,85
250	61	133	24 mm	**ATH6.1**	12 unit(s)	25,95
500	73	170	28 mm	**ATH7.1**	12 unit(s)	37,70
500	73	168	38-430	**ATH8.1**	12 unit(s)	53,35
1,000	91	199	38-430	**ATH9.1**	6 unit(s)	31,50

Wide mouth bottle brown

Kautex. Material: LDPE.

For protecting light-sensitive samples from UV rays. With screw cap.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	39	77	**T508.1**	10 unit(s)	16,95
100	48	93.5	**T509.1**	10 unit(s)	20,45
250	64	120	**T510.1**	10 unit(s)	25,55
500	77	154	**T511.1**	10 unit(s)	39,95
1,000	95	205	**T512.1**	4 unit(s)	26,65

Plastic bottles, LDPE

Narrow mouth bottle 301

Kautex. Material: LDPE.
Flexible, transparent and leak-proof. **Suitable for foodstuffs.**

Delivery incl. screw-cap closure. Drip and spray closures available as an option, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	26	46.5	9.2	14 mm	**1E38.1**	100 unit(s)	64,30
20	31.5	56.5	9.2	14 mm	**1E39.1**	100 unit(s)	72,25
30	33.5	68.5	9.2	14 mm	**1E3A.1**	100 unit(s)	85,85
50	37.5	86	12.9	18 mm	**1E3C.1**	50 unit(s)	53,90
100	47	105	12.9	18 mm	**1E3E.1**	20 unit(s)	22,85
200	57.5	133	12.9	18 mm	**1E3H.1**	10 unit(s)	16,60
250	61.3	140	19	25 mm	**1E3K.1**	10 unit(s)	18,90
500	75	177	19	25 mm	**1E3L.1**	10 unit(s)	30,85
1,000	97.5	223.5	21.5	28 mm	**1E3N.1**	4 unit(s)	20,60
2,000	120	264	21.5	28 mm	**1E3P.1**	1 unit(s)	7,50
3,000	138	300	23.8	32 mm	**1E3T.1**	1 unit(s)	11,45
5,000	162	355	30.8	40 mm	**1E3X.1**	1 unit(s)	17,25

Accessories for narrow mouth bottle, 301 series

Kautex.

Drip closure

Material: LDPE. Transparent with tip. **Suitable for foodstuffs.**

Delivery without caps, please order separately.

Thread	Suitable for	Art. No.	Pack Qty.	€
14 mm	10, 20, 30 ml	**1E4C.1**	100 unit(s)	23,90
18 mm	50, 100, 200 ml	**1E4E.1**	100 unit(s)	32,00
25 mm	250, 500 ml	**1E4H.1**	100 unit(s)	44,15
28 mm	1000, 2000 ml	**1E4K.1**	100 unit(s)	44,15

Caps

With retaining strap, red. For drip closures. **Suitable for foodstuffs.**

Suitable for	Art. No.	Pack Qty.	€
Drip closures: 1E4C.1, 1E4E.1, 1E4H.1, 1E4K.1	**1E4A.1**	100 unit(s)	7,85

Spray closure

Material: LDPE. Transparent with tip. **Suitable for foodstuffs.**

Thread	Suitable for	Art. No.	Pack Qty.	€
18 mm	100 ml	**1E44.1**	10 unit(s)	13,75
18 mm	200 ml	**1E45.1**	10 unit(s)	13,75
25 mm	250 ml	**1E46.1**	10 unit(s)	15,40
25 mm	500 ml	**1E47.1**	10 unit(s)	15,40
28 mm	1000 ml	**1E48.1**	10 unit(s)	16,65
28 mm	2000 ml	**1E49.1**	10 unit(s)	16,65

Plastic bottles, LDPE

Narrow mouth bottle 310

Kautex. Material: HDPE.

Transparent, leak-proof. Space-saving narrow mouth bottle thanks to its square cross-section, with recessed label space.
For sampling, storage and transportation of liquids. **Suitable for foodstuffs.**

Delivery without screw-cap closure, please order separately.

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
100	45	45	108	17	32 mm	**1E52.1**	10 unit(s)	14,90
250	60	60	136	17	32 mm	**1E53.1**	10 unit(s)	20,35
500	74	74	170	17	32 mm	**1E54.1**	10 unit(s)	24,05
1,000	85	85	220	17	32 mm	**1E55.1**	4 unit(s)	14,55
2,500	122	122	272	28	45 mm	**1E56.1**	3 unit(s)	23,15

Accessories for narrow mouth bottle, 310 series

Kautex.

Tamper-evident cap
Material: PP red, with PE foam insert and tamper-evident band.

Thread	Suitable for	Art. No.	Pack Qty.	€
32 mm	100-1000 ml	**1E5E.1**	10 unit(s)	4,85

Tamper-evident cap
Material: PP blue, with conical seal and tamper-evident band. **Suitable for foodstuffs.**

Thread	Suitable for	Art. No.	Pack Qty.	€
32 mm	100-1000 ml	**1E59.1**	10 unit(s)	3,70
45 mm	2500 ml	**1E5A.1**	10 unit(s)	6,90

Tamper-evident cap
Material: PP white/blue, **push-turn system**, conical seal and tamper-evident band.

Thread	Suitable for	Art. No.	Pack Qty.	€
32 mm	100-1000 ml	**1E57.1**	10 unit(s)	9,70

Tamper-evident cap
Material: PP white/red, **push-turn system**, conical seal, tamper-evident band and degassing membrane.

Thread	Suitable for	Art. No.	Pack Qty.	€
32 mm	100-1000 ml	**1E5C.1**	10 unit(s)	53,70

Tamper-evident cap
Material: PP red, **degassing closure** with perforated PE insert and tamper-evident band.

Thread	Suitable for	Art. No.	Pack Qty.	€
32 mm	100-1000 ml	**1E58.1**	10 unit(s)	23,90

Plastic bottles, LDPE

Medium mouth bottle 307

Kautex. Material: HDPE PP screw-cap closure.

Transparent, leak-proof, with raised graduations. All-purpose bottle for universal laboratory and industrial applications. The size of the mouth opening ensures that the bottle can be easily filled with powders, granulates and paste-like media and is easy to clean.

Delivery incl. screw-cap closure.

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
100	46	99.5	19	25 mm	**1E84.1**	20 unit(s)	19,85
250	61	129.5	24	28 mm	**1E85.1**	10 unit(s)	14,75
500	77	161	30.8	40 mm	**1E86.1**	10 unit(s)	24,65
1,000	97	203	39.2	50 mm	**1E87.1**	4 unit(s)	15,25

Wide mouth bottle 303

Kautex. Material: LDPE.

Flexible, transparent, leak-proof. The wide opening enables easy filling and cleaning. For sampling, storage and transportation of liquids, paste-like media and granulates. **Suitable for foodstuffs.**

Delivery incl. screw-on lid.

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
50	39	76	23.8	32 mm	**1E7K.1**	50 unit(s)	67,00
100	48	93.5	23.8	32 mm	**1E7L.1**	20 unit(s)	32,70
200	59	114	30.8	40 mm	**1E7N.1**	10 unit(s)	20,95
250	64	120	30.8	40 mm	**1E7P.1**	10 unit(s)	21,95
300	67.5	128	30.8	40 mm	**1E7T.1**	10 unit(s)	25,05
500	77	154	39.2	50 mm	**1E7X.1**	10 unit(s)	35,45
750	88	173	39.2	50 mm	**1E7Y.1**	5 unit(s)	22,35
1,000	95	205	50	65 mm	**1E80.1**	4 unit(s)	22,85
1,500	108	226	50	65 mm	**1E81.1**	4 unit(s)	28,65
2,000	120	247	50	65 mm	**1E82.1**	1 unit(s)	8,35

Narrow mouth bottle

Nalgene. Material: HDPE, PP screw-cap closures.

Type 2002. For general laboratory use. Good chemical resistance to many acids and bases. **Leak-proof**.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
4	16	41	8	**PX58.1**	12 unit(s)	10,50
8	25	45	14	**PX59.1**	12 unit(s)	10,60
15	25	58	14	**PX60.1**	12 unit(s)	11,20
30	34	61	14	**PX61.1**	12 unit(s)	12,45
60	37	85	14	**PX62.1**	12 unit(s)	14,85
125	50	101	18	**PX63.1**	12 unit(s)	17,35
250	61	133	18	**PX64.1**	12 unit(s)	23,55
500	73	170	21	**PX65.1**	12 unit(s)	33,10
1,000	91	216	27	**PX66.1**	6 unit(s)	28,20

Plastic bottles, HDPE

Round bottle 321 „Variopack Dual“ COEX

Kautex. Material: HDPE with PA barrier layer (inner).
White, leak-proof. For sampling, storage and transportation of liquids.

- High-quality special packaging bottle with a polyamide barrier layer
- For highly volatile or strong smelling media with a high permeation rate
- **Not suitable for foodstuffs**

Delivery without screw-cap closure, please order separately.

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
250	62.5	131.3	42	50 mm	**1ELP.1**	252 unit(s)	540,75
500	69	186.5	42	50 mm	**1ELT.1**	152 unit(s)	445,05
1,000	88.5	234	42	50 mm	**1ELX.1**	80 unit(s)	420,35

Accessories tamper-evident cap for round neck bottle series 321

Kautex. Material: HDPE with PA/PE/PA insert.
White. **Not suitable for foodstuffs.**

Thread	Suitable for	Art. No.	Pack Qty.	€
50 mm	250/500/1000 ml	**1ELY.1**	100 unit(s)	104,20

Narrow mouth bottle ROTILABO® SafeGrip

ROTH SELECTION. Material: HDPE, tamper evident closure with PTFE seal.
Square. Thread GL 32.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
50	40	40	79	18	**HH14.1**	10 unit(s)	27,85
100	46	46	108	18	**HH15.1**	10 unit(s)	31,40
250	60	60	136	18	**HH16.1**	10 unit(s)	37,55
500	75	75	169	18	**HH17.1**	10 unit(s)	40,00

Narrow mouth bottle brown

Nalgene. Material: HDPE.
Type 2004. For protecting light-sensitive samples from UV rays.
With screw cap. **Leak-proof.**

Vol. (ml)	Ø ext. (mm)	Total height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
4	16	41	8	**APK6.1**	12 unit(s)	18,40
8	25	45	14	**APK7.1**	12 unit(s)	18,30
15	25	58	14	**AN71.1**	12 unit(s)	18,95
30	34	61	14	**AK57.1**	12 unit(s)	24,80
60	37	85	14	**AK58.1**	12 unit(s)	26,00
125	50	101	18	**AK59.1**	12 unit(s)	31,80
250	61	133	18	**AK60.1**	12 unit(s)	42,60
500	73	170	21	**AK61.1**	12 unit(s)	59,40
1,000	91	216	27	**AK62.1**	6 unit(s)	53,20

Plastic bottles, HDPE

Narrow mouth bottle fluorinated

Nalgene. Material: HDPE, fluorinated, PP screw cap.

Type 2097. Particularly suited to storing aggressive chemicals. Fluorinated interior and exterior lower the diffusion and penetration of solvents and ensure long-term storage with low loss by evaporation. Especially resistant to rips and breaks as well as puncture damage. Suitable for most acids and organic solvents. **Leak-proof.**

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
250	61	133	17	**C471.1**	12 unit(s)	47,05
500	73	171	21	**C472.1**	12 unit(s)	62,85
1,000	92	216	27	**C473.1**	6 unit(s)	56,80
2,000	122	246	27	**C474.1**	2 unit(s)	59,30
4,000	153	334	27	**C475.1**	1 unit(s)	42,10

Wide mouth bottle

Nalgene. Material: HDPE, screw top made of PP.

Durable all-purpose bottles, for universal use in the laboratory and during sampling. Wide mouth opening allows easy filling of dry matter and liquids. **Leak-proof**.

Type 2104, transparent

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
30	34	63	21	**PX93.1**	12 unit(s)	14,20
60	39	86	21	**PX94.1**	12 unit(s)	16,70
125	50	99	28	**PX95.1**	12 unit(s)	22,35
250	61	131	33	**PX96.1**	12 unit(s)	27,90
500	73	168	44	**PX97.1**	12 unit(s)	46,15
1,000	91	199	53	**PX98.1**	6 unit(s)	31,85

Type 2106, brown

Material: Screw top made of PP. For storing light-sensitive substances.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
30	34	63	21	**ATE1.1**	12 unit(s)	32,15
60	39	86	21	**ATE2.1**	12 unit(s)	33,95
125	50	99	28	**ATE3.1**	12 unit(s)	37,75
250	61	131	33	**ATE4.1**	12 unit(s)	56,25
500	73	168	44	**ATE5.1**	12 unit(s)	68,95
1,000	91	199	53	**ATE6.1**	6 unit(s)	63,25

Wide mouth bottle sealable

Bürkle. Material: HDPE.

Stable wide mouth bottles with sealing eyelets on the screw cap and bottle. Impervious to fluids. Suitable for storing and shipping specimens. Specially designed for viscous media, powders, granulates and pastes. Sealing eyelets, please order separately.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
250	64	118	26.5	**PK54.1**	25 unit(s)	66,80
500	78	147	40	**PK55.1**	10 unit(s)	29,00
1,000	100	186	50	**PK56.1**	10 unit(s)	53,75
2,000	120	230	50	**PK57.1**	1 unit(s)	8,55

Plastic bottles, HDPE

Accessories protective seals

Bürkle. Material: PP.

For sealable wide mouth bottles. Colour red. Uniquely identifiable by a continuous 9-digit number. The ring lock is secured in the locking chamber by a metal insert made of stainless spring steel. With disposable pull mechanism for protection against manipulation. Dimensions: Length 260 mm, band Ø 2 mm.

Version	Art. No.	Pack Qty.	€
Protective seals	**PK58.1**	10 unit(s)	11,35

Wide mouth bottle

Corning. Material: HDPE.

For sampling, packing and storage of liquid, solid and pasty media. Heavy metal free acc. to EC/94/62. Temperature stability -80 to +110 °C. Leak-proof. Also available sterile (ionising radiation, SAL^{-3}) .

❄❄

Delivery incl. attached HDPE screw cap with PE seal.

Vol. (ml)	Sterility	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
50	Non-sterile	36	77	27	**CCY4.1**	600 unit(s)	492,35
100	Non-sterile	51	80	37	**CCY5.1**	335 unit(s)	255,85
100	**Sterile**	51	80	37	**CEA0.1**	335 unit(s)	306,40
250	Non-sterile	60	125	37	**CCY6.1**	145 unit(s)	121,05
250	**Sterile**	60	125	37	**CEA1.1**	145 unit(s)	141,45
500	Non-sterile	80	136	58	**CCY7.1**	140 unit(s)	139,25
500	**Sterile**	80	136	58	**CEA2.1**	140 unit(s)	188,15
1,000	Non-sterile	101	174	58	**CCY8.1**	68 unit(s)	98,45
1,000	**Sterile**	101	174	58	**CEA3.1**	68 unit(s)	121,10
2,000	Non-sterile	121	220	57	**CCY9.1**	25 unit(s)	113,95

Narrow mouth bottle ROTILABO® square

ROTH SELECTION. Material: HDPE.

Rectangular. For storing, packaging and sampling chemicals. With blue, tamper evident screw cap.

Vol. (ml)	Thread	Art. No.	Pack Qty.	€
100	GL 32	**5698.1**	10 unit(s)	15,50
250	GL 32	**5706.1**	10 unit(s)	18,45
500	GL 32	**5713.1**	10 unit(s)	16,20
1,000	GL 32	**5717.1**	10 unit(s)	23,50

Plastic bottles, HDPE

Narrow mouth bottle square

Bürkle. Material: HDPE, LDPE screw cap.
With labelling space. For packaging and storing liquids.

Vol. (ml)	Width (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
100	34	113	13.0	18 mm	**KA91.1**	10 unit(s)	9,60
250	44	160	17.5	25 mm	**KA92.1**	10 unit(s)	14,35
500	53	182	17.5	25 mm	**KA93.1**	10 unit(s)	16,95
1,000	64	230	17.5	25 mm	**KA94.1**	10 unit(s)	25,65

Narrow mouth bottle ROTILABO® for dispensing systems

ROTH SELECTION. Material: HDPE, screw-cap closure made of PP.
500 ml dispenser bottle suitable for soap and disinfectant dispenser plus, Art. No. TE53.1 and CTA8.1. 1000 ml dispenser bottle suitable for Art. No. TE54.1 and CTA9.1.

NEW/+

Delivery incl. screw-cap closure, colour: red.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
500	71	57	165	20	DIN 25	**KA39.1**	6 unit(s)	8,95
1,000	87	71	210	20	DIN 25	**KA40.1**	6 unit(s)	11,15

Delivery without screw-cap closure, please order separately.

Not a medical device / Not an IVD product

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
250	55	47	135	20	DIN 25	**1LEA.1**	6 unit(s)	3,85
500	71	57	165	20	DIN 25	**1LEC.1**	6 unit(s)	6,35
1,000	87	71	210	20	DIN 25	**1LEE.1**	6 unit(s)	8,60

Accessories screw-cap closure for ROTILABO® narrow mouth bottle

NEW/+

ROTH SELECTION. Material: PP.

Not a medical device / Not an IVD product

Colour	Thread	Suitable for	Art. No.	Pack Qty.	€
red	DIN 25	250-1000 ml	**1LE9.1**	6 unit(s)	1,65
black	DIN 25	250-1000 ml	**1LE8.1**	6 unit(s)	1,65
white	DIN 25	250-1000 ml	**1LE7.1**	6 unit(s)	1,65

Plastic bottles, HDPE

Wide mouth bottle square

Kartell. Material: HDPE, with stopper and screw cap made from PP.
Graduated. **Sealable**.

Vol. (ml)	Graduations (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
25	5	32	34	50	18	**K811.1**	10 unit(s)	8,25
50	10	37	39	70	24	**K812.1**	10 unit(s)	9,50
100	20	42	48	90	34	**K813.1**	10 unit(s)	13,05
250	50	57	60	110	34	**K814.1**	10 unit(s)	13,95
500	100	70	80	140	44	**K815.1**	1 unit(s)	2,35
1,000	100	80	103	175	58	**K816.1**	1 unit(s)	3,45
2,000	100	100	135	210	58	**K817.1**	1 unit(s)	5,25

Wide mouth bottle square

Nalgene. Material: HDPE, screw top made of PP.
Type 2007. Robust and strong-walled design. Easy to fill thanks to the wide mouth opening. Space-saving, rectangular shape. For storing and transporting liquids and solids. **Leak-proof**.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	64	38	102	28 mm	**C488.1**	12 unit(s)	27,90
250	76	48	114	38 mm	**C489.1**	12 unit(s)	41,60
500	94	58	140	48 mm	**C490.1**	12 unit(s)	65,05
1,000	125	71	180	53 mm	**C491.1**	6 unit(s)	73,75
2,000	152	81	239	63 mm	**C492.1**	4 unit(s)	79,35

Wide mouth bottle square

Nalgene. Material: HDPE, translucent. Screw-cap closure made of PP.
Type 2123. Space-saving square shape. With integrated handle. Suitable for collecting, storing and transporting dry chemicals and environmental samples. Temperature stable up to -100 °C.

- Wide neck for easy filling
- Not leak-proof

NEW / +

Delivery incl. screw-cap closure.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
4,000	140	140	279	89	100 mm	**1L2N.1**	1 unit(s)	24,95

Plastic bottles, HDPE

Wide mouth bottle square brown

Nalgene. Material: HDPE, screw top made of PP.

Type 2009. For protecting light-sensitive samples from UV rays. Robust and space-saving design. **Leak-proof.**

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	64	38	102	28 mm	**C459.1**	12 unit(s)	42,60
250	76	48	114	38 mm	**C460.1**	12 unit(s)	58,25
500	94	58	140	48 mm	**C461.1**	12 unit(s)	82,15
1,000	125	71	180	53 mm	**C462.1**	6 unit(s)	92,75
2,000	152	81	239	63 mm	**C463.1**	4 unit(s)	94,10

Narrow neck bottle with flap closure

Bürkle. Material: HDPE, closure made of PP.

Round bottle with hinged closure, particularly suitable for liquids, emulsions, creams and oils.
Flap closure with hole Ø 3 mm.

Vol. (ml)	Height (mm)	Art. No.	Pack Qty.	€
100	115	**1CCL.1**	10 unit(s)	15,30
250	143	**1CCN.1**	10 unit(s)	19,00
500	182	**1CCP.1**	10 unit(s)	26,05
1,000	221	**1CCT.1**	5 unit(s)	18,05

Bottle for heavy-duty use

Nalgene. Material: HDPE, screw-cap closure made of PP, white.

Type 2125. Thick-walled bottle with very wide mouth for heavy-duty use. Suitable for storing and transporting liquids and solids.

- Robust and shock-resistant
- Leak-proof
- Not suitable for vacuum applications

NEW / +

Delivery incl. screw-cap closure.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
1,000	93	226	39	53 B	**1L24.1**	1 unit(s)	12,05
2,000	119	260	39	53 B	**1L25.1**	1 unit(s)	16,00
4,000	155	338	65	83 B	**1L26.1**	1 unit(s)	37,25

Plastic bottles, PP

Vacuum bottle type 2126

Nalgene. Material: PP, TPE seal. Autoclavable: Yes.

Stable and thick-walled. **Leak-proof.** Suitable as vacuum trap or as storage bottle for analytical or dispensing apparatus. Vacuum tight up to 0.1 mbar, for up to 24 hours at 20 °C.

A 121 °C

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
1,000	93	226	53 B	**PK40.1**	1 unit(s)	32,25
2,000	119	260	53 B	**PK41.1**	1 unit(s)	37,90
4,000	155	338	83 B	**PK42.1**	1 unit(s)	62,60
5,000	156	414	83 B	**PK43.1**	1 unit(s)	92,45

Narrow mouth bottle

Nalgene. Material: PP. Autoclavable: Yes.

Type 2006. Suitable for general laboratory use. Good chemical resistance. **Leak-proof.**

A 121 °C

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
4	16	41	8	**PT86.1**	12 unit(s)	13,25
8	25	45	14	**PT87.1**	12 unit(s)	11,75
15	25	58	14	**PT88.1**	12 unit(s)	12,20
30	34	61	14	**PT89.1**	12 unit(s)	12,95
60	37	85	14	**PT90.1**	12 unit(s)	13,75
125	50	101	18	**PT91.1**	12 unit(s)	16,45
250	61	133	18	**PT92.1**	12 unit(s)	24,70
500	73	170	21	**PT93.1**	12 unit(s)	40,05
1,000	91	216	27	**PT94.1**	6 unit(s)	28,25

Plastic bottles, PP

Wide mouth bottles

Nalgene. Material: PP. Autoclavable: Yes.

Type 2105. Suitable for general laboratory use. Good chemical resistance. **Leak-proof**.

A 121 °C

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
30	34	63	21	**PY08.1**	12 unit(s)	15,30
60	39	86	21	**PY09.1**	12 unit(s)	18,35
125	50	99	28	**PY10.1**	12 unit(s)	27,00
250	61	131	33	**PY11.1**	12 unit(s)	34,40
500	73	168	44	**PY12.1**	12 unit(s)	56,40
1,000	91	199	53	**PY13.1**	6 unit(s)	34,10

Wide mouth bottle

Nalgene. Material: PP, translucent. Autoclavable: Yes.

Type 2121. Large volume general purpose bottle for a wide variety of laboratory and industrial applications. Suitable for autoclaving large volumes of liquid. Unscrew the cap and place it on the bottle before autoclaving.

- Good chemical resistance
- Not leak-proof

NEW / +

A 121 °C

Delivery incl. screw-cap closure.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
2,000	120	244	89	100 mm	**1L2H.1**	1 unit(s)	17,85
4,000	153	288	89	100 mm	**1L2K.1**	1 unit(s)	23,95

Wide mouth bottle square

Nalgene. Material: PP, translucent. Autoclavable: Yes.

Type 2122. Space-saving square shape. With integrated handle. Suitable for storing and sterilising contaminated microscope slides and other small laboratory items, and for collecting, storing and transporting dry chemicals and environmental samples. Unscrew the cap and place it on the bottle before autoclaving.

- Wide neck for easy filling
- Not leak-proof

NEW / +

A 121 °C

Delivery incl. screw-cap closure.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
4,000	140	140	279	89	100 mm	**1L2L.1**	1 unit(s)	27,45

Plastic bottles, PP

Wide mouth bottle with graduations

Kautex. Material: PP, natural colours. Autoclavable: Yes.
Ideal for paste-like media, granulates and products in hot-filling.

A 121 °C

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
100	48.5	94	24	**T486.1**	10 unit(s)	21,95
250	64.5	121	30	**T487.1**	10 unit(s)	28,35
500	77.5	155	39	**T488.1**	10 unit(s)	43,70
1,000	96.0	206	50	**T489.1**	4 unit(s)	27,80

Narrow mouth bottle GL 45

Vitlab. Material: PP, flexible, transparent. Autoclavable: Yes.
Chemically (formalin, ethanol) and radiation sterilisable (β rays, 25kGy), microwave safe. Art. No. PY05.1 with handle.

A 121 °C

Delivery incl. PP screw cap.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
250	73	132	GL 45	**PY01.1**	1 unit(s)	4,20
500	87	172	GL 45	**PY02.1**	1 unit(s)	5,25
1,000	105	197	GL 45	**PY03.1**	1 unit(s)	8,80
2,000	131	241	GL 45	**PY04.1**	1 unit(s)	11,00
5,000	178	315	GL 45	**PY05.1**	1 unit(s)	19,20

Wide mouth bottle fluoroplastics

Vitlab. Material: PFA, Pure. Autoclavable: Yes.
With fully sealing screw cap. Suitable for trace analysis and long-term storage of highly pure oxidants, acids and bases as well as hydrocarbons, solvents and standards.

- Temperature stable in the range -200 to +250 °C
- Chemically resistant to nearly all chemicals
- Good transparency and shape stability
- Practically no displacement or cross-contamination as the surfaces are extremely hydrophobic, anti-adhesive and flat
- Long durability of low concentrated reference material in PFA vessels
- Easy to clean
- No memory effect

A 121 °C ❄❄❄

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	37	86	S 28	**9702.1**	1 unit(s)	71,95
100	45	120	S 28	**9703.1**	1 unit(s)	109,60
250	61	150	S 40	**9704.1**	1 unit(s)	125,60
500	76	179	S 40	**9705.1**	1 unit(s)	174,15
1,000	96	217	S 40	**9706.1**	1 unit(s)	241,90

Plastic bottles, PFA/PTFE

Wide mouth bottle fluoroplastics

Saint-Gobain. Material: PFA, highly transparent. Autoclavable: Yes.
Graduated, **anti-spill**. Microwave safe.

- Temperature resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

A 121 °C ❄❄❄

Vol. (ml)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
20	60.3	16.4	**YY67.1**	1 unit(s)	45,85
100	106.5	25.7	**YY68.1**	1 unit(s)	116,65
250	136.8	25.7	**YY69.1**	1 unit(s)	166,65
500	173.8	33.9	**YY70.1**	1 unit(s)	260,15
1,000	207.2	36.8	**YY71.1**	1 unit(s)	422,50

Narrow mouth bottle fluoroplastics

Saint-Gobain. Material: PFA, highly transparent. Autoclavable: Yes.
Graduated, **anti-spill**. Microwave-safe.

- Temperature-resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

A 121 °C ❄❄❄

Vol. (ml)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
100	100.8	16.7	**YY60.1**	1 unit(s)	81,45
250	133.7	16.5	**YY61.1**	1 unit(s)	133,05
500	165.1	17.0	**YY62.1**	1 unit(s)	168,80
1,000	202.4	25.3	**YY63.1**	1 unit(s)	299,95
2,000	235.0	33.0	**YY64.1**	1 unit(s)	858,95
3,000	269.9	36.6	**YY65.1**	1 unit(s)	906,25

Narrow mouth bottle ROTILABO® fluoroplastics

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.
With screw threading. Chemically inert. Temperature stable from -200 to +250 °C. Low gas permeability. Anti-adhesive.

A 121 °C ❄❄❄

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
1	16	27	10	**T633.1**	1 unit(s)	18,65
5	22	35	10	**T635.1**	1 unit(s)	22,45
10	26	50	12	**T636.1**	1 unit(s)	24,95
25	33	61	19	**T637.1**	1 unit(s)	33,50
50	43	76	25	**T638.1**	1 unit(s)	44,15
100	52	88	35	**T639.1**	1 unit(s)	58,65
150	60	90	35	**T640.1**	1 unit(s)	62,80
250	67	115	42	**1181.1**	1 unit(s)	74,45
500	80	150	52	**T641.1**	1 unit(s)	121,70
1,000	100	185	57	**1182.1**	1 unit(s)	172,00
2,000	120	240	60	**T642.1**	1 unit(s)	303,15

Plastic bottles, PFA/PTFE

Narrow mouth bottle square

Nalgene. Material: PC, screw-cap closure made of PP.
Autoclavable: Yes.

Type 2015. For storage of aqueous solutions and short-term storage of culture media. 2-litre size with integrated handles for easy handling.
Unscrew the screw-cap closure completely before autoclaving.
Repeated autoclaving will shorten the service life of the bottle.

- Transparent, graduated and leak-proof
- Temperature stable in the range -135 to +135 °C

NEW / +

A 121 °C

Delivery incl. screw-cap closure.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
30	38	38	64	14	20 mm	**1L1E.1**	12 unit(s)	40,15
60	41	41	83	18	24 mm	**1L1H.1**	12 unit(s)	53,40
126	53	53	109	27	38-430	**1L1K.1**	6 unit(s)	27,95
250	61	61	146	27	38-430	**1L1L.1**	6 unit(s)	36,15
500	74	74	178	27	38-430	**1L1N.1**	4 unit(s)	38,95
1,000	92	92	218	27	38-430	**1L1P.1**	4 unit(s)	56,90
2,000	116	116	271	39	53 B	**1L1T.1**	1 unit(s)	27,85

Narrow mouth bottle

Nalgene. Material: PC, screw-cap closure made of PP.
Autoclavable: Yes.

Type 2205. For storage of aqueous solutions and short-term storage of culture media. 2 and 2.5 litre bottles can be used as vessels for layer, suspension and non-adhesive roller cultures. The 4 l and 8 l sizes have integrated eyelets for attaching a label.
Unscrew the screw-cap closure completely before autoclaving.
Repeated autoclaving will shorten the service life of the bottle.

- Transparent, shock-resistant and lightweight
- Temperature stable in the range -135 to +135 °C
- Leak-proof

NEW / +

A 121 °C

Delivery incl. screw-cap closure.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
500	82	180	27	38-430	**1L1X.1**	4 unit(s)	36,00
1,000	99	221	27	38-430	**1L1Y.1**	4 unit(s)	50,15
2,000	121	249	27	38-430	**1L20.1**	1 unit(s)	23,85
2,500	121	295	27	38-430	**1L21.1**	1 unit(s)	30,80
4,000	121	333	27	38-430	**1L22.1**	1 unit(s)	56,25
8,000	193	409	39	53 B	**1L23.1**	1 unit(s)	86,85

UN bottles

Wide mouth bottle 310

Kautex. Material: HDPE.

White, with square cross-section, recessed label space and UN approval for solids. 50 ml wide mouth bottle without UN approval. For sampling, storage and transportation of solids.
Suitable for foodstuffs.

Delivery without screw-cap closure, please order separately.

Without UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
50	36	36	88.5	21.4	28 mm	without	**1E5P.1**	10 unit(s)	13,40

With UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
100	45	45	101	24	32 mm	3H1/X0.3/S	**1E5T.1**	10 unit(s)	14,95
250	59	59	129.5	35	45 mm	3H1/X0.8/S	**1E5X.1**	10 unit(s)	18,85
500	75	75	162	42.5	54 mm	3H1/X1.5/S	**1E5Y.1**	10 unit(s)	27,20
750	83	83	188	42.5	54 mm	3H1/X2.5/S	**1E60.1**	10 unit(s)	30,65
1,000	85	85	214	42.5	54 mm	3H1/X2.5/S	**1E61.1**	9 unit(s)	32,95
1,500	108	108	209	68.5	80 mm	3H1/X4/S	**1E62.1**	6 unit(s)	26,90
2,500	122	122	260	68.5	80 mm	3H1/X5/S	**1E63.1**	3 unit(s)	17,45
4,000	142	142	294	68.5	80 mm	3H1/X5.5/S	**1E64.1**	1 unit(s)	10,35

Accessories for wide mouth bottle 310 series with UN approval

Kautex.

Tamper-evident cap

Material: PP. Red, with PE foam insert and tamper-evident band.

Thread	Suitable for	Art. No.	Pack Qty.	€
28 mm	50 ml	**1E6C.1**	10 unit(s)	5,15
32 mm	100 ml	**1E6E.1**	10 unit(s)	5,50
45 mm	250 ml	**1E6H.1**	10 unit(s)	7,50
54 mm	500/750/1000 ml	**1E6K.1**	10 unit(s)	8,75
80 mm	1500/2500/4000 ml	**1E6L.1**	10 unit(s)	15,95

Tamper-evident cap

Material: PP. Blue, with conical seal and tamper-evident band. **Suitable for foodstuffs.**

Thread	Suitable for	Art. No.	Pack Qty.	€
28 mm	50 ml	**1E6N.1**	10 unit(s)	4,25
32 mm	100 ml	**1E6P.1**	10 unit(s)	5,50
45 mm	250 ml	**1E6T.1**	10 unit(s)	6,70
54 mm	500/750/1000 ml	**1E6X.1**	10 unit(s)	8,25
80 mm	1500/2500/4000 ml	**1E6Y.1**	10 unit(s)	17,10

Screw-cap closure

Material: PP. Black, with PE foam insert.

Thread	Suitable for	Art. No.	Pack Qty.	€
28 mm	50 ml	**1E66.1**	10 unit(s)	n. a.
32 mm	100 ml	**1E67.1**	10 unit(s)	4,90
45 mm	250 ml	**1E68.1**	10 unit(s)	6,05
54 mm	500/750/1000 ml	**1E69.1**	10 unit(s)	7,90
80 mm	1500/2500/4000 ml	**1E6A.1**	10 unit(s)	15,10

Screwing aid

Material: HDPE. Suitable for thread Ø 32-80 mm.

Suitable for	Art. No.	Pack Qty.	€
Thread Ø 32, 45, 54, 80 mm	**1E65.1**	1 unit(s)	12,85

UN bottles

Wide mouth bottle ROTILABO®

ROTH SELECTION. Material: HDPE.

Natural colours, with square cross-section and recessed label space. Bottles from 100 ml with UN-X approval for solids. Wide mouth design makes filling easy. For sampling, storage and transportation of solids.

Delivery incl. tamper-evident PP screw top (red) with PE foam insert.

Without UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
50	36	36	88.5	21.0	28 mm	without	**T474.1**	10 unit(s)	15,70

With UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
100	45	45	101	24.0	32 mm	3H1/X0.3/S	**T475.1**	10 unit(s)	19,10
250	59	59	128	35.0	45 mm	3H1/X0.8/S	**T476.1**	10 unit(s)	22,60
500	75	75	161	42.5	54 mm	3H1/X1.5/S	**T477.1**	10 unit(s)	31,85
1,000	85	85	212	42.5	54 mm	3H1/X2.5/S	**T478.1**	9 unit(s)	33,65
1,500	111	111	209	68.5	80 mm	3H1/X4/S	**T479.1**	6 unit(s)	36,00
2,500	122	122	258	68.5	80 mm	3H1/X5/S	**T480.1**	3 unit(s)	21,10
4,000	142	142	294	68.5	80 mm	3H1/X5.5/S	**T481.1**	1 unit(s)	12,05

Wide mouth bottle ROTILABO®

ROTH SELECTION. Material: HDPE.

Natural colours, with square cross-section, recessed label space and UN approval for solids. 50 ml and 350 ml without UN approval. Wide mouth design makes filling easy. For sampling, storage and transportation of solids.

Delivery incl. PP screw-cap closure (black) with PE foam insert.

Without UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
350	60	60	164	35.0	45 mm	without	**H336.1**	10 unit(s)	27,90

With UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
100	45	45	101	24.0	32 mm	3H1/X0.3/S	**H334.1**	30 unit(s)	47,20
250	59	59	128	35.0	45 mm	3H1/X0.8/S	**H335.1**	20 unit(s)	50,80
500	75	75	161	42.5	54 mm	3H1/X1.5/S	**H337.1**	10 unit(s)	31,30
750	85	85	185	42.5	54 mm	3H1/X2.5/S	**H338.1**	10 unit(s)	38,75
1,000	85	85	212	42.5	54 mm	3H1/X2.5/S	**H339.1**	9 unit(s)	36,40
1,500	111	111	209	68.5	80 mm	3H1/X4/S	**H340.1**	7 unit(s)	37,25
2,500	122	122	258	68.5	80 mm	3H1/X5/S	**H341.1**	3 unit(s)	20,45
4,000	142	142	294	68.5	80 mm	3H1/X5.5/S	**H342.1**	1 unit(s)	11,35

UN bottles

Narrow mouth bottle ROTILABO® with UN approval

ROTH SELECTION. Material: HDPE, tamper evident PE screw cap with a PTFE sealing ring.

Natural colours. Thread GL 45. For storing and transporting liquids.

Volume: 1000 ml, square

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
1,000	97	97	219	GL 45	3H1/X1.9/250	**T502.1**	6 unit(s)	19,50

Volume: 2500 ml, round, with handles on the side

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
2,500	132	293	GL 45	1H1/X1.3 Y1.9/250	**T503.1**	2 unit(s)	8,55

Screw top bottle DURAN® stainless steel GL 45

DWK Life Sciences. Material: Stainless steel 1.4404. Autoclavable: Yes.

With smooth inner surface (acc. to IIIc DIN 17441) and rounded inside edges for complete drainage and easy cleaning. Temperature stability up to +500 °C.

- Shatterproof
- Light-impermeable
- Chemical resistant (except halogen-containing media

A 121 °C

DURAN
WHEATON
KIMBLE

(1) UN-approved transport bottle

For safe transport of dangerous and flammable liquids, for storing high-value materials like speciality chemicals, pharmaceutical or cosmetic products, as well as for storing light-sensitive materials.

The UN approval means no additional packaging is required. Approved for the conveyance of liquids with a relative density of up to 2.0 classified into UN packaging group I, II or III as hazardous goods.

Delivery incl. screw top made of stainless steel with PTFE seal.

Vol. (ml)	Thread	UN approval	Art. No.	Pack Qty.	€
1,500	GL 45	1A1/X2,0/1000	**AAC4.1**	1 unit(s)	538,00

(2) Non-UN-approved storage bottle

For the storage of aggressive media, high-purity fine chemicals, pharmaceuticals and cosmetic products as well as light-sensitive materials.

Delivery without cap, please order separately.

Vol. (ml)	Thread	UN approval	Art. No.	Pack Qty.	€
1,500	GL 45	without	**AAC5.1**	1 unit(s)	489,00

UN bottles

Narrow mouth bottle ROTILABO® aluminium

ROTH SELECTION. Material: Aluminium 99.5%, PP screw cap with aluminium internal seal.

With tamper-evident cap. For the storage and transportation of substances and retained samples. Bottles of 60 ml and larger with **UN approval 1B1/X/250.** Seamlessly finished, can be totally emptied. Neutral odour, impervious to light, rustproof and shatterproof.

Vol. (ml)	Ø (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
30	35	70	without	**XY65.1**	10 unit(s)	18,95
60	40	88	1B1/X/250	**P791.1**	10 unit(s)	20,80
120	57	97	1B1/X/250	**P792.1**	10 unit(s)	24,80
300	57	160	1B1/X/250	**P793.1**	10 unit(s)	35,80
600	74	192	1B1/X/250	**P794.1**	5 unit(s)	25,60
1,200	88	248	1B1/X/250	**P795.1**	5 unit(s)	28,95

Narrow mouth bottle aluminium with UN approval

Bürkle. Material: Aluminium 99.5%, screw cap with FKM seal.

Leak-proof. **UN approval 1B1/X/250**, suitable for transportation and storage of hazardous substances. Sealable, impervious to light.

Vol. (ml)	Ø (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
125	50	105	1B1/X/250	**XY66.1**	1 unit(s)	21,55
250	65	140	1B1/X/250	**XY67.1**	1 unit(s)	25,50
500	80	145	1B1/X/250	**XY68.1**	1 unit(s)	30,25
1,250	100	205	1B1/X/250	**XY69.1**	1 unit(s)	32,75

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Wash bottles

121 °C

Wash bottle ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Spray bottle consisting of flat-bottomed flask with sleeve NS 29/32 and spray bottle attachment.

Delivery without suction aid, please order separately.

Vol. (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
250	29/32	**ACK8.1**	1 unit(s)	42,70
500	29/32	**ACK9.1**	1 unit(s)	45,30
1,000	29/32	**ACL0.1**	1 unit(s)	50,20

Wash bottle ROTILABO® wide neck

ROTH SELECTION. Material: LDPE.

Comes with trilingual contents label and hazard identification symbol to GHS. Spray cap, colour-coded. Empties completely due to shiftable riser.

Note: The chemical resistance of the spray bottles is limited when aggressive filling media are used. The bottles should therefore be replaced regularly and not used for analytical or critical applications.

Version	Vol. (ml)	Art. No.	Pack Qty.	€
Acetone	250	**T398.1**	1 unit(s)	6,10
Acetone	500	**T399.1**	1 unit(s)	7,60
Ethanol	250	**T400.1**	1 unit(s)	6,10
Ethanol	500	**T401.1**	1 unit(s)	7,60
Methanol	250	**T404.1**	1 unit(s)	6,10
Methanol	500	**T405.1**	1 unit(s)	7,60
Isopropanol	250	**T402.1**	1 unit(s)	6,10
Isopropanol	500	**T403.1**	1 unit(s)	7,60
Distilled water	250	**T406.1**	1 unit(s)	6,10
Distilled water	500	**T407.1**	1 unit(s)	7,60

Wash bottle ROTILABO® with overpressure valve

ROTH SELECTION.

Material: LDPE (bottle types Acetone and MEK made of PP), screw cap and spray pipe made of PP.
Overpressure valve in the screw cap extensively prevents leakage, dripping or escape of the liquid from the spray pie, e.g. in the case of temperature fluctuations.
With permanent four-language content imprint (German, English, French, Spanish) and hazard warning acc. to GHS.

Note: The chemical resistance of the spray bottles is limited when aggressive filling media are used. The bottles should therefore be replaced regularly and not used for analytical or critical applications.

Volume 500 ml

Version	Vol. (ml)	Thread	Art. No.	Pack Qty.	€
Dist. water	500	GL 25	**HL52.1**	1 unit(s)	9,25
Acetone	500	GL 25	**HL51.1**	1 unit(s)	9,25
Ethanol	500	GL 25	**HL54.1**	1 unit(s)	9,25
Isopropanol	500	GL 25	**HL55.1**	1 unit(s)	9,25
Methyl ethyl ketone (MEK)	500	GL 25	**PY44.1**	1 unit(s)	9,25

Volume 1000 ml

Version	Vol. (ml)	Thread	Art. No.	Pack Qty.	€
Dist. water	1,000	GL 32	**HL58.1**	1 unit(s)	11,15
Acetone	1,000	GL 32	**HL57.1**	1 unit(s)	11,15
Ethanol	1,000	GL 32	**HL59.1**	1 unit(s)	11,15
Isopropanol	1,000	GL 32	**HL61.1**	1 unit(s)	11,10

Wash bottle ROTILABO®

ROTH SELECTION. Material: LDPE transparent.

Height data without riser.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	60	145	**5330.1**	1 unit(s)	4,90
500	75	180	**5331.1**	1 unit(s)	5,65
1,000	100	230	**5332.1**	1 unit(s)	7,45

Spray bottles set ROTILABO®

ROTH SELECTION.

Consisting of 3 wash bottles, volumes 250, 500 and 1000 ml.

Version	Art. No.	Pack Qty.	€
Spray bottle set ROTILABO®	**5333.1**	1 set	14,10

Wash bottles

Wash bottle

Vitlab. Material: LDPE, transparent, screw cap and spray tube with elongated tip made of PP.

Narrow neck

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	37	73	GL 18	**XY89.1**	1 unit(s)	4,55
100	43	95	GL 18	**XY90.1**	1 unit(s)	4,80
250	58	135	GL 25	**XY91.1**	1 unit(s)	5,25
500	74	180	GL 25	**XY93.1**	1 unit(s)	6,90
1,000	92	221	GL 32	**XY95.1**	1 unit(s)	8,10

Wide neck

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
250	58	146	GL 45	**XY92.1**	1 unit(s)	5,75
500	76	166	GL 45	**XY94.1**	1 unit(s)	7,35
1,000	91	226	GL 63	**XY96.1**	1 unit(s)	9,75

Screw closures

Vitlab. Autoclavable: Yes.
With integrated lip seal, leak-proof.

A 121 °C

Polypropylene

Material: PP.

Thread	Art. No.	Pack Qty.	€
GL 18	**YA32.1**	24 unit(s)	17,35
GL 25	**YA33.1**	12 unit(s)	8,55
GL 32	**YA34.1**	12 unit(s)	10,05
GL 40	**YA35.1**	12 unit(s)	17,40
GL 45	**YA36.1**	12 unit(s)	17,60
GL 52	**YA37.1**	12 unit(s)	18,35
GL 56	**YA38.1**	12 unit(s)	18,85
GL 63	**YA39.1**	12 unit(s)	19,65

Perfluoralkoxy

Material: PFA.

Thread	Art. No.	Pack Qty.	€
GL 18	**YA40.1**	1 unit(s)	6,30
GL 25	**YA41.1**	1 unit(s)	11,25
S 28	**YA42.1**	1 unit(s)	27,85
S 40	**YA43.1**	1 unit(s)	33,15

Wash bottles

Wash bottle ROTILABO®

ROTH SELECTION. Material: LDPE, screw cap and spray tube made of PP.

Precision jet and optimised medium backflow through fine tip of spray tube. Easy identification thanks to selection of differently coloured bottled. Height data without riser.

Volume 250 ml

Vol. (ml)	Colour	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
250	red	58	135	GL 25	**APK1.1**	1 unit(s)	6,50
250	green	58	135	GL 25	**APK2.1**	1 unit(s)	6,50
250	yellow	58	135	GL 25	**APK3.1**	1 unit(s)	6,50
250	blue	58	135	GL 25	**APK4.1**	1 unit(s)	6,50

Volume 500 ml

Vol. (ml)	Colour	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
500	red	75	180	GL 25	**6530.1**	1 unit(s)	6,90
500	green	75	180	GL 25	**6533.1**	1 unit(s)	6,90
500	yellow	75	180	GL 25	**6536.1**	1 unit(s)	6,90
500	blue	75	180	GL 25	**6539.1**	1 unit(s)	6,90

Spray bottles set ROTILABO®

ROTH SELECTION.

Consisting of 4 wash bottles volume 500 ml in red, green, yellow and blue.

Version	Art. No.	Pack Qty.	€
Spray bottle set ROTILABO®	**APK5.1**	1 set	25,05

Wash bottle ROTILABO®

ROTH SELECTION. Material: PE.

With integrated stable riser and removable sealing cap.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	90	60	140	**Y801.1**	1 unit(s)	5,05
500	96	65	178	**Y802.1**	1 unit(s)	5,55

Wash bottles

Wash bottle

Kartell. Material: PE.

With curved riser and removable spray nozzle.

Vol. (ml)	Ø (mm)	Art. No.	Pack Qty.	€
50	35	**Y767.1**	1 unit(s)	3,00
100	43	**Y768.1**	1 unit(s)	3,00
250	60	**Y769.1**	1 unit(s)	3,75
500	75	**Y770.1**	1 unit(s)	3,95
1,000	95	**Y771.1**	1 unit(s)	5,40

Wash bottle wide neck

Nalgene. Material: LDPE, screw cap made of PP.

With wide-neck opening for fast and easy filling. Bottle and riser are made from one piece, which allows the bottle to be emptied completely. With leak-proof cap.

Type 2402

Vol. (ml)	Colour	Thread	Art. No.	Pack Qty.	€
125	colourless	24 mm	**C464.1**	6 unit(s)	30,40
250	colourless	38 mm	**C465.1**	4 unit(s)	23,65
500	colourless	38 mm	**C466.1**	4 unit(s)	27,85
750	colourless	38 mm	**C467.1**	4 unit(s)	40,25
1,000	colourless	43 mm	**C468.1**	2 unit(s)	21,80

Type DS 2408

Vol. (ml)	Colour	Thread	Art. No.	Pack Qty.	€
250	red	38 mm	**K669.1**	1 unit(s)	15,20
500	red	38 mm	**K670.1**	1 unit(s)	24,30

Wash bottle

Nalgene. Material: LDPE transparent, screw cap and riser made of coloured PP.

Type 2422. With coloured caps for easy identification of the contents. **Leak-proof**, since cap and riser are made from one piece.

Vol. (ml)	Colour	Art. No.	Pack Qty.	€
500	yellow	**K665.1**	1 unit(s)	9,00
500	blue	**K666.1**	1 unit(s)	9,00
500	green	**K667.1**	1 unit(s)	9,00
500	red	**K668.1**	1 unit(s)	9,00

A 121 °C

Wash bottle made of fluoroplastic

Nalgene. Material: FEP, riser and screw cap made of ETFE. Autoclavable: Yes.

Type 2403. High chemical resistance. For contamination-free working with trace element analyses. **Leak-proof**, since riser holder and cap are made from one piece. Phthalat-free.

Vol. (ml)	Art. No.	Pack Qty.	€
125	**K671.1**	1 unit(s)	106,20
250	**K672.1**	1 unit(s)	162,35
500	**K673.1**	1 unit(s)	197,80
1,000	**K674.1**	1 unit(s)	258,00

Dropper bottles

DURAN WHEATON KIMBLE

Dropper bottle with pipette

DWK Life Sciences. Material: Soda-lime glass.

Complete with suction cups and replaceable ground glass joint pipette made of clear glass.

Clear glass

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	79	14/15	**T930.1**	10 unit(s)	89,65
100	105	14/15	**T931.1**	10 unit(s)	99,85

Brown glass

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	79	14/15	**T932.1**	10 unit(s)	93,70
100	105	14/15	**T933.1**	10 unit(s)	108,65

Dropper bottle with pipette

Marienfeld. Material: Glass.

Complete with clear-glass pipette, suction cups and ground glass stopper made of PP.

Clear glass

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	77	14/15	**TT98.1**	10 unit(s)	106,70
100	103	14/23	**TT99.1**	6 unit(s)	95,90
250	131	19/26	**TX00.1**	10 unit(s)	145,15

Brown glass

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	77	14/15	**TX01.1**	10 unit(s)	122,55
100	103	14/23	**TX02.1**	6 unit(s)	102,70
250	131	19/26	**TX03.1**	10 unit(s)	170,95

DURAN WHEATON KIMBLE

Dropper bottle with glass stopper

DWK Life Sciences. Material: Soda-lime glass.

Turning the plug seals the bottle tight.

Clear glass

Vol. (ml)	Height (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
50	95	45	**ETL2.1**	1 unit(s)	21,00
100	120	56	**ETL3.1**	1 unit(s)	23,30

Brown glass

Vol. (ml)	Height (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
50	95	45	**ETL4.1**	1 unit(s)	21,00
100	120	56	**ETL5.1**	1 unit(s)	23,30

Dropper bottle with pipette

Kartell. Material: PE, translucent.

Delivery incl. red screw cap, Dropper pipette and suction cup.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	35	96	**TT69.1**	10 unit(s)	31,65
100	43	115	**TT70.1**	10 unit(s)	36,50
250	60	140	**TT71.1**	10 unit(s)	40,55

Dropper bottles

Dropper bottle

Nalgene. Material: LDPE, cap made of PP, dropper tip made of LDPE.

Good chemical resistance. Ideal for small culture volumes. Precise single drop release. Droplet size approx. 40 µl (Aqua dest). **Leak-proof.**

Type 2752, transparent bottles, colour-coded lids
Lid colours: white, red, green, blue, yellow.

Vol. (ml)	Height (mm)	Art. No.	Pack Qty.	€
4	41	**PP10.1**	25 unit(s)	42,25
8	52	**PP11.1**	25 unit(s)	44,20
15	62	**PP12.1**	25 unit(s)	46,35

Type 2751, white bottles and lids
Suitable for UV-sensitive samples.

Vol. (ml)	Height (mm)	Art. No.	Pack Qty.	€
4	41	**HX22.1**	25 unit(s)	46,25
8	52	**HX23.1**	25 unit(s)	47,10
15	62	**HX24.1**	25 unit(s)	48,60

A 121 °C

Dropper bottle

Nalgene. Material: PP copolymer, dropper seal and cap made of PP. Autoclavable: Yes.

Model DS2420. For dispensing aqueous media. Also autoclavable when full with tip open. Tip sealing cap is combined with the screw cap and therefore cannot be lost.

Vol. (ml)	Art. No.	Pack Qty.	€
125	**ATL3.1**	6 unit(s)	50,90
250	**ATL4.1**	6 unit(s)	54,85

Dropper bottle

Kartell. Material: LDPE, transparent.

Delivery incl. dropper lids.

Vol. (ml)	Thread	Art. No.	Pack Qty.	€
50	GL 18	**6541.1**	6 unit(s)	11,10
100	GL 18	**6542.1**	6 unit(s)	13,40
250	GL 25	**6544.1**	4 unit(s)	13,75
500	GL 25	**6545.1**	4 unit(s)	14,25
1,000	GL 32	**6548.1**	4 unit(s)	21,20

A 121 °C

Dropper bottle ROTILABO® fluoroplastic

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Chemically inert. Temperature stability -200 to +260 °C.

Delivery incl. caps.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
25	33	80	25	**LT80.1**	1 unit(s)	50,00
50	43	100	25	**LT81.1**	1 unit(s)	56,95

Dropper bottles

Dosing bottle

Kartell. Material: PE, measuring cup made of PMP.

Adjustable measuring cup, graduated from 5 to 50 ml. Accuracy approx. 2%. Press on the bottle to fill the measuring cup. Surplus amounts flow back into the bottle automatically up to the measuring marker. Sealable filling tube.

Vol. (ml)	Art. No.	Pack Qty.	€
250	**6996.1**	1 unit(s)	12,80
500	**7009.1**	1 unit(s)	13,45
1,000	**7024.1**	1 unit(s)	16,30

Dropper bottle square

Bürkle. Material: HDPE, dropper closure made of LDPE, caps made of PVC.

With labelling space.

Vol. (ml)	Lenght	Width (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
100	41	34	113	13.0	18 mm	**KA95.1**	10 unit(s)	9,95
250	51	44	160	17.5	25 mm	**KA96.1**	10 unit(s)	13,40
500	68	53	182	17.5	25 mm	**KA97.1**	10 unit(s)	16,10
1,000	90	64	230	17.5	25 mm	**KA98.1**	10 unit(s)	25,20

Spray bottle with atomiser

Rixius. Material: Glass brown, sprayer with cover cap and riser made of PE.

Spray volume approx. 0.05 ml per pump operation.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
20	29	98	GL 18	**N145.1**	3 unit(s)	9,35

Spray bottle Turn'n'Spray

Bürkle. Material: LDPE, part in contact with media PP, PE, silicone and stainless steel.

Allows uninterrupted spraying from all positions, including overhead. Nozzle is continuously adjustable, nozzle Ø 0.6 mm. Spray quantity per stroke: 1.2 ml ±0.1 ml.

Vol. (ml)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
250	220	18	**PX90.1**	1 unit(s)	8,10
500	240	18	**PX91.1**	1 unit(s)	9,85
1,000	295	21	**PX92.1**	1 unit(s)	10,55

Spray bottle

Bürkle. Material: PE, pump atomiser made of PP, transparent.

With protective cap, prevents unintentional pressing of the pump and serves as a dust protection cap.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	28	85	**1C8X.1**	5 unit(s)	14,55
50	35	110	**EP66.1**	5 unit(s)	11,95
100	37	161	**EP67.1**	2 unit(s)	4,60
250	50	202	**EP68.1**	2 unit(s)	4,75

Spray bottle with pump atomiser

Vitlab. Material: PP.

With pistol pump level and adjustable spray jet.

Vol. (ml)	Art. No.	Pack Qty.	€
400	**0499.1**	1 unit(s)	10,20
850	**0500.1**	1 unit(s)	10,80

Spray bottles

Spray bottle

Bürkle. Material: LDPE, PP, Stainless steel.

Non-pressurised spray bottle in LDPE with trigger pump. Parts in contact with media made of PE, PP and stainless steel.
Nozzle continuously adjustable. Nozzle diameter 0.6 mm, spray quantity per stroke: 1.2 ml ±0.1 ml.

Vol. (ml)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
250	220	18	**1C8N.1**	1 unit(s)	5,75
500	240	18	**1C8P.1**	1 unit(s)	6,80
1,000	295	17.5	**1C8T.1**	1 unit(s)	7,20

Pressurised sprayer

Bürkle. Material: PP, PE, PA, FKM, Stainless steel.

With short spray nozzle. The hand pump is used to produce a pressure of up to 4 bar in the container. Then spraying can be effected by pressing the button.
Applications: Disinfection, cleaning, crop protection, thin-layer chromatography, technical and sanitary requirements.

- Materials in contact with the media: PP, PE, PA glass-fibre reinforced, V2A, FKM
- Nozzle Ø 0.6 mm, continuously adjustable
- Spray lance (length 30 cm) available as an option

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
1,500	142	315	45	**EP63.1**	1 unit(s)	41,45

Accessories for pressurised sprayer

Bürkle.

Designation	Art. No.	Pack Qty.	€
Spray lance, length 30 cm	**EP64.1**	1 unit(s)	26,15

Pressurised sprayer Turn'n'Spray

Bürkle. Material: HDPE, PP, FKM, Stainless steel.

With short spray nozzle. A pressure of max. 4 bar is generated in the container by operating the piston rod. Then you can spray the liquid by pressing the button.
The Turn'n'Spray pressurised spray's 360° spraying function also allows users to spray overhead. This means that it can spray in hard-to-reach areas without difficulty.
Applications: Disinfection, cleaning, crop protection, thin-layer chromatography, technical and sanitary requirements.

- Parts in contact with media: HDPE, PP, FKM, V4A
- With overhead spraying function
- Nozzle diameter 0.8 mm, continuously adjustable
- Liquid temperature: 0-30 °C
- Spray lance (length 30 cm) available as an option

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
1,500	140	305	45	**1AA4.1**	1 unit(s)	52,55

Pressurised sprayer Food

Bürkle. Material: PE, PP, Silicone, Stainless steel.

The container of the pressurised sprayer has a transparent viewing window, which makes reading the fill level easy. Rubber-clad standing ring ensures that the sprayer can be put down safely. The integrated safety valve prevents overpressure (max. 3 bar). Adjustable nozzle nut allows users to individually adjust the spray jet, ranging from a fine spray mist to a powerful jet.
Suitable for use in the food sector, for spraying a wide range of media (such as oils, grease and aromatic substances) and for atomising cleaning agents and disinfectants.

- Parts in contact with media: PE, PP, silicone, stainless steel
- **Suitable for use with foodstuffs**

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,200	117	315	**1AA5.1**	1 unit(s)	44,20

Sample cans

Square boxes ROTILABO®

ROTH SELECTION. Material: HDPE, slip lid made of LDPE.

Rectangular, slightly tapered. Stackable. Food-safe, dishwasher-safe and microwave-safe. Temperature stability -20 to +70 °C.

Not a medical device / Not an IVD product

Flat form

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	103	103	64	**1597.1**	5 unit(s)	12,85
1,000	208	103	64	**1598.1**	5 unit(s)	21,10
2,000	208	208	64	**A274.1**	5 unit(s)	36,15

High form

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	103	103	127	**1599.1**	5 unit(s)	18,40
1,500	208	103	94	**A272.1**	5 unit(s)	27,10
2,000	255	103	94	**A273.1**	5 unit(s)	31,85
3,300	208	208	94	**A275.1**	5 unit(s)	38,70

Square boxes ROTILABO®

ROTH SELECTION. Material: PP translucent, snap-on lid made of LDPE, blue.

For storing granulates, powders and paste-like substances.
Temperature stability -40 to +85 °C.
Dishwasher-safe and microwave-safe. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
300	110	110	44	**HEK2.1**	10 unit(s)	19,35
450	150	100	50	**HEK3.1**	10 unit(s)	25,30
500	230	140	32	**HEK4.1**	10 unit(s)	41,50
800	180	120	65	**HEK6.1**	10 unit(s)	32,55
1,000	235	140	52	**HEK7.1**	10 unit(s)	49,45
1,500	230	150	65	**HEK8.1**	10 unit(s)	52,00
2,000	280	180	65	**HEK9.1**	5 unit(s)	41,90
2,500	250	158	92	**HEL0.1**	5 unit(s)	32,40
3,000	280	180	80	**HEL1.1**	5 unit(s)	47,50
4,000	280	180	115	**HEL2.1**	5 unit(s)	48,90

Sample cans

Square boxes ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With lid. For storing solid and liquid substances. Suitable for foodstuffs.
7.5 litre container with two folding handles on the sides.

A 121 °C

Not a medical device / Not an IVD product

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
460	80	80	80	**9502.1**	1 unit(s)	41,10
2,500	140	140	140	**9506.1**	1 unit(s)	82,30
7,500	200	200	200	**9509.1**	1 unit(s)	144,35

Storage tins ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10.
Odour- and moisture-proof. Suitable for foodstuffs.

Not a medical device / Not an IVD product

With hinged lid

Lid made of acrylic glass with silicone seal, leakproof.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
700	125	95	**YX66.1**	1 unit(s)	16,70
1,000	125	125	**YX67.1**	1 unit(s)	22,25
1,250	125	155	**YX68.1**	1 unit(s)	23,05
1,700	125	195	**YX69.1**	1 unit(s)	26,25

With slip lid

Lid made of stainless steel with acrylic glass viewing window.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	80	110	**YX70.1**	1 unit(s)	11,20
800	90	125	**YX71.1**	1 unit(s)	12,30
2,000	125	170	**YX72.1**	1 unit(s)	20,90
4,500	175	210	**YX73.1**	1 unit(s)	21,40

Sample cans

Square boxes ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, matt polished. Autoclavable: Yes.

Stackable. Suitable for foodstuffs.

A 121 °C ❄❄❄

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	95	95	60	**YH09.1**	1 unit(s)	19,90
1,000	195	95	60	**YH10.1**	1 unit(s)	29,00
2,000	195	195	60	**YH11.1**	1 unit(s)	34,95

Accessories lids

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

A 121 °C

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Deep-freeze boxes, Art. No. YH09.1	**YH12.1**	1 unit(s)	10,00
Deep-freeze boxes, Art. No. YH10.1	**YH13.1**	1 unit(s)	12,75
Deep-freeze boxes, Art. No. YH11.1	**YH14.1**	1 unit(s)	17,75

Wide-neck container

Kartell. Material: HDPE.

With press-in plugs and screw cap. Ideal for storing powders or granulated substances. Easy to fill and clean thanks to large wide-neck opening. Suitable for foodstuffs.

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
70	50	36	60	**HT55.1**	100 unit(s)	101,50
120	69	36	71	**HT56.1**	100 unit(s)	110,10
250	56	50	94	**HT57.1**	50 unit(s)	54,60
500	86	70	107	**HT58.1**	50 unit(s)	71,00
1,000	111	85	128	**HT59.1**	20 unit(s)	39,60
2,000	111	87	235	**HT60.1**	10 unit(s)	27,65

Sample cans

Sample tub

Nalgene. Autoclavable: Yes.

Easy to fill and clean thanks to large wide-neck opening.
Free of undercuts.

- 125 ml to 1000 ml tubs can be stacked thanks to recess in the lid
- 125 ml and 250 ml sizes suitable for mixers with Mason thread

A 121 °C

Note: Do not use to transport liquids.

Not a medical device / Not an IVD product

Type 2116

Material: PC transparent, screw closure made of PP. Shockproof, non-toxic. Particularly suitable for storage in refrigerators and cold storage rooms.
Temperature stable from -135 to +130 °C.

Vol. (ml)	Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	32	38	46	**K682.1**	4 unit(s)	15,75
30	36	43	48	**K683.1**	4 unit(s)	19,30
60	48	53	48	**K684.1**	4 unit(s)	21,70
125	69	70	74	**K685.1**	4 unit(s)	36,10
250	66	70	119	**K686.1**	4 unit(s)	41,25
500	117	120	86	**K687.1**	4 unit(s)	63,80
1,000	117	120	142	**K688.1**	4 unit(s)	76,50

Type 2117

Material: PMP transparent, screw closure made of PP. Good chemical resistance. Particularly suitable as an archive container: Formaldehyde loss only approx. 2% per year.

Vol. (ml)	Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	48	53	48	**K693.1**	4 unit(s)	20,05
125	69	70	74	**K694.1**	4 unit(s)	33,60
250	66	70	119	**K695.1**	4 unit(s)	38,95
500	117	120	86	**K696.1**	4 unit(s)	62,50
1,000	117	120	145	**K697.1**	4 unit(s)	72,85

Type 2118

Material: PP translucent, screw closure made of PP. Good chemical resistance. Temperature stable from 0 to +130 °C.

Vol. (ml)	Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	32	38	46	**K698.1**	12 unit(s)	28,00
30	36	43	48	**K699.1**	12 unit(s)	29,20
60	48	53	48	**K700.1**	12 unit(s)	31,05
125	64	70	74	**K701.1**	12 unit(s)	47,55
250	66	70	119	**K702.1**	6 unit(s)	31,30
500	117	120	86	**K703.1**	6 unit(s)	43,65
1,000	117	120	145	**K704.1**	6 unit(s)	63,35

Sample cans

Wide-neck container ROTILABO®

ROTH SELECTION.

Suitable for packaging and storing liquids and solids. Easy to fill thanks to wide-neck opening. Suitable for foodstuffs. Height without cap.

Not a medical device / Not an IVD product

Clear PVC

Material: PVC clear, screw closure made of PP with PE foam insert.

Vol. (ml)	Ø Inner neck (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	23	38	38	60.5	**H312.1**	25 unit(s)	21,75
100	31	46	46	71	**H313.1**	24 unit(s)	24,10
200	41	59.5	59.5	88.5	**H314.1**	14 unit(s)	21,70
300	41	67.5	67.5	95	**H315.1**	15 unit(s)	23,55
500	54	80.5	80.5	108	**H316.1**	10 unit(s)	24,10
750	69	91.5	91.5	120	**H317.1**	10 unit(s)	27,60
1,000	69	97.5	97.5	144	**H318.1**	8 unit(s)	24,70
2,000	69	122	122	187	**H319.1**	4 unit(s)	17,65

Brown PVC

Material: PVC brown-transparent, screw closure made of PP with PE foam insert.

Vol. (ml)	Ø Inner neck (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	23	38	38	60.5	**H320.1**	25 unit(s)	23,70
100	31	46	46	71	**H321.1**	24 unit(s)	22,10
200	41	59.5	59.5	88.5	**H322.1**	14 unit(s)	26,25
300	41	67.5	67.5	95	**H323.1**	15 unit(s)	26,10
500	54	80.5	80.5	108	**H324.1**	10 unit(s)	26,50
750	69	91.5	91.5	120	**H325.1**	10 unit(s)	28,00
1,000	69	97.5	97.5	144	**H326.1**	8 unit(s)	29,10
2,000	69	122	122	187	**H327.1**	4 unit(s)	30,60

PETG

Material: PETG transparent, screw closure made of PP with PE foam insert.

Vol. (ml)	Ø Inner neck (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	23	38	38	60.5	**H328.1**	25 unit(s)	26,90
100	31	46	46	71	**H329.1**	24 unit(s)	29,55
200	41	59.5	59.5	88.5	**H330.1**	14 unit(s)	30,25
500	54	80.5	80.5	108	**H331.1**	10 unit(s)	31,40
1,000	69	97.5	97.5	144	**H332.1**	8 unit(s)	32,95
2,000	69	122	122	187	**T408.1**	4 unit(s)	25,20

Sample cans

Sample tub ROTILABO® with screw closure

ROTH SELECTION. Material: HDPE.
Suitable for storing liquids or solids. Thick-walled.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	21	17	30	**K760.1**	10 unit(s)	23,45
10	21	17	52	**K761.1**	10 unit(s)	25,80
30	35	31	53	**K762.1**	10 unit(s)	30,55
60	35	31	92	**K763.1**	10 unit(s)	34,95
90	55	50	62	**K764.1**	5 unit(s)	22,80
180	55	50	108	**K765.1**	5 unit(s)	27,75

Sample tub with screw closure

Vitlab. Material: PP.
For sampling, transporting and storing samples. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	38	54	GL 40	**YA17.1**	10 unit(s)	57,45
60	38	90	GL 40	**YA18.1**	10 unit(s)	73,65
90	54	62	GL 56	**YA19.1**	10 unit(s)	89,75
180	54	112	GL 56	**YA20.1**	10 unit(s)	104,10

Wide-neck jar Packo

CurTec. Material: HDPE.
White jar, smooth inside, dark red screw-on lid and semi-transparent stopper. Screw-on lid can be easily opened and closed with a quarter turn. For storing and dispatching solids and pastes.

- cGMP-certified/ISO 15378 (primary packaging materials for pharmaceutical products)
- With UN approval (1H2) for solids
- Compliant with food regulations
- Resistant to steam
- With tamper-evident cap

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
300	99	96.8	55.4	1H2/X0,4/Y0,6/Z0,9/S	**1A5K.1**	10 unit(s)	27,85
500	99	96.8	82.4	1H2/X0,7/Y1,0/Z1,5/S	**1A5L.1**	10 unit(s)	29,50
650	99	96.8	104.4	1H2/X0,9/Y1,3/Z1,9/S	**1A5N.1**	10 unit(s)	31,25
1,000	99	96.8	157.4	1H2/X1,3/Y2,0/Z3,0/S	**1A5P.1**	10 unit(s)	32,00
1,300	99	96.8	197.4	1H2/X1,8/Y2,0/Z3,0/S	**1A5T.1**	10 unit(s)	39,35

Sample cans

Sample tub ROTILABO®

ROTH SELECTION.

With tamper-evident cap. For powders, pastes, granulates and other bulk goods. Suitable for foodstuffs.

Not a medical device / Not an IVD product

With snap-on lid

Material: HDPE lid made of PE.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	35	54	**5553.1**	10 unit(s)	5,30
75	45	67	**5602.1**	10 unit(s)	6,50
150	64	67	**5623.1**	10 unit(s)	11,00
300	64	110	**5642.1**	10 unit(s)	13,10

With slip lid

Material: PP lid made of PE.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
750	108	96	**5657.1**	10 unit(s)	35,30
1,250	108	155	**5694.1**	5 unit(s)	23,55

Sample tub with snap-on lid

Nalgene. Material: LDPE, translucent.

With friction-fit, snap-on lid. Versatile use as a sample container, beaker for pH measurements, weighing container, etc. Temperature stability -100 to +80 °C

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	23.6	24.9	**ATK3.1**	12 unit(s)	11,35
12	27.1	35.6	**ATK4.1**	12 unit(s)	11,90
18	27.1	52.6	**ATK5.1**	12 unit(s)	15,50
28	27.1	84.6	**ATK6.1**	12 unit(s)	19,50
50	37.3	70.9	**ATK7.1**	12 unit(s)	22,60
75	37.3	107.3	**ATK8.1**	12 unit(s)	30,60

Sample cans

121 °C

Sample tub ROTILABO® with snap-on lid

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With lid attached, can be attached vertically. Sterile (γ-sterilised) or non-sterile. With labelling area and graduation (except Art. No. EP22.1). 10 ml graduation. Leakproof. Temperature stability -20 to +121 °C. Autoclavable with open lid.

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
45	Non-sterile	29	85	**EP22.1**	650 unit(s)	107,65
50	Non-sterile	31	78	**EP24.1**	650 unit(s)	114,15
50	**Sterile**	31	78	**EP25.1**	650 unit(s)	130,60
90	Non-sterile	43	80	**EP26.1**	350 unit(s)	86,20
90	**Sterile**	43	80	**EP27.1**	350 unit(s)	104,65
300	Non-sterile	75	88	**EP28.1**	240 unit(s)	132,95
300	**Sterile**	75	88	**EP29.1**	240 unit(s)	149,30

Sample tub with screw closure

Hünersdorff. Material: PP, Lid made of PE.

For storing solid samples. Temperature stability 0 to +100 °C. Free of undercuts, fully drainable.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	104	50	**XY70.1**	1 unit(s)	4,75
500	104	100	**XY71.1**	1 unit(s)	5,90
1,000	126	126	**XY72.1**	1 unit(s)	8,35

121 °C

Wide-neck jar

Bürkle. Material: PP. Autoclavable: Yes.

Well-designed packaging box with screw cap.
Free of undercuts, total emptying possible.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	25	31	**1CX4.1**	10 unit(s)	3,30
25	31	40	**1CX5.1**	10 unit(s)	5,00
60	41	56	**1CX6.1**	10 unit(s)	8,20
90	52	52	**1CX7.1**	10 unit(s)	9,55
125	52	67	**1CX8.1**	10 unit(s)	10,60
250	68	79	**1CX9.1**	10 unit(s)	17,25
625	90	113	**1CXA.1**	5 unit(s)	9,60
1,000	102	129	**1CXC.1**	5 unit(s)	22,80

Sample tub SpecTainer™

Simport. Material: PP, highly transparent, screw cap made of PE.

Shatterproof, stackable and leakproof.
The tamper-evident cap guarantees the safety of the contents: The security tab breaks when unscrewing the cap, indicating that the container has been opened. Temperature stability -90 to +100 °C. Contains no plasticisers, release agents and latex.
Purpose: For use as urine beaker.

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Lid colour	Art. No.	Pack Qty.	€
60	Non-sterile	48	62	yellow	**AYT6.1**	500 unit(s)	235,45
60	**Sterile**	48	62	tur-quoise	**AYT9.1**	500 unit(s)	267,70
90	Non-sterile	58	62	yellow	**AYT7.1**	400 unit(s)	299,95
90	**Sterile**	58	62	tur-quoise	**AYX0.1**	400 unit(s)	321,45
120	Non-sterile	58	78	yellow	**AYT8.1**	300 unit(s)	203,20
120	**Sterile**	58	78	tur-quoise	**AYX1.1**	300 unit(s)	332,20

Sample cans

Sample tub SecurTainer™ III

Simport. Material: PP transparent, screw cap made of PE.

Shatterproof, stackable and leakproof.
Purpose: For storage or transport of histological samples, urine, sputum and other liquids or solids. Temperature stability -90 to +100 °C**.**

In vitro diagnostic medical device according to IVDD

SecurTainer™

Vol. (ml)	Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	28	35	54	**HYE7.1**	500 unit(s)	127,95
40	43	48	54	**HYE8.1**	500 unit(s)	149,45
60	43	48	64	**HYE9.1**	500 unit(s)	155,90
90	52	56	63	**HYH0.1**	400 unit(s)	149,45
120	52	56	78	**HYH1.1**	300 unit(s)	149,45

Accessories lid inserts

ROTH SELECTION. Material: PP.

For colour-coded, easy identification of:

- Reaction vials (Art. No. CK47.1 ff, CK57.1 ff and ATC4.1)
- Slide boxes with tamper-evident cap (Art. No. KL89.1)
- Sample boxes (Art. No. AYT6.1 ff)

Ø ext. (mm)	Colour	Designation	Art. No.	Pack Qty.	€
11	blue	Lid inserts, blue	**CK72.1**	500 unit(s)	16,35
11	yellow	Lid inserts, yellow	**CK73.1**	500 unit(s)	16,35
11	red	Lid inserts, red	**CK74.1**	500 unit(s)	16,35
11	white	Lid inserts, white	**CK75.1**	500 unit(s)	16,35
11	green	Lid inserts, green	**CK76.1**	500 unit(s)	16,35
11	assorted colours	Lid inserts, assorted colours	**CK77.1**	500 unit(s)	16,35

Cryogenic boxes with screw closure

Nalgene. Material: PP, lid made of HDPE. **Sterile**.

Type 5005. For storing solid samples. For use in freezers and/or deep freezers. Pyrogen-free and non-cytotoxic.

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	**Sterile**	33	47	**PP19.1**	75 unit(s)	114,15

Sample tub

Greiner Bio-One. Material: PS, transparent with white screw cap made of **HDPE**. **Sterile**.

Impervious to fluids. Temperature stability -20 to +60 °C. Suitable for universal use in the laboratory for non-human and non-medical samples.

Not a medical device / Not an IVD product

Vol. (ml)	Nominal volume (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	60	**Sterile**	40	60	**HYH7.1**	300 unit(s)	135,15

Sample cans

Sample tub

Greiner Bio-One. Material: PS transparent, screw cap made of metal.

Impervious to fluids. Temperature stability -20 to +60 °C. Suitable for universal use in the laboratory for non-human and non-medical samples.

Not a medical device / Not an IVD product

Vol. (ml)	Nominal volume (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
80	100	Non-sterile	45	77	**HYK0.1**	160 unit(s)	117,20
150	175	Non-sterile	49	107	**HYK1.1**	120 unit(s)	137,60
150	175	**Sterile**	49	107	**HYK2.1**	120 unit(s)	162,35
260	290	Non-sterile	58	121	**HYK3.1**	48 unit(s)	51,00

A 121 °C

DURAN WHEATON KIMBLE

Glass jar DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

High temperature and chemical resistance.

Delivery incl. lid.

Not a medical device / Not an IVD product

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
75	60	40	**CCL2.1**	1 unit(s)	37,60
175	80	50	**CCL3.1**	1 unit(s)	45,15
325	100	60	**CCL4.1**	1 unit(s)	56,70
1,000	150	80	**CCL5.1**	1 unit(s)	102,15

A 121 °C

Cryogenic boxes ROTILABO®

ROTH SELECTION. Material: Aluminium 99.5%, non-coated. Autoclavable: Yes.

With embedded rubber seal in the screw-on lid. Temperature stable up to -196 °C.

Not a medical device / Not an IVD product

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	3	14.5	23	**1083.1**	100 unit(s)	112,90
10	15	30	29	**1084.1**	100 unit(s)	175,25

A 121 °C

Sample tub ROTILABO® fluoroplastics

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Chemically inert. Temperature stability -200 to +260 °C. Thick-walled version, stackable.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	34	26	34	**LT85.1**	1 unit(s)	30,00
30	34	26	62	**LT86.1**	1 unit(s)	37,25
60	60	47	46	**LT87.1**	1 unit(s)	46,50
120	72	54	62	**LT88.1**	1 unit(s)	62,50
240	72	60	100	**LT89.1**	1 unit(s)	75,40
360	90	73	95	**LT90.1**	1 unit(s)	107,85
480	90	73	125	**LT91.1**	1 unit(s)	124,85
1,000	110	92	160	**LT92.1**	1 unit(s)	189,20
2,200	134	110.6	260	**LT93.1**	1 unit(s)	365,50

Sample cans

121 °C

Sample tub ROTILABO® fluoroplastics

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Chemically inert. Thick-walled type with conical base. Temperature stability -200 to +260 °C.

Delivery incl. screw closure.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	33	25	64	**LT82.1**	1 unit(s)	78,35
50	43	31	78	**LT83.1**	1 unit(s)	94,60

121 °C

Sample tub fluoroplastics

Saint-Gobain. Material: PFA, highly transparent. Autoclavable: Yes.

With labelling area and seal, leak-proof. Cryo- and microwave-safe.

- Temperature stability -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	50.8	46.8	**YY50.1**	1 unit(s)	74,10
120	66	53.2	**YY51.1**	1 unit(s)	115,35
240	75.4	96	**YY52.1**	1 unit(s)	153,55
360	95	90.4	**YY53.1**	1 unit(s)	203,20
480	65.2	94.3	**YY54.1**	1 unit(s)	245,10
1,000	106.7	150	**YY55.1**	1 unit(s)	451,50

121 °C

Sample tub fluoroplastics

Vitlab. Material: PFA, highly transparent. Autoclavable: Yes.

With screw cap.

- For sampling, transportation and storage
- Chemically inert to nearly all chemicals
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning
- High purity, ideal for use in trace analysis and for storage of reference solutions
- No memory effect
- Temperature stability -200 to +250 °C

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	38	54	GL 40	**YA21.1**	1 unit(s)	46,40
60	38	90	GL 40	**YA22.1**	1 unit(s)	56,85
90	54	62	GL 56	**YA23.1**	1 unit(s)	61,05
180	54	112	GL 56	**YA24.1**	1 unit(s)	78,25

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Sample beakers

Sample tub with snap-on lid

Vitlab. Material: PP, transparent, snap-on lid made of LDPE.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	20	25	**YA12.1**	25 unit(s)	29,80
18	22	57	**YA14.1**	25 unit(s)	39,55
50	30	97	**YA15.1**	10 unit(s)	21,20
160	50	110	**YA16.1**	10 unit(s)	24,75

Sample beakers ROTILABO®

ROTH SELECTION. Material: PP.

With markings engraved on the side for 20, 40, 60, 80 and 100 ml. With self-adhesive paper lid.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	72	50	**5195.1**	100 unit(s)	24,05

NEW / +

Sample beakers

Boettger. Material: PP, transparent.

Shatterproof. Graduated, 1 ml graduation (from 3 ml). Dimensions: Lower Ø 27 mm, height 42 mm. Physiologically safe, biologically inert, free from heavy metals.
Intended use: For use as medical beaker.

Delivery without snap-on lid, please order separately.

Medical device class I

Vol. (ml)	Ø ext. (mm)	Height (mm)	Gradu-ations (ml)	Colour	Art. No.	Pack Qty.	€
30	27	42	1	natural	**PT13.2**	3,750 unit(s)	57,05

Accessories snap-on lid for sample beaker

Boettger. Material: LDPE.

Medical device class I

Ø (mm)	Art. No.	Pack Qty.	€
39	**PT18.2**	3,750 unit(s)	72,70

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Sample beakers

Sample beakers ROTILABO®

ROTH SELECTION. Material: PP, Transparent. Autoclavable: Yes.

Graduated. Drip-free pouring via three pouring corners. Temperature stable from -20 to +121 °C.

A 121 °C

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	5	49	57	**HT84.1**	100 unit(s)	52,15
100	10	58	72	**HT85.1**	100 unit(s)	57,55
250	10	76	90	**HT86.1**	100 unit(s)	81,20
400	20	85	108	**HT87.1**	100 unit(s)	87,00
800	50	107	133	**HT88.1**	100 unit(s)	117,20
1,000	50	115	145	**HT89.1**	100 unit(s)	123,65

Sample beakers with screw closure

Ratiolab. Material: PP, transparent with red screw closure.

Also available in a sterile version; sterile beakers packaged individually in the bag.

Not a medical device / Not an IVD product

Without graduation, without labelling area

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	Non-sterile	43	46	**YP04.1**	1,000 unit(s)	95,75
30	**Sterile**	43	46	**YP08.2**	500 unit(s)	65,05
200	Non-sterile	64	81	**YP07.1**	200 unit(s)	82,25
200	**Sterile**	64	81	**YP11.1**	150 unit(s)	68,70

With graduation and labelling area

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Graduation (ml)	Art. No.	Pack Qty.	€
60	Non-sterile	43	65	10	**YP05.1**	600 unit(s)	62,70
60	**Sterile**	43	65	10	**YP09.1**	500 unit(s)	68,70
120	Non-sterile	56	72	25	**YP06.1**	500 unit(s)	53,30
120	**Sterile**	56	72	25	**YP10.1**	250 unit(s)	68,70

Sample beakers

Sample beakers with screw closure

Greiner Bio-One. Material: PP, transparent, screw cap made of HDPE.

Graduated with writing area, impervious to fluids and shatterproof. With the tamper-evident opening band: Beakers are supplied with a lid fitted, whereby the first time it is unscrewed, the opening ring becomes detached, thus ensuring the intactness or sterility (optional) of the beaker contents.
Temperature stability -50 to +100 °C. Suitable for universal use in the laboratory for non-human and non-medical samples.

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	Non-sterile	61	71	**HYH8.1**	300 unit(s)	91,25
100	**Sterile**	61	71	**HYH9.1**	300 unit(s)	113,00

Sample beakers

Boettger.

Graduated, shatterproof. **Sterile** (fitted, individually packaged) or non-sterile (lid enclosed). Physiologically safe, biologically inert, free from heavy metals. With writing area and lid that is impervious to fluids.

With green screw-cap closure

Material: PP highly transparent, cap made of HDPE. Intended use: For use as urine beaker.

In vitro diagnostic medical device class A

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
Green lid	100	Non-sterile	64	70	20	**PT10.1**	500 unit(s)	76,65

With yellow screw-cap closure

Material: PP highly transparent, cap made of HDPE.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
Yellow lid	100	**Sterile**	64	70	20	**PT12.1**	150 unit(s)	56,65

With snap-on lid

Material: PP highly transparent, lid made of LDPE.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
Lid blue, flat	125	Non-sterile	67	69	25	**PT07.1**	500 unit(s)	59,15
Yellow lid, with spout	125	**Sterile**	67	69	25	**PT09.1**	150 unit(s)	85,00

With snap-on lid with spout

Material: PP highly transparent, lid made of LDPE. Intended use: For use as urine beaker.

In vitro diagnostic medical device class A

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
Red lid	125	Non-sterile	67	69	25	**PT08.1**	500 unit(s)	59,15

Sampling, shipping containers

Test tubes

Greiner Bio-One. Material: PS transparent, screw caps made of white **HDPE**.

Liquid-tight, with conical bottom. Centrifugable up to 3,500 x g. Temperature-stable from -20 °C to 60 °C. For universal use in laboratories for non-humane and non-medical samples.

Not a medical device / Not an IVD product

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Sterility	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
23	30	24	90	Non-sterile	3,500	**HYL2.1**	400 unit(s)	104,20
23	30	24	90	**Sterile**	3,500	**HYL3.1**	400 unit(s)	149,90

Test tubes with spoon

Boettger.

With wide-mouth spoon for bean-sized samples. Physiologically safe, biologically inert, free from heavy metals. Delivery mounted.

With screw-cap closure, sterile
Material: PP transparent, cap made of HDPE, spoon made of HIPS. Overlapping screw-cap closure ensures optimal hygiene when opening, impervious to fluids.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
Round bottom	13	**Sterile**	16	100	**PT27.1**	100 unit(s)	18,40
Standing edge	15	**Sterile**	20	76	**PT26.1**	100 unit(s)	21,50
Standing edge	30	**Sterile**	25	107	**PT28.1**	100 unit(s)	28,40

With press-in plugs, non-sterile
Material: PS transparent, cap with sample spoon made of HDPE. Intended use: For use as stool sample tube.

In vitro diagnostic medical device class A

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
Flat base	16	Non-sterile	22	75	**PT22.1**	1,000 unit(s)	133,50

With screw-cap closure, non-sterile
Material: PP transparent, cap made of HDPE, spoon made of HIPS. Overlapping screw-cap closure ensures optimal hygiene when opening, impervious to fluids.

Intended use: For use as stool sample tube.

In vitro diagnostic medical device class A

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
Round bottom	13	Non-sterile	16	100	**PT24.1**	1,000 unit(s)	138,55
Standing Edge	15	Non-sterile	20	76	**PT23.1**	1,000 unit(s)	162,35
Standing edge	30	Non-sterile	25	107	**PT25.1**	500 unit(s)	105,60

Sampling, shipping containers

Sample vessels

Boettger. Material: PS transparent, cap made of HDPE.

Flat base. Physiologically safe, biologically inert, free from heavy metals.

Delivery incl. cap, fitted.

Sample tub with screw-cap closure, sterile

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
24	**Sterile**	70	23	**PT21.1**	200 unit(s)	79,25

Sample tub with screw-cap closure, non-sterile

Intended use: For use as sputum vial.

In vitro diagnostic medical device class A

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
24	Non-sterile	70	23	**PT20.1**	200 unit(s)	61,85

Test tube with press-in plugs, non-sterile

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
16	Non-sterile	22	62	**PT19.1**	1,000 unit(s)	134,60

Accessories transport containers for sputum vials

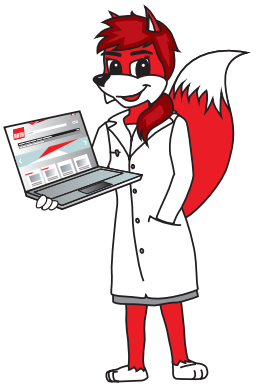
Boettger. Material: HDPE.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Sputum vials, Art. No. PT20.1 and PT21.1	**PT39.1**	100 unit(s)	44,65

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Sampling, shipping containers

121 °C

Protective and transport tube

Boettger. Material: PP. Autoclavable: Yes.

With absorbent pad and printing. Secondary packaging for sample and stool tubes, optimum protection against external force application. Sample vessels and absorbent pads are easily removable, absorbent pad encloses the sample container and provides additional protection.

Delivery without screw closures, please order separately.

Not a medical device / Not an IVD product

For tubes PT22.1, PT23.1, PT26.1 and PT19.1
Suitable for tubes PT22.1 (with cap PT35.1 or PT36.1), tubes PT23.1 and PT26.1 (with cap PT35.1), tubes PT19.1 (with cap PT35.1, PT36.1 or PT37.1). Fits in standard letterboxes with a 35 mm slot.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
40	30	85	**PT29.1**	500 unit(s)	188,15

For tubes PT24.1 and PT27.1
Suitable for tubes PT24.1 and PT27.1 (with lid PT35.1, PT36.1 or PT37.1). Also suitable for Port-a-Cul™ tubes (with PT37.1 cap). Fit into standard letter boxes with 35 mm slot.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	30	126	**PT30.1**	300 unit(s)	134,65

For tubes PT25.1 and PT28.1
Suitable for tubes PT25.1 and PT28.1 (with lid PT38.1). Also suitable for transporting standard agar carriers (e.g. Uricult®).

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
120	44	115	**PT31.1**	250 unit(s)	156,10

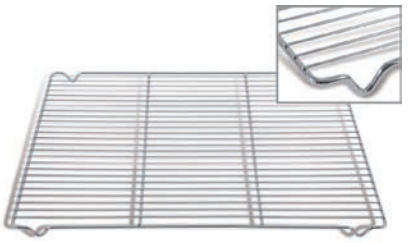
121 °C

Accessories screw caps

Boettger. Material: PP. Autoclavable: Yes.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Standard	PT29.1, PT30.1, PT32.1 and PT33.1	**PT35.1**	500 unit(s)	34,85
With stand for tube-Ø 16 mm	PT29.1, PT30.1, PT32.1 and PT33.1	**PT36.1**	300 unit(s)	24,25
With stand for tube-Ø 25 mm	PT31.1 and PT34.1	**PT38.1**	250 unit(s)	24,10
With attachment Ø inside 16 mm	PT29.1, PT30.1, PT32.1 and PT33.1	**PT37.1**	300 unit(s)	31,50



121 °C

Draining grids ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Extra heavy duty. Wire thickness 2.5 mm, framing wire 6 mm.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
440	310	20	**YX63.1**	1 unit(s)	30,40
470	310	22	**YX64.1**	1 unit(s)	32,65
590	390	26	**YX65.1**	1 unit(s)	40,90

Draining board

Kartell. Material: PS.

With 72 slot-in pegs (Ø 15 x L 95 mm) which can be inserted in any desired configuration. The peg slots are sealed at the back and therefore leakproof. With drainage channel and tube (L 300 mm, outer Ø 12 mm). For wall mounting.

Delivery incl. slot-in pegs and fixing hardware.

Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
450	110	630	**CT39.1**	1 unit(s)	102,25

Lab sink mat

ROTH SELECTION. Material: PVC.

To prevent glass breakage when cleaning laboratory glassware. Round profiles prevent splash-back from running water. The smooth surface of the profiles prevents the accumulation of dirt particles. The weight of the mat ensures that it remains secure even under flowing water. Additional advantage: Standard sized magnetic rods cannot easily slip into the drain. Profile width 8 mm. Web width 40 mm.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
750	450	15	**C374.1**	1 unit(s)	74,75

Draining boards

Draining racks ROTILABO®

ROTH SELECTION. Material: Metal, PE-coated.

For hanging or placing, with 20 mm high drip trays and plastic caps on the feet.

Version	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
12 rods / 11 arched pins	420	170	300	**N144.1**	1 unit(s)	71,20
24 rods / 20 arched pins	420	170	610	**N143.1**	1 unit(s)	97,40
51 rods	420	170	610	**0516.1**	1 unit(s)	97,15
60 rods / 5 arched pins	420	170	610	**N142.1**	1 unit(s)	80,70

Draining racks

Bürkle. Material: PVC, PP slot-in rods.

For use on table or bench, usable on both sides. Sturdy and shatter-proof. With removable collecting tray.

Delivery incl. slot-in rods and turning key.

Version	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Number of rods: 5 x 60 mm, 26 x 100 mm, 2 x 150 mm	400	400	**XY74.1**	1 unit(s)	199,95
Number of rods: 10 x 60 mm, 39 x 100 mm, 4 x 150 mm	500	500	**XY75.1**	1 unit(s)	230,05
Number of rods: 15 x 60 mm, 56 x 100 mm, 6 x 150 mm	600	600	**XY76.1**	1 unit(s)	259,10

Draining board

Bürkle. Material: PVC, PP slot-in rods.

With stable, slot-in rods of various lengths (60, 100 and 150 mm) which can be slotted in and locked in place as required. Water-repellent, hygienic, shatter-proof. With draining channel and hose. For wall mounting.

Delivery incl. wall-mounted set and turning key for slot-in rods.

Version	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Number of rods: 5 x 60 mm, 26 x 100 mm, 2 x 150 mm	400	400	**1841.1**	1 unit(s)	203,20
Number of rods: 10 x 60 mm, 39 x 100 mm, 4 x 150 mm	500	500	**K715.1**	1 unit(s)	239,75
Number of rods: 15 x 60 mm, 56 x 100 mm, 6 x 150 mm	600	600	**K716.1**	1 unit(s)	274,15

Bowls and tubs

Dish ROTILABO®

ROTH SELECTION. Material: PP.

With grooved base. Robust design. Colour: White. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Vol. (l)	Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	230	180	190	140	42	**1722.1**	1 unit(s)	6,80
1.5	310	250	250	190	65	**1724.1**	1 unit(s)	11,75
3.0	370	310	310	250	75	**0772.1**	1 unit(s)	16,40
10.0	520	420	410	310	120	**0778.1**	1 unit(s)	30,10
21.0	634	534	530	430	140	**0782.1**	1 unit(s)	45,50
39.0	846	648	720	520	160	**0799.1**	1 unit(s)	70,20

Range of dishes ROTILABO®

ROTH SELECTION. Material: PP.

Consists of six dishes, volumes: 0.5, 1.5, 3, 10, 21 and 39 l.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
ROTILABO® range of laboratory dishes	**0938.1**	1 set	151,65

Dish ROTILABO®

ROTH SELECTION. Material: PVC, hard.

With grooved base. Colour: White.

Not a medical device / Not an IVD product

Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Art. No.	Pack Qty.	€
245	195	200	150	45	**7032.1**	1 unit(s)	15,50
305	250	250	200	60	**7034.1**	1 unit(s)	20,35
385	325	320	260	70	**7035.1**	1 unit(s)	31,80
420	375	350	300	80	**7038.1**	1 unit(s)	42,30
505	405	430	330	90	**7041.1**	1 unit(s)	54,80
600	495	520	420	90	**7043.1**	1 unit(s)	78,15
635	515	540	420	180	**7047.1**	1 unit(s)	134,25
765	620	675	530	100	**7045.1**	1 unit(s)	122,55

Bowls and tubs

Dish ROTILABO®

ROTH SELECTION. Material: PVC, break-proof.
Temperature stable up to +70 °C.

Not a medical device / Not an IVD product

With grooved base

Suitable as development dishes or for staining electrophoresis gels, the raised grooves in the base stop the gels from sticking to the bottom of the dish.

Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
180	230	140	190	40	white	**C030.1**	1 unit(s)	10,95
180	230	140	190	40	red	**C037.1**	1 unit(s)	10,95
240	320	190	260	50	white	**C031.1**	1 unit(s)	15,25
240	320	190	260	50	red	**C038.1**	1 unit(s)	14,95
240	320	190	260	50	black	**C045.1**	1 unit(s)	15,25
320	370	260	320	50	white	**C032.1**	1 unit(s)	24,05
320	370	260	320	50	red	**C039.1**	1 unit(s)	24,05
320	370	260	320	50	black	**C046.1**	1 unit(s)	24,05
430	530	310	410	105	white	**C033.1**	1 unit(s)	52,25
430	530	310	410	105	red	**C040.1**	1 unit(s)	51,85
520	610	420	510	110	white	**C034.1**	1 unit(s)	89,60
520	610	420	510	110	red	**C041.1**	1 unit(s)	88,85
520	610	420	510	110	black	**C048.1**	1 unit(s)	88,85
630	730	510	610	110	white	**C035.1**	1 unit(s)	126,25
630	730	510	610	110	black	**C049.1**	1 unit(s)	126,25

Without grooved base

Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
150	200	110	160	30	white	**C050.1**	1 unit(s)	8,55
150	200	110	160	30	red	**C057.1**	1 unit(s)	8,50
150	200	110	160	30	black	**C064.1**	1 unit(s)	8,55
180	230	140	190	40	white	**C051.1**	1 unit(s)	11,10
180	230	140	190	40	red	**C058.1**	1 unit(s)	11,10
180	230	140	190	40	black	**C065.1**	1 unit(s)	11,10
240	320	190	260	50	white	**C052.1**	1 unit(s)	15,25
240	320	190	260	50	red	**C059.1**	1 unit(s)	15,25
240	320	190	260	50	black	**C066.1**	1 unit(s)	15,25
320	370	260	320	50	white	**C053.1**	1 unit(s)	24,15
320	370	260	320	50	red	**C060.1**	1 unit(s)	24,15
320	370	260	320	50	black	**C067.1**	1 unit(s)	24,15
430	530	310	410	105	white	**C054.1**	1 unit(s)	51,85
430	530	310	410	105	red	**C061.1**	1 unit(s)	51,85
430	530	310	410	105	black	**C068.1**	1 unit(s)	51,85
520	610	420	510	110	white	**C055.1**	1 unit(s)	88,85
520	610	420	510	110	red	**C062.1**	1 unit(s)	89,00
520	610	420	510	110	black	**C069.1**	1 unit(s)	88,85
630	730	510	610	110	white	**C056.1**	1 unit(s)	126,25
630	730	510	610	110	red	**C063.1**	1 unit(s)	138,15
630	730	510	610	110	black	**C070.1**	1 unit(s)	138,15

Bowls and tubs

Dish ROTILABO®

ROTH SELECTION. Material: MF.
Temperature stable from -40 to +110 °C.

Delivery without lid, please order separately. **Note**: There is no lid available for Art. No. 8455.1.

Not a medical device / Not an IVD product

Vol. (l)	Upper length (mm)	Upper width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.7	190	150	40	**8449.1**	1 unit(s)	12,05
1	290	160	35	**8453.1**	1 unit(s)	15,75
1.9	290	160	60	**8454.1**	1 unit(s)	21,05
2.2	350	250	40	**8455.1**	1 unit(s)	30,85
6.0	340	245	100	**8457.1**	1 unit(s)	40,00

Accessories lid for laboratory dishes

ROTH SELECTION. Material: PS.
For ROTILABO® dishes made from melamine.

Not a medical device / Not an IVD product

Upper length (mm)	Upper width (mm)	Suitable for	Version	Art. No.	Pack Qty.	€
190	150	Dish, Art. No. 8449.1	Button cover	**P163.1**	1 unit(s)	13,95
290	160	Dishes, Art. No. 8453.1 and 8454.1	Button cover	**P164.1**	1 unit(s)	15,80
340	245	Dish, Art. No. 8457.1	Grip dish lid, stackable	**P165.1**	1 unit(s)	23,35

Dish ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, polished.
Autoclavable: Yes.
Deep-drawn, with flat edge. Suitable for foodstuffs.

A 121 °C

Not a medical device / Not an IVD product

Pic.	Vol. (l)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
(1)	0.6	190	120	40	**YH70.1**	1 unit(s)	21,90
(1)	1.2	240	170	40	**YH71.1**	1 unit(s)	29,05
(1)	2.0	300	205	55	**YH72.1**	1 unit(s)	40,40
(2)	3.0	340	210	60	**YH73.1**	1 unit(s)	30,10

Bowls and tubs

Dish

Nalgene. Material: PP. Autoclavable: Yes.

Suitable for storing and sterilising instruments and small laboratory items. Heavy-duty design with reinforced edges for maximum stability.

A 121 °C

Not a medical device / Not an IVD product

Vol. (l)	Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	264	161	66	**ATE7.1**	1 unit(s)	27,90
2.8	262	161	104	**ATE8.1**	1 unit(s)	33,95
3.1	325	264	66	**ATE9.1**	1 unit(s)	44,60
5	323	264	107	**ATH0.1**	1 unit(s)	49,25

Rinsing tray

Nalgene. Material: PP. Autoclavable: Yes.

Universally applicable tray for a variety of applications. Suitable for collecting, soaking and rinsing soiled laboratory items and for drying and sterilising instruments and small laboratory items.

- With integrated handles
- Robust and stackable

NEW / +

A 121 °C

Not a medical device / Not an IVD product

Vol. (l)	Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
9.5	361	311	143	**1L19.1**	1 unit(s)	41,80
20	543	435	130	**1L1A.1**	1 unit(s)	66,15

Dish ROTILABO® stainless steel

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Suitable for foodstuffs.

A 121 °C

Not a medical device / Not an IVD product

Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
370	275	350	250	50	1150	**0375.1**	1 unit(s)	51,50
470	320	450	300	50	1450	**0376.1**	1 unit(s)	57,75
575	375	550	350	50	1750	**Y756.1**	1 unit(s)	76,85
670	430	650	400	50	2485	**YH48.1**	1 unit(s)	104,10

Bowls and tubs

Dish ROTILABO®

ROTH SELECTION. Material: Chrome-nickel steel 18/10.
Autoclavable: Yes.
Rectangular with two drop handles on the sides. Suitable for foodstuffs.

A 121 °C

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
365	270	75	**8103.1**	1 unit(s)	96,25
470	325	90	**8104.1**	1 unit(s)	151,95
520	325	90	**8105.1**	1 unit(s)	181,70
630	450	90	**8106.1**	1 unit(s)	289,20

Dish ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Double-thickness walls 0.8 mm. Suitable for foodstuffs.

A 121 °C

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
210	145	20	**9492.1**	1 unit(s)	30,65
290	210	20	**9493.1**	1 unit(s)	26,00
580	210	20	**9494.1**	1 unit(s)	44,25
580	400	20	**9495.1**	1 unit(s)	70,05

Work support ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Thickness: 1.1 mm. Easy to clean and disinfect. Suitable for foodstuffs.

A 121 °C

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
600	400	7	**YH28.1**	1 unit(s)	68,00

Dish ROTILABO® with perforated sheet

ROTH SELECTION. Material: Stainless steel 18/8. Autoclavable: Yes.

Removable grate. Perforation inside micrometer 19 mm, Hole Ø 12 mm. Central hole Ø 19 mm.

A 121 °C

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
310	125	30	**X103.1**	1 unit(s)	102,35
320	200	27	**X104.1**	1 unit(s)	112,75
440	270	27	**X111.1**	1 unit(s)	150,50
560	200	27	**X105.1**	1 unit(s)	159,15

Dish ROTILABO® with perforated sheet

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

With angled walls and inserted perforated sheet on 7 mm pegs. Suitable for foodstuffs.

A 121 °C

Not a medical device / Not an IVD product

Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Inner height (mm)	Weight (g)	Art. No.	Pack Qty.	€
500	350	435	285	60	50	1800	**0377.1**	1 unit(s)	94,00

The complete ROTH product range in the ROTH webshop

Over 30,000 items orderable around the clock!

Discover everything at **www.carlroth.com**

- Latest NEW products
- Continuous range extensions
- Detailed product information
- Additional information about the products
- Regular special offers
- ... and much more. Stay curious!

Bowls and tubs

Water bath dish ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, matt polished.
Heavy-duty, with two side handles. Suitable for foodstuffs.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (l)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	155	105	55	**YY42.1**	1 unit(s)	39,00
1.0	155	105	75	**YY43.1**	1 unit(s)	44,25
2.5	155	105	160	**YY44.1**	1 unit(s)	57,25
5.0	155	155	235	**YY45.1**	1 unit(s)	69,90
13.0	240	240	235	**YY46.1**	1 unit(s)	122,80

Accessories lid for water bath trays

ROTH SELECTION. Material: Stainless steel 18/10, matt polished.

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Suitable for	Art. No.	Pack Qty.	€
155	105	Water bath trays, Art. No. YY42.1, YY43.1 and YY44.1	**YY47.1**	1 unit(s)	19,15
155	155	Water bath tray, Art. No. YY45.1	**YY48.1**	1 unit(s)	20,90
240	240	Water bath tray, Art. No. YY46.1	**YY49.1**	1 unit(s)	25,50

Sterilisation tray

Nalgene. Material: PP. Autoclavable: Yes.

The flat design of the sterilisation tray allows pipettes and instruments to be fully immersed in the disinfectant solution. The plastic construction reduces damage and breakage of glass pipettes. The tray is stackable, lightweight and quiet to use.

- Suitable for sterilising pipettes, instruments and small laboratory items up to a max. length of 40 cm
- Resistant to aggressive disinfectant solutions
- The lid that can be fitted into the tray groove prevents the spillage of hazardous liquids
- Lid with recessed grip

NEW / +

A 121 °C

Delivery incl. lid.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
460	150	67	**1L1C.1**	1 unit(s)	62,65

Instrument trays

Instrument dish

Hecht. Material: Soda-lime glass, lids made of stainless steel. Autoclavable: Limited.

Autoclavable and hot air sterilisable up to +180 °C.
Note: do not expose glass trays to abrupt changes of temperature. Trays must be heated and cooled slowly as soda-lime glass has limited thermal shock resistance. Do not sterilise with lid attached.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
120	60	40	**CYY9.1**	1 unit(s)	38,35
170	90	45	**EAA0.1**	1 unit(s)	42,00
200	100	50	**EAA1.1**	1 unit(s)	46,15
200	100	100	**EAA5.1**	1 unit(s)	53,05
220	150	55	**EAA2.1**	1 unit(s)	52,95
275	150	60	**EAA3.1**	1 unit(s)	62,05
350	220	70	**EAA4.1**	1 unit(s)	123,10

A 121 °C

Instrument dish ROTILABO® with lid

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Tray is moulded in one piece for easy cleaning and disinfection. Special lids with handle. Stackable.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Outer height (mm)	Inner length (mm)	Inner width (mm)	Inner height (mm)	Art. No.	Pack Qty.	€
230	133	55	210	120	45	**C849.1**	1 unit(s)	52,60
315	215	65	295	195	55	**C850.1**	1 unit(s)	80,20

A 121 °C

Instrument dish

Contacto Bander. Material: Stainless steel 18/10. Autoclavable: Yes.

Not a medical device / Not an IVD product

With flat lid
Moulded, with rounded edges.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
180	80	50	**YX92.1**	1 unit(s)	24,00
200	90	50	**YX93.1**	1 unit(s)	26,55
250	100	50	**YX94.1**	1 unit(s)	40,55
300	125	60	**YX95.1**	1 unit(s)	42,70

With knob lid

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
100	60	40	**YX87.1**	1 unit(s)	67,40
160	100	30	**YX88.1**	1 unit(s)	56,85
200	100	50	**YX89.1**	1 unit(s)	58,00
300	200	50	**YX90.1**	1 unit(s)	86,70
400	200	80	**YX91.1**	1 unit(s)	119,95

A 121 °C

Kidney dish

Kartell. Material: PP. Autoclavable: Yes.

Not a medical device / Not an IVD product

Vol. (ml)	Outer length (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
850	260	55	**TT75.1**	1 unit(s)	10,15

Instrument trays

A 121 °C

Kidney dish

Contacto Bander. Material: Stainless steel 18/10, high-gloss.
Autoclavable: Yes.

Not a medical device / Not an IVD product

Vol. (ml)	Outer length (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
250	170	40	**YT76.1**	1 unit(s)	9,90
350	205	40	**YT77.1**	1 unit(s)	12,40
500	250	40	**YT78.1**	1 unit(s)	13,15
750	275	45	**YT79.1**	1 unit(s)	14,20

Instrument tray ROTILABO®

ROTH SELECTION. Material: MF, polished.
Underside with stands.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
190	150	17	**P159.1**	2 unit(s)	20,40
240	180	17	**P160.1**	2 unit(s)	24,85
268	208	17	**P161.1**	2 unit(s)	28,55
355	240	17	**P162.1**	2 unit(s)	48,30
428	288	17	**0824.1**	2 unit(s)	78,50

Tray ROTILABO®

ROTH SELECTION. Material: PP, red.
With stacking notches. Good chemical resistance. Dishwasher-safe up to +80 °C. Food-safe.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
350	265	20	**YH74.1**	1 unit(s)	5,40
400	300	20	**YH75.1**	1 unit(s)	6,75
450	350	20	**YH76.1**	1 unit(s)	8,10

A 121 °C

Instrument tray ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, high-gloss.
Autoclavable: Yes.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
220	170	10	**YH57.1**	1 unit(s)	19,20
260	200	20	**YH58.1**	1 unit(s)	25,35
310	240	20	**YH59.1**	1 unit(s)	28,95
340	260	20	**YH60.1**	1 unit(s)	32,40
365	280	20	**YH61.1**	1 unit(s)	35,05
420	320	20	**YH62.1**	1 unit(s)	42,65
470	365	20	**YH63.1**	1 unit(s)	49,05
520	400	20	**YH64.1**	1 unit(s)	59,25
600	470	24	**YH65.1**	1 unit(s)	81,85

A 121 °C

Instrument tray ROTILABO® round

ROTH SELECTION. Material: Stainless steel, high-gloss.
Autoclavable: Yes.
Suitable for foodstuffs.

Not a medical device / Not an IVD product

Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
300	20	**YH66.1**	1 unit(s)	8,60
350	20	**YH67.1**	1 unit(s)	11,95
400	22	**YH68.1**	1 unit(s)	15,60
500	22	**YH69.1**	1 unit(s)	24,60

Bowls, pots

Bowl ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Robust design with wide handling edge. Stackable. Suitable for foodstuffs.

A 121 °C

Not a medical device / Not an IVD product

Vol. (l)	Ø ext. (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
0.8	160	70	60	**H289.1**	1 unit(s)	3,00
1.7	200	80	80	**H290.1**	1 unit(s)	3,85
2.8	240	100	120	**H291.1**	1 unit(s)	5,50
4.5	280	120	220	**H292.1**	1 unit(s)	7,40
6.5	320	130	240	**H293.1**	1 unit(s)	10,25
10.0	360	150	360	**H294.1**	1 unit(s)	11,25
13.0	400	180	460	**H295.1**	1 unit(s)	16,20

Bowl ROTILABO®

ROTH SELECTION. Material: PP, white-transparent.

Stackable. Microwave-safe.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Inner upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.0	188	160	80	**YE47.1**	1 unit(s)	4,50
2.5	234	200	110	**YE48.1**	1 unit(s)	7,90
4.5	272	240	130	**YE49.1**	1 unit(s)	9,35
6.0	322	280	145	**YE50.1**	1 unit(s)	11,25
9.0	355	320	160	**YE51.1**	1 unit(s)	14,70
13.0	394	360	180	**YE52.1**	1 unit(s)	19,75

Bowl stainless steel

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Heavy-duty with flanged edge and smooth base. Excellent durability, stability and grip. Stackable. Suitable for foodstuffs.

A 121 °C

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Inner upper (mm)	Ø Lower (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
1.5	208	180	120	82	300	**L939.1**	1 unit(s)	42,50
2.5	270	240	160	110	510	**L941.1**	1 unit(s)	51,30
5.6	310	280	180	125	660	**L942.1**	1 unit(s)	58,30
8.3	355	320	200	140	880	**L943.1**	1 unit(s)	70,10

Bowls, pots

Bowl ROTILABO® stainless steel

ROTH SELECTION. Material: Stainless steel 18/10, High-gloss. Autoclavable: Yes.

Bulbous. Extra heavy-duty. With flanged, non-slip rim. Suitable for foodstuffs.

A 121 °C

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Inner upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.75	160	145	90	60	**YH49.1**	1 unit(s)	19,30
1	180	160	115	70	**YH50.1**	1 unit(s)	20,00
1.5	200	180	130	80	**YH51.1**	1 unit(s)	26,15
2.5	240	210	160	90	**YH52.1**	1 unit(s)	29,90
4	280	245	180	105	**YH53.1**	1 unit(s)	36,75
6	320	280	205	125	**YH54.1**	1 unit(s)	47,65
9	360	325	240	140	**YH55.1**	1 unit(s)	53,35
12	400	350	260	150	**YH56.1**	1 unit(s)	60,65
17	420	410	270	160	**YT62.1**	1 unit(s)	70,15

Bowl stainless steel

Contacto Bander. Material: Stainless steel 18/10, matt polished. Autoclavable: Yes.

Conical. Light-duty version with open, smooth rim. Suitable for foodstuffs.

A 121 °C

Not a medical device / Not an IVD product

(1) Flat form

Vol. (l)	Ø Upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	140	95	55	**YH84.1**	1 unit(s)	8,15
1.0	165	115	75	**YH85.1**	1 unit(s)	9,55
3.0	240	160	95	**YH86.1**	1 unit(s)	15,75
6.0	290	195	130	**YH87.1**	1 unit(s)	26,30
8.0	320	210	140	**YH88.1**	1 unit(s)	28,50
11.0	380	285	130	**YH89.1**	1 unit(s)	43,45
14.0	400	285	155	**YH90.1**	1 unit(s)	46,15

(2) Deep form

Vol. (l)	Ø Upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	120	75	70	**YH77.1**	1 unit(s)	8,30
1.0	150	95	80	**YH78.1**	1 unit(s)	11,00
3.0	220	140	125	**YH79.1**	1 unit(s)	17,75
5.0	265	180	130	**YH80.1**	1 unit(s)	22,60
8.0	310	200	165	**YH81.1**	1 unit(s)	30,35
11.0	355	215	180	**YH82.1**	1 unit(s)	41,95
14.0	370	215	200	**YH83.1**	1 unit(s)	42,50

Bowls, pots

121 °C

Pot stainless steel

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

With sandwich floor and cold handles. Suitable for use on hotplates and induction cooking plates. Not suitable for use with magnetic stirrers.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2.5	160	130	**EE93.1**	1 unit(s)	27,60
3.5	200	110	**EE94.1**	1 unit(s)	34,85
4	200	150	**EE95.1**	1 unit(s)	38,15
5	240	120	**EE96.1**	1 unit(s)	45,20
9	240	210	**EE97.1**	1 unit(s)	61,30

121 °C

Accessories lid for stainless steel pots

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Welded handles.

Not a medical device / Not an IVD product

Ø (mm)	Suitable for	Art. No.	Pack Qty.	€
160	Pot, Art. No. EE93.1	**EE98.1**	1 unit(s)	9,90
200	Pots, Art. No. EE94.1 and EE95.1	**EE99.1**	1 unit(s)	13,30
240	Pots, Art. No. EE96.1 and EE97.1	**EH00.1**	1 unit(s)	16,25

Pot aluminium

Bochem. Material: Aluminium.

For use as water or oil bath, can be used in conjunction with hotplates or magnetic stirrers. Max. usage temperature 280 °C.

Note: Do not fill the pots above the level of the handle mounting as liquid can escape from here.

Delivery incl. lid.

Not a medical device / Not an IVD product

Vol. (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	160	100	**AEN7.1**	1 unit(s)	36,10
3.0	200	120	**AEN8.1**	1 unit(s)	40,35
5.2	240	140	**AEN9.1**	1 unit(s)	46,85

Buckets disposable

Bürkle. Material: PP.

For storage, packaging or transport of non-corrosive substances. With solid carrying handle and strong seal for product safety. Complete with lid, air-tight seal. Colour: White.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	132	131	**1C86.1**	100 unit(s)	151,60
2	175	132	**1C87.1**	40 unit(s)	97,00
3	225	123	**1C88.1**	45 unit(s)	136,55
5	225	194	**1C89.1**	36 unit(s)	135,40
10	268	263	**1C8A.1**	25 unit(s)	129,25

Buckets

Buckets

Nalgene. Material: LDPE, handle made of nylon-coated wire.

Closes air-tight, therefore ideal for storing samples in formalin and other preservatives. Suitable for use as protection against haematogenous pathogens according to OSHA standard 29 CFR Part 1910.1030. Suitable for the safe handling of biohazardous substances.

Not a medical device / Not an IVD product

Vol. (l)	Ø Internal (mm)	Height without closure (mm)	Total height (mm)	Colour	Art. No.	Pack Qty.	€
7.6	240	254	267	white	**K573.1**	1 unit(s)	47,00
13.2	270	315	328	yellow	**K575.1**	1 unit(s)	64,00

Buckets

Vitlab. Material: HDPE, white.

With handle. Scaling in 1-litre increments. Suitable for foodstuffs.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	250	165	240	**K620.1**	1 unit(s)	15,80
10	290	210	300	**K622.1**	1 unit(s)	19,05

Accessories lid for bucket made of HDPE

Vitlab. Material: LDPE, transparent.

Closes air-tight. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Art. No. K620.1	**K621.1**	1 unit(s)	4,80
Art. No. K622.1	**K623.1**	1 unit(s)	5,55

Buckets ROTILABO® with spout

ROTH SELECTION. Material: LDPE, handle made of metal.

With graduation, scaling in 1-litre increments.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	280	203	250	**AC97.1**	1 unit(s)	11,75
12	300	227	280	**AC98.1**	1 unit(s)	14,05
17	340	249	310	**AC99.1**	1 unit(s)	21,20

Buckets ROTILABO® with spout

ROTH SELECTION. Material: HDPE, natural colours.

Tapered, can be stacked inside one another. With marked graduation on the inside in 500 ml increments. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
10	290	280	570	**1608.1**	1 unit(s)	17,35
17	330	320	860	**1609.1**	1 unit(s)	21,15

Buckets ROTILABO® with spout

ROTH SELECTION. Material: PP.

With handle and scaling in 1-litre increments. Good chemical resistance. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Vol. (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	310	330	**HX60.1**	1 unit(s)	31,65
15	310	370	**HX61.1**	1 unit(s)	34,80

Buckets

A 121 °C

Buckets disposable

Simport. Material: PP, white. Autoclavable: Yes.

For safe storage of liquids, solids, histological and pathological samples. The tamper-evident cap guarantees the safety of the contents: The security tab breaks when opening the snap-on lid, indicating that the container has been opened. Art. No. AYP9.1 and AYT0.1 also with carry handle.

In vitro diagnostic medical device according to IVDD

Vol. (l)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.3	111	45	**AYP6.1**	100 unit(s)	90,20
0.5	111	75	**AYP7.1**	100 unit(s)	100,55
1.0	111	140	**AYP8.1**	100 unit(s)	141,90
2.6	200	124	**AYP9.1**	25 unit(s)	92,45
5.7	225	195	**AYT0.1**	10 unit(s)	76,35

A 121 °C

Measuring beaker ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, matt polished. Autoclavable: Yes.

Heavy duty, wall thickness 0.8 mm. Graduation in 1-litre increments. With handle and additional grip for simple pouring. Suitable for foodstuffs.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	240	260	**YH43.1**	1 unit(s)	391,30
15	270	300	**YH44.1**	1 unit(s)	432,15
20	270	400	**YH45.1**	1 unit(s)	504,20

Accessories lid for ROTILABO® measuring beaker

ROTH SELECTION.

Not a medical device / Not an IVD product

Designation	Art. No.	Pack Qty.	€
Lid for measuring beaker 10 l	**YH46.1**	1 unit(s)	49,90
Lid for measuring beaker 15 and 20 l	**YH47.1**	1 unit(s)	59,70

Buckets ROTILABO® with lid

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Limited.

With lid and handle, curved base. Autoclavable without lid. Suitable for foodstuffs.

Delivery incl. lid.

Not a medical device / Not an IVD product

Vol. (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	130	170	**C856.1**	1 unit(s)	161,25
3	155	180	**C857.1**	1 unit(s)	177,40
5	175	240	**C859.1**	1 unit(s)	215,00
8	200	290	**C861.1**	1 unit(s)	253,70
10	220	300	**C862.1**	1 unit(s)	259,10

Buckets with lid

ROTH SELECTION. Material: Stainless steel 18/10, Sealing ring made of silicone. Autoclavable: Limited.

Lid with overpressure/underpressure compensating valve (can be triggered manually). With three fasteners. Suitable for foodstuffs. Autoclavable without lid.

Not a medical device / Not an IVD product

Vol. (l)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
6.5	240	160	**LT21.1**	1 unit(s)	107,80
10.5	240	250	**LT22.1**	1 unit(s)	116,15
15.5	300	230	**LT23.1**	1 unit(s)	161,25

Buckets

121 °C

Buckets

RSG. Material: Stainless steel Remanit 4301. Autoclavable: Yes.

Graduated, scaling in 1-litre increments. With smooth base. Handle width: 15 mm, edge width: 8 mm.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
6	260	170	190	**KY05.1**	1 unit(s)	55,80
10	290	170	260	**KY06.1**	1 unit(s)	70,50
12	320	200	260	**KY07.1**	1 unit(s)	78,35
15	350	200	310	**KY08.1**	1 unit(s)	90,05

121 °C

Accessories lids for buckets made of stainless steel

RSG. Material: Stainless steel Remanit 4301. Autoclavable: Yes.

Not a medical device / Not an IVD product

Ø (mm)	Suitable for	Art. No.	Pack Qty.	€
260	art. No. KY05.1	**KY70.1**	1 unit(s)	41,50
290	art. No. KY06.1	**KY69.1**	1 unit(s)	43,70
325	art. No. KY07.1	**KY71.1**	1 unit(s)	53,60
345	art. No. KY08.1	**KY72.1**	1 unit(s)	56,25

Universal container

ROTH SELECTION. Material: Stainless steel 18/10.

Extra heavy duty. Material thickness 1.0 mm. Items EEX5.1 and EEX6.1 come with handle reinforcement plates.

Delivery incl. lid and three fasteners for added security.

Not a medical device / Not an IVD product

Vol. (l)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	265	395	**EEX2.1**	1 unit(s)	474,10
25	300	395	**EEX3.1**	1 unit(s)	560,10
30	300	465	**EEX4.1**	1 unit(s)	559,00
50	350	555	**EEX5.1**	1 unit(s)	657,90
75	400	620	**EEX6.1**	1 unit(s)	812,70

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Flat-bottom flasks

Flat bottom flasks ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With heavy duty rim.

A 121 °C

Narrow neck

Acc. to ISO 1773.

Vol. (ml)	Ø Outer neck (mm)	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	22	51	100	**NT71.1**	10 unit(s)	105,60
100	22	64	110	**NT72.1**	10 unit(s)	25,55
250	34	85	140	**NT73.1**	10 unit(s)	28,50
500	34	105	170	**NT74.1**	10 unit(s)	46,10
1,000	42	131	200	**NT75.1**	1 unit(s)	19,65
2,000	50	166	250	**NT76.1**	1 unit(s)	28,50
4,000	50	207	300	**NT77.1**	1 unit(s)	41,90
6,000	65	236	340	**NT78.1**	1 unit(s)	54,80
10,000	65	279	400	**NT79.1**	1 unit(s)	85,50

Wide neck

Vol. (ml)	Ø Outer neck (mm)	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	34	51	100	**NT54.1**	10 unit(s)	101,75
250	50	85	140	**NT55.1**	10 unit(s)	115,25
500	50	105	170	**NT56.1**	10 unit(s)	133,05
1,000	50	131	200	**NT57.1**	1 unit(s)	21,05
2,000	76	166	250	**NT58.1**	1 unit(s)	29,05

Flat bottom flasks ROTILABO® with ground glass joint

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
Acc. to DIN 12348.

A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	29/32	85	140	**NT59.1**	10 unit(s)	153,80
250	45/40	85	140	**NT60.1**	10 unit(s)	172,00
500	29/32	105	170	**NT61.1**	10 unit(s)	181,70
500	45/40	105	170	**NT62.1**	10 unit(s)	209,65
1,000	29/32	131	200	**NT63.1**	1 unit(s)	25,10
1,000	45/40	131	200	**NT64.1**	1 unit(s)	27,50
2,000	29/32	166	250	**NT65.1**	1 unit(s)	30,80
2,000	45/40	166	250	**NT66.1**	1 unit(s)	35,30
4,000	45/40	207	300	**NT67.1**	1 unit(s)	49,95
6,000	60/46	236	340	**NT68.1**	1 unit(s)	61,75
10,000	60/46	279	400	**NT69.1**	1 unit(s)	115,40
20,000	60/46	345	490	**NT70.1**	1 unit(s)	158,40

Flat-bottom flasks

Flat bottom flasks

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes. Acc. to ISO 1773.

A 121 °C

DURAN WHEATON KIMBLE

Narrow neck

Vol. (ml)	Ø Outer neck (mm)	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	26	51	90	**K182.1**	10 unit(s)	91,50
100	26	64	105	**K183.1**	10 unit(s)	70,35
250	34	85	138	**K184.1**	10 unit(s)	82,15
500	34	105	163	**K185.1**	10 unit(s)	111,45
1,000	42	131	190	**K186.1**	1 unit(s)	16,50
2,000	42	166	250	**K187.1**	1 unit(s)	30,20
3,000	50	185	250	**K188.1**	1 unit(s)	58,20
4,000	50	207	275	**K189.1**	1 unit(s)	82,75
5,000	50	223	290	**K190.1**	1 unit(s)	93,55
6,000	65	237	315	**K191.1**	1 unit(s)	108,60
10,000	65	280	360	**K192.1**	1 unit(s)	199,00

Wide neck

Vol. (ml)	Ø Outer neck (mm)	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	34	51	90	**K193.1**	10 unit(s)	173,00
100	34	64	105	**K194.1**	10 unit(s)	70,75
250	50	85	138	**K195.1**	10 unit(s)	82,75
500	50	103	163	**K196.1**	10 unit(s)	112,05
1,000	50	131	190	**K197.1**	1 unit(s)	19,30
2,000	50	166	230	**K198.1**	1 unit(s)	30,80

Flat bottom flasks wth ground glass joint

Lenz. Material: DURAN® glass. Autoclavable: Yes. Compliant with DIN 12348.

A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	29/32	51	90	**Y653.1**	1 unit(s)	9,45
100	29/32	64	110	**Y654.1**	1 unit(s)	9,60
250	29/32	85	140	**Y655.1**	1 unit(s)	17,05
500	29/32	105	170	**Y656.1**	1 unit(s)	33,80
1,000	29/32	131	200	**Y657.1**	1 unit(s)	46,55
2,000	29/32	166	250	**Y658.1**	1 unit(s)	76,70

Standard ground joint flasks

Round bottom flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With ground glass joint.

A 121 °C

Clear glass

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	14/23	30	58	**HY49.1**	1 unit(s)	8,00
10	14/23	35	70	**HY50.1**	1 unit(s)	7,85
25	14/23	41	85	**E588.1**	1 unit(s)	8,40
25	19/26	41	85	**KY27.1**	1 unit(s)	8,85
50	14/23	51	90	**E589.1**	1 unit(s)	9,60
50	19/26	51	90	**KY28.1**	1 unit(s)	9,85
50	24/29	51	90	**KY32.1**	1 unit(s)	10,70
50	29/32	51	90	**E590.1**	1 unit(s)	9,30
100	14/23	64	105	**E591.1**	1 unit(s)	10,55
100	19/26	64	105	**KY29.1**	1 unit(s)	11,65
100	24/29	64	105	**KY33.1**	1 unit(s)	11,00
100	29/32	64	105	**E592.1**	1 unit(s)	8,85
250	14/23	85	140	**KY26.1**	1 unit(s)	21,00
250	19/26	85	140	**KY30.1**	1 unit(s)	21,20
250	24/29	85	140	**KY34.1**	1 unit(s)	17,25
250	29/32	85	145	**E593.1**	1 unit(s)	17,10
250	45/40	85	145	**E594.1**	1 unit(s)	41,40
500	19/26	105	168	**KY31.1**	1 unit(s)	32,20
500	24/29	105	165	**KY35.1**	1 unit(s)	21,85
500	29/32	105	175	**E595.1**	1 unit(s)	22,40
500	45/40	105	175	**E596.1**	1 unit(s)	46,45
1,000	24/29	131	195	**KY36.1**	1 unit(s)	30,30
1,000	29/32	131	200	**E597.1**	1 unit(s)	31,75
1,000	45/40	131	200	**E598.1**	1 unit(s)	40,25
2,000	24/29	166	260	**KY37.1**	1 unit(s)	57,85
2,000	29/32	166	260	**E599.1**	1 unit(s)	54,40
2,000	45/40	166	260	**E600.1**	1 unit(s)	59,60
3,000	29/32	185	265	**TE93.1**	1 unit(s)	149,45
3,000	45/40	185	265	**TE94.1**	1 unit(s)	155,90
4,000	29/32	207	290	**TE95.1**	1 unit(s)	153,75
4,000	45/40	207	315	**E601.1**	1 unit(s)	155,90
5,000	29/32	223	315	**TE96.1**	1 unit(s)	181,70
5,000	45/40	223	315	**TE97.1**	1 unit(s)	186,00
6,000	29/32	236	360	**ELA0.1**	1 unit(s)	234,35
6,000	45/40	236	360	**ELA1.1**	1 unit(s)	241,90
10,000	29/32	279	375	**ELA2.1**	1 unit(s)	404,20
10,000	45/40	279	375	**ELA3.1**	1 unit(s)	414,95
20,000	29/32	345	495	**ELA4.1**	1 unit(s)	608,45
20,000	45/40	345	495	**ELA5.1**	1 unit(s)	635,35

Brown glass

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	29/32	51	90	**ELA6.1**	1 unit(s)	44,30
100	29/32	64	115	**Y646.1**	1 unit(s)	39,70
250	29/32	85	145	**Y647.1**	1 unit(s)	59,15
500	29/32	105	175	**Y648.1**	1 unit(s)	60,20
1,000	29/32	131	210	**Y649.1**	1 unit(s)	71,50

Standard ground joint flasks

Round bottom flasks ROTILABO® with ground glass joint

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Acc. to ISO 4797.

A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	14/23	51	105	**ACH0.1**	10 unit(s)	83,90
50	19/26	51	105	**ACH1.1**	10 unit(s)	91,40
50	29/32	51	105	**ACH2.1**	10 unit(s)	85,45
100	14/23	64	115	**ACH3.1**	10 unit(s)	95,20
100	19/26	64	115	**ACH4.1**	10 unit(s)	111,45
100	29/32	64	115	**ACH5.1**	10 unit(s)	92,40
250	29/32	85	145	**ACH6.1**	10 unit(s)	141,45
250	45/40	85	145	**ACH7.1**	1 unit(s)	22,15
500	29/32	105	175	**ACH8.1**	10 unit(s)	168,80
500	45/40	105	175	**ACH9.1**	1 unit(s)	26,55
1,000	29/32	131	210	**ACK0.1**	1 unit(s)	28,60
1,000	45/40	131	210	**ACK1.1**	1 unit(s)	30,55
2,000	29/32	166	260	**ACK2.1**	1 unit(s)	34,05
2,000	45/40	166	260	**ACK3.1**	1 unit(s)	36,75
4,000	45/40	207	315	**ACK4.1**	1 unit(s)	48,15
6,000	60/46	236	355	**ACK5.1**	1 unit(s)	65,35
10,000	60/46	279	420	**ACK6.1**	1 unit(s)	107,35

Round bottom flasks ROTILABO® with beaded rim

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

A 121 °C

Narrow neck

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	51	22	105	**NT88.1**	10 unit(s)	102,05
100	64	22	115	**NT89.1**	10 unit(s)	134,05
250	85	34	147	**NT90.1**	10 unit(s)	107,15
500	105	34	175	**NT91.1**	10 unit(s)	131,50
1,000	131	42	210	**NT92.1**	1 unit(s)	21,40
2,000	166	50	260	**NT93.1**	1 unit(s)	27,20
4,000	207	50	315	**NT94.1**	1 unit(s)	39,05
6,000	236	65	355	**NT95.1**	1 unit(s)	52,90
10,000	279	65	420	**NT96.1**	1 unit(s)	77,70
20,000	345	80	500	**NT97.1**	1 unit(s)	137,80

Standard ground joint flasks

Wide neck

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	51	34	105	**NT98.1**	10 unit(s)	104,20
100	64	34	115	**NT99.1**	10 unit(s)	126,45
250	85	50	145	**NX00.1**	10 unit(s)	111,05
500	105	50	175	**NX01.1**	10 unit(s)	130,00
1,000	131	50	210	**NX02.1**	1 unit(s)	20,90
2,000	166	76	260	**NX03.1**	1 unit(s)	27,10
4,000	207	76	315	**NX04.1**	1 unit(s)	37,15
6,000	236	89	355	**NX05.1**	1 unit(s)	52,80
10,000	279	89	420	**NX06.1**	1 unit(s)	79,30

Round bottom flasks

Vitlab. Material: PFA, Transparent. Autoclavable: Yes.

- High chemical resistance
- Temperature resistant in the range -200 to +260 °C
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning
- High purity, ideal for use in trace analysis and for storage of reference solutions
- No memory effect
- Also suitable for use in rotary evaporator as safety flask
- Autoclavable

A 121 °C ❄❄❄

Vol. (ml)	Standard ground glass joint	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	29/32	65	117	**XY62.1**	1 unit(s)	95,25
250	29/32	29/32	88	147	**XY63.1**	1 unit(s)	110,30
500	29/32	29/32	107	177	**XY64.1**	1 unit(s)	150,40

Kjeldahl flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With ground glass joint. Acc. to DIN 12360.

A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	14/23	51	200	**Y659.1**	1 unit(s)	45,15
50	19/26	51	200	**Y660.1**	1 unit(s)	46,20
100	14/23	60	200	**Y661.1**	1 unit(s)	44,65
100	19/26	60	200	**Y662.1**	1 unit(s)	46,05
250	29/32	81	270	**Y663.1**	1 unit(s)	60,15
500	29/32	101	300	**Y664.1**	1 unit(s)	63,05
750	29/32	115	340	**Y665.1**	1 unit(s)	72,55
1,000	29/32	126	350	**Y666.1**	1 unit(s)	84,55

Standard ground joint flasks

Pear-shaped flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.

A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	14/23	27	68	**TK67.1**	1 unit(s)	10,45
10	14/23	30	75	**E602.1**	1 unit(s)	8,85
25	14/23	40	90	**E603.1**	1 unit(s)	11,30
25	19/26	42	90	**TK68.1**	1 unit(s)	11,30
50	14/23	50	110	**E604.1**	1 unit(s)	12,40
50	19/26	51	100	**TK69.1**	1 unit(s)	13,55
50	29/32	51	100	**TK70.1**	1 unit(s)	17,00
100	14/23	62	125	**E605.1**	1 unit(s)	15,00
100	19/26	64	130	**TK71.1**	1 unit(s)	17,85
100	29/32	64	130	**TK72.1**	1 unit(s)	26,05
250	14/23	85	195	**TK73.1**	1 unit(s)	31,40
250	19/26	85	195	**TK74.1**	1 unit(s)	32,15
250	29/32	85	190	**TK75.1**	1 unit(s)	34,85

Two-necked, pear-shaped flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With angled side neck (angle 25°).

A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	14/23	40	90	**TH63.1**	1 unit(s)	26,55
25	19/26	14/23	40	90	**TH64.1**	1 unit(s)	47,55
50	14/23	14/23	50	100	**TH65.1**	1 unit(s)	27,75
50	19/26	14/23	50	100	**TH66.1**	1 unit(s)	51,10
100	14/23	14/23	64	130	**TH67.1**	1 unit(s)	30,85
100	19/26	14/23	64	130	**TH68.1**	1 unit(s)	62,35
250	14/23	14/23	85	195	**TH69.1**	1 unit(s)	82,80
250	19/26	14/23	85	195	**TH70.1**	1 unit(s)	88,15

Standard ground joint flasks

Double neck round bottom flasks side neck parallel

Lenz. Material: DURAN® glass. Autoclavable: Yes.
Centre neck MS 29/32, with parallel side neck.

A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	14/23	64	105	**ELA7.1**	1 unit(s)	28,60
250	29/32	14/23	85	140	**ELA8.1**	1 unit(s)	37,20
250	29/32	29/32	85	140	**ELA9.1**	1 unit(s)	44,65
500	29/32	14/23	105	163	**ELC0.1**	1 unit(s)	49,90
500	29/32	29/32	105	163	**ELC1.1**	1 unit(s)	55,90
1,000	29/32	14/23	131	200	**ELC2.1**	1 unit(s)	57,10
1,000	29/32	29/32	131	200	**ELC3.1**	1 unit(s)	66,45
2,000	29/32	14/23	166	240	**ELC4.1**	1 unit(s)	90,30
2,000	29/32	29/32	166	240	**ELC5.1**	1 unit(s)	95,50
4,000	29/32	29/32	207	290	**ELC6.1**	1 unit(s)	211,80

Double neck round bottom flasks ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With ground glass joints.

A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Art. No.	Pack Qty.	€
250	29/32	14/23	**ACE4.1**	1 unit(s)	36,85
500	29/32	14/23	**ACE5.1**	1 unit(s)	32,00
1,000	29/32	14/23	**ACE6.1**	1 unit(s)	37,95
2,000	29/32	14/23	**ACE7.1**	1 unit(s)	47,70
4,000	45/40	14/23	**ACE8.1**	1 unit(s)	71,95
6,000	60/46	14/23	**ACE9.1**	1 unit(s)	101,35

Standard ground joint flasks

Double neck round bottom flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With angled side neck (angle 20°).

A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	14/23	41	85	**KY12.1**	1 unit(s)	22,90
50	14/23	14/23	51	90	**KY13.1**	1 unit(s)	23,60
100	14/23	14/23	64	105	**KY14.1**	1 unit(s)	24,95
100	24/29	14/23	64	105	**ELC7.1**	1 unit(s)	27,35
100	24/29	19/26	64	105	**KY24.1**	1 unit(s)	33,25
100	29/32	14/23	64	105	**E606.1**	1 unit(s)	27,45
100	29/32	19/26	64	105	**ELC8.1**	1 unit(s)	36,15
100	29/32	29/32	64	105	**ELC9.1**	1 unit(s)	39,15
250	14/23	14/23	85	140	**ELE0.1**	1 unit(s)	38,40
250	24/29	14/23	85	140	**ELE1.1**	1 unit(s)	37,20
250	24/29	19/26	85	140	**KY25.1**	1 unit(s)	44,10
250	29/32	14/23	85	140	**E607.1**	1 unit(s)	37,55
250	29/32	19/26	85	140	**ELE2.1**	1 unit(s)	44,95
250	29/32	29/32	85	140	**ELE3.1**	1 unit(s)	46,45
500	24/29	14/23	105	163	**ELE4.1**	1 unit(s)	41,40
500	24/29	19/26	105	163	**ELE5.1**	1 unit(s)	45,50
500	29/32	14/23	105	163	**E608.1**	1 unit(s)	43,00
500	29/32	19/26	105	163	**ELE6.1**	1 unit(s)	50,85
500	29/32	29/32	105	163	**ELE7.1**	1 unit(s)	53,90
1,000	24/29	19/26	131	200	**ELE8.1**	1 unit(s)	53,55
1,000	29/32	14/23	131	200	**E609.1**	1 unit(s)	52,35
1,000	29/32	19/26	131	200	**ELE9.1**	1 unit(s)	53,55
1,000	29/32	29/32	131	200	**ELH0.1**	1 unit(s)	64,00
2,000	29/32	14/23	166	240	**E610.1**	1 unit(s)	88,70
2,000	29/32	19/26	166	240	**ELH1.1**	1 unit(s)	97,40
2,000	29/32	29/32	166	240	**ELH2.1**	1 unit(s)	95,35
4,000	29/32	29/32	207	290	**ELH3.1**	1 unit(s)	193,50

The complete ROTH product range in the ROTH webshop

Over 30,000 items orderable around the clock!

Discover everything at **www.carlroth.com**

- Latest NEW products
- Continuous range extensions
- Detailed product information
- Additional information about the products
- Regular special offers
- ... and much more. Stay curious!

Standard ground joint flasks

Three-necked round-bottom flasks parallel side necks

Lenz. Material: DURAN® glass. Autoclavable: Yes.

A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	24/29	19/26	64	105	**ELH4.1**	1 unit(s)	49,25
100	29/32	19/26	64	105	**ELH5.1**	1 unit(s)	56,45
100	29/32	14/23	64	105	**KY15.1**	1 unit(s)	36,55
100	29/32	29/32	64	105	**KY16.1**	1 unit(s)	73,45
250	24/29	19/26	85	105	**ELH6.1**	1 unit(s)	60,10
250	29/32	14/23	85	140	**E615.1**	1 unit(s)	53,25
250	29/32	19/26	85	140	**ELH7.1**	1 unit(s)	72,35
250	29/32	29/32	85	140	**KY17.1**	1 unit(s)	56,90
500	24/29	19/26	105	163	**ELH8.1**	1 unit(s)	73,25
500	29/32	14/23	105	163	**E616.1**	1 unit(s)	57,75
500	29/32	29/32	105	163	**E617.1**	1 unit(s)	68,70
500	29/32	19/26	105	163	**ELH9.1**	1 unit(s)	74,40
1,000	24/29	19/26	131	200	**ELK0.1**	1 unit(s)	78,60
1,000	29/32	14/23	131	200	**E618.1**	1 unit(s)	69,35
1,000	29/32	29/32	131	200	**E619.1**	1 unit(s)	76,25
1,000	29/32	19/26	131	200	**ELK1.1**	1 unit(s)	86,15
1,000	45/40	29/32	131	200	**ELK2.1**	1 unit(s)	98,70
2,000	24/29	19/26	166	240	**ELK3.1**	1 unit(s)	130,40
2,000	29/32	14/23	166	240	**E620.1**	1 unit(s)	102,05
2,000	29/32	29/32	166	240	**E621.1**	1 unit(s)	107,40
2,000	29/32	19/26	166	240	**ELK4.1**	1 unit(s)	131,60
2,000	45/40	29/32	166	240	**ELK5.1**	1 unit(s)	146,65
3,000	29/32	14/23	185	265	**ELK6.1**	1 unit(s)	215,00
3,000	29/32	29/32	185	265	**ELK7.1**	1 unit(s)	199,95
3,000	45/40	29/32	185	265	**ELK8.1**	1 unit(s)	247,25
4,000	29/32	14/23	207	290	**ELK9.1**	1 unit(s)	249,40
4,000	29/32	29/32	207	290	**ELL0.1**	1 unit(s)	254,80
4,000	45/40	29/32	207	290	**ELL1.1**	1 unit(s)	285,95
5,000	29/32	29/32	223	315	**ELL2.1**	1 unit(s)	310,70
5,000	45/40	29/32	223	315	**ELL3.1**	1 unit(s)	348,30
6,000	29/32	14/23	236	360	**ELL4.1**	1 unit(s)	306,40
6,000	29/32	29/32	236	360	**ELL5.1**	1 unit(s)	318,20
6,000	45/40	29/32	236	360	**ELL6.1**	1 unit(s)	367,65
10,000	29/32	29/32	279	375	**ELL7.1**	1 unit(s)	482,70
10,000	45/40	29/32	279	375	**ELL8.1**	1 unit(s)	543,95
20,000	45/40	29/32	345	495	**ELL9.1**	1 unit(s)	823,45

Standard ground joint flasks

Three-necked round-bottom flasks side necks, bevelled

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With two angled side necks (angle 20°).

A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	14/23	41	70	**ELN0.1**	1 unit(s)	54,50
50	14/23	14/23	51	90	**KY18.1**	1 unit(s)	46,45
100	14/23	14/23	64	105	**KY19.1**	1 unit(s)	48,70
100	24/29	14/23	64	105	**ELN1.1**	1 unit(s)	50,65
100	24/29	19/26	64	105	**ELN2.1**	1 unit(s)	55,15
100	29/32	14/23	64	105	**E611.1**	1 unit(s)	41,85
100	29/32	19/26	64	105	**ELN3.1**	1 unit(s)	60,20
100	29/32	29/32	64	105	**ELN4.1**	1 unit(s)	82,60
250	24/29	14/23	85	140	**ELN5.1**	1 unit(s)	62,35
250	24/29	19/26	85	140	**ELN6.1**	1 unit(s)	66,25
250	29/32	14/23	85	140	**E612.1**	1 unit(s)	51,10
250	29/32	19/26	85	140	**ELN7.1**	1 unit(s)	78,70
250	29/32	29/32	85	140	**KY20.1**	1 unit(s)	58,05
500	24/29	14/23	105	163	**ELN8.1**	1 unit(s)	69,15
500	24/29	19/26	105	163	**ELN9.1**	1 unit(s)	72,60
500	29/32	14/23	105	163	**E613.1**	1 unit(s)	56,95
500	29/32	19/26	105	163	**ELP0.1**	1 unit(s)	80,00
500	29/32	29/32	105	163	**KY21.1**	1 unit(s)	64,00
1,000	24/29	14/23	131	200	**ELP1.1**	1 unit(s)	82,35
1,000	24/29	19/26	131	200	**ELP2.1**	1 unit(s)	84,40
1,000	29/32	14/23	131	200	**E614.1**	1 unit(s)	67,65
1,000	29/32	19/26	131	200	**ELP3.1**	1 unit(s)	90,85
1,000	29/32	29/32	131	200	**KY22.1**	1 unit(s)	77,95
1,000	45/40	29/32	131	200	**ELP4.1**	1 unit(s)	106,35
2,000	24/29	19/26	166	240	**ELP5.1**	1 unit(s)	137,60
2,000	29/32	14/23	166	240	**ELP6.1**	1 unit(s)	129,65
2,000	29/32	19/26	166	240	**ELP7.1**	1 unit(s)	131,80
2,000	29/32	29/32	166	240	**KY23.1**	1 unit(s)	101,60
2,000	45/40	29/32	166	240	**ELP8.1**	1 unit(s)	138,80
3,000	29/32	14/23	185	265	**ELP9.1**	1 unit(s)	221,45
3,000	29/32	29/32	185	265	**ELT0.1**	1 unit(s)	233,30
3,000	45/40	29/32	185	265	**ELT1.1**	1 unit(s)	237,60
4,000	29/32	14/23	207	290	**ELT2.1**	1 unit(s)	239,75
4,000	29/32	29/32	207	290	**ELT3.1**	1 unit(s)	265,55
4,000	45/40	29/32	207	290	**ELT4.1**	1 unit(s)	262,30
5,000	29/32	29/32	223	315	**ELT5.1**	1 unit(s)	349,40
5,000	45/40	29/32	223	315	**ELT6.1**	1 unit(s)	330,05
6,000	29/32	14/23	236	360	**ELT7.1**	1 unit(s)	301,00
6,000	29/32	29/32	236	360	**ELT8.1**	1 unit(s)	375,20
6,000	45/40	29/32	236	360	**ELT9.1**	1 unit(s)	337,55
10,000	29/32	29/32	279	375	**ELX0.1**	1 unit(s)	552,55
10,000	45/40	29/32	279	375	**ELX1.1**	1 unit(s)	542,90
20,000	45/40	29/32	345	495	**ELX2.1**	1 unit(s)	917,00

Standard ground joint flasks

Round bottom flasks

Bohlender. Material: PFA, highly pure.

Chemically inert. Hydrophobic, anti-adhesive surfaces. Centre neck MS 29/32. Temperature-stable from -200 to +250 °C. Transparent and pore-free, partially suitable for vacuum (e.g. 30 mbar at 50 °C).

❄❄❄

Single neck flasks

Vol. (ml)	Standard ground glass joint	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	29/32	67	117	**NY39.1**	1 unit(s)	123,25
250	29/32	29/32	88	149	**NY40.1**	1 unit(s)	144,05
500	29/32	29/32	107	177	**NY41.1**	1 unit(s)	197,80

Double neck flasks

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	14/23	67	117	**NY42.1**	1 unit(s)	394,55
250	29/32	29/32	88	149	**NY43.1**	1 unit(s)	660,05
500	29/32	29/32	107	177	**NY44.1**	1 unit(s)	721,35

Triple neck flasks

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	14/23	67	117	**NY45.1**	1 unit(s)	546,10
250	29/32	29/32	88	149	**NY46.1**	1 unit(s)	989,00
500	29/32	29/32	107	177	**NY47.1**	1 unit(s)	1.059,95

Sulphuration flasks

Bohemia. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With three Side necks with ground glass joints.

A 121 °C ❄

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Side neck 3 with ground glass joints	Art. No.	Pack Qty.	€
500	45/40	14/23	14/23	**TK78.1**	1 unit(s)	49,20
1,500	71/51	29/32	14/23	**TK79.1**	1 unit(s)	74,95
2,500	71/51	29/32	14/23	**TK80.1**	1 unit(s)	84,55
4,000	71/51	29/32	14/23	**TK81.1**	1 unit(s)	110,75
6,000	71/51	29/32	14/23	**TK82.1**	1 unit(s)	128,55

Standard ground joint flasks

Four-necked round bottom flask

Lenz. Material: DURAN® glass. Autoclavable: Yes.

A 121 °C

(1) Parallel side necks

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Side neck 3 with ground glass joints	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
500	29/32	29/32	29/32	105	**TH78.1**	1 unit(s)	112,90
1,000	29/32	29/32	29/32	131	**TH79.1**	1 unit(s)	123,65
1,000	45/40	29/32	29/32	131	**ELX3.1**	1 unit(s)	124,60
2,000	29/32	29/32	29/32	166	**TH80.1**	1 unit(s)	164,50
2,000	45/40	29/32	29/32	166	**ELX4.1**	1 unit(s)	173,10
3,000	29/32	29/32	29/32	185	**TH81.1**	1 unit(s)	249,40
3,000	45/40	29/32	29/32	185	**ELX5.1**	1 unit(s)	255,85
4,000	29/32	29/32	29/32	207	**ELX6.1**	1 unit(s)	264,45
4,000	45/40	29/32	29/32	207	**ELX7.1**	1 unit(s)	310,70
5,000	45/40	29/32	29/32	223	**TH82.1**	1 unit(s)	375,20
6,000	29/32	29/32	29/32	236	**ELX8.1**	1 unit(s)	388,10
6,000	45/40	29/32	29/32	236	**ELX9.1**	1 unit(s)	399,90
10,000	45/40	29/32	29/32	279	**ELY0.1**	1 unit(s)	637,50

(2) Side necks bevelled, angle 15°

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Side neck 3 with ground glass joints	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
250	29/32	29/32	29/32	85	**TH76.1**	1 unit(s)	116,10
500	29/32	29/32	29/32	105	**TH77.1**	1 unit(s)	116,10

Receiving flask with PUR coating

Lenz. Material: DURAN® glass, with coating made of PUR. Autoclavable: Yes.

With spherical joint connection KS 35. Specifically for rotary evaporators. Highly transparent coating provides protection from scratches, impacts and light (absorption up to approx. 380 nm). In the event of glass breakage, the coating helps contain broken glass and leakage. Temperature stability -30 to +140 °C.

A 121 °C ❄

Vol. (ml)	Spherical connection for ground glass joint	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	KS 35	64	100	**TH18.1**	1 unit(s)	98,90
250	KS 35	85	124	**TH19.1**	1 unit(s)	107,00
500	KS 35	105	150	**TH20.1**	1 unit(s)	117,20
1,000	KS 35	131	185	**TH21.1**	1 unit(s)	138,70
2,000	KS 35	166	240	**TH22.1**	1 unit(s)	181,70

Standard ground joint flasks

Receiving flask

Lenz. Material: DURAN® glass. Autoclavable: Yes.

With spherical joint connection KS 35. Specifically for rotary evaporators.

A 121 °C

Vol. (ml)	Spherical connection for ground glass joint	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	KS 35	85	140	**KY57.1**	1 unit(s)	36,05
500	KS 35	105	155	**KY58.1**	1 unit(s)	40,65
1,000	KS 35	131	200	**KY59.1**	1 unit(s)	53,25
2,000	KS 35	166	245	**KY65.1**	1 unit(s)	81,70

Powder flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.

With centred ground glass joint 29/32. For drying substances at the rotary evaporator.

A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	60	110	**TH71.1**	1 unit(s)	85,90
250	29/32	81	125	**TH72.1**	1 unit(s)	94,40
500	29/32	101	155	**TH73.1**	1 unit(s)	112,90
1,000	29/32	126	195	**TH74.1**	1 unit(s)	134,40
2,000	29/32	158	245	**TH75.1**	1 unit(s)	184,90

Evaporating flasks with PUR coating

Lenz. Material: DURAN® glass, with coating made of PUR. Autoclavable: Yes.

With ground glass joint, pear-shaped.
Highly transparent coating provides protection from scratches, impacts and light (absorption up to approx. 380 nm). In the event of glass breakage, the coating helps contain broken glass and leakage. Temperature-stable from -30 to +140 °C.

A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	29/32	56	95	**TH11.1**	1 unit(s)	73,35
100	29/32	60	110	**TH12.1**	1 unit(s)	75,60
250	29/32	81	140	**TH13.1**	1 unit(s)	92,45
500	29/32	101	170	**TH14.1**	1 unit(s)	107,30
1,000	29/32	126	210	**TH15.1**	1 unit(s)	123,65
2,000	29/32	158	245	**TH16.1**	1 unit(s)	160,20
3,000	29/32	175	270	**TH17.1**	1 unit(s)	203,20

Standard ground joint flasks

Evaporating flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With ground glass joint, pear-shaped.

A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	14/23	25	55	**TH04.1**	1 unit(s)	18,30
10	14/23	33	65	**TH05.1**	1 unit(s)	19,35
25	14/23	40	75	**TH06.1**	1 unit(s)	20,25
50	14/23	50	88	**TH07.1**	1 unit(s)	22,05
50	29/32	56	95	**TH08.1**	1 unit(s)	14,55
100	29/32	60	110	**K263.1**	1 unit(s)	22,05
250	29/32	81	140	**K264.1**	1 unit(s)	36,05
500	29/32	101	170	**K265.1**	1 unit(s)	41,95
1,000	29/32	126	210	**K266.1**	1 unit(s)	60,20
2,000	29/32	158	245	**TH09.1**	1 unit(s)	73,65
3,000	29/32	175	270	**TH10.1**	1 unit(s)	127,95

Nitrogen round flask with valve cock

Lenz. Material: DURAN® glass, valve cock made of PTFE.
Valve bore 2.5 mm.

Vol. (ml)	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
25	14/23	**TH35.1**	1 unit(s)	67,65
50	14/23	**TH36.1**	1 unit(s)	69,80
50	29/32	**TH37.1**	1 unit(s)	70,90
100	14/23	**TH38.1**	1 unit(s)	73,65
100	29/32	**TH39.1**	1 unit(s)	75,80
250	14/23	**TH40.1**	1 unit(s)	82,25
250	29/32	**TH41.1**	1 unit(s)	83,35
500	29/32	**TH42.1**	1 unit(s)	87,10
1,000	29/32	**TH43.1**	1 unit(s)	105,90

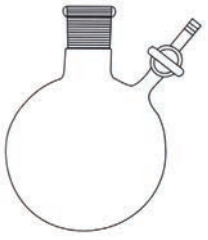
Standard ground joint flasks

Nitrogen round flask with cock

Lenz. Material: DURAN® glass.

With ground glass joint. Stop cock MS 14.5, borehole 2.5 mm. Ø olive 9 mm.

Vol. (ml)	Standard ground glass joint sleeve	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	85	**KY38.1**	1 unit(s)	52,60
50	14/23	90	**KY39.1**	1 unit(s)	53,25
50	29/32	90	**KY42.1**	1 unit(s)	54,65
100	14/23	105	**KY40.1**	1 unit(s)	55,80
100	29/32	105	**KY43.1**	1 unit(s)	57,45
250	14/23	140	**KY41.1**	1 unit(s)	67,20
250	29/32	137	**KY44.1**	1 unit(s)	67,40
500	29/32	160	**KY45.1**	1 unit(s)	72,05
1,000	29/32	192	**KY46.1**	1 unit(s)	91,30



Nitrogen round flask with stop cock, special sizes

Winzer. Material: Borosilicate glass 3.3.

With standard ground joint and stop cock 12.5, borehole 2.5 mm. Connector for hoses with 8 mm inside Ø.

Vol. (ml)	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
10	14/23	**AAP1.1**	1 unit(s)	49,85
2,000	29/32	**AAP2.1**	1 unit(s)	113,65

Nitrogen tube

Lenz. Material: DURAN® glass.

With stop cock MS 14.5, borehole 2.5 mm. Ø Olive 9 mm.

(2) With ground glass cone 14/23

Vol. (ml)	Standard ground glass joint core	Art. No.	Pack Qty.	€
10	14/23	**KY52.1**	1 unit(s)	68,80
25	14/23	**KY53.1**	1 unit(s)	69,90
50	14/23	**KY54.1**	1 unit(s)	70,95
100	14/23	**KY55.1**	1 unit(s)	73,10
250	14/23	**KY56.1**	1 unit(s)	83,85

(1) With ground glass sleeve 14/23

Vol. (ml)	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
10	14/23	**KY47.1**	1 unit(s)	55,40
25	14/23	**KY48.1**	1 unit(s)	57,00
50	14/23	**KY49.1**	1 unit(s)	58,05
100	14/23	**KY50.1**	1 unit(s)	60,20
250	14/23	**KY51.1**	1 unit(s)	66,65

Nitrogen template with valve cock

Lenz. Material: DURAN® glass, valve cock made of PTFE.

Valve bore 2.5 mm.

(1) With ground glass sleeve 14/23

Vol. (ml)	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
10	14/23	**TH25.1**	1 unit(s)	88,70
25	14/23	**TH26.1**	1 unit(s)	91,35
50	14/23	**TH27.1**	1 unit(s)	94,10
100	14/23	**TH28.1**	1 unit(s)	98,40
250	14/23	**TH29.1**	1 unit(s)	107,00

(2) With ground glass cone 14/23

Vol. (ml)	Standard ground glass joint core	Art. No.	Pack Qty.	€
10	14/23	**TH30.1**	1 unit(s)	102,70
25	14/23	**TH31.1**	1 unit(s)	104,85
50	14/23	**TH32.1**	1 unit(s)	107,00
100	14/23	**TH33.1**	1 unit(s)	111,30
250	14/23	**TH34.1**	1 unit(s)	117,20

Reversible frits

Reversible frit

Winzer. Material: Borosilicate glass 3.3.

With vacuum adapter, two taps (NS 14.5 with large glass plug, hole 2.5 mm) and hose connector, Ø 8 mm.

10 ml

Filter plate Ø 13 mm, core NS 14/23.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
10	1 (100 – 160 µm)	13	14/23	**AAT0.1**	1 unit(s)	191,35
10	2 (40 – 100 µm)	13	14/23	**AAT1.1**	1 unit(s)	191,35
10	3 (16 – 40 µm)	13	14/23	**AAT2.1**	1 unit(s)	191,35
10	4 (10 – 16 µm)	13	14/23	**AAT3.1**	1 unit(s)	194,60

50 ml

Filter plate Ø 22 mm, core NS 29/32.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
50	1 (100 – 160 µm)	22	29/32	**AAT4.1**	1 unit(s)	203,20
50	2 (40 – 100 µm)	22	29/32	**AAT5.1**	1 unit(s)	203,20
50	3 (16 – 40 µm)	22	29/32	**AAT6.1**	1 unit(s)	203,20
50	4 (10 – 16 µm)	22	29/32	**AAT7.1**	1 unit(s)	203,20

100 ml

Filter plate Ø 32 mm, core NS 29/32.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
100	1 (100 – 160 µm)	32	29/32	**AAT8.1**	1 unit(s)	211,80
100	2 (40 – 100 µm)	32	29/32	**AAT9.1**	1 unit(s)	211,80
100	3 (16 – 40 µm)	32	29/32	**AAX0.1**	1 unit(s)	211,80
100	4 (10 – 16 µm)	32	29/32	**AAX1.1**	1 unit(s)	213,95

250 ml

Filter plate Ø 46 mm, core NS 29/32.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
250	1 (100 – 160 µm)	46	29/32	**AAX2.1**	1 unit(s)	232,20
250	2 (40 – 100 µm)	46	29/32	**AAX3.1**	1 unit(s)	232,20
250	3 (16 – 40 µm)	46	29/32	**AAX4.1**	1 unit(s)	232,20
250	4 (10 – 16 µm)	46	29/32	**AAX5.1**	1 unit(s)	234,35

500 ml

Filter plate Ø 52 mm, core NS 29/32.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
500	1 (100 – 160 µm)	52	29/32	**AAX6.1**	1 unit(s)	290,25
500	2 (40 – 100 µm)	52	29/32	**AAX7.1**	1 unit(s)	290,25
500	3 (16 – 40 µm)	52	29/32	**AAX8.1**	1 unit(s)	290,25
500	4 (10 – 16 µm)	52	29/32	**AAX9.1**	1 unit(s)	301,00

1000 ml

Filter plate Ø 75 mm, core NS 29/32.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
1,000	1 (100 – 160 µm)	75	29/32	**AAY0.1**	1 unit(s)	341,85
1,000	2 (40 – 100 µm)	75	29/32	**AAY1.1**	1 unit(s)	341,85
1,000	3 (16 – 40 µm)	75	29/32	**AAY2.1**	1 unit(s)	341,85
1,000	4 (10 – 16 µm)	75	29/32	**AAY3.1**	1 unit(s)	346,15

Cold trap

Lenz. Material: DURAN® glass.
Core and socket NS 29/32.

❄❄❄

Without condensate drain

Cooling capacity (l)	Standard ground glass joint core	Standard ground glass joint sleeve	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
0.2	29/32	29/32	70	270	**Y803.1**	1 unit(s)	338,65
0.5	29/32	29/32	85	320	**Y804.1**	1 unit(s)	482,70
1	29/32	29/32	100	400	**Y805.1**	1 unit(s)	858,95

With condensate drain

Cooling capacity (l)	Standard ground glass joint core	Standard ground glass joint sleeve	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
0.2	29/32	29/32	70	370	**Y806.1**	1 unit(s)	418,20
0.5	29/32	29/32	85	395	**Y807.1**	1 unit(s)	568,70
1	29/32	29/32	100	480	**Y808.1**	1 unit(s)	966,45

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Standard ground joint stoppers

A 121 °C

DURAN WHEATON KIMBLE

Stopper with standard taper clear glass

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Octagonal, with ground glass joint, acc. to DIN 12252.

Version	Standard ground glass joint	Art. No.	Pack Qty.	€
solid	14/23	**E652.1**	10 unit(s)	53,70
solid	19/26	**E653.1**	10 unit(s)	75,90
semi-hollow	29/32	**E654.1**	10 unit(s)	87,10
semi-hollow	45/40	**E655.1**	1 unit(s)	14,60

A 121 °C

DURAN WHEATON KIMBLE

Stopper with standard taper brown glass

DWK Life Sciences. Autoclavable: Yes.
With ground glass joint, acc. to DIN 12252, octagonal.

Version	Standard ground glass joint	Art. No.	Pack Qty.	€
SBW glass, solid	19/26	**LK29.1**	10 unit(s)	90,10
DURAN® glass, solid	24/29	**LK30.1**	10 unit(s)	112,55
DURAN® glass, semi-hollow	29/32	**LK32.1**	10 unit(s)	111,95
DURAN® glass, semi-hollow	45/40	**LK33.1**	1 unit(s)	20,45

A 121 °C

DURAN WHEATON KIMBLE

Stopper with standard taper hollow glass

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Hexagonal, with ground glass joint.

Standard ground glass joint	Art. No.	Pack Qty.	€
7/16	**X782.1**	10 unit(s)	25,10
10/19	**X783.1**	10 unit(s)	19,25
12/21	**X784.1**	10 unit(s)	17,30
14/23	**X785.1**	10 unit(s)	17,05
19/26	**X786.1**	10 unit(s)	22,15
24/29	**X787.1**	10 unit(s)	24,05
29/32	**X788.1**	10 unit(s)	31,90
34/35	**X789.1**	1 unit(s)	9,30
45/40	**X790.1**	1 unit(s)	12,65

DURAN WHEATON KIMBLE

Stopper with standard taper plastic

DWK Life Sciences. Material: PE.

Anatomically shaped for easier opening and closing, sealing ribs on taper ensure optimal and leak-proof sealing. With batch code on base of stopper. Temperature resistant from -40 to +80 °C.

Standard ground glass joint	Colour	Art. No.	Pack Qty.	€
7/16	blue	**AKH6.1**	10 unit(s)	9,50
10/19	green	**AKH7.1**	10 unit(s)	12,15
12/21	violet	**AKH8.1**	10 unit(s)	14,80
14/23	yellow	**AKH9.1**	10 unit(s)	10,30
19/26	blue	**AKK0.1**	10 unit(s)	11,75
24/29	green	**AKK1.1**	10 unit(s)	13,85
29/32	red	**AKK2.1**	10 unit(s)	16,75
34/35	orange	**AKK3.1**	1 unit(s)	3,60
45/40	brown	**AKK4.1**	1 unit(s)	4,10

Standard ground joint stoppers

Stopper with standard taper plastic

Lenz. Material: PE.

With ground glass joint, octagonal.

Standard ground glass joint	Art. No.	Pack Qty.	€
7/16	**LL77.1**	10 unit(s)	6,25
10/19	**LL78.1**	10 unit(s)	8,75
12/21	**LL79.1**	10 unit(s)	9,60
14/23	**LL80.1**	10 unit(s)	9,80
19/26	**LL81.1**	10 unit(s)	12,80
24/29	**LL82.1**	10 unit(s)	13,90
29/32	**LL83.1**	10 unit(s)	15,40
34/35	**LL84.1**	1 unit(s)	3,80
45/40	**LL85.1**	1 unit(s)	4,45

Stopper with standard taper ROTILABO® plastic

ROTH SELECTION. Material: PE.

Standard ground glass joint	Ø Lower (mm)	Colour	Art. No.	Pack Qty.	€
7/16	5.9	violet	**K864.1**	10 unit(s)	11,75
10/19	8.1	blue	**K865.1**	10 unit(s)	11,75
12/21	10.4	green	**K866.1**	10 unit(s)	11,75
14/23	12.2	brown	**K867.1**	10 unit(s)	11,75
19/26	16.4	yellow	**K868.1**	10 unit(s)	14,10
24/29	21.1	red	**K869.1**	10 unit(s)	17,60
29/32	25.8	black	**K870.1**	5 unit(s)	11,15
34/35	30.9	white	**K871.1**	5 unit(s)	14,75

A 121 °C ❄❄❄

Stopper with standard taper ROTILABO® made of fluoroplastic

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Usable without ground joint grease. Chemically inert, temperature-stable from -200 to +250 °C.

Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10/19	31	**NX99.1**	1 unit(s)	10,05
14/23	34	**NY00.1**	1 unit(s)	11,30
19/26	38	**NY01.1**	1 unit(s)	13,60
24/29	44	**NY02.1**	1 unit(s)	17,20
29/32	47	**NY03.1**	1 unit(s)	19,90
34/35	51	**NY04.1**	1 unit(s)	23,50

Joint clamps for conical joints

ROTH SELECTION. Material: POM.

Highly chemical-resistant. Temperature-resistant up to +90 °C.

For standard ground glass joint	Colour	Art. No.	Pack Qty.	€
10/19	green	**1163.1**	12 unit(s)	35,70
12/21	violet	**1164.1**	12 unit(s)	37,10
14/23	yellow	**1165.1**	12 unit(s)	39,75
19/26	blue	**1166.1**	12 unit(s)	40,80
24/29	green	**1167.1**	12 unit(s)	42,95
29/32	red	**1168.1**	12 unit(s)	44,05
34/35	orange	**1169.1**	12 unit(s)	46,20
40/38	yellow	**1170.1**	12 unit(s)	53,25
45/40	brown	**1171.1**	12 unit(s)	53,65

Ground joint clamps

Joint clamps Safety Clip for conical joints

Lenz. Material: POM.

Can be varied in height, also for ground joint sleeves with grip band. Highly chemical-resistant. Colour: Blue. Heat resistant up to approx. +150 °C.

For standard ground glass joint	Art. No.	Pack Qty.	€
12/21	**EKA1.1**	10 unit(s)	27,85
14/23	**EKA2.1**	10 unit(s)	28,95
19/26	**EKA3.1**	10 unit(s)	29,60
24/29	**EKA4.1**	10 unit(s)	30,10
29/32	**EKA5.1**	10 unit(s)	31,15
34/35	**EKA6.1**	10 unit(s)	33,25
45/40	**EKA8.1**	10 unit(s)	37,65

A 121 °C ❄❄❄

Joint clamps ROTILABO® for conical joints

ROTH SELECTION. Material: Steel, PTFE coated. Autoclavable: Yes.

For conical joints. Chemically inert, temperature-stable from -200 to +250 °C.

For standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**NX71.1**	1 unit(s)	5,95
19/26	**NX72.1**	1 unit(s)	6,30
24/29	**NX73.1**	1 unit(s)	6,50
29/32	**NX74.1**	1 unit(s)	6,75
34/35	**NX75.1**	1 unit(s)	8,35
45/40	**NX76.1**	1 unit(s)	9,25

A 121 °C

Joint clamps ROTILABO® for conical joints

ROTH SELECTION. Material: Chrome-nickel steel. Autoclavable: Yes.

For conical joints.

For standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**CE96.1**	1 unit(s)	4,70
19/26	**CE97.1**	1 unit(s)	4,70
24/29	**CE98.1**	1 unit(s)	5,65
29/32	**CE99.1**	1 unit(s)	5,65
45/40	**CH00.1**	1 unit(s)	7,60

A 121 °C

Joint clamps for conical joints

ROTH SELECTION. Material: Steel, nickel-plated. Autoclavable: Yes.

Temperature-resistant up to 150 °C.

For standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**8231.1**	4 unit(s)	27,45
19/26	**8232.1**	4 unit(s)	29,25
24/29	**8233.1**	4 unit(s)	30,55
29/32	**8234.1**	4 unit(s)	31,75

Ground joint clamps

Spring clips

Material: Steel, nickel-plated.

For bottles with standard ground glass joints and Winkler oxygen bottles.

For standard ground glass joint	Art. No.	Pack Qty.	€
14	**CEA6.1**	1 unit(s)	3,80
19	**CEA7.1**	1 unit(s)	4,00
24	**CEA8.1**	1 unit(s)	4,30
29	**CEA9.1**	1 unit(s)	4,75

A 121 °C

Joint clamps ROTILABO® for conical joints

ROTH SELECTION. Material: Chrome-nickel steel. Autoclavable: Yes.

Without setscrew

For standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**CH01.1**	1 unit(s)	14,90
19/26	**CH02.1**	1 unit(s)	15,45
24/29	**CH03.1**	1 unit(s)	16,10
29/32	**CH04.1**	1 unit(s)	18,10
45/40	**CH05.1**	1 unit(s)	19,40

With setscrew

For standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**CH06.1**	1 unit(s)	22,50
19/26	**CH07.1**	1 unit(s)	23,05
24/29	**CH08.1**	1 unit(s)	24,20
29/32	**CH09.1**	1 unit(s)	25,05
45/40	**CH10.1**	1 unit(s)	26,70

A 121 °C

Joint clamps ROTILABO® for conical joints

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.

With setscrew. For securing conical ground joints.

For spherical ground glass joint	Art. No.	Pack Qty.	€
13/2	**E033.1**	1 unit(s)	13,85
19/9	**E034.1**	1 unit(s)	17,10
29/15	**E035.1**	1 unit(s)	18,10
35/25	**E036.1**	1 unit(s)	17,50
40/25	**E037.1**	1 unit(s)	27,90
65/45	**E038.1**	1 unit(s)	52,20

Coil spring ground-joint clamps for conical joints

Lenz.

For secure connection of tapered ground joints.

Fastening rings with hook

Material: Aluminium.

Delivery without spiral springs, please order separately.

For standard ground glass joint	Art. No.	Pack Qty.	€
12/21-14/23	**LE76.1**	10 unit(s)	55,40
19/26-24/29	**LE77.1**	10 unit(s)	56,45
29/32-34/35	**LE78.1**	10 unit(s)	57,55
45/40	**LE79.1**	10 unit(s)	58,60

Spiral springs

Material: Stainless steel.

Delivery without fastening rings, please order separately.

Suitable for	Length (mm)	Art. No.	Pack Qty.	€
Rings, Art. No. LE78.1	40	**LE82.1**	10 unit(s)	39,25
Rings, Art. No. LE79.1	60	**LE83.1**	10 unit(s)	49,25
Rings, Art. No. LE76.1	25	**LE80.1**	10 unit(s)	30,65
Rings, Art. No. LE77.1	35	**LE81.1**	10 unit(s)	31,75

Round bottom flask stands

A 121 °C

Flask stand

Bel-Art Products. Material: PP. Autoclavable: Yes.

Ideal for safe positioning of flasks and tubes of various shapes and sizes.

Suitable for	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
Flask 10 ml	36	73	**ETA7.1**	3 unit(s)	30,05
Flask 25 ml	45	74	**ETA8.1**	3 unit(s)	30,05
Flask 50 ml	55	75	**ETA9.1**	3 unit(s)	30,05
Flask 100 ml	64	88	**ETC0.1**	3 unit(s)	34,65
Flask 250 ml	89	110	**ETC1.1**	3 unit(s)	40,45
Flask 500 ml	110	132	**ETC2.1**	3 unit(s)	44,10

Set
Set comprising 3x 10 ml, 25 ml, 50 ml and 100 ml stands each.

Version	Art. No.	Pack Qty.	€
Flask stand set	**ETC3.1**	1 set	127,95

A 121 °C

Flask stand

Kartell. Material: PP. Autoclavable: Yes.

With 10-stage inside wall for flasks with a variety of diameters. Suitable for round bottom flasks up to 10 litres in size. Temperature-stable up to approx. +100 °C (briefly).

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
160	49	**TT11.1**	1 unit(s)	11,05

Cork rings ROTILABO®

ROTH SELECTION. Material: Agglomerated cork.

Suitable for	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
Flask 10-100 ml	80	30	30	**H111.1**	5 unit(s)	11,30
Flask 250-500 ml	110	60	30	**H112.1**	5 unit(s)	14,60
Flask 500-1000 ml	140	90	30	**H113.1**	5 unit(s)	21,35
Flask 1000-6000 ml	170	120	30	**H114.1**	5 unit(s)	26,85
Flask 10 000 ml	210	160	30	**H115.1**	2 unit(s)	19,10
Flask 20 000 ml	240	180	30	**H116.1**	2 unit(s)	24,75

Set 1
Set comprising 3 rings each Art. No. H111.1, H112.1 and H113.1.

Suitable for	Art. No.	Pack Qty.	€
Flask 10-1000 ml	**0421.1**	1 set	26,80

Set 2
Set comprising 3 rings each Art. No. H114.1, H115.1 and H116.1.

Suitable for	Art. No.	Pack Qty.	€
Flask 1000-20 000 ml	**0422.1**	1 set	52,05

Mat set ROTILABO®

ROTH SELECTION. Material: Agglomerated cork.

Suitable for setting down hot flat-bottom flasks, beakers, etc. Assortment consists of 2 squares 30 x 30 cm and 4 squares 15 x 15 cm. Thickness 10 mm.

Version	Art. No.	Pack Qty.	€
Mat set	**1391.1**	1 set	38,60

Standard ground joint seals

A 121 °C ❄❄❄

Sleeves ROTILABO® for conical ground glass joints

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

For gas-, liquid- and vacuum-tight ground glass joints up to 0.1 mbar. Practically resistant to all chemicals, temperature-stable from -200 to +250 °C. Easy to remove. No grease necessary.

For standard ground glass joint	Art. No.	Pack Qty.	€
10/19	**E054.1**	10 unit(s)	29,40
12/21	**E055.1**	10 unit(s)	33,55
14/23	**0692.1**	10 unit(s)	14,60
19/26	**0693.1**	10 unit(s)	14,90
19/26	**0693.2**	100 unit(s)	112,70
24/29	**E056.1**	10 unit(s)	16,15
29/32	**0694.1**	10 unit(s)	15,95
34/35	**E057.1**	5 unit(s)	13,30
45/40	**0695.1**	5 unit(s)	17,00

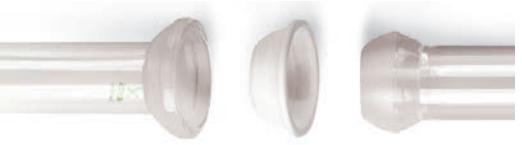
A 121 °C ❄❄❄

Sealing sleeves ROTILABO® for conical ground glass joints

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

For gas,liquid and vacuum-tight ground glass joints. Sealing rings on the outside of the ground sleeves provide a ensure a high vacuum-tight seal (leak rate <1 x 10^{-1} mbar l s^{-1}) and prevent the ground glass joints from sticking. Easy to remove with thick rim, reusable. Practically resistant to all chemicals, temperature-stable from -200 to +250 °C. No grease necessary. Autoclavable.

For standard ground glass joint	Art. No.	Pack Qty.	€
10/19	**C246.1**	1 unit(s)	8,85
14/23	**1012.1**	1 unit(s)	9,75
19/26	**C248.1**	1 unit(s)	10,75
24/29	**C249.1**	1 unit(s)	12,40
29/32	**1013.1**	1 unit(s)	19,10
34/35	**C250.1**	1 unit(s)	20,90
45/40	**1014.1**	1 unit(s)	27,80



A 121 °C ❄❄❄

Sleeves ROTILABO® for spherical ground joints

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

For gas, liquid and vacuum-sealed spherical joint connections. With sealing grooves for high-vacuum sealing (leak rate: <1 x 10^{-2} mbar l s^{-1}). Easy to release and re-use. No grease necessary. Temperature-stable from -200 to +250 °C. High resistance to chemicals.

For spherical ground glass joint	Art. No.	Pack Qty.	€
13	**A219.1**	5 unit(s)	37,15
19	**A220.1**	5 unit(s)	33,65
29	**A221.1**	5 unit(s)	42,20
35	**A222.1**	5 unit(s)	56,65
40	**A223.1**	5 unit(s)	82,60

A 121 °C ❄❄❄

Seals ROTILABO® for conical ground glass joints

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Extremely thin, suitable for sealing gas, liquid and highly vacuum-tight ground glass joints (leak rate <1 x 10^{-6} Pa l s^{-1}).
Prevent the ground glass joints from sticking, no is grease necessary. Temperature-stable up to +250 °C. Delivery spread on cartridge to protect the seals.

For standard ground glass joint	Art. No.	Pack Qty.	€
12	**T221.1**	50 unit(s)	26,70
14	**E699.1**	50 unit(s)	29,00
19	**E700.1**	50 unit(s)	30,05
24	**E701.1**	50 unit(s)	31,10
29	**E702.1**	50 unit(s)	32,20
45	**T222.1**	50 unit(s)	42,90

Standard ground transition pieces

A 121 °C ❄❄❄

Bellows ROTILABO®

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Angle bend up to 120°. Prevents tensions between components in glass apparatus.

Standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**7235.1**	1 unit(s)	54,95
19/26	**7236.1**	1 unit(s)	62,90
24/29	**7239.1**	1 unit(s)	71,70
29/32	**7240.1**	1 unit(s)	83,00

A 121 °C ❄❄❄

Reduction piece ROTILABO® made of fluoroplastic

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Usable without ground joint grease. Chemically inert, temperature-stable from -200 to +250 °C.

Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	19/26	**NX82.1**	1 unit(s)	16,35
14/23	24/29	**NX83.1**	1 unit(s)	18,90
19/26	24/29	**NX84.1**	1 unit(s)	20,10
19/26	29/32	**NX85.1**	1 unit(s)	25,30
19/26	34/35	**NX86.1**	1 unit(s)	28,90
24/29	29/32	**NX87.1**	1 unit(s)	25,20
24/29	34/35	**NX88.1**	1 unit(s)	28,90
24/29	45/40	**NX89.1**	1 unit(s)	33,45
29/32	34/35	**NX90.1**	1 unit(s)	28,90
29/32	45/40	**NX91.1**	1 unit(s)	33,45

A 121 °C

Tube connection stopper

Kartell. Material: PP, transparent. Autoclavable: Yes.

With 2 tubing connections Ø 8 mm.

Standard ground glass joint core	Art. No.	Pack Qty.	€
29/32	**TT21.1**	1 unit(s)	9,75

❄❄❄

Ground glass joint reduction set

Bohlender. Material: PTFE.

Highly pure, chemically inert. Consisting of 7 reductions: MS 14, MS 19, MS 24, MS 29, MS 34, MS 45, MS 60. Height of each 20 mm, suitable for standard ground joints acc. to DIN 12242.
Temperature-stable from -200 to +250 °C. Suitable for vacuum.

Version	Art. No.	Pack Qty.	€
Ground glass joint reduction set	**NY32.1**	1 unit(s)	92,10

Extension piece

Lenz. Material: DURAN® glass.

Standard ground glass joint sleeve	Standard ground glass joint core	Ø (mm)	Wall thickness (mm)	Length (mm)	Art. No.	Pack Qty.	€
14/23	14/23	17	1,8	120	**TK08.1**	1 unit(s)	12,15
14/23	29/32	26	2,0	130	**TK09.1**	1 unit(s)	13,80
19/26	19/26	22	1,8	125	**TK10.1**	1 unit(s)	12,70
29/32	29/32	33	2,0	150	**TK11.1**	1 unit(s)	15,40

Standard ground transition pieces

Transition piece

Lenz. Material: DURAN® glass.

Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	19/26	**K267.1**	1 unit(s)	11,65
14/23	24/29	**K268.1**	1 unit(s)	11,95
14/23	29/32	**K269.1**	1 unit(s)	11,65
19/26	14/23	**K270.1**	1 unit(s)	12,80
19/26	24/29	**K271.1**	1 unit(s)	13,45
19/26	29/32	**K272.1**	1 unit(s)	13,05
24/29	14/23	**K273.1**	1 unit(s)	16,70
24/29	19/26	**K274.1**	1 unit(s)	17,75
24/29	29/32	**K275.1**	1 unit(s)	13,95
29/32	14/23	**K276.1**	1 unit(s)	16,15
29/32	19/26	**K277.1**	1 unit(s)	16,60
29/32	24/29	**K278.1**	1 unit(s)	18,95
29/32	45/40	**KN64.1**	1 unit(s)	17,00
29/32	60/46	**TK15.1**	1 unit(s)	65,90
45/40	29/32	**KN65.1**	1 unit(s)	27,85
45/40	60/46	**TK16.1**	1 unit(s)	76,15
60/46	29/32	**TK17.1**	1 unit(s)	87,75
60/46	45/40	**TK18.1**	1 unit(s)	99,45

Transition piece NS-KS

Lenz. Material: DURAN® glass.

Ground joint socket to spherical socket

Standard ground glass joint sleeve	Spherical ball ground glass joint	Art. No.	Pack Qty.	€
29/32	29	**TH95.1**	1 unit(s)	44,40
29/32	35	**TH96.1**	1 unit(s)	49,90

Ground joint cone on spherical joint connection

Standard ground glass joint core	Spherical connection for ground glass joint	Art. No.	Pack Qty.	€
29/32	29	**TH93.1**	1 unit(s)	42,40
29/32	35	**TH94.1**	1 unit(s)	51,40

Transition piece with olive

Lenz. Material: DURAN® glass.
With standard ground cone and tubing olive Ø 10 mm.

Straight tubing olive

Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	**CA80.1**	1 unit(s)	9,90
19/26	**CA81.1**	1 unit(s)	10,70
24/29	**CA82.1**	1 unit(s)	11,80
29/32	**CA83.1**	1 unit(s)	12,30

Curved tubing olive (90°)

Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	**CA84.1**	1 unit(s)	10,45
19/26	**CA85.1**	1 unit(s)	12,05
24/29	**CA86.1**	1 unit(s)	13,05
29/32	**CA87.1**	1 unit(s)	13,05

Transition piece with olive

Material: DURAN® glass.
With tube and tubing olive Ø 10 mm.

Straight tubing olive

Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	**LK46.1**	1 unit(s)	14,75
19/26	**LK47.1**	1 unit(s)	16,05
24/29	**LK48.1**	1 unit(s)	17,65
29/32	**LK49.1**	1 unit(s)	18,40

Curved tubing olive (90°)

Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	**LK50.1**	1 unit(s)	14,75
19/26	**LK51.1**	1 unit(s)	15,95
24/29	**LK52.1**	1 unit(s)	17,75
29/32	**LK53.1**	1 unit(s)	18,20

Standard ground transition pieces

Transition piece with core and stop cock

Lenz. Material: DURAN® glass.

With standard ground core and stop cock with solid glass plug, borehole 2.5 mm. Tubing olive Ø 10 mm.

Straight tubing olive

Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	**CC24.1**	1 unit(s)	30,55
19/26	**CC25.1**	1 unit(s)	32,80
24/29	**CC26.1**	1 unit(s)	34,95
29/32	**CC27.1**	1 unit(s)	34,95

Curved tubing olive

Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	**CC28.1**	1 unit(s)	30,55
19/26	**CC29.1**	1 unit(s)	32,80
24/29	**CC30.1**	1 unit(s)	34,95
29/32	**CC31.1**	1 unit(s)	34,95

Transition piece with sleeve and stop cock

Lenz. Material: DURAN® glass.

With curved tubing olive. Stop cock MS 14.5 with solid glass plug, borehole 2.5 mm. Tubing olive Ø 10 mm.

Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	**LK54.1**	1 unit(s)	37,65
19/26	**LK55.1**	1 unit(s)	38,70
24/29	**LK56.1**	1 unit(s)	41,95
29/32	**LK57.1**	1 unit(s)	43,55

Adapter piece with cock

Lenz. Material: DURAN® glass.

With solid glass plugs and screw retaining devices for Art. No. EPE9.1 or rubber seal for Art. No. EPH0.1.

Standard ground glass joint sleeve	Standard ground glass joint core	Ø Hole (mm)	Art. No.	Pack Qty.	€
14/23	14/23	2.5	**EPE9.1**	1 unit(s)	72,05
29/32	29/32	8.0	**EPH0.1**	1 unit(s)	82,80

Ground swivel screw fitting

Bohlender. Material: PTFE, Screw cap made of PPS.

Enables the secure fixing of thermometers, measuring gauges, tubes or sleeves to prevent collisions in the test tube, e.g. when using a stirring shaft.

Temperature-stable from -20 to +230 °C.

Standard ground glass joint core	Thread	Ø Hole (mm)	Max. deflection angle (°)	Art. No.	Pack Qty.	€
19/26	GL 18	6	4	**NY48.1**	1 unit(s)	145,25
29/32	GL 25	6	8	**NY49.1**	1 unit(s)	108,85
29/32	GL 25	8	7	**NY50.1**	1 unit(s)	106,40
29/32	GL 25	10	6	**NY51.1**	1 unit(s)	105,95
29/32	GL 25	12	5	**NY52.1**	1 unit(s)	105,35

Standard ground components

Thermometer adapter

Lenz. Material: DURAN® glass, screw cap made of plastic, seal made of silicone with cured-on PTFE cuff.

Standard ground glass joint core	Thread	Ø Hole (mm)	Art. No.	Pack Qty.	€
14/23	GL 14	6	**AK92.1**	1 unit(s)	16,25
14/23	GL 18	8	**AK94.1**	1 unit(s)	17,55
19/26	GL 14	6	**TE98.1**	1 unit(s)	18,60
19/26	GL 18	8	**TH00.1**	1 unit(s)	19,70
24/29	GL 14	6	**TE99.1**	1 unit(s)	19,90
29/32	GL 14	6	**AK93.1**	1 unit(s)	19,15
29/32	GL 18	8	**AK95.1**	1 unit(s)	19,70
29/32	GL 25	10	**TH01.1**	1 unit(s)	39,05
29/32	GL 32	14	**TH02.1**	1 unit(s)	46,45

Spherical joint connection

Lenz. Material: DURAN® glass.

Spherical connection for ground glass joint	Length (mm)	Art. No.	Pack Qty.	€
13/2	100	**EKA9.1**	10 unit(s)	100,00
13/5	100	**EKC0.1**	10 unit(s)	70,85
19	120	**EKC1.1**	10 unit(s)	72,90
29	120	**EKC2.1**	10 unit(s)	85,50
35	120	**EKC3.1**	10 unit(s)	99,90
40	120	**EKC4.1**	1 unit(s)	17,75
41	120	**EKC5.1**	1 unit(s)	27,90
51	150	**EKC6.1**	1 unit(s)	42,95
65	170	**EKC7.1**	1 unit(s)	87,65

Spherical ground joints

Lenz. Material: DURAN® glass.

Spherical ball ground glass joint	Length (mm)	Art. No.	Pack Qty.	€
13/2	100	**EKC8.1**	10 unit(s)	98,40
13/5	100	**EKC9.1**	10 unit(s)	72,60
19	120	**EKE0.1**	10 unit(s)	75,15
29	120	**EKE1.1**	10 unit(s)	94,50
35	120	**EKE2.1**	10 unit(s)	107,00
40	120	**EKE3.1**	1 unit(s)	19,90
41	120	**EKE4.1**	1 unit(s)	29,60
51	150	**EKE5.1**	1 unit(s)	42,90
65	170	**EKE6.1**	1 unit(s)	69,80

Tubes with standard ground joint

Lenz. Material: DURAN® glass.

Cones

Acc. to DIN 12249 shape B.

Standard ground glass joint core	Ø (mm)	Wall thickness (mm)	Length (mm)	Art. No.	Pack Qty.	€
14/23	13	1,5	130	**TH83.1**	10 unit(s)	26,70
19/26	17	1,8	130	**TH84.1**	10 unit(s)	34,35
24/29	22	1,8	130	**TH85.1**	10 unit(s)	39,15
29/32	26	2,0	130	**TH86.1**	10 unit(s)	40,55
45/40	40	2,3	145	**TH87.1**	10 unit(s)	99,95

Sockets with ground glass joint

Acc. to DIN 12249 shape E.

Standard ground glass joint sleeve	Ø (mm)	Wall thickness (mm)	Length (mm)	Art. No.	Pack Qty.	€
14/23	17	1,8	130	**TH88.1**	10 unit(s)	26,45
19/26	22	1,8	130	**TH89.1**	10 unit(s)	30,65
24/29	28	2,0	130	**TH90.1**	10 unit(s)	41,10
29/32	33	2,0	130	**TH91.1**	10 unit(s)	43,55
45/40	50	2,5	145	**TH92.1**	10 unit(s)	117,20

Standard ground components

Threaded tubes

Lenz. Material: DURAN® glass.

Thread	Ø (mm)	Wall thickness (mm)	Length (mm)	Art. No.	Pack Qty.	€
GL 14	12	1,5	100	**TH97.1**	10 unit(s)	15,60
GL 18	16	1,8	100	**TH98.1**	10 unit(s)	21,40
GL 25	22	1,8	100	**TH99.1**	10 unit(s)	33,00
GL 32	28	2,0	140	**TK00.1**	10 unit(s)	50,55
GL 45	40	2,3	180	**TK01.1**	10 unit(s)	155,90

Glass tubes

Hecht. Material: Soda-lime glass.

Heat resistant up to approx. 100 °C.

Ø ext. (mm)	Wall thickness (mm)	Length (mm)	Art. No.	Pack Qty.	€
6	0,9	500	**CNK8.1**	12 unit(s)	8,00
8	0,9	500	**CNK9.1**	12 unit(s)	8,30
10	1,0	500	**CNL0.1**	12 unit(s)	9,05

A 121 °C

Cooling tube

Bohemia. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With ground glass joint.

Standard ground glass joint core	Length (mm)	Art. No.	Pack Qty.	€
29/32	500	**TP48.1**	1 unit(s)	21,55
29/32	1,000	**TP49.1**	1 unit(s)	24,65

Immersion heater with bell

Lenz. Material: DURAN® glass.

To prevent boiling delay.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
4	180	**EPX0.1**	1 unit(s)	5,30

Gas inlet tubes/boiling capillaries

Lenz. Material: DURAN® glass.

With ground cone and thin duct (for removing from the burner).

(1) Straight tube

Installation length approx. 200 mm.

Standard ground glass joint core	Installed length (mm)	Art. No.	Pack Qty.	€
14/23	200	**Y343.1**	1 unit(s)	11,80
19/26	200	**EPT4.1**	1 unit(s)	18,60
24/29	200	**EPT5.1**	1 unit(s)	21,00
29/32	200	**EPT6.1**	1 unit(s)	20,45

(2) Straight tube, with valve stopcock and angled connector (90°)

Installation length approx. 150 mm. Connector Ø 8 mm.

Standard ground glass joint core	Installed length (mm)	Art. No.	Pack Qty.	€
14/23	150	**EPT7.1**	1 unit(s)	82,90

(3) Curved tube (90° angle)

Installation length approx. 250 mm. Connector Ø 10 mm.

Standard ground glass joint core	Installed length (mm)	Art. No.	Pack Qty.	€
14/23	250	**Y344.1**	1 unit(s)	13,80
19/26	250	**EPT8.1**	1 unit(s)	21,20
24/29	250	**EPT9.1**	1 unit(s)	34,20
29/32	250	**Y345.1**	1 unit(s)	23,15

Elbow

Lenz. Material: DURAN® glass.
With two NS cores, curved.

Curved 75°

Standard ground glass joint cores	Art. No.	Pack Qty.	€
14/23	**EPC6.1**	1 unit(s)	16,80
19/26	**EPC7.1**	1 unit(s)	23,25
24/29	**EPC8.1**	1 unit(s)	29,50
29/32	**EPC9.1**	1 unit(s)	33,35

Curved 90°

Standard ground glass joint cores	Art. No.	Pack Qty.	€
14/23	**EPE0.1**	1 unit(s)	17,20
19/26	**EPE1.1**	1 unit(s)	23,15
24/29	**EPE2.1**	1 unit(s)	28,95
29/32	**EPE3.1**	1 unit(s)	32,40

Double-neck attachment

Lenz. Material: DURAN® glass.
With parallel sleeves. With two NS sleeves and one NS cone.

Standard ground glass joint core	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
14/23	14/23	**Y676.1**	1 unit(s)	22,85
19/26	19/26	**LK66.1**	1 unit(s)	34,00
24/29	19/26	**EPC3.1**	1 unit(s)	35,40
24/29	24/29	**EPC4.1**	1 unit(s)	37,95
29/32	24/23	**EPC5.1**	1 unit(s)	36,15
29/32	29/32	**Y677.1**	1 unit(s)	31,95

Claisen attachment

Lenz. Material: DURAN® glass.
Acc. to DIN 12594. For distillation thermometers with an installation length of 55 mm.

Standard ground glass joint cores	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
14/23	14/23	**KX43.1**	1 unit(s)	33,25
29/32	14/23	**Y681.1**	1 unit(s)	40,35

Distillation attachment

Lenz. Material: DURAN® glass.
With one 14/23 sleeve and two NS cores. Drain angle 75°.
For distillation thermometers with an installation length of 55 mm.

Standard ground glass joint core, vertical	Standard ground glass joint core, angled	Art. No.	Pack Qty.	€
14/23	14/23	**KX44.1**	1 unit(s)	27,85
19/26	19/26	**EPE4.1**	1 unit(s)	24,20
24/29	19/26	**EPE5.1**	1 unit(s)	29,80
24/29	24/29	**EPE6.1**	1 unit(s)	30,35
29/32	29/32	**Y680.1**	1 unit(s)	34,35

Vacuum receiver

Lenz. Material: DURAN® glass.
With connector of outside Ø 7–8 mm and angle tip.

Curved 105°

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**Y341.1**	1 unit(s)	24,20
19/26	19/26	**LK70.1**	1 unit(s)	31,75
24/29	24/29	**LK71.1**	1 unit(s)	34,85
29/32	29/32	**Y342.1**	1 unit(s)	32,25

Straight

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**LK62.1**	1 unit(s)	23,55
19/26	19/26	**LK63.1**	1 unit(s)	25,50
24/29	24/29	**LK64.1**	1 unit(s)	30,10
29/32	29/32	**LK65.1**	1 unit(s)	26,35

Vacuum receiver with threaded connection

Lenz. Material: DURAN® glass.
With GL 18 threaded connection and angle tip.

Curved 105°

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**EPP9.1**	1 unit(s)	41,40
19/26	19/26	**EPT0.1**	1 unit(s)	41,95
24/29	24/29	**EPT1.1**	1 unit(s)	46,15
29/32	29/32	**EPT2.1**	1 unit(s)	46,15

Straight

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**EPP5.1**	1 unit(s)	34,85
19/26	19/26	**EPP6.1**	1 unit(s)	33,80
24/29	24/29	**EPP7.1**	1 unit(s)	38,40
29/32	29/32	**EPP8.1**	1 unit(s)	38,40

Receiver for Bredt distilling distributors

Lenz. Material: DURAN® glass.
With GL 18 connecting piece.

Version	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
Bent by 105°	29/32	**EE76.1**	1 unit(s)	64,00
Straight	29/32	**EPT3.1**	1 unit(s)	52,35

Distilling distributor according to Bredt

Lenz. Material: DURAN® glass.
With four NS 14/23 cores for round bottom flasks up to max. 250 ml.
Top core NS 29/32.

Standard ground glass joint core	Standard ground glass joint cores	Art. No.	Pack Qty.	€
29/32	14/23	**EE75.1**	1 unit(s)	107,00

Distilling distributor according to Bernauer (receiver)

Lenz. Material: DURAN® glass.
With vacuum connection.

Standard ground glass joint cores	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**KX78.1**	1 unit(s)	89,45
14/23	29/32	**KX79.1**	1 unit(s)	92,90

Delivery adapter

Lenz. Material: DURAN® glass.

With curved drain pipe, 105° angle.

Standard ground glass joint sleeve	Length (mm)	Art. No.	Pack Qty.	€
14/23	65	**LK58.1**	1 unit(s)	12,55
19/26	65	**LK59.1**	1 unit(s)	20,45
24/29	65	**LK60.1**	1 unit(s)	21,80
29/32	65	**LK61.1**	1 unit(s)	17,00

Delivery adapter

Lenz. Material: DURAN® glass.

Curved 105°, with angle tip.

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/32	14/32	**KX77.1**	1 unit(s)	18,10
19/26	19/26	**EPN9.1**	1 unit(s)	20,35
24/29	24/29	**EPP0.1**	1 unit(s)	24,30
29/32	29/32	**EE74.1**	1 unit(s)	23,35

Delivery adapter

Lenz. Material: DURAN® glass.

Straight, with suction connection (glass connector).

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**EPP1.1**	1 unit(s)	18,60
19/26	19/26	**EPP2.1**	1 unit(s)	21,95
24/29	24/29	**EPP3.1**	1 unit(s)	24,40
29/32	29/32	**EPP4.1**	1 unit(s)	25,20

Drip-catcher according to Stutzer

Lenz. Material: DURAN® glass.

Straight with core and sleeve. Fits directly onto the distillation flask for droplet separation. Not centred.

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	29/32	**EPE7.1**	1 unit(s)	74,75
14/23	14/23	**KX80.1**	1 unit(s)	63,10
24/29	19/26	**EPE8.1**	1 unit(s)	74,75
29/32	29/32	**EE70.1**	1 unit(s)	64,00

Bubble counters

Lenz. Material: DURAN® glass.

For monitoring the gas flow. Ø 32 mm, overall height 120 mm, hose connections Ø 8 mm.

Length (mm)	Art. No.	Pack Qty.	€
100	**KX54.1**	1 unit(s)	30,35

Bubble counters with ground glass joint

Material: Borosilicate glass 3.3.

For monitoring the gas flow in apparatus. Suitable for excess pressure and vacuum. With ground glass joint and GL 32 screw cap with PTFE-coated seal. Overall height without ground glass joint approx. 145 mm, Ø approx. 30 mm. Temperature stable up to +200 °C.

Delivery without GL 14 connectors, please order separately for bubble counters with GL connection.

Version	Standard ground glass joint core	Art. No.	Pack Qty.	€
Tubing connector Ø 7-8 mm	29/32	**CEK3.1**	1 unit(s)	181,70
Tubing connector Ø 9-10 mm	14/23	**CEK5.1**	1 unit(s)	181,70
Threaded connection GL 14	29/32	**CEK4.1**	1 unit(s)	181,70
Threaded connection GL 14	14/23	**CEK6.1**	1 unit(s)	181,70

Distilling link

Lenz. Material: DURAN® glass.

Parallel and vertical cores.

Cover length (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
150	14/23	**KX82.1**	1 unit(s)	19,15
350	29/32	**EE71.1**	1 unit(s)	36,45

Distilling link

Lenz. Material: DURAN® glass.

Without cooler, with two vertical cores and NS 14/23 sleeve. For distillation thermometers with an installation length of 55 mm.

Cover length (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
350	29/32	**KY60.1**	1 unit(s)	51,10

Distilling link

Lenz. Material: DURAN® glass.

Liebig condenser with straight outlet.
For distillation thermometers with an installation length of 55 mm.
Ø 11 mm connectors.

Cover length (mm)	Standard ground glass joint cores	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**KX72.1**	1 unit(s)	65,40
250	29/32	14/23	**KX73.1**	1 unit(s)	77,35

Distilling link

Lenz. Material: DURAN® glass.

Liebig condenser with Ø 8 mm vacuum receiver.
For distillation thermometers with an installation length of 55 mm.
Ø 11 mm connectors for water connection.

Cover length (mm)	Standard ground glass joint cores	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**KX49.1**	1 unit(s)	70,45
250	29/32	14/23	**EE72.1**	1 unit(s)	84,40
400	29/32	14/23	**EE73.1**	1 unit(s)	145,15

Distilling link according to Claisen

Lenz. Material: DURAN® glass.

Liebig condenser with straight outlet.
For distillation thermometers with an installation length of 55 mm.
Ø 11 mm connectors.

Cover length (mm)	Standard ground glass joint cores	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
160	14/23	14/23	**KX70.1**	1 unit(s)	79,05
250	29/32	14/23	**KX71.1**	1 unit(s)	89,20

Distilling link according to Claisen

Lenz. Material: DURAN® glass.

Liebig condenser with Ø 8 mm vacuum receiver.
For distillation thermometers with an installation length of 55 mm.
Ø 11 mm connectors for water connection.

Cover length (mm)	Standard ground glass joint cores	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
160	14/23	14/23	**KX45.1**	1 unit(s)	91,30
250	14/23	14/23	**KX46.1**	1 unit(s)	95,60
250	29/32	14/23	**KX47.1**	1 unit(s)	99,45
400	29/32	14/23	**KX48.1**	1 unit(s)	104,85

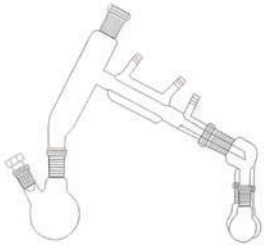
Distilling link Micro

Lenz. Material: DURAN® glass.

GL 14 cooling water and vacuum connections.

Delivery without connectors and screw caps, please order separately.

Standard ground glass joint cores	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**LE20.1**	1 unit(s)	102,15



Distillation apparatus Micro

Winzer. Material: Borosilicate glass 3.3.

Compact design for lossless condensate flow. Short-flow distilling link with sleeve and two cores 14/23, Liebig condenser, jacket length 70 mm and vacuum receiver.

Delivery incl. distillation receiver, 3 x 5 ml round bottom flasks, 50 ml double-neck flask and NS 14/23 hollow glass stopper.
Delivery without ground joint clamps or thermometer, please order separately.

Cover length (mm)	Standard ground glass joint cores	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
70	14/23	14/23	**AAN5.1**	1 unit(s)	225,75

Apparatus for determination of etheric oils

Winzer. Material: Borosilicate glass 3.3.

Acc. to DAB. Complete distillation attachment with core NS 29/32, Allihn cooler, vent plug NS 7/16, 1 ml measuring tube (graduated 0.01 ml) with 3 ml ball, refill/overflow funnel and Czako three-way stopcock with PTFE plugs.

Standard ground glass joint core	Art. No.	Pack Qty.	€
29/32	**XX23.1**	1 unit(s)	325,75

Water determination measuring tube according to Dean Stark

Lenz. Material: DURAN® glass.

Acc. to DIN 12420. With NS 14.5 stopcock; Ø 2.5 mm hole. Measuring volume up to 10 ml, 0.1 ml graduation.

Delivery without condensers and flasks, please order separately.

Version	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
Without stopcock, zero point at tip	29/32	29/32	**LE62.1**	1 unit(s)	76,90
Zero point above stopcock	29/32	29/32	**LE61.1**	1 unit(s)	107,00
Zero point at the stopcock	29/32	29/32	**LE60.1**	1 unit(s)	95,80

Attachment for steam distillation

Lenz. Material: DURAN® glass.

With two NS 29/32 cores and GL 14 threaded connection.

Standard ground glass joint cores	Suitable for	Art. No.	Pack Qty.	€
29/32	2000 ml flask	**LE19.1**	1 unit(s)	67,70

Condensors

Condensers with glass connectors

Lenz. Material: DURAN® glass.

With standard ground socket and core. Connector Ø 11 mm.

Liebig condenser

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**TK27.1**	1 unit(s)	41,30
160	19/26	19/26	**TK28.1**	1 unit(s)	44,65
250	14/23	14/23	**TK29.1**	1 unit(s)	46,25
250	19/26	19/26	**TK30.1**	1 unit(s)	48,05
250	24/29	24/29	**TK31.1**	1 unit(s)	48,50
250	29/32	29/32	**TK32.1**	1 unit(s)	49,35
400	29/32	29/32	**TK33.1**	1 unit(s)	61,10

Dimroth condenser

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**TK34.1**	1 unit(s)	75,60
160	19/26	19/26	**TK35.1**	1 unit(s)	82,80
250	14/23	14/23	**TK36.1**	1 unit(s)	92,45
250	19/26	19/26	**TK37.1**	1 unit(s)	94,10
250	24/29	24/29	**TK38.1**	1 unit(s)	95,60
250	29/32	29/32	**TK39.1**	1 unit(s)	84,60
400	29/32	29/32	**TK40.1**	1 unit(s)	97,30
400	45/40	45/40	**TK41.1**	1 unit(s)	143,00

Liebig condenser

Lenz. Material: DURAN® glass.

With ground joints and two unscrewable plastic connectors, GL 14 thread.

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**E630.1**	1 unit(s)	45,70
250	14/23	14/23	**E631.1**	1 unit(s)	53,65
250	29/32	29/32	**E632.1**	1 unit(s)	56,45
400	29/32	29/32	**E633.1**	1 unit(s)	64,40

Condenser

Lenz. Material: DURAN® glass.

With ground joints and two unscrewable plastic connectors, GL 14 thread.

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Number of balls (unit(s))	Art. No.	Pack Qty.	€
160	14/23	14/23	5	**KX81.1**	1 unit(s)	59,10
250	29/32	29/32	5	**E634.1**	1 unit(s)	72,60
400	29/32	29/32	8	**E635.1**	1 unit(s)	88,70

Dimroth condenser

Lenz. Material: DURAN® glass.

With ground joints and two unscrewable plastic connectors, GL 14 thread.

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**E637.1**	1 unit(s)	84,90
250	29/32	29/32	**E638.1**	1 unit(s)	91,30
400	29/32	29/32	**E639.1**	1 unit(s)	110,75

Coil condenser

Lenz. Material: DURAN® glass.

With two unscrewable plastic connectors, GL 14 thread.

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**TH44.1**	1 unit(s)	101,60
160	29/32	29/32	**TH46.1**	1 unit(s)	103,00
250	29/32	29/32	**E640.1**	1 unit(s)	116,10
250	24/29	24/29	**TH45.1**	1 unit(s)	134,40
400	29/32	29/32	**E641.1**	1 unit(s)	123,65
500	29/32	29/32	**TH47.1**	1 unit(s)	145,15

Condensors

Vigreux column

Lenz. Material: DURAN® glass.
Alternating horizontal and diagonal grooves.

(1) Without shell

Fill level (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Length (mm)	Art. No.	Pack Qty.	€
200	14/23	14/23	300	**LE21.1**	1 unit(s)	54,10
300	14/23	14/23	425	**LE22.1**	1 unit(s)	68,30
300	29/32	29/32	445	**LE23.1**	1 unit(s)	67,00

(2) With glass shell

Fill level (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Length (mm)	Art. No.	Pack Qty.	€
300	29/32	29/32	450	**E628.1**	1 unit(s)	96,25
600	29/32	29/32	650	**E629.1**	1 unit(s)	122,55

(3) With fused-on vacuum shell

Fill level (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Length (mm)	Art. No.	Pack Qty.	€
200	14/23	14/23	300	**LE24.1**	1 unit(s)	160,20
300	29/32	29/32	445	**LE25.1**	1 unit(s)	201,05
600	29/32	29/32	745	**LE26.1**	1 unit(s)	206,40

Column Hempel type

Lenz. Material: DURAN® glass.
For filling with packing (Raschig rings or glass beads).

Without glass shell

Fill level (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
200	14/23	14/23	**TK19.1**	1 unit(s)	30,45
300	29/32	29/32	**TK20.1**	1 unit(s)	45,15
500	29/32	29/32	**TK21.1**	1 unit(s)	51,95
800	29/32	29/32	**TK22.1**	1 unit(s)	74,55

With fused-on glass shell

Fill level (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
200	14/23	14/23	**TK23.1**	1 unit(s)	160,20
300	29/32	29/32	**TK24.1**	1 unit(s)	209,65
500	29/32	29/32	**TK25.1**	1 unit(s)	220,40
800	29/32	29/32	**TK26.1**	1 unit(s)	267,70

Condensors

Spiral condenser

Lenz. Material: DURAN® glass.

With two unscrewable plastic connectors, GL 14 thread.

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**TH48.1**	1 unit(s)	78,30
250	29/32	29/32	**E636.1**	1 unit(s)	93,00
400	29/32	29/32	**TH49.1**	1 unit(s)	145,15
500	29/32	29/32	**TH50.1**	1 unit(s)	152,65

Dimroth condenser

Lenz. Material: DURAN® glass.

For Soxhlet extraction attachments. With two unscrewable plastic connectors.

Standard ground glass joint core	Suitable for	Art. No.	Pack Qty.	€
45/40	100–250 ml desiccators	**AA60.1**	1 unit(s)	89,15
60/46	300–500 ml extractors	**AA61.1**	1 unit(s)	127,95
71/51	1000 ml extractors	**AA62.1**	1 unit(s)	155,90

Soxhlet extractor

Isolab. Material: Borosilicate glass 3.3.

Core NS 29/32, sleeve 45/40. Acc. to DIN 12602 (Art. No. Y356.1 not acc. to DIN).

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Ø Internal (mm)	Art. No.	Pack Qty.	€
100	45/40	29/32	43	**Y353.1**	1 unit(s)	42,95
150	45/40	29/32	43	**Y354.1**	1 unit(s)	46,90
250	45/40	29/32	45	**Y355.1**	1 unit(s)	59,00
500	45/40	29/32	54	**Y356.1**	1 unit(s)	78,15

Soxhlet extractor

Lenz. Material: DURAN® glass.

Core NS 29/32. Acc. to DIN 12602.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
30	29/32	29/32	**TE05.1**	1 unit(s)	55,40
100	45/40	29/32	**Y685.1**	1 unit(s)	79,70
150	45/40	29/32	**Y686.1**	1 unit(s)	84,10
250	45/40	29/32	**Y687.1**	1 unit(s)	87,95
500	60/46	29/32	**Y688.1**	1 unit(s)	123,65
1,000	71/51	29/32	**Y689.1**	1 unit(s)	155,90

Soxhlet extractor with stopcock

Lenz. Material: DURAN® glass.

Core NS 29/32. Acc. to DIN 12602 (Art. No. Y691.1 not acc. to DIN).

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
100	45/40	29/32	**Y690.1**	1 unit(s)	123,65
150	45/40	29/32	**Y691.1**	1 unit(s)	127,95
250	45/40	29/32	**Y692.1**	1 unit(s)	138,70
500	60/46	29/32	**Y693.1**	1 unit(s)	191,35

Extraction attachment according to Knöfler-Böhm

Lenz. Material: DURAN® glass.

Core NS 29/32. The extracting agent flows continuously through the circuit; the condensate flows continuously through the extraction material back into the flask.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
30	29/32	29/32	**LE38.1**	1 unit(s)	184,90
100	45/40	29/32	**LE39.1**	1 unit(s)	230,05
250	45/40	29/32	**LE40.1**	1 unit(s)	249,40
500	60/46	29/32	**LE41.1**	1 unit(s)	331,10

Extraction attachment for solids

Lenz. Material: DURAN® glass.

Core NS 29/32. The rising vapours enter the cooler directly; the condensate flows continuously through the extraction material back into the flask.

Delivery without glass insert for extraction sleeve, please order separately.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
70	45/40	29/32	**LE42.1**	1 unit(s)	100,00
100	45/40	29/32	**LE43.1**	1 unit(s)	103,75
250	60/46	29/32	**LE44.1**	1 unit(s)	149,45

Accessories glass inserts for extraction sleeves

Lenz. Material: DURAN® glass.

For extraction attachments for solids Art. No. LE42.1 ff.

Vol. (ml)	Art. No.	Pack Qty.	€
70	**LE45.1**	1 unit(s)	37,65
100	**LE46.1**	1 unit(s)	39,80
250	**LE47.1**	1 unit(s)	46,35

Extraction attachment acc. to Thielepape

Lenz. Material: DURAN® glass.

Core NS 29/32. With two-way stopcock NS 18.8, hole Ø 4 mm. For the extraction of solid materials. The rising vapours enter the cooler directly; the condensate flows continuously through the extraction material back into the flask.

Delivery without fritted sleeve, please order separately.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
30	29/32	29/32	**LE32.1**	1 unit(s)	140,85
150	45/40	29/32	**LE33.1**	1 unit(s)	213,95
250	45/40	29/32	**LE34.1**	1 unit(s)	231,15

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

Extraction attachment

Lenz. Material: DURAN® glass.

Core NS 29/32. For the extraction of liquids with specifically light extracting agents.

Delivery without distributor pipe, please order separately.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
100	45/40	29/32	**LE48.1**	1 unit(s)	211,80
250	45/40	29/32	**LE49.1**	1 unit(s)	250,50
500	60/46	29/32	**LE50.1**	1 unit(s)	297,80

Accessories distributor pipe for extraction attachment

Lenz. Material: DURAN® glass.

With frit porosity 0. For extraction attachments Art. No. LE48.1 ff.

Vol. (ml)	Art. No.	Pack Qty.	€
100	**LE51.1**	1 unit(s)	67,20
250	**LE52.1**	1 unit(s)	76,90
500	**LE53.1**	1 unit(s)	81,20

Extraction attachment

Lenz. Material: DURAN® glass.

Core 29/32. For the extraction of liquids with specifically heavy extracting agents.

Delivery without distributor pipe, please order separately.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
100	45/40	29/32	**LE54.1**	1 unit(s)	192,45
250	45/40	29/32	**LE55.1**	1 unit(s)	250,50
500	60/46	29/32	**LE56.1**	1 unit(s)	302,10

Accessories distributor pipe for extraction attachment

Lenz. Material: DURAN® glass.

With frit porosity 0. For extraction attachments Art. No. LE54.1 ff.

Vol. (ml)	Art. No.	Pack Qty.	€
100	**LE57.1**	1 unit(s)	40,75
250	**LE58.1**	1 unit(s)	46,15
500	**LE59.1**	1 unit(s)	60,45

Drying tubes

Drying tube

Lenz. Material: DURAN® glass.

Curved (75°). Inner Ø 15 mm.

Standard ground glass joint core	Ø Internal (mm)	Art. No.	Pack Qty.	€
14/23	15	**KX74.1**	1 unit(s)	16,80
29/32	15	**Y340.1**	1 unit(s)	20,90

Drying tube

Lenz. Material: DURAN® glass.

Acc. to DIN 12610. Inner Ø 13 mm, nominal length 130 mm. Ø Hose connection 6 mm.

Version	Length (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
curved	130	13	**KX76.1**	1 unit(s)	11,30
straight	130	13	**KX75.1**	1 unit(s)	8,25

Drying tube U-shaped

Lenz. Material: DURAN® glass.

(1) With connector Ø 6 mm

Height (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
100	13	**PL35.1**	1 unit(s)	27,85
130	13	**PL36.1**	1 unit(s)	29,00
180	18	**PL37.1**	1 unit(s)	31,75

(2) With NS stopcocks

Compliant with DIN 12616. With replaceable NS stopcock plugs and 6 mm Ø hose connectors on the side.

Standard ground glass joint sleeves	Height (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
14/23	125	13	**PL38.1**	1 unit(s)	70,75
19/26	150	13	**PL39.1**	1 unit(s)	94,30

Drying tube ROTILABO®

ROTH SELECTION. Material: PE.

For drying gases. Press-in plugs on both sides with conical connectors for hoses with Ø 8 to 10 mm.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
100	20	**6553.1**	1 unit(s)	5,20
150	20	**6554.1**	1 unit(s)	5,85
200	20	**6557.1**	1 unit(s)	6,65

A 121 °C

Fermentation tube ROTILABO®

Hecht. Material: Soda-lime glass. Autoclavable: Yes.

With two spheres and extension.

Total length 200 mm, tube Ø approx. 10–11 mm.

Length (mm)	Art. No.	Pack Qty.	€
200	**CKY8.1**	1 unit(s)	3,95

A 121 °C

Fermentation tube ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With NS 29/32 ground joint. Height 200 mm.

Standard ground glass joint core	Height (mm)	Art. No.	Pack Qty.	€
29/32	200	**ACL2.1**	1 unit(s)	40,05

Melting point determination

Melting point determination apparatus acc. to Thiele

Lenz. Material: DURAN® glass.

Application:
Fill apparatus with silicone oil. Insert a melting point capillary (outside-Ø max. 2 mm) into one of the side tubes so that the molten end touches the ball of the thermometer. The other side tube serves for venting. In the case of apparatus without side tubes, a long capillary is inserted from above; venting must also take place from above in this case. Heat at the tube elbow to ensure a uniform temperature increase.

Version	Length (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
without side tubes	200	16	**TH23.1**	1 unit(s)	44,65
with side tubes	200	16	**TH24.1**	1 unit(s)	58,00

Melting point capillary ROTILABO®

ROTH SELECTION. Material: Soda-lime glass.
Thin-walled, open at one end.

Length (mm)	Ø ext. (mm)	Ø Internal (mm)	Packaging type	Art. No.	Pack Qty.	€
80	1.35	0.95	Can	**0820.1**	100 unit(s)	8,95

Clay squares ROTILABO®

ROTH SELECTION.

For drying melting point samples. Dimensions 150 x 150 mm, divided into 25 squares 30 x 30 mm. Easy to break off by hand. No sharp edges or splinters, therefore there is no risk of injury.

Version	Art. No.	Pack Qty.	€
Rotilabo® clay square	**A205.1**	1 unit(s)	15,60

Melting point capillary

Hirschmann. Material: Glass, clear.
Thin-walled, open at one end.

Length (mm)	Ø ext. (mm)	Ø Internal (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
75	1.35	0.95	Can	10 x 100	**EAA9.1**	1,000 unit(s)	61,15
75	1.55	1.15	Can	10 x 100	**EAC0.1**	1,000 unit(s)	68,55
80	1.00	0.80	Can	10 x 100	**EAC1.1**	1,000 unit(s)	81,55
80	1.55	1.15	Can	10 x 100	**EAC2.1**	1,000 unit(s)	70,80
90	1.55	1.15	Can	10 x 100	**EAC3.1**	1,000 unit(s)	72,55
100	1.00	0.80	Can	10 x 100	**EAC4.1**	1,000 unit(s)	107,55
100	1.35	0.95	Can	10 x 100	**EAC5.1**	1,000 unit(s)	63,40
100	1.55	1.15	Can	10 x 100	**EAC6.1**	1,000 unit(s)	72,65

DURAN WHEATON KIMBLE

One-way tap

DWK Life Sciences. Material: DURAN® glass, glass plug made from SBW glass.
Complete with SBW glass plug and three-part stopcock safety.

Version	Tap cock with ground glass joints	Ø ext. (mm)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Capillary attachment	12,5	8	2.0	**LP05.1**	1 unit(s)	17,20
Capillary attachment	14,5	9	2.5	**LP06.1**	1 unit(s)	17,90
Standard	12,5	8	2.0	**LP07.1**	1 unit(s)	11,70
Standard	12,5	8	2.5	**LP08.1**	1 unit(s)	11,65
Standard	14,5	9	2.5	**LP09.1**	1 unit(s)	12,40
Standard	14,5	10	4.0	**LP10.1**	1 unit(s)	13,55
Standard	18,8	10	4.0	**LP11.1**	1 unit(s)	16,55
Standard	18,8	13	6.0	**LP12.1**	1 unit(s)	18,60

Stopcocks and plugs

DURAN WHEATON KIMBLE

One-way tap

DWK Life Sciences. Material: DURAN® glass, PTFE plug.
With PTFE plug and three-part stopcock safety.
Wall thickness 3 mm, 1.5 mm in Art. No. LP13.1 and in LP14.1.

Tap cock with ground glass joints	Ø ext. (mm)	Ø Hole (mm)	Art. No.	Pack Qty.	€
12,5	8	2.0	**LP13.1**	2 unit(s)	33,45
12,5	8	2.5	**LP14.1**	2 unit(s)	33,45
14,5	9	2.5	**LP15.1**	2 unit(s)	37,95
14,5	10	4.0	**LP16.1**	2 unit(s)	40,80
18,8	10	4.0	**LP17.1**	2 unit(s)	51,30
18,8	13	6.0	**LP18.1**	2 unit(s)	54,35
21,5	13	6.0	**LP19.1**	1 unit(s)	38,05
24,0	15	8.0	**LP20.1**	1 unit(s)	50,80
29,2	18	10.0	**LP21.1**	1 unit(s)	69,35

DURAN WHEATON KIMBLE

Stopcock plug

DWK Life Sciences. Material: Glass (SBW glass).
With thread and ground glass joint.

Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
12,5	2.0	**LN87.1**	2 unit(s)	14,05
12,5	2.5	**LN88.1**	2 unit(s)	14,00
14,5	2.5	**LN89.1**	2 unit(s)	16,15
14,5	4.0	**LN90.1**	2 unit(s)	16,15
18,8	4.0	**LN91.1**	2 unit(s)	21,55
18,8	6.0	**LN92.1**	2 unit(s)	20,00

DURAN WHEATON KIMBLE

Accessories stopcock safety

DWK Life Sciences.
Three-part, pre-assembled. For SBW-glass plug Art. No. LN87.1 ff.

Suitable for	Thread	Art. No.	Pack Qty.	€
Plug NS 12.5	GL 8	**LN93.1**	10 unit(s)	10,90
Plug NS 14.5	GL 9	**LN94.1**	10 unit(s)	10,90
Plug NS 18.8	GL 12	**LN95.1**	10 unit(s)	13,50

A 121 °C

Stopcock plug

Bohlender. Material: PTFE, Stopcock safety made of PP.
Autoclavable: Yes.
With thread and ground glass joint.

Delivery without O-rings, please order separately.

Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
12,5	2.0	**LN96.1**	2 unit(s)	9,15
12,5	2.5	**LN97.1**	2 unit(s)	10,30
14,5	2.5	**LN98.1**	2 unit(s)	11,20
14,5	4.0	**LN99.1**	2 unit(s)	11,15
18,8	4.0	**LP00.1**	2 unit(s)	13,10
18,8	6.0	**LP01.1**	2 unit(s)	17,75
21,5	6.0	**LP02.1**	1 unit(s)	17,20
24,0	8.0	**LP03.1**	1 unit(s)	20,20
29,2	10.0	**LP04.1**	1 unit(s)	32,90

Accessories O-rings for stopcock plugs

Bohlender. Material: Perbunan.
For PTFE stopcock plug Art. No. LN96.1 ff.

Suitable for	Art. No.	Pack Qty.	€
NS 12.5 and NS 14.5	**CNC6.1**	20 unit(s)	36,55
Plug NS 18.8	**CNC7.1**	20 unit(s)	30,80
Plugs NS 21.5, NS 24.0 and NS 29.1	**CNC8.1**	20 unit(s)	19,55

Chromatography columns

Chromatography columns

Lenz. Material: DURAN® glass, stopcock made of PTFE.
With ground glass socket and PTFE stopcock NS 14.5.

(1) Without frit
With grooves under the stopcock to apply a piece of cotton wool.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
15	10	200	14/23	**TK54.1**	1 unit(s)	52,90
35	15	200	14/23	**Y669.1**	1 unit(s)	56,40
125	20	400	29/32	**Y670.1**	1 unit(s)	61,75
430	30	600	29/32	**Y671.1**	1 unit(s)	70,20
1,000	40	800	29/32	**TK55.1**	1 unit(s)	110,75

(2) With frit
With fused-in frit, porosity 0.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
8	10	100	14/23	**TK56.1**	1 unit(s)	64,65
15	10	200	14/23	**Y672.1**	1 unit(s)	68,75
23	10	300	14/23	**Y673.1**	1 unit(s)	70,90
35	15	200	14/23	**Y674.1**	1 unit(s)	73,10
125	20	400	29/32	**Y675.1**	1 unit(s)	88,50
430	30	600	29/32	**HX73.1**	1 unit(s)	92,35

(3) With frit, ground glass core and GL 18 extraction connection
With fused-in frit, porosity 0.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
35	15	200	14/23	**TK57.1**	1 unit(s)	138,70
120	20	400	14/23	**TK58.1**	1 unit(s)	145,15
280	30	400	29/32	**TK59.1**	1 unit(s)	151,60
430	30	600	29/32	**TK60.1**	1 unit(s)	161,25

Chromatography columns with beaded rim

Lenz. Material: DURAN® glass, stopcock made of PTFE.
With ground glass socket and PTFE stopcock NS 14.5.

(1) Without frit
With grooves under the stopcock to apply a piece of cotton wool.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Art. No.	Pack Qty.	€
15	10	200	**ENT5.1**	1 unit(s)	54,50
35	15	200	**ENT6.1**	1 unit(s)	56,35
125	20	400	**ENT7.1**	1 unit(s)	61,95
430	30	600	**ENT8.1**	1 unit(s)	73,75
1,000	40	800	**ENT9.1**	1 unit(s)	100,00

(2) With frit
With fused-in frit, porosity 0.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Art. No.	Pack Qty.	€
15	10	200	**ENX0.1**	1 unit(s)	68,70
35	15	200	**ENX1.1**	1 unit(s)	73,85
125	20	400	**ENX2.1**	1 unit(s)	71,70
430	30	600	**ENX3.1**	1 unit(s)	87,40
1,000	40	800	**ENX4.1**	1 unit(s)	118,50

Separating funnels

Separating funnel

Material: Borosilicate glass 3.3, stopper made of plastic.
Conical shape. Acc. to DIN 12451.

With glass tap cocks

Vol. (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2.5	**E646.1**	1 unit(s)	43,55
100	19/26	12,5	2.5	**E647.1**	1 unit(s)	45,30
250	29/32	14,5	4.0	**E648.1**	1 unit(s)	52,15
500	29/32	14,5	4.0	**E649.1**	1 unit(s)	61,20
1,000	29/32	18,8	6.0	**E650.1**	1 unit(s)	87,65
2,000	29/32	18,8	6.0	**E651.1**	1 unit(s)	134,40

With PTFE plugs

Vol. (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2.5	**KT70.1**	1 unit(s)	44,00
100	19/26	12,5	2.5	**KT71.1**	1 unit(s)	47,55
250	29/32	14,5	4.0	**KT72.1**	1 unit(s)	57,85
500	29/32	14,5	4.0	**KT73.1**	1 unit(s)	68,80
1,000	29/32	18,8	6.0	**KT74.1**	1 unit(s)	89,80
2,000	29/32	18,8	6.0	**KT75.1**	1 unit(s)	123,65

Separating funnel cylindrical

Lenz. Material: Borosilicate glass 3.3, with stopper made of PE.
Autoclavable: Yes.
Graduated.

A 121 °C

With glass tap cocks

Vol. (ml)	Graduations (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	2	29/32	12,5	2.5	**ENN3.1**	2 unit(s)	106,55
100	5	29/32	12,5	2.5	**ENN4.1**	2 unit(s)	101,70
250	10	29/32	14,5	4.0	**ENN5.1**	2 unit(s)	127,75
500	10	29/32	14,5	4.0	**ENN6.1**	2 unit(s)	151,50
1,000	20	29/32	18,8	6.0	**ENN7.1**	2 unit(s)	212,85

With PTFE plugs

Vol. (ml)	Graduations (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	2	29/32	12,5	2.5	**ENN8.1**	2 unit(s)	125,60
100	5	29/32	12,5	2.5	**ENN9.1**	2 unit(s)	117,40
250	10	29/32	14,5	4.0	**ENP0.1**	2 unit(s)	160,50
500	10	29/32	14,5	4.0	**ENP1.1**	2 unit(s)	170,20
1,000	20	29/32	18,8	6.0	**ENP2.1**	2 unit(s)	226,85

Separating funnels

Separating funnel acc. to Squibb

Lenz. Material: Borosilicate glass 3.3, glass ground joint plug made of PTFE and stopper made of plastic.

Graduated.

Vol. (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2.5	**KT76.1**	2 unit(s)	85,90
100	19/26	12,5	2.5	**KT77.1**	2 unit(s)	80,55
250	29/32	14,5	4.0	**KT78.1**	2 unit(s)	96,65
500	29/32	14,5	4.0	**KT79.1**	2 unit(s)	112,90
1,000	29/32	18,8	6.0	**KT80.1**	2 unit(s)	138,70
2,000	29/32	18,8	6.0	**KT81.1**	1 unit(s)	95,15

Separating funnel acc. to Gilson

Lenz. Material: Borosilicate glass 3.3, ground glass plugs made of PTFE and stopper made of PE.

Vol. (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2.5	**LK40.1**	2 unit(s)	149,45
100	19/26	12,5	2.5	**LK41.1**	2 unit(s)	152,65
250	29/32	14,5	4.0	**LK42.1**	2 unit(s)	168,80
500	29/32	14,5	4.0	**LK43.1**	2 unit(s)	213,95
1,000	29/32	18,8	6.0	**LK44.1**	2 unit(s)	267,70
2,000	29/32	18,8	6.0	**LK45.1**	1 unit(s)	198,90

Separating funnel acc. to Squibb

Bel-Art Products. Material: PP, plugs made of PTFE, screw cap made of PP. Autoclavable: Limited.

Graduated. Transparent (to allow easy recognition of phase transitions). Ground glass 14.5 plug, borehole Ø 4 mm. Temperature-stable up to 135 °C. High chemical stability, max. 60 % hydrofluoric acid. Autoclavable without stop cock and closure.

Vol. (ml)	Art. No.	Pack Qty.	€
100	**YA73.1**	1 unit(s)	113,95
250	**YA74.1**	1 unit(s)	120,40

Separating funnel

Bohlender. Material: FEP, fine dosage tap and joint core made of PTFE.

High purity, chemically inert, temperature-stable from -200 to +250 °C. Hydrophobic, anti-adhesive surfaces. With fine dosage tap, screw cap and integrated combination nut to secure/release the conical joint.

Vol. (ml)	Standard ground glass joint core	Art. No.	Pack Qty.	€
125	29/32	**NY53.1**	1 unit(s)	455,80
250	29/32	**NY54.1**	1 unit(s)	533,20
500	29/32	**NY55.1**	1 unit(s)	680,50

Separating funnel holder

Kartell. Material: PP.

For separating funnels from 125-500 ml. With clamp for fastening to the stand rods with Ø 8-14 mm.

Suitable for	Art. No.	Pack Qty.	€
Separating funnels 125-500 ml	**PY61.1**	1 unit(s)	13,95

Dropping funnels

Dropping funnels cylindrical

Lenz. Material: Borosilicate glass 3.3.

Graduated. With glass ground glass sleeve, ground glass core and stop cock plug with threaded safety device. Acc. to DIN 12567, ISO 4800.

With solid glass plugs

Vol. (ml)	Graduations (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	1	29/32	29/32	12,5	2.5	**CH30.1**	1 unit(s)	60,75
100	2	29/32	29/32	12,5	2.5	**CH31.1**	1 unit(s)	67,20
250	5	29/32	29/32	14,5	4.0	**CH32.1**	1 unit(s)	81,60
500	10	29/32	29/32	14,5	4.0	**CH33.1**	1 unit(s)	89,15

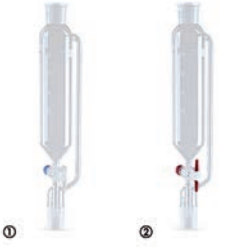
With PTFE plugs

Vol. (ml)	Graduations (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	1	29/32	29/32	12,5	2.5	**CH34.1**	1 unit(s)	67,20
100	2	29/32	29/32	12,5	2.5	**CH35.1**	1 unit(s)	73,00
250	5	29/32	29/32	14,5	4.0	**CH36.1**	1 unit(s)	87,65
500	10	29/32	29/32	14,5	4.0	**CH37.1**	1 unit(s)	96,15

Dropping funnels with pressure compensation

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Cylindrical, graduated. With pressure compensation tube, ground glass core, ground glass sleeve and stop cock plug with threaded safety device.
Acc. to DIN 12567, ISO 4800.



A 121 °C

With solid glass plugs

Vol. (ml)	Graduations (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	1	14/23	14/23	12,5	2.5	**E642.1**	1 unit(s)	76,90
50	1	29/32	29/32	12,5	2.5	**KL62.1**	1 unit(s)	75,80
100	2	14/23	14/23	12,5	2.5	**E643.1**	1 unit(s)	80,10
100	2	29/32	29/32	12,5	2.5	**KL63.1**	1 unit(s)	83,75
250	5	29/32	29/32	14,5	4.0	**E644.1**	1 unit(s)	93,00
500	10	29/32	29/32	14,5	4.0	**E645.1**	1 unit(s)	103,10
1,000	20	29/32	29/32	18,8	6.0	**KL64.1**	1 unit(s)	127,95

With PTFE plugs

Vol. (ml)	Graduations (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	1	14/23	14/23	12,5	2.5	**KL65.1**	1 unit(s)	81,60
50	1	29/32	29/32	12,5	2.5	**KL76.1**	1 unit(s)	80,65
100	2	14/23	14/23	12,5	2.5	**KL77.1**	1 unit(s)	84,95
100	2	29/32	29/32	12,5	2.5	**KL78.1**	1 unit(s)	84,95
250	5	29/32	29/32	14,5	4.0	**KL79.1**	1 unit(s)	100,00
500	10	29/32	29/32	14,5	4.0	**KL80.1**	1 unit(s)	112,90
1,000	20	29/32	29/32	18,8	6.0	**KL81.1**	1 unit(s)	134,40

Dropping funnels

Dropping funnels

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Conical. With ground glass sleeve, ground glass core and stop cock plugs with threaded safety device.

A 121 °C

With solid glass plugs

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	19/26	12,5	2.5	**ENP3.1**	1 unit(s)	67,95
100	19/26	19/26	12,5	2.5	**ENP4.1**	1 unit(s)	66,05
250	29/32	29/32	14,5	4.0	**ENP5.1**	1 unit(s)	75,15
500	29/32	29/32	14,5	4.0	**ENP6.1**	1 unit(s)	84,60
1,000	29/32	29/32	18,8	6.0	**ENP7.1**	1 unit(s)	102,60
2,000	29/32	29/32	18,8	6.0	**ENP8.1**	1 unit(s)	174,15

With PTFE plugs

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	19/26	12,5	2.5	**ENP9.1**	1 unit(s)	79,35
100	19/26	19/26	12,5	2.5	**ENT0.1**	1 unit(s)	78,70
250	29/32	29/32	14,5	4.0	**ENT1.1**	1 unit(s)	87,55
500	29/32	29/32	14,5	4.0	**ENT2.1**	1 unit(s)	115,70
1,000	29/32	29/32	18,8	6.0	**ENT3.1**	1 unit(s)	123,20
2,000	29/32	29/32	18,8	6.0	**ENT4.1**	1 unit(s)	196,75

The complete ROTH product range in the ROTH webshop

Over 30,000 items orderable around the clock!

Discover everything at **www.carlroth.com**

- Latest NEW products
- Continuous range extensions
- Detailed product information
- Additional information about the products
- Regular special offers
- ... and much more. Stay curious!

Funnels

Funnels ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With short stem. 60° angle.

A 121 °C

Ø Inner upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
35	6	35	paper filter Ø 45-55 mm	**ACC3.1**	10 unit(s)	37,05
45	6	45	paper filter Ø 55-70 mm	**ACC4.1**	10 unit(s)	41,20
55	8	55	paper filter Ø 70-90 mm	**ACC5.1**	10 unit(s)	45,80
75	8	75	paper filter Ø 125-150 mm	**ACC6.1**	10 unit(s)	58,55
85	9	85	paper filter Ø 150 mm	**ACC7.1**	10 unit(s)	65,25
100	10	100	paper filter Ø 150-185 mm	**ACC8.1**	10 unit(s)	80,00
125	16	125	paper filter Ø 185 mm	**ACC9.1**	1 unit(s)	13,45
150	16	150	paper filter Ø 240-270 mm	**ACE0.1**	1 unit(s)	18,50
200	24	150	paper filter Ø 320-385 mm	**ACE1.1**	1 unit(s)	33,90
250	30	175	paper filter Ø 400-450 mm	**ACE2.1**	1 unit(s)	44,55
300	34	175	paper filter Ø 500 mm	**ACE3.1**	1 unit(s)	77,80

Funnels

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
With short stem.

A 121 °C DURAN WHEATON KIMBLE

Ø Outer upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
35	6	35	Paper filter-Ø 45-55 mm	**C153.1**	10 unit(s)	99,55
45	6	45	Paper filter-Ø 55-70 mm	**C154.1**	10 unit(s)	103,05
55	8	55	Paper filter-Ø 70-90 mm	**C155.1**	10 unit(s)	151,00
70	8	70	Paper filter-Ø 110-125 mm	**C156.1**	10 unit(s)	149,05
80	10	80	Paper filter-Ø 125-150 mm	**C157.1**	10 unit(s)	159,00
100	10	100	Paper filter-Ø 150-185 mm	**C158.1**	1 unit(s)	17,90
150	16	150	Paper filter-Ø 240-270 mm	**C159.1**	1 unit(s)	30,95
200	26	175	Paper filter-Ø 320-385 mm	**C160.1**	1 unit(s)	73,70
300	30	175	Paper filter-Ø 500 mm	**C161.1**	1 unit(s)	143,00

Funnels

121 °C

Funnels with ribs

Bohemia. Material: Borosilicate glass 3.3. Autoclavable: Yes.
For quick filtration.

Ø Outer upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
105	18	80	**NY75.1**	1 unit(s)	16,85
138	22	90	**NY76.1**	1 unit(s)	20,75
170	26	120	**NY77.1**	1 unit(s)	26,45
210	38	140	**NY78.1**	1 unit(s)	43,25
250	40	155	**NY79.1**	1 unit(s)	60,20

Funnels ROTILABO®

ROTH SELECTION. Material: Soda-lime glass.
With short stem. 60° angle.

Ø Outer upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
30	6	30	**EE58.1**	10 unit(s)	34,20
35	6	35	**EE59.1**	10 unit(s)	34,65
40	6	40	**EE60.1**	10 unit(s)	36,05
45	7	45	**EE61.1**	10 unit(s)	41,40
50	7	50	**EE62.1**	10 unit(s)	45,05
55	8	55	**EE63.1**	10 unit(s)	46,15
60	8	60	**EE64.1**	10 unit(s)	48,95
70	9	70	**EE65.1**	10 unit(s)	60,75
80	9	80	**EE66.1**	10 unit(s)	67,20
100	10	100	**EE67.1**	10 unit(s)	84,85

Funnels

Vitlab. Material: PP, transparent.
With handle and lifting eye. Suitable for foodstuffs.

Ø Upper (mm)	Ø Outlet (mm)	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
30	1.5	45	25	**YA44.1**	1 unit(s)	1,45
30	4	47	25	**YA45.1**	1 unit(s)	1,55
40	4	65	35	**YA46.1**	1 unit(s)	1,70
50	7	85	43	**YA47.1**	1 unit(s)	1,85
75	7	108	55	**YA48.1**	1 unit(s)	2,05
100	8	155	77	**YA49.1**	1 unit(s)	2,35
120	11	180	90	**YA50.1**	1 unit(s)	3,05
150	15	220	95	**YA51.1**	1 unit(s)	3,95

Funnels ROTILABO®

ROTH SELECTION. Material: HDPE.
Natural colours with smooth surface. With lifting eye and 4 ventilation ribs (except Art. No. 0583.1).
Art. No. A828.1 incl. sieve Ø 50 mm, mesh size 0.4 mm.

Ø Upper (mm)	Ø Outlet (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	3	60	**0583.1**	1 unit(s)	1,95
60	8	80	**0584.1**	1 unit(s)	2,10
80	11	105	**0585.1**	1 unit(s)	2,35
100	12	125	**0586.1**	1 unit(s)	2,55
120	12	145	**0587.1**	1 unit(s)	2,65
140	15	165	**0588.1**	1 unit(s)	3,20
164	17	195	**0589.1**	1 unit(s)	3,80
208	20	220	**A828.1**	1 unit(s)	6,40

Funnel range ROTILABO®

ROTH SELECTION. Material: HDPE.
7 pieces, one for each funnel, Art. No. 0583.1 to 0589.1.

Version	Art. No.	Pack Qty.	€
ROTILABO® funnel range	**0594.1**	1 set	13,45

Funnels

Funnels ROTILABO® disposable

ROTH SELECTION.
With ventilation grooves. 60° angle. Inner outlet Ø 4.3 mm.

Transparent
Material: PP.

Ø Inner upper (mm)	Ø Inner outlet (mm)	Height (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
55	4.3	69	25	paper filter-Ø 110 mm	**HY47.1**	100 unit(s)	31,15
65	4.3	78	30	paper filter-Ø 125 mm	**HY48.1**	100 unit(s)	31,15

Clear
Material: PS.

Ø Inner upper (mm)	Ø Inner outlet (mm)	Height (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
55	4.3	69	25	Paper filter-Ø 110 mm	**HY45.1**	100 unit(s)	31,15
65	4.3	78	30	Paper filter-Ø 125 mm	**HY46.1**	100 unit(s)	31,15

Funnels ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With lifting eye and side groove to bleed off the air from the container (except for Art. No. 0162.1). Suitable for foodstuffs.

A 121 °C

Ø Outer upper (mm)	Ø Outlet (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
55	8	65	without handle/eyelet	**0162.1**	1 unit(s)	13,55
94	13	120	with handle	**0164.1**	1 unit(s)	21,85
127	15	132	with eyelet	**0166.1**	1 unit(s)	31,75
154	15	152	with eyelet	**0167.1**	1 unit(s)	35,15
210	23	227	with eyelet	**0168.1**	1 unit(s)	49,90
257	23	265	with eyelet	**0169.1**	1 unit(s)	59,95

Funnel assortment ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Includes six funnels (Art. No. 0162.1, 0164.1, 0166.1, 0167.1, 0168.1 and 0169.1).

A 121 °C

Version	Art. No.	Pack Qty.	€
Funnel assortment ROTILABO®	**5838.1**	1 set	207,50

Funnels

A 121 °C ❄❄❄

Funnels ROTILABO® made of fluoroplastic

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Chemically inert, temperature stable from -200 to + 250 °C. With smooth, hydrophobic inner surfaces.

Ø Outer upper (mm)	Ø Outlet (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	8	50	**NX77.1**	1 unit(s)	18,45
50	10	85	**NX78.1**	1 unit(s)	25,25
70	12	110	**NX79.1**	1 unit(s)	36,45
100	14	170	**NX80.1**	1 unit(s)	75,80
150	16	220	**NX81.1**	1 unit(s)	124,60

A 121 °C

Funnels

Bürkle. Material: Stainless steel V2A (1.4301). Autoclavable: Yes.

With an air channel at the spout for unhindered flow.

Ø Upper (mm)	Ø Outlet (mm)	Version	Art. No.	Pack Qty.	€
60	13	without handle	**1C82.1**	1 unit(s)	14,60
100	13	with handle	**1C83.1**	1 unit(s)	20,60
150	19	with handle	**1C84.1**	1 unit(s)	31,05
300	20	with handle	**1C85.1**	1 unit(s)	53,60

A 121 °C

Funnels Micro

Bel-Art Products. Material: PP. Autoclavable: Yes.

For filling burettes and vessels with small opening.

Vol. (ml)	Ø Upper (mm)	Ø Outlet (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
2.6	24	5,4	16	**YA66.1**	12 unit(s)	58,60
5.2	28	6	19	**YA67.1**	12 unit(s)	49,45
8.1	35	8	23	**YA68.1**	12 unit(s)	44,10
15.7	43	8	26	**YA69.1**	12 unit(s)	94,55

A 121 °C

Funnels ROTILABO® Mini

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Seamless, matt polished. Suitable for foodstuffs.

Ø Upper (mm)	Ø Outlet (mm)	Height (mm)	Art. No.	Pack Qty.	€
27	4	50	**YY23.1**	10 unit(s)	27,65
27	6	50	**YY24.1**	10 unit(s)	27,65
28	7	50	**YY25.1**	10 unit(s)	27,65
29	8	50	**YY26.1**	10 unit(s)	27,65
31	10	50	**YY27.1**	10 unit(s)	27,65
32	11	50	**YY28.1**	10 unit(s)	27,65
33	12	50	**YY29.1**	10 unit(s)	27,65
34	13	50	**YY30.1**	10 unit(s)	27,65
35	14	50	**YY31.1**	10 unit(s)	27,65

Funnels

121 °C

Funnels with core

Lenz. Material: DURAN® glass. Autoclavable: Yes.
Filler funnel with 60° angle.

Standard ground glass joint core	Ø Outer upper (mm)	Art. No.	Pack Qty.	€
14/23	45	**KX83.1**	1 unit(s)	21,40
19/26	55	**EHL5.1**	1 unit(s)	24,75
24/29	70	**EHL6.1**	1 unit(s)	38,60
29/32	80	**KY11.1**	1 unit(s)	35,30

121 °C

Powder funnel

Bohemia. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With short stem.

Ø Outer upper (mm)	Ø Outer outlet (mm)	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
50	20	50	20	**X669.1**	10 unit(s)	90,20
60	20	60	20	**X670.1**	10 unit(s)	91,25
80	25	75	25	**X672.1**	10 unit(s)	98,15
100	25	95	25	**X673.1**	10 unit(s)	123,80
120	30	110	25	**X674.1**	10 unit(s)	133,55
160	35	137	30	**NX16.1**	1 unit(s)	24,20
200	38	180	30	**NX17.1**	1 unit(s)	26,55

Funnels ROTILABO® with standard taper joint

ROTH SELECTION. Material: PP.
For clean filling of flasks and equipment. Suitable for foodstuffs.

Standard ground glass joint	Ø Upper (mm)	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
14/23	40	75	17	**2060.1**	1 unit(s)	4,25
19/26	50	95	23	**2073.1**	1 unit(s)	5,55
29/32	75	135	30	**2075.1**	1 unit(s)	6,95

Funnel range ROTILABO® with standard ground joint

ROTH SELECTION. Material: PP.
Includes 3 funnels (Art. No. 2060.1, 2073.1 and 2075.1).

Version	Art. No.	Pack Qty.	€
ROTILABO® ground joint funnel range	**2080.1**	1 set	15,55

121 °C

Powder funnel

Kartell. Material: PP. Autoclavable: Yes.
With a ribbed exterior to avoid pressure build-up. 60° inclination angle.

Vol. (ml)	Ø Outer upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
45	60	15	18	**TT41.1**	1 unit(s)	2,60
94	80	15	22	**TT42.1**	1 unit(s)	4,25
200	100	25	25	**TT43.1**	1 unit(s)	4,90
360	120	30	27	**TT44.1**	1 unit(s)	5,40
730	150	36	40	**TT45.1**	1 unit(s)	6,30
1,290	180	43	49	**TT46.1**	1 unit(s)	7,70

Powder funnel ROTILABO®

ROTH SELECTION. Material: PP or HDPE, transparent.

With smooth surface. Autoclavable, except for Art. No. 2057.1.
Art. No. 2057.1 incl. sieve Ø 105 mm.

Ø Inner upper (mm)	Ø Inner outlet (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
65	16	68	PP	**2041.1**	1 unit(s)	2,35
80	22	75	PP	**2046.1**	1 unit(s)	3,20
100	23	94	PP	**2047.1**	1 unit(s)	3,45
120	27	110	PP	**2049.1**	1 unit(s)	3,85
150	29	138	PP	**2051.1**	1 unit(s)	5,30
253	50	190	HDPE	**2057.1**	1 unit(s)	12,15

Powder funnel range ROTILABO®

ROTH SELECTION.

Includes 6 funnels (Art. No. 2041.1, 2046.1, 2047.1, 2049.1, 2051.1 and 2057.1).

Version	Art. No.	Pack Qty.	€
ROTILABO® powder funnel range	**2020.1**	1 set	27,40

Drum funnels ROTILABO®

ROTH SELECTION.

Made of PP or HDPE, transparent. Art. No. HY26.1 and HY27.1 with side handle.

Ø Upper (mm)	Ø Outlet (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
200	22	200	PP	**HY26.1**	1 unit(s)	8,75
250	30	260	PP	**HY27.1**	1 unit(s)	13,85
350	35	440	PP	**HY28.1**	1 unit(s)	28,80
400	42	365	HDPE	**HY29.1**	1 unit(s)	67,40

Accessories sieve insert for ROTILABO® drum funnel

ROTH SELECTION. Material: Stainless steel, Aluminium.

Suitable for Art. No. HY26.1 and HY27.1.

Ø (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
50	0.45	**HY30.1**	1 unit(s)	5,45

A 121 °C

Analytical funnels ROTILABO® Urbanti

ROTH SELECTION. Material: PMP. Autoclavable: Yes.

With spiral rib on the inside of the funnel to accelerate filtration speed. With ventilation ribs. Temperature stable up to 170 °C.

Ø Inner upper (mm)	Ø Inner outlet (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
51	3	150	**EA42.1**	1 unit(s)	8,10
70	3	150	**EA43.1**	1 unit(s)	9,95
100	7	108	**EA44.1**	1 unit(s)	11,85
140	10	132	**EA45.1**	1 unit(s)	39,25
196	20	160	**EA46.1**	1 unit(s)	52,70

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Funnels

Analytical funnels ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Acc. to ISO 4798. Stem Ø 8 mm. Length 150 mm. For quick filtration.

A 121 °C

Ø Inner upper (mm)	Ø Outlet (mm)	Height (mm)	Suitable for	Art. No.	Pack Qty.	€
55	8	150	paper filter-Ø 70-90 mm	**NT85.1**	1 unit(s)	14,70
75	8	150	paper filter-Ø 110-125 mm	**NT86.1**	1 unit(s)	15,40
100	8	150	paper filter-Ø 150-185 mm	**NT87.1**	1 unit(s)	17,20

Analytical funnels

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes. Ribbed.

A 121 °C

DURAN WHEATON KIMBLE

Ø Outer upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
70	8	70	paper filter-Ø 110-125 mm	**K243.1**	1 unit(s)	22,15
80	10	80	paper filter-Ø 125-150 mm	**K244.1**	1 unit(s)	23,65
100	10	100	paper filter-Ø 150-185 mm	**K245.1**	1 unit(s)	28,35
150	16	150	paper filter-Ø 240-270 mm	**K246.1**	1 unit(s)	37,65
200	26	175	paper filter-Ø 320-385 mm	**K247.1**	1 unit(s)	61,40

Analytical funnels ROTILABO®

ROTH SELECTION. Material: PP, transparent. Autoclavable: Yes.

A 121 °C

Ø Outer upper (mm)	Ø Outlet (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
60	8	150	paper filter-Ø 70-90 mm	**9518.1**	1 unit(s)	10,95
80	8	150	paper filter-Ø 110-125 mm	**9519.1**	1 unit(s)	11,70
100	8	150	paper filter-Ø 150-185 mm	**9520.1**	1 unit(s)	12,50

Funnel holder

Bürkle. Material: PP, Steel chrome-plated.

For funnel Ø of 40 to 180 mm (for smaller funnels, the supplied reducing inserts can be used) or for sediment funnels from Ø 90 mm. Infinitely adjustable thanks to magnet concept. Height is adjustable up to 450 mm. With 2 or 4 spaces on the base.

Version	Art. No.	Pack Qty.	€
for 2 funnels	**HCC8.1**	1 unit(s)	81,65
for 4 funnels	**HCC9.1**	1 unit(s)	112,55
for 2 sedimentation cones	**HCE0.1**	1 unit(s)	88,35

Accessories

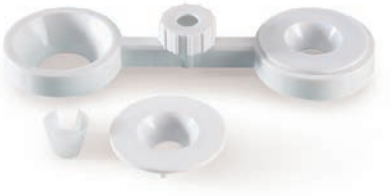
Bürkle.

Type	Art. No.	Pack Qty.	€
Holder (2 holding rings) for 1 sedimentation cone	**HCE2.1**	1 unit(s)	18,10
Funnel holder with reduction insert	**HCE1.1**	1 unit(s)	14,60

Funnel holder ROTILABO®

ROTH SELECTION. Material: PP.

With stand clamp for mounting on stands of Ø 8 to 14 mm. Suitable for funnel Ø of 50 to 120 mm and hose outer Ø of max. 39 mm.
With replaceable inner ring for varying funnel sizes.



Version	Art. No.	Pack Qty.	€
for 1 funnel	**9768.1**	1 unit(s)	18,75
for 2 funnels	**9769.1**	1 unit(s)	25,95

Fritted filter funnels

Filter 126 according to Hirsch

Haldenwanger. Material: Porcelain glazed.

Ø Filter plate (mm)	Suitable for	Ø Upper (mm)	Ø Outlet (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	filter Ø: 8 mm	30	5,5 - 7	45	**TL75.1**	1 unit(s)	34,30
11	filter Ø: 10 mm	40	6 - 9	56	**TL76.1**	1 unit(s)	37,45
13	filter Ø: 12 mm	45	7 - 12	61	**TL77.1**	1 unit(s)	37,55
15	filter Ø: 13 mm	52	8 - 11,5	74	**TL78.1**	1 unit(s)	43,35
27	filter Ø: 25 mm	72	11 - 16	102	**TL79.1**	1 unit(s)	47,10

Büchner funnel ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Robust, non-breakable. Upper and lower part can be separated for cleaning.

A 121 °C

Vol. (ml)	Suitable for	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
70	filter Ø: 55 mm	5.1	**HT33.1**	1 unit(s)	11,60
180	filter Ø: 70 mm	6.8	**HT34.1**	1 unit(s)	12,30
285	filter Ø: 80 mm	8.1	**HT35.1**	1 unit(s)	14,30
390	filter Ø: 90 mm	9.1	**HT36.1**	1 unit(s)	19,05
810	filter Ø: 110 mm	22	**HT37.1**	1 unit(s)	23,45
2,100	filter Ø: 150 mm	16	**HT38.1**	1 unit(s)	42,30

Slit-sieve filters

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

For round paper filters and membrane filters.

A 121 °C DURAN WHEATON KIMBLE

Slit-sieve filters (Büchner funnel)

Vol. (ml)	Ø Filter plate (mm)	Suitable for	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
70	48	filter Ø: 45 mm	10	**Y880.1**	1 unit(s)	72,95
125	60	filter Ø: 55 mm	10	**Y881.1**	1 unit(s)	86,05
220	73	filter Ø: 70 mm	18	**Y882.1**	1 unit(s)	112,90
500	95	filter Ø: 90 mm	22	**Y883.1**	1 unit(s)	129,15
1,000	120	filter Ø: 110 mm	22	**Y884.1**	1 unit(s)	182,00

Fritted filter funnels

Büchner funnel ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed.

Excellent resistance to acids and bases. Max. Temperature stability up to +1,000 °C.

Vol. (ml)	Ø Filter plate (mm)	Suitable for	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
35	48	filter Ø: 45 mm	24	43	**XX44.1**	1 unit(s)	16,60
70	62	filter Ø: 55 mm	30	64	**XX45.1**	1 unit(s)	19,35
120	77	filter Ø: 70 mm	35	64	**XX46.1**	1 unit(s)	23,10
240	97	filter Ø: 90 mm	40	71	**XX47.1**	1 unit(s)	32,05
400	116	filter Ø: 110 mm	49	83	**XX48.1**	1 unit(s)	39,95
600	130	filter Ø: 125 mm	52	85	**XX49.1**	1 unit(s)	50,40
1,000	156	filter Ø: 150 mm	59	96	**XX50.1**	1 unit(s)	67,00
2,000	192	filter Ø: 185 mm	74	117	**XX51.1**	1 unit(s)	89,80
4,000	248	filter Ø: 240 mm	90	117	**XX52.1**	1 unit(s)	207,50
7,000	296	filter Ø: 290 mm	105	130	**XX53.1**	1 unit(s)	495,60
10,000	334	filter Ø: 320 mm	120	133	**XX54.1**	1 unit(s)	619,20

Büchner funnel 127 C

Haldenwanger. Material: Porcelain (Laboratory porcelain according to DIN 60672-3, type C 110).

With fixed sieve plate. Highly resistant to chemical and physical effects.

Version	Vol. (ml)	Ø Filter plate (mm)	Suitable for	Ø Outlet (mm)	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
000	9	19	filter Ø: 15 mm	9 - 8	47	22	**1578.1**	1 unit(s)	37,90
00	10	29	filter Ø: 25 mm	10,5 - 8,5	64	30	**1579.1**	1 unit(s)	39,10
0	25	42	filter Ø: 40 mm	12,5 - 10	76	50	**4168.1**	1 unit(s)	41,20
0 a	50	48	filter Ø: 45 mm	16 - 14	95	35	**1580.1**	1 unit(s)	42,40
1	75	59	filter Ø: 55 mm	19 - 16,5	110	50	**1581.1**	1 unit(s)	49,35
2	135	74	filter Ø: 70 mm	21 - 15,5	140	65	**1582.1**	1 unit(s)	63,35
2 a	290	94	filter Ø: 90 mm	24 - 19	165	70	**4177.1**	1 unit(s)	80,00
3	580	114	filter Ø: 110 mm	31 - 23	195	75	**1583.1**	1 unit(s)	99,80
4	795	129	filter Ø: 125 mm	31 - 25,5	215	100	**4178.1**	1 unit(s)	131,15
4 a	1,200	155	filter Ø: 150 mm	35 - 25	235	105	**1584.1**	1 unit(s)	177,40
5	1,900	190	filter Ø: 185 mm	35 - 25	280	105	**XX19.1**	1 unit(s)	284,90
6	4,300	248	filter Ø: 240 mm	40 - 26	300	120	**XX20.1**	1 unit(s)	462,25
6 a	5,800	279	filter Ø: 270 mm	48 - 30	330	125	**XX21.1**	1 unit(s)	837,45
8	10,600	330	filter Ø: 320 mm	55 - 36	350	150	**XX22.1**	1 unit(s)	1.112,65

Fritted filter funnels

Fritted filter funnel

Material: Borosilicate glass 3.3. Autoclavable: Yes.

A 121 °C

50 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
50	1 (100 – 160 µm)	35	10	**Y772.1**	1 unit(s)	34,10
50	2 (40 – 100 µm)	35	10	**Y773.1**	1 unit(s)	34,10
50	3 (16 – 40 µm)	35	10	**Y774.1**	1 unit(s)	34,10
50	4 (10 – 16 µm)	35	10	**Y775.1**	1 unit(s)	35,80
50	5 (1,0 – 1,6 µm)	35	10	**Y871.1**	1 unit(s)	60,40

75 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
75	1 (100 – 160 µm)	45	10	**Y777.1**	1 unit(s)	36,90
75	2 (40 – 100 µm)	45	10	**Y778.1**	1 unit(s)	37,80
75	3 (16 – 40 µm)	45	10	**Y779.1**	1 unit(s)	39,70
75	4 (10 – 16 µm)	45	10	**Y780.1**	1 unit(s)	42,50
75	5 (1,0 – 1,6 µm)	45	10	**Y872.1**	1 unit(s)	66,55

125 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
125	1 (100 – 160 µm)	60	10	**Y782.1**	1 unit(s)	52,15
125	2 (40 – 100 µm)	60	10	**Y783.1**	1 unit(s)	53,45
125	3 (16 – 40 µm)	60	10	**Y784.1**	1 unit(s)	55,10
125	4 (10 – 16 µm)	60	10	**Y785.1**	1 unit(s)	57,70
125	5 (1,0 – 1,6 µm)	60	10	**Y873.1**	1 unit(s)	99,40

500 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
500	1 (100 – 160 µm)	95	22	**Y787.1**	1 unit(s)	107,00
500	2 (40 – 100 µm)	95	22	**Y788.1**	1 unit(s)	110,20
500	3 (16 – 40 µm)	95	22	**Y789.1**	1 unit(s)	107,00
500	4 (10 – 16 µm)	95	22	**Y790.1**	1 unit(s)	128,50
500	5 (1,0 – 1,6 µm)	95	22	**Y874.1**	1 unit(s)	208,00

1000 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
1,000	1 (100 – 160 µm)	120	22	**Y792.1**	1 unit(s)	155,90
1,000	2 (40 – 100 µm)	120	22	**Y793.1**	1 unit(s)	161,25
1,000	3 (16 – 40 µm)	120	22	**Y794.1**	1 unit(s)	163,40
1,000	4 (10 – 16 µm)	120	22	**Y795.1**	1 unit(s)	166,65
1,000	5 (1,0 – 1,6 µm)	120	22	**Y875.1**	1 unit(s)	358,00

4000 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
4,000	1 (100 – 160 µm)	175	30	**Y876.1**	1 unit(s)	441,00
4,000	2 (40 – 100 µm)	175	30	**Y877.1**	1 unit(s)	441,00
4,000	3 (16 – 40 µm)	175	30	**Y878.1**	1 unit(s)	441,00
4,000	4 (10 – 16 µm)	175	30	**Y879.1**	1 unit(s)	509,00

Glass filter crucible

A 121 °C DURAN WHEATON KIMBLE

Filter crucible

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Made by DURAN®. Temperature stable up to max. 450 °C.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Art. No.	Pack Qty.	€
8	2 (40 – 100 µm)	20	**E549.1**	1 unit(s)	14,10
8	3 (16 – 40 µm)	20	**E550.1**	1 unit(s)	14,30
8	4 (10 – 16 µm)	20	**E551.1**	1 unit(s)	16,30
15	1 (100 – 160 µm)	23	**E552.1**	1 unit(s)	13,95
15	2 (40 – 100 µm)	23	**E553.1**	1 unit(s)	13,95
15	3 (16 – 40 µm)	23	**E554.1**	1 unit(s)	13,95
15	4 (10 – 16 µm)	23	**E555.1**	1 unit(s)	16,85
30	1 (100 – 160 µm)	30	**E556.1**	1 unit(s)	14,70
30	2 (40 – 100 µm)	30	**E557.1**	1 unit(s)	14,70
30	3 (16 – 40 µm)	30	**E558.1**	1 unit(s)	14,70
30	4 (10 – 16 µm)	30	**E559.1**	1 unit(s)	16,50
30	5 (1,0 – 1,6 µm)	30	**E560.1**	1 unit(s)	31,45
50	1 (100 – 160 µm)	40	**E561.1**	1 unit(s)	21,25
50	2 (40 – 100 µm)	40	**E562.1**	1 unit(s)	21,25
50	3 (16 – 40 µm)	40	**E563.1**	1 unit(s)	21,25
50	4 (10 – 16 µm)	40	**E564.1**	1 unit(s)	24,40
50	5 (1,0 – 1,6 µm)	40	**E565.1**	1 unit(s)	49,40

A 121 °C DURAN WHEATON KIMBLE

Accessories rubber sleeves for filter crucibles

DWK Life Sciences. Material: EPDM. Autoclavable: Yes.
For vacuum-tight connection of crucibles and adapters.
Temperature stable between -45 and +150 °C.

Suitable for	Ø ext. (mm)	Art. No.	Pack Qty.	€
filter crucible 8 ml	26	**E566.1**	10 unit(s)	21,15
filter crucible 15 ml	33	**E567.1**	10 unit(s)	21,75
filter crucible 30 ml	41	**E568.1**	10 unit(s)	22,50
filter crucible 15 ml	49	**E569.1**	10 unit(s)	24,15

A 121 °C DURAN WHEATON KIMBLE

Crucible adapter

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
For holding filter crucibles.

Suitable for	Ø Inner upper (mm)	Ø Outer outlet (mm)	Height (mm)	Art. No.	Pack Qty.	€
filter crucible 8 ml	27	10	108	**E570.1**	1 unit(s)	21,05
filter crucible 15 ml	34	10	110	**E571.1**	1 unit(s)	21,40
filter crucible 30 ml	41	10	125	**E572.1**	1 unit(s)	22,20
filter crucible 15 ml	50	10	132	**E573.1**	1 unit(s)	23,10

A 121 °C

Filter tube acc. to Alihn

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.
Volume: 30 ml. Filter plate Ø: 20 mm. Tube outside Ø: 9 mm.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
30	1 (100 – 160 µm)	20	9	**LE72.1**	1 unit(s)	31,75
30	2 (40 – 100 µm)	20	9	**LE73.1**	1 unit(s)	31,75
30	3 (16 – 40 µm)	20	9	**LE74.1**	1 unit(s)	31,75
30	4 (10 – 16 µm)	20	9	**LE75.1**	1 unit(s)	33,55

Glass filter crucible

121 °C

Filter funnels Micro

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Volume: 2 ml. Filter plate Ø: 10 mm. Tube outside Ø: 6 mm.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
2	0 (160 – 250 µm)	10	6	**LE65.1**	1 unit(s)	29,00
2	1 (100 – 160 µm)	10	6	**LE66.1**	1 unit(s)	29,00
2	2 (40 – 100 µm)	10	6	**LE67.1**	1 unit(s)	29,00
2	3 (16 – 40 µm)	10	6	**LE68.1**	1 unit(s)	31,10
2	4 (10 – 16 µm)	10	6	**LE69.1**	1 unit(s)	33,30

121 °C

Filter funnel shaped

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Volume: 25 ml. Filter plate Ø: 25 mm. Tube outside Ø: 55 mm. Height 100 mm.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	3 (16 – 40 µm)	25	55	100	**LE70.1**	1 unit(s)	33,30
25	4 (10 – 16 µm)	25	55	100	**LE71.1**	1 unit(s)	36,05

121 °C

Vacuum filter adapters

Bohlender. Material: PTFE, FKM sealing ring. Autoclavable: Yes.

Enables filtration with common filters directly into vessels with ground joint sleeves or laboratory flasks with GL 45 thread. For funnels with spout Ø up to 22 mm. Side staggered connectors made from PTFE for connecting to a vacuum pump using a hose with an inside Ø of 9 or 12 mm. Temperature stable from -15 to +200 °C.

For vessels with ground joint sleeves

Suitable for	Art. No.	Pack Qty.	€
Ground NS 29/32	**HKK8.1**	1 unit(s)	69,05
Ground NS 45/40	**HKK9.1**	1 unit(s)	134,95

For vessels with thread

Suitable for	Art. No.	Pack Qty.	€
Thread GL 45	**HKL0.1**	1 unit(s)	109,45

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Filtering flasks, seals

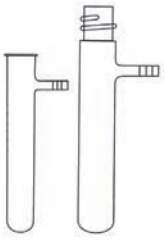
A 121 °C

Suction bottle

Nalgene. Material: PP. Autoclavable: Yes.

Moulded from a single piece. Downwards-facing hose connection reduces tilting hazard.

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
500	108	29.0	187	6,4–9,5	**ATL0.1**	1 unit(s)	30,60
1,000	140	32.5	215	6,4–9,5	**ATL1.1**	1 unit(s)	48,15
1,700	162	44.0	272	9,5	**ATL2.1**	1 unit(s)	67,15



Suction tube

Winzer. Material: Borosilicate glass 3.3.

With glass olive.

With beaded rim

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	16	160	**AAP7.1**	1 unit(s)	26,05
30	18	180	**AAP8.1**	1 unit(s)	26,30

With thread GL 14

Delivery incl. screw cap with borehole and silicone seal (Ø inside 6 mm).

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	12	160	**AAP9.1**	1 unit(s)	31,30

A 121 °C

Suction bottle ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With glass olive Ø 10 mm.

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	70	24	105	**NY65.1**	1 unit(s)	30,40
250	85	35	145	**NY66.1**	1 unit(s)	36,35
500	105	35	175	**NY67.1**	1 unit(s)	40,70
1,000	135	45	230	**NY68.1**	1 unit(s)	58,65
2,000	165	60	255	**NY69.1**	1 unit(s)	65,55

A 121 °C DURAN WHEATON KIMBLE

Suction bottle with safety coating

DWK Life Sciences. Material: Borosilicate glass with PVC coating. Autoclavable: Yes.

With glass olive for hoses with inside Ø 6 mm.

Vol. (ml)	Ø Outer flask (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	136	37	225	**EXX9.1**	1 unit(s)	167,70

Filtering flasks, seals

Suction bottle

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Vacuum-resistant. Acc. to DIN 12 476, ISO 6556.
With KECK™ assembly set.

A 121 °C

DURAN WHEATON KIMBLE

Erlenmeyer shape

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	64	24	105	**E575.1**	1 unit(s)	20,10
250	85	34	155	**E576.1**	1 unit(s)	25,95
500	105	34	185	**E577.1**	1 unit(s)	32,05
1,000	135	45	230	**E578.1**	1 unit(s)	48,80
2,000	166	60	255	**E579.1**	1 unit(s)	100,15

Bottle shape

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
3,000	170	58	295	**E580.1**	1 unit(s)	124,35
5,000	185	68	360	**E581.1**	1 unit(s)	173,00
10,000	240	70	420	**E582.1**	1 unit(s)	275,00
15,000	255	70	500	**E583.1**	1 unit(s)	356,00
20,000	290	70	535	**E584.1**	1 unit(s)	446,00

Filtration apparatus acc. to Witt

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Complete with tubus lid and assembly set KECK™.

A 121 °C

DURAN WHEATON KIMBLE

Version	Ø Nominal (mm)	Standard ground glass joint sleeve	Height (mm)	Art. No.	Pack Qty.	€
DN 100	100	29/32	236	**PL01.1**	1 unit(s)	246,00
DN 100	100	45/40	244	**PL04.1**	1 unit(s)	259,00
DN 150	150	29/32	302	**PL02.1**	1 unit(s)	296,00
DN 150	150	45/40	312	**PL05.1**	1 unit(s)	329,00
DN 200	200	29/32	426	**PL03.1**	1 unit(s)	397,00

Filtering flasks, seals

Guko sleeves ROTILABO®

ROTH SELECTION. Material: Natural rubber.

For vacuum-tight connection of suction bottle and filter funnel.
Successive sizes can be stacked inside each other.

Ø Outer upper (mm)	Ø Outer lower (mm)	Ø Inner lower (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
21	12	7	18	2,5	**9755.1**	1 unit(s)	2,70
27	17	11	20	3	**9756.1**	1 unit(s)	3,10
33	21	15	24	3	**9757.1**	1 unit(s)	3,95
41	27.5	20	27	4	**9758.1**	1 unit(s)	4,65
53	33	23	34	5	**9759.1**	1 unit(s)	4,90
68	48	37	35	5,5	**9760.1**	1 unit(s)	5,45
78	58	46	35	6	**9761.1**	1 unit(s)	6,85
89	66	53	40	6,5	**9762.1**	1 unit(s)	8,25

Guko sleeve set

DWK Life Sciences. Material: EPDM. Autoclavable: Yes.

Conical rubber seals for suction bottle.
Set consisting of 8 Gukos (sizes 22, 29, 36, 44, 53, 63, 73 and 84 mm).
Temperature-stable between -45 and +150 °C.

A 121 °C

DURAN WHEATON KIMBLE

Version	Art. No.	Pack Qty.	€
GUKO set	**PK84.1**	1 set	40,65

Gas wash bottle

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.

According to DIN 12463. Height bottle 200 mm.

A 121 °C

Delivery incl. DURAN® attachment with two connectors (outside Ø approx. 11 mm).

Version	Vol. (ml)	Ø ext. (mm)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
With filter plate, porosity 1 (100 – 160 µm)	100	40	29/32	200	**KX64.1**	1 unit(s)	61,10
Without filter plate	100	40	29/32	200	**KX61.1**	1 unit(s)	41,95
With filter plate, porosity 1 (100 – 160 µm)	250	55	29/32	200	**KX65.1**	1 unit(s)	64,00
Without filter plate	250	55	29/32	200	**KX62.1**	1 unit(s)	44,65
With filter plate, porosity 1 (100 – 160 µm)	500	75	29/32	200	**KX66.1**	1 unit(s)	70,35
Without filter plate	500	75	29/32	200	**KX63.1**	1 unit(s)	52,90

Gas wash and Woulff's bottles

A 121 °C

Gas wash bottle

Lenz. Material: DURAN® glass. Autoclavable: Yes.

Delivery incl. drechsel insert and two hose connectors for tubes with 8 mm inside Ø.

Version	Vol. (ml)	Art. No.	Pack Qty.	€
With filter plate, porosity 1 (100–160 µm)	500	**C216.1**	1 unit(s)	74,75
without filter plate	500	**C215.1**	1 unit(s)	56,15

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

A 121 °C

Woulff bottle GL 45

ROTH SELECTION. Material: DURAN® glass. Autoclavable: Yes.

Delivery incl. DURAN® pressure plus screw top bottle, Drechsel attachment without filter plate, two hose connectors for hoses with an inner Ø of 8 mm, GL 45 screw cap and silicone seal.

Vol. (ml)	Art. No.	Pack Qty.	€
1,000	**KLY0.1**	1 unit(s)	68,55

A 121 °C DURAN WHEATON KIMBLE

Woulff bottle

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
With three NS necks. Vacuum tight. Acc. to DIN 12480.

Vol. (ml)	Ø ext. (mm)	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
500	87	19/26	**AK00.1**	1 unit(s)	97,35
1,000	113	24/29	**AK01.1**	1 unit(s)	104,40
2,000	135	29/32	**AAC2.1**	1 unit(s)	157,00
5,000	185	34/35	**AAC3.1**	1 unit(s)	237,00

Gas wash and Woulff's bottles

Gas wash bottle made from fluoroplastics

Bohlender. Material: PFA, PTFE attachment.

Attachment with two screw connections for hoses with outside Ø 6 or 8 mm. Pure, chemically inert. Hydrophobic, anti-adhesive surfaces. Temperature stable from -200 to +250 °C.

❄❄❄

Delivery incl. replaceable frit made of porous PTFE (Art. No. NY24.1), pore size approx. 3 µm, M8 threaded connection.

Vol. (ml)	Ø ext. (mm)	Height (mm)	For hoses with outer Ø (mm)	Art. No.	Pack Qty.	€
250	60	175	6	**NY26.1**	1 unit(s)	351,55
500	75	200	6	**NY27.1**	1 unit(s)	464,40
1,000	95	240	8	**NY28.1**	1 unit(s)	523,55

Gas inlet tube made from fluoroplastics

Bohlender. Material: PTFE. Autoclavable: Yes.

Highly pure, chemically inert. Hydrophobic, anti-adhesive surface. Inside Ø 5 mm. With hose connector Ø 9 mm and M8 thread for connecting a gas frit or gas distributor. Temperature stable from -200 to +250 °C, autoclavable.

A 121 °C ❄❄❄

Delivery without gas frit or PTFE gas distributor, please order separately.

Height (mm)	Art. No.	Pack Qty.	€
200	**NY21.1**	1 unit(s)	21,00
400	**NY22.1**	1 unit(s)	22,40
600	**NY23.1**	1 unit(s)	25,60

Accessories

Bohlender.

Suitable for gas inlet pipes and gas washing bottles made of fluoroplastic.

(1) Gas Frit

Material: PTFE porous. Pore size approx. 3 µm, M8 threaded connection.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	26	**NY24.1**	1 unit(s)	36,40

(2) Gas distributor

Material: PTFE. With ports (4 x Ø 0.4 mm) for even dispersion of the flowing gas. M8 threaded connection.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	24	**NY25.1**	1 unit(s)	63,70

Gas wash and Woulff's bottles

Filter tube

DWK Life Sciences. Material: DURAN® glass.

For treatment of liquids for intake or for protecting downstream pumps and other apparatus against ingress of solid particles.

(1) Microfilter cartridges

Filter cartridges Ø 13 x H 25 mm, tube Ø 8 mm.

Porosity	Height (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	200	**AAC7.1**	10 unit(s)	349,00
2 (40 – 100 µm)	200	**AAC8.1**	10 unit(s)	349,00
3 (16 – 40 µm)	200	**AAC9.1**	10 unit(s)	349,00
4 (10 – 16 µm)	200	**AAE0.1**	10 unit(s)	390,00

(2) Immersion filter micro

Tube Ø 6 mm.

Porosity	Ø Filter plate (mm)	Height (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	10	100	**AAE1.1**	10 unit(s)	258,00
2 (40 – 100 µm)	10	100	**AAE2.1**	10 unit(s)	258,00
3 (16 – 40 µm)	10	100	**AAE3.1**	10 unit(s)	258,00
4 (10 – 16 µm)	10	100	**AAE4.1**	10 unit(s)	271,00

(2) Immersion filter standard

Tube Ø 10 mm.

Porosity	Ø Filter plate (mm)	Height (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	35	210	**AAE5.1**	1 unit(s)	51,50
2 (40 – 100 µm)	35	210	**AAE6.1**	1 unit(s)	51,50
3 (16 – 40 µm)	35	210	**AAE7.1**	1 unit(s)	51,50
4 (10 – 16 µm)	35	210	**AAE8.1**	1 unit(s)	53,80

Gas dispersion tube

DWK Life Sciences. Material: DURAN® glass.

For fine dispersion of gases in liquids, e.g. during reactions.

Glass tube fused on at the centre

Porosity	Ø ext. (mm)	Ø Filter plate (mm)	Height (mm)	Art. No.	Pack Qty.	€
0 (160 – 250 µm)	9	25	250	**AAH2.1**	5 unit(s)	197,00
1 (100 – 160 µm)	9	25	250	**AAH3.1**	5 unit(s)	197,00
1 (100 – 160 µm)	11	34	250	**AAH5.1**	5 unit(s)	241,00
2 (40 – 100 µm)	9	25	250	**AAH4.1**	5 unit(s)	197,00

Glass tube fused onto the side

Porosity	Ø ext. (mm)	Ø Filter plate (mm)	Height (mm)	Art. No.	Pack Qty.	€
0 (160 – 250 µm)	6	22	250	**AAE9.1**	5 unit(s)	173,00
1 (100 – 160 µm)	6	22	250	**AAH0.1**	5 unit(s)	173,00
2 (40 – 100 µm)	6	22	250	**AAH1.1**	5 unit(s)	173,00

A 121 °C

Sample tray ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, high-gloss. Autoclavable: Yes.

Suitable for foodstuffs.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (ml)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	120	35	**YH20.1**	1 unit(s)	13,85
400	130	40	**YH21.1**	1 unit(s)	12,40
650	150	45	**YH22.1**	1 unit(s)	14,10
850	170	45	**YH23.1**	1 unit(s)	17,65
1,250	190	50	**YH24.1**	1 unit(s)	20,00
1,400	190	55	**YH25.1**	1 unit(s)	22,45
1,600	210	55	**YH26.1**	1 unit(s)	25,40
2,000	225	55	**YH27.1**	1 unit(s)	29,00

A 121 °C

Accessories lid for ROTILABO® sample trays

ROTH SELECTION. Material: Stainless steel 18/10, high-gloss. Autoclavable: Yes.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Sample tray Order No. YH20.1	**YL03.1**	1 unit(s)	9,45
Sample tray Order No. YH21.1	**YL04.1**	1 unit(s)	10,60
Sample tray Order No. YH22.1	**YL05.1**	1 unit(s)	11,80
Sample tray Order No. YH23.1	**YL06.1**	1 unit(s)	13,95
Sample tray Order No. YH24.1	**YL07.1**	1 unit(s)	15,25
Sample tray Order No. YH25.1	**YL08.1**	1 unit(s)	16,45
Sample tray Order No. YH26.1	**YL09.1**	1 unit(s)	18,80
Sample tray Order No. YH27.1	**YL10.1**	1 unit(s)	21,25

A 121 °C

Tablet pans

Contacto Bander. Material: Stainless steel 18/10, high-gloss. Autoclavable: Yes.

Suitable for foodstuffs.

Not a medical device / Not an IVD product

Flat shape

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
120	20	**YX74.1**	1 unit(s)	10,05
140	25	**YX75.1**	1 unit(s)	13,75

Tall

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	20	**YX76.1**	1 unit(s)	4,90
100	30	**YX77.1**	1 unit(s)	8,20

Sample tray ROTILABO® with lid

ROTH SELECTION. Material: Aluminium.

Pressed from one piece. Non-permeable. The cardboard lids that are aluminium-coated on one side are held in place by bending the tray edge. The white top side can be marked or labelled.

Not a medical device / Not an IVD product

Vol. (ml)	Upper length (mm)	Upper width (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	120	95	35	**0522.1**	100 unit(s)	58,95
500	140	115	40	**0906.1**	100 unit(s)	69,10

Sampling bowls

Sample tray ROTILABO®

ROTH SELECTION. Material: Aluminium.

Free of oil residues and coatings. Highly versatile as weighing or drying dishes, as dispensing or storage containers or for covering vessels. Stackable.

Not a medical device / Not an IVD product

Vol. (ml)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	44	12	**PP65.1**	100 unit(s)	19,35
60	63	17	**PP66.1**	100 unit(s)	19,35
75	62	30	**PP67.1**	100 unit(s)	19,35
200	110	35	**PP68.1**	50 unit(s)	21,45
500	181	25	**PP69.1**	50 unit(s)	23,10

Sample tray ROTILABO®

ROTH SELECTION. Material: Aluminium.

Not a medical device / Not an IVD product

Vol. (ml)	Ø Outer upper (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	64	55	13	**5494.1**	100 unit(s)	19,40
125	96	85	26	**5496.1**	100 unit(s)	30,00

Dappenglas

Hecht. Material: Soda-lime glass.

For mixing small quantities of substances. Usable on both sides, volume approx. 1.5 ml or 3 ml.

Not a medical device / Not an IVD product

Ø (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
31	29	colourless	**CKY4.1**	1 unit(s)	8,25
31	29	green	**CKY5.1**	1 unit(s)	8,25
31	29	pink	**CKY6.1**	1 unit(s)	8,25
31	29	brown	**CKY7.1**	1 unit(s)	8,25

Specimen jars ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3.

Not a medical device / Not an IVD product

(1) With knob

Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
85	95	85	**NT38.1**	1 unit(s)	41,40
100	110	100	**NT39.1**	1 unit(s)	45,20
120	130	120	**NT40.1**	1 unit(s)	52,20
150	162	150	**NT41.1**	1 unit(s)	69,70
200	214	200	**NT42.1**	1 unit(s)	120,05
250	264	250	**NT43.1**	1 unit(s)	172,00
300	314	300	**NT44.1**	1 unit(s)	210,70

(2) With recessed knob

Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	60	65	**NT46.1**	1 unit(s)	63,05
85	79	85	**NT47.1**	1 unit(s)	76,85
100	94	100	**NT48.1**	1 unit(s)	81,65
100	94	500	**NT49.1**	1 unit(s)	140,20
120	103	120	**NT50.1**	1 unit(s)	95,20
120	103	500	**NT51.1**	1 unit(s)	156,15
150	130	150	**NT52.1**	1 unit(s)	127,85
150	130	500	**NT53.1**	1 unit(s)	205,35

A 121 °C

DURAN WHEATON KIMBLE

Glass jar DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

High temperature and chemical resistance.

Delivery incl. lid.

Not a medical device / Not an IVD product

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
75	60	40	**CCL2.1**	1 unit(s)	37,60
175	80	50	**CCL3.1**	1 unit(s)	45,15
325	100	60	**CCL4.1**	1 unit(s)	56,70
1,000	150	80	**CCL5.1**	1 unit(s)	102,15

Sampling bowls

A 121 °C

Cotton and swab containers

Contacto Bander. Material: Stainless steel 18/10. Autoclavable: Yes. Suitable for foodstuffs.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	60	60	**YT80.1**	1 unit(s)	13,75
250	85	50	**YT81.1**	1 unit(s)	14,75
350	100	50	**YT82.1**	1 unit(s)	18,90
400	85	85	**YT83.1**	1 unit(s)	16,70
600	85	125	**YT84.1**	1 unit(s)	26,40
750	100	100	**YT85.1**	1 unit(s)	19,50
1,750	150	100	**YT86.1**	1 unit(s)	32,80
2,500	150	150	**YT87.1**	1 unit(s)	31,80
3,000	200	100	**YT88.1**	1 unit(s)	46,15

A 121 °C

Accessories lids for cotton wool and swab containers

Contacto Bander. Material: Stainless steel 18/10. Autoclavable: Yes.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Container-Ø 60 mm	**YT89.1**	1 unit(s)	7,60
Container-Ø 85 mm	**YT90.1**	1 unit(s)	9,35
Container-Ø 100 mm	**YT91.1**	1 unit(s)	10,20
Container-Ø 150 mm	**YT92.1**	1 unit(s)	16,10
Container-Ø 200 mm	**YT93.1**	1 unit(s)	17,40

A 121 °C

Crystallization dishes ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With spout
Acc. to DIN 12338.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	**AYE1.1**	10 unit(s)	51,35
40	50	30	**AYE2.1**	10 unit(s)	54,00
60	60	35	**AYE3.1**	10 unit(s)	63,40
100	70	40	**AYE4.1**	10 unit(s)	72,75
150	80	45	**AYE5.1**	10 unit(s)	101,50
300	95	55	**AYE6.1**	10 unit(s)	113,65
500	115	65	**AYE7.1**	10 unit(s)	127,75
900	140	75	**AYE8.1**	10 unit(s)	161,25
2,000	190	90	**AYE9.1**	1 unit(s)	26,05
3,500	230	100	**AYH0.1**	1 unit(s)	29,95

Without spout
Acc. to DIN 12337.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	**AYH1.1**	10 unit(s)	40,05
40	50	30	**AYH2.1**	10 unit(s)	40,45
60	60	35	**AYH3.1**	10 unit(s)	46,30
100	70	40	**AYH4.1**	10 unit(s)	58,25
150	80	45	**AYH5.1**	10 unit(s)	93,65
300	95	55	**AYH6.1**	10 unit(s)	99,20
500	115	65	**AYH7.1**	10 unit(s)	108,20
900	140	75	**AYH8.1**	10 unit(s)	145,15
2,000	190	90	**AYH9.1**	1 unit(s)	23,40
3,500	230	100	**AYK0.1**	1 unit(s)	27,95

Crystallising dishes, watch glasses

A 121 °C

DURAN WHEATON KIMBLE

Crystallization dishes DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

With spout

Acc. to DIN 12338.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	**C091.1**	10 unit(s)	70,80
40	50	30	**C092.1**	10 unit(s)	71,25
60	60	35	**C093.1**	10 unit(s)	73,80
100	70	40	**C094.1**	10 unit(s)	81,80
150	80	45	**C095.1**	10 unit(s)	90,60
300	95	55	**C096.1**	10 unit(s)	96,35
500	115	65	**C097.1**	1 unit(s)	14,95
900	140	75	**C098.1**	1 unit(s)	22,00
2,000	190	90	**HX07.1**	1 unit(s)	53,80
3,500	230	100	**HX08.1**	1 unit(s)	77,90

Without spout

Acc. to DIN 12337.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	**HX09.1**	10 unit(s)	70,80
40	50	30	**HX10.1**	10 unit(s)	71,30
60	60	35	**HX11.1**	10 unit(s)	73,80
100	70	40	**HX12.1**	10 unit(s)	81,80
150	80	45	**HX13.1**	10 unit(s)	90,60
300	95	55	**HX14.1**	10 unit(s)	96,35
500	115	65	**HX15.1**	1 unit(s)	14,60
900	140	75	**HX16.1**	1 unit(s)	21,10
2,000	190	90	**HX17.1**	1 unit(s)	53,20
3,500	230	100	**HX18.1**	1 unit(s)	77,35

Watch glasses

Bohemia. Material: Soda-lime glass.
Edges rounded off (C090.2: edges ground).

Ø ext. (mm)	Art. No.	Pack Qty.	€
40	**C079.1**	10 unit(s)	11,70
50	**C080.1**	10 unit(s)	12,65
60	**C081.1**	10 unit(s)	13,80
70	**C082.1**	10 unit(s)	15,70
80	**C083.1**	10 unit(s)	17,05
90	**C084.1**	10 unit(s)	18,40
100	**C085.1**	10 unit(s)	19,70
120	**C086.1**	10 unit(s)	23,60
125	**C087.1**	10 unit(s)	26,10
150	**C088.1**	10 unit(s)	29,00
200	**C089.1**	10 unit(s)	52,80
250	**C090.2**	5 unit(s)	39,60

A 121 °C

DURAN WHEATON KIMBLE

Watch glasses DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Edge fused. Acc. to DIN 12341.

Ø ext. (mm)	Art. No.	Pack Qty.	€
40	**Y634.1**	10 unit(s)	77,75
50	**Y635.1**	10 unit(s)	85,40
60	**Y636.1**	10 unit(s)	92,65
80	**Y637.1**	10 unit(s)	101,35
100	**Y638.1**	10 unit(s)	116,35
125	**Y639.1**	10 unit(s)	125,95
150	**Y640.1**	10 unit(s)	163,00
200	**Y641.1**	10 unit(s)	245,00
250	**Y642.1**	1 unit(s)	43,70

A 121 °C

Watch glasses ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Ø ext. (mm)	Art. No.	Pack Qty.	€
60	**K842.1**	10 unit(s)	14,95
80	**K843.1**	10 unit(s)	18,40
100	**K844.1**	10 unit(s)	22,70
125	**K845.1**	10 unit(s)	26,15

A 121 °C ❄❄❄

Watch glasses ROTILABO®

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Excellent chemical resistance.
Temperature-stable from -200 to +250 °C.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	6	**K837.1**	1 unit(s)	6,20
75	13	**K838.1**	1 unit(s)	7,45
100	20	**K839.1**	1 unit(s)	12,60
125	20	**K840.1**	1 unit(s)	13,45
150	25	**K841.1**	1 unit(s)	21,45

Mortars ROTILABO® with pestle

ROTH SELECTION. Material: Borosilicate glass 3.3.
With spout. Volume data are approximate values.

(1) Rough friction surface

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	80	60	**TX04.1**	1 unit(s)	40,35
200	100	75	**TX05.1**	1 unit(s)	47,15
300	120	90	**TX06.1**	1 unit(s)	59,30
650	150	110	**TX07.1**	1 unit(s)	72,80
800	200	135	**NX15.1**	1 unit(s)	109,40

(2) Smooth friction surface

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	80	60	**NT80.1**	1 unit(s)	35,85
200	100	75	**NT81.1**	1 unit(s)	39,65
300	120	90	**NT82.1**	1 unit(s)	46,50
650	150	110	**NT83.1**	1 unit(s)	61,25
800	200	135	**NT84.1**	1 unit(s)	85,60

A 121 °C ❄❄

Mortars with pestle low form

ROTH SELECTION. Material: Agate. Autoclavable: Yes.

Inside surface polished. Minimum abrasion.
Dimensions are approximate values.

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
5	25	20	**TL93.1**	1 set	46,15
10	40	35	**TL94.1**	1 set	49,35
15	50	42	**HC74.1**	1 set	56,90
20	60	48	**TL95.1**	1 set	65,40
40	75	63	**HC75.1**	1 set	107,30
65	85	70	**TL96.1**	1 set	141,90
80	100	80	**HC76.1**	1 set	223,60
100	110	90	**TL97.1**	1 set	304,25
150	125	115	**HC77.1**	1 set	382,70
180	150	125	**HC78.1**	1 set	794,45
400	200	170	**TL98.1**	1 set	2.514,45

Mortars and graters

121 °C

Mortars with pestle high form

ROTH SELECTION. Material: Agate. Autoclavable: Yes.

Inside surface polished. Minimum abrasion.
Dimensions are approximate values.

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	60	50	36	**TP10.1**	1 set	192,45
40	70	55	42	**TP11.1**	1 set	246,20
65	80	65	53	**TP12.1**	1 set	364,45
100	90	70	56	**TP13.1**	1 set	457,95
125	100	80	61	**TP14.1**	1 set	581,60
250	130	110	72	**TP15.1**	1 set	1.316,90

Mortars with pestle

Usbeck. Material: Stainless steel 18/10, Powder-coated steel.

Mortar and pestle head made of stainless steel 18/10, mortar frame and pestle handle made of powder-coated steel. Smooth friction surfaces. Heavy-duty design, with anti-slip feet.
Note: not autoclavable, not suitable for dishwashers. Do not immerse in water.

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
165	100	90	60	**LL28.1**	1 unit(s)	89,60
330	135	125	80	**LL29.1**	1 unit(s)	110,65
450	160	150	90	**LL30.1**	1 unit(s)	136,40

Mortars ROTILABO®

ROTH SELECTION. Material: Stainless steel, with plastic foot.
Heavy duty. Suitable for foodstuffs.

Delivery incl. pestle, length 175 mm.

Ø Inner upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
110	80	**YX96.1**	1 unit(s)	25,25

Mortars

Vitlab. Material: MF.

With spout. Colour: White. Smooth friction surface prevents accumulation of sample residues and cross-contamination. Microwave safe. Withstands temperatures from -40 to +110 °C.

Delivery without pestle, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
300	125	75	**PY55.1**	1 unit(s)	20,50
500	150	90	**PY56.1**	1 unit(s)	24,10

Accessories pestle for MF mortar

Vitlab. Material: MF.

Heavy-duty design, with smooth head. Colour: White. Temperature-stable between -40 and +110 °C.

Ø Head (mm)	Length (mm)	Weight (g)	Art. No.	Pack Qty.	€
30	125	55	**PY57.1**	1 unit(s)	23,30
35	145	85	**PY58.1**	1 unit(s)	25,35
40	160	120	**PY59.1**	1 unit(s)	27,95
42	215	175	**PY60.1**	1 unit(s)	58,40

Mortars and graters

Mortars 55 rough

Haldenwanger. Material: Porcelain, glazed.

Rough friction surface (non-glazed).

Version	Vol. (ml)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
00	20	50	32	**XL89.1**	1 unit(s)	12,90
0a	70	65	40	**1567.1**	1 unit(s)	19,35
1	75	70	45	**3773.1**	1 unit(s)	20,05
2	100	80	50	**3782.1**	1 unit(s)	26,35
3	170	90	55	**1568.1**	1 unit(s)	28,30
4	300	115	63	**3820.1**	1 unit(s)	37,45
5	400	130	65	**3823.1**	1 unit(s)	53,55
6a	700	150	70	**3824.1**	1 unit(s)	69,90
8	1,000	180	80	**3826.1**	1 unit(s)	167,70
11	2,600	240	100	**XL90.1**	1 unit(s)	387,00
15	6,000	330	140	**XL91.1**	1 unit(s)	628,90

Pestle 56 rough

Haldenwanger. Material: Porcelain, glazed.

Rough friction surface (non-glazed).

Version	Ø Head (mm)	Height (mm)	Art. No.	Pack Qty.	€
00	24	115	**1570.1**	1 unit(s)	12,50
0a	28	125	**3831.1**	1 unit(s)	13,95
1	30	135	**1571.1**	1 unit(s)	15,80
2	36	150	**3832.1**	1 unit(s)	21,80
3	42	175	**3836.1**	1 unit(s)	31,00
4	45	180	**XL92.1**	1 unit(s)	34,15
5	48	185	**3839.1**	1 unit(s)	36,85
6a	55	210	**3841.1**	1 unit(s)	39,80
8	60	215	**XL93.1**	1 unit(s)	55,90

Mortars 55 smooth

Haldenwanger. Material: Porcelain, glazed.

Smooth friction surface (glazed), prevents sample residues and cross-contaminations.

Version	Vol. (ml)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
00	20	50	32	**XL96.1**	1 unit(s)	27,75
0a	70	65	40	**XL97.1**	1 unit(s)	32,80
3	170	90	55	**XL98.1**	1 unit(s)	42,50
6a	700	150	70	**XL99.1**	1 unit(s)	83,10
8	1,000	180	80	**XP00.1**	1 unit(s)	186,00

Pestle 56 smooth

Haldenwanger. Material: Porcelain, glazed.

Smooth friction surface (glazed).

Version	Ø Head (mm)	Height (mm)	Art. No.	Pack Qty.	€
00	24	115	**XP01.1**	1 unit(s)	25,30
0a	28	125	**XP02.1**	1 unit(s)	25,95
1	30	135	**XP03.1**	1 unit(s)	28,15
3	42	175	**XP04.1**	1 unit(s)	42,25
6a	55	210	**XP05.1**	1 unit(s)	52,60
8	60	215	**XP06.1**	1 unit(s)	67,20

Mortars and graters

❄❄❄

Mini-Cryo mortars with pestle

Bel-Art Products. Material: Stainless steel with insulating coat made of PE.

Container made of stainless steel with PE insulating jacket, reaction vial holder made of stainless steel with insulated, removable handle (L 102 mm). For filling with liquid nitrogen. Allows the homogenisation of plant material or tissue directly inside the 1.5 ml reaction vial.

Delivery incl. pestle (Ø 9 x L 127 mm) with PE handle.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
165	114	**CXX6.1**	1 unit(s)	600,95

❄❄❄

Cryo mortars

Bel-Art Products. Material: Stainless steel with insulating coat made of PE.

Container made of stainless steel with PE insulating jacket, mortar and pestle insert made of stainless steel with insulated, removable handle (length 102 mm). For filling with liquid nitrogen; cooling facilitates the crushing and homogenisation of plant material and similar samples, for example.
Dimensions: Ø 165 x H 114 mm. Mortar insert Ø inside 100 mm, height 48 mm.

Delivery without pestle, can be used with porcelain pestle Art. No. 3836.1 or XL92.1, for example.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
165	114	**CYH1.1**	1 unit(s)	588,05

A 121 °C DURAN WHEATON KIMBLE

Evaporating dishes

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
With spout. Acc. to DIN 12336.

Vol. (ml)	Ø Outer upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	50	25	**E540.1**	10 unit(s)	73,00
45	60	30	**E541.1**	10 unit(s)	75,00
60	70	35	**E542.1**	10 unit(s)	84,35
90	80	45	**E543.1**	10 unit(s)	91,20
170	95	55	**E544.1**	10 unit(s)	97,45
320	115	65	**E545.1**	10 unit(s)	146,60
600	140	80	**E546.1**	1 unit(s)	22,55
1,500	190	100	**E547.1**	1 unit(s)	53,70
2,500	230	130	**E548.1**	1 unit(s)	79,25

A 121 °C ❄❄❄

Evaporating dishes ROTILABO®

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.
Flat shape. Chemically inert. Temperature stable from -200 to +250 °C. Anti-adhesive.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	42	25	**T654.1**	1 unit(s)	19,65
50	65	23	**1188.1**	1 unit(s)	21,90
100	80	28	**1189.1**	1 unit(s)	28,25
180	78	46	**T655.1**	1 unit(s)	39,15
350	100	55	**1190.1**	1 unit(s)	54,95

Evaporating bowls

A 121 °C

Evaporating dishes ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. With spout.

With round bottom

Vol. (ml)	Ø Outer upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	51	22	**AYK1.1**	10 unit(s)	96,25
35	64	29	**AYK2.1**	10 unit(s)	113,60
90	85	39	**AYK3.1**	10 unit(s)	116,75
180	105	49	**AYK4.1**	10 unit(s)	131,20
400	131	62	**AYK5.1**	10 unit(s)	164,50
800	166	80	**AYK6.1**	1 unit(s)	20,00
1,700	206	100	**AYK7.1**	1 unit(s)	28,80
2,600	235	115	**AYK8.1**	1 unit(s)	33,60

With flat bottom

Vol. (ml)	Ø Outer upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	40	18	**AYK9.1**	10 unit(s)	69,90
15	50	25	**AYL0.1**	10 unit(s)	80,60
45	60	30	**AYL1.1**	10 unit(s)	95,00
60	70	35	**AYL2.1**	10 unit(s)	99,60
90	80	45	**AYL3.1**	10 unit(s)	105,90
170	95	55	**AYL4.1**	10 unit(s)	111,75
320	115	65	**AYL5.1**	10 unit(s)	139,15
600	140	80	**AYL6.1**	1 unit(s)	19,40
1,500	190	100	**AYL7.1**	1 unit(s)	24,95
2,500	230	130	**AYL8.1**	1 unit(s)	29,00

A 121 °C ❄❄❄

Evaporating dishes with snap-on lid

Vitlab. Material: PFA Transparent, cap made from PE. Autoclavable: Yes.

For contamination-free sample preparation and for transporting samples.

- Temperature stable in the range -200 to +250 °C
- Chemically inert to nearly all chemicals
- Hydrophobic and anti-adhesive
- High purity, ideal for use in trace analysis and for storage of reference solutions
- With conical recess in base, to hold small quantities of solvent for absorption of evaporated samples
- Extremely smooth surfaces allow easy cleaning, no memory effects

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	50	25	**XY19.1**	1 unit(s)	46,25
50	50	54	**XY20.1**	1 unit(s)	61,25

A 121 °C

Evaporating dishes ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes. Cylindrical.

High form

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
125	71	35	**C873.1**	1 unit(s)	33,85
250	85	50	**C874.1**	1 unit(s)	43,20
500	110	55	**C875.1**	1 unit(s)	62,10
1,000	140	75	**C876.1**	1 unit(s)	94,25
2,000	160	105	**C877.1**	1 unit(s)	121,40
5,000	200	160	**C878.1**	1 unit(s)	250,50

Lower form

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	60	20	**C879.1**	1 unit(s)	22,95
75	70	20	**C880.1**	1 unit(s)	28,90
100	80	20	**C881.1**	1 unit(s)	40,05

A 121 °C

Evaporating dishes ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed inside.
Autoclavable: Yes.

Semi-deep form with round bottom.
Max. Temperature stability up to +1,000 °C.

Vol. (ml)	Ø Outer upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
41	72	26	**XX26.1**	5 unit(s)	34,05
62	83	27	**XX27.1**	5 unit(s)	37,30
110	96	30	**XX28.1**	5 unit(s)	55,45
160	110	37	**XX29.1**	5 unit(s)	57,20
215	117	41	**XX30.1**	5 unit(s)	58,00
240	127	42	**XX31.1**	5 unit(s)	72,30
325	142	46	**XX32.1**	5 unit(s)	74,10
420	154	50	**XX33.1**	5 unit(s)	82,65
558	170	55	**XX34.1**	5 unit(s)	98,85

A 121 °C

Evaporating dishes 888

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.

Unglazed outer base. Flat shape, with spout. Max. Temperature stability up to +400 °C.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
000	5	40	9	**XL72.1**	1 unit(s)	9,50
00	10	50	11	**XL73.1**	1 unit(s)	10,65
0	20	63	13	**XL74.1**	1 unit(s)	11,75
2	40	80	20	**XL75.1**	1 unit(s)	13,05
4	80	100	22	**XL76.1**	1 unit(s)	17,85
6	270	125	27	**XL77.1**	1 unit(s)	23,15
6a	450	160	35	**XL78.1**	1 unit(s)	38,60
8	1,100	190	55	**XL79.1**	1 unit(s)	83,45
9	1,750	240	65	**XL80.1**	1 unit(s)	145,15
10	2,500	300	60	**XL81.1**	1 unit(s)	213,95

A 121 °C

Evaporating dishes 109

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.

With spout and round base. Max. Temperature stability up to +400 °C.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
4/0	20	50	20	**3860.1**	10 unit(s)	69,55
000	40	63	25	**1575.1**	10 unit(s)	79,55
00	50	70	26	**3880.1**	10 unit(s)	98,70
0	75	80	34	**3933.1**	10 unit(s)	111,80
1	110	85	36	**3945.1**	10 unit(s)	120,40
2	180	100	40	**1576.1**	1 unit(s)	14,90
5	310	115	47	**4004.1**	1 unit(s)	26,20
6	370	150	45	**4012.1**	1 unit(s)	38,35
6a	640	160	64	**1577.1**	1 unit(s)	46,05
7b	1,000	200	80	**XL62.1**	1 unit(s)	68,95
9	2,200	260	86	**XL63.1**	1 unit(s)	117,20
10	3,400	310	110	**XL64.1**	1 unit(s)	210,70

A 121 °C

Evaporating dishes 131

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.

French style, with spout and flat bottom. Max. Temperature stability up to +400 °C.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	30	58	24	**XL65.1**	1 unit(s)	13,50
3	60	75	30	**XL66.1**	1 unit(s)	22,70
4	100	84	38	**XL67.1**	1 unit(s)	26,15
5	150	97	40	**XL68.1**	1 unit(s)	32,50
6	250	110	50	**XL69.1**	1 unit(s)	40,25
7	290	125	52	**XL70.1**	1 unit(s)	45,70
8	400	150	60	**XL71.1**	1 unit(s)	56,05

A 121 °C

Casseroles

Haldenwanger. Material: Porcelain. Autoclavable: Yes.

With stem. Glazed, apart from the edge.
Max. Temperature stability up to +400 °C. Acc. to DIN 12907.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
4/0	80	63	36	**HC79.1**	1 unit(s)	30,80
000	140	80	46	**HC80.1**	1 unit(s)	38,30
0	290	102	69	**HC81.1**	1 unit(s)	46,05
2	500	127	70	**HC82.1**	1 unit(s)	68,75
4	1,300	160	97	**HC83.1**	1 unit(s)	220,40
4b	2,600	215	110	**HC84.1**	1 unit(s)	226,85

A 121 °C

Ignition dishes 33 D

Haldenwanger. Material: Porcelain, glazed, apart from the base. Autoclavable: Yes.

Flat shape. Temperature stable up to +1000 °C.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	8	37	10	**XL82.1**	1 unit(s)	8,00
3	10	42	11	**XL83.1**	1 unit(s)	8,25
4	15	48	12	**XL84.1**	1 unit(s)	10,35

A 121 °C

Ignition dishes 33

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.

Temperature stable up to +1000 °C.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	15	40	21	**3740.1**	10 unit(s)	70,45
2	30	50	25	**1564.1**	10 unit(s)	88,10
4	60	60	31	**1565.1**	10 unit(s)	105,90

A 121 °C

Ignition dishes 33 C

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.

Slightly tapered. Temperature stable up to +400 °C.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
48	26	10	**TL80.1**	1 unit(s)	11,75
55	42	16	**TL81.1**	1 unit(s)	14,65
70	46	13	**TL82.1**	1 unit(s)	18,40
96	55	16	**TL83.1**	1 unit(s)	23,45

Porcelain marker pen

For labelling glazed and unglazed lab porcelain. Ink colour: brown, temperature stable up to max. 1400 °C.

Version	Art. No.	Pack Qty.	€
Porcelain marker pen	**CEK7.1**	1 unit(s)	13,95

A 121 °C

Weighing bottle ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.
Temperature-stable up to +1000 °C.

Length (mm)	Width (mm)	Weight (g)	Art. No.	Pack Qty.	€
37	17	7	**XX55.1**	10 unit(s)	28,55
53	23	10	**XX56.1**	10 unit(s)	29,50
64	29	12	**XX57.1**	10 unit(s)	31,70

A 121 °C

Combustion boats

Haldenwanger. Material: Porcelain. Autoclavable: Yes.
With eyelet.

Glazed

Glazing prevents build-up of sample residues and cross-contamination.
Temperature stable up to 1000 °C.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
90	12	8	**L016.1**	1 unit(s)	19,30
100	12	10	**L017.1**	1 unit(s)	20,90
130	20	13	**L019.1**	1 unit(s)	30,95

Unglazed

Temperature stable up to +1350 °C.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
80	13	9	**TL84.1**	10 unit(s)	18,30

A 121 °C

Spot test plate

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.
Temperature-stable up to +400 °C.

Number of trays	Length (mm)	Width (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
6	115	80	12	Ø x deep reces-ses: 36 x 11 mm	**C765.1**	1 unit(s)	20,45
12	119	85	6	Ø x deep reces-ses: 20 x 3 mm	**C767.1**	1 unit(s)	29,70
12	127	97	12	Ø x deep reces-ses: 25 x 6 mm	**C768.1**	1 unit(s)	31,00

Filter crucible ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed.
With porous, unglazed bottom.
Max. temperature stability +1000 °C. Acc. to DIN 12909.

Vol. (ml)	Pore size (µm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
8	6	25	28	**XX64.1**	2 unit(s)	32,10
8	7	25	28	**XX65.1**	2 unit(s)	32,10
8	8	25	28	**XX66.1**	2 unit(s)	32,10
15	6	30	35	**XX67.1**	2 unit(s)	36,15
15	7	30	35	**XX68.1**	2 unit(s)	36,15
15	8	30	35	**XX69.1**	2 unit(s)	36,15
25	6	35	40	**XX70.1**	2 unit(s)	38,95
25	7	35	40	**XX71.1**	2 unit(s)	38,95
25	8	35	40	**XX72.1**	2 unit(s)	38,95
35	6	40	43	**XX73.1**	2 unit(s)	39,70
35	7	40	43	**XX74.1**	2 unit(s)	39,70
35	8	40	43	**XX75.1**	2 unit(s)	39,70
50	6	45	50	**XX76.1**	2 unit(s)	39,70
50	7	45	50	**XX77.1**	2 unit(s)	39,70
50	8	45	50	**XX78.1**	2 unit(s)	39,70

Porcelain filter crucibles

Filter crucible 84

Haldenwanger. Material: Porcelain, glazed.

Acc. to DIN 12909. Max. temperature stability +400 °C. Base porosity: P2 (~5 µm).

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	35	43	**C760.1**	1 unit(s)	123,65

Source crucible ROTILABO® with lid

ROTH SELECTION. Material: Porcelain, unglazed.

Wide shape. Temperature-stable up to +1350 °C.

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
19	43	27	**XX25.1**	5 unit(s)	16,30

Crucible ROTILABO® with lid

ROTH SELECTION. Material: Porcelain, unglazed.

High form. For the determination of volatile liquids. Temperature-stable up to +1350 °C.

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
22	32	42	**XX24.1**	5 unit(s)	15,10

Filter crucible acc. to Gooch

Haldenwanger. Material: Porcelain, glazed.

Temperature stable up to +400 °C.

Delivery without sieve plate, please order separately.

Type 82 A, wide form

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	39	42	**TL86.1**	1 unit(s)	20,75
35	42	45	**TL87.1**	1 unit(s)	22,80

Type 82 R, high form

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	35	41	**TL88.1**	1 unit(s)	17,75

Accessories sieve plates for Gooch filter crucibles

Haldenwanger. Material: Porcelain, glazed.

Acc. to Dr. Witt.

Suitable for	Ø (mm)	Art. No.	Pack Qty.	€
Crucible Art. No. TL86.1 and TL88.1	22	**TL89.1**	1 unit(s)	9,80
Crucible Art. No. TL87.1	25	**TL90.1**	1 unit(s)	11,00

Melting crucible 79 low form

Haldenwanger. Material: Porcelain, glazed.

Temperature stable up to +1000 °C.

Delivery without cover, please order separately.

Version	Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
000a	8	30	20	**L217.1**	10 unit(s)	50,00
00	11	35	23	**L218.1**	10 unit(s)	52,25
0	20	40	26	**L219.1**	10 unit(s)	57,10
1	25	45	29	**L220.1**	10 unit(s)	72,90
2	40	50	32	**L221.1**	10 unit(s)	94,95
2a	65	60	38	**L222.1**	10 unit(s)	103,75
3	95	70	47	**L223.1**	10 unit(s)	132,25
4	180	83	55	**L224.1**	10 unit(s)	174,15

Crucibles

Melting crucible 79 MF medium high form

Haldenwanger. Material: Porcelain, glazed.
Temperature stable up to +1000 °C.

Delivery without cover, please order separately.

Version	Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
8	10	30	25	**L225.1**	10 unit(s)	51,10
7	13	35	28	**L226.1**	10 unit(s)	52,60
7a	20	40	32	**L227.1**	10 unit(s)	57,20
6	38	45	36	**L228.1**	10 unit(s)	71,40
6a	50	50	40	**L229.1**	10 unit(s)	81,20
5	60	52	43	**L230.1**	10 unit(s)	83,35
4	90	60	50	**L231.1**	10 unit(s)	102,15
2	150	70	60	**L232.1**	10 unit(s)	136,55
1	230	82	65	**L233.1**	10 unit(s)	182,75

Melting crucible 79 C high form

Haldenwanger. Material: Porcelain, glazed.
Temperature stable up to +1000 °C.

Delivery without cover, please order separately.

Version	Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
0	15	30	38	**1572.1**	10 unit(s)	57,55
1	24	35	44	**3842.1**	10 unit(s)	61,25
2	40	40	51	**3848.1**	10 unit(s)	72,50
3	50	46	53	**1573.1**	10 unit(s)	83,55
4	85	51	65	**3859.1**	10 unit(s)	123,65
5	140	60	79	**1574.1**	10 unit(s)	162,35

Accessories lids for melting/filter crucibles

Haldenwanger. Material: Porcelain, glazed.
For porcelain crucible Art. No. 1572.1 ff, L217.1 ff and L225.1 ff.
Temperature stable up to +1000 °C.

Suitable for	Art. No.	Pack Qty.	€
Crucible Ø 30 mm	**L234.1**	10 unit(s)	62,50
Crucible Ø 35 mm	**L235.1**	10 unit(s)	64,40
Crucible Ø 40 mm	**L236.1**	10 unit(s)	68,95
Crucible Ø 45 to 46 mm	**L237.1**	10 unit(s)	72,35
Crucible Ø 50 to 52 mm	**L238.1**	10 unit(s)	78,15
Crucible Ø 60 mm	**L239.1**	10 unit(s)	94,60
Crucible Ø 70 mm	**L240.1**	5 unit(s)	52,30
Crucible Ø 80 to 85 mm	**L241.1**	5 unit(s)	75,25

A 121 °C

Melting crucible ROTILABO® medium high form

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.
Temperature-stable up to +1000 °C.

Delivery without cover, please order separately.

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	30	25	**XX79.1**	5 unit(s)	13,65
12	35	28	**XX80.1**	5 unit(s)	14,70
20	40	32	**XX81.1**	5 unit(s)	17,15
30	45	36	**XX82.1**	5 unit(s)	17,70
45	50	40	**XX83.1**	5 unit(s)	23,60
80	60	48	**XX84.1**	5 unit(s)	28,60
120	70	56	**XX85.1**	5 unit(s)	36,95
200	80	62	**XX86.1**	5 unit(s)	45,45

A 121 °C

Accessories lids for melting crucibles

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.
For porcelain melting crucible Art. No. XX79.1 ff.
Temperature-stable up to +1000 °C.

Ø (mm)	Suitable for	Art. No.	Pack Qty.	€
34	Crucible Ø 30 mm	**XX87.1**	5 unit(s)	14,60
39	Crucible Ø 35 mm	**XX88.1**	5 unit(s)	15,70
44	Crucible Ø 40 mm	**XX89.1**	5 unit(s)	17,00
49	Crucible Ø 45 mm	**XX90.1**	5 unit(s)	20,60
54	Crucible Ø 50 mm	**XX91.1**	5 unit(s)	21,40
64	Crucible Ø 60 mm	**XX92.1**	5 unit(s)	23,45
74	Crucible Ø 70 mm	**XX93.1**	5 unit(s)	27,95
84	Crucible Ø 80 mm	**XX94.1**	5 unit(s)	29,40

Crucibles

Melting crucible ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301).
Heat resistant up to approx. +550 °C.

Delivery without cover, please order separately.

Vol. (ml)	Ø (mm)	Wall thickness (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	35	1	35	**8307.1**	1 unit(s)	53,90
30	40	1	35	**8309.1**	1 unit(s)	55,70
70	50	1	45	**8311.1**	1 unit(s)	60,95

Accessories lids for melting crucibles

ROTH SELECTION. Material: Stainless steel.
For stainless steel melting crucible Art. No. 8307.1 ff.

Suitable for	Art. No.	Pack Qty.	€
Crucible 25 ml	**8313.1**	1 unit(s)	49,00
Crucible 30 ml	**8314.1**	1 unit(s)	49,30
Crucible 70 ml	**8315.1**	1 unit(s)	15,10

Melting crucible ROTILABO®

ROTH SELECTION. Material: Iron.
Wall thickness 2 mm, Ø top 48 mm, height 36 mm. Temperature-stable up to +800 °C, without oxygen up to +1000 °C.

Ø Upper (mm)	Wall thickness (mm)	Height (mm)	Art. No.	Pack Qty.	€
48	2	36	**8316.1**	1 unit(s)	13,65

Melting crucible ROTILABO®

ROTH SELECTION. Material: Nickel 99.5%.
Heat resistant up to approx. +750 °C.

Delivery without cover, please order separately.

Vol. (ml)	Ø (mm)	Wall thickness (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	20	0,5	20	**ETY8.1**	1 unit(s)	52,60
10	25	0,5	25	**ETY9.1**	1 unit(s)	54,00
15	30	1,0	30	**8291.1**	1 unit(s)	65,15
25	35	1,0	35	**8293.1**	1 unit(s)	73,75
30	40	1,0	40	**8294.1**	1 unit(s)	84,25
30	40	2,0	40	**EXA0.1**	1 unit(s)	110,35
50	45	1,0	45	**8296.1**	1 unit(s)	92,05
50	45	1,5	45	**EXA1.1**	1 unit(s)	98,85
70	50	1,0	50	**8298.1**	1 unit(s)	95,10
70	50	2,0	50	**EXA2.1**	1 unit(s)	208,55
130	60	1,0	60	**8299.1**	1 unit(s)	117,85
130	60	2,0	60	**EXA3.1**	1 unit(s)	233,30
270	80	1,0	80	**EXA4.1**	1 unit(s)	149,30

Accessories lids for nickel melting crucibles

ROTH SELECTION. Material: Nickel.
For nickel melting crucible Art. No. ETY8.1 ff.

Suitable for	Art. No.	Pack Qty.	€
Crucible 5 ml	**EXA5.1**	1 unit(s)	48,05
Crucible 10 ml	**EXA6.1**	1 unit(s)	50,30
Crucible 15 ml	**8300.1**	1 unit(s)	51,35
Crucible 25 ml	**8301.1**	1 unit(s)	54,00
Crucible 30 ml	**8302.1**	1 unit(s)	54,95
Crucible 50 ml	**8303.1**	1 unit(s)	56,40
Crucible 70 ml	**8304.1**	1 unit(s)	58,00
Crucible 130 ml	**8305.1**	1 unit(s)	61,15
Crucible 270 ml	**EXA7.1**	1 unit(s)	76,50

Weighing accessories

121 °C

Weighing glass caps ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With NS cap and labelling space.

Medium form

Vol. (ml)	Standard ground glass joint	Height without closure (mm)	Art. No.	Pack Qty.	€
25	29/12	50	**ACA2.1**	1 unit(s)	19,70
32	34/12	50	**ACA3.1**	1 unit(s)	23,25
47	40/12	50	**ACA4.1**	1 unit(s)	25,85
70	50/12	50	**ACA5.1**	1 unit(s)	32,00
185	80/12	50	**ACA6.1**	1 unit(s)	50,40

Low form

Vol. (ml)	Standard ground glass joint	Height without closure (mm)	Art. No.	Pack Qty.	€
9	29/12	30	**AAY7.1**	1 unit(s)	19,70
12	34/12	30	**AAY8.1**	1 unit(s)	23,25
25	40/12	35	**AAY9.1**	1 unit(s)	25,55
38	50/12	35	**ACA0.1**	1 unit(s)	30,25
100	80/12	35	**ACA1.1**	1 unit(s)	50,70

121 °C

Weighing box ROTILABO®

Kartell. Material: PP, translucent. Autoclavable: Yes.
With airtight lid. The top part an be pressed together to facilitate pouring. Low weight reduces the tare correction.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Tare (g)	Art. No.	Pack Qty.	€
20	40	30	8	**K778.1**	2 unit(s)	7,75
23	30	50	8	**K779.1**	2 unit(s)	7,80
30	50	30	10	**K790.1**	2 unit(s)	8,55
40	40	70	14	**K791.1**	2 unit(s)	8,75
50	60	35	18	**K792.1**	2 unit(s)	9,05
190	60	90	28	**K793.1**	2 unit(s)	10,35
360	70	120	40	**K794.1**	2 unit(s)	11,50

121 °C

Weighing bottle ROTILABO® high form

ROTH SELECTION. Material: Borosilicate glass. Autoclavable: Yes.
With replaceable NS lid, label field and size details.

Vol. (ml)	Standard ground glass joint	Ø ext. (mm)	Height without closure (mm)	Art. No.	Pack Qty.	€
2	14/8	15	20	**1368.1**	1 unit(s)	19,55
4.5	19/9	20	30	**1367.1**	1 unit(s)	20,10
10	24/11	25	40	**1366.1**	1 unit(s)	19,15
20	29/11	30	50	**1365.1**	1 unit(s)	19,70
40	40/11	40	50	**HNX1.1**	1 unit(s)	21,35
45	34/11	35	70	**1364.1**	1 unit(s)	20,25
45	40/11	40	65	**HNX2.1**	1 unit(s)	22,55
70	40/11	40	80	**HNX3.1**	1 unit(s)	24,95
110	50/11	50	80	**HNX4.1**	1 unit(s)	32,15

Set

Sizes 2 / 4.5 / 10 / 20 / 45 ml

Pack.	Art. No.	Pack Qty.	€
5 pieces	**1369.1**	1 set	78,10

121 °C

Weighing bottle ROTILABO® low form

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With replaceable NS lid, label field and size details.

Technical specifications:

Art. No.	HNX5.1	HNX6.1	K615.1	K616.2	K617.1	K614.1
Standards	DIN 12605					in addition

Vol. (ml)	Standard ground glass joint	Ø ext. (mm)	Height without closure (mm)	Art. No.	Pack Qty.	€
6	24/12	25	25	**K614.1**	1 unit(s)	14,55
15	40/12	40	25	**HNX5.1**	1 unit(s)	23,15
15	34/12	35	30	**K615.1**	1 unit(s)	16,25
30	50/12	50	30	**K616.2**	6 unit(s)	95,15
45	60/12	60	30	**HNX6.1**	1 unit(s)	33,25
80	80/12	80	30	**K617.1**	1 unit(s)	32,80

Weighing accessories

A 121 °C

Weighing funnels ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

For weighing liquid and solid samples. Sits safely and flush on the balance. Spout enables easy filling and emptying of measuring flasks and test tubes.

Polypropylene
Material: PP.

Vol. (ml)	Ø ext. (mm)	Ø Outlet (mm)	Length (mm)	Art. No.	Pack Qty.	€
1	15	5	38	**HTT3.1**	96 unit(s)	111,70
2	23	7	44	**P652.1**	50 unit(s)	57,00
7	35	11	63	**P653.1**	50 unit(s)	81,65
10	48	17	88	**P654.1**	20 unit(s)	77,30
25	63	20	117	**P655.1**	10 unit(s)	85,65

Polypropylene, antistatic
Material: PP antistatic.

Vol. (ml)	Ø ext. (mm)	Ø Outlet (mm)	Length (mm)	Art. No.	Pack Qty.	€
1	15	5	38	**HTT4.1**	96 unit(s)	116,10
2	23	7	44	**HTT5.1**	50 unit(s)	124,60
7	35	11	63	**HTT6.1**	50 unit(s)	101,30
10	48	17	88	**HTT7.1**	20 unit(s)	88,65
25	63	20	117	**HTT8.1**	10 unit(s)	96,30

Glass
Material: Borosilicate glass.

Vol. (ml)	Ø ext. (mm)	Ø Outlet (mm)	Length (mm)	Art. No.	Pack Qty.	€
1	15	5	38	**HTT9.1**	6 unit(s)	77,20
2	23	7	44	**P656.1**	6 unit(s)	83,80
7	35	11	63	**P657.1**	6 unit(s)	96,30
10	48	17	88	**P658.1**	6 unit(s)	111,40
25	63	20	117	**P659.1**	6 unit(s)	116,95

A 121 °C

Weighing bottle ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With flat bottom.

Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
2	50	**AAY4.1**	1 unit(s)	43,65
4	70	**AAY5.1**	1 unit(s)	48,65
7	100	**AAY6.1**	1 unit(s)	51,75

Weighing funnels

Mettler-Toledo. Material: PP, antistatic.

Resistant to electrostatics charges. With wide mouth for easy access. Tapered neck for use with volumetric flasks, extended metering neck for direct transfer of samples and liquids to flask, ventilation slot between funnel and vessel prevents liquid accumulation.

- Typical dosing quantity: 1 mg - 5 g
- Suitable for volumetric flasks: 5 ml (wide neck), 10-250 ml
- Suitable for standard ground joint: 10/19, 12/21, 14/23
- Ø outer spout, conical, 9-15 mm

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
75	30	26	**CET4.1**	50 unit(s)	109,00

Weighing accessories

121 °C

Weighing bottle ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes. Temperature-stable up to +1000 °C.

Length (mm)	Width (mm)	Weight (g)	Art. No.	Pack Qty.	€
37	17	7	**XX55.1**	10 unit(s)	28,55
53	23	10	**XX56.1**	10 unit(s)	29,50
64	29	12	**XX57.1**	10 unit(s)	31,70

121 °C

Weighing bottle ROTILABO®

Usbeck. Material: Stainless steel 1.4301. Autoclavable: Yes. Material thickness 1 mm.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
105	30	**HT05.1**	1 unit(s)	8,85
120	30	**HT06.1**	1 unit(s)	9,65

121 °C

Weighing boat

Bochem. Material: Stainless steel (18/10). Autoclavable: Yes.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
70	32	**1C53.1**	1 unit(s)	11,85
90	32	**1C54.1**	1 unit(s)	12,15

121 °C

Weighing pan ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes. Rounded borders.

Technical specifications:

Art. No.	YE43.1	YE44.1	YE45.1
Version	matt	glossy	

Length (mm)	Width (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
260	180	25	266	**YE43.1**	1 unit(s)	17,05
260	200	45	356	**YE44.1**	1 unit(s)	21,90
310	245	50	564	**YE45.1**	1 unit(s)	26,75

Micro aluminium dishes ROTILABO®

ROTH SELECTION. Material: Aluminium.
Free of oil residues and coatings.

- Suitable for micro scales, micro-elementary and thermal systems
- Compatible with most micro scales and analysis devices
- Packed in practical plastic containers

Oval form

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.04	6.5	3.5	2.5	**PP60.1**	250 unit(s)	98,45
0.11	10	4	4.5	**PP61.1**	250 unit(s)	95,05
0.12	12	4	2.7	**PP62.1**	250 unit(s)	105,20
1.12	25	7.0	7	**PP64.1**	50 unit(s)	62,15

Round form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.035	6	2.5	**PP58.1**	250 unit(s)	110,25
0.35	13	3.5	**PP59.1**	100 unit(s)	57,15

Weighing accessories

Alu dishes ROTILABO®

ROTH SELECTION. Material: Aluminium.

Free of oil residues and coatings. Compressed walls for extra stability. Handles ideal for labelling or holding. Easy to stack. Variety of applications that require weighing dishes, evaporating dishes or drying dishes to cover containers or store small items.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
8	28	10	**PP54.1**	500 unit(s)	60,00
20	43	13	**PP55.1**	100 unit(s)	11,65
60	57	16	**PP56.1**	100 unit(s)	12,35
80	70	16	**PP57.1**	100 unit(s)	15,20

Weighing pan ROTILABO®

ROTH SELECTION. Material: Aluminium.

For solid and liquid substances. stackable.
Temperature-stable up to approx. +400 °C.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	7	**9262.1**	80 unit(s)	45,05

Weighing pan flat

ROTH SELECTION. Material: PS, antistatic.

Flexible design with wide base for even pouring and dispensing of solids and liquids. resistant to diluted acids, bases and alcohols.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	89	89	6	**ATC3.1**	500 unit(s)	38,50

Weighing boats

ROTH SELECTION. Material: PS, Anti-static.

For weighing liquid and solid substances. With spout and flat bootm.
Temperature-stable up to +90 °C.

Vol. (ml)	Length (mm)	Width (mm)	Depth (mm)	Art. No.	Pack Qty.	€
20	57	41	8	**A229.1**	250 unit(s)	30,10
140	133	89	25	**A230.1**	250 unit(s)	46,15
270	190	120	25	**ATC2.1**	250 unit(s)	70,55

Weighing bottle ROTILABO® antistatic

ROTH SELECTION. Material: PS.

Spoon, weighing boat and funnel in one: Take a sample, weigh it and decant it all without the need for a new container. Flat-packed, easy to assemble. When flat, can be used as an alternative to weighing paper. Antistatic design for the best possible sample recovery.

White

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
127	90	**KLC5.1**	100 unit(s)	24,75
127	63	**KLC6.1**	100 unit(s)	23,50

Weighing accessories

Weighing pan ROTILABO®

ROTH SELECTION. Material: PS.

- For solid and liquid substances
- Resistant to diluted acids, bases and alcohols
- Bioinert
- Temperature stability up to +80 °C

White

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**HYT8.1**	500 unit(s)	19,50
100	85	85	24	**Sterile**	40 x 5	**KLA8.1**	200 unit(s)	91,90
100	85	85	24	Non-sterile	1 x 500	**HYT9.1**	500 unit(s)	31,15
330	140	140	22	Non-sterile	1 x 500	**HYX0.1**	500 unit(s)	58,95

White, antistatic

Antistatic design for the best possible sample recovery.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**1878.2**	500 unit(s)	30,10
100	85	85	24	Non-sterile	1 x 500	**1884.1**	500 unit(s)	41,80
330	140	140	22	Non-sterile	1 x 500	**0875.2**	500 unit(s)	81,85

Blue

Opaque blue design specifically for white weighing material.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**HYX1.1**	500 unit(s)	30,60
100	85	85	22	Non-sterile	1 x 500	**HYX2.1**	500 unit(s)	51,00
330	140	140	24	Non-sterile	1 x 500	**HYX3.1**	500 unit(s)	84,80

Blue, antistatic

Opaque blue design specifically for white weighing material. Antistatic design for the best possible sample recovery.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**2149.2**	500 unit(s)	28,40
100	85	85	24	Non-sterile	1 x 500	**2150.1**	500 unit(s)	43,40
330	140	140	22	Non-sterile	1 x 500	**2159.2**	500 unit(s)	80,90

Black, standard

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**KLA9.1**	500 unit(s)	24,95
100	85	85	24	Non-sterile	1 x 500	**KLC0.1**	500 unit(s)	39,95
330	140	140	22	Non-sterile	1 x 500	**KLC1.1**	500 unit(s)	73,70

Black, antistatic

Antistatic version for the best possible sample recovery.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**KLC2.1**	500 unit(s)	25,20
100	85	85	24	Non-sterile	1 x 500	**KLC3.1**	500 unit(s)	42,50
330	140	140	22	Non-sterile	1 x 500	**KLC4.1**	500 unit(s)	73,40

Weighing accessories

Weighing pan diamond-shaped

ROTH SELECTION. Material: PS, antistatic.

Flexible pans with smooth surface for thorough emptying with minimal sample loss.

- FDA-compliant
- Temperature-stable from -10 to +70 °C

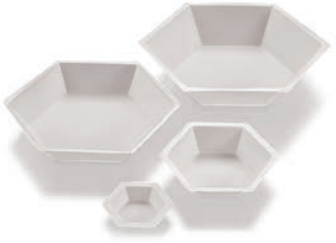
White

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	55	35	6	**TP58.1**	500 unit(s)	24,75
25	71	46	14	**TP59.1**	500 unit(s)	41,95
100	119	90	19	**TP60.1**	500 unit(s)	75,75

Black

Optimal contrast, specially designed for white weighing material.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	55	35	6	**TP61.1**	500 unit(s)	29,10
25	71	46	14	**TP62.1**	500 unit(s)	41,30
100	119	90	19	**TP63.1**	500 unit(s)	79,20



Weighing pan ROTILABO® hexagonal

ROTH SELECTION. Material: PS, antistatic.

For solid and liquid substances. With flat bottom. stackable. Boats can be pressed together at several points to form a pouring spout. Temperature-stable up to +80 °C.

Vol. (ml)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	25	9	**KC03.1**	500 unit(s)	25,10
50	51	19	**KC04.1**	500 unit(s)	34,75
200	76	22	**KC05.1**	500 unit(s)	68,00
350	89	31	**KC06.1**	500 unit(s)	99,20

NEW / +

Weighing boat micro

ROTH SELECTION. Material: PS, antistatic.

For weighing very small quantities of solid or liquid substances. With large tabs for easy handling.

Vol. (ml)	Length (mm)	Width (mm)	Depth (mm)	Art. No.	Pack Qty.	€
0.5	25	8.9	7.5	**1L98.1**	250 unit(s)	25,80

Weighing pan SmartBoat™

ROTH SELECTION. Material: Paper, bio-degradable.

Suitable for dry substances and substances containing fat. Temperature stability up to +210 °C

White

For dark weighing material.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
35	35	15	**HYT2.1**	500 unit(s)	51,50
48	48	14	**HYT3.1**	500 unit(s)	58,55
92	92	25	**HYT4.1**	250 unit(s)	60,10

Brown

For bright samples.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
35	35	15	**HYT5.1**	500 unit(s)	51,50
48	48	14	**HYT6.1**	500 unit(s)	58,55
92	92	25	**HYT7.1**	250 unit(s)	62,65

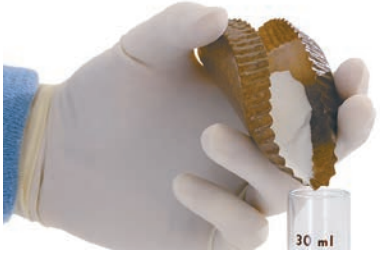
Weighing accessories

Weighing bottle

Macherey-Nagel. Material: Parchment, nitrogen-free.

For weighing viscous and syrupy substances. For determining nitrogen concentration using the Kjeldahl method. Surface weight 83 g/m².

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
58	10	10	**EL10.1**	100 unit(s)	90,80
70	23	15	**EL11.1**	100 unit(s)	129,00



Weighing pan ROTILABO®

ROTH SELECTION. Material: Parchment paper.

For solid substances. No static charging. Colour brown, for enhanced detection of bright weighing material.

Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	88	11	**HX57.1**	150 unit(s)	37,85

Card sheets ROTILABO®

ROTH SELECTION. Material: Paper painted on both sides.

Non-printed for laboratory purposes, e. g. as weighing sheets or scrapers. Rounded corners.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
91	59	**1656.1**	1 kg	18,20

Weighing paper

Macherey-Nagel. Material: Glassine, transparent.

Smooth surface, impermeable.
In block with 100 sheets.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
115	90	**1069.1**	10 unit(s)	117,00
115	90	**1069.2**	1 unit(s)	13,25

Weighing paper ROTILABO®

ROTH SELECTION. Material: Paper, nitrogen-free.

Smooth surfaces for optimum sample recovery.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
76	76	**TP64.1**	500 unit(s)	25,30
102	102	**TP65.1**	500 unit(s)	42,95
152	152	**TP66.1**	500 unit(s)	66,10

Handles ergo brush

Hammacher. Material: Plastic.

Equips with various sizes of brush heads. Clear view of the workpiece thanks to angled head.

Delivery without brush heads.

Pic.	Suitable for	Colour	Length (mm)	Art. No.	Pack Qty.	€
(1)	brush heads size 0-4	petrol	140	**EXC8.1**	1 unit(s)	26,90
(2)	brush heads size 5-8	violet	140	**EXC9.1**	1 unit(s)	26,90

Weighing brushes

Brush heads

Hammacher. Material: Chrome-nickel steel, red sable hair.
Suitable for ergo brush handles.

Technical specifications:

Art. No.	EXE1.1	EXE2.1	EXE3.1	EXE4.1	EXE5.1	EXE6.1
Shaft length	25 mm	27 mm		30 mm	33 mm	37 mm
Tip length	7 mm	8 mm	10 mm	13 mm	17 mm	20 mm

Delivery without handle.

Pic.	Size	Total length (mm)	Art. No.	Pack Qty.	€
(1)	0	32	**EXE1.1**	1 unit(s)	7,85
(2)	1	35	**EXE2.1**	1 unit(s)	8,10
(3)	2	37	**EXE3.1**	1 unit(s)	9,25
(4)	4	43	**EXE4.1**	1 unit(s)	11,80
(5)	6	50	**EXE5.1**	1 unit(s)	19,80
(6)	8	57	**EXE6.1**	1 unit(s)	27,50

Brush set

ROTH SELECTION. Material: Wood (not painted), cow hair, clamps made of nickel.

For cleaning sensitive devices. Set comprises 6 brushes of sizes 2 to 12.

Length (mm)	Art. No.	Pack Qty.	€
300	**L242.1**	1 set	19,90

Weighing brush

ROTH SELECTION. Material: Wood (painted white), goat hair.

For dusting weighing boats, scales and weights.

Length (mm)	Art. No.	Pack Qty.	€
170	**5481.1**	3 unit(s)	9,90

A 121 °C

Round sieves ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301).
Autoclavable: Yes.

With handle, rolled rim and two eyelets for hooking over vessels.

Vol. (ml)	Ø ext. (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
150	100	1.5	**8096.1**	1 unit(s)	11,25
250	120	1.5	**8097.1**	1 unit(s)	12,80
400	140	1.5	**8098.1**	1 unit(s)	15,35
700	160	1.5	**8099.1**	1 unit(s)	17,20
1,000	180	1.5	**8100.1**	1 unit(s)	17,95
1,500	200	1.5	**8101.1**	1 unit(s)	20,70
2,000	220	1.5	**8102.1**	1 unit(s)	24,80

A 121 °C

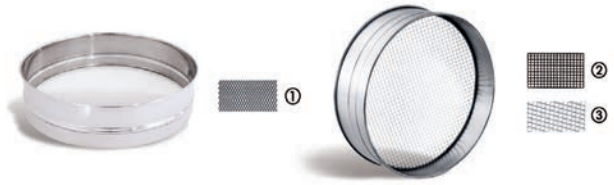
Round sieves ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/8 (1.4112).
Autoclavable: Yes.

With stem, wide rim and large resting eyelet.

Ø ext. (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
75	0.5	**A624.1**	1 unit(s)	14,95
120	0.8	**A625.1**	1 unit(s)	19,10
160	1.2	**1359.1**	1 unit(s)	28,25
190	1.2	**A626.1**	1 unit(s)	31,20
230	1.2	**A627.1**	1 unit(s)	35,95

Sieves



Flat sieves ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10.

Suitable for separating powders, granulates and other bulk goods. Easy to clean, dishwasher safe.

Extra fine

Without ground clearance.

Pic.	Ø Internal (mm)	Height (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
(1)	200	60	1	**YH29.1**	1 unit(s)	12,20
(1)	240	63	1	**YH30.1**	1 unit(s)	14,65
(1)	275	67	1	**YH31.1**	1 unit(s)	22,05
(1)	390	77	1	**YH32.1**	1 unit(s)	61,30

Medium fine

Hole size approx. 1 x 2.5 mm. Filling height 50 mm.

Pic.	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
(2)	300	100	**YH36.1**	1 unit(s)	76,50
(2)	350	100	**YH37.1**	1 unit(s)	96,80

Coarse

Filling height 50 mm.

Pic.	Ø Internal (mm)	Height (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
(3)	250	100	3	**YH38.1**	1 unit(s)	60,40
(3)	300	100	3	**YH39.1**	1 unit(s)	76,50

Flat sieve ROTILABO® plastic

ROTH SELECTION. Material: PP, nylon mesh.

Suitable for separating powders, bulk goods and granulates.

Technical specifications:

Art. No.	**YH42.1**
Inner height	60 mm

Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
240	220	82	1	**YH42.1**	1 unit(s)	26,95

A 121 °C

Drain scoop ROTILABO®

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.

Perforated ladle, with hollow handle. For taking samples from water baths, transporting agarose gels, etc.
Ladle dimensions: L 100 x W 80 mm.

Length (mm)	Art. No.	Pack Qty.	€
255	**YE60.1**	1 unit(s)	11,25

Ice shovel

ROTH SELECTION. Material: Stainless steel.

Perforated, ideal for filling ice. Melt water flows back into the ice container.

Technical specifications:

Art. No.	**HEC6.1**
Total length	190 mm

Ø (mm)	Art. No.	Pack Qty.	€
50	**HEC6.1**	1 unit(s)	11,45

Ladles, sieve ladles/spoons

121 °C

Slotted ladles ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Heavy duty, seamless.

Flat
Hole Ø 4 mm.

Pic.	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	80	280	**YE97.1**	1 unit(s)	9,00
(1)	100	320	**YE98.1**	1 unit(s)	10,75
(1)	120	360	**YE99.1**	1 unit(s)	12,40
(1)	140	400	**YH00.1**	1 unit(s)	15,35
(1)	160	430	**YH01.1**	1 unit(s)	18,35
(1)	200	470	**YH03.1**	1 unit(s)	29,65

Deep
Hole Ø 5-6 mm.

Pic.	Vol. (ml)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	80	70	290	**YE90.1**	1 unit(s)	22,45
(2)	125	80	320	**YE91.1**	1 unit(s)	24,35
(2)	200	90	330	**YE92.1**	1 unit(s)	25,45
(2)	250	100	370	**YE93.1**	1 unit(s)	26,95
(2)	500	120	400	**YE94.1**	1 unit(s)	30,25
(2)	750	140	410	**YE95.1**	1 unit(s)	35,45

Sieve spoon

Usbeck. Material: Copper.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
25	180	**P180.1**	1 unit(s)	10,25

121 °C

Strainer spoons ROTILABO®

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.
To hold delicate structures. Perforated spoon allows fluid to drain.

Not a medical device / Not an IVD product

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
145	15	**TL85.1**	1 unit(s)	64,40

121 °C

Standard ladles ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301).
Autoclavable: Yes.

High-gloss, seamless, made in one piece (except L006.1). Heavy duty.
Standard ladle fixed at an angle of approx. 120°.

Vol. (ml)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
20	45	220	**L001.1**	1 unit(s)	12,65
30	50	220	**L002.1**	1 unit(s)	14,15
60	60	230	**L003.1**	1 unit(s)	14,80
80	70	290	**L004.1**	1 unit(s)	16,45
125	80	320	**L005.1**	1 unit(s)	19,50
200	90	330	**L006.1**	1 unit(s)	21,15
250	100	360	**L007.1**	1 unit(s)	27,75
500	120	400	**L008.1**	1 unit(s)	32,85
750	140	410	**L009.1**	1 unit(s)	44,10
1,000	160	450	**L010.1**	1 unit(s)	47,25

Hand scoops

121 °C

Scoops with knob

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Technical specifications:

Art. No.	YC81.1	YC80.1
Scoop width	30 mm	35 mm
Total length	205 mm	190 mm

Scoop length (mm)	Art. No.	Pack Qty.	€
63	**YC81.1**	1 unit(s)	26,75
70	**YC80.1**	1 unit(s)	23,25

121 °C

Scoops

Bochem. Material: Stainless steel V4A (1.4401), mirror finished. Autoclavable: Yes.

GMP-compliant. Smooth scoop surface. Wall thickness 1.2 mm.

Technical specifications:

Art. No.	CHX0.1	CHX1.1	CHX2.1	CHX3.1
Scoop width	50 mm	75 mm	110 mm	135 mm
Total length	180 mm	260 mm	365 mm	400 mm

Vol. (ml)	Scoop length (mm)	Art. No.	Pack Qty.	€
100	100	**CHX0.1**	1 unit(s)	144,45
450	150	**CHX1.1**	1 unit(s)	154,80
1,000	235	**CHX2.1**	1 unit(s)	175,25
2,500	250	**CHX3.1**	1 unit(s)	202,10

121 °C

Scoops ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301). Autoclavable: Yes.

Extra heavy duty. Seamless connection between scoop and hollow handle. With hanger eyelet.

Technical specifications:

Art. No.	KP45.1	KP46.1	KP47.1	KP48.1	KP49.1
Scoop width	59 mm	75 mm	85 mm	100 mm	130 mm
Total length	215 mm	230 mm	245 mm	290 mm	350 mm
Weight	145 g	190 g	223 g	280 g	415 g

Vol. (ml)	Scoop length (mm)	Art. No.	Pack Qty.	€
100	120	**KP45.1**	1 unit(s)	17,15
200	140	**KP46.1**	1 unit(s)	19,90
250	155	**KP47.1**	1 unit(s)	22,00
350	180	**KP48.1**	1 unit(s)	26,50
500	220	**KP49.1**	1 unit(s)	32,80

121 °C

Scoops ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Vol. (ml)	Scoop length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
120	100	50	**0703.1**	1 unit(s)	14,35
450	150	75	**0704.1**	1 unit(s)	18,50
1,000	200	100	**PX24.1**	1 unit(s)	19,50
1,500	240	120	**0705.1**	1 unit(s)	23,25
2,500	250	150	**PX25.1**	1 unit(s)	28,30

Set

Volumes 120, 450 and 1500 ml.

Pack.	Art. No.	Pack Qty.	€
3 pieces	**0706.1**	1 set	48,65

Hand scoops

A 121 °C

Scoops ROTILABO®

ROTH SELECTION. Material: Aluminium (cast). Autoclavable: Yes.

Suitable for hand cleaning using mild detergents (no soda). A dark-coloured protective film may form (does not have to be removed).

Technical specifications:

Art. No.	YE53.1	YE54.1	YE55.1	YE56.1	YE57.1	YE58.1	YE59.1
Scoop width	50 mm	55 mm	70 mm	90 mm	100 mm	105 mm	135 mm
Total length	145 mm	185 mm	210 mm	250 mm	265 mm	310 mm	350 mm
Weight	38 g	45 g	78 g	118 g	148 g	206 g	303 g

Vol. (ml)	Scoop length (mm)	Art. No.	Pack Qty.	€
20	85	**YE53.1**	1 unit(s)	3,30
80	105	**YE54.1**	1 unit(s)	3,95
110	120	**YE55.1**	1 unit(s)	5,60
250	150	**YE56.1**	1 unit(s)	8,35
400	170	**YE57.1**	1 unit(s)	9,15
400	180	**YE58.1**	1 unit(s)	18,60
750	220	**YE59.1**	1 unit(s)	21,10

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Scoops

ROTH SELECTION. Material: PP.

With precision moulded filling edge and comfortable, sturdy handle. Also suitable as weighing scoop. Easily legible volume quantities on the upper side of the handle.
Suitable for foodstuffs in accordance with Regulation (EU) No. 10/2011.

Technical specifications:

Art. No.	APH4.1	APH5.1
Scoop width	70 mm	
Total length	200 mm	

Vol. (ml)	Colour	Art. No.	Pack Qty.	€
100	white	**APH4.1**	12 unit(s)	18,95

Set
Assorted colours: White, yellow, green, light blue, blue, ultramarine, red, grey, black.

Vol. (ml)	Colour	Art. No.	Pack Qty.	€
100	assorted colours	**APH5.1**	9 unit(s)	16,15

Scoops ROTILABO® plastic

ROTH SELECTION. Material: HDPE.

Technical specifications:

Art. No.	0574.1	0575.1	0576.1	0577.1	0578.1	0579.1	0580.1
Scoop width	42 mm	60 mm	65 mm	90 mm	110 mm	145 mm	170 mm
Total length	135 mm	185 mm	187 mm	250 mm	310 mm	350 mm	400 mm

Vol. (ml)	Colour	Art. No.	Pack Qty.	€
25	natural	**0574.1**	1 unit(s)	2,15
65	natural	**0575.1**	1 unit(s)	2,30
125	natural	**0576.1**	1 unit(s)	3,05
275	natural	**0577.1**	1 unit(s)	4,10
512	natural	**0578.1**	1 unit(s)	6,05
857	natural	**0579.1**	1 unit(s)	7,15
1,520	natural	**0580.1**	1 unit(s)	10,55

Seven scoops, volume 25 ml to 1520 ml.

Colour	Pack.	Art. No.	Pack Qty.	€
natural	7 unit(s)	**0997.1**	1 set	23,35

Hand scoops

S

Sample scoops

ROTH SELECTION. Material: PS. **Sterile**.

For sampling, analysing or transporting substances.

- Gamma sterilised, individually packed
- Long handle provides safe distance between sample and hand
- Flat base for upright storage
- Usable as a weighing bottle

Technical specifications:

Art. No.	YC16.1	YC15.1	YC11.1	YC14.1
Scoop width	41 mm			51 mm
Total length	205 mm			221 mm
Height	29 mm			33 mm

Red
Suitable for light-coloured substances, aids visibility.

Vol. (ml)	Scoop length (mm)	Colour	Art. No.	Pack Qty.	€
60	78	red	**YC16.1**	100 unit(s)	229,00

White

Vol. (ml)	Scoop length (mm)	Colour	Art. No.	Pack Qty.	€
60	78	white	**YC15.1**	100 unit(s)	177,40
125	94	white	**YC14.1**	100 unit(s)	226,85

White with lid
Lid with tab. Spoon and sample container in one.

Vol. (ml)	Scoop length (mm)	Colour	Art. No.	Pack Qty.	€
60	78	white	**YC11.1**	10 unit(s)	76,30

Measuring spoons

Bürkle. Material: PS.

The measuring and dosing spoons can be used for precisely measuring and dosing small quantities of powders, granulates and liquids. Any excess medium is wiped off at the top edge of the spoon to allow precise measuring.
The flat front edge of the measuring spoon is perfect for collecting medium from the base of the container or reaching into the corners of the container to efficiently remove any residue. Its flat base means that the measuring spoon can be put down without spilling its contents.

- With wiping edge
- The volumes are engraved on the handle
- Manufactured in a clean room (clean room class 7)
- Compliant with the EU food directives and FDA guidelines

Non-sterile
Non-sterile.

Vol. (ml)	Colour	Pack.	Art. No.	Pack Qty.	€
0.5	white	1 x 100	**1A4N.1**	100 unit(s)	22,85
1	white	1 x 100	**1A4P.1**	100 unit(s)	26,30
2.5	white	1 x 100	**1A4T.1**	100 unit(s)	29,15
5	white	1 x 100	**1A4X.1**	100 unit(s)	31,90
10	white	1 x 100	**1A4Y.1**	100 unit(s)	34,25
15	white	1 x 100	**1A50.1**	100 unit(s)	35,55
25	white	1 x 100	**1A51.1**	100 unit(s)	41,20
50	white	1 x 100	**1A52.1**	100 unit(s)	57,35

Non-sterile set
Non-sterile.

Delivery incl.
eight measuring spoons, volumes: 0.5/1/2.5/5/10/15/25/50 ml.

Colour	Pack.	Art. No.	Pack Qty.	€
white	1 x 8	**1A4L.1**	1 set	10,20

Non-sterile, blue set
Non-sterile. Can be used under HACCP/IFS Foreign Body Management Guideline.

Delivery incl.
eight measuring spoons, volumes: 0.5/1/2.5/5/10/15/25/50 ml.

Colour	Pack.	Art. No.	Pack Qty.	€
blue	1 x 8	**1A49.1**	1 set	10,20

Sterile
Sterile. Can be used under HACCP/IFS Foreign Body Management Guideline.

Vol. (ml)	Colour	Pack.	Art. No.	Pack Qty.	€
0.5	blue	100 x 1	**1A41.1**	100 unit(s)	45,30
1	blue	100 x 1	**1A42.1**	100 unit(s)	46,55
2.5	blue	100 x 1	**1A43.1**	100 unit(s)	50,40
5	blue	100 x 1	**1A44.1**	100 unit(s)	55,00
10	blue	100 x 1	**1A45.1**	100 unit(s)	57,10
15	blue	100 x 1	**1A46.1**	100 unit(s)	59,35
25	blue	100 x 1	**1A47.1**	100 unit(s)	67,40
50	blue	100 x 1	**1A48.1**	100 unit(s)	108,85

Spoons and spatulas

S

Sample spoons sterile

ROTH SELECTION. Material: PS. **Sterile**.

Individually packed. For powders, granulates, pastes and liquids.

Vol. (ml)	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
2	25	35	125	10 x 100	**X031.2**	1,000 unit(s)	321,45
8	35	50	150	10 x 100	**X032.2**	1,000 unit(s)	321,45

S

Sample spoons sterile

Nasco Sampling. Material: PS. **Sterile**.

Vol. (ml)	Colour	Spoon width (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
2.5	white	32.5	155	5 x 20	**EPY9.1**	100 unit(s)	29,65

A 121 °C

Spoon spatulas plastic

Kartell. Material: PA, glass fibre reinforced. Autoclavable: Yes.

Vol. (ml)	Colour	Total length (mm)	Art. No.	Pack Qty.	€
1.5	red	180	**TT33.1**	10 unit(s)	17,15
1.8	red	210	**TT34.1**	10 unit(s)	18,95

Spoon spatulas plastic

Bürkle. Material: PS.

Designed for single use, chemical-resistant, corrosion-resistant. Numerous applications for measuring or transferring small amounts or mixing and stirring.

- Manufactured in a clean-room (class 7)
- Suitable for foodstuffs

Technical specifications:

Art. No.	HEP4.1	HEP5.1
Sheet width	17 mm	

Vol. (ml)	Total length (mm)	Art. No.	Pack Qty.	€
0.5	178	**HEP4.1**	100 unit(s)	23,90

Sterile

- Gamma sterilised
- Individually packed

Vol. (ml)	Total length (mm)	Art. No.	Pack Qty.	€
0.5	178	**HEP5.1**	100 unit(s)	61,50

Spoons and spatulas

Measuring spoons ROTILABO® set

Bochem. Material: Stainless steel 18/10 (1.4301).

Type	Volume (ml)	Length (mm)	Ø (mm)	Depth (mm)
(1)	1.25	120	24	5
(2)	2.5	125	28	8
(3)	5	130	32	10
(4)	15	145	48	10

Pack.	Art. No.	Pack Qty.	€
4 pieces	**HC47.1**	1 set	16,25

Spoons glass set

ROTH SELECTION. Material: Borosilicate glass.
Eight spoons in four sizes. Length 210 to 230 mm.

Pack.	Art. No.	Pack Qty.	€
4 x 2 pieces	**0185.1**	1 set	297,80

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

A 121 °C

Spoons ROTILABO® porcelain

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.
Temperature stable up to max. 1000 °C.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
48	85	237	**XX62.1**	5 unit(s)	100,25

A 121 °C

Spoon spatulas porcelain

Haldenwanger. Material: Porcelain. Autoclavable: Yes.
Max. temperature resistance +400 °C.

Total length (mm)	Art. No.	Pack Qty.	€
120	**C749.1**	1 unit(s)	16,85
160	**C751.1**	1 unit(s)	17,80
200	**C753.1**	1 unit(s)	26,35
300	**C755.1**	1 unit(s)	49,25

Spoons and spatulas

A 121 °C

Spoons

Hammacher. Material: Stainless steel Wironit 4301. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
44	60	195	**YC90.1**	1 unit(s)	16,95
55	70	205	**YC91.1**	1 unit(s)	28,90

Spoons ROTILABO® melting spoon

Usbeck. Material: Stainless steel, with wooden handle.
Dish with spout. Weight 73 g.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
75	75	275	**YT65.1**	1 unit(s)	6,65

Spoons round

ROTH SELECTION. Material: Stainless steel, ABS handle.
Temperature stable up to +99 °C. Dishwasher safe.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
40	40	148	**YC43.1**	1 unit(s)	10,35

A 121 °C

Spoons ROTILABO® spoon for chemicals

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Single-ended, with rounded handle.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
25	25	120	**A635.1**	1 unit(s)	5,05
25	25	150	**A636.1**	1 unit(s)	5,15
25	25	180	**A637.1**	1 unit(s)	5,55
30	30	210	**A638.1**	1 unit(s)	6,60
35	35	250	**A639.1**	1 unit(s)	7,35
35	35	300	**A640.1**	1 unit(s)	7,75

A 121 °C

Spoons angled

Hammacher. Material: Stainless steel Wironit 4301. Autoclavable: Yes.
Spoon for chemicals.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
27	27	200	**YC82.1**	1 unit(s)	44,40

Spoons ROTILABO® phosphorous spoon

Usbeck. Material: Stainless steel.
Weight 14 g.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
16	16	450	**YT64.1**	1 unit(s)	3,90

Spoons and spatulas

A 121 °C

Spoons ROTILABO®

ROTH SELECTION. Material: Stainless steel Remanit 4301. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
15	30	150	**K745.1**	1 unit(s)	3,20

A 121 °C

Spoons ROTILABO® open type

ROTH SELECTION. Material: Stainless steel Remanit 4301. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
20	30	200	**K734.1**	1 unit(s)	7,55

A 121 °C

Spoons ROTILABO® wide shape

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Technical specifications:

Art. No.	HY05.1	HY06.1	HY07.1	HY09.1	HY08.1
Sheet width	17 mm	22 mm	25 mm	32 mm	31 mm
Sheet length	60 mm	80 mm	90 mm	115 mm	105 mm

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
28	43	150	**HY05.1**	1 unit(s)	5,00
36	60	200	**HY06.1**	1 unit(s)	5,50
43	75	240	**HY07.1**	1 unit(s)	6,65
45	110	320	**HY09.1**	1 unit(s)	10,30
50	85	280	**HY08.1**	1 unit(s)	8,85

A 121 °C

Double spoon large

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Technical specifications:

Art. No.	YC88.1	YC89.1
Width of spoon 2	30 mm	38 mm
Length of spoon 2	45 mm	75 mm

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
22	35	160	**YC88.1**	1 unit(s)	7,85
30	60	230	**YC89.1**	1 unit(s)	9,85

A 121 °C

Double spoon ROTILABO® rounded handle

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301). Autoclavable: Yes.

Technical specifications:

Art. No.	K746.1	K747.1	K748.1	K749.1	K750.1	K751.1
Width of spoon 2	25 mm			30 mm	35 mm	
Length of spoon 2	30 mm			35 mm	45 mm	

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
17	17	120	**K746.1**	1 unit(s)	6,60
17	17	150	**K747.1**	1 unit(s)	6,75
17	17	180	**K748.1**	1 unit(s)	7,20
20	25	210	**K749.1**	1 unit(s)	7,55
20	25	250	**K750.1**	1 unit(s)	8,45
20	25	300	**K751.1**	1 unit(s)	8,95

Spoons and spatulas

Double spoon ROTILABO® open type

ROTH SELECTION. Material: Stainless steel 1.4301.
Double-sided, large spoon, open at front.

Technical specifications:

Art. No.	HPY7.1	HPY8.1	HPY9.1
Width of spoon 2	15 mm		
Length of spoon 2	17 mm		

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
20	32	150	**HPY7.1**	5 unit(s)	29,20
20	32	180	**HPY8.1**	5 unit(s)	30,25
20	32	210	**HPY9.1**	5 unit(s)	31,10

A 121 °C

Double spoon

Hammacher. Material: Stainless steel Wironit 4301. Autoclavable: Yes.

Technical specifications:

Art. No.	YC83.1	YC84.1	YC85.1	YC86.1	YC87.1
Width of spoon 2	20 mm	24 mm	27 mm	30 mm	35 mm
Length of spoon 2	25 mm	32 mm	35 mm	40 mm	45 mm

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
11	22	150	**YC83.1**	1 unit(s)	31,75
20	27	180	**YC84.1**	1 unit(s)	33,10
20	28	210	**YC85.1**	1 unit(s)	36,10
24	32	250	**YC86.1**	1 unit(s)	38,95
29	40	300	**YC87.1**	1 unit(s)	41,30

A 121 °C

Double spoon narrow form

ROTH SELECTION. Material: Stainless steel Remanit 4301.
Autoclavable: Yes.

Technical specifications:

Art. No.	K733.1
Width of spoon 2	20 mm
Length of spoon 2	35 mm

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
12	30	190	**K733.1**	1 unit(s)	7,70

A 121 °C

Double spoon

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.
Handle Ø 3.5 mm.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	20	180	**YK72.1**	1 unit(s)	7,35
10	20	210	**YK73.1**	1 unit(s)	7,65

Spoons and spatulas

121 °C

Spoons ROTILABO® multi-purpose spoon

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With sturdy round handle.

(1) Small form
Handle Ø 5 mm.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
15	35	150	**HX95.1**	1 unit(s)	6,65
15	35	180	**HX96.1**	1 unit(s)	6,90
15	35	210	**HX97.1**	1 unit(s)	7,15
15	35	250	**HX98.1**	1 unit(s)	7,80
15	35	300	**HX99.1**	1 unit(s)	7,85

(2) Large form
Handle Ø 8 mm.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
28	65	210	**HY00.1**	1 unit(s)	9,75
28	65	250	**HY01.1**	1 unit(s)	10,20
28	65	300	**HY02.1**	1 unit(s)	10,75
28	65	400	**HY03.1**	1 unit(s)	13,80
28	65	500	**HY04.1**	1 unit(s)	15,20

121 °C

Spoon spatulas

ROTH SELECTION. Material: Stainless steel 18/10, Remanit 4301.
Autoclavable: Yes.

(1) With rounded handle

Technical specifications:

Art. No.	A641.1	A642.1	A643.1	A644.1
Sheet width	15 mm			
Sheet length	35 mm			

Spoon width (mm)	Total length (mm)	Art. No.	Pack Qty.	€
25	150	**A641.1**	1 unit(s)	6,75
25	180	**A642.1**	1 unit(s)	7,20
25	210	**A643.1**	1 unit(s)	7,85
25	250	**A644.1**	1 unit(s)	7,85

(2) With flat handle

Technical specifications:

Art. No.	YP87.1	YP88.1	YP89.1	YP90.1	YP91.1	YP92.1
Sheet width	18 mm		20 mm		28 mm	
Sheet length	20 mm	25 mm		30 mm	40 mm	

Spoon width (mm)	Total length (mm)	Art. No.	Pack Qty.	€
20	120	**YP87.1**	1 unit(s)	3,50
25	150	**YP88.1**	1 unit(s)	3,80
25	180	**YP89.1**	1 unit(s)	4,10
30	210	**YP90.1**	1 unit(s)	4,85
35	250	**YP91.1**	1 unit(s)	8,10
35	300	**YP92.1**	1 unit(s)	9,15

121 °C

Micro-spoon spatulas

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With hexagonal handle.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
5	5	140	**AT18.1**	1 unit(s)	11,10

Spoon spatulas

A 121 °C

Micro-spoon spatulas ROTILABO® powder spatula

ROTH SELECTION. Material: Stainless steel 1.4301. Autoclavable: Yes.

Contents:
1 x L 150 mm, 1 x L 180 mm, 1 x L 210 mm

Technical specifications:

Art. No.	HEY4.1	HEY5.1
Sheet width	5 mm	7 mm

Set narrow form

Spoon width (mm)	Pack.	Art. No.	Pack Qty.	€
5.5	3 units	**HEY4.1**	1 set	14,70

Set wide form

Spoon width (mm)	Pack.	Art. No.	Pack Qty.	€
8	3 units	**HEY5.1**	1 set	14,85

A 121 °C

Spoons multi-purpose, for left-handed users set

ROTH SELECTION. Material: Stainless steel 1.4301. Autoclavable: Yes.
With sturdy round handle.

Contents:
3 spoons, type (1):
Total length: 1 x 150, 1 x 180, 1 x 210 mm
Spoon dimensions: L 35 x W 15 mm
Handle Ø 5 mm
2 spoons, type (2):
Total length: 1 x 210, 1 x 300 mm
Spoon dimensions: L 65 x W 28 mm
Handle Ø 8 mm

Pack.	Art. No.	Pack Qty.	€
5 pieces	**HEY3.1**	1 set	32,45

Spoon spatulas

Bochem.

Technical specifications:

Art. No.	PH56.1	PH57.1	PH58.1	PH62.1	PH59.1	PH60.1	PH61.1
Sheet width	20 mm	22 mm				32 mm	37 mm
Sheet length	30 mm	32 mm				45 mm	50 mm

(1) Stainless steel
Material: Stainless steel 18/10. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
23	31	120	**PH56.1**	1 unit(s)	3,95
27	38	150	**PH57.1**	1 unit(s)	4,80
28	40	180	**PH58.1**	1 unit(s)	5,40
28	40	210	**PH59.1**	1 unit(s)	6,20
35	50	250	**PH60.1**	1 unit(s)	10,05
41	55	300	**PH61.1**	1 unit(s)	12,15

(2) PTFE-coated
Material: Stainless steel 18/10, PTFE-coated.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
28	40	180	**PH62.1**	1 unit(s)	32,95

A 121 °C

Micro-spoon spatulas ROTILABO® powder spatula

ROTH SELECTION. Material: Stainless steel 1.4301. Autoclavable: Yes.

Technical specifications:

Art. No.	CHN5.1
Sheet width	5 mm
Sheet length	30 mm

Spoon width (mm)	Total length (mm)	Art. No.	Pack Qty.	€
5	150	**CHN5.1**	1 unit(s)	5,95

Spoon spatulas

A 121 °C

Spoon spatulas

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Technical specifications:

Art. No.	YK74.1	YK75.1	YK76.1	YK77.1	YK78.1	YK79.1
Sheet width	10 mm					
Sheet length	35 mm		50 mm	55 mm	60 mm	

(1) With micro-spoon
Handle Ø 3.5 mm.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	20	180	**YK74.1**	1 unit(s)	6,25
10	20	210	**YK75.1**	1 unit(s)	6,80

(2) With flat spoon
Handle Ø 3.5 mm (YK79.1 handle Ø 4 mm).

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
17	38	150	**YK76.1**	1 unit(s)	7,45
17	38	180	**YK77.1**	1 unit(s)	7,65
17	38	210	**YK78.1**	1 unit(s)	8,10
17	38	230	**YK79.1**	1 unit(s)	8,45

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

A 121 °C

Micro-spoon spatulas

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

(1) Spoon form

Technical specifications:

Art. No.	PX33.1	6186.1	PX34.1	PX35.1	YP97.1	YP98.1	YP99.1
Sheet width	5 mm						
Sheet length	30 mm						

Spoon width (mm)	Total length (mm)	Art. No.	Pack Qty.	€
5	100	**PX33.1**	1 unit(s)	4,55
5	150	**6186.1**	1 unit(s)	5,25
5	185	**PX34.1**	1 unit(s)	4,80
5	300	**PX35.1**	1 unit(s)	5,25
7	150	**YP97.1**	1 unit(s)	4,55
7	185	**YP98.1**	1 unit(s)	4,70
7	210	**YP99.1**	1 unit(s)	5,05

(2) Shovel form

Technical specifications:

Art. No.	3191.1	PX36.1
Sheet width	5 mm	
Sheet length	40 mm	

Total length (mm)	Art. No.	Pack Qty.	€
150	**3191.1**	1 unit(s)	5,55
180	**PX36.1**	1 unit(s)	6,95

A 121 °C

Micro-spoon with wire end

Hammacher. Material: Stainless steel Wironit 1.4301. Autoclavable: Yes.

Version	Total length (mm)	Art. No.	Pack Qty.	€
Right-handed	180	**KAT0.1**	1 unit(s)	20,10
Left-handed	180	**KAT1.1**	1 unit(s)	21,45

121 °C

Spatula american form

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
140	6	45	**YL35.1**	1 unit(s)	5,20
160	6	45	**YL36.1**	1 unit(s)	6,00
210	6	45	**YL37.1**	1 unit(s)	6,75

121 °C

Double spatulas micro

Hammacher. Autoclavable: Yes.

(1) Rectangular form
Material: Stainless steel Remanit 4024. Flexible, handle Ø 2.5 mm.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
130	6	40	**YL38.1**	1 unit(s)	4,75
150	6	40	**YL39.1**	1 unit(s)	4,95
185	6	50	**YL40.1**	1 unit(s)	5,35
210	6	55	**YL41.1**	1 unit(s)	5,70

(2) Trapezoidal
Material: Stainless steel Wironit 4301. Handle Ø 2.0 mm.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
130	5	28	**YL42.1**	1 unit(s)	11,95
185	5	30	**YL43.1**	1 unit(s)	12,20
210	5	30	**YL44.1**	1 unit(s)	12,95

121 °C

Double spatulas

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

(1) Narrow form

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
300	15	70	**YK66.1**	1 unit(s)	8,00
350	15	70	**YK67.1**	1 unit(s)	9,55
400	20	70	**YK68.1**	1 unit(s)	10,35
500	20	70	**YK69.1**	1 unit(s)	12,55

(2) Wide form

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	15	32	**YK70.1**	1 unit(s)	5,00
210	18	36	**YK71.1**	1 unit(s)	6,20

121 °C

Double spatulas ROTILABO® micro

ROTH SELECTION. Material: Stainless steel 18/10, electrolytically polished. Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
100	2	**3396.1**	1 unit(s)	3,20
130	2	**3415.1**	1 unit(s)	3,45
150	2	**3433.1**	1 unit(s)	3,70
100	3	**3439.1**	1 unit(s)	4,15
130	3	**2865.1**	1 unit(s)	4,55
150	3	**2866.1**	1 unit(s)	4,55
100	4	**2867.1**	1 unit(s)	4,55
130	4	**2868.1**	1 unit(s)	4,55
150	4	**2869.1**	1 unit(s)	4,55
185	4	**2889.1**	1 unit(s)	4,55
100	5	**2901.1**	1 unit(s)	4,55
130	5	**2905.1**	1 unit(s)	4,55
150	5	**2906.1**	1 unit(s)	4,55
185	5	**2910.1**	1 unit(s)	4,55
210	5	**2912.1**	1 unit(s)	4,55

Spatulas

Double spatulas

ROTH SELECTION. Material: Stainless steel.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
150	6	**1902.1**	5 unit(s)	25,05

A 121 °C

Double spatulas

Hammacher. Material: Stainless steel Wironit 4301. Autoclavable: Yes.

(1) One spatula blade is rounded

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
120	4	25	**YK51.1**	1 unit(s)	10,60
120	6	28	**YK52.1**	1 unit(s)	11,45
150	9	36	**YK53.1**	1 unit(s)	11,95
180	9	38	**YK55.1**	1 unit(s)	12,35
210	9	40	**YK57.1**	1 unit(s)	12,70
150	11	38	**YK54.1**	1 unit(s)	12,05
180	11	40	**YK56.1**	1 unit(s)	13,15
210	11	40	**YK58.1**	1 unit(s)	13,05
240	12	60	**YK59.1**	1 unit(s)	16,15
300	13	60	**YK60.1**	1 unit(s)	17,15

(2) Two spatula blades rounded

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	7	28	**YK61.1**	1 unit(s)	12,85
180	7	28	**YK62.1**	1 unit(s)	13,15

(3) One spatula blade is trapezoidal

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	9	33	**YK63.1**	1 unit(s)	13,60
180	10	38	**YK64.1**	1 unit(s)	15,05
210	12	40	**YK65.1**	1 unit(s)	15,60

A 121 °C

Double spatulas

ROTH SELECTION. Autoclavable: Yes.

Stainless steel flexible
Material: Stainless steel 18/10 (Remanit 4301), electrolytically polished.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
130	8	**3293.1**	1 unit(s)	5,30
150	9	**3294.1**	1 unit(s)	5,50
185	9	**3298.1**	1 unit(s)	5,70
210	11	**3311.1**	1 unit(s)	6,15
250	11	**3318.1**	1 unit(s)	6,25

Stainless steel rigid
Material: Stainless steel 18/10 (Remanit 4301), electrolytically polished.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
300	16	**3321.1**	1 unit(s)	7,40
350	16	**3335.1**	1 unit(s)	7,85
500	20	**3351.1**	1 unit(s)	10,80

Pure nickel rigid
Material: Nickel 99.5 %, electrolytically polished. Spatula blades, trapezoidal.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
130	9	**3361.1**	1 unit(s)	56,50
210	11	**3371.1**	1 unit(s)	58,90
250	11	**3376.1**	1 unit(s)	62,75

A 121 °C

Double spatulas curved

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301), electrolytically polished. Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
130	4	30	**3194.1**	1 unit(s)	5,60
150	4	30	**3200.1**	1 unit(s)	5,60
185	4	30	**3455.1**	1 unit(s)	5,15
150	9	35	**3207.1**	1 unit(s)	6,05
185	9	35	**3472.1**	1 unit(s)	5,90
210	9	35	**3489.1**	1 unit(s)	6,20

Spatulas

A 121 °C

Double spatulas type Chattaway

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

(1) Straight

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
100	7	30	**YL21.1**	1 unit(s)	3,95
125	7	40	**YL22.1**	1 unit(s)	3,95
150	7	40	**YL23.1**	1 unit(s)	4,30
180	8	50	**YL24.1**	1 unit(s)	4,80
200	9	60	**YL25.1**	1 unit(s)	5,15
235	10	70	**YL26.1**	1 unit(s)	5,40
265	11	70	**YL27.1**	1 unit(s)	5,75

(2) Round spatula blade, curved

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
100	7	30	**YL28.1**	1 unit(s)	4,45
125	7	40	**YL29.1**	1 unit(s)	4,60
150	7	40	**YL30.1**	1 unit(s)	4,80
180	8	50	**YL31.1**	1 unit(s)	4,80
200	9	60	**YL32.1**	1 unit(s)	5,15
235	10	70	**YL33.1**	1 unit(s)	5,45
265	11	70	**YL34.1**	1 unit(s)	6,95

A 121 °C

Powder spatulas micro straight

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes. With hexagonal handle.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
150	3	**AT23.1**	1 unit(s)	11,10
150	4	**AT24.1**	1 unit(s)	11,10

A 121 °C

Powder spatulas micro

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes. Flexible.

Straight

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	3	40	**YL51.1**	1 unit(s)	6,00
185	3	50	**YL53.1**	1 unit(s)	6,80
130	6	40	**YL50.1**	1 unit(s)	6,35
150	6	40	**YL52.1**	1 unit(s)	6,65
185	6	50	**YL54.1**	1 unit(s)	7,50
210	6	55	**YL55.1**	1 unit(s)	7,45

Powder scoops, angled

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
210	4	55	**YL58.1**	1 unit(s)	7,35
150	5	40	**YL56.1**	1 unit(s)	6,85
185	5	50	**YL57.1**	1 unit(s)	7,20

A 121 °C

Powder spatulas

Hammacher. Material: Stainless steel 18/10 (Wironit 4301). Autoclavable: Yes.

(1) Standard

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
120	6	28	**YL14.1**	1 unit(s)	11,95
150	9	30	**YL15.1**	1 unit(s)	12,45
180	9	35	**YL16.1**	1 unit(s)	13,10
210	9	38	**YL17.1**	1 unit(s)	13,85

(2) Micro

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
130	4	28	**YL18.1**	1 unit(s)	13,25
150	4	28	**YL19.1**	1 unit(s)	13,65
180	5	30	**YL20.1**	1 unit(s)	13,60

Spatulas

121 °C

Powder spatulas

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	40	170	**YL59.1**	1 unit(s)	5,90

121 °C

Powder spatulas

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	40	170	**C829.1**	1 unit(s)	3,20

121 °C

Spatula Curved spoon-shaped

ROTH SELECTION. Material: Stainless steel 18/10, electrolytically polished. Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
130	5	**3006.1**	1 unit(s)	3,25
150	5	**3066.1**	1 unit(s)	3,30
185	5	**3015.1**	1 unit(s)	3,50
210	5	**3042.1**	1 unit(s)	3,75

Spatula micro Set

ROTH SELECTION. Material: Stainless steel 18/10, plastic handle made of PVC, black.

Blade width 3 to 6 mm.

Total length (mm)	Pack.	Art. No.	Pack Qty.	€
160	4 pieces	**AT16.1**	1 set	15,65

Powder spatulas micro Set

ROTH SELECTION. Material: Stainless steel 18/10, plastic handle made of PVC, black.

Blade width 3 to 6 mm.

Total length (mm)	Pack.	Art. No.	Pack Qty.	€
160	4 pieces	**AT17.1**	1 set	17,25

Spatula micro

Bochem. Material: Stainless steel 18/10, plastic handle made of PVC, black.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
160	4	**6191.1**	1 unit(s)	4,00
160	5	**3119.1**	1 unit(s)	4,00

Spatulas

A 121 °C

Spatula micro straight

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With hexagonal handle.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
140	3	**AT21.1**	1 unit(s)	11,10
140	4	**AT22.1**	1 unit(s)	11,10

A 121 °C

Spatula micro round

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With hexagonal handle.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
140	2	**AT19.1**	1 unit(s)	11,10
140	3	**AT20.1**	1 unit(s)	11,10

Dosing spatula

Bochem. Material: Stainless steel 18/10, plastic handle.
For powder. granulate and similar. Dosing is performed by turning the thumbwheel.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
190	12	50	**C848.1**	1 unit(s)	20,60

Dosing spatula type vibration spatula

Hammacher. Material: Stainless steel 1.4301, handle made of PVC.

Standard

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
210	5	18	**KAX3.1**	1 unit(s)	30,30

PTFE-coated

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
210	5	18	**KAX4.1**	1 unit(s)	35,35

Spatula with knob

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301), Button made of plastic.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	9	35	**K722.1**	1 unit(s)	6,35
210	11	40	**K723.1**	1 unit(s)	6,70
250	20	40	**K728.1**	1 unit(s)	8,65
300	30	70	**K729.1**	1 unit(s)	10,05
400	30	65	**K730.1**	1 unit(s)	11,30
500	30	60	**K731.1**	1 unit(s)	12,40

Double spatulas for mortar

Bochem. Material: Stainless steel (18/10).
Solid version.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	20	40	**1C57.1**	1 unit(s)	14,45
200	20	40	**1C58.1**	1 unit(s)	15,75
250	25	60	**1C59.1**	1 unit(s)	19,50
300	25	60	**1C5A.1**	1 unit(s)	22,85
400	25	60	**1C5C.1**	1 unit(s)	30,00

Spatulas

Spatula ROTILABO®

ROTH SELECTION. Material: Stainless steel (hardened), handle made of wood.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
180	18	70	**A651.1**	1 unit(s)	8,00
210	20	100	**A652.1**	1 unit(s)	8,20
235	20	125	**A653.1**	1 unit(s)	9,20
255	22	145	**A654.1**	1 unit(s)	9,80

Chemist's spatula

ROTH SELECTION. Material: Stainless steel 1.4034 (hardened), handle made of wood.

Flat blade.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
320	30	200	**HPY4.1**	2 unit(s)	17,25
370	30	250	**HPY5.1**	2 unit(s)	18,80
420	30	300	**HPY6.1**	2 unit(s)	19,95

A 121 °C

Spatula

ROTH SELECTION. Material: Stainless steel 18/0 (flexible), handle made of stainless steel 18/10. Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
340	30	210	**CY65.1**	1 unit(s)	9,70

Spatula set

ROTH SELECTION. Material: Stainless steel 18/10 (instruments), Case made of plastic.

Instruments autoclavable, case not autoclavable.

Contents:

Microspoon, L 150 mm, spoon width 5 mm
Micro spoon spatula L 150 mm, spoon width 7 mm
Micro double spatula, L 150 mm, blade width 4 mm
Double spatula, L 150 mm, blade width 9 mm
Double spatula, curved, L 150 mm, blade width 4 mm
Double spatula, curved, L 150 mm, blade width 9 mm
Tweezers, straight blunt (anatomical), L 145 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
150	90	**E286.1**	1 unit(s)	48,40

Spatula set

Hammacher.

In zip-up case, spatula fastened with elastic loops.

Contents:

2 spoon spatulas, 150 mm and 180 mm
3 micro spoon spatula, spoon 5 x 7 mm, L 100, 150, 185 mm
3 double spatulas, rigid, L 130, 150, 185 mm
1 micro-powder spatula, flexible, 150 mm
1 chemist's spoon, double-ended, 170 mm
1 spoon for chemicals, double-ended, 150 mm
1 weighing spatula, 170 mm
2 micro-double spatulas, spoon-shaped, L 130, 150 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
215	155	25	**KAT8.1**	1 unit(s)	90,50

Spatula stirring spatula wide shape

Hammacher. Material: PP.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
160	20	**HEA6.1**	1 unit(s)	13,95

Spatulas

A 121 °C

Scalpel for easy lifting of tissue solid

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Flexible blade.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	10	50	**A645.1**	1 unit(s)	7,35
150	15	50	**A646.1**	1 unit(s)	7,70
150	20	50	**A647.1**	1 unit(s)	7,70

A 121 °C

Spatula

ROTH SELECTION. Material: Stainless steel 18/0, handle made of PA.
Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
260	65	100	**YE83.1**	1 unit(s)	26,05
285	100	160	**YE84.1**	1 unit(s)	33,20

Spatula

ROTH SELECTION. Material: Stainless steel 18/0 (1.4016), handle made of wood.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
215	100	115	**8108.1**	1 unit(s)	13,15

Scraper

ROTH SELECTION. Material: PP.
Flexible.

Sheet width (mm)	Sheet length (mm)	Material thickness (mm)	Art. No.	Pack Qty.	€
100	130	0.6	**YE82.1**	10 unit(s)	8,75

NEW / +

Spatula ROTILABO®

Boettger.

Wood

Material: Wood.

Not a medical device / Not an IVD product

Sterility	Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
Non-sterile	150	20	**EH10.1**	100 unit(s)	4,95

Mouth spatulas sterile wood

Material: Wood. For use as tongue depressor. ETO gas sterilised, individually packed.

Medical device class I MDD

Sterility	Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
Sterile	150	20	**XL58.2**	1,000 unit(s)	382,70

Mouth spatulas plastic

Material: PS. For use as tongue depressor.

Medical device class I MDD

Sterility	Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
Non-sterile	150	20	**XL59.2**	1,500 unit(s)	115,20

Spatulas

Spatula wood

ROTH SELECTION. Material: Wood.

Not a medical device / Not an IVD product

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
140	5	**APE1.1**	1,000 unit(s)	5,60

A 121 °C

Spatula glass

Hammacher. Material: Soda-lime glass. Autoclavable: Yes.

Total length (mm)	Art. No.	Pack Qty.	€
100	**HEA5.1**	1 unit(s)	5,30

Spatula ROTILABO® stirring spatula

ROTH SELECTION. Material: PS, transparent.

Bar Ø 3 mm.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
120	3	30	**4893.2**	500 unit(s)	17,55

With mixing plate

For vertical mixing in cuvettes or other narrow vessels.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
120	3	30	**XL60.1**	500 unit(s)	17,90

A 121 °C

Double spatulas ROTILABO® porcelain

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.

Temperature-stable to 1000 °C.

Total length (mm)	Art. No.	Pack Qty.	€
104	**XX58.1**	5 unit(s)	38,15
186	**XX59.1**	5 unit(s)	50,55
250	**XX60.1**	5 unit(s)	56,90
298	**XX61.1**	5 unit(s)	69,15

A 121 °C

Double spatulas PTFE

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

- Double-sided, flexible
- Chemically inert
- Weight 19 g
- Temperature stability: -200 to +250 °C

Total length (mm)	Sheet width (mm)	Material thickness (mm)	Art. No.	Pack Qty.	€
150	16	4	**0503.1**	1 unit(s)	19,05

A 121 °C

Double spatulas plastic

Kartell. Material: PA, glass fibre reinforced. Autoclavable: Yes.

Total length (mm)	Art. No.	Pack Qty.	€
150	**TT31.1**	10 unit(s)	12,35
180	**TT32.1**	10 unit(s)	13,80

Spatulas

Spatula disposable plastic

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Suitable for use as sample spoon, scraper and stirring rod. Ideal for weighing, e.g. in PCR vessels, reaction vials and centrifuge tubes. FDA-compliant. Temperature stability: 0 to +121 °C.

A 121 °C

Eco

Handle Ø 7 mm.

Pic.	Colour	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
(2)	natural	14	25	140	1 x 300	**NL91.1**	300 unit(s)	53,25

Macro

Handle Ø 10 mm.

Pic.	Colour	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
(5)	green	23.5	42	310	1 x 150	**NL95.1**	150 unit(s)	52,15

Micro, anti-static

Handle Ø 3.5 mm.

Pic.	Colour	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
(1)	natural	3.5	10	140	1 x 300	**NL90.1**	300 unit(s)	37,65

Standard

Handle Ø 7 mm.

Pic.	Colour	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
(3)	blue	14	25	210	1 x 300	**NL92.1**	300 unit(s)	50,75
(4)	natural	14	25	210	1 x 300	**NL93.1**	300 unit(s)	50,75

Sterile

Sterile. Handle Ø 7 mm.

Pic.	Colour	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
(4)	natural	14	25	210	10 x 10	**NL94.1**	100 unit(s)	174,15

Spatula micro disposable

Bürkle. Material: PS.

Double scoop spatula with rounded ends, contents 1.0 and 0.25 ml. Stable and comfortable centre handle for prcise working. For filling or processing small amounts of chemicals, powders, granulates, pastes, creams or liquids.
Cleanroom-manufactured (class 7). Suitable for foodstuffs. Optionally sterile (gamma-sterilised).

Sterility	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
Non-sterile	180	1 x 100	**HEP6.1**	100 unit(s)	23,35
Sterile	180	100 x 1	**HEP7.1**	100 unit(s)	61,50

Laboratory jacks

Jack ROTILABO®

Usbeck. Material: Stainless steel, Aluminium scissor frame.

Rubber feet for slip-resistant standing position. Support plates with M10 threaded hole, e.g. for attaching the Flex clamps, Art. No. YT72.1ff (please order separately).

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
120 x 140	60–243	5	30	DIN 12897	**YT69.1**	1 unit(s)	141,00
130 x 160	60–255	7	30	DIN 12897	**T458.1**	1 unit(s)	157,35
200 x 200	60–265	7	30	DIN 12897	**T459.1**	1 unit(s)	174,15

Heavy duty version

Gas-spring assisted for easy action.

L x W (mm)	Height-adjustability	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
300 x 300	130-470 mm	12	60	DIN 12897	**YT70.1**	1 unit(s)	600,95
400 x 400	150-670 mm	15	60	DIN 12897	**YT71.1**	1 unit(s)	780,45

Jack ROTILABO® Mini

Usbeck. Material: Stainless steel, Aluminium scissor frame.

Rubber feet for slip-resistant standing position.

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
75 x 80	49–147	2	15	DIN 12897	**YT68.1**	1 unit(s)	133,10

Jack autoclavable

Bochem. Material: Stainless steel 18/10 (plates, scissor and rotary knob). Autoclavable: Yes.

A 121 °C

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
160 x 130	60–275	7	30	DIN 12897	**CHY3.1**	1 unit(s)	209,65
200 x 200	60–275	7	30	DIN 12897	**CHY4.1**	1 unit(s)	246,20
240 x 240	60–275	7	30	DIN 12897	**CHY5.1**	1 unit(s)	262,30

Laboratory jacks

Lab jack

Bochem. Material: Aluminium, powder-coated, scissor construction made of 18/10 stainless steel.

Ergonomic knob, rounded.

Type 1

With simple setting wheel, manual operation.

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
100 x 100	55–120	5	10	DIN 12897	**K578.1**	1 unit(s)	140,95
160 x 130	60–275	7	30	DIN 12897	**K579.1**	1 unit(s)	151,55
200 x 200	60–275	7	30	DIN 12897	**K580.1**	1 unit(s)	167,70
240 x 240	60–275	7	30	DIN 12897	**K581.1**	1 unit(s)	190,30

Type 2

It is recommended to use a ratchet, which is attached to a special adjusting wheel.

Delivery incl. ratchet.

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
300 x 300	90–470	12	60	DIN 12897	**0483.1**	1 unit(s)	553,65
400 x 400	90–470	15	60	DIN 12897	**K583.1**	1 unit(s)	851,40

Jack MAXI

Bochem.

Height adjustment via adjusting wheel, 30% more height thanks to extended scissor lift.

Stainless steel

Material: Stainless steel 18/10.

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Colour	Standards	Art. No.	Pack Qty.	€
160 x 130	75–400	7	30	silver	DIN 12897	**YT34.1**	1 unit(s)	224,70
200 x 200	75–400	7	30	silver	DIN 12897	**YT35.1**	1 unit(s)	266,60

Aluminium

Material: Aluminium powder coated.

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Colour	Standards	Art. No.	Pack Qty.	€
160 x 130	75–400	7	30	green	DIN 12897	**YT36.1**	1 unit(s)	167,70
200 x 200	75–400	7	30	green	DIN 12897	**YT37.1**	1 unit(s)	198,90

Laboratory jacks

Jack Swiss Boy

Rudolf Grauer. Material: Aluminium anodised.

- Easily adjustable
- High stability
- High load capacity

The static load is always specified at the centre position.

Standard

Type	L x W (mm)	Height-adjustability (mm)	Static load (kg)	Colour	Art. No.	Pack Qty.	€
100	40 x 50	30-91	10	green	**1A1C.1**	1 unit(s)	123,65
105	75 x 80	49-147	15	blue	**1A1K.1**	1 unit(s)	139,75
110	140 x 120	60-243	30	pink	**1A1L.1**	1 unit(s)	177,40
115	150 x 122	80-278	40	yellow	**1A1N.1**	1 unit(s)	209,65
116	216 x 180	95-398	60	blue	**1A22.1**	1 unit(s)	327,90
118	320 x 240	120-493	70	silver	**1A1E.1**	1 unit(s)	1.021,25
122	400 x 400	253-629	110	yellow/black	**1A1H.1**	1 unit(s)	2.663,85

One additional plate

The additional plate fitted on the jack offers a larger mounting surface. Dimensions (L x W) are overall dimensions including additional plate.

Delivery incl. additional plate (fitted).

Type	L x W (mm)	Height-adjustability	Static load (kg)	Colour	Art. No.	Pack Qty.	€
110+	200 x 200	60-243	30	pink	**1A1P.1**	1 unit(s)	229,00
115+	200 x 200	80-278	40	yellow	**1A25.1**	1 unit(s)	261,25
118+	500 x 400	120-493	70	silver	**1A23.1**	1 unit(s)	1.269,60
110+	300 x 300	60-243	30	pink	**1A1X.1**	1 unit(s)	258,00
115+	300 x 300	80-278	40	yellow	**1A27.1**	1 unit(s)	291,35
110+	260 x 180	60-243	30	pink	**1A20.1**	1 unit(s)	241,90
115+	260 x 180	80-278	40	yellow	**1A29.1**	1 unit(s)	274,15

Two additional plates

The two additional plates (fitted at the top and bottom of the jack) provide a larger mounting surface and improved stability. Dimensions (L x W) are overall dimensions including additional plates.

Delivery incl. additional plate (fitted).

Type	L x W (mm)	Height-adjustability	Static load (kg)	Colour	Art. No.	Pack Qty.	€
110+	200 x 200	60-243	30	pink	**1A1T.1**	1 unit(s)	278,45
115+	200 x 200	80-278	40	yellow	**1A26.1**	1 unit(s)	310,70
118+	500 x 400	120-493	70	silver	**1A24.1**	1 unit(s)	1.517,90
110+	300 x 300	60-243	30	pink	**1A1Y.1**	1 unit(s)	339,70
115+	300 x 300	80-278	40	yellow	**1A28.1**	1 unit(s)	373,05
110+	260 x 180	60-243	30	pink	**1A21.1**	1 unit(s)	306,40
115+	260 x 180	80-278	40	yellow	**1A2A.1**	1 unit(s)	338,65

With rollers

Delivery incl. rollers.

Type	L x W (mm)	Height-adjustability	Static load (kg)	Colour	Art. No.	Pack Qty.	€
122R	400 x 400	317-693	90	yellow/black	**1A1A.1**	1 unit(s)	2.676,75

H-stand

Bochem. Material: Aluminium, base made of grey cast iron.

Support rods Ø 12 mm.

Delivery incl. base, 3 stand rods 80 cm, 2 stand rods 50 cm and 6 boss heads.

Width (mm)	Depth (mm)	Height (mm)	Weight (kg)	Art. No.	Pack Qty.	€
500	250	800	6,5	**CHH2.1**	1 unit(s)	293,50

H-stand

IKA.

Suitable for larger, heavy devices and structures such as stirrers. Tilt-resistant thanks to H-base. With balance screw to compensate for uneven surfaces on the laboratory table.
Support rods-Ø: 34 mm. Max. weight load: 10 kg.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R 2722	460	420	1,010	**CC16.1**	1 unit(s)	675,00

Height-adjustable
With compression sprung telescopic support rod for smoothly moving heavy devices or structures up and down. Lifting height: 390 mm.

Type	Width (mm)	Depth (mm)	Height-adjustability (mm)	Art. No.	Pack Qty.	€
R 2723	460	420	620-1010	**CC17.1**	1 unit(s)	1.251,00

H-tripod S2 series

Heidolph. Material: Stainless steel V2A.

The support rod is additionally secured with a nut which prevents it from being unscrewed accidentally. With levelling screw to compensate for unevenness. Max. weight load: 4 kg.

(1) Standard
Tripod rods-Ø 25 mm.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
S2	345	420	700	**TL67.1**	1 unit(s)	262,00
S2 XXL	345	420	1,000	**TL68.1**	1 unit(s)	296,00

(2) Tele
With extendable tripod rod from 725 to 1025 mm.
Support rods-Ø 32 mm.

Type	Width (mm)	Depth (mm)	Height-adjustability (mm)	Art. No.	Pack Qty.	€
Tele S2	345	420	725–1025	**TL69.1**	1 unit(s)	598,00

Plate stands

IKA. Material: Stainless steel, tripod plate epoxy coated, rubber pad.

With slip-resistant foil on the plate. The support rod is additionally secured with a nut under the plate which prevents it from being unscrewed accidentally. Support rod-Ø: 16 mm. Max. weight load: 5 kg.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R 1825	200	316	560	**CC13.1**	1 unit(s)	281,00
R 1826	200	316	800	**CC14.1**	1 unit(s)	309,00
R 1827	200	316	1,000	**CC15.1**	1 unit(s)	330,00

Stand material

Stand plate with rods

Kartell. Material: PP, Rods made of chrome-plated steel.

Stand plate height 15 mm. Stand rod length 250 mm, Ø 12 mm, can be screwed together to increase the overall height.

Delivery incl. two support rods.

Version	Width (mm)	Depth (mm)	Height-adjustability (mm)	Art. No.	Pack Qty.	€
Central insertion opening	300	150	>250	**TT24.1**	1 unit(s)	75,95
Side insertion opening	150	300	>250	**TT25.1**	1 unit(s)	75,95

Flexible stand ROTILABO®

Usbeck. Material: Die-cast zinc, Brass, nickel-plated.

With safety base.
Length 300 mm.

Version	Span (mm)	Art. No.	Pack Qty.	€
3 prong	0–40	**X094.1**	1 unit(s)	41,15
round	12–25	**X095.1**	1 unit(s)	39,90

Flex clamp ROTILABO® with M 10 thread

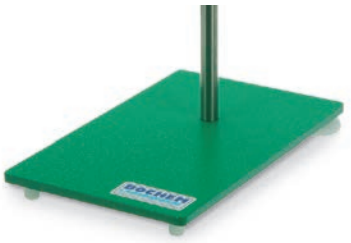
Usbeck. Material: Die-cast zinc, Brass nickel-plated.

For use on lifting platforms (Art. No. YT69.1ff) or stand plates with M 10 thread (e.g. Art. No. X072.1ff).

Technical specifications:

Art. No.	YT72.1	YT73.1
Total length	300 mm	

Version	Span (mm)	Art. No.	Pack Qty.	€
3 prong	0–40	**YT72.1**	1 unit(s)	31,90
round	12–25	**YT73.1**	1 unit(s)	31,75



Stand plates classic

Bochem. Material: Steel, powder-coated.

Acc. to DIN 12892.
With M10 threaded hole in the centre of the face side.
Stable position, with four feet, one adjustable foot.

Delivery without stand rod, please order separately.

Width (mm)	Depth (mm)	Weight (g)	Art. No.	Pack Qty.	€
130	210	1300	**2369.1**	1 unit(s)	35,05
150	300	2200	**2376.1**	1 unit(s)	36,85
160	250	2000	**2375.1**	1 unit(s)	38,25
200	315	3000	**2377.1**	1 unit(s)	53,00

Stand plates ROTILABO® high form

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301).

With four anti-slip feet for safe positioning. M 10 threaded hole in the centre of the face side. Ground clearance 28 mm.

Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
130	210	33	1600	**EPA1.1**	1 unit(s)	58,00
150	300	33	2500	**EPA2.1**	1 unit(s)	77,30

Stand plates stable position

Bochem. Material: Stainless steel 18/10 (material 1.4301-5, AISI type 304-303), anti-magnetic.

Acc. to DIN 12892. Wide, heavy adjusting feet with non-slip rubber surface for high stability, 1 adjustable foot to compensate for uneven surfaces. M10 threaded hole in the centre of the face side.

Delivery without stand rod, please order separately.

Width (mm)	Depth (mm)	Weight (g)	Art. No.	Pack Qty.	€
130	210	1600	**C851.1**	1 unit(s)	131,40
150	300	2000	**C853.1**	1 unit(s)	142,30
160	250	1900	**C852.1**	1 unit(s)	135,85
200	315	2400	**C854.1**	1 unit(s)	151,50

Stand plates ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301).

With four adjustable feet made of plastic. M 10 threaded hole in the centre of the face side.

Width (mm)	Depth (mm)	Weight (g)	Art. No.	Pack Qty.	€
100	180	850	**ENY4.1**	1 unit(s)	48,05
142	220	1470	**ENY5.1**	1 unit(s)	62,60
142	250	1670	**ENY6.1**	1 unit(s)	68,85
142	285	1900	**ENY7.1**	1 unit(s)	74,40
165	330	2600	**ENY9.1**	1 unit(s)	89,70
200	315	2970	**ENY8.1**	1 unit(s)	96,50

Tripods ROTILABO®

Usbeck. Material: Steel, powder-coated.

With M10 threaded hole.
Rubber feet for stability.

Arm length (mm)	Art. No.	Pack Qty.	€
80	**X072.1**	1 unit(s)	21,05
115	**X075.1**	1 unit(s)	23,45
150	**X076.1**	1 unit(s)	29,90
185	**X077.1**	1 unit(s)	35,80

Tripods ROTILABO®

Usbeck. Material: Steel, powder-coated.

Fixing of the rods with locking screw M 6.

- For rods up to Ø 13 mm
- Rubber feet for stability

Arm length (mm)	Art. No.	Pack Qty.	€
80	**X078.1**	1 unit(s)	27,40
115	**X079.1**	1 unit(s)	31,30
150	**X080.1**	1 unit(s)	39,65
185	**X081.1**	1 unit(s)	42,75

Tripod duo

Usbeck. Material: Steel, powder-coated.

- For two rods up to Ø 16 mm
- M 6 joint screws
- Anti-slip adjustable feet

Arm length (mm)	Art. No.	Pack Qty.	€
150	**1A05.1**	1 unit(s)	46,60
185	**1A06.1**	1 unit(s)	64,50

Stand base

Bochem. Material: Aluminium alloy (Laboral).

For stand rod-Ø 12-13 mm. Secured by socket head screw.
Base Ø 50 mm. With three screw holes.

Delivery without mounting material.

Version	Art. No.	Pack Qty.	€
For wall/ceiling attachment	**CHE9.1**	1 unit(s)	34,95

Stand base

Bochem. Material: Malleable cast iron.

For up to three Ø 12 mm stand rods. Rods are secured by slotted-head screws. Base Ø 80 mm. With four screw holes.

Delivery without bounting material.

Version	Art. No.	Pack Qty.	€
For wall/ceiling attachment	**CHE8.1**	1 unit(s)	23,95

Stand material

Burette stand

Bochem. Material: Grey cast iron, stainless steel stand rod (18/10), plastic plates.

For fastening 1-2 burettes using burette clamps (please order separately).

- Stand rod length 600 mm, Ø 10 mm
- Plate Ø 105 mm

Delivery incl. stand rod and 2 plates (black and white).

Width (mm)	Depth (mm)	Platform height (mm)	Total height (mm)	Weight (kg)	Art. No.	Pack Qty.	€
300	130	15	620	1,975	**1C4C.1**	1 unit(s)	82,40

Table clamp ROTILABO®

Usbeck. Material: Aluminium powder-coated.

For rods up to Ø 13 mm and table plates up to 60 mm thick.

Weight (g)	Art. No.	Pack Qty.	€
340	**X082.1**	1 unit(s)	31,95

Stand rods

Usbeck. Material: Steel stainless (material 1.4305), solid.

With M10 thread.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
600	10	**2378.1**	1 unit(s)	17,40
750	12	**2379.1**	1 unit(s)	18,65
1,000	12	**2380.1**	1 unit(s)	24,05
1,250	12	**2381.1**	1 unit(s)	28,25
1,500	16	**2382.1**	1 unit(s)	45,90

Stand rods ROTILABO®

ROTH SELECTION. Material: Stainless steel stainless (material 1.4305), polished.

With M10 thread.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
450	12	**CHC9.1**	1 unit(s)	14,95
500	12	**CHE0.1**	1 unit(s)	18,50
600	12	**P110.1**	1 unit(s)	22,45
750	12	**P111.1**	1 unit(s)	26,15
1,000	12	**P112.1**	1 unit(s)	32,45
1,250	12	**P113.1**	1 unit(s)	39,90
1,500	12	**P114.1**	1 unit(s)	45,85

Stand rods ROTILABO® without thread

ROTH SELECTION. Material: Stainless steel stainless (material 1.4305), polished.

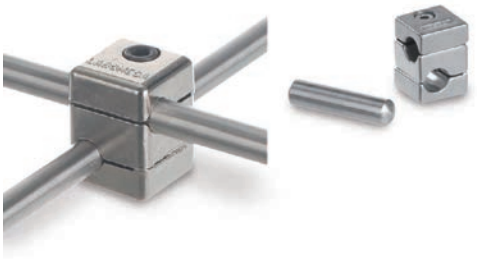
Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
450	12	**CHE1.1**	1 unit(s)	15,00
500	12	**CHE2.1**	1 unit(s)	16,10
600	12	**CHE3.1**	1 unit(s)	19,00
750	12	**CHE4.1**	1 unit(s)	21,70
1,000	12	**CHE5.1**	1 unit(s)	27,15
1,250	12	**CHE6.1**	1 unit(s)	32,60
1,500	12	**CHE7.1**	1 unit(s)	37,85

Double boss heads rectangular

Bochem. Material: Malleable cast iron, chrome-plated.

90° angle. With clamping screws.

Suitable for	Art. No.	Pack Qty.	€
Tripod rods up to Ø 16.5 mm	**2134.1**	1 unit(s)	11,25
Tripod rods up to Ø 20 mm	**2135.1**	1 unit(s)	16,50
Tripod rods up to Ø 36 mm	**2179.1**	1 unit(s)	29,05



Double boss heads square

Bochem.

For connecting 2 stand rods Ø 12-13 mm at an angle of 90°. With hexagon socket screws. Angles from 0-360° can be set by connecting two double boss heads using a connecting rod.

Delivery without connecting rod, please order separately.

Materialspecification	Suitable for	Art. No.	Pack Qty.	€
stainless steel 18/10	Tripod rods Ø 12-13 mm	**CHX6.1**	1 unit(s)	46,20
Aluminium alloy (Laboral)	Tripod rods Ø 12-13 mm	**CHX7.1**	1 unit(s)	14,70

Double boss head rectangular Aluminium

Bochem. Material: Aluminium.

Angle 90 °. With clamping screw, M8 thread.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 16.5 mm	**1C4E.1**	1 unit(s)	12,70

Cross double boss head

Bochem. Material: Malleable cast iron, chrome-plated.

90/180° angle. With clamping screws.

Suitable for	Art. No.	Pack Qty.	€
Tripod rods up to Ø 16.5 mm	**2194.1**	1 unit(s)	14,90

Clamp stainless steel

Bochem. Material: Stainless steel 18/10.

With heart-shaped safety screws.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 16.5 mm	**XT63.1**	1 unit(s)	67,00

Double boss head rotatable

Usbeck. Material: Die-cast zinc powder-coated, with nickel-plated brass clamping screws.

Suitable for	Art. No.	Pack Qty.	€
Rods up to Ø 16 mm	**2136.1**	1 unit(s)	19,90

Double boss head rotatable atainless steel

Bochem. Material: Stainless steel (18/10).

Angle 0-360 °. With heart-shaped safety screws, M6 thread.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 16 mm	**1C5E.1**	1 unit(s)	110,20

Stand material

Ball sleeves

Usbeck. Material: Die-cast zinc, with nickel-plated articulated screws.
Ball Ø 35 mm.

Materialspecification	Suitable for	Art. No.	Pack Qty.	€
unvarnished	Rods up to Ø 13 mm	**PH47.1**	1 unit(s)	10,25
nickel-plated	Rods up to Ø 13 mm	**PH48.1**	1 unit(s)	12,35
powder-coated	Rods up to Ø 13 mm	**PH46.1**	1 unit(s)	9,95

Hook boss heads

Usbeck.
For securely connecting stand rods or clamps to rods at a right angle.
Powder-coated steel with nickel-plated brass screw and plastic handle.

Materialspecification	Suitable for	Art. No.	Pack Qty.	€
Stainless steel	Tripod rods up to Å 13 mm	**E040.1**	1 unit(s)	19,70
Steel powder coated	Tripod rods up to Å 13 mm	**E039.1**	1 unit(s)	12,15

Cross double boss head

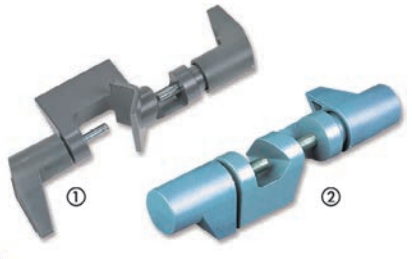
Bochem. Material: Aluminium.
90° angle. With easily accessible clamping screws.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 16.5 mm	**P179.1**	1 unit(s)	12,45

Universal clamp

Usbeck. Material: Aluminium powder-coated, nickel-plated brass clamping screws.
90/180° angle.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 13 mm	**P178.1**	1 unit(s)	18,95



Clamps

IKA. Material: Aluminium (cast).

R 270
Suitable for tripod type R 2722, R 2723.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Tripod rods Ø 25-36 mm, extension arms Ø 5-21 mm	**CC18.1**	1 unit(s)	116,00

R 182
Suitable for tripod type R 1825, R 1826, R 1827.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(2)	Tripod rods Ø 6-12 mm, extension arms Ø 6-16 mm	**CY92.1**	1 unit(s)	88,00

Universal boss head GIROFIX rotatable

Bochem. Material: Aluminium.

Angle 0–360 °.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 15 mm	**1C4K.1**	1 unit(s)	50,75

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Three-angle boss head

Bochem. Material: Aluminium (Duraluminium alloy).

Angle 90 + 180 + 270 °. Suitable for three-dimensional constructions and constructions across multiple levels.

Suitable for	Art. No.	Pack Qty.	€
Stand rod Ø 9-13 mm	**1C4L.1**	1 unit(s)	16,95
Stand rod Ø 19-23 mm	**1C4N.1**	1 unit(s)	30,75

Frame boss head

Bochem. Material: Malleable cast iron.

Angle 90 °. With ring bolt, M6 thread.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 13 mm	**1C4H.1**	1 unit(s)	8,80

Stand clamp universal

ROTH SELECTION.

4-finger jaws.

Technical specifications:

Art. No.	KX88.1	KX89.1
Total length	240 mm	

Stainless steel

Material: Stainless steel 18/10 (Remanit 4301), clamps with cork inlays.

Pic.	Version	Span (mm)	Art. No.	Pack Qty.	€
(1)	Four finger	90	**KX88.1**	1 unit(s)	46,20

Die-cast zinc

Material: Die-cast zinc clamps with cork inlays.

Pic.	Version	Span (mm)	Art. No.	Pack Qty.	€
(2)	Four finger	80	**KX89.1**	1 unit(s)	18,50

Stand material

Stand clamp universal Aluminium

Bochem. Material: Aluminium, clamps with cork inlays.
4-finger jaws.

Technical specifications:

Art. No.	1C50.1
Shaft length	180 mm
Ø Shaft	12 mm

Version	Span (mm)	Pack.	Art. No.	Pack Qty.	€
Four-finger	0-80	1 piece	**1C50.1**	1 unit(s)	16,40

Stand clamp large span

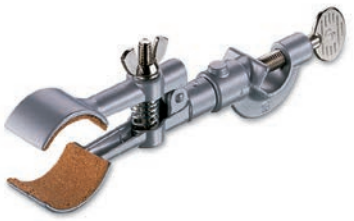
Bochem.
Acc. to DIN 12894.

Stainless steel
Material: Stainless steel 18/10, clamps with cork inlays.

Version	Span (mm)	Art. No.	Pack Qty.	€
round	80	**CHL9.1**	1 unit(s)	36,15
round	100	**CHN0.1**	1 unit(s)	57,55
round	120	**CHN1.1**	1 unit(s)	63,35
round	150	**CHN2.1**	1 unit(s)	82,05

Galvanised steel
Material: Steel galvanised, clamps with cork inlays.

Version	Span (mm)	Art. No.	Pack Qty.	€
round	80	**CHL5.1**	1 unit(s)	19,10
round	100	**CHL6.1**	1 unit(s)	21,40
round	120	**CHL7.1**	1 unit(s)	24,10
round	150	**CHL8.1**	1 unit(s)	27,65



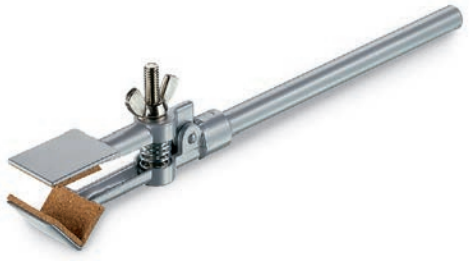
Stand clamp with boss head

Usbeck. Material: Die-cast zinc powder-coated, clamps with cork inlays.

Technical specifications:

Art. No.	X083.1	X084.1	X086.1
Total length	185 mm	195 mm	200 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
round	12–25	**X083.1**	1 unit(s)	14,50
round	20–40	**X084.1**	1 unit(s)	15,55
round	38–60	**X086.1**	1 unit(s)	18,15



Stand clamp

Usbeck. Material: Die-cast zinc powder-coated, clamps with cork inlays.

Technical specifications:

Art. No.	P172.1	P174.1	P175.1
Ø Shaft	10 mm		

Version	Span (mm)	Art. No.	Pack Qty.	€
square	10–25	**P172.1**	1 unit(s)	12,00
square	13–40	**P174.1**	1 unit(s)	12,65
square	26–60	**P175.1**	1 unit(s)	14,00

Stand clamp die-cast zinc

Usbeck. Material: Die-cast zinc powder-coated, clamps with cork inlays.

Technical specifications:

Art. No.	1993.1	1995.1	1998.1
Ø Shaft	10 mm		

Version	Span (mm)	Art. No.	Pack Qty.	€
round	12–25	**1993.1**	1 unit(s)	12,80
round	20–40	**1995.1**	1 unit(s)	13,80
round	38–60	**1998.1**	1 unit(s)	15,70

Stand clamp stainless steel

Bochem. Material: Stainless steel 18/10, clamps with cork inlays.
With two round jaws.

Technical specifications:

Art. No.	2000.1	2004.1	2007.1	P177.1
Shaft length	150 mm			180 mm
Ø Shaft	10 mm			12 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
round	20–25	**2000.1**	1 unit(s)	28,55
round	25–40	**2004.1**	1 unit(s)	31,20
round	50–60	**2007.1**	1 unit(s)	33,80
round	40–80	**P177.1**	1 unit(s)	37,65

NEW/+

Stand clamp adjustable

Bochem.
Clamping width can be adjusted independently of each other using 2 adjusting screws.

Technical specifications:

Art. No.	1C4P.1	1C4X.1	1C4T.1
Shaft length	125 mm	140 mm	
Ø Shaft	8 mm	12 mm	

Stainless steel
Material: Stainless steel (18/10), jaws coated with silicone.

Version	Span (mm)	Art. No.	Pack Qty.	€
round	8-30	**1C4P.1**	1 unit(s)	90,05
round	20-75	**1C4T.1**	1 unit(s)	97,00

Aluminium
Material: Aluminium (Laboral alloy), jaws coated with PVC.

Version	Span (mm)	Art. No.	Pack Qty.	€
round	22-70	**1C4X.1**	1 unit(s)	62,05

Stand clamp universal swivelling

ROTH SELECTION. Material: Die-cast zinc powder-coated, clamps with cork inlays.
4-finger jaws. Swivel range 180°.

Technical specifications:

Art. No.	YP54.1
Total length	275 mm
Shaft length	150 mm
Ø Shaft	10 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
Four finger	0–80	**YP54.1**	1 unit(s)	37,25

Flex clamp ROTILABO®

Bochem.

Technical specifications:

Art. No.	C863.1	C864.1	C865.1	C866.1	C867.1
Shaft length	250 mm	200 mm	250 mm		200 mm
Ø Shaft	12 mm				8 mm

Delivery without order boss.

Laboral
Material: Aluminium alloy, Nickel-plated shaft.

Pic.	Version	Span (mm)	Art. No.	Pack Qty.	€
(2)	round	15–65	**C864.1**	1 unit(s)	165,55
(5)	Three-Fingered	0–30	**C867.1**	1 unit(s)	128,85

Stainless steel
Material: Stainless steel 18/10, Nickel-plated shaft.

Pic.	Version	Span (mm)	Art. No.	Pack Qty.	€
(1)	round	25–40	**C863.1**	1 unit(s)	121,15
(3)	rectangular	25–40	**C865.1**	1 unit(s)	121,15
(4)	Three-Fingered	0–20	**C866.1**	1 unit(s)	118,65

Stand material

Flex clamp ROTILABO® with rotatable boss head

Usbeck. Material: Die-cast zinc, Brass, nickel-plated.

Technical specifications:

Art. No.	X087.1	X088.1
Total length	300 mm	

Version	Span (mm)	Suitable for	Art. No.	Pack Qty.	€
3 prong	0–40	Rods up to Ø 16 mm	**X087.1**	1 unit(s)	39,65
round	12–25	Rods up to Ø 16 mm	**X088.1**	1 unit(s)	40,90

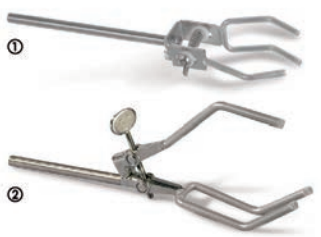
Stand clamp ROTILABO® three-finger type

Usbeck. Material: Die-cast zinc powder-coated, plastic-coated fingers.

Technical specifications:

Art. No.	X096.1	X097.1	X098.1
Total length	225 mm		250 mm
Shaft length	140 mm		
Ø Shaft	8 mm	10 mm	

Version	Span (mm)	Art. No.	Pack Qty.	€
Three-finger	0–40	**X096.1**	1 unit(s)	10,70
Three-finger	0–40	**X097.1**	1 unit(s)	11,30
Three-finger	25–80	**X098.1**	1 unit(s)	17,75



Stand clamp ROTILABO® three-finger type

Bochem. Material: Stainless steel 18/10, silicone-coated fingers.

Technical specifications:

Art. No.	CHN3.1	C827.1
Total length	320 mm	340 mm
Shaft length	190 mm	
Ø Shaft	12 mm	

Pic.	Version	Span (mm)	Art. No.	Pack Qty.	€
(1)	Three-finger	0–80	**CHN3.1**	1 unit(s)	77,45
(2)	Three-finger	0–120	**C827.1**	1 unit(s)	149,60

Stand clamp three-finger type adjustable

Bochem. Material: Aluminium (Laboral alloy), jaws coated with PVC. Clamping width can be adjusted independently of each other using 2 adjusting screws.

Technical specifications:

Art. No.	1C4Y.1
Shaft length	140 mm
Ø Shaft	12 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
Three finger	12-100	**1C4Y.1**	1 unit(s)	71,30

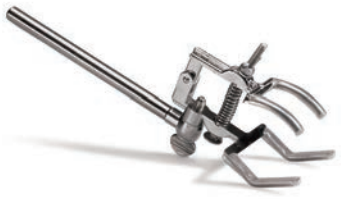
Stand clamp ROTILABO® four-finger type

Bochem. Material: Stainless steel 18/10, silicone-coated fingers.

Technical specifications:

Art. No.	CHN6.1
Total length	360 mm
Shaft length	190 mm
Ø Shaft	12 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
Four-finger	50–150	**CHN6.1**	1 unit(s)	104,55



Stand clamp ROTILABO® cooler clamps

Bochem. Material: Malleable cast iron chrome-plated, clamp fingers with silicone coating.

With movable shaft.

Technical specifications:

Art. No.	C826.1
Shaft length	150 mm
Ø Shaft	12 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
Cooler clamp	50–100	**C826.1**	1 unit(s)	33,10

Stand clamp MAXI

Bochem. Material: Steel (chrome-plated), jaws with fibreglass coating.

To securely fix beakers.

Technical specifications:

Art. No.	1C51.1
Total length	400 mm
Shaft length	210 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
Beaker holder	80-180	**1C51.1**	1 unit(s)	146,75

A 121 °C

Universal holder ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Suitable for fixing or connecting measuring probes, hoses and thermometers to beakers or Erlenmeyer flasks. The white holder has an additional opening.

Colour	Span (mm)	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
green	10, 12, 15	85	22	**C535.1**	5 unit(s)	26,00
white	6, 7, 9, 11	100	15	**C534.1**	5 unit(s)	45,35
orange	7, 9, 11	70	15	**C533.1**	5 unit(s)	18,95

A 121 °C

Clamping tongs

Hammacher. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Jaws ribbed on inside for better grip.

Production-related indentations do not affect the functionality.

Length (mm)	Art. No.	Pack Qty.	€
200	**YL66.1**	1 unit(s)	53,75
280	**YL67.1**	1 unit(s)	55,10

Stand material

Stand clamp chain clamps

Usbeck.

With cork inlay. For fastening flasks and other laboratory vessels.

Technical specifications:

Art. No.	E050.1	E051.1	E052.1
Shaft length	200 mm		
Ø Shaft	10 mm		

Version	Suitable for	Art. No.	Pack Qty.	€
Chain clamps	Container-Ø 40-120 mm	**E050.1**	1 unit(s)	45,75
Chain clamps	Container-Ø 80-150 mm	**E051.1**	1 unit(s)	46,80
Chain clamps	Container-Ø 100-170 mm	**E052.1**	1 unit(s)	47,15

Stand clamp telt clamp type

Usbeck. Material: Aluminium powder-coated, Handle made of nickel-plated steel.

With eccentric lock and cork inlay.
Belt length 600 mm, width 12 mm.

Technical specifications:

Art. No.	PH45.1
Shaft length	195 mm
Ø Shaft	10 mm

Version	Suitable for	Art. No.	Pack Qty.	€
Belt clamp	Vessel Ø 60 to 170 mm	**PH45.1**	1 unit(s)	44,10

Stand ring ROTILABO® with opening

Bochem. Material: Stainless steel 18/10.

Technical specifications:

Art. No.	CHN7.1	CHN8.1	CHN9.1
Total length	220 mm	280 mm	330 mm
Shaft length	160 mm	200 mm	220 mm
Ø Shaft	8 mm		

Version	Ø Internal (mm)	Ø ext. (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
Stand ring	50	68	35	**CHN7.1**	1 unit(s)	22,20
Stand ring	70	87	50	**CHN8.1**	1 unit(s)	22,55
Stand ring	100	120	70	**CHN9.1**	1 unit(s)	25,20

Stand ring ROTILABO® with three-point support

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301), electrolytically polished.

Technical specifications:

Art. No.	C882.1	C883.1	C884.1	C885.1	C886.1
Total length	210 mm	240 mm	255 mm	290 mm	330 mm
Shaft length	150 mm		145 mm		155 mm
Ø Shaft	8 mm				

Version	Ø Internal (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Stand ring	50	65	**C882.1**	1 unit(s)	14,85
Stand ring	70	85	**C883.1**	1 unit(s)	16,35
Stand ring	100	115	**C884.1**	1 unit(s)	17,00
Stand ring	130	145	**C885.1**	1 unit(s)	20,00
Stand ring	160	175	**C886.1**	1 unit(s)	21,95

Stand ring

Usbeck.

Technical specifications:

Art. No.	2206.1	2264.1	2210.1	2265.1	2211.1	2283.1	2336.1	2262.1
Total length	235 mm	240 mm	250 mm	255 mm	265 mm	270 mm	280 mm	300 mm
Shaft length	165 mm	70 mm	150 mm	55 mm	135 mm	40 mm	35 mm	135 mm
Ø Shaft	8 mm							

With three-point support
Material: Steel galvanised.

Version	Ø Internal (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Stand ring	54	70	**2206.1**	1 unit(s)	10,90
Stand ring	84	100	**2210.1**	1 unit(s)	12,00
Stand ring	114	130	**2211.1**	1 unit(s)	14,65
Stand ring	130	146	**2262.1**	1 unit(s)	14,65

With three-point support and boss head
Material: Steel galvanised, boss head with brass screw, nickel-plated.

Version	Ø Internal (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Stand ring	54	70	**2264.1**	1 unit(s)	17,45
Stand ring	84	100	**2265.1**	1 unit(s)	19,05
Stand ring	114	130	**2283.1**	1 unit(s)	20,50
Stand ring	130	146	**2336.1**	1 unit(s)	21,00

The complete ROTH product range in the ROTH webshop

Over 30,000 items orderable around the clock!

Discover everything at **www.carlroth.com**

- Latest NEW products
- Continuous range extensions
- Detailed product information
- Additional information about the products
- Regular special offers
- ... and much more. Stay curious!

Stand material

Burette holder ROTILABO®

Usbeck. Material: Die-cast zinc nickel-plated.

Version	Span (mm)	Suitable for	Art. No.	Pack Qty.	€
for 1 burette	0–40	Rods up to Ø 16 mm	**2048.1**	1 unit(s)	25,25
for 2 burettes	0–40	Rods up to Ø 16 mm	**2129.1**	1 unit(s)	36,00

Burette holder

Kartell. Material: PP, with rubber grips and steel springs.
Lateral mounting provides for excellent burette readability.

Version	Suitable for	Art. No.	Pack Qty.	€
For 1 burette	Stand rod Ø 8–14 mm	**PY63.1**	1 unit(s)	26,90
For 2 burettes	Stand rod Ø 8–14 mm	**PY64.1**	1 unit(s)	34,00

Burette holder

Usbeck. Material: Aluminium (die-cast).
With roll mounting. Lateral mounting provides for excellent burette readability.

Version	Span (mm)	Art. No.	Pack Qty.	€
for 1 burette	0–20	**PH49.1**	1 unit(s)	29,30
for 2 burettes	0–20	**PH50.1**	1 unit(s)	38,90

Thermometer clamp

Bochem.
With adjustable boss head (Angle 0–360 °).

Version	Span (mm)	Art. No.	Pack Qty.	€
Thermometer clamp	6-15	**1C52.1**	1 unit(s)	32,65

Holding pliers

Bochem. Material: Stainless steel (18/10, electrolytically polished).
For evaporating dishes.

Span (mm)	Art. No.	Pack Qty.	€
75-100	**1C55.1**	1 unit(s)	21,20
100-250	**1C56.1**	1 unit(s)	21,80

Beaker tongs

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301), with cork inserts.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
30	200	**YP93.1**	1 unit(s)	22,05
40	220	**YP94.1**	1 unit(s)	22,35
50	250	**YP95.1**	1 unit(s)	22,65
60	300	**YP96.1**	1 unit(s)	22,90

Tongs, clips and holders

Beaker tongs ROTILABO® ceramic

ROTH SELECTION. Material: Stainless steel 18/10, jaws covered with ceramic coating.

For Ø 60 to 150 mm.

Length (mm)	Art. No.	Pack Qty.	€
330	**6150.1**	1 unit(s)	27,55

Flask tongs ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, electrolytically polished, with cork inserts.

For Ø 15 to 60 mm.

Length (mm)	Art. No.	Pack Qty.	€
230	**6160.1**	1 unit(s)	25,65

A 121 °C

Clamping tongs Hünebeck

Hammacher. Material: Stainless steel Wironit, anti-magnetic, acid-resistant. Autoclavable: Yes.

Jaws ribbed on inside for better grip.

Length (mm)	Art. No.	Pack Qty.	€
195	**HCN7.1**	1 unit(s)	53,75

Flask tongs ROTILABO®

Usbeck. Material: Stainless steel, plastic-coated.

Pic.	Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	45-70	300	**X100.1**	1 unit(s)	18,75
(2)	17-60	220	**X101.1**	1 unit(s)	21,05

Beaker tongs ROTILABO®

Usbeck. Material: Stainless steel, with PVC coating.

Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
40–100	250	**X099.1**	1 unit(s)	15,20

A 121 °C

Crucible tongs

Hammacher. Material: Stainless steel Remanit 4301. Autoclavable: Yes.

Double curved, with scissor movement, notched inner surface.

Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
65	200	**YL62.1**	1 unit(s)	20,00
65	250	**YL63.1**	1 unit(s)	20,35
130	400	**YL64.1**	1 unit(s)	28,40
130	600	**YL65.1**	1 unit(s)	32,60

Tongs, clips and holders

A 121 °C

Crucible tongs ROTILABO®

ROTH SELECTION. Material: Stainless steel Remanit 4301, electrolytically polished. Autoclavable: Yes.

Double curved.

Riveted

Length (mm)	Art. No.	Pack Qty.	€
200	**3214.1**	1 unit(s)	10,05
220	**3221.1**	1 unit(s)	10,55
250	**3228.1**	1 unit(s)	10,80
300	**3231.1**	1 unit(s)	11,00
400	**3232.1**	1 unit(s)	18,80
500	**3236.1**	1 unit(s)	19,20
600	**3237.1**	1 unit(s)	19,00

Bolted

Length (mm)	Art. No.	Pack Qty.	€
200	**3240.1**	1 unit(s)	21,30
220	**3241.1**	1 unit(s)	22,65
300	**3271.1**	1 unit(s)	23,65

Crucible tongs

Hammacher. Material: Stainless steel Remanit 4301.

Cuvette forceps.

Length (mm)	Art. No.	Pack Qty.	€
550	**YL61.1**	1 unit(s)	52,50

Clamping tongs ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10.

Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
71	355	**0065.1**	1 unit(s)	29,50

A 121 °C

Test tube holder

Hammacher. Material: Stainless steel (1.4301). Autoclavable: Yes.

Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
25	75	**KAT2.1**	1 unit(s)	45,45

A 121 °C

Mercury tongs ROTILABO®

Bochem. Material: Stainless steel 18/10. Autoclavable: Yes.

Length (mm)	Weight (g)	Art. No.	Pack Qty.	€
220	140	**1551.1**	1 unit(s)	19,15

Tube tongs ROTILABO®

Usbeck. Material: Die-cast zinc, nickel-plated, plastic-coated handle.

Width (mm)	Art. No.	Pack Qty.	€
55	**X102.1**	1 unit(s)	33,45

Weighing rings

Weighting ring ROTILABO®

ROTH SELECTION. Material: Lead (Core), cover made of vinyl.

To stabilise volumetric flasks and Erlenmeyer flasks in a water bath and during stirring processes.

Closed type

Ø Internal (mm)	Suitable for	Weight (g)	Art. No.	Pack Qty.	€
48	Erlenmeyer flask 125-500 ml	270	**CY71.1**	1 unit(s)	37,80
51	Erlenmeyer flask 250-1000 ml	500	**CY72.1**	1 unit(s)	38,90
57	Erlenmeyer flask 500-2000 ml	700	**CY73.1**	1 unit(s)	45,35
70	Erlenmeyer flask 1000-4000 ml	840	**CY74.1**	1 unit(s)	48,95

Open type

Ø Internal (mm)	Suitable for	Weight (g)	Art. No.	Pack Qty.	€
42	Erlenmeyer flask 125-500 ml	200	**CY81.1**	1 unit(s)	42,10
51	Erlenmeyer flask 250-1000 ml	480	**CY82.1**	1 unit(s)	44,60
54	Erlenmeyer flask 500-2000 ml	660	**CY83.1**	1 unit(s)	52,55
66	Erlenmeyer flask 1000-4000 ml	930	**CY84.1**	1 unit(s)	58,30

Weighting ring ROTILABO® with holder

ROTH SELECTION. Material: Lead (Core), cover made of vinyl, clips made of stainless steel.

Ideal in water baths, circulation thermostats, etc., as the water is able to circulate under the glass.

Ø Internal (mm)	Suitable for	Weight (g)	Art. No.	Pack Qty.	€
80	Cup 250 ml	237	**K989.1**	1 unit(s)	166,65

Weighting ring ROTILABO® open type

ROTH SELECTION. Material: Lead (Core), PVC cover.

For stabilising Erlenmeyer flasks, volumetric flasks, etc. in water baths.

Technical specifications:

Art. No.	L076.1	L078.1	L079.1	L075.1	L077.1	L080.1
Colour	red		blue	orange		

Ø Internal (mm)	Suitable for	Weight (g)	Art. No.	Pack Qty.	€
20	Measuring cylinder 5-10 ml	95	**L075.1**	1 unit(s)	42,90
35	Erlenmeyer flask 25 ml	240	**L076.1**	1 unit(s)	58,05
50	Erlenmeyer flask 50-250 ml	650	**L077.1**	1 unit(s)	69,40
70	Erlenmeyer flask 200-500 ml	900	**L078.1**	1 unit(s)	74,95
100	Erlenmeyer flask 750-1500 ml	1200	**L079.1**	1 unit(s)	84,75
150	Erlenmeyer flask 2000 ml	1750	**L080.1**	1 unit(s)	108,65

Weighting ring ROTILABO® collar

ROTH SELECTION. Material: Lead (Core), PVC coating.

For bottles, beakers, suction bottles, flasks, etc.

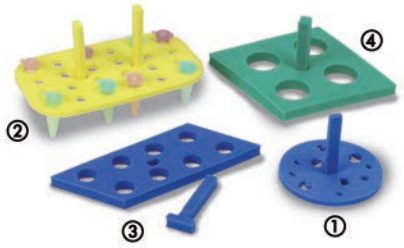
- Flexible, can be opened and closed
- Secure container against falling over and keep in an upright positions

Technical specifications:

Art. No.	L082.1	L084.1	L085.1	L083.1
Colour	red		blue	orange

Suitable for	Weight (g)	Art. No.	Pack Qty.	€
Vessel Ø 45–65 mm	240	**L082.1**	1 unit(s)	60,05
Vessel Ø 55–80 mm	460	**L083.1**	1 unit(s)	68,95
Vessel Ø 65–100 mm	600	**L084.1**	1 unit(s)	72,70
Vessel Ø 85–125 mm	750	**L085.1**	1 unit(s)	89,45

Floating racks



Floating stands ROTILABO®

ROTH SELECTION. Material: HDPE (foamed).

For bringing reaction vials and centrifuge tubes up to the right temperature in water baths. With handles for insertion and removal. When loaded, the stands float on the surface of the water, while the inserted tubes do not float.

For 0.2–2 ml reaction vials

Pic.	No. of slots	Ø x H (mm)	Colour	Art. No.	Pack Qty.	€
(1)	18	82 x 60	blue	**LP92.1**	5 unit(s)	19,95

For 1.5–2 ml reaction vials

Pic.	No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
(2)	24	150 x 82 x 69	yellow	**P199.1**	5 unit(s)	19,35

For 15 ml centrifuge tubes

Pic.	No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
(3)	8	130 x 59 x 65	blue	**P200.1**	5 unit(s)	19,35

For 50 ml centrifuge tubes

Pic.	No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
(4)	4	105 x 105 x 65	green	**P201.1**	5 unit(s)	19,35

A 121 °C ❄❄

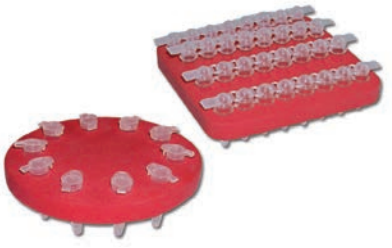
Floating stands

Nalgene. Material: PP. Autoclavable: Yes.

For bringing reaction vials up to the right temperature in water bath vessels. With handle for insertion and removal.

- Racks float on the surface of the water when fully loaded
- Reaction vials are fixed in position in the rack and therefore cannot float
- Suitable for 0.5–2 ml reaction vials
- Temperature stability -70 to +100 °C

Version	No. of slots	Art. No.	Pack Qty.	€
round	8	**E072.1**	1 unit(s)	11,50
round	20	**E073.1**	1 unit(s)	11,50
square	16	**E075.1**	1 unit(s)	11,50



❄❄

Floating stands Cryogenic

ROTH SELECTION. Material: PE (foamed).

Ideal for bringing samples in PCR vessels to the right temperature. The loaded stands are still fully capable of floating; the tubes are fitted securely, meaning that it is not possible for them to float.

- Suitable for: 0.2 ml PCR vessels
- Temperature stability -80 to +80 °C

Round

No. of slots	Ø x H (mm)	Art. No.	Pack Qty.	€
10	70 x 8.5	**LH39.1**	10 unit(s)	13,05

Square

Suitable for PCR single vessels and PCR 8-strips.

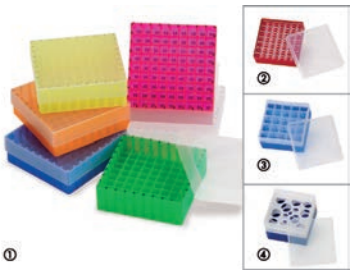
No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
32	4 x 8	80 x 80 x 8.5	**LH40.1**	10 unit(s)	21,95

Stands for vials, tubes

Storage box ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- With transparent lid
- Stackable
- Temperature stability -80 to +100 °C



121 °C

(1) For 1.5 ml autosampler vials (ND8–ND11)
With alphanumeric labelling on all four edges and the base cavities.

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12 x 12	130	130	45	pink	**TY99.1**	1 unit(s)	23,65
Slip lid	12 x 12	130	130	45	yellow	**XA00.1**	1 unit(s)	23,65
Slip lid	12 x 12	130	130	45	orange	**XA01.1**	1 unit(s)	23,65
Slip lid	12 x 12	130	130	45	blue	**XA02.1**	1 unit(s)	23,65
Slip lid	12 x 12	130	130	45	green	**XA03.1**	1 unit(s)	23,65
Slip lid	12 x 12	130	130	45	colourless	**XA04.1**	1 unit(s)	23,65

(2) For 4 ml autosampler vials (ND13)
With alphanumeric labelling on all four edges and the base cavities.

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	Ø 15	130	130	52	red	**XA05.1**	1 unit(s)	29,60

(3) For 20 ml EPA screw-top bottles

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	30 x 30	130	130	70	violet	**XA07.1**	1 unit(s)	34,95

(4) For 30 and 40 ml EPA screw-top bottles

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	Ø 30	130	130	105	violet	**XA08.1**	1 unit(s)	40,75

(3) For 5, 10 and 20 ml headspace bottles

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	25 x 25	130	130	102	blue	**XA06.1**	1 unit(s)	34,95

Storage box for sample vials

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for ND8–ND11 autosampler vials

121 °C

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	12 x 12	96 (8 x 12)	172.5	116.5	40.5	**A618.1**	1 unit(s)	11,95

Stands for vials, tubes

Sample stands ROTILABO®

ROTH SELECTION. Material: PMMA (Acrylic), transparent.
With silicon feet for stability and stackability.

For autosampler vial micro inserts
Also suitable for tubes with a conical base.

- Compartment size (hole): Ø 8,5 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
50	5 x 10	173 x 95 x 20	**TY95.1**	1 unit(s)	84,40

For ND8 to ND11 autosampler vials
Also suitable for tubes with a conical base.

- Compartment size (hole): Ø 12 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
50	5 x 10	173 x 95 x 20	**TY96.1**	1 unit(s)	85,50

For ND13 autosampler vials

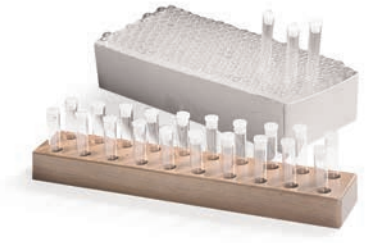
- Compartment size (hole): Ø 15,1 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
40	5 x 8	176 x 116 x 20	**TY97.1**	1 unit(s)	87,65

For ND18, ND20 autosampler vials (up to 20 ml)

- Compartment size (hole): Ø 24 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
25	5 x 5	160 x 160 x 30	**TY98.1**	1 unit(s)	100,55



Sample stands wood

ROTH SELECTION. Material: Wood.

- Compartment size (hole): Ø 11 mm
- Suitable for: Test tubes Ø 10 mm

L x W x H (mm)	Art. No.	Pack Qty.	€
257 x 47 x 24	**0403.1**	1 unit(s)	17,65

121 °C

Sample stands

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For incubation of small test tubes, serum / RIA test tubes and T3/T4 reaction vials.

- Suitable for most water baths
- Height of second level: 41 mm
- Temperature stability -80 to +121 °C

For tube Ø 10–13 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
72	238 x 111 x 89	**YC06.1**	1 unit(s)	53,65

For tube Ø 13–16 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
40	254 x 111 x 89	**YC07.1**	1 unit(s)	51,10

For tube Ø 16–20 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
40	254 x 111 x 89	**YC08.1**	1 unit(s)	52,15

121 °C

Sample stands ROTILABO® PTFE

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

- Chemically inert
- Temperature stability -200 to +250 °C

For tube Ø 6–8 mm

- Compartment size (hole): Ø 8 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
27	3 x 9	180 x 60 x 45	**NY05.1**	1 unit(s)	84,55

For tube Ø 16–18 mm

- Compartment size (hole): Ø 19 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
10	2 x 5	180 x 60 x 70	**NY07.1**	1 unit(s)	84,55

Stands for vials, tubes

For tube Ø 25–30 mm

- Compartment size (hole): Ø 30 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
4	1 x 4	180 x 60 x 80	**NY08.1**	1 unit(s)	84,55

A 121 °C

Sample stands for scintillation flasks

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Perfect for storage, transportation or as a rack on the laboratory bench.

- Suitable for: Scintillation vials up to Ø 28 mm
- Compartment size (hole): Ø 30 mm
- Height to intermediate floor 44 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	3 x 8	298 x 127 x 95	**K993.1**	1 unit(s)	60,20

Sample stands acrylic

ROTH SELECTION. Material: PMMA (Acrylic), transparent.

- Suitable for: Sample vials Ø 20–22 mm
- Compartment size (hole): Ø 24 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
30	3 x 10	330 x 110 x 22	**YC05.1**	1 unit(s)	138,70

A 121 °C

Sample stands

ROTH SELECTION. Material: Steel, epoxy-coated. Autoclavable: Yes.

Temperature stability to +121 °C.

For vessel Ø 23 mm

- Compartment size: 24 x 24 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	164 x 64 x 32	**AXE5.1**	1 unit(s)	25,55
50	5 x 10	271 x 145 x 32	**AXE6.1**	1 unit(s)	36,55

For vessel Ø 32 mm

- Compartment size: 33 x 33 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	212 x 80 x 60	**AXE7.1**	1 unit(s)	22,25
50	5 x 10	355 x 189 x 60	**AXE8.1**	1 unit(s)	36,55

For vessel Ø 56 mm

- Compartment size: 58 x 58 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	4 x 6	393 x 262 x 50	**AXE9.1**	1 unit(s)	61,85

A 121 °C

Sample stands for NMR tubes

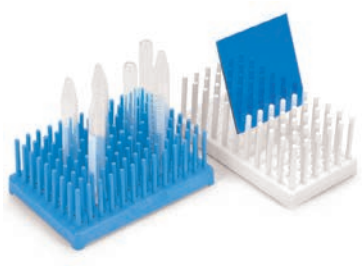
ROTH SELECTION. Material: PP. Autoclavable: Yes.

With two handles on the side for easy transportation. Stability is provided by hemispherical holes in the lower level.

- Suitable for NMR tubes Ø 5 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
72	210 x 110 x 220	**YA94.1**	1 unit(s)	71,50

Racks and boxes



A 121 °C

Test tube stands

Nalgene. Material: PP. Autoclavable: Yes.

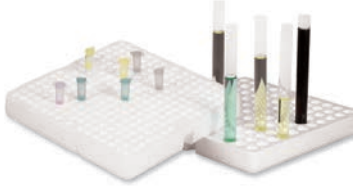
Secure hold for test tubes and reaction vials, e.g. when used as a holder in shakers. The contents of the tubes are always clearly visible, and the racks do not float in water baths. Can also be used as a drip rack for tubes, electrophoresis and chromatography plates.

For Ø 10–13 mm

No. of slots	Arrange-ment of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
96	8 x 12	179 x 127 x 64	white	**E088.1**	1 unit(s)	18,05
96	8 x 12	179 x 127 x 64	blue	**E091.1**	1 unit(s)	18,05

For Ø 14–17 mm

No. of slots	Arrange-ment of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	5 x 10	187 x 105 x 70	white	**E094.1**	1 unit(s)	19,30
50	5 x 10	187 x 105 x 70	blue	**E097.1**	1 unit(s)	19,30



Sample stands ROTILABO®

Kartell. Material: PS, foamed.

Ideal for large quantities of test tubes or reaction vials. The holes are deep enough to keep test tubes, vials, etc. straight. Stackable. Extremely lightweight. With finger grips for easy lifting.

For 1.5 ml reaction vials

- Compartment size (hole) Ø 8,5 mm, depth of 15 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
250	218 x 218 x 33	**K828.1**	5 unit(s)	32,30

For vessel Ø 14 mm

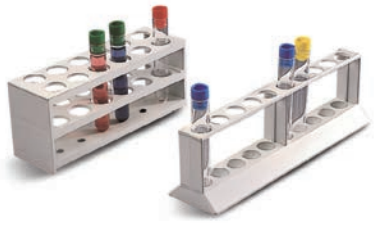
- Compartment size (hole) Ø 14,5 mm, depth of 18 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
119	218 x 218 x 33	**K829.1**	5 unit(s)	32,30

For vessel Ø 16 mm

- Compartment size (hole) Ø 16,5 mm, depth of 22 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
96	218 x 218 x 33	**K830.1**	5 unit(s)	32,30



A 121 °C

Test tube stands

Kartell. Material: PP. Autoclavable: Yes.

Temperature stability: 0 to +120 °C

For vessel Ø 10 mm

- Compartment size: Ø 12 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	190 x 60 x 80	**EPC0.1**	1 unit(s)	10,45

For vessel Ø 16 mm

- Compartment size: Ø 18 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
10	250 x 60 x 74	**EPA9.1**	1 unit(s)	9,35

For vessel Ø 18 mm

- Compartment size: Ø 20 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	190 x 60 x 80	**EPC1.1**	1 unit(s)	10,45
24	375 x 65 x 95	**EPC2.1**	1 unit(s)	19,40

NEW / +

Sample stands foldable for vessel Ø 56 mm, plastic

ROTH SELECTION. Material: PP corrugated, moisture-resistant.

Removable partitions, so can also be used as a transport container or tray. Stackable.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	4 x 6	406 x 260 x 89	**1LEH.1**	10 unit(s)	118,25

Racks and boxes

Test tube stands

Nalgene. Material: Plastic Resmer®. Autoclavable: Yes.

Moulded from a single piece, with three tiers, contents always clearly visible.

- Alphanumeric labelling on the top level
- Large labelling area on the front
- Does not float in a water bath
- Stackable
- Temperature stability -70 to +121 °C

A 121 °C

For glass Ø 13 mm

- Compartment size: 14 x 14 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
36	6 x 6	102 x 102 x 56	white	**H529.1**	1 unit(s)	19,35
36	6 x 6	102 x 102 x 56	blue	**H530.1**	1 unit(s)	19,35
36	6 x 6	102 x 102 x 56	red	**H532.1**	1 unit(s)	19,35
72	6 x 12	200 x 100 x 57	white	**7390.1**	1 unit(s)	28,40
72	6 x 12	200 x 100 x 57	orange	**7391.1**	1 unit(s)	28,40
72	6 x 12	200 x 100 x 57	yellow	**7392.1**	1 unit(s)	28,40
72	6 x 12	200 x 100 x 57	blue	**7393.1**	1 unit(s)	28,40
72	6 x 12	200 x 100 x 57	green	**7394.1**	1 unit(s)	28,40
72	6 x 12	200 x 100 x 57	red	**H524.1**	1 unit(s)	26,75

For glass Ø 16 mm

- Compartment size: 18 x 18 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
36	6 x 6	126 x 126 x 68	white	**H533.1**	1 unit(s)	21,40
36	6 x 6	126 x 126 x 68	blue	**H534.1**	1 unit(s)	21,40
36	6 x 6	126 x 126 x 68	green	**H535.1**	1 unit(s)	21,40
36	6 x 6	126 x 126 x 68	red	**H536.1**	1 unit(s)	21,40
72	6 x 12	250 x 130 x 70	white	**7395.1**	1 unit(s)	28,40
72	6 x 12	250 x 130 x 70	orange	**7401.1**	1 unit(s)	28,40
72	6 x 12	250 x 130 x 70	yellow	**7407.1**	1 unit(s)	28,40
72	6 x 12	250 x 130 x 70	blue	**7431.1**	1 unit(s)	28,40
72	6 x 12	250 x 130 x 70	green	**7435.1**	1 unit(s)	28,40
72	6 x 12	250 x 130 x 70	red	**H525.1**	1 unit(s)	26,75

For glass Ø 20 mm

- Compartment size: 22 x 22 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
20	4 x 5	128 x 103 x 83	white	**H537.1**	1 unit(s)	21,40
20	4 x 5	128 x 103 x 83	blue	**H538.1**	1 unit(s)	21,40
20	4 x 5	128 x 103 x 83	green	**H539.1**	1 unit(s)	21,40
20	4 x 5	128 x 103 x 83	red	**H540.1**	1 unit(s)	21,40
40	4 x 10	250 x 100 x 83	white	**7438.1**	1 unit(s)	28,40
40	4 x 10	250 x 100 x 83	orange	**7441.1**	1 unit(s)	28,40
40	4 x 10	250 x 100 x 83	yellow	**7475.1**	1 unit(s)	28,40
40	4 x 10	250 x 100 x 83	blue	**7477.1**	1 unit(s)	28,40
40	4 x 10	250 x 100 x 83	green	**7478.1**	1 unit(s)	28,40
40	4 x 10	250 x 100 x 83	red	**H526.1**	1 unit(s)	26,75

For glass Ø 25 mm

- Compartment size: 26 x 26 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
16	4 x 4	122 x 122 x 75	white	**H541.1**	1 unit(s)	21,40
16	4 x 4	122 x 122 x 75	blue	**H542.1**	1 unit(s)	21,40
40	4 x 10	300 x 120 x 92	white	**7479.1**	1 unit(s)	28,40
40	4 x 10	300 x 120 x 92	orange	**7484.1**	1 unit(s)	28,40
40	4 x 10	300 x 120 x 92	yellow	**7487.1**	1 unit(s)	28,40
40	4 x 10	300 x 120 x 92	blue	**7488.1**	1 unit(s)	28,40
40	4 x 10	300 x 120 x 92	green	**7489.1**	1 unit(s)	28,40
40	4 x 10	300 x 120 x 92	red	**H527.1**	1 unit(s)	30,40

Racks and boxes

For glass Ø 30 mm

- Compartment size: 32 x 32 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	3 x 8	285 x 110 x 83	white	**7492.1**	1 unit(s)	28,40
24	3 x 8	285 x 110 x 83	orange	**7493.1**	1 unit(s)	28,40
24	3 x 8	285 x 110 x 83	yellow	**7495.1**	1 unit(s)	28,40
24	3 x 8	285 x 110 x 83	blue	**7497.1**	1 unit(s)	28,40
24	3 x 8	285 x 110 x 83	green	**7508.1**	1 unit(s)	28,40
24	3 x 8	285 x 110 x 83	red	**H528.1**	1 unit(s)	30,40
9	3 x 3	109 x 109 x 84	white	**H543.1**	1 unit(s)	21,40
9	3 x 3	109 x 109 x 84	blue	**H544.1**	1 unit(s)	21,40
9	3 x 3	109 x 109 x 84	green	**H545.1**	1 unit(s)	21,40
9	3 x 3	109 x 109 x 84	red	**H546.1**	1 unit(s)	21,40

Test tube stands ROTILABO®

Kartell. Material: PP. Autoclavable: Yes.

- Does not float in water
- Alphanumerically labelled slots
- Temperature stability -10 to +120 °C

A 121 °C

For glass Ø 13 mm

- Compartment size: 13 x 13 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
90	6 x 15	250 x 105 x 60	white	**4279.1**	1 unit(s)	12,60
90	6 x 15	250 x 105 x 60	red	**4283.1**	1 unit(s)	12,60
90	6 x 15	250 x 105 x 60	blue	**4287.1**	1 unit(s)	12,60
90	6 x 15	250 x 105 x 60	yellow	**4288.1**	1 unit(s)	12,60

For glass Ø 16 mm

- Compartment size: 16 x 16 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
60	5 x 12	250 x 105 x 70	white	**4299.1**	1 unit(s)	12,60
60	5 x 12	250 x 105 x 70	red	**4327.1**	1 unit(s)	12,60
60	5 x 12	250 x 105 x 70	blue	**4367.1**	1 unit(s)	12,60
60	5 x 12	250 x 105 x 70	yellow	**4383.1**	1 unit(s)	12,60

For glass Ø 20 mm

- Compartment size: 21 x 21 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
40	4 x 10	250 x 105 x 70	white	**4388.1**	1 unit(s)	12,60
40	4 x 10	250 x 105 x 70	red	**4398.1**	1 unit(s)	12,60
40	4 x 10	250 x 105 x 70	blue	**4399.1**	1 unit(s)	12,60
40	4 x 10	250 x 105 x 70	yellow	**4430.1**	1 unit(s)	12,60

For glass Ø 25 mm

- Compartment size: 26 x 26 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
40	4 x 10	300 x 125 x 85	white	**4448.1**	1 unit(s)	12,60
40	4 x 10	300 x 125 x 85	red	**4449.1**	1 unit(s)	12,60
40	4 x 10	300 x 125 x 85	blue	**4450.1**	1 unit(s)	12,60
40	4 x 10	300 x 125 x 85	yellow	**4466.1**	1 unit(s)	12,60

Racks and boxes

For glass Ø 30 mm

- Compartment size: 31 x 31 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	3 x 8	300 x 110 x 85	white	**K833.1**	1 unit(s)	18,20
24	3 x 8	300 x 110 x 85	red	**K834.1**	1 unit(s)	18,20
24	3 x 8	300 x 110 x 85	blue	**K835.1**	1 unit(s)	18,20
24	3 x 8	300 x 110 x 85	yellow	**K836.1**	1 unit(s)	18,20

Sample stands

ROTH SELECTION. Material: Steel, epoxy-coated. Autoclavable: Yes. Temperature stability: -40 to +121 °C

NEW / +

A 121 °C

For tube Ø 10–13 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
72	6 x 12	205 x 105 x 65	blue	**AXH0.1**	1 unit(s)	36,70
108	9 x 12	204 x 161 x 65	blue	**1LHX.1**	1 unit(s)	33,25

For tube Ø 13–16 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
40	4 x 10	200 x 83 x 59	blue	**1LHY.1**	1 unit(s)	28,10
48	4 x 12	237 x 127 x 65	blue	**1LK0.1**	1 unit(s)	30,25
72	6 x 12	241 x 127 x 65	blue	**AXH2.1**	1 unit(s)	36,70
108	9 x 12	237 x 127 x 65	blue	**1LK1.1**	1 unit(s)	32,40
108	9 x 12	237 x 127 x 65	red	**AXH3.1**	1 unit(s)	36,70

For tube Ø 16–20 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
15	3 x 5	127 x 76 x 76	blue	**AXH4.1**	1 unit(s)	35,10
40	4 x 10	240 x 90 x 80	blue	**1LK5.1**	1 unit(s)	34,40
80	8 x 10	240 x 190 x 80	blue	**1LK6.1**	1 unit(s)	35,50

For tube Ø 20–25 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	3 x 8	273 x 105 x 80	blue	**1LK7.1**	1 unit(s)	30,10
40	4 x 10	290 x 118 x 80	blue	**1LK8.1**	1 unit(s)	32,40

For tube Ø 25–30 mm

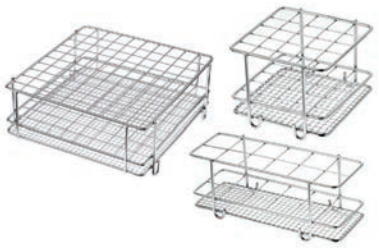
No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
8	2 x 4	147 x 80 x 89	blue	**AXH5.1**	1 unit(s)	36,05
48	6 x 8	277 x 209 x 98	blue	**1LK9.1**	1 unit(s)	38,20

For tube Ø 35–40 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	3 x 8	357 x 139 x 98	blue	**1LKA.1**	1 unit(s)	32,25
48	6 x 8	350 x 260 x 98	blue	**1LKC.1**	1 unit(s)	37,65

For tube Ø 55–60 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
6	2 x 3	2050 x 1352 x 104	blue	**1LKE.1**	1 unit(s)	30,10



121 °C

Test tube stands ROTILABO® stainless steel

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301), electrolytically polished. Autoclavable: Yes.

With four feet, 14 mm clearance from the floor.

For test tube Ø 16 mm

- Compartment size: 18 x 18 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
25	5 x 5	115 x 115 x 70	**1C6K.1**	1 unit(s)	31,00
100	10 x 10	200 x 200 x 70	**ENX9.1**	1 unit(s)	40,80

For test tube Ø 30 mm

- Compartment size: 30 x 30 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	200 x 70 x 70	**1C6L.1**	1 unit(s)	37,45

Test tube stands ROTILABO® acrylic

ROTH SELECTION. Material: PMMA (Acrylic glass).

Hole Ø 18 mm

Base plate with holes (hole Ø 14 mm).

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
6	1 x 6	165 x 55 x 75	**CPT9.1**	1 unit(s)	19,35
24	3 x 8	220 x 80 x 79	**CPX0.1**	1 unit(s)	52,55
12	2 x 6	186 x 60 x 80	**5119.1**	1 unit(s)	64,45
33	3 x 11	310 x 80 x 80	**CPX1.1**	1 unit(s)	66,55

Hole Ø 36 mm

Base plate without holes.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	275 x 100 x 80	**5416.1**	1 unit(s)	92,45

Test tube stands ROTILABO®

ROTH SELECTION.

Stainless steel compartment size 14 x 14 mm

Material: Stainless steel. Autoclavable: Yes.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	101 x 44 x 70	**H439.1**	1 unit(s)	46,00
24	2 x 12	197 x 44 x 70	**H440.1**	1 unit(s)	58,55
48	4 x 12	197 x 76 x 70	**H441.1**	1 unit(s)	70,40

Stainless steel compartment size 18 x 18 mm

Material: Stainless steel. Autoclavable: Yes.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	130 x 50 x 70	**H442.1**	1 unit(s)	45,45
24	2 x 12	250 x 50 x 70	**H443.1**	1 unit(s)	56,60
48	4 x 12	250 x 90 x 70	**H444.1**	1 unit(s)	57,70

PA-coated compartment size 18 x 18 mm

Material: Steel PA-coated.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	130 x 50 x 70	**L385.1**	1 unit(s)	37,45
20	2 x 10	210 x 50 x 70	**L386.1**	1 unit(s)	43,75
24	2 x 12	250 x 50 x 70	**L387.1**	1 unit(s)	42,70
24	4 x 6	130 x 90 x 70	**L389.1**	1 unit(s)	46,90
36	3 x 12	250 x 70 x 70	**L388.1**	1 unit(s)	54,75
48	4 x 12	250 x 90 x 70	**L390.1**	1 unit(s)	49,15
100	10 x 10	210 x 210 x 70	**L391.1**	1 unit(s)	69,40

121 °C

Test tube stands ROTILABO® round

Bochem. Material: Stainless steel 18/10. Autoclavable: Yes.

- Compartment size (hole): Ø 20 mm
- Suitable for: Test tubes Ø 18 mm

No. of slots	Ø x H (mm)	Art. No.	Pack Qty.	€
9	98 x 165	**YT05.1**	1 unit(s)	63,90
12	116 x 165	**YT06.1**	1 unit(s)	91,65
45	194 x 165	**YT07.1**	1 unit(s)	105,65

A 121 °C

Test tube stands stainless steel

Bochem. Material: Stainless steel 18/10. Autoclavable: Yes.

Hole Ø 17 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	145 x 55 x 90	**PH51.1**	1 unit(s)	40,35
24	2 x 12	278 x 55 x 90	**PH52.1**	1 unit(s)	44,15
48	4 x 12	287 x 100 x 90	**PH53.1**	1 unit(s)	75,70

Hole Ø 20 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	164 x 62 x 90	**PH54.1**	1 unit(s)	50,45
24	2 x 12	310 x 60 x 90	**PH55.1**	1 unit(s)	65,35

A 121 °C

Test tube stands ROTILABO® stainless steel Z shape

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Stackable.

Hole Ø 12.5 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
50	155 x 78 x 50	**X115.1**	1 unit(s)	30,40

Hole Ø 14.5 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
50	188 x 95 x 58	**X116.1**	1 unit(s)	34,10

Hole Ø 17.5 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
25	110 x 110 x 40	**PX26.1**	1 unit(s)	27,70
50	220 x 115 x 63	**X117.1**	1 unit(s)	39,45

Hole Ø 30 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15	220 x 115 x 63	**PX27.1**	1 unit(s)	34,60

Test tube stands wood

Hecht. Material: Wood (Oak) varnished.

For glass Ø 18 mm

For test tubes with a height up of at least 100 mm. Optionally with drip pegs for drying test tubes after cleaning.

Version	No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
one tier, with 6 drip pegs	6	210 x 55 x 120	**AEE1.1**	1 unit(s)	13,05
one tier, without drip pegs	6	210 x 55 x 120	**AEE0.1**	1 unit(s)	11,25
two tiers, with 6 drip pegs	12	210 x 55 x 200	**AEE5.1**	1 unit(s)	17,20
two tiers, without drip pegs	12	210 x 55 x 200	**AEE4.1**	1 unit(s)	14,15
two tiers, without drip pegs	24	370 x 55 x 200	**AEE8.1**	1 unit(s)	17,90

For glass Ø 22 mm

For test tubes with a height up of at least 100 mm. Optionally with drip pegs for drying test tubes after cleaning.

Version	No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
one tier, without drip pegs	6	230 x 55 x 120	**AEE2.1**	1 unit(s)	12,00
two tiers, with 6 drip pegs	12	230 x 75 x 200	**AEH0.1**	1 unit(s)	16,80

For glass Ø 30 mm

For test tubes with a height of at least 160 mm.

Version	No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
one tier, without drip pegs	6	270 x 55 x 180	**AEE3.1**	1 unit(s)	14,90

Racks and boxes

NEW / +

121 °C

Test tube stands extra large

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For applications involving high sample throughput.
With alphanumeric labelling

For tube Ø 10–13 mm

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
216	337 x 235 x 91	blue	**TP50.1**	1 unit(s)	48,45
216	337 x 235 x 91	white	**TP51.1**	1 unit(s)	48,45

For tube Ø 13–16 mm

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
120	337 x 267 x 91	blue	**TP55.1**	1 unit(s)	48,45
120	337 x 267 x 91	white	**TP54.1**	1 unit(s)	48,45

For tube Ø 18–20 mm

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
120	377 x 301 x 91	blue	**1LKL.1**	1 unit(s)	41,95
120	377 x 301 x 91	white	**1LKN.1**	1 unit(s)	41,95

121 °C

Test tube stands slant rack

Nalgene. Material: PC. Autoclavable: Yes.

For simple and safe production of slant agar with two different inclination angles, for incubating liquid tissue cultures and for use in a water bath (not floating). Tubes containing culture media can be autoclaved in the rack in an upright position.

- Slanted rack enables tilting at an inclination angle of 5° or 20° so that culture media can harden at an angle
- 5° inclination angle: Larger surface, e.g. for aerobic cultures
- 20° inclination angle: Smaller surface, e.g. for anaerobic cultures; reduces the risk of culture media drying out during long-term storage

For glass Ø 16 mm

- Compartment size (hole): Ø 17 mm

No. of slots	Arrangement of slots	Art. No.	Pack Qty.	€
40	4 x 10	**E100.1**	1 unit(s)	67,35

For glass Ø 20 mm

- Compartment size (hole): Ø 20 mm

No. of slots	Arrangement of slots	Art. No.	Pack Qty.	€
40	4 x 10	**E101.1**	1 unit(s)	67,35

Combi racks

Test tube stands combined

ROTH SELECTION. Material: POM, rubber feet. Autoclavable: Yes.

Versatile rack with replaceable grid- inserts.

- Grid inserts in 5 colours for different test tube sizes
- 2 different test tube sizes are possible per rack
- Fast replacement of individual grids
- 3 levels for stability
- Stackable
- Temperature stability -80 to +121 °C

A 121 °C

Delivery incl. rack and a set of 4 grids.

For glass Ø 10–13 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
84	14 x 6	318 x 111 x 67	orange	**YA95.1**	1 unit(s)	31,10

For glass Ø 13–16 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
60	12 x 5	318 x 111 x 67	blue	**YA96.1**	1 unit(s)	31,10

For glass Ø 16–20 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
40	10 x 4	318 x 111 x 67	green	**YA97.1**	1 unit(s)	31,10

For glass Ø 20–25 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	8 x 3	318 x 111 x 67	pink	**YA98.1**	1 unit(s)	31,10

For glass Ø 25–30 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
12	6 x 2	318 x 111 x 67	yellow	**YA99.1**	1 unit(s)	31,10

Sample stands Pop-up™ racks

ROTH SELECTION. Material: PP. Autoclavable: No.

- Folds up for space-saving storage
- Height when folded up 21 mm
- Easy to unfold for quick use
- Numbered slots for identification of samples
- Robust design

For 15/50 ml centrifuge tubes

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
33	21 x Ø 17 / 12 x Ø 30 mm	255 x 137 x 72	blue	**PC54.1**	2 unit(s)	36,00
33	21 x Ø 17 / 12 x Ø 30 mm	255 x 137 x 72	pink	**PC55.1**	2 unit(s)	36,00

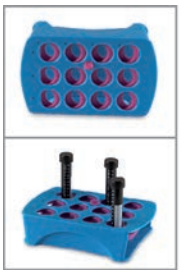
For 15 ml centrifuge tubes

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
45	45 x Ø 17 mm	255 x 137 x 72	violet	**TP22.1**	2 unit(s)	36,00

For 50 ml centrifuge tubes

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
18	18 x Ø 30 mm	255 x 137 x 72	green	**TP23.1**	2 unit(s)	36,00

Combi racks



Sample stands universal

ROTH SELECTION. Material: PP. Autoclavable: No.

Slots with adjustable size, can be opened by inserting the vessels or by turning a knob.

- Suitable for: 15/50 ml centrifuge tubes

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	194 x 140 x 51	**NY31.1**	1 unit(s)	52,10

Sample stands for 50 ml centrifuge tubes

ROTH SELECTION.

For tubes with conical or round base, Ø 27.5 to 29 mm.

(1) Plastic
Material: PS.

No. of slots	Ø x H (mm)	Art. No.	Pack Qty.	€
1	92 x 30	**TP29.1**	5 unit(s)	26,25

(2) Metal
Material: Steel epoxy-coated. Autoclavable: Yes.

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
1	90 x 67 x 67	**TP30.1**	1 unit(s)	17,80

A 121 °C ❄❄

Sample stands ROTILABO® combined (4-in-1)

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Space-saving use on a laboratory bench, beneath the vent, in a water bath and in a freezer. For centrifuge tubes, test tubes, reaction vials, PCR-vials. Temperature stability -90 to +121 °C.

With four sides which can be equipped as required:

- Hole Ø 30 mm – 4 x 50 ml centrifuge tubes
- Hole Ø 17 mm – 12 x 15 ml centrifuge tubes
- Hole Ø 11 mm – 32 x 1.5/2 ml reaction vials
- Hole Ø 8 mm – 32 x 0.5 ml reaction vials

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
174 x 95 x 52	colourless	**HYN6.1**	5 unit(s)	39,65
174 x 95 x 52	neon blue	**K082.1**	1 unit(s)	18,85
174 x 95 x 52	neon green	**K083.1**	1 unit(s)	18,85
174 x 95 x 52	neon orange	**K084.1**	1 unit(s)	18,85
174 x 95 x 52	neon pink	**K085.1**	1 unit(s)	18,85
174 x 95 x 52	neon yellow	**K086.1**	1 unit(s)	18,85

Set
Assorted colours (neon blue, neon green, neon orange, neon pink, neon yellow).

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
174 x 95 x 52	assorted colours	**HYN7.1**	5 unit(s)	39,65

A 121 °C

Sample stands ROTILABO® combined (4-in-1) cubic

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Can be connected in any way at the open sides. For centrifuge tubes, test tubes and reaction vials.

With four sides which can be equipped as required:

- Hole Ø 30 mm – 4 x 50 ml centrifuge tubes
- Hole Ø 17 mm – 10 x 15 ml centrifuge tubes
- Hole Ø 13 mm – 12 x test tubes Ø 12 x L 75/100 mm
- Hole Ø 12 mm – 16 x 1.5/2 ml reaction vials

Assorted colours (blue, yellow, green, orange, pink).

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
108 x 108 x 108	assorted colours	**AK71.1**	5 unit(s)	50,40

Combi racks

A 121 °C

Sample stands ROTILABO® combined (4-in-1)

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For round, flat and conical blood collection and culture tubes from 3.5 to 10 ml, and for 15 ml centrifuge tubes.
Suitable for: Vessel Ø 13–16 mm.
Recommended tube size:
13 x 75/100 mm, 16 x 100/125 mm, 17 x 120 mm.

- Can be combined individually by fitting them together
- Alphanumerically coded
- Suitable for use in a water bath

With four sides which can be equipped as required:

- Side A: 12 x hole Ø 13 mm
- Side B: 18 x hole Ø 13 mm
- Side C: 12 x hole Ø 17 mm
- Side D: 18 x hole Ø 17 mm

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
232 x 95 x 70	blue	**KKY8.1**	5 unit(s)	98,85
232 x 95 x 70	violet	**KKY9.1**	5 unit(s)	98,85
232 x 95 x 70	green	**KLA0.1**	5 unit(s)	98,85
232 x 95 x 70	colourless	**KLA1.1**	5 unit(s)	98,85

Set
Assorted colours (blue, purple, green, red neutral).

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
232 x 95 x 70	assorted colours	**KLA2.1**	1 set	99,20

A 121 °C

Sample stands Multi-tube rack

ROTH SELECTION. Material: POM. Autoclavable: Yes.

- Suitable for vessel Ø 12–30 mm
- Variable use thanks to 4 flexible slots
- Can be connected together

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
4	181 x 56 x 76	blue/green	**AXH9.1**	2 unit(s)	14,80
4	181 x 56 x 76	blue/yellow	**AXK0.1**	2 unit(s)	14,80
4	181 x 56 x 76	blue	**AXK1.1**	2 unit(s)	14,80
4	181 x 56 x 76	green	**AXK2.1**	2 unit(s)	14,80
4	181 x 56 x 76	yellow	**AXK3.1**	2 unit(s)	14,80
4	181 x 56 x 76	white	**AXK4.1**	2 unit(s)	14,80
4	181 x 56 x 76	pink	**AXK5.1**	2 unit(s)	14,80

A 121 °C

Sample stands ROTILABO® combined (4-in-1) rotatable

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Four coloured modules are securely connected to each other but can each be turned individually so that reaction vials and tubes of different sizes can be stored and transported in a single rack.

For reaction vials

- Hole Ø 16.4 mm: 6 x 15 ml centrifuge tubes
- Hole Ø 11.2 mm: 9 x 1.5 to 2 ml reaction vials
- Hole Ø 8.0 mm: 12 x 0.5 ml reaction vials
- Hole Ø 6.5 mm: 32 x PCR single vials/4 x 8-tube PCR strips

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100 x 100 x 208	violet, blue, green, yellow	**HC26.1**	1 unit(s)	56,50

For centrifuge tubes

- Hole Ø 29.6 mm: 2 x 50 ml centrifuge tubes
- Hole Ø 16.4 mm: 8 x 15 ml centrifuge tubes
- Hole Ø 20.5 mm: 6 x Ø 16 to 20 mm tubes
- Hole Ø 13.5 mm: 10 x Ø 10 to 13 mm tubes

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
112 x 112 x 224	violet, blue, green, yellow	**HC25.1**	1 unit(s)	56,50

A 121 °C

Reaction vial stands for 5 ml tubes

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With side handles for transporting and stacking.

- Suitable for: 5 ml reaction vials/tube Ø 13–16 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
40	4 x 10	260 x 113 x 105	**CXP6.1**	1 unit(s)	49,35

Reaction vessel stands

121 °C

Reaction vial stands ROTILABO® with two levels

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for: 1.5/2 ml reaction vials
- Compartment size (hole): Ø 10,5 mm
- Arranged in two tiers (levels)
- Large, easy-to-read numbering of the individual slots
- Can be connected together at the sides
- Recessed finger hold at the front for easy handling

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
20	210 x 90 x 50	blue	**N390.1**	1 unit(s)	8,00

❄❄

Reaction vial stands recycled

ROTH SELECTION. Material: Plastic recycled (colour variations possible).

- Double-sided, slots are labelled alphanumerically
- Hole Ø 10.5 mm for 1.5/2 ml reaction vials
- Hole Ø 7.5 mm for 0.5 ml reaction vials
- Large distances between the holes to ensure that screw cap vials can be opened easily
- Temperature stability -80 to +50 °C

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
48	215 x 69 x 27	**EEC5.1**	5 unit(s)	25,30
96	215 x 130 x 27	**EEC6.1**	5 unit(s)	46,25

121 °C

Reaction vial stands

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Slots are numbered alphanumerically.

For 0.5 ml tubes

- Compartment size (hole): Ø 8 mm

No. of slots	Colour	Art. No.	Pack Qty.	€
48	grey	**A775.1**	1 unit(s)	26,45

For 1.5/2 ml tubes

- Compartment size (hole): Ø 11 mm

No. of slots	Colour	Art. No.	Pack Qty.	€
48	grey	**A777.1**	1 unit(s)	26,45

121 °C ❄

Reaction vial stands with two tiers

Kartell. Material: PP. Autoclavable: Yes.

- Suitable for 1.5/2 ml reaction vials
- Compartment size: 10,8 mm
- Slots are labelled alphanumerically
- Does not float in water
- Stackable (even when filled)
- Temperature stability -15 to +130 °C

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100	265 x 110 x 45	white	**4562.1**	1 unit(s)	16,70
100	265 x 110 x 45	blue	**4563.1**	1 unit(s)	16,70
100	265 x 110 x 45	red	**4575.1**	1 unit(s)	16,70
100	265 x 110 x 45	yellow	**4581.1**	1 unit(s)	16,70

Reaction vessel stands

Reaction vial stands combined (2-in-1) Set

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Double-sided, with slip lid
- Labelled alphanumerically on both sides
- Stackable

A 121 °C

Page 1:

- 32 holes for 0.5/0.65 ml reaction vials
- 8 holes for 1.5/1.7/2 ml vessels

Page 2:

- 32 holes for 1.5/1.7/2 ml vessels
- 8 holes for 0.5/0.65 ml vessels

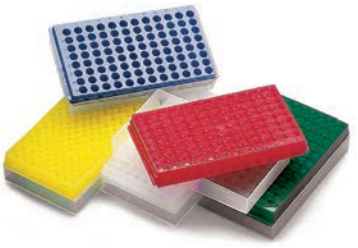
Assorted colours (blue, green, orange, pink, yellow).

Version	Length (mm)	Width (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	158	79	assorted colours	**EHP2.1**	5 unit(s)	102,80

Reaction vial stands ROTILABO® 2-in-1

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for 0.5–2 ml reaction vials
- Double-sided, with slip lid
- Alphanumerically labelled slots
- Holes Ø 8 or 11 mm, drilled vertically
- Large labelling areas on all four sides of the rack
- Height with lid 50 mm



A 121 °C

Version	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	96 (8 x 12)	210	115	25	natural	**E271.1**	1 unit(s)	36,10
Slip lid	96 (8 x 12)	210	115	25	blue	**E272.1**	1 unit(s)	36,10
Slip lid	96 (8 x 12)	210	115	25	green	**E273.1**	1 unit(s)	36,10
Slip lid	96 (8 x 12)	210	115	25	red	**E274.1**	1 unit(s)	36,10
Slip lid	96 (8 x 12)	210	115	25	yellow	**E275.1**	1 unit(s)	36,10

Reaction vessel stands

Reaction vial stands ROTILABO® 2-in-1

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for 0.5–2 ml reaction vials
- Double-sided, with slip/hinged lid and labelling area
- Alphanumerically labelled slots
- Holes Ø 8 to 11 mm
- Height with lid 50 mm

A 121 °C

Version	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip/hinged lid	96 (8 x 12)	246	121	25	natural	**T216.1**	1 unit(s)	13,75
Slip/hinged lid	96 (8 x 12)	246	121	25	blue	**T217.1**	1 unit(s)	13,75
Slip/hinged lid	96 (8 x 12)	246	121	25	green	**T218.1**	1 unit(s)	13,75
Slip/hinged lid	96 (8 x 12)	246	121	25	pink	**T219.1**	1 unit(s)	13,75
Slip/hinged lid	96 (8 x 12)	246	121	25	yellow	**T220.1**	1 unit(s)	13,75

Set

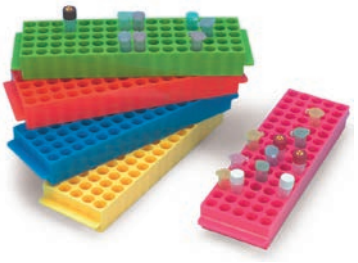
Assorted colours (blue, green, pink, yellow, orange).

Version	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip/hinged lid	96 (8 x 12)	246	121	25	assorted colours	**NY18.1**	5 unit(s)	63,40

Reaction vial stands ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Compartment size (hole): Ø 11 mm
- Suitable for: 1.5/2 ml reaction vials
- Slots are labelled numerically
- Slot depth 25 mm, drilled vertically
- With labelling area
- Temperature stability -80 to +121 °C



A 121 °C

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
80	5 x 16	210 x 65 x 27	blue	**C771.1**	1 unit(s)	8,20
80	5 x 16	210 x 65 x 27	green	**C772.1**	1 unit(s)	8,20
80	5 x 16	210 x 65 x 27	orange	**C773.1**	1 unit(s)	8,20
80	5 x 16	210 x 65 x 27	pink	**C774.1**	1 unit(s)	8,20
80	5 x 16	210 x 65 x 27	yellow	**C775.1**	1 unit(s)	8,20

Reaction vessel stands

121 °C

Reaction vial stands 2-in-1 Mini

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With 25 slots for 1.5 / 2 ml reaction vials or screw cap vials up to 2 ml on one side and 16 slots for 0.2 / 0.5 ml PCR vials on the other side.

No. of slots	Arrange-ment of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
25	5 x 5	75 x 65 x 22	blue	**CXN7.1**	10 unit(s)	30,65
25	5 x 5	75 x 65 x 22	red	**CXN8.1**	10 unit(s)	30,65
25	5 x 5	75 x 65 x 22	yellow	**CXN9.1**	10 unit(s)	30,65

❄❄❄

Sample stands for screw cap vials

ROTH SELECTION. Material: POM.

Latching device in the base and grooved holes, which make it possible to open most common reaction vials with screw top and cryogenic vials using just one hand.

- Suitable for: Reaction vials with screw top, cryogenic vials
- Compartment size (hole): Ø 10,75 mm
- Suitable for use in water baths
- Does not float, remains stable even under water
- Stackable
- Temperature stability -196 to +121 °C

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	293 x 115 x 39	green	**AEN3.1**	10 unit(s)	145,15
50	293 x 115 x 39	orange	**AEN5.1**	10 unit(s)	145,15

121 °C ❄❄

Sample stands for cryogenic vials

Nalgene. Material: PC, rubber feet. Autoclavable: Yes.

Latching device in the base prevents the tubes from also turning when opening and closing and makes work convenient thanks to single-hand operation. Alphanumeric labelling for simple identification of samples.

- Compartment size (hole): Ø 12,5 mm

No. of slots	Arrange-ment of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	5 x 10	197 x 102 x 28	white	**H615.1**	1 unit(s)	51,20

121 °C

Sample stands ROTILABO® for cryogenic vials

ROTH SELECTION. Material: PP, Rubber feet. Autoclavable: Yes.

Latching device in the base makes it possible to open and close the cryogenic vials using just one hand.

- Compartment size (hole): Ø 12,5 mm
- Slots are labelled alphanumerically
- Stackable

No. of slots	Arrange-ment of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	5 x 10	200 x 100 x 25	blue	**K551.1**	1 unit(s)	17,20
50	5 x 10	200 x 100 x 25	red	**K552.1**	1 unit(s)	17,20
50	5 x 10	200 x 100 x 25	purple	**K554.1**	1 unit(s)	17,20

PCR stands and boxes

Reaction vial stands PCR workstation

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With slip lid. Alphanumeric labelling of the holes and large labelling areas on all four sides for simple identification of samples.

- 24 x Ø 12 mm slots for 1.5/2 m reaction vials
- 16 x Ø 8 mm slots for 0.5 ml reaction vials
- 32 x Ø 6.5 mm slots for 0.2 ml PCR vessels

A 121 °C

Can be combined with PCR racks Art. No. K823.1–K827.1.

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	215	120	50	neon blue	**K818.1**	1 unit(s)	36,20
Slip lid	215	120	50	neon green	**K819.1**	1 unit(s)	36,20
Slip lid	215	120	50	neon orange	**K820.1**	1 unit(s)	36,20
Slip lid	215	120	50	neon pink	**K821.1**	1 unit(s)	36,20
Slip lid	215	120	50	neon yellow	**K822.1**	1 unit(s)	36,20

PCR rack

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Arranged in microtiter plate format, therefore ideal for PCR trays, strips of 8 or 12 PCRs and single vessels.
Racks can simply be fitted via the 32 x 0.2 ml slots of the PCR workstation. The rack is held in place by four clips, allowing it to be simply removed and inserted again at any time.

- Compartment size (hole): Ø 6 mm
- Height with lid 33 mm

A 121 °C

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	Ø 6	96 (8 x 12)	126	86	11	neon blue	**K823.1**	1 unit(s)	14,45
Slip lid	Ø 6	96 (8 x 12)	126	86	11	neon green	**K824.1**	1 unit(s)	14,45
Slip lid	Ø 6	96 (8 x 12)	126	86	11	neon orange	**K825.1**	1 unit(s)	14,45
Slip lid	Ø 6	96 (8 x 12)	126	86	11	neon pink	**K826.1**	1 unit(s)	14,45
Slip lid	Ø 6	96 (8 x 12)	126	86	11	neon yellow	**K827.1**	1 unit(s)	14,45

PCR rack ROTILABO® set

ROTH SELECTION. Material: PP.

- Compartment size (hole): 5,5 mm
- With transparent slip lid
- Height with lid: 39 mm
- Stackable
- Temperature stability -80 to +121 °C

❄❄

Assorted colours (blue, yellow, green red, purple).

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	5,5	96 (8 x 12)	138	98	30	assorted colours	**HX25.1**	5 unit(s)	75,90

PCR stands and boxes

PCR rack ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for: 0.2 ml PCR vessels
- Compartment size (hole): Ø 6 mm
- With hinged lid, removable
- Height with lid: 30 mm

A 121 °C

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	Ø 6	96 (8 x 12)	130	100	15	natural	**T098.1**	1 unit(s)	9,35
Hinged lid	Ø 6	96 (8 x 12)	130	100	15	blue	**T099.1**	1 unit(s)	9,35
Hinged lid	Ø 6	96 (8 x 12)	130	100	15	green	**T100.1**	1 unit(s)	9,35

Set
Assorted colours (blue, green, pink, yellow, orange).

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	Ø 6	96 (8 x 12)	130	100	15	assorted colours	**NY17.1**	5 unit(s)	40,05

Storage box PCR

ROTH SELECTION. Material: PC.

- Suitable for 0.2 ml PCR vessels
- Temperature stability from -86 °C

❄❄

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	132	132	25	translucent	**CXP1.1**	1 unit(s)	13,95

Cryogenic box PCR

ROTH SELECTION. Material: Cardboard (resistant to low temperatures and moisture-repellent).

- Suitable for 0.2 ml PCR vessels
- For storing PCR single vials or PCR 8-tube strips

❄❄❄

Delivery incl. divider inserts.

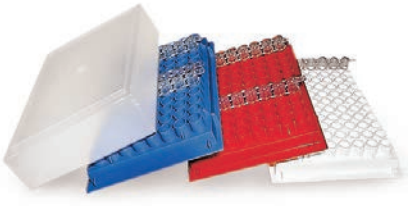
Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	8 x 8	64 (8 x 8)	85	85	25	**EKN0.1**	5 unit(s)	35,90
Slip lid	8 x 8	196 (14 x 14)	133	133	25	**EKN1.1**	5 unit(s)	34,80

PCR stands and boxes

PCR rack

ROTH SELECTION.

- Suitable for 0.2 ml PCR vessels
- Compartment size (hole): Ø 6 mm



Delivery without lid.

Material: PP.

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	Ø 6	96 (8 x 12)	127	85	16	white	**P765.2**	10 unit(s)	19,55
Slip lid	Ø 6	96 (8 x 12)	127	85	16	blue	**P766.2**	10 unit(s)	19,55
Slip lid	Ø 6	96 (8 x 12)	127	85	16	red	**P767.2**	10 unit(s)	19,55

Accessories lid for PCR rack

ROTH SELECTION.

Material: SBS.

Version	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	28	colourless	**P769.2**	10 unit(s)	19,55

Cryogenic box ROTILABO® cardboard mini

ROTH SELECTION. Material: Cardboard (resistant to low temperatures, water-repellent).

For storage of cryogenic vials and other sample containers.

- Can be labelled
- Space-saving
- Environmentally friendly

Delivery without divider inserts, please order separately.

Square

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	75	75	50	**LH31.1**	10 unit(s)	37,45

Rectangular

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	136	68	50	**LH33.1**	10 unit(s)	33,00

Accessories divider inserts for ROTILABO® mini cryogenic box made of cardboard

ROTH SELECTION. Material: Cardboard.

Compartment size (mm)	Slots	Height (mm)	Art. No.	Pack Qty.	€
15 x 15	32 (8 x 4)	30	**LH34.1**	10 unit(s)	18,85
12,5 x 12,5	25 (5 x 5)	30	**LH32.1**	10 unit(s)	19,60
12,5 x 12,5	50 (10 x 5)	30	**LH35.1**	10 unit(s)	17,80

Cryo boxes, storage boxes

Cryogenic box ROTILABO® cardboard

ROTH SELECTION. Material: Cardboard (resistant to low temperatures).

Flexible storage of cryogenic vials and other sample containers through variable configurations using different dividers. Also suitable for larger containers without grid dividers.

❄❄

Fitting table

Sample vessel type	Cryogenic box	Divider insert
0.5 ml reaction vials	Y054.2/CLE8.1	Y050.2
1.5/2 ml reaction vials	P895.3/CLE9.1	P900.2
Cryogenic vials up to 2 ml, internal thread	P895.3/CLE9.1	P900.2
Cryogenic vials up to 2 ml, external thread	P895.3/CLE9.1	P899.2
5 ml cryogenic vials	P897.2/CLH5.1	Y046.2

Delivery without divider inserts, please order separately.

With water-repellent standard coating

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	136	136	50	white	**P895.2**	50 unit(s)	104,60
Slip lid	136	136	50	white	**P895.3**	10 unit(s)	30,00
Slip lid	136	136	75	white	**P896.2**	10 unit(s)	42,50
Slip lid	136	136	100	white	**P897.2**	10 unit(s)	64,85
Slip lid	136	136	50	blue	**XP98.1**	10 unit(s)	37,95
Slip lid	136	136	50	red	**XP99.1**	10 unit(s)	37,95
Slip lid	136	136	50	green	**XT00.1**	10 unit(s)	37,95
Slip lid	136	136	50	yellow	**XT01.1**	10 unit(s)	37,95
Slip lid	136	136	32	white	**Y054.2**	10 unit(s)	35,70
Slip lid	136	136	130	white	**Y055.2**	10 unit(s)	66,95

With waterproof plastic coating

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	136	136	32	white	**CLE8.1**	10 unit(s)	52,45
Slip lid	136	136	50	white	**CLE9.1**	10 unit(s)	34,70
Slip lid	136	136	50	blue	**CLH0.1**	10 unit(s)	58,20
Slip lid	136	136	50	red	**CLH1.1**	10 unit(s)	58,20
Slip lid	136	136	50	green	**CLH2.1**	10 unit(s)	58,20
Slip lid	136	136	50	yellow	**CLH3.1**	10 unit(s)	58,20
Slip lid	136	136	75	white	**CLH4.1**	10 unit(s)	44,60
Slip lid	136	136	100	white	**CLH5.1**	10 unit(s)	65,85
Slip lid	136	136	130	white	**CLH6.1**	10 unit(s)	72,75

Cryo boxes, storage boxes

Accessories divider inserts cardboard

ROTH SELECTION. Material: Cardboard.

For dividing the cryogenic boxes.

Compartment size (mm)	Slots	Height (mm)	Art. No.	Pack Qty.	€
31 x 31	16 (4 x 4)	30	**Y037.2**	10 unit(s)	36,25
31 x 31	16 (4 x 4)	65	**Y038.2**	10 unit(s)	32,90
24 x 24	25 (5 x 5)	30	**Y039.2**	10 unit(s)	22,15
24 x 24	25 (5 x 5)	65	**Y040.2**	10 unit(s)	25,20
20 x 20	36 (6 x 6)	30	**Y041.2**	10 unit(s)	25,80
20 x 20	36 (6 x 6)	65	**Y042.2**	10 unit(s)	28,70
17 x 17	49 (7 x 7)	30	**Y043.2**	10 unit(s)	20,70
17 x 17	49 (7 x 7)	65	**Y044.2**	10 unit(s)	28,70
15 x 15	64 (8 x 8)	30	**P898.2**	10 unit(s)	16,75
15 x 15	64 (8 x 8)	65	**Y045.2**	10 unit(s)	28,70
13,5 x 13,5	81 (9 x 9)	30	**P899.2**	10 unit(s)	16,75
13,5 x 13,5	81 (9 x 9)	65	**Y046.2**	10 unit(s)	28,70
12,5 x 12,5	100 (10 x 10)	30	**P900.2**	10 unit(s)	16,75
12,5 x 12,5	100 (10 x 10)	65	**Y047.2**	10 unit(s)	28,70
10 x 10	144 (12 x 12)	25	**Y048.2**	10 unit(s)	28,60
10 x 10	144 (12 x 12)	30	**Y049.2**	10 unit(s)	28,60
9 x 9	169 (13 x 13)	25	**Y050.2**	10 unit(s)	30,25
9 x 9	169 (13 x 13)	30	**Y051.2**	10 unit(s)	30,25
8 x 8	196 (14 x 14)	25	**Y052.2**	10 unit(s)	30,25
8 x 8	196 (14 x 14)	30	**Y053.2**	10 unit(s)	30,25

Cryogenic box ROTILABO® cardboard maxi

ROTH SELECTION. Material: Cardboard (plastic-coated), waterproof and resistant to low temperatures.

For storing samples in reaction vials and centrifuge tubes. Also suitable for larger containers without grid dividers.
Temperature stability up to -80 °C

Delivery incl. divider inserts.

For 5 ml reaction vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (m)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	18 x 18	36 (6 x 6)	136	136	75	**HNY0.1**	10 unit(s)	69,30

For 15 ml centrifuge tubes

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	18 x 18	36 (6 x 6)	148	148	130	**CLE7.1**	5 unit(s)	66,90

For 50 ml centrifuge tubes

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	33 x 33	16 (4 x 4)	148	148	130	**CLE6.1**	5 unit(s)	63,65

Cryo boxes, storage boxes

Storage box for centrifuge tubes

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Replaceable inserts that can be inserted quickly offering ample depth for stable, upright storage of vials. Translucent lid and numbered inserts for fast identification of samples.

- Suitable for 15/50 ml centrifuge tubes
- Temperature stability -80 to +121 °C

A 121 °C ❄❄

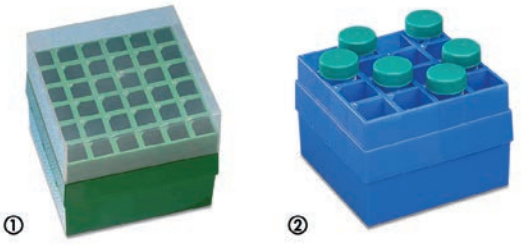
Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	132	132	129	**PC60.1**	5 unit(s)	70,10

Storage box ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With transparent lid, labelling area on two sides.

- Height without lid: 102 mm
- Temperature stable from -90 to +121 °C



A 121 °C ❄❄

(1) For 15 ml centrifuge tubes

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	18 x 18	36 (6 x 6)	144	144	127	green	**HX01.1**	2 unit(s)	67,85

(2) For 50 ml centrifuge tubes

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	30 x 30	16 (4 x 4)	144	144	127	blue	**HX02.1**	2 unit(s)	67,85

Storage box Work2Store™

ROTH SELECTION. Autoclavable: Yes.

Variable all-in-one rack and storage boxes: Can be pulled apart for easy sample handling with large distances between rows. Can be stored flat to save space.
Length when open: 310 mm.

- Alphanumeric numbering
- Stackable
- Temperature stable from -80 to +121 °C.

A 121 °C ❄❄

For reaction vials and cryogenic vials

- Slots: 64 x Ø 12 mm
- Holes with latching devices for cryogenic vials

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	133	133	53	**NL88.1**	1 unit(s)	29,75

Cryo boxes, storage boxes

Cryogenic box ROTILABO® without division

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Flexible storage of cryogenic vials and other sample containers through variable configurations using different dividers. Also suitable for larger containers without grid dividers.

- Outlets in the base
- Temperature stability -90 to +121 °C

A 121 °C ❄❄

Delivery without grid inserts, please order separately.

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	133	133	52	natural	**CLH7.1**	5 unit(s)	19,30
Hinged lid	133	133	52	yellow	**CLH8.1**	5 unit(s)	19,30
Hinged lid	133	133	52	red	**CLH9.1**	5 unit(s)	19,30
Hinged lid	133	133	52	green	**CLK0.1**	5 unit(s)	19,30
Hinged lid	133	133	52	blue	**CLK1.1**	5 unit(s)	19,30
Hinged lid	133	133	52	black	**CLK2.1**	5 unit(s)	19,30
Hinged lid	133	133	75	natural	**CLK3.1**	5 unit(s)	20,45
Hinged lid	133	133	75	yellow	**CLK4.1**	5 unit(s)	20,45
Hinged lid	133	133	75	red	**CLK5.1**	5 unit(s)	20,45
Hinged lid	133	133	75	green	**CLK6.1**	5 unit(s)	20,45
Hinged lid	133	133	75	blue	**CLK7.1**	5 unit(s)	20,45
Hinged lid	133	133	75	black	**CLK8.1**	5 unit(s)	19,35

Accessories grid insert for cryogenic boxes

ROTH SELECTION. Material: PP. Autoclavable: Yes.

A 121 °C ❄❄

Compartment size (mm)	Slots	Height (mm)	Art. No.	Pack Qty.	€
11,2 x 11,2	100 (10 x 10)	30	**CLL3.1**	5 unit(s)	19,40
12,8 x 12,8	81 (9 x 9)	30	**CLL2.1**	5 unit(s)	17,05
15,8 x 15,8	64 (8 x 8)	30	**CLL1.1**	5 unit(s)	15,95
17,3 x 17,3	49 (7 x 7)	30	**CLL0.1**	5 unit(s)	14,80
20,5 x 20,5	36 (6 x 6)	30	**CLK9.1**	5 unit(s)	13,65

Cryogenic box foldable

ROTH SELECTION. Material: PP.

- Suitable for 1.5/2 ml reaction vials, 2 ml cryogenic vials
- Thin-walled
- Moisture-resistant
- Temperature stability -196 to +50 °C
- Suitable for storing samples in the gas phase of liquid nitrogen

❄❄❄

Delivery incl. divider inserts (pre-installed), boxes simply need to be assembled.

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12 x 12	81 (9 x 9)	124	124	49	white	**HYN2.1**	10 unit(s)	75,45
Slip lid	12 x 12	81 (9 x 9)	124	124	49	blue	**HYN3.1**	10 unit(s)	75,45
Slip lid	12 x 12	81 (9 x 9)	124	124	49	green	**HYN4.1**	10 unit(s)	75,45
Slip lid	12 x 12	81 (9 x 9)	124	124	49	violet	**HYN5.1**	10 unit(s)	75,45

Cryo boxes, storage boxes

Cryogenic box foldable

ROTH SELECTION. Material: PP corrugated, moisture-resistant.

- Temperature stability -80 to +50 °C

Delivery incl. divider inserts.

For 0.2 ml PCR reaction vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	7,9 x 7,9	144 (12 x 12)	133	130	30	**ENL0.1**	10 unit(s)	84,55

For 0.5 ml reaction vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	12 x 12	81 (9 x 9)	133	130	42	**ENL1.1**	10 unit(s)	79,95

For 1.5/2 ml reaction vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	12 x 12	81 (9 x 9)	133	130	51	**AXE4.1**	10 unit(s)	45,40

For 5 ml reaction vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	22,6 x 22,6	25 (5 x 5)	133	130	75	**ENL2.1**	10 unit(s)	79,95

For 15 ml centrifuge tubes

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	19,8 x 19,8	36 (6 x 6)	147	145	120	**ENL3.1**	10 unit(s)	110,30

For 50 ml centrifuge tubes

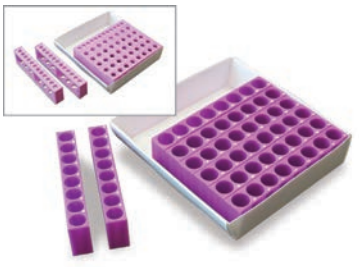
Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	31,6 x 31,6	16 (4 x 4)	147	145	120	**ENL4.1**	10 unit(s)	108,50

Storage box with inserts

ROTH SELECTION. Material: PP.

Box with 8 inserts. Individually removable inserts for flexible working, alphanumeric marking for sample identification.

- Temperature stability -80 to +70 °C
- Autoclavable inserts



For 1.5/2 ml vessels

- Suitable for 1.5/2 ml reaction vials/2 ml cryogenic vials
- Latching device at bottom for cryogenic vials enables single-handed opening and closing

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	Ø 12,3	129	130	35	**ENL8.1**	1 unit(s)	21,70

Cryo boxes, storage boxes

Cryogenic box without division

ROTH SELECTION. Material: PP, transparent. Autoclavable: Yes.

For storage of reaction vials, cryogenic vials and other sample containers.

- Height-adjustable lid, locks at 43 mm, 50 mm and 55 mm
- Temperature stability -196 to +121 °C

A 121 °C ❄❄❄

Delivery without divider inserts, please order separately.

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	130	130	43	**ACL8.1**	5 unit(s)	38,25

Divider inserts

A 121 °C ❄❄❄

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Individual dividers for flexible division of ACL8.1 cryogenic boxes.

Variable division by using between 2 and 16 divider inserts:
2 divider inserts: 4 slots (50 x 55 to 65 x 65 mm)
4 divider inserts: 9 slots (40 x 40 mm)
8 divider inserts: 16 slots (25 x 25 mm)
16 divider inserts: 81 slots (12 x 12 mm)

L x W x H (mm)	Art. No.	Pack Qty.	€
121 x 1 x 30	**ACL9.1**	16 unit(s)	9,15

Cryogenic box ROTILABO®

ROTH SELECTION. Material: PC. Autoclavable: Yes.

- Suitable for 1–2 ml cryogenic vials
- Lid with alphanumeric labelling
- Stackable
- With outlets in the base
- Temperature stability -196 to +121 °C

A 121 °C ❄❄❄

Slip lid slots, round

Pic.	Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
(1)	Slip lid	Ø 12,5	25 (5 x 5)	76	76	53	red	**HE00.1**	1 unit(s)	11,20

Hinged lid slots, round

Assorted colours: Blue, red, green, purple.

Delivery incl. removal aid.

Pic.	Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
(2)	Hinged lid	Ø 12,5	81 (9 x 9)	133	133	53	assorted colours	**HE01.1**	4 unit(s)	63,10

Hinged lid pin pattern

Pic.	Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
(3)	Hinged lid	12,5 x 12,5	100 (10 x 10)	133	133	53	blue	**HE03.1**	1 unit(s)	15,95

Cryo boxes, storage boxes

Cryogenic box ROTILABO® for 5 ml cryogenic vials

ROTH SELECTION. Material: PC, transparent. Autoclavable: Yes.

- Suitable for 5 ml cryogenic vials
- With embossed numeric labelling
- Removable insert
- Stackable
- Temperature stability from -196 °C

A 121 °C ❄❄❄

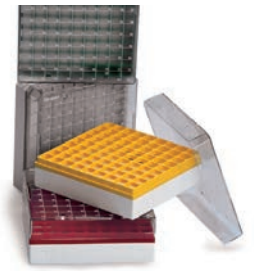
Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Hinged lid	13 x 13	81 (9 x 9)	145	142	97	**ACL7.1**	1 unit(s)	14,15

Cryogenic box ROTILABO®

ROTH SELECTION. Material: PC. Autoclavable: Yes.

With transparent lid and removable coloured insert.

- Slots and lid are labelled numerically
- Labelling area on box and lid
- Outlets in the base
- Stackable
- Temperature stability -196 to +121 °C



A 121 °C ❄❄❄

For 1–2 ml cryogenic vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	52	blue	**K585.1**	1 unit(s)	15,30
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	52	green	**K586.1**	1 unit(s)	15,30
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	52	red	**K587.1**	1 unit(s)	15,30
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	52	yellow	**K588.1**	1 unit(s)	15,30

For 3–5 ml cryogenic vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	95	blue	**K589.1**	1 unit(s)	16,70
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	95	green	**K590.1**	1 unit(s)	16,70
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	95	red	**K591.1**	1 unit(s)	16,70
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	95	yellow	**K592.1**	1 unit(s)	16,70

Cryogenic box ROTILABO® 100 slots

ROTH SELECTION. Material: PC. Autoclavable: Yes.

- Suitable for 1/2 ml cryogenic vials, internal thread
- Slots: Pin pattern
- Labelled numerically (lid and base)
- Outlets in the base
- Labelling area on the side
- Stackable
- Temperature stability -196 to +121 °C

A 121 °C ❄❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12,5 x 12,5	100 (10 x 10)	133	133	52	blue	**K593.1**	1 unit(s)	13,90
Slip lid	12,5 x 12,5	100 (10 x 10)	133	133	52	green	**K594.1**	1 unit(s)	13,90
Slip lid	12,5 x 12,5	100 (10 x 10)	133	133	52	red	**K595.1**	1 unit(s)	13,90
Slip lid	12,5 x 12,5	100 (10 x 10)	133	133	52	yellow	**K596.1**	1 unit(s)	13,90

Cryo boxes, storage boxes

Storage box ROTILABO® 100 slots

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Transparent lid with alphanumerically labelled index card for rapid identification. Black box with black lid for the storage of light-sensitive samples.

- Suitable for 0.5–2 ml reaction vials
- Stackable
- Temperature stability -90 to +121 °C

A 121 °C ❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	colourless	**N195.1**	1 unit(s)	18,45
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	red	**N196.1**	1 unit(s)	18,45
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	blue	**N197.1**	1 unit(s)	18,45
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	green	**N198.1**	1 unit(s)	18,45
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	yellow	**N199.1**	1 unit(s)	18,45
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	black	**N200.1**	1 unit(s)	15,50

Storage box 81 slots hinged lid

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for 1.5/2 ml reaction vials
- Removable grid division
- Labelled numerically
- Outlets in the base
- Stacking corners for safe transportation
- Temperature stability -90 to +121 °C

A 121 °C ❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	13 x 13	81 (9 x 9)	133	133	52	colourless	**T435.1**	1 unit(s)	5,65
Hinged lid	13 x 13	81 (9 x 9)	133	133	52	red	**T436.1**	1 unit(s)	5,65
Hinged lid	13 x 13	81 (9 x 9)	133	133	52	blue	**T437.1**	1 unit(s)	5,65
Hinged lid	13 x 13	81 (9 x 9)	133	133	52	green	**T438.1**	1 unit(s)	5,65
Hinged lid	13 x 13	81 (9 x 9)	133	133	52	yellow	**T439.1**	1 unit(s)	5,65

Storage box recycled

ROTH SELECTION. Material: Plastic, Recycled (colour variations possible). Autoclavable: Yes.

With hinged lid, alphanumerically labelled, removable.

- Suitable for 0.5–2 ml reaction vials
- Taller than standard boxes, for tubes up to max. height of 53.5 mm
- Stackable
- Temperature stability -80 to +135 °C

A 121 °C ❄❄

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Hinged lid	140	140	62	**EEC4.1**	5 unit(s)	32,50

Cryo boxes, storage boxes

Storage box 81 slots

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for 1.5/2 ml reaction vials
- Slots are labelled alphanumerically
- Outlets in the base
- Black box with black lid for storing light-sensitive samples
- Temperature stability -90 to +121 °C

A 121 °C

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	13 x 13	81 (9 x 9)	130	130	47	colourless	**NL80.1**	5 unit(s)	38,75
Slip lid	13 x 13	81 (9 x 9)	130	130	47	blue	**NL81.1**	5 unit(s)	38,75
Slip lid	13 x 13	81 (9 x 9)	130	130	47	green	**NL82.1**	5 unit(s)	38,75
Slip lid	13 x 13	81 (9 x 9)	130	130	47	pink	**NL83.1**	5 unit(s)	38,75
Slip lid	13 x 13	81 (9 x 9)	130	130	47	yellow	**NL84.1**	5 unit(s)	38,75
Slip lid	13 x 13	81 (9 x 9)	130	130	47	orange	**NL85.1**	5 unit(s)	38,75
Slip lid	13 x 13	81 (9 x 9)	130	130	47	black	**NL86.1**	5 unit(s)	38,75

Set

Assorted colours (blue, green, pink, yellow, orange).

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	13 x 13	81 (9 x 9)	130	130	47	assorted colours	**NL87.1**	5 unit(s)	38,75

Storage box 50 slots

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for 1.5/2 ml reaction vials, 2 ml cryogenic vials

A 121 °C

(1) Hinged lid set colourless

Slots are numbered alphanumerically.

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	13 x 13	142	92	56	colourless	**NY15.1**	5 unit(s)	26,20

(1) Hinged lid set assorted colours

Slots are numbered alphanumerically.

Assorted colours: Blue, green, purple, yellow, orange.

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	13 x 13	142	92	56	assorted colours	**NY16.1**	5 unit(s)	26,20

(2) Slip lid

Tube height variable up to 55 mm due to height-adjustable plug-in lid.

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12,5 x 12,5	144	75	35	colourless	**N201.1**	1 unit(s)	11,65
Slip lid	12,5 x 12,5	144	75	35	pink	**P184.1**	1 unit(s)	10,90
Slip lid	12,5 x 12,5	144	75	35	yellow	**P185.1**	1 unit(s)	10,90
Slip lid	12,5 x 12,5	144	75	35	blue	**P186.1**	1 unit(s)	11,50
Slip lid	12,5 x 12,5	144	75	35	green	**P187.1**	1 unit(s)	10,90

Cryo boxes, storage boxes

Storage box ROTILABO® 200 slots

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With two tabs on the front for inserting tags.

- Suitable for 0.5–2 ml reaction vials
- With alphanumeric labelling
- Stackable
- Temperature stability -80 to +135 °C

A 121 °C ❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	12 x 12	200 (10 x 20)	275	151	64	black	**ACN1.1**	1 unit(s)	29,05
Hinged lid	12 x 12	200 (10 x 20)	275	151	64	colourless	**P786.1**	1 unit(s)	29,05

Storage box ROTILABO® slimline shape

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Temperature stable from -80 to +135 °C.

- Suitable for 0.5–2 ml reaction vials
- Slip lid with alphanumeric labelling, loosely attached, adjustable height up to 52 mm
- Stackable

A 121 °C ❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12 x 12	100 (5 x 20)	287	76	38	black	**ACN0.1**	1 unit(s)	11,45

Cryogenic rack drawer rack

ROTH SELECTION. Material: Stainless steel, polished, drawers made of aluminium.

For the storage of cryogenic boxes in deep freezers, less effort is required for removal and insertion. Cabinet modules without pull-out stop. Suitable for cryogenic boxes in sizes from 130 x 130 to 136 x 136 mm.

❄❄❄

Suitable for	Width (mm)	Height (mm)	Depth (mm)	Arrangement of compartments	Art. No.	Pack Qty.	€
Box height: 50 mm	144	224	570	4 x 4	**CLL9.1**	1 unit(s)	163,40
Box height: 50 mm	144	280	570	5 x 4	**CLN0.1**	1 unit(s)	166,65
Box height: 50 mm	144	336	570	6 x 4	**CLN1.1**	1 unit(s)	175,25
Box height: 50 mm	144	280	709	5 x 5	**HHX5.1**	1 unit(s)	207,50
Box height: 75 mm	144	250	570	3 x 4	**CLN2.1**	1 unit(s)	155,80
Box height: 75 mm	144	335	570	4 x 4	**CLN3.1**	1 unit(s)	170,95

Cryo racks

Cryogenic rack stainless steel

ROTH SELECTION. Material: Stainless steel, polished.

Extremely stable and easy to clean. For storing cryogenic boxes in deep freezers. With carry handles. Suitable for cryogenic boxes in sizes from 130 x 130 to 136 x 136 mm.

❄❄❄

Wide (for upright freezers)

Pic.	Suitable for	Width (mm)	Height (mm)	Depth (mm)	Arrangement of compartments	Art. No.	Pack Qty.	€
(1)	Box height: 50 mm	140	274	424	3 x 5	**LH44.1**	1 unit(s)	136,35
(1)	Box height: 50 mm	140	219	566	4 x 4	**LH43.1**	1 unit(s)	132,90
(1)	Box height: 50 mm	140	274	566	4 x 5	**LH42.1**	1 unit(s)	144,00
(1)	Box height: 50 mm	140	328	566	4 x 6	**LH41.1**	1 unit(s)	159,85

Tall (for chest freezers)

Pic.	Suitable for	Width (mm)	Height (mm)	Depth (mm)	Arrangement of compartments	Art. No.	Pack Qty.	€
(2)	Box height: 50 mm	140	495	140	1 x 9	**LH49.1**	1 unit(s)	94,90
(2)	Box height: 50 mm	140	550	140	1 x 10	**T440.1**	1 unit(s)	92,75
(2)	Box height: 50 mm	140	604	140	1 x 11	**LH47.1**	1 unit(s)	95,95
(2)	Box height: 50 mm	140	659	140	1 x 12	**LH48.1**	1 unit(s)	97,40
(2)	Box height: 50 mm	140	713	140	1 x 13	**LH46.1**	1 unit(s)	100,85
(2)	Box height: 75–77 mm	140	641	140	1 x 8	**LH50.1**	1 unit(s)	89,15
(2)	Box height: 75–77 mm	140	720	140	1 x 9	**LH51.1**	1 unit(s)	127,55

Cryogenic rack Aluminium

ROTH SELECTION. Material: Aluminium.

With carry handle. At least 30 % lighter than stainless steel racks. For the storage of cryogenic boxes in chest freezers or upright freezers, less effort is required for removal and insertion. Improved design for faster cooling rate. Suitable for cryogenic boxes in sizes from 130 x 130 to 136 x 136 mm.

❄❄❄

Wide (for upright freezers)

Pic.	Suitable for	Width (mm)	Height (mm)	Depth (mm)	Arrangement of compartments	Art. No.	Pack Qty.	€
(1)	Box height: 50 mm	140	274	566	4 x 5	**CLL6.1**	1 unit(s)	220,40
(1)	Box height: 50 mm	140	328	566	4 x 6	**CLL7.1**	1 unit(s)	247,25

Tall (for chest freezers)

Pic.	Suitable for	Width (mm)	Height (mm)	Depth (mm)	Arrangement of compartments	Art. No.	Pack Qty.	€
(2)	Box height: 50 mm	140	550	140	1 x 10	**CLL8.1**	1 unit(s)	138,25

Cooling racks

Cooling box ROTILABO®

ROTH SELECTION. Material: PS (foamed).

Ideal for long-term storage in refrigerators and freezers or as a rack on the laboratory bench.

- Stackable
- Temperature stability -196 to +50 °C

❄❄❄

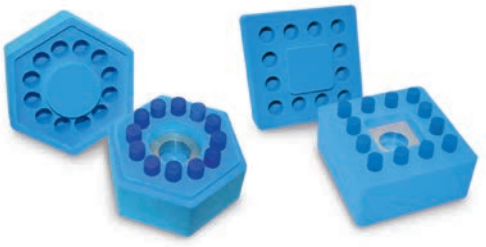
Version	Suitable for	Arrangement of slots	No. of slots	Ø Hole (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	1.5/2 ml reaction vials, 2 ml cryogenic vials	5 x 20	100	12	338	95	63	**K496.2**	10 unit(s)	52,70
Slip lid	1.5/2 ml reaction vials, 2 ml cryogenic vials	5 x 10	50	13	210	110	71	**N443.2**	10 unit(s)	52,90

Cryo-freezing container FreezeCell

ROTH SELECTION. Material: Plastic EVAC (ethylene-vinyl acetate copolymer), core made of aluminium alloy.

Container for the controlled freezing of samples in cryogenic tubes or reaction vials at -80 °C for later cryogenic long-term storage.

- Heat-conducting alloy and optimised insulation for uniform cryo-preservation
- Controlled, reproducible gradual cooling rates for high cell survival rate
- Cooling rate (-1 °C/min) independent of filling quantity
- No alcohol or other coolant required
- Can be used directly without pre-cooling



NEW / +

❄❄

Directions for use

Place the samples in the freezing container and close the lid. Incubate the freezing container at -80 °C for at least three hours and do not open it during this time. At the end of the incubation period, the samples can be removed and transferred, e.g. to a tank with liquid nitrogen, for long-term storage.

Hexagonal

Suitable for	No. of slots	Outer length (mm)	Outer width (mm)	Outer height (mm)	Weight (g)	Art. No.	Pack Qty.	€
1-2 ml cryogenic vials	12	216	189	100	120	**1L02.1**	1 unit(s)	166,65

Rectangular

Suitable for	No. of slots	Outer length (mm)	Outer width (mm)	Outer height (mm)	Weight (g)	Art. No.	Pack Qty.	€
1-2 ml cryogenic vials	12	117	117	100	160	**1L03.1**	1 unit(s)	166,65

Cooling racks

Cooling system FreezeBox

ROTH SELECTION.

Simple system for cooling samples or for rapid freezing, defrosting and heating. Cooling box, cooling block or cryoblock and cooling module are the perfect combination.

NEW / +

Directions for use

Pre-cool the cooling or cryo block at -20/-80 °C and keep samples cool in the cooling box for several hours on the laboratory bench. Alternatively, the cooling box can be filled with approx. 200 g of dry ice. The cooling module itself does not require any pre-cooling.
Do not keep the cooling box in the freezer.

Standard

Pre-cool the cooling block for at least four hours at –20 °C or at least two hours at –80 °C. Duration of use: Four hours (open lid) or six hours (closed lid).

Operating temperature approx. +0.5 to +4 °C.

Delivery incl. cooling box, cooling block and cooling module.

Suitable for	No. of slots	Ø Hole (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5 ml reaction vials	48	11	170	152	123	**1L09.1**	1 unit(s)	252,65
2 ml cryogenic vials	30	12.6	170	152	123	**1L08.1**	1 unit(s)	252,65
5 ml cryogenic vials	30	13.5	170	152	123	**1L0A.1**	1 unit(s)	252,65
0.2 ml PCR vessels	96	0.7	170	152	123	**1L0C.1**	1 unit(s)	263,40

Cryogenic

Pre-cool the cryoblock for at least six hours at –20 °C or at least three hours at –80 °C. Duration of use: Three hours (open lid) or five hours (closed lid).

Operating temperature approx. –18 to +4 °C.

Delivery incl. cooling box, cryoblock and cooling module.

Suitable for	No. of slots	Ø Hole (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5 ml reaction vials	48	11	170	152	123	**1L05.1**	1 unit(s)	252,65
2 ml cryogenic vials	30	12.6	170	152	123	**1L04.1**	1 unit(s)	252,65
5 ml cryogenic vials	30	13.5	170	152	123	**1L06.1**	1 unit(s)	252,65
0.2 ml PCR vessels	96	0.7	170	152	123	**1L07.1**	1 unit(s)	263,40

Cryo-freezing container Mr. Frosty

Nalgene. Material: PC, lid and tube holder made of HDPE. With foam rubber insert.

Easy to use: Only 100% isopropyl alcohol and a freezer are required.
For reproducible, repeated cooling of samples at approx. -1 °C/min.
Optimum cellular yield after storage at low temperatures.
The tube holder prevents direct contact between the tubes and the alcohol; any marking on the tubes remains readable. The tube holder can be used as a floating stand for thawing samples in the water bath.

Suitable for	No. of slots	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
1–2 ml cryogenic vials	18	120	86	**AC96.1**	1 unit(s)	142,05

Cooling racks

Cooling box

Nalgene. Material: PC.

For cooling heat-sensitive samples on the lab bench.

- Can be used up to -20 °C (max. -40 °C)
- Protects against temperature fluctuations and power failure
- Markable grid surface on the lid
- Breakproof and stackable with non-slip feet

-20 °C for 12 reaction vials (3 x 4)
Blue base, gel-filled; transparent lid, without gel filling.

Delivery incl. adapter for 0.5 ml reaction vials.

Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
<-15 °C (–1 h)	0.5-2 ml reaction vials	3 x 4	12	151	108	125	**L243.1**	1 unit(s)	193,50

-20 °C for 32 reaction vials (4 x 8)
Blue base, gel-filled; white lid with non-toxic gel filling.

Delivery incl. adapter for 0.5 ml reaction vials.

Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
<-15 °C (–2 h)	0.5–2 ml reaction vials	4 x 8	32	243	157	146	**L244.1**	1 unit(s)	365,50

0 °C for 12 reaction vials (3 x 4)
Green base, gel-filled; transparent lid, without gel filling.

Delivery incl. adapter for 0.5 ml reaction vials.

Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
<1 °C (–3,5 h)	0.5-2 ml reaction vials	3 x 4	12	151	108	125	**L245.1**	1 unit(s)	194,60

0 °C for 32 reaction vials (4 x 8)
Green base, gel-filled; white lid with non-toxic gel filling.

Delivery incl. adapter for 0.5 ml reaction vials.

Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
<1 °C (–5 h)	0.5-2 ml reaction vials	4 x 8	32	243	157	146	**L246.1**	1 unit(s)	348,30

0 °C for 12 vials (3 x 4)
Green base, gel-filled; transparent lid, without gel filling.

Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
<1 °C (–5 h)	Vessel Ø 12-13 mm	3 x 4	12	197	140	190	**L247.1**	1 unit(s)	361,20
<1 °C (–5 h)	Vessel Ø 16-17 mm	3 x 4	12	197	140	190	**L248.1**	1 unit(s)	361,20

Cooling racks

Cooling box

Nalgene. Material: PC.

Ideal for quick and repeated cooling of samples. Can be used repeatedly for up to 45 minutes. Cools up to 2 ml of alcohol-based solutions to –20 °C in less than 3 minutes or up to 2 ml of water-based solutions to 0 °C in less than 4 minutes.
Labels and markings do not come off as there is no direct contact between the vessel and the insulating liquid. Breakproof and stackable. Rubber feet to prevent slipping.

Delivery incl. inserts for 0.2 to 0.5 ml vials.

Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.2–2 ml reaction vials	3 x 4	12	151	108	125	**L249.1**	1 unit(s)	216,10

Cooling box

ROTH SELECTION. Material: PC, gel-filled.

For cooling heat-sensitive samples such as PCR-reagents or enzymes on the lab bench. With non-slip rubber feet.

0,5-2 ml

Delivery incl. adapter for 0.5 ml reaction vials.

Version	Temperature constancy	Suitable for	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Gel-filled lid	-15 °C (–5 h)	0.5–2 ml reaction vials / Cryogenic vials up to 2 ml	32	245	105	100	**NY11.1**	1 unit(s)	196,75
Basic lid (transparent)	-15 °C (–2,5 h)	0.5–2 ml reaction vials / Cryogenic vials up to 2 ml	12	145	105	100	**NY09.1**	1 unit(s)	104,20
Basic lid (transparent)	-15 °C (–3,5 h)	0.5–2 ml reaction vials / Cryogenic vials up to 2 ml	32	245	105	100	**NY10.1**	1 unit(s)	170,95

For 32 vials (4 x 8)

Delivery incl. Adapter for 0.5 ml reaction vials

PCR

Also suitable for PCR plates.

Version	Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Basic lid (transparent)	-15 °C (–3,5 h)	0.2 ml PCR vessels	8 x 12	96	225	165	100	**NY12.1**	1 unit(s)	196,75

Cooling racks

Cooling box ROTILABO®

ROTH SELECTION. Material: PC, gel-filled, transparent lid.

For cooling heat-sensitive samples on the lab bench, transporting frozen samples or as a storage box in the refrigerator to protect against temperature fluctuations and power failure.

- Double sided, reaction vials 0.5 ml on one side, 1.5/2 ml on the other side
- Holes (Ø 8/12 mm) are alphanumerically coded on both sides

❄

White

Temperature constancy	Suitable for	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0 °C (–5 h)	0.5–2 ml reaction vials	20	170	110	105	**K087.1**	1 unit(s)	192,45

Blue

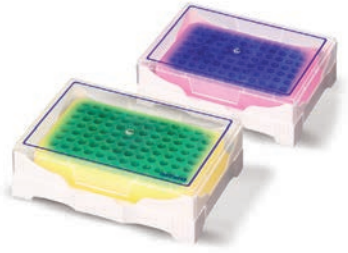
Temperature constancy	Suitable for	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
-15 °C (–2 h)	0.5–2 ml reaction vials	20	170	110	105	**K088.1**	1 unit(s)	192,45

Cooling box ROTILABO® PCR

ROTH SELECTION. Material: PP, with non-toxic gel filling.

For cooling heat-sensitive samples on the lab bench.
Suitable for 0.2 ml PCR vessels, plates and reaction vial strips.

- Rack changes colour from approx. 7 °C
- Recommended storage temperature: -20 °C
- Slot Ø 6 mm
- Height without lid 38 mm



Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Colour conversion	Art. No.	Pack Qty.	€
4-7 °C (3 h)	0.2 ml PCR vessels	8 x 12	96	141	99	44	violet to pink	**EX48.1**	2 unit(s)	147,15
4-7 °C (3 h)	0.2 ml PCR vessels	8 x 12	96	141	99	44	green to yellow	**EX49.1**	2 unit(s)	147,15

Cooling box PCR

ROTH SELECTION. Material: PP, PC lid.

Ice-free cooling system for preparing and storing PCR single vessels, strips and plates. For heat-sensitive applications, PCR or cell-based assays, as well as for gentle thawing of samples and stopping reactions. After two hours of pre-cooling at -20 °C, a sample temperature of 0 °C is maintained for over one hour or below 5 °C for up to three hours. Colour change if the temperature limit of 6 °C is exceeded.

- Constant and reliable
- Modern design cools down more quickly in freezers and remains colder for longer
- Temperature-stable up to -80 °C
- Vented lid for faster cooling of samples in a freezer compartment
- Lid can be removed completely and can be used as a stand by rotating by 180°
- Alphanumerically coded

❄❄

Arrangement of slots	No. of slots	Colour conversion	Art. No.	Pack Qty.	€
8 x 12	96	from violet to pink	**KLA3.1**	2 unit(s)	110,20
8 x 12	96	from dark blue to light blue	**KLA4.1**	2 unit(s)	110,15

Cooling racks

Cooling rack ROTILABO® Alu.Rack

ROTH SELECTION. Material: Aluminium.
For cooling samples in an ice bath.

❄❄❄

For 0.2/1.5 ml reaction vials
Compatible with PCR trays, PCR strips or 96 PCR single vessels. Additional 6 slots for 1.5 ml reaction vials.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
100	8 x 12 / 6	115 x 90 x 15	**N470.1**	1 unit(s)	81,30

For 0.5/1.5 ml reaction vials
With 36 slots for 0.5 ml reaction vials and 11 slots for 1.5 ml reaction vials.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
47	4 x 6 / 11	180 x 90 x 15	**N548.1**	1 unit(s)	81,30

For 1.5 ml reaction vials

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	4 x 6	115 x 90 x 30	**EP69.1**	1 unit(s)	81,30

For 2 ml reaction vials

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	4 x 6	115 x 80 x 30	**KH56.1**	1 unit(s)	81,30

Cooling rack ROTILABO® for centrifuge tubes

ROTH SELECTION. Material: Aluminium.
For cooling samples in an ice bath.

Arrangement of slots	No. of slots	Ø Hole (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
3 x 4	12	17	95	70	95	**KKK3.1**	1 unit(s)	135,45

Cooling racks

Cooling rack Polar Safe™

ROTH SELECTION. Material: Aluminium, blue, anodised.
Autoclavable: Yes.

Ideal for use on ice, dry ice, in water baths or liquid nitrogen. With side recesses for safe grip. Temperature stable up to -196 °C.

A 121 °C ❄❄❄

Note: Frequent autoclaving and cleaning can cause colour changes.

For 2 ml cryogenic tubes

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15	3 x 5	113 x 77 x 38	**EKP9.1**	1 unit(s)	213,00

For 1.5/2 ml reaction vials

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15	3 x 5	113 x 77 x 38	**EKT0.1**	1 unit(s)	233,00

For 0.5 ml reaction vials

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	4 x 6	113 x 77 x 33	**EKT1.1**	1 unit(s)	213,00

PCR 96-well

Compatible with PCR trays, PCR strips and single vessels.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
96	8 x 12	113 x 77 x 20	**EKT2.1**	1 unit(s)	268,00

PCR 384-well

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
384	16 x 24	113 x 77 x 13	**EKT3.1**	1 unit(s)	332,00

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Cooling racks

Cooling rack

ROTH SELECTION. Material: Metal (thermally conductive), anodised. Autoclavable: Yes.

Suitable for cooling samples on ice, dry ice or in the vapour phase of liquid nitrogen as well as for heating samples in water baths and incubators.

- Slots are labelled alphanumerically
- Temperature stable up to -150 °C

A 121 °C

For reaction vials

For 1.5/2 ml reaction vials and 0.5 to 2 ml screw cap vials.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
6	2 x 3	60 x 43 x 32	**CXK6.1**	1 unit(s)	88,70
15	3 x 5	96 x 60 x 32	**CXK7.1**	1 unit(s)	181,70
30	5 x 6	114 x 96 x 32	**CXK8.1**	1 unit(s)	306,40
90	6 x 15	274 x 114 x 32	**CXK9.1**	1 unit(s)	489,15
96	8 x 12	221 x 149 x 32	**CXL0.1**	1 unit(s)	622,45

For cryogenic vials

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15	3 x 5	128 x 85 x 32	**CXL1.1**	1 unit(s)	213,95
24	4 x 6	96 x 60 x 32	**CXL2.1**	1 unit(s)	378,40

For PCR trays

SBS dimensions, compatible with automated systems.

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
384	128 x 85 x 23	**CXL6.1**	1 unit(s)	478,40
96	128 x 85 x 25	**CXL5.1**	1 unit(s)	370,90

Cooling rack ROTILABO® for sample vials

ROTH SELECTION. Material: Aluminium.

For cooling samples in an ice bath.

Suitable for	Arrangement of slots	No. of slots	Ø Hole (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Sample vials 1.5–2 ml	7 x 14	98	12	220	110	30	**KKY5.1**	1 unit(s)	160,20
Headspace vials 20 ml	4 x 8	32	22.5	220	110	30	**KKY6.1**	1 unit(s)	160,20

Ice container

ROTH SELECTION. Material: PP, expanded (EPP).

Highly robust with excellent insulation properties. With recessed hand grips.

Technical specifications:

Art. No.	EET6.1
L x W x H, interior	345 x 345 x 175 mm

Delivery incl. lid.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
400 x 400 x 220	**EET6.1**	1 unit(s)	43,85

Ice container True North™

ROTH SELECTION. Material: PU.

Excellent insulation properties for deep-freeze applications using ice, ice-salt mixtures or other cooling media. Tight-fitting lid for minimum evaporation loss (can be stored below ice container when not in use). Pouring spout for easy pouring out of melted ice.
Conical shape and recessed lid for space-saving stacking.

Delivery incl. lid.

Square

Vol. (l)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
1	267 x 196 x 114	turquoise	**TP25.1**	1 unit(s)	74,80
4	381 x 254 x 182	blue	**TP26.1**	1 unit(s)	106,20
9	521 x 292 x 163	red	**TP27.1**	1 unit(s)	149,35

Round

Vol. (l)	Ø ext. (mm)	Colour	Art. No.	Pack Qty.	€
4	234	black	**TP24.1**	1 unit(s)	94,80

Ice container

ROTH SELECTION. Material: PS, foamed.

Sturdy, thick-walled design provides ideal cooling and prevents condensation. Suitable for ethanol and refrigerant mixtures, dry ice or liquid nitrogen. Temperature stable up to –196 °C.

Square

Vol. (l)	Ø ext. (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
1	300	155 x 155 x 95	blue	**TE12.1**	1 unit(s)	21,80
4	300	220 x 310 x 125	blue	**TE14.1**	1 unit(s)	45,40
9	300	335 x 435 x 130	blue	**TE16.1**	1 unit(s)	62,60

Round
Tight-fitting lid minimises evaporation loss.

Delivery incl. lid.

Vol. (l)	Ø ext. (mm)	Colour	Art. No.	Pack Qty.	€
2.5	300	blue	**TE08.1**	1 unit(s)	45,40
5.0	300	blue	**TE10.1**	1 unit(s)	59,75

Ice bucket ROTILABO®

ROTH SELECTION. Material: Stainless steel.

Double wall, with carrying handle.

Delivery incl. lid.

Vol. (l)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
2	150	210	**YE46.1**	1 unit(s)	36,80

Cooling box

ROTH SELECTION. Material: PP, PU foam insulation.
With hinged lid and bow handle.

Technical specifications:

Art. No.	AA46.1	AA47.1
Cooling capacity	24 h	
Inner length	330 mm	
Inner width	240 mm	370 mm
Inner height	330 mm	240 mm
Weight	2,4 kg	2,6 kg

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
26	407	313	424	**AA46.1**	1 unit(s)	39,15
30	408	322	461	**AA47.1**	1 unit(s)	46,00

Cooling box Xtreme®

ROTH SELECTION. Material: HDPE, full PU foam insulation.
Close using attached lid and snap lock for a leak-tight seal. Waterpoof and corrosion resistant drainage.

Technical specifications:

Art. No.	LT01.1	LT02.1	LT03.1
Cooling capacity	120 h		
Inner length	530 mm	610 mm	790 mm
Inner width	240 mm	300 mm	330 mm
Inner height	280 mm	330 mm	290 mm
Weight	5,6 kg	6,1 kg	7,4 kg

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
48	700	380	440	**LT01.1**	1 unit(s)	107,00
66	720	400	440	**LT02.1**	1 unit(s)	143,00
90	920	420	440	**LT03.1**	1 unit(s)	203,20

Cooling box

ROTH SELECTION. Material: PP, Full PU foam insulation.

Technical specifications:

Art. No.	P252.1	P253.1
Cooling capacity	17 h	20,5 h
Inner length	265 mm	320 mm
Inner width	165 mm	195 mm
Inner height	250 mm	275 mm
Weight	1,4 kg	2,1 kg

With bow handle
Loose-fit lid, can be locked with carrying handles.

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
10	350	225	310	**P252.1**	1 unit(s)	40,05
17	410	245	355	**P253.1**	1 unit(s)	60,05

Cooling box thermoelectric

ROTH SELECTION.

Can be operated via 230 V mains supply (optional) or via the car's 12 V connector.

- Strong PU insulation
- Secure lid
- Integrated storage compartment for the cable
- Integrated fan (39 dB) accelerates the cooling process
- Cooling capacity up to 20 °C below outside temperature
- Weight 3.6 kg

Technical specifications:

Art. No.	P272.1
Inner length	328 mm
Inner width	243 mm
Inner height	310 mm

Delivery incl. 12 V plug, please order 230 V transformer separately.

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
24	407	313	435	**P272.1**	1 unit(s)	102,30

Cooling, Insulating

Cooling bag Fold'N Cool™

ROTH SELECTION. Material: Polyester with rear PU coating, inner material PEFA, EPE foam insulation.

Collapsible for space-saving storage. With adjustable shoulder strap, hanger loop and separate front bag.

Technical specifications:

Art. No.	LP95.1	LP93.1	LP94.1
Weight	310 g	610 g	765 g

Pic.	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
(1)	5	230	155	190	**LP95.1**	1 unit(s)	20,50
(2)	20	320	200	370	**LP93.1**	1 unit(s)	28,95

Maxi
With two additional carrying handles.

Pic.	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
(3)	30	390	250	380	**LP94.1**	1 unit(s)	32,00

Insulating bag Frozen Food Bag

ROTH SELECTION. Material: PE, EPE foam insulation.

Technical specifications:

Art. No.	LP96.1	LP97.1
Cooling capacity	to 3 h	
Weight	110 g	120 g

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
19	500	465	7	**LP96.1**	10 unit(s)	44,10
26	585	475	7	**LP97.1**	10 unit(s)	50,00

Cooling packs ROTILABO®

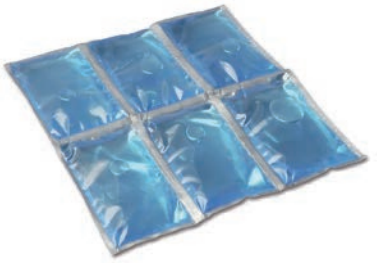
ROTH SELECTION. Material: Plastic (PA/PE film), with gel filling.

- Outstanding cooling properties
- Suitable for multiple use

Technical specifications:

Art. No.	PX99.1	PY00.1
Weight	230 g	460 g

Outer length (mm)	Outer width (mm)	Art. No.	Pack Qty.	€
140	137	**PX99.1**	60 unit(s)	46,90
190	137	**PY00.1**	32 unit(s)	26,55



Cooling elements Flexi Freez'Pack®

ROTH SELECTION.

Very flexible thanks to individual cooling segments, even when frozen. Suitable for foodstuffs.

Technical specifications:

Art. No.	LT04.1	LT05.1	LT06.1
Weight	150 g	300 g	600 g

Outer length (mm)	Outer width (mm)	Outer height (mm)	Refrige-ration segments	Art. No.	Pack Qty.	€
290	160	18	6 x 2	**LT04.1**	10 unit(s)	45,30
300	240	18	4 x 3	**LT05.1**	10 unit(s)	58,25
600	240	18	12 x 3	**LT06.1**	10 unit(s)	64,30

Cooling packs ROTILABO®

ROTH SELECTION. Material: PE, filled with coolant.

Technical specifications:

Art. No.	E447.1	E447.2
Weight	220 g	

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
169	75	19	**E447.1**	5 unit(s)	9,15
169	75	19	**E447.2**	50 unit(s)	68,95

Cooling collar ROTILABO®

ROTH SELECTION. Material: Microfibre.

Insulating cooling pack in flexible sleeve. For the cooling and keeping cool of bottles with Ø approx. 70–100 mm. Adapts well to the shape of the bottle. Also suitable for angled containers. Can be reused any number of times. Foldable for space-saving storage.
Dimensions when folded approx. L 200 x W 150 mm.

Outer length (mm)	Outer width (mm)	Art. No.	Pack Qty.	€
450	200	**CY97.1**	1 unit(s)	34,70

Temperature control vessel

KGW. Material: Stainless steel.

For keeping samples warm or cold.

- Double-wall
- Quick response to temperature changes
- With connections for hoses with a 6 mm inner Ø

The hot or cold tempering medium is pumped around the double-walled casing with the aid of a thermostat.

Technical specifications:

Art. No.	A628.1	A629.1	A630.1	A631.1
Temperature range	-30 to +120 °C			
Ø Internal	85 mm	100 mm	185 mm	
Inner height	206 mm	285 mm	160 mm	270 mm

Vol. (l)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
1	107	231	**A628.1**	1 unit(s)	430,00
2	122	312	**A629.1**	1 unit(s)	516,00
3	200	190	**A630.1**	1 unit(s)	696,60
6	200	300	**A631.1**	1 unit(s)	843,90

Dewar vacuum flask large

KGW. Material: Metal blue-coated, Borosilicate glass 3.3 insert, fully silver-plated.

With lid and carrying handle. For storage and transport of heat-sensitive goods such as dry ice (CO_2).

Technical specifications:

Art. No.	0443.1	1100.1	0444.1
Ø Internal	200 mm		250 mm
Inner height	350 mm	500 mm	620 mm

Type	Vol. (l)	Outer height (mm)	Art. No.	Pack Qty.	€
31 C	10	475	**0443.1**	1 unit(s)	605,25
32 C	14	610	**1100.1**	1 unit(s)	639,65
34 C	28	750	**0444.1**	1 unit(s)	1.089,00

Dewar containers

Dewar vacuum flask cylindrical

KGW. Material: Metal blue-coated, borosilicate glass 3.3 insert, fully silver-plated.

For storage and internal transport of samples in coolants, such as liquid nitrogen.

❄❄❄

Delivery without plug, please order separately.

Type C

Technical specifications:

Art. No.	LE85.1	0440.1	0441.1	LE86.1	LE87.1	1003.1	LE88.1
Ø Internal	40 mm	57 mm	77 mm	90 mm		110 mm	138 mm
Inner height	90 mm	210 mm	235 mm	245 mm	340 mm	290 mm	310 mm

Type	Vol. (ml)	Outer height (mm)	Art. No.	Pack Qty.	€
00C	100	135	**LE85.1**	1 unit(s)	86,15
3C	500	260	**0440.1**	1 unit(s)	126,90
9C	1,000	290	**0441.1**	1 unit(s)	158,60
12C	1,500	300	**LE86.1**	1 unit(s)	203,20
13C	2,000	390	**LE87.1**	1 unit(s)	212,85
18C	2,500	345	**1003.1**	1 unit(s)	235,45
S21C	4,000	375	**LE88.1**	1 unit(s)	342,95

Type G-C

With side grip.

Technical specifications:

Art. No.	LE89.1	LE90.1	LE91.1	LE92.1	LE93.1	LE94.1	LE95.1	LE96.1
Ø Internal	40 mm	57 mm	77 mm	90 mm		110 mm	138 mm	
Inner height	170 mm	210 mm	235 mm	245 mm	340 mm	290 mm	310 mm	600 mm

Type	Vol. (ml)	Outer height (mm)	Art. No.	Pack Qty.	€
G0C	200	215	**LE89.1**	1 unit(s)	121,00
G3C	500	260	**LE90.1**	1 unit(s)	160,45
G9C	1,000	290	**LE91.1**	1 unit(s)	190,30
G12C	1,500	300	**LE92.1**	1 unit(s)	232,20
G13C	2,000	390	**LE93.1**	1 unit(s)	235,45
G18C	2,500	345	**LE94.1**	1 unit(s)	258,00
GS21C	4,000	375	**LE95.1**	1 unit(s)	367,65
GS22C	8,000	660	**LE96.1**	1 unit(s)	517,10

Accessories plug for Dewar vacuum flask cylindrical

KGW. Material: PU.

Rests loosely on top.

Suitable for	Art. No.	Pack Qty.	€
Dewar vacuum flask 100 ml (LE85.1)	**LE97.1**	1 unit(s)	37,00
Dewar vacuum flask 1000 ml (0441.1LE91.1)	**LH00.1**	1 unit(s)	40,45
Dewar vacuum flask 1500 ml (LE86.1/LE92.1)	**LH01.1**	1 unit(s)	40,45
Dewar vacuum flask 200 ml (LE89.1)	**LE98.1**	1 unit(s)	37,00
Dewar vacuum flask 2000 ml (LE87.1/LE93.1)	**LH02.1**	1 unit(s)	40,45
Dewar vacuum flask 2500 ml (1003.1LE94.1)	**LH03.1**	1 unit(s)	50,00
Dewar vacuum flask 4000 ml (LE88.1/LE95.1)	**LH04.1**	1 unit(s)	50,00
Dewar vacuum flask 500 ml (0440.1/LE90.1)	**LE99.1**	1 unit(s)	37,00
Dewar vacuum flask 8000 ml (LE96.1)	**LH05.1**	1 unit(s)	50,00

Dewar containers

Dewar vessel stainless steel

KGW. Material: Stainless steel.

For the safe handling of coolants and freezing mixtures such as liquid nitrogen or dry ice.

- Cylindrical
- Easy to use
- High mechanical breaking strength

❄❄❄

Delivery without plug, please order separately.

DSS

From 1000 ml capacity with removable carrying handle.

Technical specifications:

Art. No.	3628.1	3635.1	3651.1	3653.1	3655.1	3669.1
Ø Internal	65 mm	85 mm	100 mm		185 mm	
Inner height	180 mm	206 mm	157 mm	285 mm	160 mm	270 mm

Type	Vol. (ml)	Outer height (mm)	Art. No.	Pack Qty.	€
DSS 500	500	203	**3628.1**	1 unit(s)	319,30
DSS 1000	1,000	231	**3635.1**	1 unit(s)	335,40
DSS 1000 W	1,000	177	**3651.1**	1 unit(s)	370,90
DSS 2000	2,000	312	**3653.1**	1 unit(s)	424,65
DSS 3000	3,000	190	**3655.1**	1 unit(s)	604,15
DSS 6000	6,000	300	**3669.1**	1 unit(s)	764,35

GSS

With grip and handle.

Technical specifications:

Art. No.	A632.1	A633.1	A634.1
Ø Internal	85 mm	100 mm	185 mm
Inner height	206 mm	285 mm	160 mm

Type	Vol. (ml)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
GSS 1000	1,000	107	231	**A632.1**	1 unit(s)	378,40
GSS 2000	2,000	122	312	**A633.1**	1 unit(s)	460,10
GSS 3000	3,000	200	190	**A634.1**	1 unit(s)	628,90

Accessories plug for Dewar vessel made of stainless steel

KGW. Material: PU.

Rests loosely on top.

Suitable for	Art. No.	Pack Qty.	€
Dewar vessel, 500 ml (3628.1)	**XX13.1**	1 unit(s)	42,90
Dewar vessel, 1000 ml (3635.1/A632.1)	**XX14.1**	1 unit(s)	42,90
Dewar vessel, 1000 ml (W) and 2000 ml (3651.1/3653.1/A633.1)	**XX15.1**	1 unit(s)	42,90
Dewar vessel 3000 ml and 6000 ml (3655.1/3669.1/A634.1)	**XX16.1**	1 unit(s)	48,55

Dewar containers

Dewar transport vessel

KGW.

Suitable for storage and transport of heat-sensitive samples in coolants, such as liquid nitrogen.
When using gassing coolants, a hole must be made in the lid (central; Ø approx. 2 mm).

❄❄❄

Technical specifications:

Art. No.	0442.1	HT40.1	HT39.1	HT41.1	1098.1	HT42.1	1099.1	HT43.1
Evaporation rate	1.1 l liquid N_2/d		1.7 l liquid N_2/d		1.5 l liquid N_2/d		1.3 l liquid N_2/d	
Ø Internal	100 mm		138 mm					
Inner height	150 mm		170 mm		230 mm		310 mm	

(1) Type B (Metal sleeve, blue)
Material: Metal blue-coated, borosilicate glass 3.3 insert, fully silver-plated, lid made of insulated plastic, aluminium handle.

Type	Vol. (l)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
26 B	1	132	215	**0442.1**	1 unit(s)	225,75
27 B	2	170	245	**HT39.1**	1 unit(s)	244,05
28 B	3	170	305	**1098.1**	1 unit(s)	292,40
29 B	4	170	385	**1099.1**	1 unit(s)	363,35

(2) Type B-E (Stainless steel sleeve)
Material: Stainless steel borosilicate glass 3.3 insert, fully silver-plated, lid made of insulated plastic, aluminium handle.

Type	Vol. (l)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
26 BE	1	132	215	**HT40.1**	1 unit(s)	224,70
27 BE	2	170	245	**HT41.1**	1 unit(s)	275,20
28 BE	3	170	305	**HT42.1**	1 unit(s)	353,70
29 BE	4	170	385	**HT43.1**	1 unit(s)	403,15

Dewar vessel spherical

KGW. Material: Metal (Aluminium casing, brushed), borosilicate glass 3.3 insert, fully silver-plated.

For storing liquid nitrogen. Glass insert is wrapped in foam rubber to prevent breakage.

- Low evaporation rate
- High stability

❄❄❄

Technical specifications:

Art. No.	C369.1	C370.1	C371.1	C372.1
Evaporation rate	0.2 l liquid N_2/d	0.4 l liquid N_2/d		0.6 l liquid N_2/d
Ø Inner neck	30 mm	60 mm		65 mm
Inner height	235 mm	305 mm	350 mm	380 mm

Delivery incl. handle and insulating lid (loose-fit).

Type	Vol. (l)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
21 AL	1	175	300	**C369.1**	1 unit(s)	306,40
22 AL	3	225	380	**C370.1**	1 unit(s)	481,60
23 AL	5	260	450	**C371.1**	1 unit(s)	565,45
24 AL	10	330	480	**C372.1**	1 unit(s)	747,15

Dewar containers

Dewar vessel dish-shaped

KGW. Material: Aluminium, Borosilicate glass 3.3 insert, fully silver-plated.

For liquid and solid media and solids (LN_2 or CO_2). Anti-magnetic.

Application:

- Tempering of round-bottom flasks
- Cooling of small samples
- Hot or cold bath
- Suitable for use on magnetic stirrers

❄❄❄

Technical specifications:

Art. No.	LH06.1	C610.1	C611.1	C612.1	C613.1	LH07.1
Ø Internal	67 mm	77 mm	110 mm	138 mm	170 mm	200 mm
Inner height	40 mm	50 mm	70 mm	80 mm	110 mm	125 mm

Type	Vol. (ml)	Outer height (mm)	Art. No.	Pack Qty.	€
SCH 6 CAL	80	75	**LH06.1**	1 unit(s)	140,65
SCH 9 CAL	120	90	**C610.1**	1 unit(s)	152,85
SCH 18 CAL	400	115	**C611.1**	1 unit(s)	244,05
SCH 20 CAL	800	125	**C612.1**	1 unit(s)	291,35
SCH 30 CAL	1,600	145	**C613.1**	1 unit(s)	401,00
SCH 31 CAL	2,700	160	**LH07.1**	1 unit(s)	623,50

Dewar vessel

Nalgene. Material: HDPE, double walls filled with polyurethane foam.

Suitable for safe short-term handling and storage of liquid nitrogen, dry ice, freezing mixtures and iced water. Shatter-proof. Temperature stability: -196 to +100 °C.

- Vented, insulating lid
- Metal clips to secure the lid
- With moulded-in ribs
- Pour spout and bottom grip area
- Container with carrying handle (except for 10 l)

❄❄❄

Technical specifications:

Art. No.	PP15.1	PP16.1	PP17.1	PP18.1
Ø Internal	96 mm	122 mm	158 mm	198 mm
Inner height	195 mm	231 mm	295 mm	396 mm

Vol. (l)	Art. No.	Pack Qty.	€
1	**PP15.1**	1 unit(s)	191,35
2	**PP16.1**	1 unit(s)	211,80
4	**PP17.1**	1 unit(s)	223,60
10	**PP18.1**	1 unit(s)	397,75

Dewar containers

Dry ice machine SnowPack®

Bürkle.

Various possible applications, such as lowering the temperature in cooling baths or cold traps, pre-cooling tissue samples, transport lock or embedding biological substances, freezing blood and tissue samples, or studies in chemistry and physics.
Suitable for use with any commercial CO_2 steel bottle with a standpipe valve (W 21.80 x 1/14″ in according to DIN 477 no. 6).

Handling:
Connect to a CO_2 bottle, open valve, allow CO_2 to flow through, close valve, open the lock and remove the block.

Series 250
Dry ice machine for 250 g block

- Yield from 22 kg gas bottle: Approx. 16 blocks
- To make a -79 °C block of dry ice weighing 250 g within ~1 min

Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
80	60	**9285.1**	1 unit(s)	322,50

Series 50
Dry ice machine for 50 g block

- Yield from 22 kg gas bottle: Approx. 90 blocks
- To make a -79 °C block of dry ice weighing 50 g within ~0.5 min

Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
50	30	**9282.1**	1 unit(s)	249,40

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Sample bags

Mailing bags docuCARE® med

ROTH SELECTION. Material: LDPE.

Liquid-tight sample bags for safe and secure transport of medical samples, laboratory samples or cytostatic agents. Blue security seal with hidden "ILLEGAL ENTRY" lettering in multiple languages (certified by "ISEGA"), width 45 mm. Straightforward handling thanks to tamper-proof self-adhesive seal. Suitable as secondary packaging for transporting biological substances of Category B (UN 3373) according to ADR and packaging instruction P650.

- Liquid-tight (confirmed by BAM)
- Highly tearproof film, recyclable, transparent
- Durable duplex seam, with microprint
- Printed with the UN 3373 number / Biological materials, category B
- Serial numbering and barcodes

Suitable absorbent nonwoven sheet for use as an absorption material available as an option.

Version	Outer width (mm)	Outer height (mm)	Inner width (mm)	Inner height (mm)	Art. No.	Pack Qty.	€
A4 format	225	360	215	350	**1C80.1**	500 unit(s)	178,45
A5 format	165	265	155	255	**1C7Y.1**	500 unit(s)	132,55

Accessories absorbent non-woven sheet for mailing bags

ROTH SELECTION. Material: Cellulose, Superabsorbent polymer.

Nonwoven sheet inserts for use as an absorption material in mailing bags. Surface weight 345 g/m².

Width (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
120	180	4 x 250	**1C81.1**	1,000 unit(s)	324,65

Sample bags ROTILABO®

ROTH SELECTION. Material: LDPE.

With zip lock seal.

Thickness 50 µm

Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
40	60	50	**HHL0.1**	1,000 unit(s)	18,60
50	80	50	**P277.2**	1,000 unit(s)	32,25
60	130	50	**HHL1.1**	1,000 unit(s)	27,00
70	100	50	**HHL2.1**	1,000 unit(s)	25,80
80	120	50	**P278.2**	1,000 unit(s)	40,45
90	90	50	**HHL3.1**	1,000 unit(s)	25,70
100	150	50	**P279.2**	1,000 unit(s)	45,90
120	170	50	**P280.2**	1,000 unit(s)	59,90
140	190	50	**HHL4.1**	1,000 unit(s)	50,20
150	220	50	**P281.2**	1,000 unit(s)	73,00
180	250	50	**P282.2**	1,000 unit(s)	95,35
200	300	50	**P283.2**	1,000 unit(s)	123,65
250	350	50	**HHL5.1**	100 unit(s)	24,20
300	400	50	**P284.1**	100 unit(s)	23,25
350	450	50	**HHL6.1**	100 unit(s)	33,90

Thickness 90 µm

Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
160	220	90	**HHL7.1**	100 unit(s)	22,85
200	300	90	**HHL8.1**	100 unit(s)	26,75
300	400	90	**HHL9.1**	100 unit(s)	42,50

Sample bags ROTILABO® with labelling area

ROTH SELECTION. Material: LDPE.

With zip lock seal. With a white, lined labelling area on one side.

Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
40	60	50	**HHK7.1**	100 unit(s)	9,15
70	100	50	**0638.1**	100 unit(s)	9,15
100	150	50	**0639.1**	100 unit(s)	10,65
120	170	50	**0640.1**	100 unit(s)	12,05
160	220	50	**HHK8.1**	100 unit(s)	15,95
200	300	50	**HHK9.1**	100 unit(s)	21,40

Sample bags

Sample bags ROTILABO® drawstring

ROTH SELECTION. Material: LDPE.

Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
160	240	50	**1510.1**	100 unit(s)	21,00
200	300	50	**1511.1**	100 unit(s)	24,65
300	500	50	**1512.1**	100 unit(s)	36,05
400	600	50	**1A5X.1**	100 unit(s)	57,55

Paper bags

ROTH SELECTION.

For storage of small parts, plant seeds, etc.

Cellulose

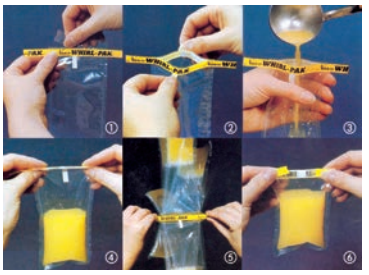
Material: Cellulose. Non-sterile.

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	90	**TK02.1**	1,000 unit(s)	33,80
95	132	**TK03.1**	1,000 unit(s)	44,70
130	180	**TK04.1**	1,000 unit(s)	64,85

Glassine

Material: Glassine. Non-sterile.

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	90	**XC52.1**	100 unit(s)	4,85
95	132	**XC53.1**	100 unit(s)	8,75
130	180	**XC54.1**	100 unit(s)	13,80



S ❄❄❄

Liquid sample bags Whirl-Pak®

Nasco Sampling. Material: LDPE. **Sterile**.

For the storage of liquid and solid samples.
Wire ties allow leak-proof, water-tight and air-tight closure of the bags.

Application:

- 1. Easy to open by tearing the foil along the perforation. The inside of the bags remains sterile as long they are not opened
- 2. The bags can be opened using the lifting straps, without touching the inside of the bag
- 3. The wide neck opening of the bags simplifies filling. Hold the bag as shown and fill to approx. 2/3 full
- 4. Close the bags by pulling on the outer straps.
- 5. Hold the bag away from you and swirl it around at least 3 times. (Fold bags with volumes upwards of 2500 ml 4–5 times)
- 6. Fold the straps over to close the bags with a watertight seal

Temperature stability: -196 to +80 °C.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
120	75	185	76	**T252.2**	500 unit(s)	84,55
210	95	180	76	**CEE7.1**	500 unit(s)	96,60
530	115	230	64	**T253.2**	500 unit(s)	118,10
710	150	230	76	**T254.2**	500 unit(s)	159,60
800	125	305	76	**CEE8.1**	500 unit(s)	162,35
1,080	125	380	76	**T255.2**	500 unit(s)	170,95
1,630	190	300	76	**CEE9.1**	500 unit(s)	225,75
2,070	190	380	76	**T256.2**	500 unit(s)	227,90

With labelling area

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
30	65	125	64	**E252.2**	500 unit(s)	84,00
60	75	125	57	**E253.2**	500 unit(s)	90,60
120	75	185	57	**1611.2**	500 unit(s)	95,75
210	95	180	64	**CEE1.1**	500 unit(s)	102,50
530	115	230	64	**1612.2**	500 unit(s)	120,40
710	150	230	76	**CEE2.1**	500 unit(s)	152,50
800	125	305	76	**CEE3.1**	500 unit(s)	170,95
2,720	254	380	102	**CEE5.1**	250 unit(s)	226,85
5,440	380	508	102	**CEE6.1**	100 unit(s)	170,95

Free-standing

Standing completely free due to special base, without a stand. Suitable for liquids and solids. With large labelling area.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
120	75	185	64	**T261.2**	500 unit(s)	114,90
540	115	230	76	**T262.2**	500 unit(s)	166,65
710	150	230	76	**ETA5.1**	500 unit(s)	217,15
2,000	190	380	102	**ETA6.1**	250 unit(s)	224,70

Sample bags

Black
For retaining and storing light-sensitive liquid and solid samples. With labelling area imprinted in white.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
532	115	230	64	**HT83.1**	500 unit(s)	153,15
1,627	190	300	102	**KLA7.1**	500 unit(s)	294,55

S ❄❄❄

Liquid sample bags Whirl-Pak® with sponge Speci-Sponge®

Nasco Sampling. Material: LDPE. **Sterile**.

For sampling of laboratory benches, furniture, devices and other areas where testing for pathogens such as listeria, salmonella and *E. coli* is required. The sponge is sterile and not growth-inhibiting. After the sample has been collected, return the sponge to the bag. Add medium and, if necessary, incubate directly in the bag.

- With wire ties and large labelling area
- Sponge dimensions when wet: L 76 x W 38 x H 16 mm

Vol. (ml)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
540	115	230	**T263.2**	100 unit(s)	136,65
1,650	190	300	**T265.2**	100 unit(s)	182,75

S ❄❄❄

Homogenising bag Whirl-Pak®

Nasco Sampling. Material: PE. **Sterile**.

For use with homogenisers (lab blenders).

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
380	130	190	76	**T257.2**	500 unit(s)	127,40
710	150	230	102	**T258.2**	500 unit(s)	194,60

With labelling area

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
710	150	230	102	**E254.2**	500 unit(s)	198,90
1,650	190	300	102	**E255.2**	500 unit(s)	264,45

Round base

Rounded base prevents the sample from settling in the corners of the bag. With labelling area.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
1,540	185	330	102	**CEC2.1**	500 unit(s)	266,60

With filter

With labelling area and full-surface filter. Contains a third layer of finely perforated PE, which filters out solids when used in lab blenders.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
200	95	180	76	**CEC3.1**	250 unit(s)	201,05
710	150	230	102	**P310.2**	250 unit(s)	232,20
1,650	190	300	102	**P311.2**	250 unit(s)	298,85
2,040	190	380	102	**CEC4.1**	250 unit(s)	305,30
2,720	254	380	102	**CEC5.1**	100 unit(s)	226,85

Homogenising bags

S

Homogenising bag

ROTH SELECTION. Material: PE. **Sterile**.

Suitable for use in homogenisers.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
80	105	150	70	**AYY6.1**	1,500 unit(s)	118,25
400	180	300	70	**EP15.1**	500 unit(s)	54,00
3,500	380	510	70	**AYY7.1**	100 unit(s)	39,85

With filter (full-surface)

The filter traps solid particles, thereby preventing the pipettes from becoming blocked.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
400	190	300	70	**EP16.1**	500 unit(s)	252,65

With side filter

The filter traps solid particles, thereby preventing the pipettes from becoming blocked.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
400	190	300	70	**EP17.1**	500 unit(s)	254,80

Sealing ties ROTILABO® Soft

ROTH SELECTION. Material: TPU.

- Very tearproof and flexible
- UV- and weather-resistant
- Can be opened and closed any number of times
- Secure hold thanks to variable preload
- Resistant to oils, grease and solvents
- Temperature stability: -40 to +80 °C
- Dielectric strength: 20 kV/mm
- Elongation at break: Approx. 400%

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
180	7	**K150.1**	50 unit(s)	12,10
260	7	**K151.1**	50 unit(s)	14,95
260	11	**K152.1**	50 unit(s)	19,55
340	11	**K153.1**	50 unit(s)	25,05

Sealing ties ROTILABO®

ROTH SELECTION. Material: PE.

With round profile. Suitable e.g. for sealing bags, for use as a cable tie, wire replacement. Lock-in fastener can be opened a virtually unlimited number of times.

Version	Length (mm)	Art. No.	Pack Qty.	€
Standard, 2 locking holes	180	**H721.1**	100 unit(s)	7,50
Standard, 2 locking holes	240	**H722.1**	100 unit(s)	9,95
Reinforced, 1 closing hole	140	**H720.1**	100 unit(s)	7,30

Foils, foil dispenser and holders

Roll holder

Leifheit.

With cutting devices. Two holders for rolls of foil and one holder for wipes up to 35 cm wide. Colour: White grey.

Width (mm)	Height (mm)	Depth (mm)	Art. No.	Pack Qty.	€
395	310	75	**0661.2**	1 unit(s)	38,60

Foil welding device

Severin.

With viewing window, sealing and cut-off wire and automatic air extraction. Power approx. 160 W.

Delivery incl. sample roll of foil.

Width (mm)	Height (mm)	Depth (mm)	Art. No.	Pack Qty.	€
350	90	130	**K279.1**	1 unit(s)	45,85

Dispenser box ROTILABO®

ROTH SELECTION. Material: PMMA, lid made of PC.

With safety cutting device. For neatly storing and cutting rolls of foil up to 10 cm wide.

Suitable for	Art. No.	Pack Qty.	€
PARAFILM® M (H666.1), DuraSeal® (E364.1)	**H413.1**	1 unit(s)	159,05

Dispenser box ROTILABO® attachment dispenser

ROTH SELECTION. Material: ABS.

Attachment dispenser for one 100 mm wide roll or for two 50 mm wide rolls.

Application

Place the dispenser directly on the PARAFILM® M box and pull the film through. The roll must not be taken out of the packaging. Built-in safety blade slides and cuts without risk of injury. Easy to clean.

Delivery incl. two safety blades.

Version	Art. No.	Pack Qty.	€
Dispenser box	**KLA5.1**	1 unit(s)	39,70

Dispenser box ROTILABO®

ROTH SELECTION. Material: ABS.

For quickly and cleanly cutting PARAFILM® M and Dura Seal® (only Art. No. E364.1) or Tough-Tags®.

- Processing width up to 10 cm
- With safety cutting device

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
red	171	120	144	**HY14.1**	1 unit(s)	60,50
blue	171	120	144	**EE82.1**	1 unit(s)	57,15
green	171	120	144	**HY13.1**	1 unit(s)	60,50

Foils, foil dispenser and holders

Sealing film PARAFILM® M

ROTH SELECTION.

Ideal for sealing vessels, petri dishes, cells etc. High flexible (stretches up to 200%). Clings even around irregular shapes.

- The sealing film is free of plasticisers, and consists largely of polyolefins and paraffin waxes
- Meets the requirements of the FDA when used at temperatures below 55 °C, as well as when GMP (Good Manufacturing Practice) is followed
- PARAFILM® M is resistant to many polar substances for up to 48 hours, such as saline solutions, inorganic acids and bases; brittleness may occur after this time
- Temperature stability: -45 to +50 °C (Melting point: 60 °C)
- Elasticity: 200 %

Gas permeability in 24 hours at 23 °C and 50% RH for:

- Oxygen: 350 cm^3/m^2
- Nitrogen: 105 cm^3/m^2
- Carbon dioxide: 1100 cm^3/m^2

Water vapour permeability in 24 hours at 37 °C and 90% RH for:

- 0.8 g/m^2

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
120	100	75	**CNP8.1**	1 unit(s)	76,00
120	100	38	**H666.1**	1 unit(s)	37,55
120	50	75	**H951.1**	1 unit(s)	39,70
120	500	15	**PC00.1**	1 unit(s)	93,15

Sealing film DuraSeal

ROTH SELECTION. Material: LDPE.

Stretch film for covering beakers, Erlenmeyer flasks, test tubes, etc. Chemical-resistant to most aliphatic, aromatic and chlorinated solvents, as well as acids and bases.

- Highly transparent
- Elasticity: 500-800 %
- Microwave-safe
- Temperature stability: Up to approx. +100 °C

Delivery incl. cutter box, without intermediate paper layer.

Film thickness (µm)	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
38	102	150	**E364.1**	1 unit(s)	100,50
38	127	45	**Y701.1**	1 unit(s)	66,50

Clear cling film

ROTH SELECTION. Material: LDPE.

For wrapping and covering vessels.

- Fully transparent
- Extremely flexible
- Waterproof and greaseproof
- Temperature stability: -20 to +70 °C

Delivery incl. cutter box.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
14	300	300	**1255.1**	1 unit(s)	27,75

Foils, foil dispenser and holders

Sealing film Seal-R-Film™

BRAND.

For temporarily sealing beakers, flasks and other vessels.

- Material thickness: 0.14 ±0.02 mm
- Elasticity (25 °C): 300%
- Tear strength (25 °C): 1.5 MPa
- Melting temperature: >65 °C (151 °F)
- Boiling point: >288 °C (550 °F)
- Continuous service temperature: -20 °C to +46 °C
- Toxicity: Non-toxic

The sealing film can be stretched to three times its original length. Therefore, Seal-R-film™ always fits, even with irregular shapes. Traceability through batch identification per roll.

Gas permeability:

- CO_2 (carbon dioxide) <1000 cm^3/m^2
- O_2 (oxygen) <350 cm^3/m
- Water vapour permeability <0.8 g/m^2

(in 24 hours at room temperature and a pressure of 0.1 MPa)

Chemical resistance: Ammonia (NH_3) 28%; ethanol; isopropanol; iodine solution 0.1 mol/l (brown colouring); potassium permanganate ($KMnO_4$) 5% (brown colouring); methanol; sodium chloride (NaCl) 20%; sodium hydroxide (NaOH) 22%; nitric acid (HNO_3) 95% (brown colouring); hydrochloric acid (HCl) 36.5%; sulphuric acid (H_2SO_4) 98%; hydrogen peroxide (H_2O_2) 30%

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
140	100	38	**KKY7.1**	1 unit(s)	41,30

Clear cling film Barriofilm

ROTH SELECTION. Material: Vinylidene chloride.

Very good barrier properties. Foil does not stick and is easy to roll.

- Non-flammable, self-extinguishing
- High water vapour and oxygen barrier
- Suitable for foodstuffs
- Microwave-safe
- Temperature stability: -60 to +140 °C

Delivery incl. foil cutter, in box.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
10	295	300	**HCL0.1**	1 roll(s)	51,85

Cover film ROTILABO®

ROTH SELECTION. Material: LDPE transparent.

Standard

Film thickness (µm)	Width (m)	Length (m)	Art. No.	Pack Qty.	€
80	6	4	**0833.1**	1 unit(s)	45,15

Heavy

Very robust and tearproof.

Film thickness (µm)	Width (m)	Length (m)	Art. No.	Pack Qty.	€
160	6	4	**0828.1**	1 unit(s)	61,85

Protective film filmolux 609

ROTH SELECTION. Material: PVC soft.

Self-adhesive. For protecting labels, laminating books, warning signs, instructions and similar. High-gloss, transparent, non-yellowing. On siliconised paper with grid (20 mm) for easy cutting to size.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
70	420	10	**0484.1**	1 unit(s)	50,10
70	40	50	**C327.1**	1 unit(s)	26,30
70	100	50	**C328.1**	1 unit(s)	57,20
70	240	25	**YY17.1**	1 unit(s)	56,10

Foils, foil dispenser and holders

ROTILABO®-aluminium foils

ROTH SELECTION. Material: Aluminium (Aluminium content ≥ 99%).
For covering, wrapping, insulating.

Delivery incl. cutter box.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
12	295	150	**1399.1**	1 unit(s)	27,10
15	300	150	**AA76.1**	1 unit(s)	27,45
15	450	150	**AA77.1**	1 unit(s)	42,50
16	300	100	**1770.1**	1 unit(s)	24,20
18	440	150	**1502.1**	1 unit(s)	53,25
20	450	150	**0954.1**	1 unit(s)	62,25
30	500	100	**2596.1**	1 unit(s)	68,80

Refill rolls

Delivery without cutter box.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
13	300	20	**0192.1**	6 unit(s)	31,75
16	300	100	**1770.2**	4 unit(s)	98,90

A 121 °C

Aluminium foil Polyfoil™ coated sheets

ROTH SELECTION. Material: Aluminium, Polyester coating.
Autoclavable: Yes.

Square sheets, easy to fold and adapt well to surfaces. Suitable for sterilisation of laboratory vessels, incubation of cultures or temporary sterile storage of laboratory materials.

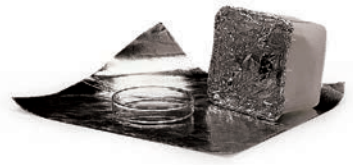
- Resistant to mechanical influences
- Resistant to most organic solvents as well as corrosive media
- FDA-compliant

Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
102	102	**YA90.1**	100 unit(s)	59,15

Aluminium foil sheets in dispenser box

ROTH SELECTION. Material: Aluminium.
Easy to remove from the dispenser box.

Film thickness (µm)	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
13	230	270	**EE77.1**	200 unit(s)	17,75



Aluminium foil ROTILABO® sheets

ROTH SELECTION. Material: Aluminium.

Delivery incl. box, with tissue paper intermediate layer.

Film thickness (µm)	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
25	177	245	**5473.1**	1,000 unit(s)	104,30
25	235	290	**5474.1**	1,000 unit(s)	138,70

Aluminium foil ROTILABO® roundings

ROTH SELECTION. Material: Aluminium.

Delivery incl. box, with tissue paper intermediate layer.

Type	Film thickness (µm)	Ø (mm)	Art. No.	Pack Qty.	€
R 80	30	80	**E723.1**	1,000 unit(s)	57,55
R 100	30	100	**0953.1**	1,000 unit(s)	70,95
R 120	30	120	**E724.1**	1,000 unit(s)	91,40
R 130	30	130	**E725.1**	1,000 unit(s)	102,15
R 150	30	150	**0196.1**	1,000 unit(s)	115,05

Foils, foil dispenser and holders

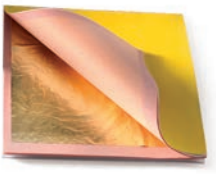
A 121 °C

Aluminium foil lid

ROTH SELECTION. Material: Aluminium. Autoclavable: Yes.

Pre-formed lid for quickly covering various laboratory vessels. Suitable for sterilisation of Erlenmeyer flasks, beakers and measuring cylinders.

Film thickness (µm)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
25	25	38	**YA87.1**	252 unit(s)	44,10
25	44	51	**YA89.1**	252 unit(s)	51,60



Gold leaf

ROTH SELECTION. Material: Gold.

22 carat.

Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
80	80	**7605.1**	25 sheet	155,90

Silver leaf

ROTH SELECTION. Material: Silver.

Film thickness (µm)	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
4	95	95	**9367.1**	25 sheet	48,95

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Sterile indicator strip ROTILABO®

ROTH SELECTION.

Self-adhesive, for labelling or sealing sterilisation vessels. Labellable. Inner Ø core 76 mm.

(1) Steam sterilisation
Autoclavable: Yes.

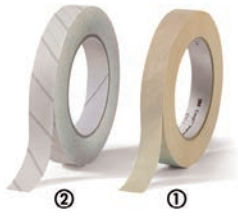
- Colour change from yellow to brown:
  121 °C → 10 min/135 °C → 2 min

L x W	Art. No.	Pack Qty.	€
55 m x 19 mm	**XC20.1**	1 unit(s)	12,20

(2) Hot air sterilisation

- Colour change of the V print from green to brown:
  155 °C → 30 min (Poupinel method)

L x W	Art. No.	Pack Qty.	€
55 m x 19 mm	**XC21.1**	1 unit(s)	24,50



Sterile indicator strip Comply™

3M.

Self-adhesive, for labelling or sealing sterilisation vessels. Labellable. Inner Ø core 76 mm.

(1) Steam sterilisation
Autoclavable: Yes.

- Colour change from beige to dark brown:
  121 °C → 10 min/134 °C → 2 min
- Process indicator according to EN ISO 11140-1:2005

Type	L x W	Art. No.	Pack Qty.	€
1322	55 m x 18 mm	**8221.1**	1 unit(s)	17,15

(2) Hot air sterilisation

- Colour change from green to brown:
  155 °C → approx. 30 min

Type	L x W	Art. No.	Pack Qty.	€
1226	50 m x 19 mm	**H590.1**	1 unit(s)	52,00

A 121 °C

Sterile indicator strip stericlin®

ROTH SELECTION. Autoclavable: Yes.

self-adhesive. For marking or sealing sterilisation containers as well as differentiating between untreated and treated sterile materials. Colour change from light green to dark brown/black following exposure to saturated steam for ten minutes at 121 °C or two minutes at 134 °C.

- Sterilisation method: Steam sterilisation
- Process indicators type 1
- With steam indicator (STEAM)
- Core Ø 76 mm
- Material thickness: 0.17 mm

Version	Colour	L x W	Art. No.	Pack Qty.	€
Paper	beige	50 m x 19 mm	**HXE6.1**	1 unit(s)	5,55
Low-crepe paper	beige	50 m x 25 mm	**HXE7.1**	1 unit(s)	7,00
Low-crepe paper	blue	50 m x 19 mm	**HXE8.1**	1 unit(s)	8,20

A 121 °C

Sterile indicator labels Comply™

3M. Autoclavable: Yes.

Simple identification labels for steam sterilisation, with treatment indicator, lead-free. Can be labelled with an indelible pen, easily removable without residues, especially from metal containers.

L x W (mm)	Art. No.	Pack Qty.	€
100 x 25	**ANX6.1**	500 unit(s)	182,75

Bowie-Dick single use test pack Comply™

3M.

Indicator for autoclave monitoring

Free from heavy metals, for daily air removal and steam permeability test according to DIN EN 17665. Meets the requirements of EN 867-1 1997, EN 867-4:2000, ISO 11140-1:1995 and ISO 11140-4:2001. Simple interpretation and error detection thanks to colour change from blue to pink and non-reflective surface. No subsequent colour change, ensuring safe storage and traceability of results. Reproducible.

Type	Art. No.	Pack Qty.	€
1301	**ANX4.1**	20 unit(s)	225,75

Bowie-Dick single use test pack stericlin®

ROTH SELECTION.

Indicator for autoclave monitoring

Steam penetration test for daily function monitoring and quality assurance of the steam steriliser according to DIN EN ISO 11140-4. Free from heavy metals and toxic substances.

Application:

- Place the test pack in the steriliser
- Carry out the Bowie-Dick test procedure
- Remove the test sheet
- Review the result: In the event of complete steam penetration, the indicator will evenly change colour from blue to pink. In the event of a malfunction, however, no even colour conversion will occur. Following a successful colour conversion, the colour hue of the indicator will no longer change. This ensures complete reliability of documentation.

L x W (mm)	Art. No.	Pack Qty.	€
125 x 125	**HXC6.1**	20 unit(s)	132,25

A 121 °C

Indicator strips Comply™ SteriGage™

3M. Autoclavable: Yes.

Integrating class 5 indicators (integrators)

Individually packaged chemical indicators for monitoring the sterilisation process.

Clear results thanks to „Moving Front“ technology: As the sterilisation process progresses, a dark strip appears, which either moves to the „Accept“ area (passed) or remains in the „Reject“ area (not passed). This can be read from the indicator directly without the need for interpretation.

- Suitable for steam sterilisation at +121 °C and +134 °C
- High performance: The reaction is the same as that of a bio indicator strip during the sterilisation process

Type	Art. No.	Pack Qty.	€
1243	**ANX5.1**	100 unit(s)	83,80

A 121 °C

Indicator strips stericlin® type 5 (STEAM)

ROTH SELECTION. Autoclavable: Yes.

Absorptive indicators for package monitoring according to DIN EN ISO 11140-1.

Review of the sterilisation process for sufficient influence from the vapour (vapour and temperature) in the interior of packaging or in other selected areas. Free from heavy metals and toxic substances.

Application:

- Place in the desired areas of the load (in transparent packaging, wrapping materials, containers, etc.)
- Carry out the sterilisation program (121 °C/134 °C)
- Remove the indicator strips
- Review the result: In the event of sufficient influence from vapour, the indicator will change colour from blue to pink. An incomplete colour change indicates a malfunction of the steriliser. Following a successful colour conversion, the colour hue of the indicator will no longer change. This ensures complete reliability of documentation.

L x W (mm)	Art. No.	Pack Qty.	€
80 x 30	**HXE9.1**	500 unit(s)	75,75

A 121 °C

Sterilisation bags stericlin®

ROTH SELECTION. Material: Paper, Plastic (Film). Autoclavable: Yes.

Pre-sealed on three sides, for sealing with heat sealing units (sealing temperature: 175–200 °C). The sterilisation-resilient kraft paper with a strength of 70 g/m² constitutes an effective barrier against germs, yet is also permeable to air, vapour and sterilising gases. With three imprinted indicators outside the filling area: STEAM, EO and FORM. According to DIN EN ISO 11607 and DIN 868-5.

Packaging material for disposable medical products and reusable medical products.

Medical device class I MDD

L x W (mm)	Art. No.	Pack Qty.	€
200 x 100	**HXE0.1**	2,000 unit(s)	108,00
250 x 125	**HXE1.1**	2,000 unit(s)	166,65
300 x 150	**HXE2.1**	1,000 unit(s)	105,00

Sterilisation pouch Steriking® self-adhesive

ROTH SELECTION. Material: Paper, medical-grade paper (70 g/m²) and multi-layer laminated foil made of PET/PP (12/40 µm).

For packaging sterile goods with subsequent sterilisation using steam, ethylene oxide or formaldehyde gas under normal sterilisation conditions (3 minutes at 134 °C or 15 minutes at 121 °C).

- Self-adhesive closure for use without a heat sealer
- With indicator imprints for steam and ETO gas sterilisation
- Standards: ISO 11607-1:2006, ISO 11607-2:2006 and EN 868-5:2009
- Acc. to 93/42/EEC and 2007/42/EC concerning medical devices (accessories) according to Class 1, CE-marked

Medical device class I

L x W (mm)	Art. No.	Pack Qty.	€
200 x 90	**KKX9.1**	200 unit(s)	45,15
250 x 60	**KKX8.1**	200 unit(s)	45,15
250 x 90	**KKY0.1**	200 unit(s)	53,25
270 x 130	**KKY1.1**	200 unit(s)	64,00
350 x 200	**KKY2.1**	200 unit(s)	110,75
400 x 250	**KKY3.1**	200 unit(s)	127,95
450 x 300	**KKY4.1**	200 unit(s)	173,10

A 121 °C

Sterilisation pouches stericlin® rolls

ROTH SELECTION. Material: Paper, Plastic (film). Autoclavable: Yes.

Pre-sealed on two sides, for sealing with heat sealing units (sealing temperature: 175–200 °C). The sterilisation-resilient kraft paper with a thickness of 70 g/m² constitutes an effective barrier against germs, yet is also permeable to air, vapour and sterilising gases. With three imprinted indicators outside the filling area: STEAM, EO and FORM. According to DIN EN ISO 11607 and DIN 868-5.

Packaging material for disposable medical products and reusable medical products.

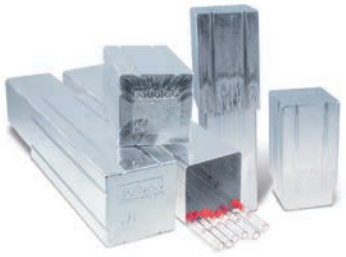
Medical device class I MDD

Flat

L x W	Art. No.	Pack Qty.	€
200 m x 50 mm	**1C70.1**	6 unit(s)	169,85
200 m x 75 mm	**1C71.1**	4 unit(s)	153,85
200 m x 100 mm	**1C72.1**	3 unit(s)	132,05
200 m x 125 mm	**1C73.1**	2 unit(s)	117,85
200 m x 150 mm	**1C74.1**	2 unit(s)	127,80
200 m x 200 mm	**1C75.1**	2 unit(s)	176,30
200 m x 250 mm	**1C76.1**	2 unit(s)	223,60
200 m x 300 mm	**1C77.1**	1 unit(s)	135,40
200 m x 350 mm	**1C78.1**	1 unit(s)	176,30
200 m x 380 mm	**1C79.1**	1 unit(s)	184,90
200 m x 400 mm	**1C7A.1**	1 unit(s)	218,25
200 m x 420 mm	**1C7C.1**	1 unit(s)	251,55

With side gusset

L x W	Inner height (mm)	Art. No.	Pack Qty.	€
100 m x 75 mm	25	**1C7E.1**	4 unit(s)	174,15
100 m x 100 mm	50	**1C7H.1**	3 unit(s)	146,70
100 m x 150 mm	50	**1C7K.1**	2 unit(s)	127,05
100 m x 200 mm	50	**1C7L.1**	2 unit(s)	152,15
100 m x 250 mm	65	**1C7N.1**	2 unit(s)	187,05
100 m x 300 mm	65	**1C7P.1**	1 unit(s)	114,10
100 m x 380 mm	80	**1C7T.1**	1 unit(s)	149,50
100 m x 420 mm	80	**1C7X.1**	1 unit(s)	187,05



A 121 °C ❄❄

Sterilising containers for pipettes

ROTH SELECTION. Material: Aluminium. Autoclavable: Yes.

Pipette container for sterilising and storing plastic pipettes and glassware, e.g. stirrer rods, serological, Pasteur, volumetric and graduated pipettes. With silicone inner padding and lid for protection of the stored glass pipettes.

Technical specifications:

Art. No.	CLN4.1	CLN5.1	CLN6.1	CLN7.1
Sleeve length	110 mm			210 mm
Core length	160 mm	240 mm	315 mm	

Suitable for	Outer width (mm)	Art. No.	Pack Qty.	€
Pipettes 160–200 mm	67	**CLN4.1**	1 unit(s)	35,85
Pipettes 235–305 mm	67	**CLN5.1**	1 unit(s)	41,80
Pipettes 315–385 mm	67	**CLN6.1**	1 unit(s)	46,05
Pipettes 315–485 mm	67	**CLN7.1**	1 unit(s)	47,55

A 121 °C

Sterilising containers Varicon for pipettes, round

ROTH SELECTION. Material: Aluminium. Autoclavable: Yes.

Pipette containers for sterilising graduated pipettes and volumetric pipettes with different volumes and sizes. Consists of two aluminium parts that are inserted into one other.

Suitable for	Ø ext. (mm)	Art. No.	Pack Qty.	€
Pipettes 280–420 mm	60	**P979.1**	1 unit(s)	42,50
Pasteur pipettes 145–235 mm	60	**P978.1**	1 unit(s)	55,80

Accessories insert for sterilising containers Varicon

ROTH SELECTION. Material: Silicone.

Prevents damage to pipettes in the case of sudden impact.

Material thickness (mm)	Art. No.	Pack Qty.	€
2	**P980.1**	1 unit(s)	7,50

A 121 °C

Sterilising containers ROTILABO® for pipettes round

ROTH SELECTION. Material: Stainless steel, silicone-coated base and lid. Autoclavable: Yes.

The holes in the lid can be opened and closed by turning the lid. Sterilisable up to +205 °C.

Ø ext. (mm)	Outer length (mm)	Art. No.	Pack Qty.	€
65	380	**C841.1**	1 unit(s)	87,65
80	380	**C843.1**	1 unit(s)	91,40
80	500	**C844.1**	1 unit(s)	103,20

A 121 °C

Sterilising containers ROTILABO® for pipettes square

Bochem. Material: Stainless steel, silicone-coated base and lid. Autoclavable: Yes.

Tube dimensions 70 x 70 mm, stackable. Sterilisable up to +205 °C.

Suitable for	Outer length (mm)	Art. No.	Pack Qty.	€
Pipettes up to 180 mm	210	**C868.1**	1 unit(s)	141,30
Pipettes up to 257 mm	290	**C869.1**	1 unit(s)	151,25
Pipettes up to 412 mm	430	**C871.1**	1 unit(s)	179,55

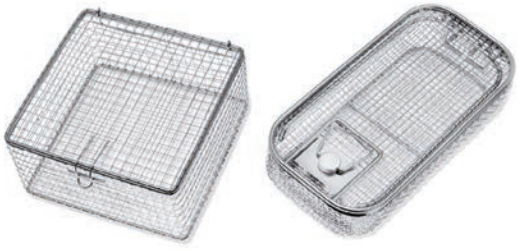
A 121 °C

Sterilising containers ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/8. Autoclavable: Yes.

With insertable rack for Petri dishes up to Ø 100 mm.
Sterilisable up to +150 °C.

Suitable for	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
10 Petri dishes	120	250	**C846.1**	1 unit(s)	127,95
20 Petri disches	120	500	**C847.1**	1 unit(s)	203,20



A 121 °C

Sterilisation basket ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301), electrolytically polished. Autoclavable: Yes.

With lid attached.

Technical specifications:

Art. No.	EPA3.1	EPA4.1
Version	square	rectangulair, with handle
Mesh size	8.5 mm	5 mm

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
180	180	90	**EPA3.1**	1 unit(s)	80,95
250	130	60	**EPA4.1**	1 unit(s)	108,95

A 121 °C

Sterilisation basket ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301), electrolytically polished. Autoclavable: Yes.

Grating spot-welded, 8 x 8 x 1 mm. For storing, transporting, cleaning and sterilising laboratory equipment.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
100	100	100	**L040.1**	1 unit(s)	53,40
120	120	120	**L041.1**	1 unit(s)	63,40
140	140	140	**L042.1**	1 unit(s)	67,30
160	160	160	**L043.1**	1 unit(s)	80,60
180	180	180	**L044.1**	1 unit(s)	89,40
200	200	200	**L045.1**	1 unit(s)	95,20
300	200	200	**L046.1**	1 unit(s)	137,85
400	200	200	**L047.1**	1 unit(s)	142,60

A 121 °C

Sterilisation basket ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301), electrolytically polished. Autoclavable: Yes.

Grating spot-welded, 8 x 8 x 1 mm. For storing, transporting, cleaning and sterilising laboratory equipment. With carrying handle.

Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
100	80	**HHA1.1**	1 unit(s)	50,75
120	100	**L050.1**	1 unit(s)	64,45
150	120	**L051.1**	1 unit(s)	74,70
160	180	**HHE0.1**	1 unit(s)	80,45
180	160	**L052.1**	1 unit(s)	116,50
210	180	**L053.1**	1 unit(s)	120,90
240	180	**L054.1**	1 unit(s)	127,70
270	180	**L055.1**	1 unit(s)	123,10
300	200	**L056.1**	1 unit(s)	163,40

A 121 °C

Sterilisation basket square

Bochem. Material: Stainless steel 18/10, electrolytically polished. Autoclavable: Yes.

For storage, transportation, cleaning and sterilisation of labware. Mesh size 8 x 8 x 1 mm.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
150	100	100	**YT41.1**	1 unit(s)	56,30
200	150	150	**YT42.1**	1 unit(s)	71,00
250	150	150	**YT43.1**	1 unit(s)	126,80
500	300	250	**YT44.1**	1 unit(s)	247,25
600	400	300	**YT45.1**	1 unit(s)	260,15

NEW / +

A 121 °C

Sterilisation basket

ROTH SELECTION. Material: Aluminium. Autoclavable: Yes.

For sterilising, cleaning and storing test tubes and other laboratory aids. Dishwasher-safe.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
152	152	152	**1L8L.1**	1 unit(s)	33,00
256	152	152	**1L8N.1**	1 unit(s)	39,10

A 121 °C

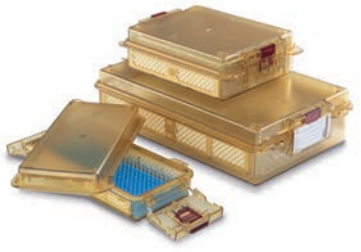
Sterilisation basket

Nalgene. Material: PP. Autoclavable: Yes.

For storing, sterilising and cleaning laboratory items.

- Smooth, scratchproof surface
- Enables complete ventilation and drainage
- Stackable

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
123	154	105	**L068.1**	1 unit(s)	26,00
168	178	156	**L069.1**	1 unit(s)	28,80
230	239	233	**L070.1**	1 unit(s)	37,90



A 121 °C

Sterilisation containers polysteribox®

Ritter. Material: Plastic. Autoclavable: Yes.

For sterilising and storing instruments. Acc. to DIN 58952, 58953, EN 868-1/868-8/554, ISO 11607 and DIN EN ISO 17664 and 11137-1.

- Suitable for steam, gas and plasma sterilisation
- Germ and bacteria-proof thanks to hydrophobic PTFE filter
- A sterilisation seal and protective seal can be used to monitor the sterility of the contents
- Safety tilt seal for safe transportation
- Stackable
- Dishwasher-safe
- Autoclavable up to 134 °C

Technical specifications:

Art. No.	X616.1	KP96.1	TA78.1
Type	polysteribox® SH	polysteribox® M	polysteribox® XL
Inner length	177 mm	156 mm	465 mm
Inner width	76 mm	124 mm	90 mm
Inner height	44 mm	48 mm	54 mm

Delivery incl. PTFE filters.

Medical device class I MDD

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
208	111	55	**X616.1**	1 unit(s)	134,85
185	145	59	**KP96.1**	1 unit(s)	157,20
497	122	65	**TA78.1**	1 unit(s)	260,15

Cell culture bottles

Cell culture bottles CELLMASTER™ roller bottles

Greiner Bio-One. Material: PS (TC-treated), HDPE screw cap. **Sterile**.

- Improved cell adherence through physical surface treatment
- Free of DNase, RNase and human DNA, non-pyrogenic
- Graduated

S

Standard screw cap

Growth surface (cm²)	Ø ext. (mm)	Art. No.	Pack Qty.	€
850	122	**CE58.1**	24 unit(s)	157,95

Filter screw cap

Cap with hydrophobic membrane (PET/PTFE) for optimal gas exchange.

Growth surface (cm²)	Ø ext. (mm)	Art. No.	Pack Qty.	€
850	122	**CE59.1**	24 unit(s)	173,10

Suspension culture bottles CELLSTAR®

Greiner Bio-One. Material: PS. **Sterile**.

With white screw cap. High, angled bottle neck protects the inside of the screw cap from contamination by medium.

- Graduations and labelling area on the side
- Hydrophobic surface, ideal for suspension cultures and hybridoma cells
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances

S

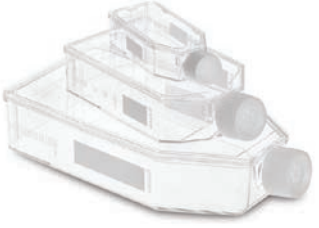
Pack.	Art. No.	Pack Qty.	€
20 x 10	**CE51.1**	200 unit(s)	148,85
24 x 5	**CE52.1**	120 unit(s)	149,55
10 x 4	**CE53.1**	40 unit(s)	102,20

Suspension culture bottles CELLSTAR® filter screw cap

Greiner Bio-One. Material: PS. **Sterile**.

Hydrophobic membrane (pore size 0.2 µm) for minimal risk of contamination and optimal gas exchange. High, angled bottle neck reduces the risk of media contact with the inside of the screw cap and therefore provides an additional layer of protection against contamination.

- Hydrophobic surface
- Ideal for suspension cultures, hybridoma cells and embryonic stem cells
- Optimal access with pipette
- Graduations and labelling area on the side
- Optimal gas exchange thanks to high air flow rate of membrane
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances



S

Delivery incl. standard screw-cap closures (without filter, in addition to the fitted filter screw-cap closures).

Pack.	Art. No.	Pack Qty.	€
20 x 10	**CNA6.1**	200 unit(s)	147,35
24 x 5	**CNA7.1**	120 unit(s)	120,85
8 x 5	**CNA8.1**	40 unit(s)	90,75

Cell culture bottles

Cell culture bottles filter screw cap

Greiner Bio-One. Material: PS. **Sterile**.

Hydrophobic membrane (pore size 0.2 µm) for minimal risk of contamination and optimal gas exchange. High, angled bottle neck reduces the risk of media contact with the inside of the screw cap and therefore provides an additional layer of protection against contamination.

- Cell layers are easy to reach with the cell scraper
- Optimal access with pipette
- Graduations and labelling area on the side
- Improved cell adherence through physical surface treatment
- Optimal gas exchange thanks to high air flow rate of membrane
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances

S

Growth surface (cm²)	Pack.	Art. No.	Pack Qty.	€
25	20 x 10	**CE48.1**	200 unit(s)	158,65
75	24 x 5	**CE49.1**	120 unit(s)	167,70
175	10 x 5	**CLY2.1**	50 unit(s)	119,65
175	8 x 5	**CE50.1**	40 unit(s)	102,75

Cell culture bottles

ROTH SELECTION. Material: PS, PE screw cap. **Sterile**.

Variable closure: Screw cap can be closed tightly for anaerobic cultures or screwed in the “vent” position for defined aeration of aerobic cultures. Angled neck and large opening allow access to the entire culture surface.

- Very high visual clarity
- Graduation and labelling area
- Stackable
- Non-toxic
- Bottom of bottle has been surface-treated for optimal cell growth

S

Growth surface (cm²)	Pack.	Art. No.	Pack Qty.	€
25	36 x 10	**X845.1**	360 unit(s)	428,95
75	20 x 5	**X846.1**	100 unit(s)	251,55
150	12 x 3	**X847.1**	36 unit(s)	203,20

Cell culture bottles

Greiner Bio-One. Material: PS. **Sterile**.

Screw cap can be used in two positions: Ventilation position or gas-tight closure. High, angled bottle neck reduces the risk of media contact with the inside of the screw cap.

- Cell layers are easy to reach with the cell scraper
- Optimal access with pipette
- Graduations and labelling area on the side
- Improved cell adherence through physical surface treatment
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances

S

Growth surface (cm²)	Pack.	Art. No.	Pack Qty.	€
25	20 x 10	**CNA9.1**	200 unit(s)	146,55
75	24 x 5	**CNC1.1**	120 unit(s)	115,05
175	10 x 5	**CNC2.1**	50 unit(s)	110,65
175	10 x 4	**CNC3.1**	40 unit(s)	91,45

Cell culture bottles

S

Cell scrapers

Greiner Bio-One. Material: PS, blade made of HDPE. **Sterile**.

Rotatable blade, for soft scrape-off of cells on surfaces that are difficult to access.

Total length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
280	18	individual	**CE60.1**	100 unit(s)	244,05
400	18	individual	**CE61.1**	100 unit(s)	283,80

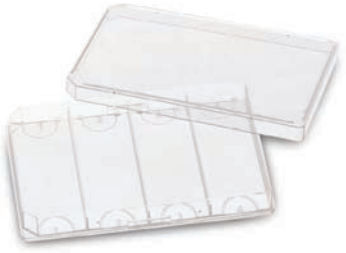
S

Cell scrapers

ROTH SELECTION. Material: ABS, blade made of TPE, flexible. **Sterile**.

For cell harvesting in cell culture flasks and dishes. Swivelling movements, as well as horizontal and vertical blade rotation, enable a variety of applications and allow access to points that are difficult to reach.

Total length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
245	20	individual	**EKX9.1**	100 unit(s)	200,00
385	30	individual	**EKY0.1**	100 unit(s)	292,00



S

Microtitration plates CELLSTAR® FourWell Plate™

Greiner Bio-One. Material: PS. **Sterile**.

Four-well plate for microscopic applications, for cultivation and processing of cells on microscope slides. Also for use as incubation tray for blotting membranes. Plate layout corresponds to ANSI Standard.

- 4 individual chambers, each with a max. volume of 18.6 ml per well
- Numbered wells for secure sample identification
- Bevelled edges on the left-hand side of the plates serve as a guide
- Vents
- With cover panel
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances

Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
translucent	**Sterile**	4 x 8	**CNA2.1**	32 unit(s)	127,55

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Cell culture plates, pans, vials

Microtitration plates cellGrade™ sterile

BRAND. Material: PS. **Sterile**.

Standard plate for cultivating adherent cell cultures.
Manufactured according to ANSI/SBS standards 1 to 4-2004 to ensure compatibility when carrying out manual processes and, in particular, automatic processes.

S

Properties of BRAND*plates*® microtiter plates:

- 96 well standard format
- Alphanumerically coded
- **Free of endotoxins, DNase, DNA, RNase, non-cytotoxic**

Properties of cellGrade™ microtiter plates:

- Colour code: orange for the cell culture
- PS surface with various freely accessible chemical groups, e.g. carboxyl and hydroxyl groups
- Surface is hydrophilic (untreated PS is non-hydrophilic)
- Serum constituents are bound to the free chemical groups which allow indirect adhesion of cells

Delivery incl. lid.

F-bottom

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,35	white	**Sterile**	individual	**XT72.1**	50 unit(s)	282,75
96	0,35	black	**Sterile**	individual	**XT73.1**	50 unit(s)	282,75

F-bottom (transparent)

Transparent bottom in F-profile (flat bottom shape) for precise optical measurements.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,35	translucent	**Sterile**	individual	**CNP6.1**	50 unit(s)	159,10
96	0,33	white	**Sterile**	individual	**XT74.1**	50 unit(s)	678,35
96	0,33	black	**Sterile**	individual	**XT75.1**	50 unit(s)	678,35

Microtitration plates inertGrade™ sterile

S

BRAND. Material: PS. **Sterile**.

Suitable for cultivating suspension cell cultures.
Manufactured according to ANSI/SBS standards 1 to 4-2004 to ensure compatibility when carrying out manual processes and, in particular, automatic processes.

Properties of BRAND*plates*® microtiter plates:

- 96 well standard format
- Alphanumerically coded
- **Free of endotoxins, DNase, DNA, RNase, non-cytotoxic**

Properties of inertGrade microtiter plates™:

- Colour code: orange for the cell culture.
- Ideal for cell cultures if cell adhesion is to be avoided
- Optimised surface properties minimise cell binding, protein absorption, enzyme activation and cellular activation
- This allows, for example, premature differentiation of stem cells to be inhibited

Delivery incl. lid.

F-bottom, transparent

F-profile (flat bottom shape) for precise optical measurements.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,35	translucent	**Sterile**	individual	**XT77.1**	40 unit(s)	518,15

U-bottom

U-bottom (round bottom shape), ideal for mixing and washing samples.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,33	translucent	**Sterile**	individual	**XT76.1**	40 unit(s)	518,15

Cell culture inserts BRAND Insert 2in1

BRAND. **Sterile**.

Suitable for producing skin models, 3D epithelial cell cultures, study of chemotaxis, transmigration assays or, e.g., in transport and polarity studies. For general cell culture work or swapping from the standing to the hanging position, already validated cell culture plates can be reused. Thanks to their feet and hooks, BRAND Inserts 2in1 can be positioned both ways. With its protein-like structure, the cellGrade™ plus surface optimally promotes the growth of primary keratinocytes and many other cell types.

- Can be used as a hanging or standing insert
- Compatible with all good multiwell plates
- Suitable for 2D and 3D cell cultures
- Surface: cellGrade™ plus
- Sterility Assurance Level (SAL) of 10^{-6}

S

For 6-well

Membrane material	Pore size (µm)	Pack.	Art. No.	Pack Qty.	€
PC	0.4	24 x 1	**1CEC.1**	24 unit(s)	224,55
PC	0.4	4 x 6	**1CEE.1**	24 unit(s)	208,20
PC	8	24 x 1	**1CEH.1**	24 unit(s)	224,55
PC	8	4 x 6	**1CEK.1**	24 unit(s)	208,20
PET	0.4	24 x 1	**1CEL.1**	24 unit(s)	224,55
PET	0.4	4 x 6	**1CEN.1**	24 unit(s)	208,20
PET	8	24 x 1	**1CEP.1**	24 unit(s)	224,55
PET	8	4 x 6	**1CET.1**	24 unit(s)	208,20

For 12-well

Membrane material	Pore size (µm)	Pack.	Art. No.	Pack Qty.	€
PC	0.4	48 x 1	**1CEX.1**	48 unit(s)	350,35
PC	0.4	4 x 9	**1CEY.1**	36 unit(s)	236,95
PC	8	48 x 1	**1CH0.1**	48 unit(s)	350,35
PC	8	4 x 9	**1CH1.1**	36 unit(s)	236,95
PET	0.4	48 x 1	**1CH2.1**	48 unit(s)	350,35
PET	0.4	4 x 9	**1CH3.1**	36 unit(s)	236,95
PET	8	48 x 1	**1CH4.1**	48 unit(s)	350,35
PET	8	4 x 9	**1CH5.1**	36 unit(s)	236,95

For 24-well

Membrane material	Pore size (µm)	Pack.	Art. No.	Pack Qty.	€
PC	0.4	48 x 1	**1CH6.1**	48 unit(s)	315,35
PC	0.4	4 x 12	**1CH7.1**	48 unit(s)	284,90
PC	8	48 x 1	**1CH8.1**	48 unit(s)	315,35
PC	8	4 x 12	**1CH9.1**	48 unit(s)	284,90
PET	0.4	48 x 1	**1CHA.1**	48 unit(s)	315,35
PET	0.4	4 x 12	**1CHC.1**	48 unit(s)	284,90
PET	8	48 x 1	**1CHE.1**	48 unit(s)	315,35
PET	8	4 x 12	**1CHH.1**	48 unit(s)	284,90

Cell culture plates, pans, vials

Cell culture plates sterile

ROTH SELECTION. Material: PS. **Sterile**.

Hydrophilic, negatively-charged surface through plasma treatment for uniform cell adhesion and cell growth.

- F-profile (flat-shaped base)
- Optically clear for good cell visualisation
- Increased well edge reduces evaporation
- Condensation rings in the lid reduce cross-contamination
- Alphanumeric numbering
- Gamma-sterilised
- Non-pyrogenic

S

Delivery incl. lid.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
6	17	translucent	**Sterile**	individual	**EKX5.1**	100 unit(s)	230,00
12	6,8	translucent	**Sterile**	individual	**EKX6.1**	100 unit(s)	223,00
24	3,5	translucent	**Sterile**	individual	**EKX7.1**	100 unit(s)	220,00
96	0,39	translucent	**Sterile**	individual	**EKX8.1**	100 unit(s)	243,00

Cell culture plates CELLSTAR® sterile

Greiner Bio-One. Material: PS. **Sterile**.

- Multiwell plates for adherent cell cultures
- Improved cell adherence through surface treatment
- F-bottom
- Alphanumerical well coding
- Centrifugable to max. 4800 x g
- **Free of detectable DNase, RNase and human DNA**
- Free of detectable endotoxins, free of cytotoxic substances

S

Delivery incl. lid.

Wells	Volume per well (ml)	Growth surface (cm²)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
6	2-5	9.6	translucent	**Sterile**	individual	**CE54.1**	100 unit(s)	203,20
12	2-4	3.9	translucent	**Sterile**	individual	**CE55.1**	100 unit(s)	255,85
24	0,5-1,5	1.9	translucent	**Sterile**	individual	**CE56.1**	100 unit(s)	225,75
48	0,5-1	1.0	translucent	**Sterile**	individual	**CE57.1**	100 unit(s)	301,00
96	0,025-0,34	0.34	translucent	**Sterile**	individual	**KL43.1**	100 unit(s)	238,65

S

Cell strainer EASYstrainer™

Greiner Bio-One. Material: PP, filter membrane made of PET. **Sterile**.

For the filtration of cell suspensions and primary cell isolates, e.g. after organ digestion, for use in primary cell extraction or cell preparation for flow cytometry.

- Fits all standard 50 ml tubes
- With handle and mantle surface for improved aseptic handling
- Venting slot for rapid filtration, no overflowing of the cell strainer
- Individually packed in blister pack

Aids aseptic work: The mantle surface and handle protect against unintentional contact with the sterile filter material. The single blister pack allows for convenient and aseptic removal of the strainer. Venting slot between fitted cell strainer and tube allows the air in the tube to escape quickly during filtration and ensures that liquid does not accumulate between the strainer and the tube or that the strainer cannot overflow.

Mesh size (µm)	Colour	Pack.	Art. No.	Pack Qty.	€
40	green	individually	**CLY9.1**	50 unit(s)	107,10
70	blue	individually	**CNA0.1**	50 unit(s)	107,10
100	yellow	individually	**CNA1.1**	50 unit(s)	107,10

S

Cell strainer Flowmi™

ROTH SELECTION. **Sterile**.

For direct filtration of up to 1000 µl cell suspensions through pipette tips before FLOW or FACS analysis. Compatible with most conventional 1000 µl pipette tips.

- Filters small quantities of cell liquids without losing any volume
- Removes cell clumping, resulting in homogeneous individual cell suspensions
- Filters cell fragments in order to reduce the blockage potential for FLOW or FACS devices

Application:

- Take up a sample in the pipette tip
- Insert it into the Flowmi™ cell strainer
- Filter the sample through the cell strainer into a reaction vial
- Discard the cell strainer along with the pipette tip

Note: The Flowmi™ cell strainer should be used with cell suspensions of up to two million cells/ml (40 µl) or four million cells/ml (70 µl).

Mesh size (µm)	Art. No.	Pack Qty.	€
40	**KKE3.1**	50 unit(s)	117,20
70	**KKE4.1**	50 unit(s)	117,20

S

Cell culture dishes

Sarstedt. Material: PS. **Sterile**.

- Hydrophilic surface for adherent cells
- Flat, transparent growth surface for visual monitoring of cell growth
- *SURE*Grip design for reduced risk of contamination by being able to grip the dish securely
- With vents for continuous gas exchange and securely seated lid
- Distinct stacking rings in lid and base
- Packed in a resealable bag with tamper-evident cap
- **Free of DNase, RNase and DNA, non-pyrogenic/endotoxin-free, non-cytotoxic**

Standard

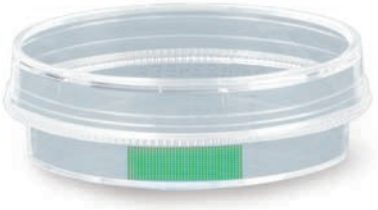
Growth surface (cm²)	Ø ext. (mm)	Art. No.	Pack Qty.	€
8	35	**KKH4.1**	500 unit(s)	137,60
21	60	**KKH5.1**	500 unit(s)	149,45
58	100	**KKH6.1**	300 unit(s)	135,45
152	150	**HPX6.1**	100 unit(s)	127,95

With grid

For cloning experiments.

Growth surface (cm²)	Ø ext. (mm)	Art. No.	Pack Qty.	€
8	35	**KKH7.1**	500 unit(s)	155,90
21	60	**KKH8.1**	500 unit(s)	170,95

Cell culture plates, pans, vials



S

Cell culture dishes Suspension

Sarstedt. Material: PS. **Sterile**.

Suspension culture surfaces for cells which are not adherently cultivated in solution (e.g. cells of lymphoid origin or hybridoma cells).

- Hydrophobic surface minimises cell loss when subcultivating due to unwanted micro-adhesion
- Flat, transparent growth surface for visual monitoring of cell growth
- *SURE*Grip design for reduced risk of contamination by being able to grip the dish securely
- With vents for continuous gas exchange and securely seated lid
- Distinct stacking rings in lid and base
- Packed in a resealable bag with tamper-evident cap
- **Free of DNase, RNase and DNA, non-pyrogenic/endotoxin-free, non-cytotoxic**

Growth surface (cm²)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
8	35	50 x 10	**KKH9.1**	500 unit(s)	132,25
21	60	50 x 10	**KKK0.1**	500 unit(s)	136,55
58	100	50 x 10	**KKK1.1**	300 unit(s)	143,00

S

Cell culture tubes CELLSTAR®

Greiner Bio-One. Material: PS, HDPE screw cap. **Sterile**.

- Improved cell adherence through physical surface treatment
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances

Technical specifications:

Art. No.	CNC4.1	CNC5.1
Centrifugability in g (max.)	3,000	5,000

Free-standing
With standing ledge and bayonet lock (with 1/3 turn to open)

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
12	17	100	200 x 5	**CNC5.1**	1,000 unit(s)	296,70

Round base
With screw closure

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
12	17	100	200 x 5	**CNC4.1**	1,000 unit(s)	294,55

S

Cell culture tubes CELLSTAR® CELLreactor™ tube

Greiner Bio-One. Material: PP, Filter screw closure with PTFE-coated membrane, pore size 0.2 µm. **Sterile**.

Tube temperature stable from -196 to +121 °C, screw closure from -80 to +100 °C. Autoclavable tube (without screw closure).

- Conical tube design facilitates direct cell harvesting
- With graduations and labelling area
- Excellent gas exchange
- **Free of DNase, RNase and human DNA**
- Pyrogen free, non-cytotoxic

Applications:

- Miniaturisation of large-scale test setups
- Maximises the number of parallel experiments
- Bioreactors for the cultivation of suspension cells and spheroid cells
- Expansion of aerobic bacteria, yeasts and micro-organisms
- Storage of substances which require gas exchange

Technical specifications:

Art. No.	CLY3.1
Centrifugability in g (max.)	3,200

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
50	30	115	25 x 20	**CLY3.1**	500 unit(s)	413,90

A 121 °C

Culture tubes

ROTH SELECTION. Material: Soda-lime glass, AR-GLAS®. Autoclavable: Yes.

Delivery without screw closures, please order separately.

Version	Vol. (ml)	Ø ext. (mm)	Length (mm)	Art. No.	Pack Qty.	€
Round base	15	16	125	**EXE8.1**	100 unit(s)	27,55
flat bottom	15	16	125	**EXE9.1**	100 unit(s)	27,55

A 121 °C

Accessories screw closures for culture tubes

ROTH SELECTION. Material: PP, integrated TPE seal. Autoclavable: Yes.

- Extended closures, reduced risk of contamination
- Short screw thread for easy opening and closing
- Highest safety for sterilisation through injected seal
- Leak-proof
- Temperature stability: -10 to +121 °C

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	30	**EXH0.1**	100 unit(s)	40,15

S ❄❄

Culture tubes sterile with screw closure

ROTH SELECTION. Material: PS, HDPE closure. **Sterile**.

- Free of pyrogenics
- Temperature stability: -80 to +80 °C

Technical specifications:

Art. No.	AEL3.1
Centrifugability in g (max.)	3,000

Coloured lid inserts for identification are optional (CK72.1ff).

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
8	13	100	8 x 125	**AEL3.1**	1,000 unit(s)	289,20

Culture tubes

Culture tubes

ROTH SELECTION. **Sterile**.

- With two-position closure for anaerobic and aerobic bacteria cultures

S

Polypropylene graduated

Material: PP PE closure. With labelling area.

- Suitable for use in a centrifuge: 3000 x g
- Temperature stable: -190 to 121 °C

Vol. (ml)	Filling capacity (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
5	4	12	75	500 x 1	**EC01.1**	500 unit(s)	155,90
5	4	12	75	20 x 25 (box)	**EC02.1**	500 unit(s)	123,65
14	12	17	95	500 x 1	**EC03.1**	500 unit(s)	218,25
14	12	17	95	20 x 25 (box)	**EC04.1**	500 unit(s)	165,55

Polypropylene ungraduated

Material: PP PE closure. Without labelling area.

- Suitable for use in a centrifuge: 3000 x g
- Temperature stable: -190 to 121 °C

Vol. (ml)	Filling capacity (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
5	4	12	75	20 x 25 (bag)	**AEY0.1**	500 unit(s)	78,50
14	12	17	95	20 x 25 (bag)	**AEY1.1**	500 unit(s)	127,95

Polystyrene graduated

Material: PS PE closure. With labelling area.

- Transparent
- Suitable for use in a centrifuge: 1400 x g
- Temperature stable: +70 °C

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
5	12	75	500 x 1	**EA97.1**	500 unit(s)	170,95
5	12	75	20 x 25 (box)	**EA98.1**	500 unit(s)	127,95
14	17	95	500 x 1	**EA99.1**	500 unit(s)	231,15
14	17	95	20 x 25 (box)	**EC00.1**	500 unit(s)	166,65

Polystyrene ungraduated

Material: PS PE closure. Without labelling area.

- Transparent
- Suitable for use in a centrifuge: 1400 x g
- Temperature stable: +70 °C

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
5	12	75	1 x 100 (Bag)	**AEX8.1**	500 unit(s)	82,25
14	17	95	1 x 100 (Bag)	**AEX9.1**	500 unit(s)	99,15

Culture tubes

Drosophila vessels

Greiner Bio-One. Material: PS.

Ideal for the cultivation of Drosophila melanogaster.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	27	64	**CLY6.1**	1,500 unit(s)	157,95

Accessories plug for Drosophila vessels

Greiner Bio-One. Material: PU foamed (Ceapren), water-repellent, air-permeable.

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
26	Vessel volume: 28 ml	**CLY8.1**	1,500 unit(s)	132,10

A 121 °C

Drosophila vessels

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Ideal for cultivating drosophila and other insects. Straight-walled for easy storage in racks, filling and sealing.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	85	**PK10.2**	950 unit(s)	151,05
50	100	**PK11.1**	225 unit(s)	117,45

Accessories plug for Drosophila vessels

ROTH SELECTION. Material: PU foamed.

Air-permeable and mite-proof.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	25	**PK13.1**	100 unit(s)	52,95
50	25	**PK15.1**	100 unit(s)	97,85

A 121 °C DURAN WHEATON KIMBLE

Culture bottle according to Breed-Demeter square

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Technical specifications:

Art. No.	T954.1
Width	48 mm
Height	148 mm

Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
180	28	**T954.1**	1 unit(s)	18,55

S

Medium bottles

Nalgene. Material: PETG, HDPE screw cap. **Sterile**.

Low permeation of CO_2 and O_2 allows storage of culture media for up to six months. The cap and neck are sealed with a heat-shrink band: Vessel remains sterile as long as the band is intact.

- Transparent
- Square
- Breakproof and robust
- Leak-proof
- Bottle and cap are non-pyrogenic

2000 ml volume with integrated handles for easy handling.

Technical specifications:

Art. No.	C481.1	C482.1	C483.1	C484.1	C485.1	C486.1	C487.1
Length	38 cm	41 mm	52 mm	58 mm	73 mm	93 mm	116 mm
Width	38 cm	41 mm	52 mm	58 mm	73 mm	93 mm	116 mm
Height	63 mm	82 mm	108 mm	147 mm	177 mm	218 mm	270 mm

Vol. (ml)	Outer lid Ø (mm)	Art. No.	Pack Qty.	€
30	20	**C481.1**	24 unit(s)	71,55
60	24	**C482.1**	24 unit(s)	91,35
125	38	**C483.1**	24 unit(s)	146,25
250	38	**C484.1**	24 unit(s)	170,95
500	38	**C485.1**	12 unit(s)	130,00
1,000	38	**C486.1**	12 unit(s)	177,40
2,000	53	**C487.1**	6 unit(s)	148,95

Culture bottles

Cell culture media bottle DURAN® *TILT*

DWK Life Sciences. Material: DURAN® glass, PP screw cap. Autoclavable: Yes.

Can be used in two positions: Upright for storage, tilted at 45° for ergonomic pipetting.

- Compact shape, ideal for low sliding windows in sterile work-benches
- Stackable and space-saving
- Wide opening for easy pipetting
- Ergonomic screw thread for easy opening and closing
- Double volume marking for added convenience

Technical specifications:

Art. No.	EXH2.1
Height	151 mm

Delivery incl. screw cap, white.

Vol. (ml)	Thread	Art. No.	Pack Qty.	€
500	GL 56	**EXH2.1**	4 unit(s)	53,05

Accessories for DURAN® *TILT* cell culture media bottle

DWK Life Sciences.

Designation	Art. No.	Pack Qty.	€
DURAN® bottle tags, silicone, GL56, orange	**EXH4.1**	20 unit(s)	28,80
DURAN® bottle tags, silicone, GL56, yellow	**EXH5.1**	20 unit(s)	28,80
DURAN® bottle tags, silicone, GL56, blue	**EXH6.1**	20 unit(s)	28,80
DURAN® bottle tags, silicone, GL56, purple	**EXH7.1**	20 unit(s)	28,80
PTFE thread adapter, white, for DURAN® TILT bottles (GL 45 external, GL 56 internal)	**EXH8.1**	1 unit(s)	34,30
Replacement screw-cap closures GL 56, PP, white	**EXK0.1**	10 unit(s)	20,75
Self-adhesive labels, polyester, white, Ø 40 mm, for GL 56 screw-cap closures	**EXH9.1**	60 unit(s)	14,45
White silicone light protection cover, with 4 identifi-cation rings (orange, yellow, blue, purple)	**EXH3.1**	4 unit(s)	26,00

Medium bottles

Greiner Bio-One. Material: PET. **Sterile**.

- With graduations
- Square
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances

Technical specifications:

Art. No.	CNA3.1	CNA4.1	CNA5.1
Length	53 mm	77 mm	92 mm
Width	77 mm	53 mm	92 mm
Height	108.3 mm	177.3 mm	218.8 mm

Vol. (ml)	Pack.	Art. No.	Pack Qty.	€
100	4 x 25	**CNA3.1**	100 unit(s)	142,80
500	2 x 25	**CNA4.1**	50 unit(s)	106,20
1,000	2 x 12	**CNA5.1**	24 unit(s)	103,00

Culture bottle with beaded rim

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Technical specifications:

Art. No.	T955.1	T956.1	T958.1	T959.1
Ø ext.	50 mm	70 mm	105 mm	150 mm
Height	115 mm	168 mm	237 mm	315 mm

Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
100	29	**T955.1**	1 unit(s)	18,00
300	42	**T956.1**	1 unit(s)	23,70
1,000	46	**T958.1**	1 unit(s)	37,05
2,500	50	**T959.1**	1 unit(s)	73,70

Culture bottles

A 121 °C

Culture bottle with a straight neck

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Technical specifications:

Art. No.	T962.1	T963.1	T964.1
Ø ext.	70 mm	83 mm	105 mm
Height	170 mm	208 mm	243 mm

Suitable for Erlenmeyer CAP caps K395.1-K397.1

Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
300	38	**T962.1**	1 unit(s)	40,25
500	38	**T963.1**	1 unit(s)	47,25
1,000	38	**T964.1**	1 unit(s)	61,40

A 121 °C DURAN WHEATON KIMBLE

Culture flask Fernbach

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Large liquid surface, ideal for cultivating micro-organisms in liquid nutrient media, with improved ventilation for faster growth. Conical shape with a straight neck for Erlenmeyer CAP caps K395.1-K397.1.

Technical specifications:

Art. No.	T965.1
Ø ext.	200 mm
Height	175 mm

Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
1,800	38	**T965.1**	1 unit(s)	71,80

A 121 °C DURAN WHEATON KIMBLE

Culture flask in Erlenmeyer shape

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Uniform, straight neck, suitable for Erlenmeyer CAP caps K395.1-K397.1

Technical specifications:

Art. No.	L182.1	L183.1	L184.1	L185.1	L186.1	L187.1	L188.1
Ø ext.	64 mm	79 mm	85 mm	87 mm	105 mm	131 mm	166 mm
Height	114 mm	138 mm	149 mm	161 mm	183 mm	229 mm	302 mm

Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
100	38	**L182.1**	10 unit(s)	171,00
200	38	**L183.1**	10 unit(s)	187,00
250	38	**L184.1**	10 unit(s)	191,00
300	38	**L185.1**	10 unit(s)	94,20
500	38	**L186.1**	10 unit(s)	118,35
1,000	38	**L187.1**	1 unit(s)	24,70
2,000	38	**L188.1**	1 unit(s)	32,05

A 121 °C

Baffled flasks plastic

Nalgene. Material: PC. Autoclavable: Yes.

- Shatter-proof alternative to glass flasks
- Comparable growth rates for *E. coli* and *S. cerevisiae*
- Baffles increase the mixing during trypsinisation, aeration and fermentation in cell culture technology or genetic engineering.

Straight neck

Suitable for Erlenmeyer CAP caps K395.1-K397.1.

Vol. (ml)	Art. No.	Pack Qty.	€
500	**E105.1**	1 unit(s)	24,20
1,000	**E106.1**	1 unit(s)	41,20

Neck with flanged rim

Vol. (ml)	Art. No.	Pack Qty.	€
250	**E104.1**	1 unit(s)	19,20
2,000	**E107.1**	1 unit(s)	56,55

Culture flasks

S

Culture flask sterile

Nalgene. Material: PETG, HDPE screw closure, with aeration filter (PTFE membrane, pore size 0.2 µm). **Sterile**.

Suitable for agitation and suspension cultures, for making culture media or storage. The aeration filter enables sterile aeration and reduces the risk of contamination.

- With graduations
- Non-pyrogenic, non-cytotoxic
- Individually packed

Vol. (ml)	Art. No.	Pack Qty.	€
125	**PX73.1**	24 unit(s)	241,90
250	**PX74.1**	12 unit(s)	131,15
500	**PX75.1**	12 unit(s)	163,40
1,000	**PX76.1**	6 unit(s)	95,65
2,000	**PX77.1**	4 unit(s)	95,85

S

Baffled flasks sterile

Nalgene. Material: PETG, HDPE screw closure, with aeration filter (PTFE membrane, pore size 0.2 µm). **Sterile**.

Suitable for agitation and suspension cultures, for making culture media or storage. The aeration filter enables sterile aeration and reduces the risk of contamination.

- With graduations
- Non-pyrogenic, non-cytotoxic
- Individually packed

Vol. (ml)	Art. No.	Pack Qty.	€
125	**ETA0.1**	24 unit(s)	234,35
250	**ETA1.1**	12 unit(s)	131,15
500	**ETA2.1**	12 unit(s)	157,45
1,000	**ETA3.1**	6 unit(s)	93,05
2,000	**ETA4.1**	4 unit(s)	90,45

A 121 °C

DURAN WHEATON KIMBLE

Baffled flasks WHEATON®

DWK Life Sciences. Material: Borosilicate glass. Autoclavable: Yes.

With four bottom baffles for improved mixing and aeration when cultivating bacterial cultures on orbital shakers or shakers with lateral shaking movement. The constriction in the neck and the flanged rim prevent liquids from spurting out.

Technical specifications:

Art. No.	HYH2.1	HYH3.1	HYH4.1	HYH5.1	HYH6.1
Ø ext.	47 mm	67 mm	82 mm	100 mm	133 mm
Height	83 mm	110 mm	140 mm	180 mm	210 mm

Vol. (ml)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
50	17.5	**HYH2.1**	1 unit(s)	61,90
125	23.8	**HYH3.1**	1 unit(s)	62,80
250	28.4	**HYH4.1**	1 unit(s)	63,65
500	33.1	**HYH5.1**	1 unit(s)	65,15
1,000	39.5	**HYH6.1**	1 unit(s)	104,65

A 121 °C

Baffled flasks ROTILABO® with screw closure

ROTH SELECTION. Material: DURAN® glass, screw cap made from PBT, PTFE-coated seal. Autoclavable: Yes.

Culture flask with three integrated baffles for better mixing.

Technical specifications:

Art. No.	LK17.1	LK18.1	LK19.1	LK20.1
Ø ext.	64 mm	85 mm	105 mm	131 mm
Height	109 mm	149 mm	180 mm	225 mm

Ideal for cultivating *S. cerevisiae* (cap not screwed tight).

Vol. (ml)	Thread	Art. No.	Pack Qty.	€
100	GL 25	**LK17.1**	1 unit(s)	40,35
250	GL 32	**LK18.1**	1 unit(s)	41,10
500	GL 32	**LK19.1**	1 unit(s)	42,80
1,000	GL 32	**LK20.1**	1 unit(s)	60,10

Culture flasks

121 °C

Baffled flasks ROTILABO®

ROTH SELECTION. Material: DURAN® glass. Autoclavable: Yes.

Culture flask with three integrated baffles for better mixing. Ideal for cultivating *S. cerevisiae* and aerobic bacteria cultures. Flasks with straight necks, suitable for Erlenmeyer CAP caps K395.1-K397.1.

Technical specifications:

Art. No.	LY94.1	LY95.1	LY96.1	LY97.1	LY98.1	PK29.1
Ø ext.	64 mm	85 mm	105 mm	131 mm	166 mm	220 mm
Height	114 mm	149 mm	183 mm	232 mm	305 mm	365 mm

Version	Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
straight neck	100	38	**LY94.1**	1 unit(s)	40,35
straight neck	250	38	**LY95.1**	1 unit(s)	44,65
straight neck	500	38	**LY96.1**	1 unit(s)	41,95
straight neck	1,000	38	**LY97.1**	1 unit(s)	59,70
straight neck	2,000	38	**LY98.1**	1 unit(s)	80,10
neck with flanged rim	5,000	52	**PK29.1**	1 unit(s)	145,15

121 °C DURAN WHEATON KIMBLE

Baffled flasks DURAN® with screw closure

DWK Life Sciences. Material: DURAN® glass, PP screw closure with PTFE membrane. Autoclavable: Yes.

Four baffles on the base create a turbulent flow, enlarge the gas exchange surface area and therefore increase oxygen intake. Automated production ensures a reproducible flask geometry and consistent results.

- Double-thickness walls for exceptional mechanical stability
- With Retrace Code (batch identification)
- Temperature stable up to +140 °C

Technical specifications:

Art. No.	PK16.1	PK17.1	AEP1.1
Ø ext.	81 mm	105 mm	136 mm
Height	145 mm	180 mm	221 mm

Vol. (ml)	Thread	Art. No.	Pack Qty.	€
250	GL 45	**PK16.1**	4 unit(s)	78,75
500	GL 45	**PK17.1**	4 unit(s)	88,55
1,000	GL 45	**AEP1.1**	1 unit(s)	28,55

121 °C

Screw caps

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For test tubes, culture tubes and straight-neck Erlenmeyer flasks. For air-tight closure, please also use closure bands or Parafilm® M.

Suitable for	Art. No.	Pack Qty.	€
Ø 13 mm	**CXK0.1**	1,000 unit(s)	126,05
Ø 16 mm	**CXK1.1**	1,000 unit(s)	128,25
Ø 18 mm	**CXK2.1**	1,000 unit(s)	169,85
Ø 20 mm	**CXK3.1**	500 unit(s)	124,00
Ø 25 mm	**CXK4.1**	500 unit(s)	192,45
Ø 38 mm	**CXK5.1**	250 unit(s)	209,65

Culture stoppers, caps

Culture plug ROTILABO®

ROTH SELECTION. Material: Cellulose. Autoclavable: Yes.

Air-permeable, bacteria-filtering plug, ideal for the incubation of plant or bacteria cultures and for the sterilisation of culture media. Autoclavable up to +200 °C.

A 121 °C

Type	Suitable for	Application	Ø Lower (mm)	Ø Upper (mm)	Length (mm)	Art. No.	Pack Qty.	€
8 P	Inside Ø 7.5–11.0 mm		7.5	12.5	30	**PC16.1**	1,000 unit(s)	37,55
9 P	Inside Ø 9.0–10.5 mm		8.5	12	31	**CTC8.1**	2,000 unit(s)	68,20
13	Inside Ø 12.0–14.5 mm	Erlenmeyer flask, NS 14/23	11	16	36.5	**PC17.1**	1,000 unit(s)	36,30
14 P	Inside Ø 12.0–14.0 mm		11	17	37	**CTC9.1**	1,000 unit(s)	42,00
14	Inside Ø 13.0–14.5 mm		11.5	16.5	40	**PC18.1**	1,000 unit(s)	36,30
15 P	Inside Ø 14.0–16.5 mm		13	20	39	**PC19.1**	1,000 unit(s)	44,40
16	Inside Ø 16.5–18.0 mm	Erlenmeyer flask, NS 19/26	15.5	20	39	**PC20.1**	1,000 unit(s)	58,20
17	Inside Ø 13.0–16.0 mm		11.5	18.5	34	**CTE0.1**	1,000 unit(s)	53,50
18 D	Inside Ø 17.5–19.5 mm		16.5	22	36.5	**PC21.1**	1,000 unit(s)	48,90
20 P	Inside Ø 19.0–22.5 mm	Erlenmeyer flasks: Narrow-necked, 25–100 ml	18.5	25	39	**PC22.1**	500 unit(s)	56,85
26	Inside Ø 25–27 mm	Erlenmeyer flask, NS 29/32	24	27.5	42	**PC23.1**	2,000 unit(s)	197,80
27	Inside Ø 27.0–32.5 mm	Erlenmeyer flasks: Narrow-necked 200–500 ml/wide-necked 50–100 ml	24	35	54	**PC24.1**	1,500 unit(s)	217,15
29	Inside Ø 28.5–31.0 mm	Erlenmeyer flasks: Wide-necked 25 ml	27.5	33	63	**PC25.1**	1,200 unit(s)	189,20
32 P	Inside Ø 31.0–33.5 mm		31	45.5	55.5	**PC26.1**	850 unit(s)	192,45
32	Inside Ø 32.5–35.0 mm	Culture flasks, straight neck Ø 38 mm	31	36	61	**PC27.1**	1,000 unit(s)	193,50
34	Inside Ø 33.5–36.0 mm		33	37	61.5	**PC28.1**	900 unit(s)	182,75
37	Inside Ø 37.5–41.5 mm		38	47	60	**CTE1.1**	400 unit(s)	117,10
38	Inside Ø 40.0–45.5 mm	Narrow-necked Erlenmeyer flasks, 1000 ml/Erlenmeyer flasks, NS 45/40	38	49	61	**PC29.1**	650 unit(s)	174,15
40 P	Inside Ø 43.0–46.0 mm		42	52	50	**PC30.1**	650 unit(s)	265,55
45 P	Inside Ø 44–48 mm	Erlenmeyer flasks: Narrow-necked, 2000–5000 ml/wide-necked 200–1000 ml	44	60	65	**PC31.1**	370 unit(s)	188,15
60 P	Inside Ø 58.0–66.0 mm		56	71	68	**PC32.1**	250 unit(s)	252,65

Culture stoppers, caps

A 121 °C

Culture plug silicone sponge

Hirschmann. Material: Silicone. Autoclavable: Yes.

With regularly spaced pores, ideal for preparing and sterilising culture media and for cultivating aerobic micro-organisms.

- Good air permeability with low evaporation
- Ideal for cultures in long-term tests
- Washable and reusable
- Can be dry sterilised up to 180 °C

Ø Lower (mm)	Ø Upper (mm)	Length (mm)	Art. No.	Pack Qty.	€
9	12	30	**NN15.1**	10 unit(s)	36,35
11	15	20	**NN16.1**	10 unit(s)	43,15
13	17	40	**0599.2**	10 unit(s)	52,20
15	19	42	**0606.2**	10 unit(s)	56,60
18	22	45	**0607.2**	10 unit(s)	64,15
22	32	60	**0615.2**	10 unit(s)	99,25
30	42	90	**NN17.1**	10 unit(s)	249,40
40	52	100	**0616.2**	10 unit(s)	369,80

A 121 °C

Screw caps LABOCAP with grip

ROTH SELECTION. Material: Aluminium colour anodised, chrome-nickel-steel spring. Autoclavable: Yes.

For closure of straight-necked test tubes and culture tubes. Spring clamp on the vessel outer wall. Temperature stable up to 140 °C.

Only use neutral cleaner for cleaning.

For Ø 15/16 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 15/16 mm	silver	**K363.1**	100 unit(s)	117,20
Ø 15/16 mm	blue	**K367.1**	100 unit(s)	117,20
Ø 15/16 mm	red	**K371.1**	100 unit(s)	117,20

For Ø 17/18 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 17/18 mm	silver	**K364.1**	100 unit(s)	123,65
Ø 17/18 mm	blue	**K368.1**	100 unit(s)	123,65
Ø 17/18 mm	red	**K372.1**	100 unit(s)	123,65

A 121 °C

Screw caps LABOCAP

ROTH SELECTION. Material: Aluminium colour anodised, chrome-nickel-steel spring. Autoclavable: Yes.

For closure of straight-necked test tubes and culture tubes. Spring clamp on the vessel outer wall. Temperature stable up to 140 °C.

Only use neutral cleaner for cleaning.

For Ø 9/10 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 9/10 mm	silver	**LL88.1**	100 unit(s)	85,90

For Ø 12/13 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 12/13 mm	silver	**K375.1**	100 unit(s)	85,90
Ø 12/13 mm	blue	**K385.1**	100 unit(s)	85,90
Ø 12/13 mm	red	**K390.1**	100 unit(s)	85,90
Ø 12/13 mm	yellow	**LL91.1**	100 unit(s)	88,70
Ø 12/13 mm	green	**LN06.1**	100 unit(s)	88,70
Ø 12/13 mm	black	**LN08.1**	100 unit(s)	88,70
Ø 12/13 mm	violet	**LN09.1**	100 unit(s)	88,70

For Ø 14/15 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 14/15 mm	silver	**K376.1**	100 unit(s)	103,20
Ø 14/15 mm	blue	**LN10.1**	100 unit(s)	106,35

For Ø 15/16 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 15/16 mm	silver	**K377.1**	100 unit(s)	91,40
Ø 15/16 mm	blue	**K387.1**	100 unit(s)	91,40
Ø 15/16 mm	red	**K392.1**	100 unit(s)	91,40
Ø 15/16 mm	yellow	**LN11.1**	100 unit(s)	91,40
Ø 15/16 mm	green	**LN12.1**	100 unit(s)	91,40
Ø 15/16 mm	black	**LN14.1**	100 unit(s)	91,40
Ø 15/16 mm	violet	**LN15.1**	100 unit(s)	91,40

For Ø 17/18 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 17/18 mm	silver	**K378.1**	100 unit(s)	95,70
Ø 17/18 mm	blue	**K388.1**	100 unit(s)	95,70
Ø 17/18 mm	red	**K393.1**	100 unit(s)	95,70
Ø 17/18 mm	yellow	**LN16.1**	100 unit(s)	95,70
Ø 17/18 mm	green	**LN17.1**	100 unit(s)	95,70
Ø 17/18 mm	black	**LN19.1**	100 unit(s)	95,70
Ø 17/18 mm	violet	**LN20.1**	100 unit(s)	95,70

Culture stoppers, caps

For Ø 19/20 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 19/20 mm	silver	**K379.1**	100 unit(s)	102,15
Ø 19/20 mm	blue	**K389.1**	100 unit(s)	102,15
Ø 19/20 mm	red	**LN21.1**	100 unit(s)	102,15
Ø 19/20 mm	yellow	**LN22.1**	100 unit(s)	102,15
Ø 19/20 mm	green	**LN23.1**	100 unit(s)	102,15

For Ø 21/23 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 21/23 mm	silver	**LN27.1**	100 unit(s)	160,20

For Ø 24/26 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 24/26 mm	silver	**K381.1**	100 unit(s)	203,20
Ø 24/26 mm	blue	**LN30.1**	100 unit(s)	203,20
Ø 24/26 mm	red	**LN31.1**	100 unit(s)	203,20

For Ø 28/30 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 28/30 mm	silver	**K382.1**	100 unit(s)	213,95

A 121 °C

Screw caps LABOCAP

ROTH SELECTION. Material: Aluminium colour anodised, chrome-nickel-steel spring. Autoclavable: Yes.

For Erlenmeyer and culture flasks with straight necks, Ø 38 mm. Spring clamp on the vessel outer wall. Temperature stable up to 140 °C.

Only use neutral cleaner for cleaning.

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 37/39 mm	silver	**K395.1**	10 unit(s)	37,65
Ø 37/39 mm	blue	**K396.1**	10 unit(s)	37,65
Ø 37/39 mm	red	**K397.1**	10 unit(s)	37,65

Petri dish stands DishRack

Sarstedt. Material: PC.

For storage, transport and incubation of up to 52 Petri dishes with Ø 92 mm. with 4 compartments, Petri dishes easy to remove at every point, with no need for restacking. Two flexible silicone retaining lips provide a secure hold for the plates in the stands, even during transport. Height: 240 mm.

Note: Autoclaving of the rack is possible as a rule; however, if carried out several times (more than 3x) stress cracks can occur at the riveted eyelets of the rack, which can adversely affect the stability of the rack.

Delivery incl. paper marking strips.

Number of petri dishes	Colour	Art. No.	Pack Qty.	€
4 x 13	colourless	**HPT9.1**	1 unit(s)	81,60

A 121 °C

Petri dish stands ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For Petri disks with Ø 90–94 mm. Robust, stable design with rounded edges. Clips on the end rods of the stand enable a card to be attached to identify the stand.

Number of petri dishes	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
3 x 10	294 x 100 x 172	natural	**K120.1**	1 unit(s)	56,50
3 x 10	294 x 100 x 172	red	**K121.1**	1 unit(s)	63,95
3 x 10	294 x 100 x 172	blue	**K122.1**	1 unit(s)	63,95

Petri dishes and accessories

A 121 °C

Petri dish stands for Ø 60 mm

ROTH SELECTION. Material: PP, base made of steel, powder-coated. Autoclavable: Yes.

With carry handle. For Petri dishes with Ø max. 60 mm.

Number of petri dishes	L x W x H (mm)	Art. No.	Pack Qty.	€
6 x 9	267 x 171 x 171	**CXP2.1**	1 unit(s)	107,40

Petri dish stands ROTILABO®

ROTH SELECTION.

For Petri dishes with Ø 100 mm. stand height 230 mm, total height 250 mm.

Plastic-coated

Material: Steel PE-coated.

Ø ext. (mm)	Art. No.	Pack Qty.	€
120	**L057.1**	1 unit(s)	24,40

Stainless steel

Material: Stainless steel electrolytically polished. Autoclavable: Yes.

Ø ext. (mm)	Art. No.	Pack Qty.	€
120	**L058.1**	1 unit(s)	33,15

A 121 °C

Petri dish stands for Ø 60 mm

ROTH SELECTION. Material: Steel, powder-coated. Autoclavable: Yes.

For Petri dishes with Ø max. 72 mm.

Number of petri dishes	L x W x H (mm)	Art. No.	Pack Qty.	€
1 x 10	82 x 82 x 140	**CXP3.1**	1 unit(s)	42,50
3 x 10	82 x 246 x 140	**CXP4.1**	1 unit(s)	95,15

Adhesive tape for closing petri dishes

ROTH SELECTION.

Elastic, self-adhesive. Also for microtiter plates, bottles and cans as an alternative to shrink tubes. Prevents water loss, gas exchange and contamination. Waterproof and resistant to most solvents. Flexible even at low temperatures (-30 °C).
Resistant from -40 to +77 °C (short-term up to +100 °C).

Colour	Width (mm)	Length (m)	Thickn. (mm)	ØCore (mm)	Art. No.	Pack Qty.	€
red	13	33	0,13	77	**K429.1**	1 unit(s)	55,60
blue	13	33	0,13	77	**K431.1**	1 unit(s)	55,60
white	13	33	0,13	77	**K428.1**	1 unit(s)	55,60
yellow	13	33	0,13	77	**K430.1**	1 unit(s)	55,60
colour-less	13	33	0,13	77	**K427.1**	1 unit(s)	55,60

Petri dishes and accessories

❄❄

S

Adhesive tape for closing petri dishes gas permeable

ROTH SELECTION. Material: PU (based on polyurethane).

Elastic, self-adhesive. Particularly suitable for the cultivation of aerobic bacteria, yeast cultures or plant seedlings.

- Safe sealing of Petri dishes
- Prevents contamination
- Ensures even exchange of oxygen and CO_2
- Temperature stability: -80 to +100 °C

Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
15.88	282.58	**AEA2.1**	100 unit(s)	106,25

A 121 °C

Petri dishes ROTILABO®

ROTH SELECTION. Material: Soda-lime glass. Autoclavable: Yes.

Ø x H (mm)	Art. No.	Pack Qty.	€
60 x 15	**KHY7.1**	18 unit(s)	24,20
80 x 15	**KHY8.1**	18 unit(s)	25,70
100 x 20	**0690.1**	18 unit(s)	37,45
100 x 15	**KHY9.1**	18 unit(s)	37,65
120 x 20	**KKA0.1**	18 unit(s)	42,50
150 x 25	**KKA1.1**	18 unit(s)	59,05

Petri dishes

ROTH SELECTION. Material: PS. **Sterile**.

- Flat surfaces for reproducible agar filling levels
- Temperature stable up to 55 °C
- Versatile: has a wide range of uses in microbiology and bacteriology
- Gamma-sterilised

Technical specifications:

Art. No.	N224.2	N223.2	TA19.1	N221.2	NP90.1
Ø Outer upper	58 mm		92 mm		
Ø Outer lower	55 mm		88 mm		

With vents

Slightly raised lid, for optimum gas exchange.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
55 x 15	**Sterile**	108 x 15	**N223.2**	1,620 unit(s)	207,50
90 x 14	**Sterile**	25 x 33	**N221.2**	825 unit(s)	130,05

With vents, high shape

Slightly raised lid, for optimum gas exchange. High version, ideal for the germination of plant seeds.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
90 x 25	**Sterile**	50 x 10	**NP90.1**	500 unit(s)	280,60

Without vents

Flush-fit lid for long incubation periods at 37 °C.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
55 x 15	**Sterile**	108 x 15	**N224.2**	1,620 unit(s)	209,65
90 x 14	**Sterile**	25 x 33	**TA19.1**	825 unit(s)	149,10

Petri dishes and accessories

Petri dishes Steriplan®

DWK Life Sciences. Material: Soda-lime glass. Autoclavable: Yes.

A 121 °C

DURAN WHEATON KIMBLE

Technical specifications:

Art. No.	T946.1	T947.1	T937.1	T938.1	T939.1	PY88.1	T940.1	T941.1	T942.1	T943.1	T944.1	T945.1
Ø Outer lower	191.5 mm		34 mm	55 mm	75 mm	84 mm	95 mm			115 mm	141 mm	171 mm
Height without closure	30 mm	45 mm	12 mm	15 mm			10 mm	15 mm	20 mm		25 mm	30 mm

Ø x H (mm)	Art. No.	Pack Qty.	€
40 x 12	**T937.1**	10 unit(s)	14,15
60 x 15	**T938.1**	10 unit(s)	14,10
80 x 15	**T939.1**	10 unit(s)	14,85
90 x 15	**PY88.1**	10 unit(s)	14,75
100 x 10	**T940.1**	10 unit(s)	16,10
100 x 15	**T941.1**	10 unit(s)	16,10
100 x 20	**T942.1**	10 unit(s)	16,10
120 x 20	**T943.1**	10 unit(s)	24,95
150 x 25	**T944.1**	10 unit(s)	39,20
180 x 30	**T945.1**	10 unit(s)	81,30
200 x 30	**T946.1**	10 unit(s)	107,25
200 x 45	**T947.1**	10 unit(s)	120,75

Petri dishes DUROPLAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

DIN EN ISO 13132 certified. Microscopically level, free of blisters and streaks due to a special manufacturing process. Enable a uniform culture distributions and an undistorted view.

A 121 °C

DURAN WHEATON KIMBLE

Technical specifications:

Art. No.	K608.1	K609.1	K610.1	K611.1	K612.1	K613.1
Ø Outer lower	54.5 mm	74 mm	94 mm		114 mm	142 mm

Ø x H (mm)	Total height (mm)	Art. No.	Pack Qty.	€
60 x 20	22	**K608.1**	10 unit(s)	117,35
80 x 20	22	**K609.1**	10 unit(s)	121,35
100 x 15	17	**K610.1**	10 unit(s)	128,15
100 x 20	22	**K611.1**	10 unit(s)	126,60
120 x 20	22	**K612.1**	10 unit(s)	135,30
150 x 30	32	**K613.1**	10 unit(s)	214,00

Petri dishes and accessories

Petri dishes

Greiner Bio-One. Material: PS.

- Flat stacking surfaces ensure high dimensional stability
- Versatile: has a wide range of uses in microbiology and bacteriology
- Ideal for microscopy

With vents

Slightly raised lid, for optimum gas exchange.

Technical specifications:

Art. No.	EL49.1	XH90.1	EL46.1	XH88.1	EL47.1	XH89.1	ALA5.1	EL48.1
Ø Outer upper	143.5 mm		39 mm		59 mm		93 mm	
Ø Outer lower	138.8 mm		35 mm		55.8 mm	54.4 mm	87 mm	89 mm
Height with lid	21.4 mm		13.4 mm		15.4 mm		17 mm	
Height without closure	19.5 mm		12 mm		13.8 mm		15.5 mm	

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
35 x 10	Non-sterile	74 x 10	**EL46.1**	740 unit(s)	163,40
35 x 10	**Sterile**	74 x 10	**XH88.1**	740 unit(s)	198,90
60 x 15	Non-sterile	30 x 20	**EL47.1**	600 unit(s)	85,95
60 x 15	**Sterile**	30 x 20	**XH89.1**	600 unit(s)	151,70
90 x 16	**Sterile**	24 x 20	**ALA5.1**	480 unit(s)	81,20
90 x 16	Non-sterile	24 x 20	**EL48.1**	480 unit(s)	61,90
145 x 20	Non-sterile	8 x 15	**EL49.1**	120 unit(s)	64,30
145 x 20	**Sterile**	8 x 15	**XH90.1**	120 unit(s)	100,20

Without vents

Flush-fit lid for long incubation periods at 37 °C.

Technical specifications:

Art. No.	EL45.1	EN16.1
Ø Outer upper	93 mm	
Ø Outer lower	89.3 mm	
Height with lid	16.5 mm	
Height without closure	15.5 mm	

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
90 x 16	Non-sterile	24 x 20	**EL45.1**	480 unit(s)	59,35
90 x 16	**Sterile**	24 x 20	**EN16.1**	480 unit(s)	96,25

Petri dishes and accessories

Petri dishes heavy duty version

Greiner Bio-One. Material: PS.

Optimised for use in automatic systems and higher temperature stability when working with hot agar.

- Flat stacking surfaces ensure high dimensional stability
- Versatile: has a wide range of uses in microbiology and bacteriology
- Ideal for microscopy
- Optional ally available as sterile (Gamma-sterilised)

Technical specifications:

Art. No.	PX82.1	PX84.1	PX81.1	PX83.1
Ø Outer upper	93 mm			
Ø Outer lower	89 mm			
Height with lid	16.7 mm		17 mm	
Height without closure	14.2 mm		15.5 mm	

With vents
Slightly raised lid, for optimum gas exchange.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
90 x 16	**Sterile**	24 x 20	**PX81.1**	480 unit(s)	119,80
90 x 16	Non-sterile	24 x 20	**PX83.1**	480 unit(s)	66,50

Without vents
Flush-fit lid for long incubation periods at 37 °C.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
90 x 16	**Sterile**	24 x 20	**PX82.1**	480 unit(s)	134,15
90 x 16	Non-sterile	24 x 20	**PX84.1**	480 unit(s)	73,75

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Petri dishes and accessories

Petri dishes with vents

Sarstedt. Material: PS. Non-sterile.

Coloured Petri dishes for various coding possibilities and to provide a better contrast. The vents enable improved gas exchange.

Technical specifications:

Art. No.	1A0P.1	1A0T.1	1A0X.1	1A0Y.1
Ø Outer upper	92 mm			
Ø Outer lower	88.3 mm			
Height with lid	16.4 mm			
Height without closure	14.9 mm			

Vol. (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
80	red	Non-sterile	24 x 20	**1A0P.1**	480 unit(s)	56,95
80	yellow	Non-sterile	24 x 20	**1A0T.1**	480 unit(s)	56,95
80	blue	Non-sterile	24 x 20	**1A0X.1**	480 unit(s)	56,95
80	green	Non-sterile	24 x 20	**1A0Y.1**	480 unit(s)	56,95

S

Petri dishes

ROTH SELECTION. Material: PS. **Sterile**.

Stackable, tight-sealing and therefore suitable for long incubation times without drying out. Lid with matt white labelling space and projecting edge for single-handed opening.

Technical specifications:

Art. No.	AEN0.1	AEN1.1
Ø Outer upper	52 mm	
Ø Outer lower	55 mm	
Ø Inner lower	50 mm	

For 47 mm filters
For use with filter paper Ø 47 mm.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
50 x 9	**Sterile**	25 x 20	**AEN0.1**	500 unit(s)	134,40

With absorptive paper
With absorptive paper inserted, e.g. for growing plant seedlings.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
50 x 9	**Sterile**	25 x 20	**AEN1.1**	500 unit(s)	127,95

Petri dishes square

Greiner Bio-One. Material: PS.

With vents (slightly raised lid, for optimum gas exchange).

- Versatile: has a wide range of uses in microbiology and bacteriology
- Easy to stack
- Optionally available as sterile

Technical specifications:

Art. No.	EL50.1	PX67.1
Height with lid	16.5 mm	
Height without closure	14.6 mm	

L x W x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
120 x 120 x 17	Non-sterile	24 x 10	**EL50.1**	240 unit(s)	175,25
120 x 120 x 17	**Sterile**	24 x 10	**PX67.1**	240 unit(s)	182,75

S

Petri dishes square with grid

ROTH SELECTION. Material: PS. **Sterile**.

Volume 110 ml. Ideal for phage typing or colony counting, for example. With 13 mm grid on bottom, alphanumeric coding. With vents to prevent condensation.

L x W x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
100 x 100 x 15	**Sterile**	50 x 10	**AEL9.1**	500 unit(s)	256,95

Petri dishes and accessories

S

Contact dishes

Greiner Bio-One. Material: PS. **Sterile**.

To detect contamination and/or check the effectiveness of cleaning and disinfection on flat surfaces using contact cultures.

- Optimised dish design produces a meniscus on the surface of the agar when the contact dish is filled
- Graduated and divided into 10 mm squares to allow quick and easy analysis

Technical specifications:

Art. No.	PX86.1	PX85.1
Ø Outer upper	62.5 mm	
Ø Outer lower	66.3 mm	
Height with lid	15 mm	12.5 mm
Height without closure	8.7 mm	
Inner height	4.8 mm	

With vents

For an enhanced gas exchange.

Vol. (ml)	Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
12.5	65 x 12.5	**Sterile**	30 x 20	**PX85.1**	600 unit(s)	199,95

Without vents

Vol. (ml)	Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
13.5	65 x 15	**Sterile**	30 x 20	**PX86.1**	600 unit(s)	170,95

Petri dishes divided 2 chambers

Greiner Bio-One. Material: PS.

- Versatile: has a wide range of uses in microbiology and bacteriology
- Easy to stack
- With vents
- Volume per chamber: 25 ml

Technical specifications:

Art. No.	EP50.1	HLY9.1
Ø Outer upper	93 mm	
Ø Outer lower	89.3 mm	
Height with lid	15.8 mm	
Height without closure	14.35 mm	

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
90 x 15	Non-sterile	24 x 20	**EP50.1**	480 unit(s)	97,95
90 x 15	**Sterile**	24 x 20	**HLY9.1**	480 unit(s)	147,75

A 121 °C

DURAN WHEATON KIMBLE

Petri dishes graduated

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Compliant with DIN 12339.

2 chambers

Ø x H (mm)	Art. No.	Pack Qty.	€
100 x 20	**T948.1**	10 unit(s)	100,55

3 chambers

Ø x H (mm)	Art. No.	Pack Qty.	€
100 x 20	**T949.1**	10 unit(s)	100,55

4 chambers

Ø x H (mm)	Art. No.	Pack Qty.	€
100 x 20	**T950.1**	10 unit(s)	100,55

A 121 °C

Petri dishes ROTILABO® stainless steel

Bochem. Material: Stainless steel, 18/10. Autoclavable: Yes.

Ø x H (mm)	Art. No.	Pack Qty.	€
60 x 20	**YT00.1**	1 unit(s)	20,75
75 x 20	**YT01.1**	1 unit(s)	20,75
90 x 20	**YT02.1**	1 unit(s)	19,15
100 x 15	**YT03.1**	1 unit(s)	39,25
120 x 20	**YT04.1**	1 unit(s)	28,70

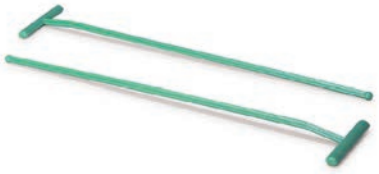
S

Bacterial cell spreaders Delta™

ROTH SELECTION. Material: ABS. **Sterile**.

With smooth surface, prevents scratching for agrar surfaces. Delta-shaped head distributes the contact pressure evenly for a smooth application. Individually packed.

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
172	37	4	**PC59.1**	500 unit(s)	100,05



S

Bacterial cell spreaders

ROTH SELECTION. Material: PS. **Sterile**.

For easy spreading of cells on agar plates.

Total length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
171	36	individual	**AY19.1**	100 unit(s)	93,00

A 121 °C

Bacterial cell spreaders L-shaped 90°

Hammacher. Material: Stainless steel Wironit (1.4301). Autoclavable: Yes.

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
195	40	4	**KAP9.1**	1 unit(s)	7,75

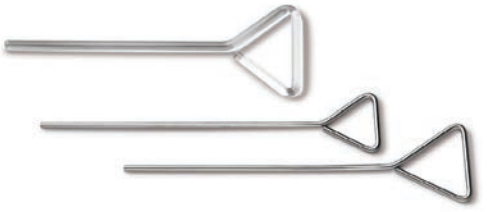
S

Bacterial cell spreaders L-shaped

ROTH SELECTION. Material: ABS. **Sterile**.

With smooth surface, prevents scratching for agrar surfaces.

Total length (mm)	Width (mm)	Ø (mm)	Pack.	Art. No.	Pack Qty.	€
146	38	4	individually	**PC57.1**	500 unit(s)	84,45
146	38	4	50 x 10	**PC58.1**	500 unit(s)	79,05



A 121 °C

Bacterial cell spreaders Drigalski

ROTH SELECTION. Autoclavable: Yes.

For uniform distribution of bacterial material on a solid culture. Also usable as stirrer.

Stainless steel

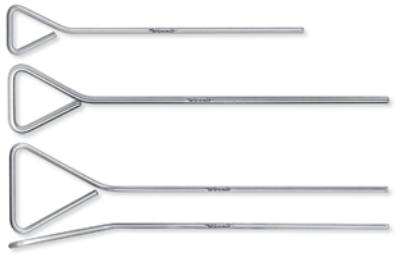
Material: Stainless steel 18/10 (Remanit 4301).

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
165	40	3	**AL98.1**	1 unit(s)	4,85
165	30	3	**K732.1**	1 unit(s)	4,25
195	40	4	**1C5H.1**	5 unit(s)	28,55

Glass

Material: Soda-lime glass.

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
145	50	5	**T724.2**	10 unit(s)	33,90



A 121 °C

Bacterial cell spreaders Drigalski

Hammacher. Material: Stainless steel Wironit (1.4301).
Autoclavable: Yes.

Straight

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	25	3	**KAP0.1**	1 unit(s)	9,95
195	36	4	**KAP1.1**	1 unit(s)	10,65

Angled

Hünebeck, angled 10°.

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
195	45	3	**KAP2.1**	1 unit(s)	10,65

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Petri dish revolving table

schuett biotec.

For uniform plating of liquids on agar surfaces in Petri dishes.

Technical specifications:

Art. No.	N962.1	HT52.1
Ø x H	160 x 45 mm	160 x 70 mm
Weight	2,3 kg	1,0 kg
Mains connection		12 V

Petriturn-M

- Manual operation
- The high mass of the revolving table produces high vibrations and ensures a long operating time
- Usable on both sides
- For Petri dishes up to Ø 100 mm, or up to Ø 150 mm when turned

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Petriturn-M	**N962.1**	1 unit(s)	220,40

Petriturn-E

- Electric drive
- Operation of the revolving table contactlessly using a sensor with automatic shutdown (3 seconds to 2 minutes)
- Operation using a footswitch is possible (please order separately)
- Continuous operation is possible
- for Petri dishes up to Ø 100 mm
  (with attachment up to Ø 150 mm, please order separately)
- Speed regulation from 10 to 100 rpm,continuous

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Petriturn-E	**HT52.1**	1 unit(s)	485,90

Accessories for Petriturn-E

schuett biotec.

Footswitch

Pic.	Designation	Art. No.	Pack Qty.	€
(3)	Footswitch for Petriturn-E	**HT53.1**	1 unit(s)	89,30

Revolving table attachment

Pic.	Designation	Art. No.	Pack Qty.	€
(4)	Revolving table attachment for Petri dishes Ø 150 mm for Petriturn-E	**HT54.1**	1 unit(s)	79,45

Colony counter SC6 PLUS

Stuart.

For fast and exact counting of bacterial colonies in Petri dishes.

- Counting is initiated by pressing down on the Petri dish with any pen
- Pressure sensitivity is individually adjustable
- Confirmation of count by audible signal (optional)
- With average counter, max. 99 Petri dishes can be analysed
- Three-digit LED display (0–999)
- Anti-glare LED lighting
- Optional light or dark background (dark background aids counting translucent colonies)
- Can be connected to a PC
- Antimicrobial BioCote® surface coating

Technical specifications:

Art. No.	EN38.1
Operating temperature	+5 to +40 °C
L x W x H	300 x 310 x 140 mm
Weight	1,5 kg
Mains connection	230 V, 50 Hz

Delivery incl. 2 Wolffhügel grids and 2 reducer rings (centring aids) for Petri dishes with Ø 50–90 mm, USB cable (1 m long).
Please order magnifying glasses for counting microscopic colonies separately.

Type	Art. No.	Pack Qty.	€
SC6 PLUS	**EN38.1**	1 unit(s)	914,00

Accessories for SC6 PLUS

Stuart.

1.7x magnifying glass
With flexible swan neck stand

Designation	Art. No.	Pack Qty.	€
Magnifying glass, 1.7x magnification (with flexible swan neck stand)	**EN39.1**	1 unit(s)	112,20

3x magnifying glass
With fixed stand arm.

Designation	Art. No.	Pack Qty.	€
Magnifying glass, 3x magnification (with fixed stand arm)	**EN40.1**	1 unit(s)	135,40

Protective panel

Designation	Art. No.	Pack Qty.	€
Transparent protective panel	**EN43.1**	5 unit(s)	76,70

Colony counter

ROTH SELECTION.

Battery-powered device for counting and marking colonies.

- Acoustic or visual signal for registering the counting process
- Count-up and count-down
- Lock button to deactivate the counting function
- Counts up to 32 trays
- With totalling function

Delivery incl. pen, stand and battery (3 V, type: CR 1220).

Type	Art. No.	Pack Qty.	€
eCount	**KN08.1**	1 unit(s)	340,80

Electroporation cuvettes

ROTH SELECTION. Material: PC, Aluminium electrodes.

For transforming DNA and siRNA into various cell types. Compatible with most electroporation systems (e.g. Bio-Rad®, BTX®, Invitrogen®, Eppendorf and Kodak®/IBI®).

- Manufactured under clean-room conditions
- Available in three gap widths: 1, 2 and 4 mm
- Colour-coded lid according to gap width

100 µl
Application: Highly efficient transformation (*E. coli*)

Gap width (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
1	orange	individual	**PP38.1**	50 unit(s)	180,60

450 µl
Application: Bacteria, yeast, fungi, plants

Gap width (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
2	green	individual	**PP39.1**	50 unit(s)	180,60

850 µl
Application: Animal cell lines (insect, mammalian and human cells)

Gap width (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
4	black	individual	**PP40.1**	10 unit(s)	44,65

Tissue culture, microbiological accessories

S

Clone cylinder

ROTH SELECTION. Material: PS. **Sterile**.

For isolating clones or for singling out cells or cell groups. Conical cylinder flared at lower edge for good contact with dish surface.

Directions for use

To isolate a clone, the base of the cylinder is coated with a thin grease film (e.g. sterile silicone oil) in order to ensure better sealing. The silicone side cylinder is placed over the selected clone. After adding a small quantity of Trypsin/EDTA and a short incubation period at 37 °C, the cells separate and can be transferred to other vessels.

Technical specifications:

Art. No.	YA78.1	YA79.1	YA80.1
Ø Inner upper	4.7 mm	6.4 mm	9.5 mm
Ø Outer lower	7 mm	8.5 mm	12 mm

Not a medical device / Not an IVD product

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
7 x 8	**Sterile**	5 x 10	**YA78.1**	50 unit(s)	98,90
8.5 x 9.5	**Sterile**	5 x 10	**YA79.1**	50 unit(s)	103,75
12 x 13	**Sterile**	5 x 10	**YA80.1**	50 unit(s)	131,15

Toothpicks

ROTH SELECTION. Material: Wood (polished).

Pointed at both ends, tip Ø 0.8 mm.

Material: polished.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
2.2	80	**EC48.1**	1,000 unit(s)	4,85
2.2	65	**ETT2.1**	1,000 unit(s)	4,60

Cotton buds ROTILABO®

Boettger.

For use as a medicinal product in hygiene, cleaning or laboratory applications.

Medical device class I MDD

Wood

Material: Wood Cotton tip. For taking samples, including in the laboratory.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	2.2	150	**EH11.1**	100 unit(s)	4,30

Wood large head

Material: Wood Cotton tip. For the care and cleaning of wounds and skin.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
12	3.0	200	**XL54.1**	50 unit(s)	10,15

Wood sterile

Material: Wood Cotton tip. For taking samples, including in the laboratory. ETO gas sterilised, individually packed.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	2.2	150	**EH12.1**	100 unit(s)	14,05

Aluminium sterile

Material: Aluminium cotton tip. For taking samples for urogenital testing. ETO gas sterilised, individually packed.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
2	1.0	150	**XL55.1**	100 unit(s)	28,95

Plastic sterile

Material: PP Cotton tip. ETO gas sterilised, individually packed.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	2.5	150	**XL56.1**	100 unit(s)	16,45

Plastic sterile, large head

Material: PP Cotton tip. For the care and cleaning of wounds and skin. ETO gas sterilised, individually packed.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
12	4.7	150	**XL57.1**	100 unit(s)	25,25

Inoculating loops, applicators

S

Applicator sterile

Boettger. Material: Wood applicator with cotton tip, mounted in PP tube, HDPE closure. **Sterile**.

Not a medical device / Not an IVD product

Vol. (ml)	Ø (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
13	16	100	10 x 100	**XC10.2**	1,000 unit(s)	265,55

S

Applicator sterile

Sarstedt. Material: PS applicator with viscose head, tubes made of PP. **Sterile**.

Forensic swabs in transport tube with aeration membrane.

- Self-drying in the tube
- With label and tamper-evident cap
- Batch number and MHD on each individual applicator
- Free of DNA, ETO-sterilised

Not a medical device / Not an IVD product

L

- Extended handle
- Applicator rod length: 85 mm
- Handle length: 70 mm
- Length without closure: 105 mm

Ø Head (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
4.6	175	50 x 1	**1A11.1**	50 unit(s)	90,20

XL

- Applicator rod length: 125 mm
- Handle length: 25 mm
- Length without closure: 150 mm

Ø Head (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
4.6	175	50 x 1	**1A10.1**	50 unit(s)	90,20

S

Inoculation loop sterile

Kartell. Material: PS. **Sterile**.

With flat, grooved handle for safe handling. Inoculation loop volume 1 µl or 10 µl, each with inoculation needle at the other end.

In vitro diagnostic medical device according to IVDD

Version	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.	€
1 µl	colourless	195	25 x 20	**CPX4.1**	500 unit(s)	47,15
10 µl	blue	195	25 x 20	**CPX5.1**	500 unit(s)	47,15

S

Inoculation loop sterile

ROTH SELECTION. Material: PS. **Sterile**.

The inoculation loops are smooth and flexible, enabling inoculation in clear streaks. Needles allow colony picking and stab inoculation in all types of culture media.

Not a medical device / Not an IVD product

Version	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.	€
1 µl	blue	227	40 x 25	**EA89.1**	1,000 unit(s)	87,00
10 µl	yellow	227	40 x 25	**EA91.1**	1,000 unit(s)	87,00
Needle	white	227	40 x 25	**EA93.1**	1,000 unit(s)	88,05
1 µl	blue	227	100 x 10	**EA88.1**	1,000 unit(s)	102,15
10 µl	yellow	227	100 x 10	**EA90.1**	1,000 unit(s)	102,15
Needle	white	227	100 x 10	**EA92.1**	1,000 unit(s)	107,00
1 µl	blue	227	individual	**AEL0.1**	250 unit(s)	121,50
10 µl	yellow	227	individual	**AEL1.1**	250 unit(s)	121,50
Needle	white	227	individual	**AEL2.1**	250 unit(s)	123,65

Inoculating loops, applicators

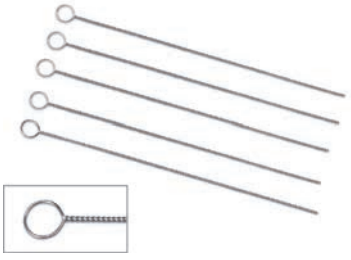
A 121 °C

Inoculation loop

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Not a medical device / Not an IVD product

Ø Internal (mm)	Ø ext. (mm)	Length (mm)	Art. No.	Pack Qty.	€
4	6.4	180	**1N3Y.1**	1 unit(s)	25,45



Inoculation loop

ROTH SELECTION. Material: Chrome-nickel steel (Wire) wound.

Fast cooling, uniform shape and high flexibility to conserve the agar plate. Wire Ø 0.6 mm.

Please order inoculation loop holder separately.

Not a medical device / Not an IVD product

Ø Internal (mm)	Length (mm)	Art. No.	Pack Qty.	€
2.45	75	**EKN2.1**	25 unit(s)	123,20
3.41	75	**EKN3.1**	25 unit(s)	123,20
5.45	75	**EKN4.1**	25 unit(s)	123,20

Calibrated

Delivery incl. ASM/APHA calibration certificate (test method in acc. with Evans Blue Dye test protocol).

Vol. (µl)	Ø Internal (mm)	Length (mm)	Art. No.	Pack Qty.	€
1	1.45	75	**EKN6.1**	5 unit(s)	358,00
10	4.00	75	**EKN5.1**	5 unit(s)	358,00

Inoculation loop holder ROTILABO®

ROTH SELECTION. Material: Aluminium, plastic handle.

Acc. to Kolle.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
240	**6189.1**	1 unit(s)	9,60

A 121 °C

Inoculation loop

ROTH SELECTION. Material: Metal (NiCr 80/20) resistance wire. Autoclavable: Yes.

Wire-Ø 0.6 mm. Temperature resistant up to 1200 °C.

Please order inoculation loop holder separately.

Not a medical device / Not an IVD product

Version	Length (cm)	Art. No.	Pack Qty.	€
Loop-Ø 1.5 mm	50	**6163.1**	10 unit(s)	10,25
Loop-Ø 1.5 mm	70	**ENX6.1**	10 unit(s)	11,80
Loop-Ø 2.5 mm	50	**6173.1**	10 unit(s)	10,65
Loop-Ø 2.5 mm	70	**ENX7.1**	10 unit(s)	11,80
Loop-Ø 4.0 mm	50	**6174.1**	10 unit(s)	11,75
Loop-Ø 4.0 mm	70	**ENX8.1**	10 unit(s)	11,80
Lancet	50	**6181.1**	10 unit(s)	9,90
Needle	50	**6183.1**	10 unit(s)	8,10

A 121 °C

Inoculation loop holder Aluminium

Hammacher. Material: Stainless steel Wironit, aluminium handle. Autoclavable: Yes.

Needle holder for inoculation loop and dissecting needles up to max. Ø 1.0 mm.

Not a medical device / Not an IVD product

Ø Head (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	170	**HCN8.1**	1 unit(s)	18,90

Inoculation loop holder with removable handle

Hammacher. Material: Stainless steel Wironit, plastic handle.

Needle holder for inoculation loop and dissecting needles up to max. Ø 1.0 mm, with removable handle. Upper part autoclavable.

Not a medical device / Not an IVD product

Ø Head (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	240	**HCN9.1**	1 unit(s)	23,90

Inoculating loops, applicators

A 121 °C

Inoculation loop holder Set

WLD-TEC. Material: Stainless steel. Autoclavable: Yes.

- For inoculation loops with wire Ø 0.6–1.0 mm
- Loops are fixed with union nut
- Set, assorted colours: Blue, yellow, red, black

Please order inoculation loops separately.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
245	**KL97.1**	4 unit(s)	60,95

A 121 °C

Inoculation loop

WLD-TEC. Autoclavable: Yes.

Wire Ø 0.6 mm.

Please order inoculation loop holder separately.

Not a medical device / Not an IVD product

Special stainless steel
Material: Stainless steel X15CrNiSi25-20.

Version	Length (mm)	Art. No.	Pack Qty.	€
Loops-Ø inside 3 mm	50	**KL99.1**	10 unit(s)	31,65
Loops-Ø inside 5 mm	50	**KN00.1**	10 unit(s)	31,65

Platinum/iridium
Material: Platinum, Iridium.

Version	Length (mm)	Art. No.	Pack Qty.	€
Loops-Ø inside 1 mm	50	**KN01.1**	1 unit(s)	105,35
Loops-Ø inside 3 mm	50	**KN02.1**	1 unit(s)	105,35
Loops-Ø inside 5 mm	50	**KN03.1**	1 unit(s)	105,35

A 121 °C

Instrument holder

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.

Holder for Drigalski spatula, brushes, inoculation loop holder and other instruments.

Not a medical device / Not an IVD product

Ø Hole (mm)	Art. No.	Pack Qty.	€
9.5	**EXE0.1**	1 unit(s)	82,75

A 121 °C

Micro pestle

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for all standard laboratory stirrers
- Reusable
- Dimensions: Barrel-Ø 4.9 mm;
  cone reduces from 6 to 2.5 mm, cone length 10 mm

When using the quick-change chuck:
It is possible to change the pestle when the motor is running. Hold on to the reaction vial with one hand while changing the pestle with your other hand.

Delivery without quick-change chuck.

Total length (mm)	Art. No.	Pack Qty.	€
70	**P987.1**	10 unit(s)	32,05

Accessories Quick-change chuck for micro pestle

ROTH SELECTION. Material: Stainless steel.

It is possible to change the pestle when the motor is running: Hold on to the reaction vial with one hand while changing the pestle with your other hand.

- Suitable for all standard laboratory stirrers
- Quick-change chuck is compatible with all chucks that can clamp widths of 8 mm

Length (mm)	Art. No.	Pack Qty.	€
70	**P986.1**	1 unit(s)	75,15

Homogenisers and pestles

121 °C

Micro pestle

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For homogenising cells and tissue in reaction vials by hand or using laboratory stirrers.

RNase/DNase-free
Pyrogen-free. Individually packed.

Length (mm)	Suitable for	Art. No.	Pack Qty.	€
70	reaction vials 0.5 ml	**CXH8.1**	100 unit(s)	181,70
70	reaction vials 1.5 ml	**CXH9.1**	100 unit(s)	180,60

Standard

Length (mm)	Art. No.	Pack Qty.	€
70	**CXH6.1**	100 unit(s)	133,20
70	**CXH7.1**	100 unit(s)	133,20

121 °C

Homogeniser

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For homogenising cells and tissue.

- Conical form, cone tapers from 8.2 to 2.9 mm
- Rounded at the bottom
- Cone length 18 mm
- Shank Ø 5 mm

Length (mm)	Suitable for	Art. No.	Pack Qty.	€
206	1.5 ml reaction vials	**K994.1**	6 unit(s)	30,00

121 °C

Homogeniser ROTILABO®

ROTH SELECTION. Material: Stainless steel 1.4301. Autoclavable: Yes.

For homogenising cells, tissue, foodstuff samples and much more in reaction vials or reagent test tubes manually or using laboratory stirrers. Made from one piece and polished for a perfect fit, perfect transitions, easy to disinfect. Tapered shank for minimal homogenate displacement.

(1) For 0.5 ml reaction vials

- Handle length: 60 mm
- Shank length: 26.3 mm (tapers from 6 to 3 mm)
- Cone length: 10 mm (tapers from 6 to 2.9 mm)

Total length (mm)	Suitable for	Art. No.	Pack Qty.	€
94	0.5 ml reaction vials	**YE13.1**	1 unit(s)	34,75

(2) For 1.5 ml reaction vials

- Handle length: 69 mm
- Shank length: 40 mm (tapers from 7.9 to 3.5 mm)
- Cone length: 17 mm (tapers from 7.9 to 3.5 mm)

Total length (mm)	Suitable for	Art. No.	Pack Qty.	€
124	1.5 ml reaction vials	**YE14.1**	1 unit(s)	41,20

(4) For 2 ml reaction vials

- Handle length: 67 mm
- Shank length: 40 mm (tapers from 8 to 3.5 mm)
- Cone length: 11.2 mm (tapers from 8.6 to 1.7 mm)

Total length (mm)	Suitable for	Art. No.	Pack Qty.	€
120	2 ml reaction vials	**YE15.1**	1 unit(s)	43,85

(3) For 13 ml round-bottom tubes

- Handle length: 100 mm
- Shank length: 75 mm (tapers from 8 to 4.4 mm)
- Cone: Round head, Ø 10 mm

Total length (mm)	Suitable for	Art. No.	Pack Qty.	€
190	13 ml round-bottom vessels	**YE16.1**	1 unit(s)	45,20

A 121 °C ❄❄❄

Homogeniser ROTILABO® for 15 ml centrifuge tubes

ROTH SELECTION. Material: Stainless steel 1.4301. Autoclavable: Yes.

For the homogenisation of cells, tissue, foodstuffs samples and much more, manually or using laboratory stirrers.

- Made from one piece and polished for a perfect fit
- Transitions are optimally designed for easy disinfection
- Tapered shank for minimal homogenate displacement
- Handle length 100 mm
- Shank Ø 8 mm (tapers to 4.5 mm)
- Cone Ø 12 mm (tapers to 4 mm)
- Weight 60 g

Total length (mm)	Suitable for	Art. No.	Pack Qty.	€
185	15 ml centrifuge tubes	**NH32.1**	1 unit(s)	51,90

Homogeniser

ROTH SELECTION. Material: Borosilicate glass.

Distance between mortar and pestle: 0.15 to 0.25 mm.

Technical specifications:

Art. No.	TT57.1	TT58.1	TT59.1	TT60.1	TT61.1	TT62.1
Mortar length	120 mm	135 mm	150 mm	155 mm	175 mm	195 mm
Ø Internal	8 mm	12 mm	15 mm	16 mm	25 mm	32 mm

Vol. (ml)	Art. No.	Pack Qty.	€
2	**TT57.1**	1 unit(s)	36,55
5	**TT58.1**	1 unit(s)	40,40
10	**TT59.1**	1 unit(s)	42,30
15	**TT60.1**	1 unit(s)	44,00
30	**TT61.1**	1 unit(s)	50,55
50	**TT62.1**	1 unit(s)	62,55

Accessories pestle for homogeniser

ROTH SELECTION. Material: PTFE (Head), Stainless steel rod.

Grooves on the lower edge. Rod Ø 6.5 mm.

Technical specifications:

Art. No.	TT63.1	TT64.1	TT65.1	TT66.1	TT67.1	TT68.1
Pestle length	230 mm	235 mm	270 mm			

Suitable for	Art. No.	Pack Qty.	€
Volume 2 ml	**TT63.1**	1 unit(s)	25,10
Volume 5 ml	**TT64.1**	1 unit(s)	25,50
Volume 10 ml	**TT65.1**	1 unit(s)	27,15
Volume 15 ml	**TT66.1**	1 unit(s)	27,15
Volume 30 ml	**TT67.1**	1 unit(s)	40,05
Volume 50 ml	**TT68.1**	1 unit(s)	50,20

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Homogenisers and pestles

DURAN WHEATON KIMBLE

Micro-homogeniser WHEATON®

DWK Life Sciences. Material: Borosilicate glass WHEATON® 33.

High product yield due to smaller friction area. For single use, prevents cross-contamination, e.g. when handling radioactive samples.

Technical specifications:

Art. No.	HLC0.1
Pestle length	88 mm
Mortar length	44 mm
Ø Internal	8 mm

Delivery incl. pestle.

Vol. (ml)	Art. No.	Pack Qty.	€
0.75	**HLC0.1**	25 unit(s)	274,15

A 121 °C

DURAN WHEATON KIMBLE

Micro-homogeniser WHEATON® Potter-Elvehjem

DWK Life Sciences. Material: Borosilicate glass WHEATON® 33. Autoclavable: Yes.

Micro size for extremely precise work, reservoir and pouring lip to make it easier to pour out the sample.

- Mortar dimensions: L 65 x Ø 4 mm
- Gap between pestle and mortar: 0.1–0.15 mm

Technical specifications:

Art. No.	HLC1.1
Pestle length	110 mm
Mortar length	65 mm
Ø Mortars	4 mm

Delivery incl. pestle.

Vol. (ml)	Art. No.	Pack Qty.	€
0.1	**HLC1.1**	1 unit(s)	95,10

A 121 °C

Micro-homogeniser

ROTH SELECTION. Material: Borosilicate glass. Autoclavable: Yes.

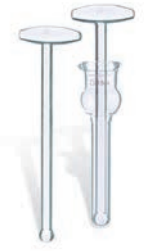
For grinding and homogenising even the smallest quantities, e.g. histology.

Technical specifications:

Art. No.	0296.1	0297.1	0298.1
Mortar length	30 mm	40 mm	50 mm
Ø Internal	4 mm	6 mm	8 mm

Delivery incl. pestle.

Vol. (ml)	Art. No.	Pack Qty.	€
0.025	**0296.1**	1 unit(s)	102,90
0.1	**0297.1**	1 unit(s)	102,90
1	**0298.1**	1 unit(s)	102,90



A 121 °C

Homogenisers Dounce

ROTH SELECTION. Material: Glass. Autoclavable: Yes.

For grinding of cellular material while preserving the cell nucleus.

Delivery incl. two pestles: Pestle A for coarse grinding, pestle B for subsequent fine grinding.

Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
0.5	37	**CXC8.1**	1 unit(s)	165,55
1	88	**CXC9.1**	1 unit(s)	165,55
2	60	**CXE0.1**	1 unit(s)	201,05
7	125	**CXE1.1**	1 unit(s)	194,60
15	157	**CXE2.1**	1 unit(s)	201,05
40	215	**CXE3.1**	1 unit(s)	197,80
100	232	**CXE4.1**	1 unit(s)	475,15

Homogenisers and pestles

Homogeniser Dual

ROTH SELECTION. Material: Glass.

With tapered and cylindrical areas, for effective grinding and consistent homogenisation of tissue. Ideal for cellular tissue such as muscle, heart and lungs. Distance between mortar and pestle: 0.1 to 0.15 mm.

Technical specifications:

Art. No.	CXE5.1	CXE6.1	CXE7.1	CXE8.1	CXE9.1	CXH0.1
Pestle length	155 mm	210 mm	228 mm	268 mm	305 mm	330 mm
Ø Pestle	4.5 mm	6 mm			10 mm	
Mortar length	80 mm	120 mm	150 mm	175 mm	215 mm	225 mm
Ø Mortars	13 mm	16 mm	18 mm	25 mm	32 mm	38 mm

Delivery incl. pestle.

Vol. (ml)	Art. No.	Pack Qty.	€
1	**CXE5.1**	1 unit(s)	164,50
3	**CXE6.1**	1 unit(s)	164,50
5	**CXE7.1**	1 unit(s)	167,70
15	**CXE8.1**	1 unit(s)	191,35
30	**CXE9.1**	1 unit(s)	201,05
50	**CXH0.1**	1 unit(s)	253,70

Homogeniser Potter-Elvehjem

ROTH SELECTION. Material: Glass.

For gentle disruption of soft tissue, e.g. for the extraction of cell organelles. Suitable for motor drive by laboratory stirrers. Distance between mortar and pestle: 0.1 to 0.15 mm.

Technical specifications:

Art. No.	CXH1.1	CXH2.1	CXH3.1	CXH4.1	CXH5.1
Pestle length	145 mm	205 mm	215 mm	265 mm	315 mm
Ø Pestle	5 mm	6 mm	8 mm	10 mm	
Mortar length	95 mm	140 mm	150 mm	175 mm	220 mm
Ø Mortars	13 mm	16 mm	18 mm	25 mm	32 mm

Delivery incl. pestle.

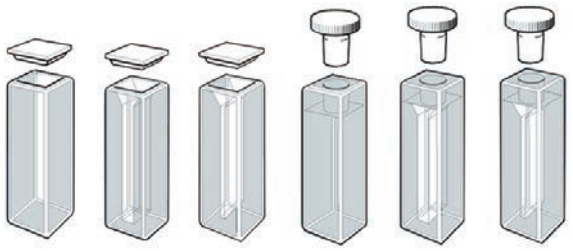
Size	Vol. (ml)	Art. No.	Pack Qty.	€
19	1	**CXH1.1**	1 unit(s)	145,25
21	5	**CXH2.1**	1 unit(s)	116,00
22	8	**CXH3.1**	1 unit(s)	128,25
23	17	**CXH4.1**	1 unit(s)	133,55
24	45	**CXH5.1**	1 unit(s)	142,95

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Cuvettes



Glass cuvette ROTILABO®

ROTH SELECTION.

- Two polished sides
- Spectrally calibrated
- Transmission ≥80 %
- Layer thickness 10 mm, tolerance ±0.01 mm

Optical glass seamed lid

Material: Glass special optical glass, PTFE closure.

- Permeability range: 320–2500 nm
- With seamed lid, loosely attached
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Micro	0.7	2	**X855.1**	1 unit(s)	82,65
Semi-micro	1.4	4	**X853.1**	1 unit(s)	74,15
Macro	3.5	10	**X851.1**	1 unit(s)	48,75

Optical glass plugs

Material: Glass special optical glass, PTFE closure.

- Permeability range: 320–2500 nm
- With plugs, fluid-tight
- Dimensions: L 12.5 x W 12.5 x H 48 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Semi-micro	1.4	4	**Y032.1**	1 unit(s)	127,75
Macro	3.5	10	**Y030.1**	1 unit(s)	92,65

Quartz glass seamed lid

Material: Quartz glass Spectrosil®, PTFE closure.

- UV-permeable
- Permeability range: 170–2700 nm
- With seamed lid, loosely attached
- Dimensions: L 12.5 x W 12.5 x H 45 mm

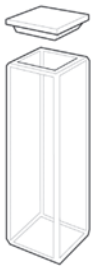
Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Micro	0.7	2	**X856.1**	1 unit(s)	143,00
Semi-micro	1.4	4	**X854.1**	1 unit(s)	133,45
Macro	3.5	10	**X852.1**	1 unit(s)	93,35

Quartz glass plugs

Material: Quartz glass Spectrosil®, PTFE closure.

- UV-permeable
- Permeability range: 170–2700 nm
- With plugs, fluid-tight
- Dimensions: L 12.5 x W 12.5 x H 48 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Micro	0.7	2	**Y035.1**	1 unit(s)	195,65
Semi-micro	1.4	4	**Y033.1**	1 unit(s)	191,35
Macro	3.5	10	**Y031.1**	1 unit(s)	153,30

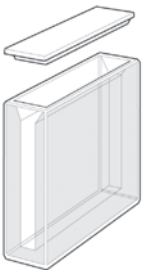


Glass cuvette ROTILABO® fluorescence

ROTH SELECTION. Material: Quartz glass Spectrosil®, PTFE closure.

- With seamed lid, loosely attached
- Four polished sides and polished base
- UV-permeable, for fluorimetry
- Permeability range: 170–2700 nm
- Spectrally calibrated
- Transmission ≥80 %
- Layer thickness 10 mm, tolerance ±0.01 mm
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Type	Volume (ml)	Art. No.	Pack Qty.	€
Macro	3.5	**AHC0.1**	1 unit(s)	187,05

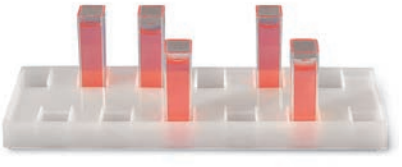


Glass cuvette ROTILABO® L 50 mm

ROTH SELECTION. Material: Glass (special optical glass), PTFE closure.

- Two polished sides
- Permeability range: 320–2500 nm
- Spectrally calibrated
- Transmission ≥80 %
- Layer thickness 50 mm, tolerance ±0.02 mm
- With seamed lid, loosely attached
- Dimensions: L 52.5 x W 12.5 x H 45 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Macro	17.5	9.5	**AHA7.1**	1 unit(s)	129,90



Cuvette stand ROTILABO®

Kartell. Material: PE.

For cuvettes of 10 mm thick. With staggered holder arrangement. Shallow stand for better visibility of the cuvette contents.

No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	170	50	15	**9663.2**	5 unit(s)	26,85

Glass cuvette ROTILABO® black

ROTH SELECTION. Material: Quartz glass Spectrosil®, PTFE closure.

- With self-shielding sides made from black glass
- Two polished sides
- UV-permeable
- Permeability range: 170–2700 nm
- Spectrally calibrated
- Transmission ≥80 %
- Layer thickness 10 mm, tolerance ±0.01 mm
- With seamed lid, loosely attached
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Micro	0.7	2	**AHA6.1**	1 unit(s)	263,40
Semi-micro	1.4	4	**AHA5.1**	1 unit(s)	236,50

Single-use cuvettes fluorescence

Sarstedt.

- With four optical sides
- Cavity-sorted production
- Layer thickness 10 mm
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Polystyrene
Material: PS.

- For measuring from 340 nm

Volume (ml)	Art. No.	Pack Qty.	€
4	**NK49.1**	100 unit(s)	17,15

Single-use cuvettes ROTILABO®

ROTH SELECTION.

- Two optical windows
- Extremely low deviation in absorbance coefficients
- Outstanding optical transmission values
- Cavity-sorted production
- Layer thickness 10 mm
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Polystyrene
Material: PS.

- Application range: 340–900 nm

Pic.	Type	Volume (ml)	Art. No.	Pack Qty.	€
(1)	Semi-micro	1.6	**XK20.1**	1,000 unit(s)	78,80
(2)	Macro	4	**XK21.1**	1,000 unit(s)	78,75

PMMA
Material: PMMA.

- Application range: 300–900 nm

Pic.	Type	Volume (ml)	Art. No.	Pack Qty.	€
(1)	Semi-micro	1.6	**XK23.1**	1,000 unit(s)	96,20
(2)	Macro	4	**XK24.1**	1,000 unit(s)	96,20

UV-permeable
Material: Plastic.

- Application range: 220–900 nm

Pic.	Type	Vol. (ml)	Art. No.	Pack Qty.	€
(1)	Semi-micro	1.6	**XK26.1**	100 unit(s)	31,85
(2)	Macro	4.0	**XK27.1**	100 unit(s)	29,60

Solvent-resistant
Material: Plastic.

- For substances with polar solvents
- Application range: 220–900 nm

Pic.	Type	Vol. (ml)	Art. No.	Pack Qty.	€
(1)	Semi-micro	1.6	**XK28.1**	100 unit(s)	31,85
(2)	Macro	4.0	**XK29.1**	100 unit(s)	29,60

Accessories lid for single-use cuvettes

ROTH SELECTION. Material: LDPE.

Suitable for	Art. No.	Pack Qty.	€
Single-use cuvettes (semi-micro/macro)	**XK25.1**	1,000 unit(s)	35,05

Cuvettes

Single-use cuvettes

BRAND.

- Two optical windows
- Optically flawless transparency
- Recessed windows to protect against scratching
- Arrow mark to indicate direction of transmission
- Standard layer thickness 10 mm
- Dimensions: 12.5 x 12.5 x 45 mm

Sorted by manufacturing mould cavity number to ensure the lowest variation in absorbance coefficients.

Polystyrene
Material: PS.

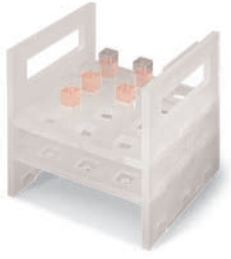
- Permeability range: 340–900 nm
- Standard deviation: ≤ 0.005 absorbance coefficients at 360 nm

Type	Volume (ml)	Art. No.	Pack Qty.	€
Semi-micro	1.5 to 3.0	**Y195.1**	100 unit(s)	13,45
Macro	2.5 to 4.5	**Y194.1**	100 unit(s)	13,05

PMMA
Material: PMMA.

- Permeability range: 300–900 nm
- Standard deviation: ≤ 0.004 absorbance coefficients at 320 nm

Type	Volume (ml)	Art. No.	Pack Qty.	€
Semi-micro	1.5 to 3.0	**Y197.1**	100 unit(s)	16,75
Macro	2.5 to 4.5	**Y196.1**	100 unit(s)	15,55



A 121 °C

Cuvette stand ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For cuvettes of 10 mm thick. The holders' special shape ensures they do not scratch the cuvette surface. Stackable.
Temperature stable up to 130 °C.

No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	115	110	105	**9664.1**	1 unit(s)	51,10

Single-use cuvettes UV

BRAND. Material: Plastic.

Permeability range: 230–900 nm. Specially designed for the photometric determination of proteins, ssDNA, dsDNA, RNA und oligonucleotides in the UV range.

- Single-use cuvettes, no risk of contamination through cleaning
- High chemical resistance
- Two optical windows
- Optically flawless transparency
- Recessed windows to protect against scratching
- Arrow mark to indicate direction of transmission
- Standard layer thickness 10 mm
- Standard deviation:
  240 nm ≤ ± 0.007 absorbance coefficients
  300 nm ≤ ± 0.005 absorbance coefficients
- Dimensions: 12.5 x 12.5 x 45 mm

Sorted by manufacturing mould cavity number to ensure the lowest variation in absorbance coefficients.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Semi-micro	1.5 to 3.0	**Y199.1**	100 unit(s)	38,35
Macro	2.5 to 4.5	**Y198.1**	100 unit(s)	35,95

Micro (z = 8.5 mm)
Micro-cuvettes are ideal for small sample volumes from 70 µl. Centre height 8.5 mm.

Type	Version	Volume (ml)	Art. No.	Pack Qty.	€
Micro	Free of DNase/ DNA/RNase, individually packed	0.07 to 0.85	**CNT6.1**	100 unit(s)	69,75
Micro	Standard	0.07 to 0.85	**Y200.1**	100 unit(s)	26,95

Micro (z = 15 mm)
Micro-cuvettes are ideal for small sample volumes from 70 µl. Centre height 15 mm.

Type	Version	Volume (ml)	Art. No.	Pack Qty.	€
Micro	Free of DNase/ DNA/RNase, individually packed	0.07 to 0.55	**CNT7.1**	100 unit(s)	69,75
Micro	Standard	0.07 to 0.55	**Y201.1**	100 unit(s)	26,95

Single-use cuvettes fluorescence

BRAND.

With four optical windows.

- Ideal for fluorescence spectroscopy
- Optically flawless radiographic area
- Four optical windows for precise measurements
- Matt handle, can be labelled
- Manufactured under controlled room conditions
- Fully automatic packaging
- Layer thickness: 10 mm
- Dimensions: L 12.5 x W 12.5 x H 45 mm, window: W 10 x H 35 mm

Sorted by manufacturing mould cavity number to ensure the lowest possible variation in absorbance coefficients.

Polystyrene
Material: PS.

- Application range: 340–900 nm
- Standard deviation (absorbance coefficients): 360 nm ≤ ±0.005 nm
- Chemical resistance (short-term resistance, 30 min): Ammoniac/hydrofluoric acid, 10 %/isopropanol/sodium hydroxide/hydrochloric acid, 36 %
- Not resistant to: Chloroform/hexane

Type	Volume (ml)	Art. No.	Pack Qty.	€
Macro	2.5 to 4	**EXP1.1**	100 unit(s)	20,00
Macro	2.5 to 4	**EXP2.1**	500 unit(s)	81,45

UV-transparent
Material: Plastic UV-transparent.

- Minimal inherent fluorescence
- Application range: 230–900 nm
- Standard deviation (absorbance coefficients): 320 nm ≤ ±0.007 300 nm ≤ ±0.005 nm
- Chemical resistance (short-term resistance, 30 min): Acetone/ammoniac/benzaldehyde/butanone/dioxane/DMF/DMSO/acetic acid (10 %)/ethyl acetate/hydrofluoric acid (10 %)/isopropanol/sodium hydroxide/nitric acid (65 %)/hydrochloric acid (36 %)
- Not resistant to: Chloroform/hexane

Type	Volume (ml)	Art. No.	Pack Qty.	€
Macro	2.5 to 4	**EXP3.1**	100 unit(s)	48,00
Macro	2.5 to 4	**EXP4.1**	500 unit(s)	212,85

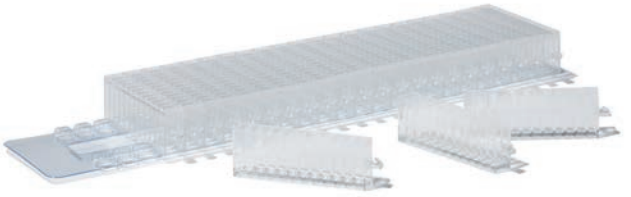
A 121 °C

Cuvette stand

BRAND. Material: PP. Autoclavable: Yes.

For cuvettes of 10 mm thick. Numbered slots.

No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
16	210	70	38	**CNP5.1**	1 unit(s)	15,60



Cuvette rack

ROTH SELECTION. Material: PMMA.

12-slot cuvette rack, suitable for Thermo Scientific analysers: Arena 20, Arena 20XT, Arena 30 and Arena 60.

Applications:

- Foodstuffs (milk, meat, honey)
- Beverages (wine, beer, juice)
- Customer-specific applications

Type	Pack.	Art. No.	Pack Qty.	€
Cuvette rack	40 x 25	**HNX9.1**	1,000 unit(s)	839,60

Counting chambers

Counting chamber C-Chip Neubauer improved

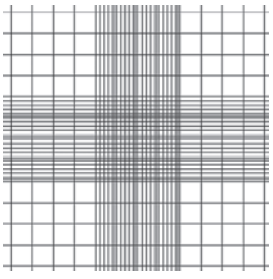
ROTH SELECTION. Material: Plastic.

Precise quantification, high reproducibility. Same chamber configuration as Neubauer improved glass counting chambers. Coverslips are not required.

- Double counting grid
- Chamber capacity 10 µl
- Dimensions: L 75 x W 25 x H 1.6 mm

Not a medical device / Not an IVD product

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
Disposable counting chamber	0.1	**PK36.1**	50 unit(s)	194,60



Counting chamber Neubauer

Marienfeld. Material: Glass.

Double counting grid. Counting grid with nine large squares. The smallest square in the centre is split into 16 group squares and these in turn are split into 16 small squares.

- Large square: 1 mm²
- Group square: 0.04 mm²
- Small square: 0.0025 mm²

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T728.1**	1 unit(s)	48,20

Dark lines, 2 spring clamps
The counting grid appears under the microscope as a grid of dark lines. Spring clips securely fix the coverslip to the counting chamber.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
with 2 spring clamps	0.1	**PC74.1**	1 unit(s)	72,60

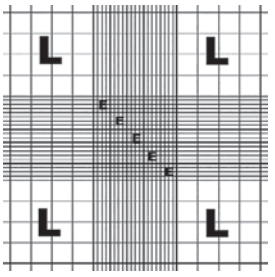
Bright lines
The grid structure is incorporated in a very thin, transparent metal layer. The bright lines contrast well with the darker, metallic background, which simplifies the evaluation of cell suspensions.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T734.1**	1 unit(s)	89,05

Bright lines, 2 spring clamps
The grid structure is incorporated in a very thin, transparent metal layer. The bright lines contrast well with the darker, metallic background, which simplifies the evaluation of cell suspensions.

Spring clips securely fix the coverslip to the counting chamber.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
with 2 spring clamps	0.1	**KHY4.1**	1 unit(s)	99,90



Counting chamber Neubauer improved

Marienfeld. Material: Glass.

For leucocyte, thrombocyte and erythrocyte counting.
Double counting grid. Counting grid with nine large squares. The four corner squares are used for leucocyte counting. The smallest square in the centre is split into 25 group squares and these in turn are split into 16 small squares. Five of the group squares are used for erythrocyte counting.

- Large square: 1 mm²
- Group square: 0.04 mm²
- Small square: 0.0025 mm²

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.01	**PC73.1**	1 unit(s)	155,90
without spring clamps	0.02	**KHY6.1**	1 unit(s)	163,40
without spring clamps	0.1	**T729.1**	1 unit(s)	47,60

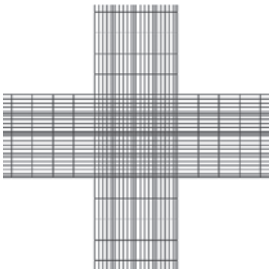
Dark lines, 2 spring clamps
The counting grid appears under the microscope as a grid of dark lines. Spring clips securely fix the coverslip to the counting chamber.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
with 2 spring clamps	0.1	**PC72.1**	1 unit(s)	72,70

Bright lines
The grid structure is incorporated in a very thin, transparent metal layer. The bright lines contrast well with the darker, metallic background, which simplifies the evaluation of cell suspensions.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T735.1**	1 unit(s)	86,75

Counting chambers



Counting chamber Thoma

Marienfeld. Material: Glass.

For thrombocyte and erythrocyte counting.
Double counting grid. Counting grid with five large squares (corner fields not implemented). The large square in the centre is split into 16 group squares and these, in turn, are split into 16 small squares.

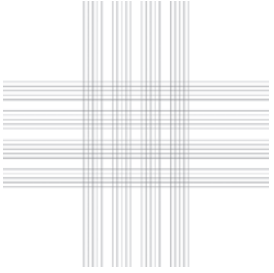
- Small square: 0.0025 mm²

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T732.1**	1 unit(s)	49,75



Counting chamber Thoma new

Marienfeld. Material: Glass.

Double counting grid. Counting grid with five large squares (corner fields not implemented). The large square in the centre is split into 16 group squares and these, in turn, are split into 16 small squares. No lines in the intermediate areas.

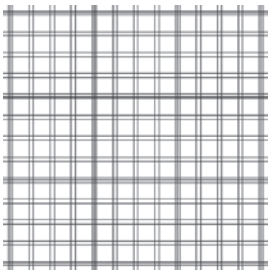
- Small square: 0.0025 mm²

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T733.1**	1 unit(s)	52,70



Counting chamber Bürker

Marienfeld. Material: Glass.

For leucocyte and erythrocyte counting.
Double counting grid. Counting grid with nine large squares for leucocyte counting. Each large square is divided into 16 group squares for erythrocyte counting. The group squares are not subdivided further.

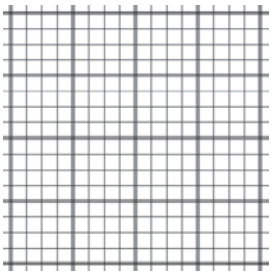
- Large square: 1 mm²
- Group square: 0.04 mm²

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T730.1**	1 unit(s)	50,35



Counting chamber Fuchs-Rosenthal

Marienfeld. Material: Glass.

For counting cells in fluid.
Double counting grid. Total area: 16 mm², counting grid with 16 large squares. The total area is counted.

Delivery incl. two haemocytometer coverslips (24 x 24 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.2	**T731.1**	1 unit(s)	49,40

Counting chambers

Counting chamber Malassez

Marienfeld. Material: Glass.

Double net ruling. **For counting cells in liquor or for counting nematodes.**
The counting grid covers an area of 2 mm x 2.5 mm. The large rectangles measure 0.25 x 0.20 mm = 0.05 mm² and are divided into 20 small squares each measuring 0.05 x 0.05 mm = 0.0025 mm².

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.2	**KHY1.1**	1 unit(s)	37,85

Counting chamber Nageotte

Marienfeld. Material: Glass.

Double net ruling. **For counting cells in liquor or for counting nematodes**. The square base area of 100 mm² is divided into 40 rectangular areas each measuring 0.25 x 10 mm.

Delivery incl. two haemocytometer coverslips (30 x 30, thickness 0.4 mm).

In vitro diagnostic medical device according to IVDD

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.5	**KHY3.1**	1 unit(s)	115,05

Counting chamber McMaster

Marienfeld. Material: Glass.

For counting worm eggs. Suitable for solid media.
With two fields and affixed coverslip with two counting grids measuring 10 x 10 mm (divided into 10 parts). The coverslip is affixed on three supports. Distance between base plate and coverslip: 1.5 mm.
Dimensions: Length 75 mm x Width 32 mm.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
Counting chamber, complete	**KHY2.1**	1 unit(s)	225,75

Haemacytometre coverslips 0.4 mm

Marienfeld. Material: Borosilicate glass.

For use with counting chambers and haemacytometers. Edges ground and polished. Ready for use, individually packed.

In vitro diagnostic medical device according to IVDD

L x W (mm)	Art. No.	Pack Qty.	€
20 x 26	**KHT8.1**	100 unit(s)	133,30
22 x 22	**KHT9.1**	100 unit(s)	134,40
24 x 24	**KHX0.1**	100 unit(s)	141,90
30 x 30	**KHX1.1**	100 unit(s)	284,90

Cover slips

Coverslips thickness 1

Menzel. Material: Borosilicate glass from hydrolytic class I.

- Thickness no. 1 (0.13–0.16 mm)
- Colourless, absorption-free within the visible spectrum
- Optically pure, free from streaks, bubbles, striations
- Excellent chemical resistance
- Without disruptive autofluorescence even when stimulated in the near UV spectrum (e.g. 365 nm)
- Refractive index 1.5230
- Acc. to ISO 8255-1

In vitro diagnostic medical device according to IVDD

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
15 x 15	5 x 200	**KKA2.1**	1,000 unit(s)	18,75
18 x 18	5 x 200	**0657.2**	1,000 unit(s)	20,45
20 x 20	5 x 200	**H873.2**	1,000 unit(s)	22,05
21 x 26	10 x 100	**H876.2**	1,000 unit(s)	30,65
22 x 22	5 x 200	**H874.2**	1,000 unit(s)	23,15
24 x 40	10 x 100	**1870.2**	1,000 unit(s)	47,20
24 x 50	10 x 100	**1871.2**	1,000 unit(s)	52,15
24 x 24	5 x 200	**H875.2**	1,000 unit(s)	28,25
24 x 32	10 x 100	**H877.2**	1,000 unit(s)	39,60
24 x 60	10 x 100	**H878.2**	1,000 unit(s)	60,00

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
12	10 x 100	**P231.1**	1,000 unit(s)	81,70
15	10 x 100	**P232.1**	1,000 unit(s)	61,20
18	10 x 100	**P233.1**	1,000 unit(s)	61,20
20	10 x 100	**P234.1**	1,000 unit(s)	73,10
22	10 x 100	**P235.1**	1,000 unit(s)	73,10

Coverslips thickness 1

Marienfeld. Material: Borosilicate glass from hydrolytic class I.

Applications: Examinations using light and fluorescence microscopy, especially in medicine and biology.

- Thickness 1 (0,13–0,16 mm)
- Absolutely colourless, completely clear, suitable for fluorescence microscopy
- High light transmission
- Refractive index tailored to microscopes
- Low inherent fluorescence
- Low flatness deviation, exact compliance with thicknesses
- Good wettability on both glass surfaces
- Low alkali content encourages cell growth
- Ready-to-use
- Suitable for use in coverslippers
- Meets the requirements of DIN ISO 8255

In vitro diagnostic medical device according to IVDD

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
12 x 12	10 x 100	**KHX2.1**	1,000 unit(s)	20,55
15 x 15	10 x 100	**KHX3.1**	1,000 unit(s)	20,55
16 x 16	10 x 100	**HKE4.1**	1,000 unit(s)	21,40
18 x 18	10 x 100	**HKE5.1**	1,000 unit(s)	19,60
20 x 20	10 x 100	**HKE6.1**	1,000 unit(s)	25,45
22 x 22	10 x 100	**HKE7.1**	1,000 unit(s)	26,55
22 x 40	10 x 100	**HKE9.1**	1,000 unit(s)	49,70
22 x 50	10 x 100	**HKH0.1**	1,000 unit(s)	55,80
24 x 24	10 x 100	**HKE8.1**	1,000 unit(s)	33,35
24 x 32	10 x 100	**HKH1.1**	1,000 unit(s)	42,25
24 x 40	10 x 100	**HKH2.1**	1,000 unit(s)	51,40
24 x 50	10 x 100	**HKH3.1**	1,000 unit(s)	57,00
24 x 60	10 x 100	**HKH4.1**	1,000 unit(s)	65,25

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
10	10 x 100	**KHX4.1**	1,000 unit(s)	61,20
12	10 x 100	**HKH5.1**	1,000 unit(s)	65,70
15	10 x 100	**HKH6.1**	1,000 unit(s)	70,95
16	10 x 100	**KHX5.1**	1,000 unit(s)	73,75
18	10 x 100	**HKH7.1**	1,000 unit(s)	77,40
20	10 x 100	**KHX6.1**	1,000 unit(s)	83,35
22	10 x 100	**KHX7.1**	1,000 unit(s)	90,25
24	10 x 100	**KHX8.1**	1,000 unit(s)	98,85
25	10 x 100	**KHX9.1**	1,000 unit(s)	100,00
30	10 x 100	**KHY0.1**	1,000 unit(s)	145,15

Cover slips

Coverslips thickness 1.5

Marienfeld. Material: Borosilicate glass from hydrolytic class I.

Applications: Examinations using light and fluorescence microscopy, especially in medicine and biology.

- Thickness 1.5 (0,16–0,19 mm)
- Absolutely colourless, completely clear, suitable for fluorescence microscopy
- High light transmission
- Refractive index tailored to microscopes
- Low inherent fluorescence
- Low flatness deviation, exact compliance with thicknesses
- Good wettability on both glass surfaces
- Low alkali content encourages cell growth
- Ready-to-use
- Suitable for use in coverslippers
- Meets the requirements of DIN ISO 8255

In vitro diagnostic medical device according to IVDD

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
18 x 18	10 x 200	**KCY0.1**	2,000 unit(s)	44,65
22 x 22	10 x 200	**KCY1.1**	2,000 unit(s)	60,65
24 x 24	10 x 200	**KCY2.1**	2,000 unit(s)	71,10
24 x 40	10 x 100	**KCY3.1**	1,000 unit(s)	55,40
24 x 50	10 x 100	**KCY4.1**	1,000 unit(s)	60,65
24 x 60	10 x 100	**KCY5.1**	1,000 unit(s)	74,15

Coverslips siliconised

Marienfeld. Material: Borosilicate glass from hydrolytic class I, siliconised on both sides.

- Thickness no. 1 (0.13 to 0.16 mm)
- Colourless, clear, with hydrophobic surfaces
- Suitable for protein crystallisation and for fluorescence microscopy

In vitro diagnostic medical device according to IVDD

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
12 x 12	10 x 100	**TX71.1**	1,000 unit(s)	280,60
18 x 18	10 x 100	**TX72.1**	1,000 unit(s)	280,60
22 x 22	10 x 100	**TX73.1**	1,000 unit(s)	298,85

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
12	10 x 100	**TX74.1**	1,000 unit(s)	320,35
18	10 x 100	**TX75.1**	1,000 unit(s)	330,05
22	10 x 100	**TX76.1**	1,000 unit(s)	350,45

NEW / +

Coverslips thickness 1.5H

Marienfeld. Material: Borosilicate glass from hydrolytic class I.

- With defined thickness of 0.17 ±0.005 mm, specially for high-resolution precision instruments
- Absolutely colourless, completely clear, suitable for fluorescence microscopy
- Refractive index 1.524 to 1.527 at 546.07 nm

Ideal for lenses with a high numeric aperture and high resolving power, e.g.:

- Dry lenses (air immersion): N.A. > 0.7
- Water immersion lenses: N.A. > 1.0
- Glycerine immersion lenses: N.A. > 1.2
- Oil immersion lenses: N.A. > 1.3

In vitro diagnostic medical device according to IVDD

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
18 x 18	10 x 200	**LH22.2**	2,000 unit(s)	166,65
22 x 22	10 x 200	**LH24.2**	2,000 unit(s)	231,15
24 x 50	10 x 100	**LH25.2**	1,000 unit(s)	258,00
24 x 60	10 x 100	**LH26.2**	1,000 unit(s)	317,15

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
10	10 x 100	**YX02.2**	1,000 unit(s)	184,90
12	10 x 100	**YX03.2**	1,000 unit(s)	194,60
18	10 x 100	**LH23.2**	1,000 unit(s)	317,15
24	10 x 100	**PK26.2**	1,000 unit(s)	536,45
25	10 x 100	**YX04.2**	1,000 unit(s)	607,40

Coverslips plastic

ROTH SELECTION. Material: Vinyl.

- Thickness: 0.157 mm
- Individual coverslips are separated from each other by layers of paper

Not a medical device / Not an IVD product

L x W (mm)	Art. No.	Pack Qty.	€
22 x 22	**PK27.1**	1,000 unit(s)	107,00

Cover slips

S

Coverslips round sterile

Sarstedt. Material: PETG (Polyethylene terephthalate, glycol-modified), transparent. **Sterile**.

- For cultivating adherent cells
- Non-pyrogenic/endotoxin-free, non-cytotoxic
- Material thickness: 0,255 mm

Not a medical device / Not an IVD product

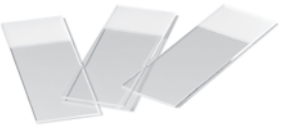
Ø (mm)	Suitable for	Pack.	Art. No.	Pack Qty.	€
13	Cell culture dishes Ø 35 mm/ microtiter plates, 6-/12-/24-well	8 x 25	**HPX0.1**	200 unit(s)	73,00
22	Cell culture dishes Ø 35 mm/ microtiter plates, 6-well	8 x 25	**HPX1.1**	200 unit(s)	77,95
25	Cell culture dishes Ø 35 mm/ microtiter plates, 6-well	8 x 25	**HPX2.1**	200 unit(s)	81,70

Coverslips special size 75 x 50

Marienfeld. Material: Borosilicate glass from hydrolytic class I.
Thickness no. 1 (0.13 to 0.16 mm).

In vitro diagnostic medical device according to IVDD

L x W (mm)	Art. No.	Pack Qty.	€
75 x 50	**XT62.1**	100 unit(s)	66,60



Microscope slides

Menzel. Material: Soda-lime glass.
In acc. with ISO 8037/1. Dimensions: L 76 x W 26 mm, thickness 1 mm.

Optionally with frosted edge, width 20 mm.

Corners cut
For standard applications, routine microscopy.

Version	Art. No.	Pack Qty.	€
With frosted edge	**H868.1**	50 unit(s)	4,25
Without frosted edge	**0656.1**	50 unit(s)	3,35

Corners grounded 90°
For use in pathological and histological laboratories to prevent cuts.

Version	Art. No.	Pack Qty.	€
With frosted edge	**H870.1**	50 unit(s)	5,30
Without frosted edge	**H869.1**	50 unit(s)	4,75

Corner grounded 45°
For use in pathological and histological laboratories to prevent cuts, and for use in automatic systems.

Version	Art. No.	Pack Qty.	€
With frosted edge	**H872.1**	50 unit(s)	5,75
Without frosted edge	**H871.1**	50 unit(s)	4,65

Microscope slides

Microscope slides special size 76 x 52

Marienfeld. Material: Soda-lime glass.

Dimensions: L 76 x W 52 mm, thickness 1 mm.

In vitro diagnostic medical device according to IVDD

Corners cut

Version	Art. No.	Pack Qty.	€
With frosted edge	**CEX1.1**	50 unit(s)	33,60
Without frosted edge	**TX69.1**	50 unit(s)	31,10

Corners grounded 90°

Version	Art. No.	Pack Qty.	€
With frosted edge	**CEX2.1**	50 unit(s)	37,10
without frosted edge	**TX70.1**	50 unit(s)	38,10

Microscope slides corners bevelled 45°

Marienfeld. Material: Soda-lime glass.

Dimensions L 76 x W 26 mm, 1 mm thick, in accordance with DIN ISO 8037/1. With 90° grounded edges, bevelled 45°, 4 corners grounded, to reduce risk of injury. Ideal for use in automatic systems.

In vitro diagnostic medical device according to IVDD

Version	Art. No.	Pack Qty.	€
With frosted edge	**CEX4.1**	50 unit(s)	7,10
Without frosted edge	**CEX3.1**	50 unit(s)	6,35

Microscope slides Superfrost®

Menzel. Material: Soda-lime glass.

A differentiation among the specimens according to urgency, examination method, colour technology, etc. using different colours. The thickness (0,013 mm) of the coloured coding fields (L 26 x W 19 mm), which are resistant to most solvents, prevents adhesion and scratching of the glasses.
Dimensions in accordance with ISO 8037/1: L 76 x W 26 mm, thickness 1 mm.

In vitro diagnostic medical device according to IVDD

Corners cut

Version	Colour	Art. No.	Pack Qty.	€
With frosted edge	white	**1879.1**	50 unit(s)	4,45
With frosted edge	blue	**2101.1**	50 unit(s)	4,45
With frosted edge	pink	**2105.1**	50 unit(s)	4,45
With frosted edge	yellow	**2106.1**	50 unit(s)	4,45
With frosted edge	green	**2109.1**	50 unit(s)	4,45
With frosted edge	orange	**L192.1**	50 unit(s)	4,20

Corners grounded, 90°

Version	Colour	Art. No.	Pack Qty.	€
With frosted edge	white	**1880.1**	50 unit(s)	5,70
With frosted edge	blue	**2111.1**	50 unit(s)	5,70
With frosted edge	pink	**2116.1**	50 unit(s)	5,70
With frosted edge	yellow	**2119.1**	50 unit(s)	5,70

Corners grounded, 45°

Version	Colour	Art. No.	Pack Qty.	€
With frosted edge	white	**H879.1**	50 unit(s)	5,70
With frosted edge	blue	**H880.1**	50 unit(s)	5,70
With frosted edge	yellow	**H882.1**	50 unit(s)	5,70
With frosted edge	green	**H883.1**	50 unit(s)	5,70

Spreading spatula Flexistrip

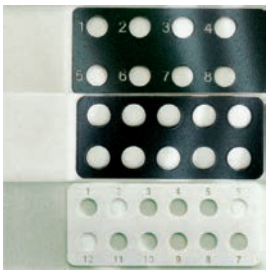
ROTH SELECTION. Material: PS.

For uniform spreading of blood on slides.
Usable on both sides.

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
75	26	**L430.1**	50 unit(s)	43,40

Microscope slides



A 121 °C

Diagnostic slides

Menzel. Autoclavable: Yes.

The hydrophobic coating fixes the liquid applied to the reaction fields. They withstand highest loads without loss of the hydrophobic properties.
White frost edge as field for marking.
Edges 90° grounded to minimise risk of injuries.
Dimensions L 75 x W 25 mm, thickness 1 mm.

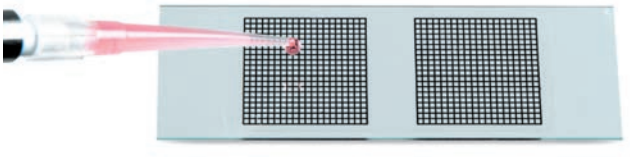
In vitro diagnostic medical device according to IVDD

Epoxy
Material: Soda-lime glass Epoxy-coated.

Number of chambers	Ø (mm)	Colour	Art. No.	Pack Qty.	€
8	6.0	black	**L197.1**	100 unit(s)	73,10
10	6.7	black	**L198.1**	100 unit(s)	73,10
12	5.0	white	**L199.1**	100 unit(s)	73,10

PTFE
Material: Soda-lime glass PTFE-coated. The PTFE coating is highly hydrophobic, which means that it is practically impossible for liquids to flow into each other and each sample remains in its reaction field.

Number of chambers	Ø (mm)	Colour	Art. No.	Pack Qty.	€
10	6.7	black	**L203.1**	100 unit(s)	98,40



Adhesive film with grids for slides

ROTH SELECTION. Material: Polyester.

Adhesive, with two grids of 20 x 20 mm.
For microscopic experiments or for counting cell cultures, yeast, bacteria and other samples.

Version	Art. No.	Pack Qty.	€
Line distance 1 mm	**AXC5.1**	40 unit(s)	47,90

NEW / +

A 121 °C

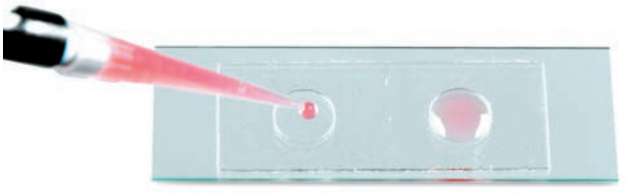
Microscope slide with recess

Marienfeld. Material: Soda-lime glass from hydrolytic class 3.
Autoclavable: Yes.

- Dimensions: L 76 x W 26 mm
- Thickness 1.2–1.5 mm
- Ø of recesses approx. 15–18 mm
- Depth approx. 0.6–0.8 mm
- Corners grounded 90°
- Pre-cleaned and ready-to-use

In vitro diagnostic medical device according to IVDD

Version	Number of trays	Art. No.	Pack Qty.	€
Without frosted edge	1	**1LN6.1**	50 unit(s)	77,40
Without frosted edge	2	**1LN7.1**	50 unit(s)	116,10
Without frosted edge	3	**1LN8.1**	50 unit(s)	159,10



Adhesive film with two indentations for slides

ROTH SELECTION. Material: Polyester.

Self-adhesive. The recesses in the foil carrier create indentations (Ø 10 mm).

Not a medical device / Not an IVD product

Ø (mm)	Depth (mm)	Number of trays	Art. No.	Pack Qty.	€
10	0.25	2	**AXC3.1**	25 unit(s)	73,70
10	0.50	2	**AXC4.1**	25 unit(s)	86,35

Adhesion slides

Adhesion slides Superfrost® Plus

Menzel. Material: Soda-lime glass.

With special adhesives for affixing cells and tissues. Complex and expensive application of adhesives or protein layers is not necessary. Unwanted background colours do not occur. Freshly frozen tissue sections and cytology preparations are attracted electrostatically to the microscope slides.
Dimensions: L 75 x W 25 mm, thickness 1 mm. Edges ground 90°.

Suitable for:

- Fixed tissue sections, embedded in paraffin (2-5 µm)
- Cell adhesions for cyto-centrifugal preparations in standard Papanicolaou smears
- Immuno-peroxidase hybridisation
- In-situ DNA hybridisation

In vitro diagnostic medical device according to IVDD

Version	Art. No.	Pack Qty.	€
With frosted edge	**H867.1**	72 unit(s)	23,70

Adhesion slides Histobond®

Marienfeld. Material: Soda-lime glass.

The silanised glass surface has a permanent positive charge which ensures that all types of section attach securely to the glass. Coloured labelling spaces enable use in routine histology.
Dimensions: L 76 x W 26 mm, thickness 1 mm.

Suitable for:

- In-situ hybridisation
- Problematic tissue samples, such as brain or bone marrow
- Multiple washing cycles, sections adhere firmly to the glass
- Microwave irradiation

In vitro diagnostic medical device according to IVDD

Corners grounded 90°

Version	Colour	Art. No.	Pack Qty.	€
With frosted edge	natural	**CEX0.1**	100 unit(s)	33,70
With frosted edge	white	**PC66.1**	100 unit(s)	34,55
With frosted edge	yellow	**PC67.1**	100 unit(s)	33,65
With frosted edge	green	**PC68.1**	100 unit(s)	34,60
With frosted edge	blue	**PC69.1**	100 unit(s)	34,55
With frosted edge	pink	**PC70.1**	100 unit(s)	34,60
With frosted edge	orange	**PC71.1**	100 unit(s)	34,55

Adhesion slides Superfrost® Plus Gold

Menzel. Material: Soda-lime glass.

With special adhesives for affixing cells and tissues. Complex and expensive application of adhesives or protein layers is not necessary. Unwanted background colours do not occur. Fresh frozen sections or frozen section fixed in formalin are attracted to the slide and then chemically fixed onto the glass surface.
Dimensions: L 75 x W 25 mm, thickness 1 mm. Edges ground 90°.

Suitable for:

- Special staining methods (toluidine blue staining, hematoxylin staining and quick-freeze eosin section staining)
- Tissue sections up to 20 µm
- Bone, frozen heart, brain, skin and other tissue sections that are normally difficult to bind
- Immunocytochemical and in-situ DNA-hybridisation of frozen tissue sections
- Selection counting for immunofluorescence analysis in the event of low tissue quantities

In vitro diagnostic medical device according to IVDD

Version	Art. No.	Pack Qty.	€
With frosted edge	**ET09.2**	72 unit(s)	68,50

Adhesion slides Polysine®

Menzel. Material: Soda-lime glass.

With special adhesives for the fixation of cells and tissue. Complex and expensive application of adhesives or protein coatings is not necessary. Preparations are first electrostatically attracted and then biochemically bound. The permanent adhesive gives the slide excellent cell and tissue adhesion. Polysine® slides are insensitive to enzyme effects or heating.
Dimensions: L 75 x W 25 mm, thickness 1 mm. Ground edges 90°.

Ideally suitable for:

- Fresh frozen sections
- Paraffin-embedded (2-5 µm, fixed with alcohol, formalin, bouins or non-crosslinking sections)
- Extended staining process
- Extended in-situ DNA hybridisation and immunocytochemical methods
- Cytocentrifuge preparations

In vitro diagnostic medical device according to IVDD

Version	Art. No.	Pack Qty.	€
With frosted edge	**ET10.1**	72 unit(s)	21,45

DURAN WHEATON KIMBLE

Balsam glass

DWK Life Sciences. Material: Soda-lime glass.

With polished cap.

Delivery incl. glass rod.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	75	100	**HHY5.1**	6 unit(s)	275,20

Canada balsam glass ROTILABO®

Hecht. Material: Glass.

With polished cap and rod.

Vol. (ml)	Art. No.	Pack Qty.	€
60	**0708.1**	1 unit(s)	30,70

Cedar wood oil bottle ROTILABO®

Hecht. Material: Glass.

Vol. (ml)	Art. No.	Pack Qty.	€
30	**0709.1**	1 unit(s)	34,40

NEW / +

Staining plate

Marienfeld. Material: Pressed glass.

With rounded corners and matt surface.
Dimensions of depressions: Ø approx. 16 mm, depth approx. 2 mm.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
79	63	4	**CET6.2**	1 unit(s)	16,70

Staining plate acc. to Boerner

Marienfeld. Material: Pressed glass.

With optically polished, pressed and numbered depressions (Ø approx. 14 mm, depth approx. 2 mm).

Length (mm)	Width (mm)	Height (mm)	Number of trays	Art. No.	Pack Qty.	€
107	57	4	10	**CET7.1**	6 unit(s)	93,00

Staining plate plastic

Hammacher. Material: PP.

Length (mm)	Width (mm)	Number of trays	Art. No.	Pack Qty.	€
70	55	12	**KAN8.1**	10 unit(s)	5,90

Microscopy accesssories

Microscopy bowl

ROTH SELECTION. Material: Soda-lime glass.

With semi-circular indentations, Ø 30 x depth 10 mm.

Delivery incl. cover (colourless, 40 x 40 x 2 mm).

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
black	40	40	16	**TK77.1**	1 unit(s)	10,75
colourless	40	40	16	**TK76.1**	1 unit(s)	7,35

❄❄

Shipping containers for slides

Simport. Material: PS.

Ideal as shipping container for individual slides 76 x 26 mm.

- Stackable
- Easy and safe to seal
- Rocker mechanism for effortless removal of slides
- Temperature stability: -80 to +80 °C

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
blue	89	29	6	**AH01.1**	50 unit(s)	19,90
pink	89	29	6	**AH04.1**	50 unit(s)	19,90
green	89	29	6	**AH03.1**	50 unit(s)	19,90
white	89	29	6	**AH05.1**	50 unit(s)	19,90
yellow	89	29	6	**AH02.1**	50 unit(s)	19,90

Shipping boxes ROTILABO® for slides

ROTH SELECTION. Material: PP.

For 5 slides 76 x 26 mm. For storage, transport, shipping, etc. with 4 guide rails inside the box to keep the slides separated and prevet them from sticking togehter. Tight-closing lid.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
80	17	30	**T208.1**	25 unit(s)	18,85

Shipping boxes for slides

Simport. Material: PP, screw cap made of HDPE.

For storage, shipping or colouring of 4 slides 76 x 26 mm.

- Guide rails prevent sticking of the slides
- The box can be opened and closed several times
- With tamper-evident cap

Coloured lids inserts possible for colour coding of the boxes, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	35	87	**KL89.1**	100 unit(s)	62,90

A 121 °C

Shipping boxes for slides

Kartell. Material: PP. Autoclavable: Yes.

For shipping or storage of 5–10 slides 76 x 26 mm, stable design. The slides are easy to remove.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
40	90	**2306.1**	10 unit(s)	51,60

Transport boxes for microscope slides

A 121 °C

Shipping containers for slides

Kartell. Material: PP. Autoclavable: Yes.

For slides 76 x 26 mm.
Ideal for shipping per letter mail.

Suitable for	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
1 microscope slides	50	100	**2304.1**	10 unit(s)	25,55
3 microscope slides	84	99	**2305.1**	10 unit(s)	29,30

❄❄

Microscope slide holder

ROTH SELECTION. Material: HPPE.

For storing, cleaning, drying, etc. of slides.

- For slides with dimensions of 76 x 26 mm
- Solid design with slip-resistant rubber feet
- Temperature stability: -50 to +80 °C

Version	L x W x H (mm)	Art. No.	Pack Qty.	€
for 15 microscope slides	153 x 102 x 21	**PC63.1**	1 unit(s)	40,70
for 40 microscope slides	298 x 105 x 24	**PC64.1**	1 unit(s)	47,65
for 78 microscope slides	299 x 178 x 21	**PC65.1**	1 unit(s)	58,90

Accessories slide dispenser

Kartell. Material: ABS.

For 50 slides 76 x 26 mm. The slides are protected from dust in a transparent container and can be taken out individually by turning the knob.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	120	140	**2298.1**	1 unit(s)	39,25

❄❄

Microscope slide tray ROTILABO®

Simport. Material: ABS.

- For microscope slides 76 x 26 mm
- Easy removal of microscope slides thanks to angled contact area
- Temperature stability: -80 to +100 °C

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
20	299 x 206 x 18	**AH09.1**	1 unit(s)	9,80

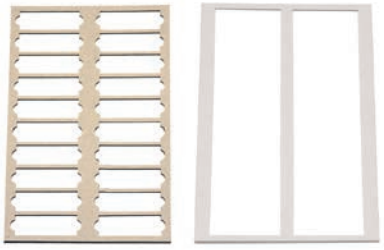
Microscope slide tray

Kartell. Material: PVC.

Storage and carry trays for 76 x 26 mm microscope slides. The white base makes object colouration easy to see.

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
20	340 x 190 x 8	**2296.1**	1 unit(s)	13,95
40	680 x 190 x 8	**2297.1**	1 unit(s)	23,55

Slide magazines



Microscope slide tray cardboard

ROTH SELECTION. Material: Cardboard, base covered with white chromo paper.

For microscope slides 76 x 26 mm.

With grid punched out

No. of slots	L x W (mm)	Colour	Art. No.	Pack Qty.	€
20	342 x 204	black	**P957.2**	10 unit(s)	89,80

Without subdivisions

With all-round edge and central divider. For storing more than 20 microscope slides or microscope slides in special sizes.

L x W (mm)	Colour	Art. No.	Pack Qty.	€
342 x 204	black	**CPT8.2**	10 unit(s)	81,20

Preparation folder

ROTH SELECTION. Material: Cardboard.

With two-piece lid, folds open in the centre.

- For microscope slides 76 x 26 mm
- Coloured edges enable easier identification

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
20	208 x 341 x 9	red	**AXK9.1**	1 unit(s)	8,80
20	208 x 341 x 9	blue	**AXK7.1**	1 unit(s)	8,80
20	208 x 341 x 9	black	**AXK6.1**	1 unit(s)	8,80
20	208 x 341 x 9	green	**AXK8.1**	1 unit(s)	8,80
20	208 x 341 x 9	yellow	**AXL0.1**	1 unit(s)	8,80
30	281 x 328 x 10	black	**AXL1.1**	1 unit(s)	12,60

Preparation folder

ROTH SELECTION. Material: Cardboard, base covered with white chromo paper.

- For microscope slides 76 x 26 mm
- Table of contents affixed
- With grid punched out

With two-piece flap lid and lock

Lid folds open in the centre.

No. of slots	L x W (mm)	Colour	Art. No.	Pack Qty.	€
20	340 x 205	black	**K326.2**	10 unit(s)	149,45

With single-piece flap lid

Lid opens from the side.

No. of slots	L x W (mm)	Colour	Art. No.	Pack Qty.	€
2	100 x 90	black	**K331.1**	10 unit(s)	34,30
6	215 x 105	black	**K329.2**	10 unit(s)	85,90
20	340 x 205	black	**K327.2**	10 unit(s)	100,95

Slide magazines

❄❄

Preparation folder ROTILABO® plastic

Simport. Material: PS.

- For microscope slides 76 x 26 mm
- With numeric labelling
- Stackable
- Easy removal of microscope slides
- Protective flaps can be folded to the back
- Temperature stability: -80 to +80 °C

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
20	295 x 192 x 11	blue	**AH10.1**	1 unit(s)	18,95
20	295 x 192 x 11	grey	**CXN4.1**	1 unit(s)	16,70
20	295 x 192 x 11	green	**AH12.1**	1 unit(s)	18,95
20	295 x 192 x 11	white	**AH13.1**	1 unit(s)	18,95
20	295 x 192 x 11	yellow	**AH11.1**	1 unit(s)	18,95

Set

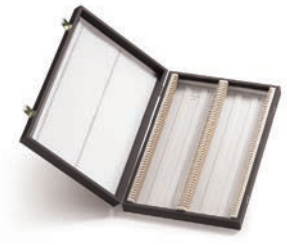
Assorted colours: 2 x blue, yellow, green, grey and white.

No. of slots	L x W x H (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
20	295 x 192 x 11	assorted colours	10 pieces	**CXN5.1**	1 set	149,45

Light-protected

Opaque protective flaps for light-sensitive applications.

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
20	295 x 192 x 11	white	**CXN6.1**	1 unit(s)	16,70



Microscope slide box ROTILABO®

ROTH SELECTION. Material: Wood (frame), outside covered with black paper, Inner base made from PS.

Preparation box for microscope slides 26 x 76 mm. Toothed rack with black numbers. Inner base with two tip racks, which make it easier to remove the microscope slides.

Delivery incl. table of contents (loosely inserted).

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
100	275 x 185 x 40	**K335.1**	1 unit(s)	36,45

NEW / +

Microscope slide box

ROTH SELECTION. Material: PP.

For microscope slides, 76 x 26 mm.

- With hinged lid and snap-lock mechanism
- Stackable
- Usable for vertical or horizontal storage

Delivery incl. Index card (affixed in lid).

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
25	141 x 92 x 30	blue	**1L91.1**	1 unit(s)	9,15
25	141 x 92 x 30	red	**1L92.1**	1 unit(s)	9,15
25	141 x 92 x 30	white	**1L93.1**	1 unit(s)	9,15
100	210 x 169 x 37	blue	**1L94.1**	1 unit(s)	11,40
100	210 x 169 x 37	red	**1L95.1**	1 unit(s)	11,40
100	210 x 169 x 37	white	**1L96.1**	1 unit(s)	11,40

Microscope slide box

Kartell. Material: PS.

Storage box with separate lid.

- For microscope slides 76 x 26 mm
- Stackable
- Shatterproof
- Easy to clean
- Individually numbered slots

Delivery incl. index card (loosely inserted).

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
25	98 x 83 x 38	**2301.2**	4 unit(s)	47,10
50	230 x 97 x 35	**2302.1**	1 unit(s)	22,10
100	230 x 180 x 35	**2303.1**	1 unit(s)	31,70

Slide magazines

Microscope slide box ROTILABO®

ROTH SELECTION. Material: ABS, Cork insert.

For microscope slides, 76 x 26 mm. Stackable. The numbering of the index card matches the numbering embossed on the base of the box.

Delivery incl. index card (affixed in lid).

Hinged lid

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100	208 x 175 x 34	red	**K534.1**	1 unit(s)	8,55
100	208 x 175 x 34	blue	**K532.1**	1 unit(s)	8,55
100	208 x 175 x 34	green	**K533.1**	1 unit(s)	8,55
100	208 x 175 x 34	white	**K536.1**	1 unit(s)	8,55
100	208 x 175 x 34	yellow	**K535.1**	1 unit(s)	8,55

Slip lid

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
25	141 x 88 x 35	red	**K542.1**	1 unit(s)	8,00
25	141 x 88 x 35	blue	**K540.1**	1 unit(s)	8,00
25	141 x 88 x 35	green	**K541.1**	1 unit(s)	8,00
25	141 x 88 x 35	white	**K544.1**	1 unit(s)	8,00
50	209 x 86 x 35	red	**N953.1**	1 unit(s)	8,85
50	209 x 86 x 35	blue	**N952.1**	1 unit(s)	8,85
50	209 x 86 x 35	white	**N954.1**	1 unit(s)	8,85

Microscope slide box Premium

ROTH SELECTION. Material: ABS, PP.

For microscope slides 76 x 26 mm.

- Foam insert in the base of the box for protecting samples
- Hinged lid with non-metal closing mechanism, no risk of corrosion
- Central numbering of the samples on the central divider
- Usable for vertical or horizontal storage
- Side compartment for storing marker pens or drying agents

Delivery incl. index card (integrated in the lid, replaceable).

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100	207 x 195 x 32	red	**HYP2.1**	5 unit(s)	74,30
100	207 x 195 x 32	blue	**HYN9.1**	5 unit(s)	74,30
100	207 x 195 x 32	green	**HYP1.1**	5 unit(s)	74,30
100	207 x 195 x 32	orange	**HYP0.1**	5 unit(s)	74,30
100	207 x 195 x 32	violet	**HYP3.1**	5 unit(s)	74,30

Set

Assorted colours: Green, red, blue, orange, purple.

No. of slots	L x W x H (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
100	207 x 195 x 32	assorted colours	5 pieces	**HYP4.1**	1 set	74,30

A 121 °C ❄❄

Microscope slide box True North™

ROTH SELECTION. Material: PC, Foam insert. Autoclavable: Yes.

For microscope slides 76 x 26 mm. Stackable. Numbering of the index card corresponds to the embossed numbering on the bottom of the box and the imprint on the foam insert. Temperature stable from -80 to +121 °C.

Delivery incl. index card (in cover).

Hinged lid

Material: Lock made of stainless steel.

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100	208 x 175 x 34	violet	**PC56.1**	1 unit(s)	27,55

Snap-on lid

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
25	141 x 88 x 35	blue	**ENL7.1**	1 unit(s)	14,85

Storage rack for microscope slide boxes

ROTH SELECTION. Material: PMMA (acrylic).

For microscope slide boxes with 50 or 100 slots.
Compartment dimensions: L 214 x W 171 x H 38 mm.

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15	711 x 171 x 228	**TP32.1**	1 unit(s)	361,20

Slide magazines

Microscope slide box for large microscope slides

ROTH SELECTION. Material: ABS, Cork insert.

- For microscope slides 76 x 52 mm
- Stackable
- With hinged lid
- The numbering of the index card matches the numbering embossed on the base of the box

Delivery incl. index card (in lid).

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
100	208 x 175 x 60	**TP28.1**	1 unit(s)	28,15

Microscope slide containers

Kartell. Material: ABS.

For microscope slides, 76 x 26 mm.

Delivery without lid.

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
100	360 x 38 x 100	**2299.2**	2 unit(s)	38,75

❄❄

Microscope slide magazines

Simport. Material: PS.

For vertical storage of 76 x 26 mm microscope slides. Easy retrieval of preparations through option for tilting microscope slides inside slots.

- Coloured box with large labelling space
- Contents are easily recognisable through transparent hinged lid
- Removable insert with individually numbered slots
- Stackable
- Temperature stable from -80 to +80 °C

Delivery incl. index card (with numbering).

100 slots

Up to 200 microscope slides can be stored by double use of slots. Up to 400 microscope slides can be stored in 3 rows by removing the insert.

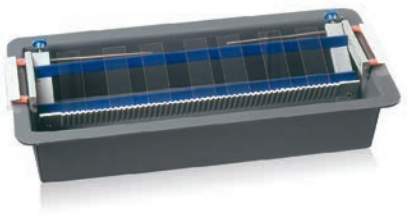
No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100	245 x 82 x 86	blue	**X021.1**	1 unit(s)	12,60
100	245 x 82 x 86	pink	**X023.1**	1 unit(s)	12,60
100	245 x 82 x 86	green	**X022.1**	1 unit(s)	12,60
100	245 x 82 x 86	white	**X024.1**	1 unit(s)	12,60
100	245 x 82 x 86	yellow	**X025.1**	1 unit(s)	12,60

50 slots

Up to 100 microscope slides can be stored by double use of slots. Up to 200 microscope slides can be stored in 3 rows by removing the insert.

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	140 x 82 x 86	blue	**AEL4.1**	1 unit(s)	10,15
50	140 x 82 x 86	pink	**AEL6.1**	1 unit(s)	10,15
50	140 x 82 x 86	green	**AEL5.1**	1 unit(s)	10,15
50	140 x 82 x 86	white	**AEL7.1**	1 unit(s)	10,15
50	140 x 82 x 86	yellow	**AEL8.1**	1 unit(s)	10,15

Staining racks and chambers



Staining rack

Marienfeld.

For custom adaptation to a variety of dishes and bowls. With 2 fixing clips and 2 handles, each extendible by 115 mm. For tilting and fixing in a horizontal position. When used in combination with staining tray CEX6.1, a locking bolt holds the tray securely in the tilted position. The tray can also be fixed in the horizontal position using the second locking bolt. Total length: Approx. 380 mm.

Delivery without staining tray.

Version	Art. No.	Pack Qty.	€
Staining rack	**CEX5.1**	1 unit(s)	81,50

Accessories staining tray

Marienfeld. Material: PVC.

Staining tray inner dimensions: L 380 x W 145 x H 75 mm.

Designation	Version	Art. No.	Pack Qty.	€
Staining tray, inner dimensions: L 380 x W 145 x H 75 mm	Staining tray	**CEX6.1**	1 unit(s)	45,90

Staining chamber

Nalgene. Material: PMP, lid made of PP copolymer, drain cap made of LDPE.

For staining, fixing, bleaching membranes, electrophoresis gels, etc. Chamber with handles on both sides for easy transportation. Capacity with gel added under shaking bath conditions: 500 to 750 ml. Temperature stability: -70 to +70 °C.

Not UV-transparent.

L x W x H	Art. No.	Pack Qty.	€
12.5 x 12.5 x 50	**H591.1**	1 unit(s)	37,80

Staining chamber StainTray™

Simport. Material: ABS.

Suitable as a staining chamber or a humidity chamber in immune histology, haematology, cytology and microbiology.

- Slides securely adhere to the rubber strip
- Drain with plug for simple emptying of the chamber
- Stackable

Black lid
Material: Lid made of ABS. Temperature stability: -20 to +80 °C.

Pic.	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	20 microscope slides	380 x 240 x 45	**HA51.1**	1 unit(s)	256,95
(2)	10 microscope slides	240 x 240 x 45	**HL98.1**	1 unit(s)	224,70

Transparent lid
Material: Lid made of PETG. Temperature stability: -20 to +60 °C.

Pic.	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	20 microscope slides	380 x 240 x 45	**HA50.1**	1 unit(s)	256,95
(2)	10 microscope slides	240 x 240 x 45	**HL97.1**	1 unit(s)	224,70

Disposable staining chambers

ROTH SELECTION. Material: PP, PE.

For staining, washing and drying microscope slides with dimensions of 76 x 26 mm.

- Chamber volume: 38 ml
- Recessed handles for easy transportation
- Two drain openings
- Dark lid for light-sensitive applications

Delivery incl. four staining chambers and one lid.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
8 microscope slides	305 x 127 x 30	**TP31.1**	1 set	49,35

Staining trough ROTILABO®

Simport. Material: POM.

Resistant to most staining reagents, but irreversible discolouration may occur.

Delivery incl. connection clips, without microscope slide holder.

Vol. (ml)	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
80	blue	64 x 76 x 92	**HA44.1**	1 unit(s)	15,60
80	yellow	64 x 76 x 92	**HA45.1**	1 unit(s)	15,60
80	green	64 x 76 x 92	**HA46.1**	1 unit(s)	15,60
80	pink	64 x 76 x 92	**HA47.1**	1 unit(s)	15,60
80	white	64 x 76 x 92	**HA48.1**	1 unit(s)	15,60

Accessories slide holder ROTILABO®

Simport. Material: POM.

For 76 x 26 mm microscope slides. Vertical storage of the microscope slides means the labelling areas do not come into contact with staining solution.

Suitable for	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
12 microscope slides	grey	60 x 64 x 97	**HA49.1**	1 unit(s)	17,15

Staining trough

Kartell. Material: PMP.

With two lids: One which seals tightly and the other with a small opening for attaching the insert during staining.
Microwave safe.

Delivery without inserts.

L x W x H (mm)	Art. No.	Pack Qty.	€
101 x 81 x 70	**2290.2**	4 unit(s)	72,55

Accessories insert for staining trough

Kartell. Material: PP.

For microscope slides 76 x 26 mm.

Designation	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
Inserts for 20 microscope slides with dimensions of 76 x 26 mm,	20 microscope slides	86 x 70 x 21	**2291.2**	2 unit(s)	16,25

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Staining racks and chambers

Staining dish

Kartell. Material: PMP.

For microscope slides with dimensions of 76 x 26 mm. Microwave-safe.

Delivery incl. lid.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
8 microscope slides	58 x 54 x 86	**2292.2**	4 unit(s)	58,70

Staining trough acc. to Schiefferdecker

Kartell. Material: PMP.

For microscope slides 76 x 26 mm. Microwave safe.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
20 microscope slides	89 x 70 x 50	**XC73.1**	4 unit(s)	56,95

A 121 °C

Staining trough acc. to Coplin

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For microscope slides with dimensions of 76 x 26 mm.
Opening Ø of 53 mm for simple placement.

Delivery incl. screw-on lid.

Suitable for	Ø x H (mm)	Art. No.	Pack Qty.	€
10 microscope slides	53 x 114	**YC09.1**	1 unit(s)	12,80

DURAN
WHEATON
KIMBLE

Staining trough acc. to Coplin

DWK Life Sciences. Material: Soda-lime glass.

For microscope slides 76 x 26 mm.

Suitable for	Ø x H (mm)	Art. No.	Pack Qty.	€
10 microscope slides	66 x 108	**H548.1**	1 unit(s)	17,35

Staining dish acc. to Coplin with screw cap

Marienfeld. Material: Soda-lime glass, screw cap made of plastic (urea 131.5), with PE foam insert.

For microscope slides 76 x 26 mm.

Delivery incl. screw cap.

Suitable for	Height without closure (mm)	Art. No.	Pack Qty.	€
10 microscope slides	108	**ETE2.1**	6 unit(s)	89,20
10 microscope slides	85	**ETE3.1**	6 unit(s)	86,40

Staining racks and chambers

DURAN WHEATON KIMBLE

Staining dish acc. to Coplin

DWK Life Sciences. Material: Soda-lime glass, screw top made of PP.

For microscope slides 76 x 26 mm. Dimensions: L 26 x W 26 x D 90 mm.

Delivery incl. screw top.

Suitable for	Vol. (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
10 microscope slides	60	26 x 26 x 90	**HLA7.1**	1 unit(s)	36,00

A 121 °C

Microscope slide holder Wash-N-Dry™

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For staining, washing and drying microscope slides with dimensions of 76 x 26 mm. Ideal for tall 150 ml beakers. Distance to floor, 10 mm below the microscope slide for the use of magnetic stir bars.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
12 microscope slides	31.5 x 38.4 x 110	**AXC6.1**	1 unit(s)	57,75

DURAN WHEATON KIMBLE

Staining dish acc. to Columbia

DWK Life Sciences. Material: Soda-lime glass, screw top made of PP, with PTFE-coated PE insert.

For coverslips, W 17–23 mm, H 30 mm Longer coverslips can be inserted with the screw top removed.

Delivery incl. screw top.

Suitable for	Art. No.	Pack Qty.	€
4 coverslips	**HLA6.1**	1 unit(s)	46,10

A 121 °C

Coverslip rack Wash-N-Dry™

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For square or round coverslips with dimensions of 18 to 25 mm. With notches on the underside for fixing the coverslips, e.g. with elastic bands.

Colour	Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
white	10	39 x 31 x 24	**TH51.1**	1 unit(s)	45,00

Staining racks and chambers

Staining trough acc. to Hellendahl

ROTH SELECTION. Material: Soda-lime glass.

For microscope slides 76 x 26 mm.

Without expansion

Pic.	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	8 microscope slides	93 x 43 x 97	**H549.1**	1 unit(s)	22,55

With expansion
Autoclavable: Yes.

Pic.	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
(2)	8 microscope slides	63 x 58 x 98	**H550.1**	1 unit(s)	17,10

A 121 °C

Staining trough porcelain

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.

For the protection of light-sensitive staining solutions.

- For microscope slides with dimensions of 76 x 26 mm
- Lid dimensions: L 75 x W 48 x H 5 mm
- Temperature stability: to +1000 °C
- Microwave-safe

Delivery incl. lid.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
6 microscope slides	70 x 40 x 86	**XX63.1**	2 unit(s)	55,10

Staining trough acc. to Schiefferdecker

ROTH SELECTION. Material: Soda-lime glass.

For microscope slides 76 x 26 mm.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
20 microscope slides	89 x 71 x 46	**H551.1**	1 unit(s)	16,45

Staining trough

ROTH SELECTION.

Material: Soda-lime glass.

Delivery incl. lid.

L x W x H (mm)	Art. No.	Pack Qty.	€
105 x 85 x 70	**H554.1**	1 unit(s)	18,40

Accessories glass insert for staining trough

ROTH SELECTION. Material: Soda-lime glass.

For microscope slides with dimensions of 76 x 26 mm or any width up to 52 mm.

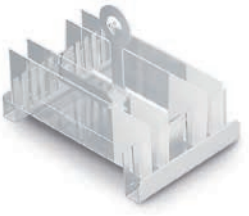
Delivery without wire hanger.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
10 microscope slides	85 x 60 x 45	**H552.1**	1 unit(s)	23,20

Accessories wire hanger for glass staining rack

ROTH SELECTION. Material: Stainless steel.

Version	Art. No.	Pack Qty.	€
Stainless steel	**H553.1**	1 unit(s)	3,20



Accessories metal insert for staining trough

Marienfeld. Material: Stainless steel.

For microscope slides with dimensions of 76 x 26 mm or any width up to 52 mm.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
10 microscope slides	80 x 55 x 53	**CET8.1**	1 unit(s)	22,05

Staining racks and chambers

DURAN WHEATON KIMBLE

Staining trough

DWK Life Sciences. Material: Soda-lime glass, stainless steel rack.

Staining system for microscope slides with dimensions of 76 x 26 mm, 76 x 38 mm and 76 x 52 mm.
Rack with folding handle for closing the dish and inserting and removing the microscope slides.
Inner dimensions at base: L 185 x W 88 x D 78 mm.

Delivery incl. lid and rack.

Suitable for	Art. No.	Pack Qty.	€
50 microscope slides	**HLA2.1**	1 set	241,90

Staining trough acc. to Hausser/Gedigk

ROTH SELECTION. Material: Soda-lime glass.

Delivery without lid and staining insert.

L x W x H (mm)	Art. No.	Pack Qty.	€
130 x 93 x 121	**T725.1**	1 unit(s)	36,95

Accessories for Hausser/Gedigk staining trough

ROTH SELECTION.

For microscope slides 76 x 26 mm.

Lid

Designation	L x W x H (mm)	Art. No.	Pack Qty.	€
Lid, L 130 x W 93 x H 3 mm	130 x 93 x 3	**T726.1**	1 unit(s)	6,85

Staining insert

Designation	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
Staining insert made of stainless steel, for microscope slides with dimensions of 76 x 26 mm, L 110 x W 75 x H 95 mm	60 microscope slides	110 x 75 x 95	**T727.1**	1 unit(s)	80,65

DURAN WHEATON KIMBLE

Preparation box

DWK Life Sciences. Material: DURAN® glass.

With ground glass plate. Versatile for use as a slide storage box, TLC separation chamber, etc.

Vol. (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
250	60 x 50 x 100	**T067.1**	1 unit(s)	41,75
550	100 x 50 x 120	**T068.1**	1 unit(s)	49,80
800	130 x 50 x 130	**T069.1**	1 unit(s)	66,55
1,000	150 x 50 x 150	**T070.1**	1 unit(s)	81,95
1,200	120 x 60 x 180	**T071.1**	1 unit(s)	68,10
4,000	210 x 100 x 210	**T072.1**	1 unit(s)	137,90
8,500	250 x 140 x 250	**T073.1**	1 unit(s)	194,00

Glass boxes

ROTH SELECTION. Material: Soda-lime glass.

Ground rim.

Vol. (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
0.8	100 x 100 x 100	**NY95.1**	1 unit(s)	13,05
1.8	100 x 150 x 150	**NY96.1**	1 unit(s)	19,10
5.7	220 x 300 x 150	**NY97.1**	1 unit(s)	59,60
8.7	180 x 250 x 220	**NY98.1**	1 unit(s)	56,45
19.9	230 x 360 x 260	**NY99.1**	1 unit(s)	123,65

A 121 °C

Staining dish silicone

Hammacher. Material: Silicone, soft. Autoclavable: Yes.

Temperature stability: -55 to +200 °C.

Vol. (ml)	Art. No.	Pack Qty.	€
160	**HCY2.1**	1 unit(s)	37,05

Embedding cassettes, accessories

Embedding cassettes

Simport. Material: POM.

Suitable as a holder for tissue specimens during embedding or storage.

- Solvent-resistant
- Large labelling areas on the front and sides
- Compatible with standard metal lids

Delivery without lid.

In vitro diagnostic medical device according to IVDD

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
blue	40.5 x 30 x 6	**H583.1**	500 unit(s)	55,80
grey	40.5 x 30 x 6	**AA79.1**	500 unit(s)	51,85
pink	40.5 x 30 x 6	**H580.1**	500 unit(s)	55,80
green	40.5 x 30 x 6	**H581.1**	500 unit(s)	55,80
white	40.5 x 30 x 6	**H579.1**	500 unit(s)	55,80
orange	40.5 x 30 x 6	**EH20.1**	500 unit(s)	53,65
yellow	40.5 x 30 x 6	**H582.1**	500 unit(s)	55,80

Biopsy embedding cassettes

Simport. Material: POM.

Suitable as a holder for tissue specimens during embedding or storage. To seal the cassettes, the lid is broken off and locked in the lower section. The cassettes can be opened and securely sealed again multiple times.

- Solvent-resistant
- Large labelling areas on the front and sides
- With lid attached
- Surface perforated with holes

Delivery incl. lid.

In vitro diagnostic medical device according to IVDD

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
blue	40.5 x 28.5 x 7	**E479.1**	500 unit(s)	60,20
grey	40.5 x 28.5 x 7	**E483.1**	500 unit(s)	60,20
pink	40.5 x 28.5 x 7	**AA78.1**	500 unit(s)	58,60
green	40.5 x 28.5 x 7	**E481.1**	500 unit(s)	60,20
white	40.5 x 28.5 x 7	**E478.1**	500 unit(s)	60,20
orange	40.5 x 28.5 x 7	**E482.1**	500 unit(s)	60,20
yellow	40.5 x 28.5 x 7	**E480.1**	500 unit(s)	60,20

Embedding cassettes ROTILABO®

Kartell. Material: POM.

- For routine embedding
- With labelling area

Delivery incl. lid.

In vitro diagnostic medical device according to IVDD

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
red	40 x 28 x 6.8	**PX06.1**	500 unit(s)	66,50
blue	40 x 28 x 6.8	**K114.1**	500 unit(s)	67,00
pink	40 x 28 x 6.8	**K117.1**	500 unit(s)	67,00
green	40 x 28 x 6.8	**K116.1**	500 unit(s)	67,00
white	40 x 28 x 6.8	**K113.1**	500 unit(s)	67,00
yellow	40 x 28 x 6.8	**K115.1**	500 unit(s)	67,00

Biopsy embedding cassettes Swingsette™

Simport. Material: POM.

Cassette and lid with small square compartments for processing, embedding and storage of tissue specimens.

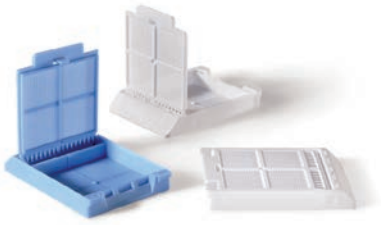
- With convenient hinged lid
- Lid can be opened and closed any number of times
- Textured labelling area on the front
- 45° angle for automated labelling systems
- Resistant to standard histological solvents

Delivery incl. lid.

In vitro diagnostic medical device according to IVDD

Colour	Art. No.	Pack Qty.	€
pink	**XY23.1**	500 unit(s)	73,65
green	**XY24.1**	500 unit(s)	73,65
white	**XY22.1**	500 unit(s)	73,65
turquoise	**XY29.1**	500 unit(s)	73,65

Embedding cassettes, accessories



Biopsy embedding cassettes Micromesh™

Simport. Material: POM.

Surface with 1676 square openings each offset by 0.38 mm, for improved fluid exchange and complete drainage. Compartment size 27 mm.

- With convenient hinged lid
- Lid can be opened and closed any number of times
- Textured labelling area on the front
- 45° angle for automated labelling systems
- Resistant to standard histological solvents

Delivery incl. lid.

In vitro diagnostic medical device according to IVDD

Colour	Art. No.	Pack Qty.	€
blue	**CXN3.1**	250 unit(s)	83,35
white	**CXN2.1**	250 unit(s)	83,35

Embedding cassettes Macrosette™

Simport. Material: POM.

Extra tall, as a holder for larger tissue specimens during embedding or for storage.

- Solvent-resistant
- With labelling areas
- Easy opening and repeated resealing

Delivery incl. lid.

In vitro diagnostic medical device according to IVDD

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
white	41 x 27.5 x 12	**EE16.1**	250 unit(s)	101,60

Embedding moulds made of metal

Kartell. Material: Stainless steel.

With polished surface, ideal for histology. Aids removing paraffin embeddings and allows ideal centring of findings in the paraffin block.

Technical specifications:

Art. No.	TT29.1	TT30.1
L x W x H, external	52 x 35 x 11.6 mm	

In vitro diagnostic medical device according to IVDD

L x W x H, interior (mm)	L x W, internal (mm)	Art. No.	Pack Qty.	€
7 x 7 x 11	7 x 7	**TT30.1**	10 unit(s)	56,10
23 x 36 x 11	23 x 36	**TT29.1**	10 unit(s)	55,65

Accessories sponges for embedding cassettes

Kartell.

Synthetic sponge, for use with embedding cassettes.

- With controlled porosity
- Can easily be placed in embedding cassettes
- Ideal for preparing biopsies

In vitro diagnostic medical device according to IVDD

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
blue	32 x 26 x 2.5	**TT56.1**	500 unit(s)	24,65

Accessories metal lid for embedding cassettes

Simport. Material: Stainless steel.

For sealing embedding cassettes without lid. With perforations for optimising the exchange of liquids.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Embedding cassettes	**H950.1**	5 unit(s)	19,90

Embedding cassettes, accessories

Embedding moulds Macro

Simport. Material: PVC.

With smooth inner surface and rounded corners for easy sampling. Volume 5 ml.

Technical specifications:

Art. No.	AEK8.1
L x W x H, external	37 x 24 x 10 mm

In vitro diagnostic medical device according to IVDD

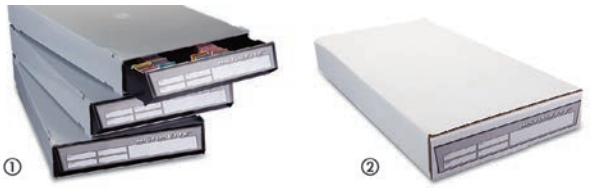
L x W x H, interior (mm)	L x W, internal (mm)	Art. No.	Pack Qty.	€
35 x 22 x 7	35 x 22	**AEK8.1**	500 unit(s)	89,80

Storage system for embedding cassettes

ROTH SELECTION. Material: Cardboard.

Archiving system with five drawers for retaining and storing approx. 1400 embedding cassettes.
Delivery unassembled, easy assembly by folding together and interlocking.

L x W x H (mm)	Art. No.	Pack Qty.	€
247 x 340 x 302	**1A0N.1**	1 unit(s)	33,20



Storage system for embedding cassettes

Simport.

For retaining and storing up to 250 embedding cassettes.

Drawer type
Material: PS. Stackable.

Delivery incl. labels to write on.

Pic.	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	405 x 230 x 51	**HT97.1**	6 unit(s)	145,15

Box type
Material: Cardboard waterproof, coated. With large labelling area.

Delivery incl. labels to write on and dividers.

Pic.	L x W x H (mm)	Art. No.	Pack Qty.	€
(2)	405 x 230 x 51	**HT98.1**	12 unit(s)	117,20

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Precision tweezers

Precision tweezers DUMONT® straight with fine tips

Dumont.

Dumoxel®

Material: Stainless steel Dumoxel® (C, Cr, Ni, Mo, Cu). Autoclavable: Yes. 95% anti-magnetic alloy. Temperature stability: to +400 °C. Good resistance to corrosion, including mineral and organic acids.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	3	straight	0,04	0.08	120	**LH71.1**	1 unit(s)	34,95
(4)	4	straight	0,02	0.06	110	**LH68.1**	1 unit(s)	34,95
(5)	5	straight	0,06	0.1	110	**LH79.1**	1 unit(s)	31,10

Inox08

Material: Stainless steel Inox08 (C, Mn, Mo, V). Autoclavable: Yes. Not anti-magnetic. Resists corrosion, good salt resistance. Temperature stability: to +400 °C. LH57.1 and types 5XL and L5 have a serrated outer surface for enhanced grip.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(5)	5	straight	0,06	0.1	100	**K342.1**	1 unit(s)	33,90
(7)	SS135	straight	0,06	0.1	135	**TE69.1**	1 unit(s)	34,95

Inox02

Material: Stainless steel Inox02 (C, Mn, Cr, Si). Autoclavable: No. Standard stainless steel, not anti-magnetic. Temperature stability: to +400 °C.

Medical device class I MDD

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	3	straight	0,1	0.17	120	**K339.1**	1 unit(s)	31,20
(3)	3C	straight	0.1	0.17	110	**K340.1**	1 unit(s)	29,25
(4)	4	straight	0,08	0.13	110	**K341.1**	1 unit(s)	30,10
(7)	SS135	straight	0,12	0.2	135	**TE68.1**	1 unit(s)	32,15

Titanium

Material: Titanium (C, Fe, O, H, N, Ti). Autoclavable: Yes. 100% anti-magnetic alloy. Temperature stability: to +430 °C. Maximum corrosion resistance against chemicals such as nitric acid, chlorides and salt water. Flexible and 40% lighter than stainless steel.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	3	straight	0,10	0.17	120	**TE60.1**	1 unit(s)	38,60

Precision tweezers

Precision tweezers DUMONT® straight with extra fine tips

Dumont. Autoclavable: Yes.

A 121 °C

Not a medical device / Not an IVD product

Dumostar®

Material: Stainless steel Dumostar® (C, Cr, Mo, Mn, Co, Ni, Si). 100 % anti-magnetic alloy. Temperature stability: to +500 °C. Elastic, high resistance to corrosion, including mineral and organic acids, as well as salts.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,01	0.05	110	**LH75.1**	1 unit(s)	55,80
(2)	55	straight	0,01	0.05	110	**TE71.1**	1 unit(s)	60,20

Dumoxel®

Material: Stainless steel Dumoxel® (C, Cr, Ni, Mo, Cu). 95 % anti-magnetic alloy. Temperature stability: to +400 °C. Good resistance to corrosion, including mineral and organic acids.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,01	0.05	110	**LH66.1**	1 unit(s)	36,05
(3)	M5	straight	0,01	0.05	85	**TE72.1**	1 unit(s)	36,45

Inox08

Material: Stainless steel Inox08 (C, Mn, Mo, V). Not anti-magnetic. Corrosion-resistant, good salt resistance. Temperature stability: to +400 °C.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,01	0.05	110	**LH53.1**	1 unit(s)	39,70
(2)	55	straight	0,01	0.05	110	**TE70.1**	1 unit(s)	40,35

Inox08 unpolished

Material: Stainless steel Inox 08 (C, Mn, Mo, V). Not anti-magnetic. Corrosion-resistant, good salt resistance. Temperature stability: to +400 °C.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5SPSF	straight	0,005	0.025	110	**LH52.1**	1 unit(s)	87,00

Titanium

Material: Titanium (C, Fe, O, H, N, Ti). 100 % anti-magnetic alloy. Temperature stability: to +430 °C. Maximum corrosion resistance against chemicals such as nitric acid, chlorides and salt water. Flexible and 40% lighter than stainless steel.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,01	0.05	110	**TE59.1**	1 unit(s)	44,10

Precision tweezers

Precision tweezers DUMONT® Eco

Dumont.
Basic version, e.g. for student courses or routine applications.

Not a medical device / Not an IVD product

Inox02
Material: Stainless steel Inox02 (C, Mn, Cr, Si). Autoclavable: No. Standard stainless steel, not anti-magnetic. Temperature stability: to +400 °C.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,06	0.10	110	**PK78.1**	1 unit(s)	25,70
(2)	3	straight	0,10	0.17	120	**TE62.1**	1 unit(s)	26,35
(3)	7	curved	0,10	0.17	115	**TE63.1**	1 unit(s)	29,60

Epoxy-coated
Material: Steel (C, Cr, Ni, Mo), Epoxy-coated. Autoclavable: Yes. 80% anti-magnetic alloy. Temperature stability: to +400 °C. Resists corrosion.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,06	0.10	110	**LH63.1**	1 unit(s)	23,45
(2)	7	curved	0,10	0.17	115	**LH65.1**	1 unit(s)	25,30

Precision tweezers with plastic tips special shape

Dumont. Material: Steel (C, Cr, Ni, Mo) anti-magnetic, satin finish, TPE-ESD tips, conductive.

- For gentle handling of delicate materials
- Handle cast from a single piece, curved
- Easy to clean and sterilise
- Ergonomic shape for fatigue-free use
- Enhanced grip thanks to notched outside

Not a medical device / Not an IVD product

Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	1	1	210	**HTX1.1**	1 unit(s)	89,80
straight	2	2	210	**HTX2.1**	1 unit(s)	89,80

Precision tweezers

Precision tweezers DUMONT® straight with thick tips

Dumont. Material: Stainless steel.

Inox02

Material: Inox02 (C, Mn, Cr, Si). Autoclavable: No. Standard stainless steel, not anti-magnetic. Temperature stability: to +400 °C.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	1	straight	0,12	0.20	120	**K337.1**	1 unit(s)	30,10
(2)	2	straight, pointed	0,14	0.34	120	**K338.1**	1 unit(s)	30,10
(3)	AA	straight, pointed	0,20	0.40	125	**TE66.1**	1 unit(s)	25,70

Inox02 (epoxy-coated)

Material: Inox02 (C, Mn, Cr, Si), Epoxy-coated. Autoclavable: No.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(3)	AA	straight	0,20	0.40	125	**TE67.1**	1 unit(s)	30,00

Precision tweezers DUMONT® angled

Dumont. Material: Stainless steel. Autoclavable: Yes.

A 121 °C

Dumoxel®

Material: Dumoxel® (C, Cr, Ni, Mo, Cu). 95 % anti-magnetic alloy. Temperature stability: to +400 °C. Good resistance to corrosion, including mineral and organic acids.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	5/45	angled	0,01	0.05	109	**LH67.1**	1 unit(s)	38,70
(5)	6	angled	0,10	0.17	115	**TE75.1**	1 unit(s)	44,65

Inox08

Material: Inox 08 (C, Mn, Mo, V). Not anti-magnetic. Corrosion-resistant, good salt resistance.
Temperature stability: to +400 °C. Type SS/45 has a grooved outer surface for enhanced grip.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5/15	angled	0,06	0.10	105	**TE73.1**	1 unit(s)	37,55
(2)	5/45	angled	0,06	0.10	109	**K343.1**	1 unit(s)	38,20
(2)	5/45	angled	0,01	0.05	109	**LH54.1**	1 unit(s)	41,95

Precision tweezers

Precision tweezers DUMONT® curved

Dumont.

Dumoxel®
Material: Stainless steel Dumoxel® (C, Cr, Ni, Mo, Cu). Autoclavable: Yes. 95 % anti-magnetic alloy. Temperature stability: to +400 °C. Good resistance to corrosion, including mineral and organic acids.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	7	curved	0,10	0.17	115	**LH81.1**	1 unit(s)	33,35

Inox08
Material: Stainless steel Inox 08 (C, Mn, Mo, V). Autoclavable: Yes. Not anti-magnetic. Resists corrosion, good salt resistance. Temperature stability: to +400 °C. Enhanced grip thanks to notched outside.

Medical device class Ir

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	7XL	curved	0,14	0.24	150	**TE76.1**	1 unit(s)	65,60

Inox02
Material: Stainless steel Inox02 (C, Mn, Cr, Si). Autoclavable: No. Standard stainless steel, not anti-magnetic. Temperature stability: to +400 °C. Type 7B with grooves on the inside of the tips for extra grip.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	7	curved	0,10	0.17	115	**K344.1**	1 unit(s)	36,50
(3)	7B	curved	0,10	0.17	115	**TE77.1**	1 unit(s)	34,35

Titanium
Material: Titanium (C, Fe, O, H, N, Ti). Autoclavable: Yes. 100 % anti-magnetic alloy. Temperature stability: to +430 °C. Maximum corrosion resistance against chemicals such as nitric acid, chlorides and salt water. Flexible and 40% lighter than stainless steel.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(3)	7	curved	0,10	0.17	115	**TE61.1**	1 unit(s)	46,80

Precision tweezers DUMONT® self-closing

Dumont. Material: Stainless steel. Autoclavable: Yes.

A 121 °C

Dumoxel®
Material: Dumoxel® (C, Cr, Ni, Mo, Cu). 95 % anti-magnetic alloy. Temperature stability: to +400 °C. Good resistance to corrosion, including mineral and organic acids.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	N5	straight	0,01	0.05	108	**TE64.1**	1 unit(s)	46,80
(2)	N7	curved	0,03	0.07	115	**TE65.1**	1 unit(s)	51,50

Precision tweezers

Special tweezers DUMONT®

Dumont. Material: Steel Epoxy-coated. Autoclavable: No.
Cutting.

Not a medical device / Not an IVD product

Type	Materialspecification	Tip thickness (mm)	Tip width (mm)	Length (mm)	Version	Art. No.	Pack Qty.	€
15 A ESD	Steel, epoxy-coated	8,5	10.5	115	special shape	**TE78.1**	1 unit(s)	55,90

Special tweezers DUMONT® ring-shaped

Dumont. Material: Stainless steel Dumoxel®. Autoclavable: Yes.
Tip Ø 12.7 mm.

A 121 °C

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
2E½	118	**LH74.1**	1 unit(s)	42,90

Micro tweezers

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.
Tips smooth inside.

A 121 °C

Not a medical device / Not an IVD product

Straight

Pic.	Type	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	No. 3	straight	pointed	0.3	115	**YE36.1**	1 unit(s)	38,15
(2)	No. 4	straight	pointed	0.4	110	**YE37.1**	1 unit(s)	37,20
(3)	No. 5	straight	pointed	0.15	110	**YE38.1**	1 unit(s)	44,00

Angled

Angled to side, 45°.

Pic.	Type	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(4)	No. 5–45	angled	pointed	0.3	110	**YE39.1**	1 unit(s)	42,15

Curved

Pic.	Type	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(5)	No. 7	curved	pointed	0.2	115	**YE40.1**	1 unit(s)	45,50

Precision tweezers

A 121 °C

Micro tweezers serrated

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.
With guide pin. Inside serrated tips.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	105	**YK30.1**	1 unit(s)	27,35
straight	pointed	115	**YK31.1**	1 unit(s)	28,45
straight	pointed	130	**YK32.1**	1 unit(s)	31,20

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	105	**YK33.1**	1 unit(s)	28,35
curved	pointed	115	**YK34.1**	1 unit(s)	28,95

(3) Strongly curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	115	**YK35.1**	1 unit(s)	29,85

A 121 °C

Tweezers pointed shape

Hammacher. Material: Stainless steel 18/10 (Wironit 4301).
Autoclavable: Yes.
Tips smooth inside.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	120	**YE33.1**	1 unit(s)	26,75
straight	pointed	140	**YE34.1**	1 unit(s)	28,70
straight	pointed	160	**YE35.1**	1 unit(s)	29,90

A 121 °C

Micro tweezers special shape

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.
Fine-tip tweezers.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	100	**EXC3.1**	1 unit(s)	54,00

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	100	**EXC4.1**	1 unit(s)	55,75

(3) Cross-locking
Self-closing.

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	100	**EXC5.1**	1 unit(s)	59,50

A 121 °C

Protective cap

Hammacher. Material: Silicone. Autoclavable: Yes.
For careful storage of tweezers, scissors and other delicate instruments.

Not a medical device / Not an IVD product

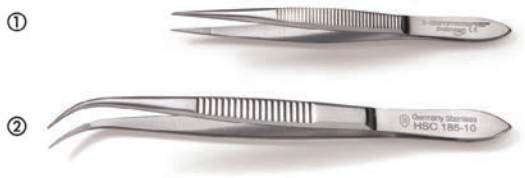
Round

Colour	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
green	19	2.8	**KAT9.1**	100 unit(s)	44,20
pink	25.4	3.2	**KAX0.1**	100 unit(s)	44,20
yellow	25	5	**KAX1.1**	100 unit(s)	44,20

Flat

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
orange	25	9	2	**KAX2.1**	100 unit(s)	44,20

Precision tweezers



A 121 °C

Micro tweezers serrated

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.
Fine tips, ribbed inside.

Tweezers for gentle collection of tissue samples.

Medical device class I MDD

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	80	**YK39.1**	1 unit(s)	21,20
straight	pointed	105	**YK40.1**	1 unit(s)	20,50
straight	pointed	115	**YK41.1**	1 unit(s)	21,30
straight	pointed	130	**YK42.1**	1 unit(s)	23,30
straight	pointed	145	**YK43.1**	1 unit(s)	26,10

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
bent	pointed	105	**YK44.1**	1 unit(s)	20,70
bent	pointed	115	**YK45.1**	1 unit(s)	22,25
bent	pointed	130	**YK46.1**	1 unit(s)	24,95
bent	pointed	145	**YK47.1**	1 unit(s)	26,20

A 121 °C

Micro tweezers long

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.
With guide pin and long, drawn-out tip (grooved on the inside).

Tweezers for gentle collection of tissue samples.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	200	**YE29.1**	1 unit(s)	43,95

A 121 °C

Micro tweezers titanium

Hammacher. Material: Titanium. Autoclavable: Yes.
Tips smooth inside. Tip Ø 0.1 mm.

Not a medical device / Not an IVD product

Straight

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(1)	straight	pointed	110	**ETC5.1**	1 unit(s)	101,55

Angled

Angled to side, 45°.

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(2)	angled	pointed	110	**ETC6.1**	1 unit(s)	107,15

Curved

Short tip.

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(3)	curved	pointed	110	**ETC7.1**	1 unit(s)	130,80

Micro tweezers ESD

ROTH SELECTION. Material: Stainless steel 18/10, with ESD coating (black, anti-glare).
Electrically dissipating. Fine tips, smooth inside.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	110	**EPN4.1**	1 unit(s)	26,85

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	120	**EPN5.1**	1 unit(s)	29,00

Precision tweezers

Micro tweezers insulated

ROTH SELECTION. Material: Steel (Spring steel, high-tensile), nickel-plated.

Dip-insulated, tested to IEC 60900. Fine tips, ribbed inside.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	150	**EPN6.1**	1 unit(s)	31,75

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	150	**EPN7.1**	1 unit(s)	32,15

A 121 °C

Tweezers with fine tip

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Precision ground tips.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	120	**PX37.1**	1 unit(s)	7,00

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	120	**PX39.1**	1 unit(s)	11,60

(3) Straight, spire tip

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	110	**PX38.1**	1 unit(s)	10,70

A 121 °C

Hooked tweezers Adson Micro

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

With fine 2:1 teeth for a secure hold.

Tweezers for safely positioning tissue samples.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	teeth 1:2	120	**YE32.1**	1 unit(s)	33,80

A 121 °C

Hooked tweezers fine

Hammacher. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

With fine 2:1 teeth for a secure hold.

Purpose: Tweezers for securely fixing tissue.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	teeth 1:2	105	**YE30.1**	1 unit(s)	44,25

Tweezers

A 121 °C

Hooked tweezers

ROTH SELECTION. Material: Stainless steel X15Cr13 (1.4024). Autoclavable: Yes.

Surgical. With teeth 1:2 for a secure hold on tissue.

Tweezers for grasping and preparing tissue samples and vessels.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	teeth 1:2	115	**2860.1**	1 unit(s)	23,30
straight	teeth 1:2	130	**2861.1**	1 unit(s)	23,30
straight	teeth 1:2	145	**2862.1**	1 unit(s)	25,50

A 121 °C

Tweezers anatomical

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

With fine tips, grooved on the inside.

Tweezers for gentle collection of tissue samples.

Medical device class I MDD

Adson fine

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	120	**YK36.1**	1 unit(s)	21,10
straight	blunt	150	**YK37.1**	1 unit(s)	32,25

Micro Adson

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	120	**YK38.1**	1 unit(s)	23,65

A 121 °C

Tweezers special shape (splinter tweezers)

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Tweezers for removing very small foreign bodies from the skin or from wounds.

Medical device class I MDD

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(1)	straight	pointed	80	**YK48.1**	1 unit(s)	25,00
(2)	straight	pointed	105	**YK49.1**	1 unit(s)	27,85

A 121 °C

Tweezers with guide pin

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Fine type. Inside serrated tips.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	105	**LT35.1**	1 unit(s)	7,30
straight	pointed	130	**LT36.1**	1 unit(s)	7,75

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	105	**LT37.1**	1 unit(s)	8,75
curved	pointed	130	**LT38.1**	1 unit(s)	8,90

Tweezers

A 121 °C

Tweezers with guide pin

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Straight, tips ribbed on the inside

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	155	**HCL3.1**	1 unit(s)	29,55

Angled, tips ribbed on the inside

Tweezers for gentle collection of tissue samples.

Medical device class I MDD

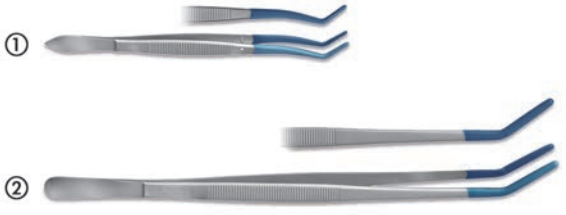
Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
angled	pointed	155	**HCL2.1**	1 unit(s)	30,65

Angled, tips smooth

Tweezers for gentle collection of tissue samples.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
angled	pointed	155	**HCL1.1**	1 unit(s)	29,20



A 121 °C

Tweezers with insulated tips

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.
Blunt tips, 45° angled, for secure gripping of small parts.

Not a medical device / Not an IVD product

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(1)	angled	blunt	165	**ETC8.1**	1 unit(s)	25,65
(2)	angled	blunt	300	**ETC9.1**	1 unit(s)	31,75

A 121 °C

Tweezers

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Inside of tip is fluted for secure grip.

Not a medical device / Not an IVD product

(1) Straight blunt

Anatomical.

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	105	**2687.1**	1 unit(s)	5,85
straight	blunt	115	**2688.1**	1 unit(s)	6,45
straight	blunt	130	**2689.1**	1 unit(s)	6,65
straight	blunt	145	**2690.1**	1 unit(s)	6,80
straight	blunt	160	**2691.1**	1 unit(s)	7,20
straight	blunt	200	**2692.1**	1 unit(s)	12,70
straight	blunt	250	**2693.1**	1 unit(s)	14,35

(2) Straight pointed

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	105	**2695.1**	1 unit(s)	7,55
straight	pointed	115	**2801.1**	1 unit(s)	8,85
straight	pointed	130	**2802.1**	1 unit(s)	9,50
straight	pointed	145	**2851.1**	1 unit(s)	9,60
straight	pointed	160	**2852.1**	1 unit(s)	10,00
straight	pointed	200	**2853.1**	1 unit(s)	17,25

(3) Curved pointed

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	105	**2854.1**	1 unit(s)	7,55
curved	pointed	115	**2855.1**	1 unit(s)	7,70
curved	pointed	130	**2856.1**	1 unit(s)	9,05
curved	pointed	145	**2857.1**	1 unit(s)	10,00
curved	pointed	160	**2858.1**	1 unit(s)	10,60
curved	pointed	200	**2859.1**	1 unit(s)	17,00

Curved blunt

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	blunt	115	**PX28.1**	1 unit(s)	6,15
curved	blunt	130	**PX29.1**	1 unit(s)	6,05
curved	blunt	145	**PX30.1**	1 unit(s)	7,00
curved	blunt	160	**PX31.1**	1 unit(s)	7,40
curved	blunt	200	**PX32.1**	1 unit(s)	11,65

Tweezers

Tweezer set ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit® 4301), Case made of plastic.

Contents:
1 tweezers with fine tip, curved, L 120 mm
1 tweezers straight, blunt, 130 mm
1 tweezers with guide pin, straight, 130 mm
1 double-glass tweezers, curved, 115 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
150	90	**PX40.1**	1 unit(s)	35,55

A 121 °C

Forceps long

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Blunt. Ribbed on the inside for a secure hold.

Not a medical device / Not an IVD product

Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	300	**0951.1**	1 unit(s)	16,65

Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	blunt	300	**HHA0.1**	1 unit(s)	16,10

Tweezers round

ROTH SELECTION. Material: Stainless steel.

With rounded tips, inside grooved for secure hold.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	145	**HEC7.1**	1 unit(s)	8,65

A 121 °C

Tweezers self-tensioning

Usbeck. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Angled

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(1)	angled	flat	105	**HL63.1**	1 unit(s)	6,65

Straight, pointed

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(2)	straight	pointed	120	**HL64.1**	1 unit(s)	8,05

A 121 °C

Fixation forceps Graefe straight

Hammacher. Material: Stainless steel Wironit (1.4301). Autoclavable: Yes.

With ratchet for a secure hold.

Universal gripping tweezers for grasping tissues.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	flat	110	**KAP3.1**	1 unit(s)	46,80

A 121 °C

Cover slip tweezers

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

According to Kühne.

Not a medical device / Not an IVD product

Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	flat	115	**K717.1**	1 unit(s)	6,95

Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	flat	115	**K718.1**	1 unit(s)	7,10
curved	flat	130	**K719.1**	1 unit(s)	8,15
curved	flat	145	**K720.1**	1 unit(s)	8,75

A 121 °C

Cover slip tweezers

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	flat	5	145	**EXC6.1**	1 unit(s)	31,55

(2) Curved

Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
curved	flat	5	120	**EXC7.1**	1 unit(s)	32,30

A 121 °C

Special tweezers Wafer

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Not a medical device / Not an IVD product

PTFE-coated
Wafer tweezers with two stop angles and narrow upper part.

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	straight	flat	7	120	**LX39.1**	1 unit(s)	79,45

3 teeth

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	straight	flat	9	125	**LX40.1**	1 unit(s)	36,55

4 teeth

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(3)	straight	flat	12	125	**LX41.1**	1 unit(s)	36,85

Special tweezers for filter paper

Bochem. Material: Stainless steel 18/10.
For picking up filter papers, cover slips and other flat objects.

Not a medical device / Not an IVD product

Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	flat	12	125	**C828.1**	1 unit(s)	11,30

Tweezers

121 °C

Special tweezers with ring-shaped pick-up

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Tip dimensions: W 6.5 x Ø 3.5 mm.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	ring-shaped	120	**LX48.1**	1 unit(s)	20,10

121 °C

Special tweezers ring-shaped

Hammacher. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

For delicate tissue and specimens.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
straight	ring-shaped	90	3	2.2	**LL00.1**	1 unit(s)	39,35
straight	ring-shaped	90	6	4.8	**LL01.1**	1 unit(s)	40,25

Spring steel tweezers

ROTH SELECTION. Material: Stainless steel 1.4301.

Lightweight, thin and flexible. Very gentle on delicate items, such as insects.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	105	**AL99.1**	1 unit(s)	9,65
straight	blunt	115	**AN00.1**	1 unit(s)	9,65

Weighing tweezers ROTILABO®

Usbeck. Material: Stainless steel, PVC tips.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	blunt	90	**YT63.1**	1 unit(s)	6,50

121 °C

Tweezers PTFE-coated

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301), PTFE-coated. Autoclavable: Yes.

Suitable for liquids such as acids, bases, solvents, as long as coating is intact.

- Non-stick
- Temperature stability: -200 to +260 °C

Not a medical device / Not an IVD product

Straight pointed

Version	Tip shape	Colour	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	black	115	**C833.2**	1 unit(s)	25,05
straight	pointed	black	130	**C834.2**	1 unit(s)	25,05
straight	pointed	black	145	**C835.2**	1 unit(s)	25,05

Straight blunt

Version	Tip shape	Colour	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	black	115	**C830.1**	1 unit(s)	25,05
straight	blunt	black	130	**C831.1**	1 unit(s)	25,05
straight	blunt	black	145	**C832.1**	1 unit(s)	25,05

Curved pointed

Version	Tip shape	Colour	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	black	115	**C836.2**	1 unit(s)	25,05
curved	pointed	black	130	**C837.2**	1 unit(s)	25,05
curved	pointed	black	145	**C838.2**	1 unit(s)	25,10

Tweezer set ROTILABO® PTFE-coated

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301) PTFE-coated, case made of plastic.

Red PTFE coating with good anti-adhesive properties forms a separating layer between the tweezers material and the sample. Dull colour of the coating enables glare-free working under the bright lighting in microscopy. The chemical-resistant coating also protects against contact with the nickel contained in the stainless steel.

Contents:
1 tweezers with fine tip, L 120 mm
1 pointed tweezers with guide pin, L 130 mm
1 pointed tweezers, curved, L 130 mm
1 blunt tweezers, L 145 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
150	90	**ENX5.1**	1 unit(s)	53,55

Special tweezers aspirette®

Hirschmann.

With vacuum pump. Suitable for picking up and positioning small and micro parts weighing up to 70 g. Can be used to position membrane filters, cover slips, microscope slides, optical lenses, electronic chips and much more.

- With single-button operation
- Ergonomically designed
- Battery can be charged approx. 1000 times

Delivery incl. 230 V charging unit, three lifting needles and three suction cups, Ø 3.2/6 and 10 mm.

Version	Art. No.	Pack Qty.	€
Battery powered vacuum tweezer	**A247.1**	1 unit(s)	222,55

Tweezers long nylon

ROTH SELECTION. Material: Nylon, Handle made of stainless steel 18/10.

Temperature resistant from -20 to +150 °C.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	300	**PT95.1**	1 unit(s)	13,05

Tweezers ceramic

ROTH SELECTION. Material: Ceramic.

- With non-stick surface
- Low abrasion
- Antimagnetic
- Low susceptibility to electrostatic charging
- Resists acids and bases (except for HF)
- Temperature stability: to +700 °C

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	120	**5327.1**	1 unit(s)	148,30

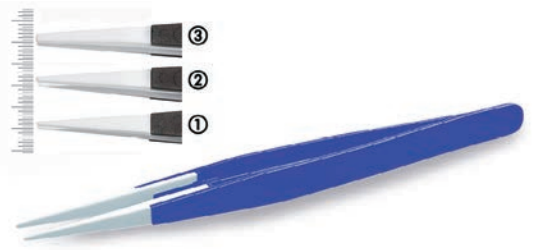
(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	125	**5328.1**	1 unit(s)	180,45

Tweezers

Tweezers ceramic

ROTH SELECTION. Material: Ceramic, PAA handle.
Hardened. Metal-free and antimagnetic.



Not a medical device / Not an IVD product

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	straight	pointed	0.5	125	**PE65.1**	1 unit(s)	22,55
(2)	straight	pointed	1	125	**PE66.1**	1 unit(s)	22,55
(3)	straight	blunt	2	125	**PE67.1**	1 unit(s)	22,55

Tweezers ROTILABO® disposable

ROTH SELECTION.
Anatomical form.

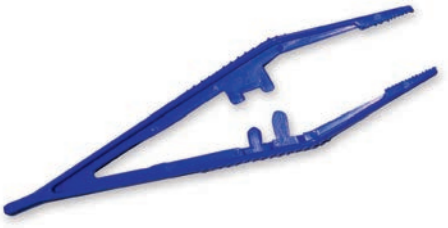
(1) ABS, sterile
Material: ABS. **Sterile**. Intended use: For handling clinical cotton wool, gauze, plasters and other items in contact with human skin. Suitable for human samples. For use by trained laboratory employees only.
NOT suitable for taking samples directly from the human body.

In vitro diagnostic medical device according to IVDD

Version	Tip shape	Colour	Tip width (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
straight	blunt	white	4	120	100 x 1	**KL05.1**	100 unit(s)	41,80

Tweezers disposable

ROTH SELECTION. Material: ABS. Non-sterile.



NEW / +

Not a medical device / Not an IVD product

Version	Tip shape	Colour	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	blue	3.7	111	**1L90.1**	6 unit(s)	21,30

Tweezers

Tweezers disposable

Bürkle. Material: PS.

- Lightweight plastic tweezers for fatigue-free work
- Secure handling thanks to grooved grips
- Manufactured in a clean room (clean room class 7)
- Compliant with the EU food directives and FDA guidelines

Standard

Non-sterile.

Version	Tip shape	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.	€
angled	pointed	white	130	1 x 100	**1A54.1**	100 unit(s)	34,00
straight	pointed	white	130	1 x 100	**1A53.1**	100 unit(s)	34,00
straight	flat	white	130	1 x 100	**1A55.1**	100 unit(s)	34,00

SteriPlast® sterile

Sterile.

Version	Tip shape	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.	€
angled	pointed	white	130	100 x 1	**1A57.1**	100 unit(s)	56,50
straight	pointed	white	130	100 x 1	**1A56.1**	100 unit(s)	56,50
straight	flat	white	130	100 x 1	**1A58.1**	100 unit(s)	56,50

SteriPlast® can be detected, sterile

Sterile. Can be detected using a colour scanner, metal detector or X-rays.

Version	Tip shape	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.	€
angled	pointed	blue	130	100 x 1	**1A5A.1**	100 unit(s)	84,05
straight	pointed	blue	130	100 x 1	**1A59.1**	100 unit(s)	84,05
straight	flat	blue	130	100 x 1	**1A5C.1**	100 unit(s)	84,05

Tweezers plastic

ROTH SELECTION. Material: POM (glass fibre reinforced), with carbon fibres.

- Good chemical resistance
- Anti-static
- High strength due to glass fibre reinforcement
- Temperature stability: to +90 °C

Not a medical device / Not an IVD product

Straight flat tip

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	straight	flat	3.0	110	**C317.1**	3 unit(s)	39,15

Straight pointed

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	straight	pointed	0.3	110	**C318.1**	3 unit(s)	64,80
(3)	straight	pointed	1.0	110	**C319.1**	3 unit(s)	54,20

Curved flat tip

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(4)	curved	flat	2.0	110	**C320.1**	3 unit(s)	54,20

Tweezers

Tweezers plastic

ROTH SELECTION. Material: CTFE.

High chemical resistance, acid-resistance. Suitable for use in chemical laboratories and in electronics. Temperature stability: to +200 °C.

Not a medical device / Not an IVD product

Ribbed tips

Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	3	112	**C322.1**	1 unit(s)	41,95

Tips smooth

Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	3	112	**C321.1**	1 unit(s)	40,85

Tweezers plastic

Vitlab. Material: POM.

Flexible, with rounded tips. Very good resilience. With stria on the outside for optimal handling and grip. Tweezer TT37.1 additionally with stria on the inside of the tip.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	118	**TT35.1**	5 unit(s)	14,25
straight	blunt	147	**TT36.1**	5 unit(s)	17,25
straight	blunt	253	**TT37.1**	5 unit(s)	44,65

Tweezers plastic PTFE

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

- Flexible, with smooth tips
- High chemical resistance
- Temperature stability: -200 to +250 °C

A 121 °C

Not a medical device / Not an IVD product

Fine tips

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	100	**1A0C.1**	1 unit(s)	23,65
straight	blunt	150	**0504.1**	1 unit(s)	27,80
straight	blunt	200	**1A0L.1**	1 unit(s)	34,55

Flat tips

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	flat	100	**1A0E.1**	1 unit(s)	23,50
straight	flat	150	**1A0H.1**	1 unit(s)	23,35
straight	flat	200	**1A0K.1**	1 unit(s)	29,30

Tweezers long wood

ROTH SELECTION. Material: Wood (Beech, untreated).
Suitable for removing samples from liquid nitrogen.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
straight	flat	300	20	**EET0.1**	1 unit(s)	2,85
straight	flat	400	20	**EET1.1**	1 unit(s)	3,45

Tweezers stands ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301), ESD-coated.

For safe storage of sensitive tweezers as well as for drying tweezers after cleaning. Tweezers holder can be screwed upside down under a shelf for space-saving storage.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
185	60	135	**PX20.1**	1 unit(s)	62,65

A 121 °C

Tweezers stands

Hammacher. Material: Stainless steel, Wironit (1.4301).
Autoclavable: Yes.

For safe storage of sensitive tweezers as well as for drying tweezers after cleaning.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
140	120	140	**KAP8.1**	1 unit(s)	46,70

A 121 °C

Scalpel solid

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Chromium steel 1.4034
Material: 1.4034.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(1)	anatomic	137	**PX21.1**	1 unit(s)	14,55

Chromium steel 1.4021
Material: 1.4021.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(2)	pointed	125	**PX23.1**	1 unit(s)	7,80
(3)	spherical	130	**PX22.1**	1 unit(s)	7,80

A 121 °C

Scalpel handles (hinge insert)

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.

Handle for holding and guiding scalpel blades. Hinge mechanism for inserting and removing the blades reduces risk of injury. Suitable for scalpel blades types 10 to 16 (CE20.1ff and 3608.1ff).

Medical device class I MDD

Version	Art. No.	Pack Qty.	€
No. 3	**HCY7.1**	1 unit(s)	19,00

Scalpels/blades

Scalpel handles

ROTH SELECTION. Material: Steel chrome-plated.

Not a medical device / Not an IVD product

For blade types 10 to 16

Delivery incl. blade type 13.

Type	Art. No.	Pack Qty.	€
No. 3	**3607.1**	1 unit(s)	16,70

A 121 °C

Scalpel handles ROTILABO®

ROTH SELECTION. Material: Stainless steel 1.4021. Autoclavable: Yes.
Handle suitable for use with various blades.

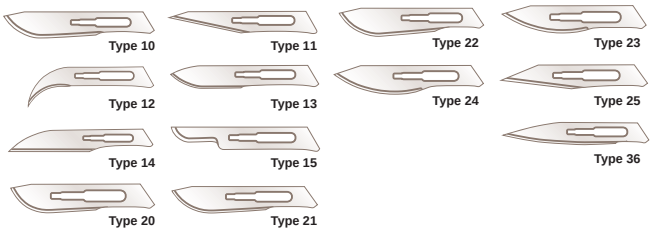
Medical device class I MDD

Small shape
Suitable for blade types 10-16.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(1)	No. 3	125	**CE16.1**	1 unit(s)	12,35
(2)	No. 3 L	208	**CE17.1**	1 unit(s)	27,25

Large shape
Suitable for blade types 18-36.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(3)	No. 4	135	**CE18.1**	1 unit(s)	12,35



Scalpel blades

ROTH SELECTION. Material: Carbon steel 1.2002.

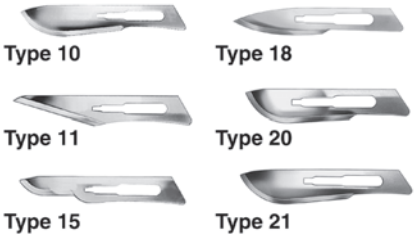
Not a medical device / Not an IVD product

For handle No. 3
Suitable for scalpels CE16.1/CE17.1, HCY7.1 and 3607.1.

Type	Art. No.	Pack Qty.	€
10	**3608.1**	10 unit(s)	9,05
11	**3621.1**	10 unit(s)	9,05
12	**3613.1**	10 unit(s)	9,05
13	**3609.1**	10 unit(s)	9,05
14	**H754.1**	10 unit(s)	9,05
15	**H755.1**	10 unit(s)	9,05

Fro handle No. 4
Suitable for scalpels CE18.1/CE19.1.

Type	Art. No.	Pack Qty.	€
20	**H760.1**	10 unit(s)	9,05
21	**H761.1**	10 unit(s)	9,05
22	**H762.1**	10 unit(s)	9,05
23	**H763.1**	10 unit(s)	9,05
24	**H764.1**	10 unit(s)	9,05
25	**H765.1**	10 unit(s)	9,05
36	**H767.1**	10 unit(s)	9,05



S

Scalpel blades

Braun. Material: Carbon steel. **Sterile**.

Medical device class IIa MDD

ID: 0123

For handle 3

Type	Art. No.	Pack Qty.	€
10	**1A3X.1**	100 unit(s)	15,00
11	**1A3Y.1**	100 unit(s)	15,00
15	**1A40.1**	100 unit(s)	15,00

For handle 4

Type	Art. No.	Pack Qty.	€
18	**1A3N.1**	100 unit(s)	15,00
20	**1A3P.1**	100 unit(s)	15,00
21	**1A3T.1**	100 unit(s)	15,00

A 121 °C

Scalpel blade remover

Hammacher. Material: Stainless steel Wironit (1.4310).
Autoclavable: Yes.

For easy and uncomplicated removal of all blade shapes from the scalpel handle.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Kling-Ex	**KAT7.1**	1 unit(s)	17,50

ACCESSORIES & SPARE PARTS in the ROTH webshop

carlroth.com

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Scalpel handles BAYHA®

Bayha. Material: Stainless steel.

Suitable for scalpel blades from BAYHA® (Art. No. EX68.1ff).

- With locking mechanism
- Replaceable blades
- Risk-free insertion without the blade contact
- EX66.1 length ideal for sterile working
- XP08.1 with ergonomic handle made of PA (not sterilisable)

Intended use: Non-sterile scalpels are cutting instruments for non-invasive applications in the medical field. Sterile (treated) scalpels are intended for skin incisions (cuts to the skin surface) on the human body.

Medical device class I MDD

Pic.	Version	Length (mm)	Art. No.	Pack Qty.	€
(1)	solid, fluted handle	130	**EX64.1**	1 unit(s)	16,35
(2)	solid, smooth handle	130	**XP07.1**	1 unit(s)	16,50
(3)	solid, smooth handle	200	**EX66.1**	1 unit(s)	34,15
(4)	solid, fluted handle	160	**EX65.1**	1 unit(s)	18,10
(5)	Hollow haft	150	**EX67.1**	1 unit(s)	37,70

Not a medical device / Not an IVD product

Pic.	Version	Length (mm)	Art. No.	Pack Qty.	€
(6)	with plastic handle	160	**XP08.1**	1 unit(s)	32,25

Safety blades non-grinded

Bayha. Material: Carbon steel.

For scalpels from BAYHA® (Art. No. EX64.1ff). Non-ground scalpel blades for special applications, e.g. cutting DNA strands from agarose gels without scratching the transilluminator. Individually packed in paper film. No CE mark.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
26	**ATA9.1**	12 unit(s)	6,20

Scalpels/blades

NEW / +

Scalpel blades BAYHA®

Bayha. Material: Carbon steel.

For scalpels by BAYHA® (Art. No. EX64.1ff).

Non-sterile. Individually packed in paper film. Intended purpose: Non-sterile BAYHA® scalpel blades are designed to fit in BAYHA® scalpel holders. Non-sterile scalpels are cutting instruments for non-invasive applications in the medical field.

Medical device class I

ID: 0123

Type	Art. No.	Pack Qty.	€
11	**1L3C.1**	144 unit(s)	60,00
15	**1L3E.1**	144 unit(s)	60,00
16	**1L3H.1**	144 unit(s)	60,00
18	**1L3K.1**	144 unit(s)	60,00
19	**1L3L.1**	144 unit(s)	60,00
20	**1L3N.1**	144 unit(s)	60,00
21	**1L3P.1**	144 unit(s)	60,00
22	**1L3T.1**	144 unit(s)	60,00
23	**1L3X.1**	144 unit(s)	60,00
24	**1L3Y.1**	144 unit(s)	60,00
26	**1L40.1**	144 unit(s)	60,00
28	**1L41.1**	144 unit(s)	60,00

Sterile

Sterile. Individually packed in special film. Intended purpose: Sterile BAYHA® scalpel blades are designed to fit in treated BAYHA® scalpel holders. Sterile scalpels are intended for skin incisions (cuts to the skin surface) on the human body.

Medical device class IIa MDD

ID: 0123

Type	Art. No.	Pack Qty.	€
11	**1L42.1**	144 unit(s)	88,50
15	**1L43.1**	144 unit(s)	88,50
16	**1L44.1**	144 unit(s)	88,50
18	**1L45.1**	144 unit(s)	88,50
19	**1L46.1**	144 unit(s)	88,50
20	**1L47.1**	144 unit(s)	88,50
21	**1L48.1**	144 unit(s)	88,50
22	**1L49.1**	144 unit(s)	88,50
23	**1L4A.1**	144 unit(s)	88,50
24	**1L4C.1**	144 unit(s)	88,50
26	**1L4E.1**	144 unit(s)	88,50
28	**1L4H.1**	144 unit(s)	88,50

Scalpel protective cap BAYHA®

Bayha. Material: PP.

Suitable for scalpels from BAYHA® (Art. No. EX64.1ff).

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
80	20	11	**XP09.1**	1 unit(s)	4,30

Scalpel blade TRIMMEX CUTTOGRAF

ROTH SELECTION. Material: Plastic (handle).

The comfortable blade clamp holds the blade at the desired cutting depth. On completion of work, the blade retracts safely into the handle. Easy blade replacement.

Delivery incl. blade No. 11 (mounted).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
11	**XK01.1**	1 unit(s)	11,75

Scalpel blade with finger guide set

ROTH SELECTION.

Ergonomic shape with rubber coated grip on handle for comfortable handling, can be guided precisely with the forefinger. Ideal for delicate dissection work and preparation. With protective cap for safe storage. Length without protective cap 98 mm.

- Set with three colours (blue, pink, green)

Delivery incl. blade (pointed).

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
104	35	20	**ANY6.1**	1 set	18,95

Scalpels/blades

S

Scalpel Cutfix® sterile

B. Braun. Material: Carbon steel, Plastic handle. **Sterile**.

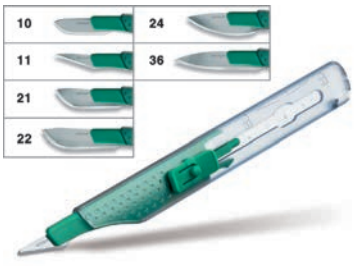
- Clean, smooth cut through double precision grinding of the blades
- Firm blade fit for precise cuts
- Protective cap is easy to remove
- γ-sterilised, individually packed

Indications: For all incisions in skin, tissue, organs, muscles and ligaments.

Medical device class IIa MDD

ID: 0123

Type	Art. No.	Pack Qty.	€
10	**T997.1**	10 unit(s)	6,40
11	**T998.1**	10 unit(s)	6,40
12	**T999.1**	10 unit(s)	6,40
15	**X001.1**	10 unit(s)	6,40
20	**X002.1**	10 unit(s)	6,40
21	**X003.1**	10 unit(s)	6,40
22	**X004.1**	10 unit(s)	6,40
23	**X005.1**	10 unit(s)	6,40
24	**X006.1**	10 unit(s)	6,40



S

Scalpel Aesculap® sterile

B. Braun. **Sterile**.

Locks securely in the disposal position to prevent cutting and piercing injuries. The mechanism is activated automatically by pushing back the blade with one hand. Individually packed.

Medical device class IIa MDD

ID: 0123

Type	Art. No.	Pack Qty.	€
10	**XC14.1**	10 unit(s)	20,25
11	**XC15.1**	10 unit(s)	20,25
21	**XC16.1**	10 unit(s)	20,40
22	**XC17.1**	10 unit(s)	20,40
24	**XC18.1**	10 unit(s)	20,40
36	**XC19.1**	10 unit(s)	20,40

Scalpel blade

ROTH SELECTION. Material: Aluminium (handle).

For fine cutting work in paper, cardboard and film.

Delivery incl. 3 replacement blades, pointed.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
148	**AH88.1**	1 unit(s)	5,50

Accessories replacement blades for scalpel knives

ROTH SELECTION.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
machete	**AH90.1**	10 unit(s)	4,70
pointed	**AH89.1**	10 unit(s)	4,00

Special blade

ROTH SELECTION. Material: Ceramic (Diamond-coated).

For cutting and scratching glass. Suitable for opening closed pipettes and separating the base from the mark tubes.

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
30	6	**1C99.1**	1 unit(s)	99,55

Scalpels/blades

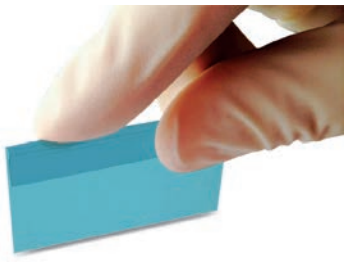
Accessories blade holder for ceramic blades

ROTH SELECTION. Material: Aluminium, plastic blade holder.
With twist fastener. Corrugated handle for secure grip.

Delivery without ceramic blades.

Not a medical device / Not an IVD product

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
109	8	**1C9A.1**	1 unit(s)	19,95



Safety blades

ROTH SELECTION. Material: PET.

Thickness 0.22 mm. For cutting bands made of agarose gels without scratching the transilluminator. Also suitable for cutting soft animal and plant tissue and for other applications where blunt blades reduce the risk of cutting injury. Blade length can be shortened by trimming.

Not a medical device / Not an IVD product

Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
38	19	**AXH6.1**	100 unit(s)	33,80
50	38	**AXH7.1**	100 unit(s)	40,75

Stirrup-shaped blades

Apollo. Material: Carbon steel (chrome alloy, painted), steel handle strip.
Suitable for cutting and scraping. With handle strip for more safety.

Not a medical device / Not an IVD product

(1) Type 102

Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
57	24.8	**CK08.1**	5 unit(s)	7,90

(2) Type 210

Length (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
39	19.0	individual	**CK07.1**	5 unit(s)	4,50
39	19.0	20 x 5, indiv.	**CK07.2**	100 unit(s)	52,85

Microtome blades Surgipath® DB80

Leica.

Disposable Microtome blades with chrome coating and honed edge along the entire blade length allows particularity thin and high-quality cuts. Extra-sharp, durable blades ensure consistently precise sectioning from the 1st to the 25th time. Cutting angle 35°

In vitro diagnostic medical device according to IVDD

LS
With narrow blade profile for routine cuts on all types of tissue. Extra-thin sections for diagnostic analysis.

Type	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
DB80 LS	80	8	**PX78.1**	50 unit(s)	170,95

LX
With narrow blade profile for particularly hard and dense tissue, as well as for routine cuts. Extremely durable.

Type	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
DB80 LX	80	8	**PX79.1**	50 unit(s)	170,95

HS
With wide blade profile for all tissue samples immersed in paraffin. Suitable for in situ specimen preparation.

Type	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
DB80 HS	80	14	**PX80.1**	50 unit(s)	166,65

Razor

ROTH SELECTION.

Blade length 64 mm.

Delivery incl. 10 replacement blades (ground on both sides, 64 x 22 mm).

Version	Art. No.	Pack Qty.	€
Metal handle	**KX91.1**	1 unit(s)	59,90
Plastic handle	**KX90.1**	1 unit(s)	54,10

A 121 °C

Nail forceps

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
120	**TC38.1**	1 unit(s)	55,95
130	**TC39.1**	1 unit(s)	59,10

Nail forceps fine

Hammacher.

Not a medical device / Not an IVD product

Stainless steel

Material: Stainless steel. Autoclavable: Yes.

Length (mm)	Art. No.	Pack Qty.	€
105	**TC42.1**	1 unit(s)	68,60
115	**TC43.1**	1 unit(s)	68,60

Steel

Material: Steel nickel plated and chrome plated. Autoclavable: No.

Length (mm)	Art. No.	Pack Qty.	€
105	**TC40.1**	1 unit(s)	39,40

A 121 °C

Scissors Universal

ROTH SELECTION. Material: Stainless steel 18/0, lacquered handle. Autoclavable: Yes.

Serrated counter blade ensures good cutting quality. Hygienic cleaning due to easy disassembly of the scissors.

Not a medical device / Not an IVD product

Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
220	100	**YE80.1**	1 unit(s)	19,15

Utility shears

ROTH SELECTION. Material: Stainless steel 18/0 (nickel-free).

Not a medical device / Not an IVD product

Curved shape with buffer spring

Autoclavable: Yes. Weight: 295 g.

Pic.	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	250	80	**LT13.1**	1 unit(s)	31,35

With inner spring

Material: Grip plates made of POM, with stainless steel rivets. Weight: 233 g.

Pic.	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	250	80	**LT14.1**	1 unit(s)	15,20

Scissors, pliers

Scissors Universal

Hammacher. Material: Stainless steel, handles made of plastic with insert made of soft rubber.

- Sturdy blade, serrated
- Large handles for comfortable handling
- Hygienic cleaning thanks to easy disassembly of the scissors
- Dishwasher-safe

Not a medical device / Not an IVD product

Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
215	55	**EXA9.1**	1 unit(s)	37,40

Safety scissors

Martor. Material: Stainless steel rustproof.

With special ground blades and rounded tips.
For safe cutting of cardboard, paper, foil, strappings, material, PVC, leather and much more without the risk of injury.

Not a medical device / Not an IVD product

Pic.	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	135	56	**HTE9.1**	1 unit(s)	21,00
(2)	215	70	**HTH0.1**	1 unit(s)	43,35

A 121 °C

Scissors deep-drawing/foil

Hammacher. Material: Stainless steel Remanit. Autoclavable: Yes.
Curved with fine serration.

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	105	**EXA8.1**	1 unit(s)	58,95

A 121 °C

Scissors for plant care

ROTH SELECTION. Material: Stainless steel 18/0. Autoclavable: Yes.
Suitable for cutting strong materials, such as plant stems.

Not a medical device / Not an IVD product

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	160	45	**YE81.1**	1 unit(s)	17,55

Microscopy, dissecting scissors

A 121 °C

Scissors

ROTH SELECTION. Material: Stainless steel (1.4021).
Autoclavable: Yes.

Not a medical device / Not an IVD product

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	pointed/blunt	130	37	**3543.1**	1 unit(s)	11,80
(1)	pointed/blunt	145	38	**3545.1**	1 unit(s)	11,80
(1)	pointed/blunt	160	48	**3551.1**	1 unit(s)	11,80
(2)	pointed/ pointed	130	37	**3569.1**	1 unit(s)	11,80
(2)	pointed/ pointed	145	38	**3576.1**	1 unit(s)	11,80
(2)	pointed/ pointed	160	48	**3577.1**	1 unit(s)	11,80
(3)	blunt/blunt	130	37	**3581.1**	1 unit(s)	11,80
(3)	blunt/blunt	145	38	**3582.1**	1 unit(s)	11,80
(3)	blunt/blunt	160	48	**3592.1**	1 unit(s)	12,85

A 121 °C

Scissors Physiology

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Straight MDD
Intended use: Scissors for cutting tissue and vessels.

Medical device class I MDD

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(1)	pointed/blunt	130	**HCT7.1**	1 unit(s)	46,05
(1)	pointed/blunt	145	**HCT8.1**	1 unit(s)	48,90
(1)	pointed/blunt	160	**HCT9.1**	1 unit(s)	49,95
(2)	pointed/pointed	130	**HCX2.1**	1 unit(s)	60,85
(2)	pointed/pointed	145	**HCX3.1**	1 unit(s)	63,90
(2)	pointed/pointed	160	**HCX4.1**	1 unit(s)	64,70

Curved MDD
Intended use: Scissors for cutting tissue and vessels.

Medical device class I MDD

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(1)	pointed/blunt	130	**HCX0.1**	1 unit(s)	51,10
(1)	pointed/blunt	160	**HCX1.1**	1 unit(s)	53,70

Curved

Not a medical device / Not an IVD product

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(2)	pointed/pointed	130	**HCX5.1**	1 unit(s)	51,00
(2)	pointed/pointed	160	**HCX7.1**	1 unit(s)	54,75

Microscopy scissors

ROTH SELECTION. Material: Carbon steel nickel-plated.
Autoclavable: No.

Not a medical device / Not an IVD product

Straight

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	100	30	**3534.1**	1 unit(s)	14,55

Curved

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	100	28	**3539.1**	1 unit(s)	15,80

Microscopy scissors heavy duty

ROTH SELECTION. Material: Carbon steel, nickel-plated.

Straight

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
blunt/blunt	125	35	**HEY8.1**	1 unit(s)	14,85
pointed/pointed	130	45	**HEY6.1**	1 unit(s)	12,75

Curved

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
blunt/blunt	125	35	**HEY9.1**	1 unit(s)	16,50
pointed/pointed	130	45	**HEY7.1**	1 unit(s)	13,50

Microscopy, dissecting scissors

A 121 °C

Microscopy scissors

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Intended use: Scissors for removing irritated gum tissue, mucous membrane or sutures.

Medical device class I MDD

Scissor stem, square

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	90	18	**TE25.1**	1 unit(s)	39,60
pointed/pointed	105	23	**TE26.1**	1 unit(s)	36,35

Scissor stem, round

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	115	26	**TE27.1**	1 unit(s)	45,40

A 121 °C

Microscopy scissors with serrated blade

Hammacher. Material: Stainless steel. Autoclavable: Yes.

For easier cutting without slipping.

Scissors blade angular

Intended use: Scissors for removing irritated gum tissue, mucous membrane or sutures.

Medical device class I MDD

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	90	18	**TE28.1**	1 unit(s)	40,15
pointed/pointed	105	23	**TE29.1**	1 unit(s)	36,55

Scissors blade round

Not a medical device / Not an IVD product

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	115	26	**TE30.1**	1 unit(s)	50,20

A 121 °C

Microscopy scissors left-handed

Hammacher. Material: Stainless steel (1.4117). Autoclavable: Yes.

Not a medical device / Not an IVD product

Straight

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	115	**KAT3.1**	1 unit(s)	49,35

Curved

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	115	**KAT4.1**	1 unit(s)	51,75

A 121 °C

Microscopy scissors angled

Hammacher. Material: Stainless steel (1.4006). Autoclavable: Yes.

Not a medical device / Not an IVD product

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	115	27	**LT18.1**	1 unit(s)	12,00

Microscopy, dissecting scissors

A 121 °C

Microscopy scissors curved

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.

Medical device class I MDD

Scissor stem, round
Fine type.

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	90	**HCP5.1**	1 unit(s)	36,95

Scissor stem, square
Pointed type.

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	105	**HCP6.1**	1 unit(s)	32,70
pointed/pointed	115	**HCP7.1**	1 unit(s)	39,05

Micro scissors with spire tip

Hammacher.
Intended use: Scissors for cutting tissue and vessels.

Medical device class I MDD

Straight
Material: Stainless steel 18/8. Autoclavable: Yes.

Length (mm)	Art. No.	Pack Qty.	€
115	**LT28.1**	1 unit(s)	56,20

Curved
Material: Stainless steel 18/8. Autoclavable: Yes.

Length (mm)	Art. No.	Pack Qty.	€
115	**HCP9.1**	1 unit(s)	60,05

A 121 °C

Dissecting scissors Stevens

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.
Intended use: Scissors for cutting tissue and vessels.

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	110	**HCT0.1**	1 unit(s)	60,45

A 121 °C

Micro scissors STEVENS

ROTH SELECTION. Material: Steel (1.4117). Autoclavable: Yes.
Intended use: Scissors for cutting tissue and vessels.

Medical device class I MDD

Length (mm)	Art. No.	Pack Qty.	€
105	**LX77.1**	1 unit(s)	111,05

A 121 °C

Dissecting scissors Stevens blunt

Hammacher. Material: Stainless steel (1.4117). Autoclavable: Yes.

Not a medical device / Not an IVD product

Straight

Length (mm)	Art. No.	Pack Qty.	€
115	**KAT5.1**	1 unit(s)	38,15

Microscopy, dissecting scissors

Curved

Length (mm)	Art. No.	Pack Qty.	€
155	**KAT6.1**	1 unit(s)	40,55

A 121 °C

Dissecting scissors with microsection

Hammacher. Material: Stainless steel. Autoclavable: Yes.
For extra sharp cutting.
Intended use: Scissors for cutting tissue and vessels.

Medical device class I MDD

Straight

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	pointed/ pointed	105	24	**TE35.1**	1 unit(s)	59,40

Curved

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	105	23	**TE36.1**	1 unit(s)	64,15

Angled

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	105	28	**TE37.1**	1 unit(s)	70,70

Straight, Joseph type

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	pointed/ pointed	140	31	**TE38.1**	1 unit(s)	69,95

Straight, Kelly type

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(3)	pointed/ pointed	160	29	**TE39.1**	1 unit(s)	73,25

A 121 °C

Dissecting scissors

Hammacher. Material: Stainless steel. Autoclavable: Yes.
Intended use: Scissors for cutting tissue and vessels.

Baby Metzenbaum

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	blunt/blunt	145	32	**TE31.1**	1 unit(s)	55,40

Metzenbaum – fine

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	pointed/ pointed	145	34	**TE33.1**	1 unit(s)	86,45
(2)	pointed/ pointed	180	33	**TE34.1**	1 unit(s)	99,05

A 121 °C

Dissecting scissors

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Not a medical device / Not an IVD product

Straight

Length (mm)	Art. No.	Pack Qty.	€
145	**HCT5.1**	1 unit(s)	72,85

Curved

Length (mm)	Art. No.	Pack Qty.	€
145	**HCT6.1**	1 unit(s)	71,45

Microscopy, dissecting scissors

A 121 °C

Dissecting scissors with carbide inserts

Hammacher. Material: Stainless steel. Autoclavable: Yes.

For even cutting edge retention.

Mini

Purpose: Scissors for removing painful disruptive margins, mucous membranes or stitches.

Medical device class I MDD

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	pointed/ pointed	115	26	**TE40.1**	1 unit(s)	154,80

Standard

Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Pic.	Type	Length (m)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	pointed/ pointed	145	47	**TE41.1**	1 unit(s)	148,90

Metzenbaum fino

Not a medical device / Not an IVD product

Pic.	Type	Length (cm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(3)	pointed/ pointed	145	38	**TE42.1**	1 unit(s)	174,15

A 121 °C

Dissecting scissors Mikro

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	110	**HCP8.1**	1 unit(s)	50,70

A 121 °C

Micro scissors Micro Iris type

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Straight

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	90	19	**TE45.1**	1 unit(s)	39,10

Bent

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	90	19	**TE46.1**	1 unit(s)	40,80

Micro scissors

ROTH SELECTION. Material: Stainless steel (material 1.4021).

Not a medical device / Not an IVD product

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	120	15	**EPA0.1**	1 unit(s)	26,85

A 121 °C

Micro scissors IRIS

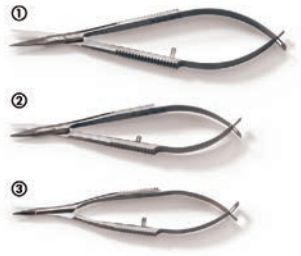
ROTH SELECTION. Material: Steel. Autoclavable: Yes.

Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	110	**LX76.1**	1 unit(s)	207,50

Microscopy, dissecting scissors



121 °C

Micro scissors high precision

Hammacher. Material: Stainless steel. Autoclavable: Yes.
Very delicate for precise, clean cuts.

Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	pointed/ pointed	105	15	**TE44.1**	1 unit(s)	211,80
(2)	pointed/ pointed	90	10	**TE43.1**	1 unit(s)	202,10

Vannas

Not a medical device / Not an IVD product

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(3)	pointed/ pointed	80	8.5	**TE48.1**	1 unit(s)	239,75

121 °C

Micro scissors Tübingen model

Hammacher. Material: Stainless steel. Autoclavable: Yes.
Very delicate for precise, clean cuts.

Not a medical device / Not an IVD product

Straight

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	pointed/ pointed	85	7	**TE47.1**	1 unit(s)	239,75

Curved

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	pointed/ pointed	85	7	**HCY0.1**	1 unit(s)	225,75

121 °C

Special scissors

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.

Medical device class I MDD

BEE-BEE

Purpose: Scissors for cutting wire.

Pic.	Length (mm)	Art. No.	Pack Qty.	€
(1)	110	**LX66.1**	1 unit(s)	40,50

SPENCER

Purpose: Scissors for cutting tissue and vessels.

Pic.	Length (mm)	Art. No.	Pack Qty.	€
(2)	120	**LX67.1**	1 unit(s)	50,65

KNOWLES bandage scissors

Purpose: Instrument for cutting dressings open.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(3)	pointed/buttoned	140	**LX68.1**	1 unit(s)	22,70

LISTER angled dressing scissors

Purpose: Instrument for cutting dressings open.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(4)	pointed/buttoned	110	**LX69.1**	1 unit(s)	24,00

121 °C

Special scissors Spencer angled

Hammacher. Material: Stainless steel (1.4117). Autoclavable: Yes.
Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Length (mm)	Art. No.	Pack Qty.	€
115	**KAP7.1**	1 unit(s)	52,20

Microscopy, dissecting scissors

A 121 °C

Ligature and vascular scissors

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Straight
Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/blunt	110	**HCP0.1**	1 unit(s)	46,35

Bent

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/blunt	110	**HCP1.1**	1 unit(s)	49,20

Strongly curved

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/blunt	110	**HCP2.1**	1 unit(s)	49,20

A 121 °C

Microscopy scissors buttoned

ROTH SELECTION. Material: Steel (1.4117). Autoclavable: Yes.
Probe-pointed on one side.
Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/buttoned	115	**LX78.1**	1 unit(s)	85,80

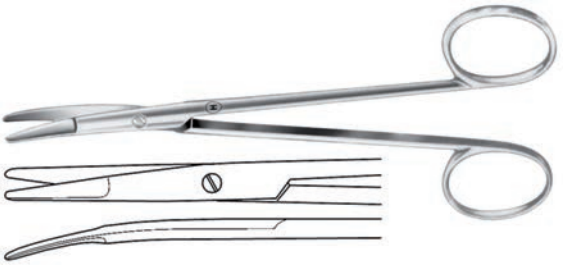
A 121 °C

Dissecting scissors probe-pointed

Hammacher. Material: Stainless steel (1.4006). Autoclavable: Yes.

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/probe-pointed	145	**LT19.1**	1 unit(s)	11,45



A 121 °C

Dissecting scissors Kilner/Ragnell

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.
Fine type.

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
blunt/blunt	120	**HCT2.1**	1 unit(s)	62,90

Microscopy, dissecting scissors

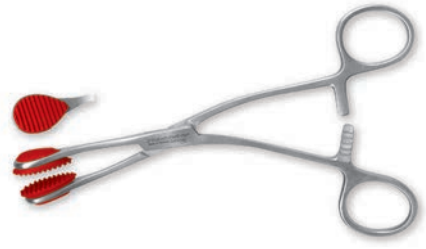
A 121 °C

Special scissors Lister angled

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.
Purpose: Scissors for cutting and removing dressing material.

Medical device class I MDD

Type	Length (mm)	Art. No.	Pack Qty.	€
blunt/pointed	145	**HCP3.1**	1 unit(s)	41,75
blunt/pointed	180	**HCP4.1**	1 unit(s)	44,65



Clamping tongs curved

Hammacher. Material: Stainless steel (1.4021).
With rubber cushions for soft grasping. Curved design.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
170	**KAX5.1**	1 unit(s)	46,55

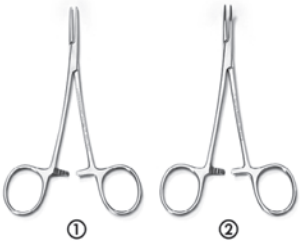
A 121 °C

Clamp smooth gripping surface

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.

Not a medical device / Not an IVD product

Jaw width (mm)	Length (mm)	Art. No.	Pack Qty.	€
8.4	160	**HCN4.1**	1 unit(s)	74,75
6.0	180	**HCN5.1**	1 unit(s)	79,40
7.7	200	**HCN6.1**	1 unit(s)	82,25



A 121 °C

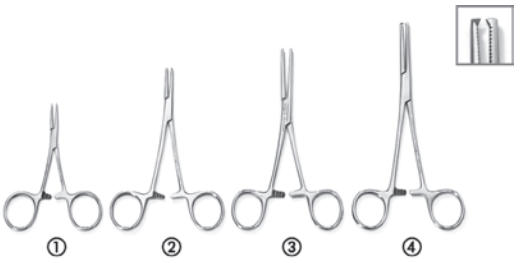
Clamp Micro-Halsted

Hammacher. Material: Stainless steel. Autoclavable: Yes.
Extra fine.
Purpose: Instrument for temporarily gripping and holding severed blood vessels, for primary haemostasis or before a planned ligature.

Medical device class I MDD

Pic.	Version	Length (mm)	Art. No.	Pack Qty.	€
(1)	Straight	125	**TC91.1**	1 unit(s)	47,80
(2)	Curved	125	**TC92.1**	1 unit(s)	49,50

Needles, clamps



A 121 °C

Clamp

Hammacher. Material: Stainless steel. Autoclavable: Yes.

(1) Baby-Mosquito

Not a medical device / Not an IVD product

Version	Length (mm)	Art. No.	Pack Qty.	€
curved	90	**TC90.1**	1 unit(s)	51,55
straight	90	**TC89.1**	1 unit(s)	48,85

(2) Halsted-Mosquito
Purpose: Instrument for temporarily gripping and holding severed blood vessels, for primary haemostasis or before a planned ligature.

Medical device class I MDD

Version	Length (mm)	Art. No.	Pack Qty.	€
curved	120	**TC96.1**	1 unit(s)	49,80
straight	120	**TC94.1**	1 unit(s)	48,85

(3) Pean
Purpose: Instrument for temporarily gripping and holding severed blood vessels, for primary haemostasis or before a planned ligature.

Medical device class I MDD

Version	Length (mm)	Art. No.	Pack Qty.	€
curved	130	**TC99.1**	1 unit(s)	51,60
curved	140	**TE00.1**	1 unit(s)	52,60
straight	130	**TC97.1**	1 unit(s)	47,85
straight	140	**TC98.1**	1 unit(s)	51,05

(4) Kocher (Ochsner)
With teeth 1:2 for a secure hold on tissue.

Not a medical device / Not an IVD product

Version	Length (mm)	Art. No.	Pack Qty.	€
curved	140	**TE03.1**	1 unit(s)	60,05
curved	160	**TE04.1**	1 unit(s)	66,30
straight	140	**TE01.1**	1 unit(s)	55,30
straight	160	**TE02.1**	1 unit(s)	62,30

A 121 °C

Clamp

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Pic.	Version	Length (mm)	Art. No.	Pack Qty.	€
	curved	28	**TC86.1**	1 unit(s)	51,60
	straight	50	**TC85.1**	1 unit(s)	50,45
(1)	straight	28	**TC83.1**	1 unit(s)	49,45
(2)	straight	35	**TC84.1**	1 unit(s)	52,15
(3)	curved	50	**TC88.1**	1 unit(s)	55,10

A 121 °C

Needle holder

ROTH SELECTION. Material: Steel. Autoclavable: Yes.
Purpose: Needle holder for holding needles during wound suturing.

Medical device class I MDD

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(1)	MAYO-HEGAR	160	**LX64.1**	1 unit(s)	46,25
(2)	MATHIEU	140	**LX65.1**	1 unit(s)	76,85

Suture material

A 121 °C

S

Surgical needles

Hammacher. Material: Stainless steel 18/8. Autoclavable: Yes.

Purpose: Needles for closing wounds.

Medical device class I MDD

Pic.	Version	Needle form	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
(1)	fig. 11	1/2 circular, rectangular	34	0.8	**LX55.1**	12 unit(s)	24,80
(2)	fig. 14	1/2 circular, rectangular	23	0.7	**LX56.1**	12 unit(s)	24,80
(3)	fig. 16	1/2 circular, rectangular	18	0.6	**LX57.1**	12 unit(s)	24,80
(4)	fig. 11	3/8 circular, rectangular	34	0.8	**LX58.1**	12 unit(s)	24,80
(5)	fig. 14	3/8 circular, rectangular	23	0.7	**LX59.1**	12 unit(s)	24,80
(6)	fig. 14	1/2 circular, round	23	0.7	**LX60.1**	12 unit(s)	24,80
(7)	fig. 16	1/2 circular, round	18	0.6	**LX61.1**	12 unit(s)	24,80
(8)	fig. 11	3/8 circular, round	34	0.8	**LX62.1**	12 unit(s)	24,80
(9)	fig. 14	3/8 circular, round	23	0.7	**LX63.1**	12 unit(s)	24,80

Suture material

B. Braun. Material: Stainless steel (needles made of 300 stainless steel quality). **Sterile**.

Individually packed.

Atraumatic needle-suture combination: Stepless transition between needle and suture, thereby minimum wound trauma.

Needle type:

- 3/8 circle, cutting
- DS16: arc length 16 mm
- DS19: arch length 19 mm

Arc length: Distance between needle tip and end of needle, measured along the outer curve of the needle.

Dafilon® needle-suture combination

Material: Polyamide. Soft and smooth, excellent knot security. Minimum fabric trauma, low memory effect.

- Suture structure: monofilament
- non-absorbable

Medical device class IIa MDD

ID: 0123

Version	Colour	USP	Metric	Length (cm)	Art. No.	Pack Qty.	€
DS16	blue	4/0	1,5	45	**XC26.1**	36 unit(s)	182,75
DS16	blue	5/0	1	45	**XC27.1**	12 unit(s)	67,20

Silkam® needle-suture combination

Material: Silk coating: Wax and silckone. Excellent handling properties, good knot security.

- Suture structure: braided
- non-absorbable

Medical device class IIb MDD

ID: 0123

Version	Colour	USP	Metric	Length (cm)	Art. No.	Pack Qty.	€
DS16	black	4/0	1,5	45	**XC29.1**	36 unit(s)	262,30
DS19	black	3/0	2	75	**XC31.1**	36 unit(s)	245,10

Silkam® short sutures (PreCuts)

Material: Silk coating: Wax and silckone. Excellent handling properties, good knot security. Can be removed individually.

- Suture structure: braided
- non-absorbable

Delivery without needle.

Medical device class IIb MDD

ID: 0123

Colour	USP	Metric	Length (cm)	Pack.	Art. No.	Pack Qty.	€
black	4/0	1,5	45	36 x 3	**XC35.1**	108 unit(s)	239,75

Dissecting needles and probes

S

Blood lancets Solofix®

B. Braun. Material: Stainless steel. **Sterile**.

For capillary blood collection, optimum lancing depth.

Medical device class IIa MDD

ID: 0123

Version	Art. No.	Pack Qty.	€
Puncture lancets	**ATK9.1**	500 unit(s)	15,30

A 121 °C

Dissecting probe

ROTH SELECTION. Material: Steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Pic.	Version	Ø (mm)	Art. No.	Pack Qty.	€
(1)	rectangular	5	**LX45.1**	1 unit(s)	19,10
(3)	curved	5	**LX43.1**	1 unit(s)	19,10
(4)	straight	5	**LX42.1**	1 unit(s)	19,85

A 121 °C

Dissecting probe

Hammacher. Material: Stainless steel 1.4310 (tip), 1.4571 (handle). Autoclavable: Yes.

Purpose: Instrument for probing dental hard tissue.

Pic.	Version	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	punt	9	135	**LX53.1**	1 unit(s)	42,25

A 121 °C

Micro dissecting probe

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Angled
Purpose: Instrument for probing dental hard tissue.

Medical device class I MDD

Pic.	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	5.5	155	**LX52.1**	1 unit(s)	12,90

Straight

Not a medical device / Not an IVD product

Pic.	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
(3)	4.5	160	**PT69.1**	1 unit(s)	15,05

Dissecting needles

ROTH SELECTION. Material: Stainless steel Remanit 4301.

Not a medical device / Not an IVD product

Stainless steel handle

Pic.	Version	Needle length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	curved	70	155	**KX99.1**	10 unit(s)	49,70
(1)	Lancet	70	155	**KY00.1**	10 unit(s)	63,45
(1)	straight	45	130	**KX98.1**	10 unit(s)	46,75

Plastic handle

Pic.	Version	Needle length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(2)	curved	40	140	**KX94.1**	10 unit(s)	27,20
(2)	Lancet	40	140	**KX95.1**	10 unit(s)	38,10
(2)	straight	40	140	**KX93.1**	10 unit(s)	24,55

Wooden handle

Version	Needle length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
curved	40	140	**KX97.1**	10 unit(s)	23,40
straight	40	140	**KX96.1**	10 unit(s)	20,65

Dissecting needles and probes

A 121 °C

Probe blunt

ROTH SELECTION. Material: Stainless steel (1.4301).
Autoclavable: Yes.

Purpose: Probes are rod-shaped or tubular instruments that are inserted into body cavities or tissue for examination or treatment.

Medical device class I MDD

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
1.0	130	**LX79.1**	1 unit(s)	10,30
1.5	160	**LX80.1**	1 unit(s)	15,05

A 121 °C

Micro dissecting chisel

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
125	**TC35.1**	1 unit(s)	42,95

A 121 °C

Micro spoon pointed

Hammacher. Material: Stainless steel Wironit (1.4310).
Autoclavable: Yes.

Not a medical device / Not an IVD product

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
130	1.8	**KAP4.1**	1 unit(s)	29,90
130	2.0	**KAP5.1**	1 unit(s)	29,90
130	2.5	**KAP6.1**	1 unit(s)	30,45

A 121 °C

Spatula pointed form

Hammacher. Material: Stainless steel 18/10 (Wironit 4301).
Autoclavable: Yes.

Purpose: Instrument for mixing filler material and inserting it into tooth cavities in the event of tooth decay.

Pic.	Version	Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
(3)	Single	155	5	30	**YL49.1**	1 unit(s)	29,85

With spoon

Not a medical device / Not an IVD product

Pic.	Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
(2)	190	10	20	**YL48.1**	1 unit(s)	37,10

A 121 °C

Double spoon Martini pointed

Hammacher. Material: Stainless steel. Autoclavable: Yes.

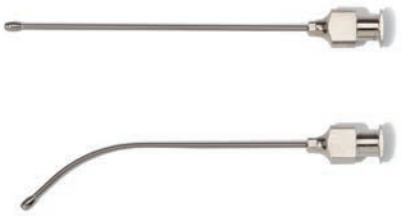
Spoon, round.

Purpose: Instrument for cleaning tooth alveoli after tooth extractions or osteotomies.

Medical device class I MDD

Version	Length (mm)	Art. No.	Pack Qty.	€
Spoon Ø 3.5/4 mm	135	**TC29.1**	1 unit(s)	53,15
Spoon Ø 3/3.5 mm	135	**TC28.1**	1 unit(s)	53,15
Spoon Ø 4/4.5 mm	135	**TC30.1**	1 unit(s)	53,15

Dissecting accessories



Irrigation cannula

ROTH SELECTION. Material: Stainless steel (1.4301), cannula tips made of bronze (2.0401).

With tip olives and Luer-Lock lug.
For feeding small animals using syringes, application of substances in sensitive areas and similar applications.

Medical device class I MDD

Version	Outer tip Ø (mm)	Ø ext. (mm)	Length (mm)	Art. No.	Pack Qty.	€
curved	2.0	1.2	60	**HPY1.1**	6 unit(s)	56,05
curved	2.4	1.5	80	**HPY2.1**	6 unit(s)	56,05
curved	3.2	2.0	80	**HPY3.1**	6 unit(s)	56,05
straight	2.0	1.2	60	**HPX8.1**	6 unit(s)	51,30
straight	2.4	1.5	80	**HPX9.1**	6 unit(s)	51,30
straight	3.2	2.0	80	**HPY0.1**	6 unit(s)	51,30

A 121 °C

Retractor

Hammacher. Material: Stainless steel. Autoclavable: Yes.
2-pronged.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
160	**TC32.1**	1 unit(s)	29,85

A 121 °C

Retractor

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
100	**TC34.1**	1 unit(s)	89,25

A 121 °C

Tissue punch

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.
Suitable for animal and plant tissue. More control through manual guide.

Not a medical device / Not an IVD product

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
28	3	**HCY8.1**	1 unit(s)	56,15
28	4	**HCY9.1**	1 unit(s)	56,15
28	5	**HEA0.1**	1 unit(s)	56,15
28	6	**HEA1.1**	1 unit(s)	56,15

Dissecting needles

ROTH SELECTION. Material: PS (Head).
Head Ø 3 mm. Assorted colours.

Length (mm)	Art. No.	Pack Qty.	€
30	**PK47.1**	100 unit(s)	3,45

Preparation surface

Hammacher. Material: Glass.

Pic.	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
(1)	95	70	6	**HEA2.1**	1 unit(s)	8,10
(2)	150	75	20	**HEA3.1**	1 unit(s)	37,75

Dissecting accessories

Preparation surface

Simport. Material: HDPE.

Can be used on both sides, with a large preparation surface on one side and two smaller surfaces on the other side. Printed with helper lines and rulers, as well as circles with diameters from 4 to 14 mm. With all-round drip channel and anti-slip rubber feet.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
330	279	12.5	**CXL9.1**	1 unit(s)	110,75
575	400	12.5	**CXN0.1**	1 unit(s)	188,15

Accessories tray for preparation surfaces

Simport. Material: PS.

Suitable for use with CXN0.1 preparation surfaces. Collects liquid overflow as required. Slip-resistant. Can be stacked to elevate the preparation surfaces to a comfortable working height.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
656	481	91	**CXN1.1**	1 unit(s)	155,90

A 121 °C

Preparation surface

Simport. Material: PP, corrugated. Autoclavable: Yes.

Usable on both sides. Printed with helper lines and rulers, as well as circles with diameters from 4 to 16 mm and 2 to 6 cm. Temperature stability: -27 to +71 °C.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
152	203	**CKP5.1**	24 unit(s)	93,55
229	305	**CTY6.1**	12 unit(s)	74,20
305	483	**CTY7.1**	12 unit(s)	138,70

Dissecting dish

Nasco Sampling. Material: HDPE, PVC dissection mat.

With flexible dissection mat for the secure fixing of specimens with needles. Hygienic alternative to wax trays, easy to use. With slip-resistant base, non-corrosive, breakage-resistant and leak-proof. Dissecting mats are washable, durable and have a smooth surface.

Technical specifications:

Art. No.	CEC7.1
L x W, internal	265 x 180 mm

Delivery incl. dissection mat.

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Small	320	227	41	**CEC7.1**	1 unit(s)	28,15

Dissecting set for anatomy ROTILABO®

ROTH SELECTION.

In zip-up case, with elastic loops to hold instruments.

Contents of small dissecting set:

1 pair of dissecting scissors for microscopy, straight, L 100 mm
1 scalpel, pointed, L 125 mm, blade 25 mm
1 tweezers, pointed, straight, L 105 mm
1 tweezers, blunt, straight, L 115 mm
1 tweezers made of spring steel, L 100 mm
1 lancet, straight, with plastic handle, L 140 mm

Not a medical device / Not an IVD product

Small

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
175	130	30	**ENY2.1**	1 unit(s)	39,85

Large
Contents of large dissecting set additionally:

1 lancet with plastic handle, L 140 mm

1 pair of dissecting scissors for microscopy, curved, L 100 mm

1 pair of scissors, blunt tip, L 130 mm

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
175	130	30	**ENY3.1**	1 unit(s)	57,70

Dissection sets

Dissecting set for microscopy ROTILABO®

ROTH SELECTION.

In zip-up case, with elastic loops to hold instruments.

Contents of small dissecting set for microscopy:
1 pair of dissecting scissors for microscopy, straight, L 115 mm
1 scalpel, pointed, L 155 mm, blade 40 mm
1 tweezers, pointed, straight, L 105 mm
1 lancet, straight, with plastic handle, L 140 mm
1 lancet with plastic handle, L 140 mm
1 Spatulas for easy lifting of tissues, L 160 mm, B 10 mm

Not a medical device / Not an IVD product

Small

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
175	130	30	**ENY0.1**	1 unit(s)	22,25

Large
Contents of large dissecting set for microscopy additionally:

1 pair of dissecting scissors for microscopy, curved, L 115 mm

1 razor, folds out, with plastic handle

1 dissecting needle with plastic handle, L 140 mm

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
175	130	30	**ENY1.1**	1 unit(s)	33,40

Dissecting set for anatomy

ROTH SELECTION.

In the case.

Contents:
1 scalpel handle No. 4 with 6 blades (type 21 + 23)
1 dissecting needle with plastic handle
1 self-closing tweezers, angled tip L 140 mm
1 coverslipper tweezers L 160 mm
1 anatomic tweezers, blunt tip L 140 mm
1 small pairs of scissors L 115 mm
1 pair of scissors, blunt tip L 130 mm
1 double spatula L 170 mm
10 dissecting needles

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
195	85	30	**0829.1**	1 unit(s)	59,50

Dissecting set for anatomy anatomical Premium

Hammacher. Material: Stainless steel corrosion-free (instruments), box made of wood.

Instruments made of stainless steel, autoclavable, wooden box and instruments with wooden handle not autoclavable.

Contents:
1 pair of scissors, buttoned, 145 mm
1 cartilage knife with scraper, wooden handle, 180 mm
5 scalpels with wooden handle, bundled, blade length 25-45 mm
1 tweezers, 105 mm, blunt
1 tweezers, 105 mm, sharp
1 muscle retractor, 100 mm
1 tube, double, straight
1 blunt probe, 130 mm, Ø 1 mm
2 surgical needles, ½ circle

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
190	100	35	**TE19.1**	1 unit(s)	445,05

Dissecting set for microscopy

ROTH SELECTION.

In wooden box.

Contents of small dissecting set for microscopy:
1 scalpel, full-metal 35 mm
1 dissecting needles, pointed
1 dissecting needles, lance shaped
1 splitter tweezers 110 mm
1 scalpel for easy lifting of tissue 45 x 8 mm
1 pair of microscopy scissors 110 mm, straight

Not a medical device / Not an IVD product

Small

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
195	85	32	**LX82.1**	1 unit(s)	46,75

Large
Contents of large dissecting set for microscopy additionally:

1 razor

1 dissecting probe, curved

1 pair of microscopy scissors 110 mm, curved

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
195	95	35	**LX83.1**	1 unit(s)	58,75

Dissection sets

Chemist set

Hammacher.

In zip-up case, with elastic loops to hold instruments.
Contents:
2 micro-double spatulas, flexible, 150 mm
1 spoon spatula, 150 mm
1 micro-spoon spatula, 150 mm, spoon 5 x 7 mm
1 weighing spatula, 170 mm
1 micro-powder spatula, flexible, 150 mm
1 dissecting needle with plastic handle, 140 mm
1 chemist's spoon, 150 mm
1 set of splinter forceps, curved, 105 mm
1 pair of tweezers, anatomically shaped, 145 mm
1 pair of tweezers, pointed, 105 mm
1 pair of scissors, pointed-pointed, 145 mm
1 pair of microscopy scissors, 115 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
215	155	27	**KAN9.1**	1 unit(s)	95,30

Chemist set

ROTH SELECTION. Material: Stainless steel Remanit® 4301 (instruments), case made of plastic.

Instruments autoclavable, case not autoclavable.
Contents:
1 pair of precision scissors, pointed-blunt, L 130 mm
1 tweezers pointed, L 130 mm
1 micro double spatula, L 130 mm, blade width 4 mm
1 chemist double spatula, L 150 mm, blade width 9 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
150	90	**1863.1**	1 unit(s)	25,25

Chemist set large

Hammacher. Material: Stainless steel (corrosion-free), scissors made of steel (nickel-plated), Box made of plastic.

Instruments made of stainless steel, autoclavable, Scissors and box not autoclavable.
Contents:
1 micro double spatula, 130 mm
1 micro spoon spatula, spoon 5 x 7 mm
1 micro powder spatula, flexible, 185 mm
1 double spatula, rigid, 185 mm
1 tweezers, straight, sharp, 160 mm
1 pair of scissors, straight, serrated, 170 mm
1 Poly spoon, 180 mm
1 weighing spoon
1 double spatula, wide, round on both sides, 150 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
214	102	27	**TE20.1**	1 unit(s)	80,15

Instrument care oil

Hammacher.

Synthetic oil, silicone-free. Odourless and transparent, leaves no brown marks on the instruments. Spot-on application through safety/anti-drop valve.

Not a medical device / Not an IVD product

Pack.	Art. No.	Pack Qty.	€
12 ml application pin	**HCY1.1**	1 unit(s)	17,85

eppendorf

CARL ROTH

We carry a wide range of Eppendorf articles.

Please find the complete selection in our webshop at **www.carlroth.com**

Sampling, Pumps & Liquid Handling

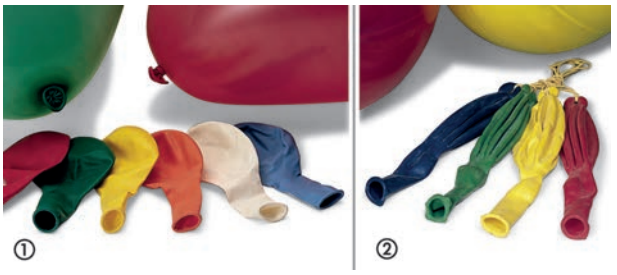
Gas Handling and Sampling
- Control seals 510
- Disposable sampling systems 363
- Gas handling 506
- Liquid sampling 512
- Sampling for pasty / viscous substances 511
- Sampling for powders / granulates 508

Pumps and Tubes
- Centrifugal pumps 558
- Membrane liquid pumps 560
- Membrane vaccuum pumps 567
- Peristaltic pumps 563
- Rotary vane pumps 573
- Stopcocks 603
- Suction systems 581
- Tubes 584
- Tubing accessories 593
- Tubing connectors 596
- Vacuum meters 575
- Vacuum systems 579
- Water-jet pumps 583

Hand Pumps and Dosing
- Barrel pumps 523
- Barrel pumps, electric 526
- Burettes 542
- Canister pumps 520
- Digital burettes 545
- Digital dispensers 530
- Dispensers 528
- Microlitre syringes HAMILTON 552
- Mikrolitre syringes, standard 555
- Solvent pumps 524
- Syringes / needles 548
- Titrator 547

Pipettors
- Capillary pipettes 604
- Microlitre pipettors 640
- Mikrolitre pipettors-accessories 653
- Pasteur pipettes 606
- Pipetting aids 624
- Pipettor-accessories 631
- Pipettor tips 655
- Piston pipettors 633
- Positive displacement pipettors 638
- Reagent reservoirs 670
- Volumetric / Graduated pipettes 615

Sample Storage and Microcentrifuge Tubes
- Cryo- and screw cap tubes 698
- Microcentrifuge tubes 690
- Microtiter plates 674
- PCR-plates and containers 684
- Sample storage 674
- Sealing films 681



Gas bags ROTILABO®

ROTH SELECTION.

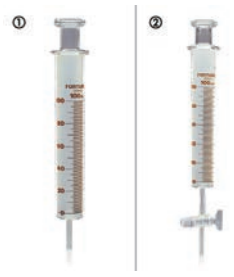
(1) Standard
Material: Natural rubber. Egg-shaped for mixing or short-term storage of gases. Maximum size approx. 85 cm. Sorted by colour.

Version	Art. No.	Pack Qty.	€
Standard	**0933.1**	100 unit(s)	14,55

(2) Maxi
Material: Latex. For testing the air or gas entry to or exit from apparatus as well as for short-term storage of gases.

Empty: 22 cm long. Sorted by colour.

Version	Art. No.	Pack Qty.	€
Maxi	**TA08.1**	10 unit(s)	21,45



Gas syringe

Poulten & Graf. Material: Glass from hydrolytic class I.

For carrying out gas volumetric experiments. Brown graduation, resistant to acids and alkalis.

Areas of application:
Analysis of air and breathing air, determination of breathing quotients, indirect water analysis, qualitative gas burning, illuminating gas analysis, etc.

(1) With capillary attachment
Without stopcock, inside Ø approx. 2.5 mm, outside Ø approx. 6.5 mm

Vol. (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
25	0.5	**HT27.1**	1 unit(s)	64,30
50	0.5	**HT28.1**	1 unit(s)	68,80
100	1.0	**HT29.1**	1 unit(s)	75,65

(2) With capillary stopcock
NS 12.5; hole 2.5 mm

Vol. (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
50	0.5	**HT30.1**	1 unit(s)	102,70
100	1.0	**HT31.1**	1 unit(s)	112,65

Gas leak detector testo 316-1

Testo.

For detecting leaks in piping, flanges, screw connections, in gas pipes, etc. For methane.

- Visual and audible alarm signals.
- Flexible measuring probe for hard-to-reach areas
- Sensor has very short reaction times.
- Battery life: >5 h

Technical specifications:

Art. No.	P757.1
Measuring range	0 to 10,000 ppm CH4
Alarm threshold	>200 ppm LED yellow / >10000 ppm LED red
Operating temperature	+4 to +45 °C
L x W x H	190 x 57 x 42 mm
Weight	300 g
Power supply	E-block, 9 V

Delivery incl. battery (9 V).

Type	Art. No.	Pack Qty.	€
testo 316-1	**P757.1**	1 unit(s)	231,15

Bags PLASTIGAS®

Linde.

Made from multi-layer laminated foil, thermoplastically welded, with polyethylene coating inside. For storing small amounts of gas at low pressure.

(1) Volume: 2.5 l
With connection nozzle for inflation hose, and stuck-on septum for removal by syringe.

Delivery without inflation hose, please order separately.

(2) Volume: 27 l
With screw valve and metallic hose nozzle, as well as a septum for removal by syringe.

Vol. (l)	Art. No.	Pack Qty.	€
27	**0847.1**	1 unit(s)	92,60

Accessories inflation hose for 2.5 l PLASTIGAS® bags

Linde.

Version	Art. No.	Pack Qty.	€
Inflation hose, 80 cm long	**H547.1**	1 unit(s)	18,80

Gas test tube

ROTH SELECTION. Material: DURAN® glass.

According to DIN 12473-1, with two single-way stopcocks NS 14.5 and sampling nozzles (GL 14 thread). Capillary tube (inside Ø 2.7 mm, outside Ø 8 mm) on one side and hose connector (outside Ø 8 mm) on the other. With labelling area.

Vol. (ml)	Art. No.	Pack Qty.	€
350	**KX55.1**	1 unit(s)	99,80
500	**KX56.1**	1 unit(s)	110,75
1,000	**KX57.1**	1 unit(s)	155,90

Gas pressure regulator single stage

Kayser. Material: Brass.

For safe removal of gas from steel bottles up to 200 bar, while simultaneously reducing the required working pressure to 10 bar.

- Manufactured according to EN ISO 2503.
- With safety valve (triggers at 12 bar).

With standard connection

Technical specifications:

Upstream pressure, max.	200 bar
Back pressure	0–10 bar
Readability	0.5 bar
Operating temperature	-20 to +60 °C
L x W x H	180 x 65 x 170 mm
Weight	1,7 kg

Gas type	Bottle connection	Tube connection	Art. No.	Pack Qty.	€
Oxygen	G ¾″ right	G ¼″ right	**0285.1**	1 unit(s)	88,85
Hydrogen	W 21.8 x 1/14″ left	G ⅜″ left	**0284.1**	1 unit(s)	88,85
Nitrogen	W 24.32 x 1/14″ right	G ¼″ right	**0288.1**	1 unit(s)	88,85
Noble gases/ CO_2	W 21.8 x 1/14″ right	G ¼″ right	**0286.1**	1 unit(s)	88,85
Noble gases/CO_2 volumetric flow rate 0–28/30 l/min	W 21.8 x 1/14″ right	G ¼″ right	**0290.1**	1 unit(s)	88,85
Compressed air	G ⅝″ pressure screw	G ¼″ right	**0270.1**	1 unit(s)	88,85
Calibrating gas	M 19 x 1,5 left	G ⅜″ left	**0280.1**	1 unit(s)	88,85
Forming gas, volumetric flow rate 0-50 l/min	W 21.8 x 1/14″ left	G ⅜″ left	**0289.1**	1 unit(s)	88,85

With special connection (France)

Gas type	Bottle connection	Tube connection	Art. No.	Pack Qty.	€
Oxygen	W 22.91 x 1,814″	G ¼″ right	**9804.1**	1 unit(s)	n. a.
Noble gases/ CO_2	W 21,7 x 1,814″	G ¼″ right	**9805.1**	1 unit(s)	n. a.

Gas pressure regulator two-stage

AirLiquide. Material: Brass, chrome-plated.

For all pure and ultra-pure gas mixtures, apart from acetylene and corrosive gases. For applications requiring a constant initial pressure.

Back pressure up to 1 bar

Technical specifications:

Upstream pressure, max.	200 bar
Back pressure	0,05–1 bar
Readability	0.1 bar
Inlet connection	Bottle connection according to DIN 477
Outlet connection	Clamping ring screw connection for 6 mm pipe
Total leakage rate	3 x 10^{-7} mbar l/s
Operating temperature	-20 to +50 °C
L x W x H	180 x 98 x 135 mm
Weight	1,6 kg

Gas type	Bottle connection	Art. No.	Pack Qty.	€
Oxygen	R ¾″ right	**C288.1**	1 unit(s)	753,60
Hydrogen	W 21.8 x 1/14″ left	**C287.1**	1 unit(s)	753,60
Nitrogen	W 24.32 x 1/14″ right	**C289.1**	1 unit(s)	753,60
Inert gases	W 21.8 x 1/14″ right	**C286.1**	1 unit(s)	753,60
Calibrating gas	M 19 x 1,5 left	**C290.1**	1 unit(s)	753,60

Back pressure up to 3 bar

Gas type	Bottle connection	Art. No.	Pack Qty.	€
Oxygen	R ¾″ right	**C293.1**	1 unit(s)	753,60
Hydrogen	W 21.8 x 1/14″ left	**C292.1**	1 unit(s)	753,60
Nitrogen	W 24.32 x 1/14″ right	**C294.1**	1 unit(s)	753,60
Inert gases	W 21.8 x 1/14″ right	**C291.1**	1 unit(s)	753,60
Calibrating gas	M 19 x 1,5 left	**C295.1**	1 unit(s)	753,60

Back pressure up to 10 bar

Gas type	Bottle connection	Art. No.	Pack Qty.	€
Oxygen	R ¾″ right	**C298.1**	1 unit(s)	753,60
Hydrogen	W 21.8 x 1/14″ left	**C297.1**	1 unit(s)	753,60
Nitrogen	W 24.32 x 1/14″ right	**C299.1**	1 unit(s)	753,60
Inert gases	W 21.8 x 1/14″ right	**C296.1**	1 unit(s)	753,60
Calibrating gas	M 19 x 1,5 left	**C300.1**	1 unit(s)	753,60

Samplers for powder/granules

A 121 °C

Samplers Tubus

Bürkle. Material: Stainless steel 1.4404. Autoclavable: Yes.

For pourable bulk goods up to Ø approx. 10 mm, such as hazelnuts, grains, granulates, crystalline solids (e.g. sugar). Suitable for use with foodstuffs.

Application:

- Insert the tube into the bag to the desired sampling depth
- The sample flows directly through the open tube into the sampling bag

Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
400	40	**EP04.1**	1 unit(s)	164,50
800	40	**EP05.1**	1 unit(s)	207,50

A 121 °C

Samplers QuickPicker

Bürkle. Autoclavable: Yes.

For removal of bulk goods from bags and direct transfer into original sampling bottles. Suitable for use with foodstuffs. Sampler (without bottle) is autoclavable.

Delivery incl. 2 x 250 ml LDPE sample bottles and cleaning brush.

Polypropylene
Material: PP. Colour translucent

Vol. (ml)	Length (mm)	Insertion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
75	500	300	25	**YK99.1**	1 unit(s)	157,45

Stainless steel
Material: Stainless steel 1.4404.

Vol. (ml)	Length (mm)	Insertion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
75	500	300	25	**YL00.1**	1 unit(s)	250,50

A 121 °C

Powder and granulate sampler

Bürkle. Material: Stainless steel 1.4404. Autoclavable: Yes.

Suitable for use with foodstuffs. Compliant with EN ISO 707 and IDF (International Dairy Federation). Suitable for sampling milk powder. Application: The sampler is inserted into bags and the sample is removed using a semi-circular lance.

Vol. (ml)	Length (mm)	Insertion depth (cm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
150	480	385	28	**YL02.1**	1 unit(s)	195,65

A 121 °C

Samplers SiloPicker

Bürkle. Material: Stainless steel 1.4404. Autoclavable: Yes.

For sampling bulk materials from silos, tanks, BigBags and other large-sized containers. Suitable for use with foodstuffs.

Application:

- Insert SiloPicker into bulk goods
- The closure sleeve automatically closes the collection container
- When the sampling depth has been reached, briefly pull back the SiloPicker
- The bulk goods flow into the collection container
- Pull out the SiloPicker
- Empty the sampler

Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
100	1,300	50	**YX85.1**	1 unit(s)	453,65

Samplers for powder/granules

Zone samplers

Bürkle. Autoclavable: Yes.
For sampling bulk goods, e.g. from bags, barrels, bins, BigBags and silos. Suitable for use with foodstuffs.

Application:

- Close the chambers by turning the handle
- Insert the sampler to the desired depth
- Open the chambers to allow the bulk goods to flow into the collector
- Close the chambers
- Withdraw the sampler
- Reseal the puncture using an adhesive seal

A 121 °C

Delivery without emptying device and cleaning brush, please order separately.

All layers

Open inner tube for large sample volumes. Meets ISTA standard for seed lengths of 10 mm (wheat, oats) and 5 mm (flax, vetch).

Materialspecification	Length (mm)	Insertion depth (mm)	Number of chambers	Chamber volume (ml)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Aluminium	550	430	3	70	25	**YH96.1**	1 unit(s)	230,05
Stainless steel 1.4404	550	430	3	70	25	**YH99.1**	1 unit(s)	656,85
Aluminium	850	710	3	130	25	**YH97.1**	1 unit(s)	247,25
Stainless steel 1.4404	850	710	3	130	25	**YK00.1**	1 unit(s)	757,90
Aluminium	1,500	1,355	5	260	25	**YH98.1**	1 unit(s)	313,90
Stainless steel 1.4404	1,500	1,355	5	260	25	**YK01.1**	1 unit(s)	911,60

Multi

Inner tube with separate chambers. For multi point sampling from various sample depths.

Materialspecification	Length (mm)	Insertion depth (mm)	Number of chambers	Chamber volume (ml)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Aluminium	550	430	3	14	25	**YK02.1**	1 unit(s)	252,65
PTFE, stainless steel 1.4404	550	430	3	14	25	**YK05.1**	1 unit(s)	478,40
Aluminium	850	710	3	17	25	**YK03.1**	1 unit(s)	280,60
PTFE, stainless steel 1.4404	850	710	3	17	25	**YK06.1**	1 unit(s)	540,75
Aluminium	1,500	1,355	5	17	25	**YK04.1**	1 unit(s)	362,30
PTFE, stainless steel 1.4404	1,500	1,355	5	17	25	**YK07.1**	1 unit(s)	783,70

Uno

One closed sampling chamber. For taking target-point samples from a specific sample depth.

Materialspecification	Length (mm)	Insertion depth (mm)	Number of chambers	Chamber volume (ml)	Ø ext. (mm)	Art. No.	Pack Qty.	€
PTFE, stainless steel 1.4404	550	430	1	17	25	**YK08.1**	1 unit(s)	488,05
PTFE, stainless steel 1.4404	850	710	1	17	25	**YK09.1**	1 unit(s)	546,10
PTFE, stainless steel 1.4404	1,500	1,355	1	17	25	**YK10.1**	1 unit(s)	798,75

Security seals

Security seal food and pharma

Bürkle.

Aluminium barrier layer. Adhesive suitable for food. Prevents trickling of bulk material after sampling.
Suitable for foodstuffs, pharmaceuticals, cosmetics, food supplements and frozen goods.

- Seals gastight
- Wipe-resistant inscribable

Label dispenser optionally available, please order separately.

Close-it Standard

Colour	Width (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
red	95	95	Roll	**YC60.1**	500 unit(s)	68,05
blue	95	95	Roll	**YC63.1**	500 unit(s)	68,05
black	95	95	Roll	**YC61.1**	500 unit(s)	68,05
green	95	95	Roll	**YC64.1**	500 unit(s)	68,05
white	95	95	Roll	**YC65.1**	500 unit(s)	68,05
yellow	95	95	Roll	**YC62.1**	500 unit(s)	68,05

Close-it Maxi

Colour	Width (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
red	150	150	Roll	**YC66.1**	250 unit(s)	91,00
blue	150	150	Roll	**YC69.1**	250 unit(s)	91,00
black	150	150	Roll	**YC67.1**	250 unit(s)	91,00
green	150	150	Roll	**YC70.1**	250 unit(s)	91,00
white	150	150	Roll	**YC71.1**	250 unit(s)	91,00
yellow	150	150	Roll	**YC68.1**	250 unit(s)	91,00

Close-it[tape] Standard

Endless label for cutting to size.

Colour	Width (mm)	Length (m)	Pack.	Art. No.	Pack Qty.	€
white	95	50	Roll	**YC72.1**	1 unit(s)	68,20

Close-it[tape] Maxi

Endless label for cutting to size.

Colour	Width (mm)	Length (m)	Pack.	Art. No.	Pack Qty.	€
white	150	50	Roll	**YC73.1**	1 unit(s)	91,00

Security seal metal-detectable

ROTH SELECTION.

For hermetic sealing of pierced bags, cartons or BigBags after sampling.

- Barrier layer made of aluminium with extra-strong bonding layer, food-safe adhesive
- Temperature stable in the range -20 to +70 °C
- Min. adhesion temperature 0 °C
- ø 95 mm

Version	Pack.	Art. No.	Pack Qty.	€
QUALITÄTS-KONTROLLE	Roll	**T457.1**	1,000 unit(s)	135,00
QUALITY CONTROL	Roll	**T513.1**	1,000 unit(s)	135,00
CONTRÔLE QUALITE - PRELEVE LE	Roll	**T514.1**	1,000 unit(s)	135,00

A 121 °C

Plunge borer conical

Bürkle. Material: Stainless steel 1.4301. Autoclavable: Yes.

Conically shaped with sharp edges and a solid handle.

For sampling soft and paste-like substances, such as cheese, butter, mud, clay, soap and wax. Compliant with EN ISO 707. Suitable for use with foodstuffs.
Application: Insert the borer into the substance and turn it to cut out the sample material.

Length (mm)	Insertion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
180	120	10 – 15	**YP34.1**	1 unit(s)	73,40
220	170	11 – 18	**YP35.1**	1 unit(s)	109,95

Samplers for pasty/viscous substances

A 121 °C

Plunge borer cylindrical

Bürkle. Material: Stainless steel 1.4301. Autoclavable: Yes.

With sharp cutting crown. For sampling paste-like and semi-solid substances. Suitable for use with foodstuffs.
Application: Use the piston rod to push the bored samples out of the cylinder.

Length (mm)	Insertion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
260	200	10	**YP36.1**	1 unit(s)	149,65

A 121 °C

Pigment sampler

Bürkle. Material: Stainless steel 1.4404. Autoclavable: Yes.

With half-open groove for very adhesive substances or quarter-open groove for less adhesive substances. For sampling pigments, pastes and agglomerating bulk goods. Suitable for use with foodstuffs.
Application: Insert the lance to the desired depth. Turn the handle so that the sample is collected in the open groove. Withdraw the lance. Remove the sample.

Vol. (ml)	Length (mm)	Ø ext. (mm)	Groove opening (%)	Art. No.	Pack Qty.	€
85	300	30	50	**YP38.1**	1 unit(s)	251,55
145	300	30	25	**YP37.1**	1 unit(s)	226,85
179	600	30	50	**YP40.1**	1 unit(s)	353,70
312	600	30	25	**YP39.1**	1 unit(s)	325,75

Samplers

Bürkle.

Suitable for foodstuffs. Colour translucent

(1) Visco
For viscous media. Very strong suction power for sampling viscous, non-self-flowing substances such as mud, slime, watery clay and soil samples, oils, emulsions, creams.

Application: Samples are drawn in and ejected via a piston rod.

Material-speci-fication	Vol. (ml)	Immersion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
PP	160	600	32	**YP46.1**	1 unit(s)	269,85
PTFE, FEP	160	600	32	**YP49.1**	1 unit(s)	369,80
PP	300	1000	32	**YP47.1**	1 unit(s)	319,30
PTFE, FEP	300	1000	32	**EE48.1**	1 unit(s)	441,85
PP	650	2000	32	**YP48.1**	1 unit(s)	478,40
PTFE, FEP	650	2000	32	**EE49.1**	1 unit(s)	608,45

(2) Liqui
For liquid mediums. DIN EN ISO 15 528 certified. Practical one-handed operation at the push of a button.

Application:
- For all-layer sampling, slowly plunge the LiquiSampler into the liquid with the button pressed (valve open). Release the button, the valve closes. Withdraw the sampler and remove the sample.
- For target-point/soil sampling: Dip the LiquiSampler in the target-point/soil with the valve closed. Press the button, the valve opens and liquid flows in. Release the button, the valve closes. Withdraw the sampler and remove the sample.

Material-speci-fication	Vol. (ml)	Immersion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
PP	150	600	32	**YP50.1**	1 unit(s)	175,25
PTFE, FEP	150	600	32	**YP53.1**	1 unit(s)	275,20
PP	250	1000	32	**YP51.1**	1 unit(s)	233,30
PTFE, FEP	250	1000	32	**EE46.1**	1 unit(s)	388,10
PP	500	2000	32	**YP52.1**	1 unit(s)	348,30
PTFE, FEP	500	2000	32	**EE47.1**	1 unit(s)	538,60

Samplers for liquids

A 121 °C

Liquid collectors

Bürkle. Material: Stainless steel 1.4404. Autoclavable: Yes.

For sampling thin to viscous liquids.

- With discharge funnel for safe filling of sampling bottles
- One-handed operation
- Suitable for Opening Ø >32 mm

(1) Open with thumb

Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
50	460	**YX81.1**	1 unit(s)	218,25
100	540	**YX82.1**	1 unit(s)	232,20

(2) Open by placing onto bottle

Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
50	455	**YX83.1**	1 unit(s)	254,80
100	535	**YX84.1**	1 unit(s)	294,55

Pipette

Bürkle. Material: PP.

For taking liquid samples easily. Stopcock at upper end, ball valve at lower end. Transparent tubes allow for good visibility. Suitable for use with foodstuffs. Colour translucent.

Application:

- For all-layer sampling: with the valve open, slowly insert the pipette into the liquid. Close the valve. Withdraw the pipette and empty the sample into a container
- For target point samples: With the valve closed, insert the pipette as far as the target point. Open the valve and the liquid will flow in. Close the valve. Withdraw the pipette and empty the sample into a container

Vol. (ml)	Length (mm)	Immersion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
140	600	500	25	**EN97.1**	1 unit(s)	50,10
280	1,100	1000	25	**EN98.1**	1 unit(s)	52,60
560	2,100	2000	25	**EN99.1**	1 unit(s)	62,95

A 121 °C

Samplers Mini Visco

Bürkle. Material: PTFE, Stainless steel 1.4404. Autoclavable: Yes.

For sampling viscous substances such as pastes, muds, creams and oils. Suction point with 2 mm suction hole. Ideal for the pharmaceutical and cosmetics industry. Suitable for use with foodstuffs. **Application:** Samples are drawn in and ejected via a piston rod.

Suction points available with a larger diameter for more viscous mediums, please order separately.

Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
30	600	15	**YP41.1**	1 unit(s)	310,70
50	1,000	15	**YP42.1**	1 unit(s)	358,00
75	1,500	15	**YP43.1**	1 unit(s)	434,30

Sampling container

Bürkle.

(1) Pendulum beaker
For sampling liquids, e.g. from deep tanks, tubs or narrow shafts. Vessel swings into the horizontal position. For opening Ø from 150 mm.

Delivery incl. beaker holder.

Telescopic rod not included, please order separately.

Materialspecification	Vol. (ml)	Art. No.	Pack Qty.	€
PP	600	**NH29.1**	1 unit(s)	52,50
PP	1,000	**9244.1**	1 unit(s)	51,85
Stainless steel 1.4301	1,000	**NH30.1**	1 unit(s)	197,80
PP	2,000	**9251.1**	1 unit(s)	62,40

Samplers for liquids

(2) Angular beaker
Angle of inclination can be adjusted by up to 90° by rapidly adjusting the joint.

Delivery incl. beaker holder.

Telescopic rod not included, please order separately.

Materialspecification	Vol. (ml)	Art. No.	Pack Qty.	€
PP	600	**N104.1**	1 unit(s)	52,85
PP	1,000	**N105.1**	1 unit(s)	54,45
PP	2,000	**N106.1**	1 unit(s)	59,05

(3) Beaker with scraper edge
For samples of powders, granulates, pastes and muds.

Delivery incl. beaker holder.

Telescopic rod not included, please order separately.

Materialspecification	Vol. (ml)	Art. No.	Pack Qty.	€
Stainless steel 1.4301	1,000	**NH31.1**	1 unit(s)	175,25

(4) Bottle holder
Fits bottles up to a maximum of Ø 88 mm. With quick action strap. Angle of inclination can be adjusted by up to 90° by rapidly adjusting the joint.

Delivery incl. bottle with screw top.

Telescopic rod not included, please order separately.

Materialspecification	Vol. (ml)	Art. No.	Pack Qty.	€
PP (holder) PA (tightening strap) PE (bottle)	750	**N107.1**	1 unit(s)	61,45

Telescopic rod for sampling containers

Bürkle. Material: Aluminium, PP.

For use with sampling container.
Not suitable for aggressive liquids.

Length, adjustable (mm)	Art. No.	Pack Qty.	€
600–1200	**9254.1**	1 unit(s)	28,25
1000–3000	**9257.1**	1 unit(s)	56,05
1250–2500	**9255.1**	1 unit(s)	36,20
1650–4500	**T251.1**	1 unit(s)	78,70

Sample scoops

Bürkle. Material: PP.

With secure holding rod. For collecting samples of liquids in tanks, tubs, galvanic baths, water, etc. Holding rod: 1000 mm length, Ø 20 mm.

Vol. (ml)	Art. No.	Pack Qty.	€
250	**9220.1**	1 unit(s)	59,05
600	**9225.1**	1 unit(s)	61,20
1,000	**9236.1**	1 unit(s)	70,05

ChemoSampler

Bürkle. Material: PP grey.

For safe sampling of aggressive liquids. The sample is drawn directly into the screw-on bottle.

Delivery incl. 1000 ml sample bottle.

Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
1,000	1,000	**T273.1**	1 unit(s)	89,50

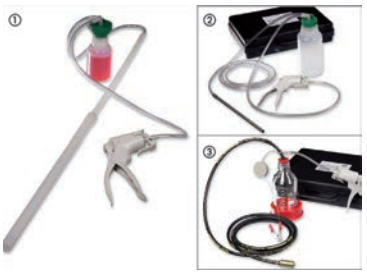
Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Samplers for liquids



Liquid samplers UniSampler

Bürkle.

Simple operation: The sample is poured directly into the sample container using a vacuum, with no risk of contamination.

(1) With telescopic rod
For sampling fluids from a defined depth.
Telescopic suction tube can be extended continuously from 52 cm to 100 cm. Suction tube made of PP, tubing made of PVC.

Application:
- Adjust the required sampling depth by moving the suction lance
- Fit the sample bottle onto the adapter
- Lower the suction lance into the medium
- Generate a vacuum using the hand pump and collect the sample
- Remove the filled sample bottle and then close and label it

Delivery incl. 5 x 250 ml and 5 x 500 ml PP bottles and adapter for bottle sizes of 100–1000 ml.

Version	Art. No.	Pack Qty.	€
UniSampler with telescopic lance	**AH45.1**	1 unit(s)	281,65

(2) With tubing
Sampler for low, angled positions. The tubing is pulled down over the heavy stainless steel tube. Tubing made of PVC, 2.50 m length.

Application:
- Lower the suction hose to the required depth
- Fit the sample bottle onto the adapter
- Generate a vacuum using the hand pump and collect the sample
- Remove the filled sample bottle and then close and label it

Delivery incl. 1 x 1000 ml PP bottle, adapter bottle sizes of 100–1000 ml and carrying case.

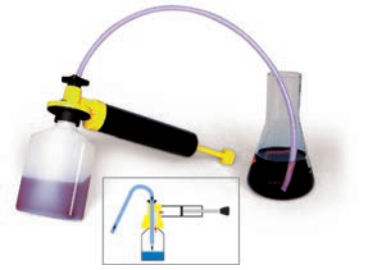
Version	Art. No.	Pack Qty.	€
UniSampler with tube	**AH46.1**	1 unit(s)	206,40

(3) Ex
For sampling flammable liquids of hazard class A I (e.g. gasoline). Sample bottle (glass, 1000 ml) and tubing (NBR, 4 m length) connected in an electrically conducting manner and earthed via an earth cable. PTB approval D-333-009 618/00.

Application:
- Earth the implement
- Lower the suction hose to the required depth
- Fit the sample bottle onto the adapter
- Generate a vacuum using the hand pump and collect the sample
- Remove the filled sample bottle and then close and label it

Delivery incl. 4 m tubing, 1 x 1000 ml glass bottle and carrying case.

Version	Art. No.	Pack Qty.	€
UniSampler Ex	**AH47.1**	1 unit(s)	391,30



Liquid samplers

ROTH SELECTION.

For extracting liquid samples even from places that are difficult to access. The liquid only comes into contact with the PE tubing and the PE bottle. Also suitable for more viscous liquids (e.g. oils).
The PE bottle is screwed into the pump and can be tightly sealed after the sample has been taken. The tubing can be changed quickly and easily.

Application:
- A vacuum is generated by pulling up the pump.
- The liquid is drawn in and collected in the PE bottle.

Hand pump with connector 22

Delivery without PE tubing and PE bottle, please order separately.

Version	Art. No.	Pack Qty.	€
Pump, connector 22	**C001.1**	1 unit(s)	72,60

Set with connector 22

Delivery incl. 5 x 50 ml PE bottles (angular), 2 x 250 ml PE bottles (round), 13 m PE tubing and transport case.

Version	Art. No.	Pack Qty.	€
Set, connector 22	**C005.1**	1 unit(s)	112,90

Hand pump with connector 28

Delivery without PE tubing and PE bottle, please order separately.

Version	Art. No.	Pack Qty.	€
Pump, connector 28	**E514.1**	1 unit(s)	67,20

Accessories for liquid samplers

ROTH SELECTION.

PE bottles with connector 22

Version	Art. No.	Pack Qty.	€
50 ml, angular	**E516.1**	10 unit(s)	17,75
150 ml, flat	**E517.1**	10 unit(s)	24,70
150 ml, flat	**E517.2**	220 unit(s)	363,35
250 ml, angular	**C003.1**	10 unit(s)	22,60

PE bottles with connector 28, 500 ml, angular

Version	Art. No.	Pack Qty.	€
500 ml, angular	**E515.1**	10 unit(s)	24,70

PE tubing

Version	Art. No.	Pack Qty.	€
internal Ø 4.5 mm, external Ø 6 mm, 13 m length	**C004.1**	13 m	25,30

Samplers for liquids

A 121 °C

Dipping bottle glass

Bürkle. Autoclavable: Yes.

Made from non-sparking materials. Nickel-plated brass dipping frame, closure made of electrically conductive polyamide, clear glass bottle. For taking sludge and water samples as well as samples of group A petroleum products, explosion hazard groups IIA and IIB.
Tested for use in Ex protection area 0.

- Secure closure to allow for quick bottle change
- High weight (3.3 kg) for rapid lowering
- Dimensions: External Ø 89 mm, height 330 mm

Delivery without manual cable reel and lowering rope, please order separately.

Vol. (ml)	Art. No.	Pack Qty.	€
1,000	**T266.1**	1 unit(s)	514,95

Dipping bottle Ex

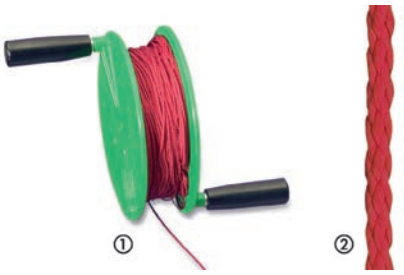
Bürkle.

Made from non-sparking brass, nickel-plated. For sampling of group A petroleum products, explosion groups IIA, IIB and IIC. Tested for use in Ex protection area 0.

- Removable bottle head for easy cleaning
- High weight (3.2 kg) for rapid lowering
- Dimensions: External Ø 89 mm, height 443 mm

Delivery without manual cable reel and lowering rope, please order separately.

Vol. (ml)	Art. No.	Pack Qty.	€
1,000	**T267.1**	1 unit(s)	525,70



Accessories for dipping bottles

Bürkle.

(1) Manually-operated reel
Material: PP.

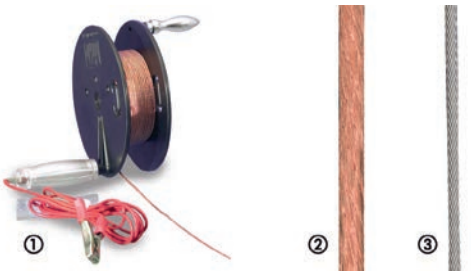
- High winding capacity: Up to 150 m for cable of Ø 2 mm
- Reel: Internal Ø 100 mm, external Ø 180 mm, 44 mm internal width, 55 mm outside width

Delivery without cable not included, please order separately.

Version	Art. No.	Pack Qty.	€
Manually-operated reel	**T269.1**	1 unit(s)	101,60

(2) Lowering cable
Material: PP. Max. tensile load of up to 10 kg

Version	Length (m)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Lowering cable	10	2	**T272.1**	1 unit(s)	13,95



Accessories for dipping bottles; sampling highly flammable solutions

Bürkle.

(1) Manually-operated reel EX
Material: Plastic electrically-conductive. With earthing duct. Explosion hazard groups IIA, IIB and IIC.

- High winding capacity: Up to 150 m for cable of Ø 2 mm
- Reel: Internal Ø 100 mm, external Ø 180 mm, 44 mm internal width, 55 mm outside width

Delivery without cable not included, please order separately.

Version	Art. No.	Pack Qty.	€
Manually-operated reel EX	**EP11.1**	1 unit(s)	247,25

(2) Copper lowering rope
Material: Copper electrically-conductive. Max. tensile load of up to 10 kg

Version	Length (m)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Lowering cable	10	4,5	**EP10.1**	1 unit(s)	134,40

(3) Stainless steel lowering cable
Material: Stainless steel V4A, electrically-conductive. Max. tensile load of up to 10 kg

Version	Length (m)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Lowering cable	10	1,25	**T271.1**	1 unit(s)	34,65

Disposable samplers

S

Sample spatula SteriPlast®

Bürkle. Material: PS. **Sterile**.

For sterile and contamination-free sampling, e.g. of powders, granulates and pastes.
With long, sturdy handle and sharp blade for piercing, e.g. paper and plastic bags.

- Colour white
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Without lid

Sterility	Length (mm)	Insertion depth (mm)	Art. No.	Pack Qty.	€
Sterile	263	150	**CLT5.1**	10 unit(s)	19,35

With lid

For sealing the sample immediately after it has been taken.

Sterility	Length (mm)	Insertion depth (mm)	Art. No.	Pack Qty.	€
Sterile	268	150	**CLT6.1**	10 unit(s)	28,10

S

Sample spoon SteriPlast® Bio

Bürkle. Material: PE Green. **Sterile**.

For sampling powders, granulates, pastes and liquids. Made from renewable raw materials and fully recyclable.

- Colour white
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	2.5	127	**CPT3.1**	100 unit(s)	53,25
Sterile	10	170	**CPT4.1**	100 unit(s)	56,10

S

Sample spoon SteriPlast® blue

Bürkle. Material: PS. **Sterile**.

For sampling powders, granulates, pastes and liquids.

- Colour blue
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	2.5	127	**HET4.1**	100 unit(s)	40,45
Sterile	10	170	**HET5.1**	100 unit(s)	43,05

Detectable

A special additive makes the single-use sample spoons visible in metal detectors or using X-rays and can be sorted out using normal systems for checking for foreign bodies.

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	2.5	127	**HEP8.1**	100 unit(s)	52,45
Sterile	10	170	**HEP9.1**	100 unit(s)	58,05

S

Sample scoops SteriPlast®

Bürkle. Material: PS. **Sterile**.

For sampling powders, granulates and pastes.

- Colour white
- Compliant with the EU food directives and FDA guidelines
- Manufactured in a cleanroom (Class 7), individually packed

With lid

With transparent lid. For sterile and contamination-free sampling.
Sample scoop can be sealed with lid.

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	25	142	**CPP5.1**	10 unit(s)	31,20
Sterile	50	161	**CPP6.1**	10 unit(s)	33,25
Sterile	100	206	**CPP7.1**	10 unit(s)	34,45
Sterile	150	218	**CPP8.1**	10 unit(s)	35,65

Disposable samplers

S

Sample scoops SteriPlast® blue

Bürkle. Material: PS. **Sterile**.

For sampling of powders, granulates, pastes and liquids, especially in the food, animal feed and pharmaceutical industries.

- Colour blue
- Can be used under HACCP/IFS Foreign Body Management Guideline
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	25	141	**1AHK.1**	10 unit(s)	18,60
Sterile	50	160	**1AHN.1**	10 unit(s)	19,30
Sterile	100	205	**HET6.1**	10 unit(s)	19,95
Sterile	150	216	**HET7.1**	10 unit(s)	20,40
Sterile	250	232	**HET8.1**	10 unit(s)	24,75
Sterile	500	280	**HET9.1**	10 unit(s)	44,05

Detectable
A special additive makes the single-use samplers visible in metal detectors or using X-rays and can be sorted out using normal systems for checking for foreign bodies.

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	25	141	**1AHL.1**	10 unit(s)	26,15
Sterile	50	160	**1AHY.1**	10 unit(s)	28,90
Sterile	100	205	**HET0.1**	10 unit(s)	30,80
Sterile	150	216	**HET1.1**	10 unit(s)	32,70
Sterile	250	232	**HET2.1**	10 unit(s)	41,15
Sterile	500	280	**HET3.1**	10 unit(s)	74,85

S

Sample scoops SteriPlast® Bio

Bürkle. Material: PE Green. **Sterile**.

For sampling powders, granulates and pastes. Made from renewable raw materials and fully recyclable.

- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	25	141	**CPP9.1**	10 unit(s)	24,15
Sterile	50	160	**CPT0.1**	10 unit(s)	24,10
Sterile	100	205	**CPT1.1**	10 unit(s)	24,70
Sterile	150	216	**CPT2.1**	10 unit(s)	26,30

S

Sample scoops with handle

ROTH SELECTION. Material: PP, PE. **Sterile**.

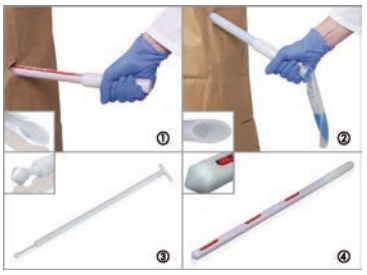
For collecting sterilised samples and performing subsequent analysis, reduces cross-contamination. Beaker made of shock-proof, transparent PP. Screw cap made of PE. Removable handle, 240 mm length. Colour blue.

Technical specifications:

Art. No.	HL41.1	HL42.1	HL43.1
Height with lid	70 mm	74 mm	102 mm
Outer beaker Ø	30 mm	52 mm	

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	40	275	**HL41.1**	250 unit(s)	266,60
Sterile	125	275	**HL42.1**	100 unit(s)	146,20
Sterile	180	305	**HL43.1**	100 unit(s)	141,75

Disposable samplers



Single-use samplers for solids

Bürkle. Material: HDPE.

For samples of bulk goods, powders and granulates. No contamination by other samples and no time-consuming cleaning.

- Colour white
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

(1) PowderDispo

For all-layer samples of cohesive, powdery substances. Conical sampler for, e.g. insertion in BigBag or bag

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	60	300	21	**ETX3.1**	10 unit(s)	64,10
Sterile	60	300	21	**ETX4.1**	10 unit(s)	78,75
Non-sterile	100	500	21	**NH28.1**	10 unit(s)	79,90
Sterile	100	500	21	**ETX5.1**	10 unit(s)	83,80

(2) DispoLance

For free-flowing powders and small-grain granulates. Insert the lance down to the required depth. Empty via the open end of the handle directly into the sample bag.

Sterility	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	300	21	**ETX6.1**	10 unit(s)	59,85
Sterile	300	21	**ETX7.1**	10 unit(s)	69,55
Non-sterile	500	21	**ETX8.1**	10 unit(s)	75,55
Sterile	500	21	**ETX9.1**	10 unit(s)	86,00

(3) MicroDispo

For target point samples of small quantities of free-flowing bulk materials up to a grain size of 0.5 mm. Insert the sampler, pull up the handle of the pull rod and take the sample. Press the handle down to empty the sample into a vessel.

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	10	500	21	**HC55.1**	10 unit(s)	81,85
Sterile	10	500	21	**ETY0.1**	10 unit(s)	112,55
Sterile	10	1,000	21	**ETY1.1**	10 unit(s)	132,20

(4) ZoneDispo

For all-layer sampling oxf free-flowing bulk materials and fine granulates. Insert the closed zone sampler down to the desired depth and open; the bulk material flows in. Close sampler, remove it and empty through the open chambers. The sample can be secured and transported when the sampler is closed.

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	100	500	25	**HC58.1**	10 unit(s)	108,65
Sterile	100	500	25	**ETY2.1**	10 unit(s)	130,35
Non-sterile	200	1,000	25	**ETY3.1**	10 unit(s)	133,50
Sterile	200	1,000	25	**ETY4.1**	10 unit(s)	154,75

Sample scoops DispoDipper

Bürkle. Material: PP, transparent.

For taking samples from barrels, canisters and other containers. Scaled beaker can be closed liquid-tight after the sample has been taken. Removable handle.
Particularly suitable for the food, animal feed and pharmaceutical industries.

- Colour blue
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Technical specifications:

Art. No.	HXH0.1	HXH1.1	1AHP.1	1AHT.1	1AHE.1	1AHH.1
Height with lid	98 mm				116 mm	
Outer beaker Ø	40 mm		53 mm		72 mm	
Suitable for	Opening Ø 52 mm (2″ barrel openings)		Opening Ø 65 mm		Opening Ø 85 mm	

Sterility	Vol. (ml)	Length (mm)	Immersion depth (mm)	Art. No.	Pack Qty.	€
Non-sterile	50	417	270	**HXH0.1**	20 unit(s)	26,95
Sterile	50	417	270	**HXH1.1**	20 unit(s)	33,35
Non-sterile	100	415	270	**1AHP.1**	20 unit(s)	38,10
Sterile	100	415	270	**1AHT.1**	20 unit(s)	48,50
Non-sterile	250	429	270	**1AHE.1**	20 unit(s)	43,50
Sterile	250	429	270	**1AHH.1**	20 unit(s)	55,90

Disposable samplers

Single-use samplers for liquids

Bürkle. Material: HDPE.

For sampling viscous media and liquids. No contamination by other samples and no time-consuming cleaning.

- Colour white
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

(1) ViscoDispo
For high-viscosity liquids up to a maximum of 100,000 mPas. Insert the sampler into the liquid. Pull up the handle of the pull rod to take the sample. Then press the pull rod down to empty the sample into a vessel.

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	100	500	21	**HC52.1**	10 unit(s)	87,80
Sterile	100	500	21	**ETT5.1**	10 unit(s)	88,05
Non-sterile	200	1,000	21	**HC53.1**	10 unit(s)	98,90
Sterile	200	1,000	21	**ETT6.1**	10 unit(s)	113,60

(2) LiquiDispo
For low-viscosity liquids up to a maximum of 2000 mPas. Insert the sampler into the liquid. Pull up the handle of the pull rod to take the sample. Then press the pull rod down to empty the sample into a vessel.

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	100	500	21	**HC50.1**	10 unit(s)	87,80
Sterile	100	500	21	**ETT7.1**	10 unit(s)	88,05
Non-sterile	200	1,000	21	**HC51.1**	10 unit(s)	98,90
Sterile	200	1,000	21	**ETT8.1**	10 unit(s)	113,60

(3) DispoPipette
For all-layer and target-point samples of liquids of different viscosities (Opening sizes of Ø 2.5/5.5 mm). When the sampler is opened, the liquid flows in or out. When the sampler is closed, the liquid is held in the sampler.

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	100	500	21	**ETT9.1**	10 unit(s)	51,65
Sterile	100	500	21	**ETX0.1**	10 unit(s)	65,40
Non-sterile	200	1,000	21	**ETX1.1**	10 unit(s)	59,85
Sterile	200	1,000	21	**ETX2.1**	10 unit(s)	78,75

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Canister/barrel pumps

Dosing pump with locking device

ROTH SELECTION. Material: HDPE.

Technical specifications:

Art. No.	HL77.1	P241.1	P242.1
Delivery rate	25 ml	30 ml	100 ml
Immersion depth	230 mm	175 mm	398 mm
Conductive	No		
Drum	up to 5 l	up to 30 l	

Note: The delivery rate refers to one stroke.

Pic.	Thread	Art. No.	Pack Qty.	€
(1)	DIN 55	**HL77.1**	1 unit(s)	10,55
(2)	DIN 50	**P241.1**	1 unit(s)	14,85
(2)	DIN 60	**P242.1**	1 unit(s)	61,75

Siphon with ball valve

Bürkle. Material: LDPE, PVC, PP.

For rapid filling of aqueous fluids. With robust ball valve made of PP. Works according to the siphoning principle: The fluid is only drawn in once. It is therefore particularly suitable for the complete emptying of barrels. Tubing internal Ø: 15 mm.

Technical specifications:

Art. No.	YC59.1
Delivery rate	9 l/min
Immersion depth	1000 mm
Conductive	No

Delivery incl. hose with kink protection and lifting device.

Version	Art. No.	Pack Qty.	€
with ball valve	**YC59.1**	1 unit(s)	56,10

Canister pump Pump-it®

Bürkle. Material: PP, PE, FKM.

For quick and clean emptying of canisters and small barrels. Operate according to the excess pressure principle: Excess pressure is produced using the hand piston. This pushes the fluid out of the canister.

- Exact dosing, no trailing.
- Good residue emptying. Telescopic suction tube adjusts to different container heights.
- For liquids with a viscosity of up to 500 mPas at 20 °C.

Technical specifications:

Art. No.	1601.1
Delivery rate	6 l/min
Immersion depth	1000 mm
Ø Immersion tube	15 mm
Conductive	No
Drum	up to 60 l

Please order a suitable thread adapter separately.

Thread	Art. No.	Pack Qty.	€
64 mm (BSI)	**1601.1**	1 unit(s)	134,05

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Canister/barrel pumps

Dispensing pump OTAL® Disposable PE

Bürkle. Material: PE, PVC.

Single-use feed tube is quick and easy to replace. No contamination of the solution due to contaminated reusable pumps. Time-consuming and cost-intensive cleaning is no longer required. The feed tube is the only part which comes into contact with the medium.

- PE feed tube, made of one piece and which can be cut to the required container height
- The drainage elbow from the feed pipe can also be cut
- Max. flexibility and good residue emptying
- With universal adapter made of soft PVC for container openings of Ø 30-70 mm

Technical specifications:

Art. No.	1AL2.1	1AL0.1
Delivery rate	14 l/min	
Immersion depth	900 mm	
Conductive	No	
Drum	up to 120 l	up to 60 l

Delivery incl. 10 disposable feed tubes and separators.

Foot pump

Version	Art. No.	Pack Qty.	€
with PE drainage elbow Feed tubes Ø 12 mm	**1AL2.1**	1 unit(s)	94,85

Hand pump

Version	Art. No.	Pack Qty.	€
with PE drainage elbow Feed tubes Ø 12 mm	**1AL0.1**	1 unit(s)	76,45

Dispensing pump OTAL® PP

Bürkle. Material: PP, PVC.

Works according to the excess pressure principle.

- With feed tubes made of PP. Resistant to weak acids, alkalis and cleaning agents.
- Good residue emptying. Telescopic suction tube adjusts to different container heights.
- With universal adapter made of soft PVC for container openings of Ø 30–70 mm.

Technical specifications:

Art. No.	1720.1	AN75.1	1847.1	AN74.1
Delivery rate	26 l/min	12 l/min	26 l/min	12 l/min
Immersion depth	700 mm			
Conductive	No			
Drum	up to 60 l		up to 120 l	

Delivery incl. universal adapter.

Hand pump

- Designed to be extremely compact and to save space

Pic.	Version	Art. No.	Pack Qty.	€
(1)	with PP drainage elbow Feed tubes Ø 18 mm	**1720.1**	1 unit(s)	75,85
(2)	with PVC tubing and PP/PE stopcock Feed tubes Ø 12 mm	**AN75.1**	1 unit(s)	82,95

Foot pump

- Simple operation: Both hands remain free while filling
- Excellent delivery rate thanks to large-volume foot bellow

Pic.	Version	Art. No.	Pack Qty.	€
(3)	with PP drainage elbow Feed tubes Ø 18 mm	**1847.1**	1 unit(s)	100,25
(4)	with PVC tubing and PP/PE stopcock Feed tubes Ø 12 mm	**AN74.1**	1 unit(s)	97,90

Canister/barrel pumps

Dispensing pump OTAL® PVDF

Bürkle. Material: PVDF, PVC.

Works according to the excess pressure principle.

- With feed tubes made of PVDF for improved chemical resistance. For non-strongly oxidising acids and alkalis. Resistant to chlorine bleach
- Good residue emptying. Telescopic suction tube adjusts to different container heights
- With universal adapter made of soft PVC for container openings of Ø 30–70 mm

Technical specifications:

Art. No.	HT03.1	HT04.1
Delivery rate	16 l/min	20 l/min
Immersion depth	700 mm	
Conductive	No	
Drum	up to 120 l	up to 60 l

Delivery incl. universal adapter.

(1) Hand pump

- Designed to be extremely compact and to save space.

Version	Art. No.	Pack Qty.	€
with discharge elbow feed tubes Ø 16 mm	**HT04.1**	1 unit(s)	138,30

(2) Foot pump

- Simple operation: Both hands remain free while filling
- Excellent delivery rate thanks to large-volume foot bellow

Version	Art. No.	Pack Qty.	€
with discharge elbow feed tubes Ø 16 mm	**HT03.1**	1 unit(s)	148,65

Canister pump Mini

Bürkle. Material: PP, PVC.

Works according to the excess pressure principle.

- Ideal for filling smaller volumes
- Conveyor tubes made of PP
- With universal adapter made of soft PVC for container openings of Ø 20–36 mm

Technical specifications:

Art. No.	E335.1
Delivery rate	4 l/min
Immersion depth	450 mm
Ø Immersion tube	10 mm
Conductive	No
Drum	up to 10 l

Delivery incl. universal adapter.

Version	Art. No.	Pack Qty.	€
Mini	**E335.1**	1 unit(s)	56,50

Barrel pump gas-tight

Bürkle. Material: PP, PVC.

Vented gases produced when pumping are fed back to the original container by a gas displacement line. This prevents pungent and foul-smelling gases from leaking out. Also attach a stopcock to the gas and liquid line.

- Works according to the piston stroke principle
- Conveyor tubes made of PP, tubing made of PVC (120 m length)
- With universal adapter made of soft PVC for container openings of Ø 34–70 mm
- Good residue emptying. Telescopic suction tube adjusts to different container heights

Technical specifications:

Art. No.	E013.1
Delivery rate	200 ml
Immersion depth	400–700 mm
Ø Immersion tube	22 mm
Conductive	No

Note: The delivery rate refers to one stroke.

Delivery incl. universal adapter, two adapters for container to be filled.

Version	Art. No.	Pack Qty.	€
gas-tight	**E013.1**	1 unit(s)	295,65

Barrel pump PTFE

Bürkle. Material: PTFE, FEP.

Excellent chemical resistance for safe filling of ultrapure and aggressive liquids.

- Works according to the piston stroke principle
- Stopcock stops liquids from dripping and prevents hazardous vapours from escaping
- Good residue emptying by a low-mounted non-return valve and barrel screw joint that can be continuously adjusted with respect to height
- Barrel screw joint attaches the barrel pump securely in the barrel

Technical specifications:

Art. No.	1AHX.1	1AK0.1	AH27.1	NH33.1	LY53.1	NH34.1
Delivery rate	180 ml		400 ml	270 ml		400 ml
Immersion depth	400 mm		950 mm	600 mm		950 mm
Ø Immersion tube	32 mm					
Conductive	No					

Note: The delivery rate refers to one stroke.

Delivery without barrel screw joint, please order separately.

With discharge elbow

Pic.	Length (mm)	Art. No.	Pack Qty.	€
(1)	585	**1AHX.1**	1 unit(s)	516,25
(1)	1,100	**AH27.1**	1 unit(s)	560,10
(1)	770	**LY53.1**	1 unit(s)	516,25

With drainage hose (PTFE, 1.2 m length)

Pic.	Length (mm)	Art. No.	Pack Qty.	€
(2)	585	**1AK0.1**	1 unit(s)	516,25
(2)	770	**NH33.1**	1 unit(s)	516,25
(2)	1,100	**NH34.1**	1 unit(s)	560,10

Accessories for PP/PTFE/AccuOne/EnergyOne barrel pumps

Bürkle.

PVC barrel stopper

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Opening Ø 40–70 mm	**9276.1**	1 unit(s)	25,30

PP barrel screw joint

Pic.	Suitable for	Art. No.	Pack Qty.	€
(2)	2″ fine steel thread (internal)	**1789.1**	1 unit(s)	35,50
	2″ Mauser coarse thread (internal)	**PL93.1**	1 unit(s)	43,95
(3)	2″ fine steel thread (internal) and adapter for Tri-Sure® coarse thread (internal)	**T243.1**	1 unit(s)	42,75

PP thread adapter

Pic.	Suitable for	Art. No.	Pack Qty.	€
(4)	2″ fine steel thread (internal) and DIN 51 (external thread)	**YK28.1**	1 unit(s)	24,50
(5)	2″ fine steel thread (outside) and DIN 61 (external thread)	**YK29.1**	1 unit(s)	20,90

Screw joint with lock nut

Pic.	Suitable for	Art. No.	Pack Qty.	€
(6)	attachment in any position; 60 mm mounting hole	**T244.1**	1 unit(s)	40,25

Barrel pump PP

Bürkle.

For safely filling liquids from barrels, canisters and tanks.

- Works according to the piston stroke principle
- Good residue emptying by a low-mounted non-return valve and barrel screw joint that can be continuously adjusted with respect to height
- Barrel screw joint attaches the barrel pump securely in the barrel

Note: The delivery rate refers to one stroke.

Delivery without barrel screw joint, please order separately.

(1) With discharge elbow

Material: PP.

Technical specifications:

Art. No.	Y958.1	Y959.1	Y960.1	Y961.1	Y962.1	Y963.1
Delivery rate	200 ml	230 ml	260 ml	300 ml		
Immersion depth	500 mm	650 mm	800 mm	1000 mm	1250 mm	1500 mm
Ø Immersion tube	32 mm					
Conductive	No					

Length (mm)	Art. No.	Pack Qty.	€
600	**Y958.1**	1 unit(s)	158,60
740	**Y959.1**	1 unit(s)	158,60
900	**Y960.1**	1 unit(s)	164,50
1,090	**Y961.1**	1 unit(s)	182,75
1,340	**Y962.1**	1 unit(s)	208,55
1,590	**Y963.1**	1 unit(s)	213,95

(2) With drain hose and stopcock

Material: PP, PVC.

Technical specifications:

Art. No.	Y964.1	Y965.1	Y966.1	Y967.1	Y968.1	Y969.1
Delivery rate	200 ml	230 ml	260 ml	300 ml		
Immersion depth	500 mm	650 mm	800 mm	1000 mm	1250 mm	1500 mm
Ø Immersion tube	32 mm					
Conductive	No					

Length (mm)	Art. No.	Pack Qty.	€
600	**Y964.1**	1 unit(s)	159,55
740	**Y965.1**	1 unit(s)	159,55
900	**Y966.1**	1 unit(s)	164,50
1,090	**Y967.1**	1 unit(s)	182,75
1,340	**Y968.1**	1 unit(s)	208,55
1,590	**Y969.1**	1 unit(s)	213,95

Solvent pumps

Solvent pump Mini

Bürkle. Material: PTFE, Stainless steel.

For ultra-pure fluids and highly flammable media.

- Works according to the excess pressure principle, pressure relief valve protects against excessive build-up of pressure
- Connection apparatus for earthing cable to discharge electrostatic charges
- Medium is filled at the press of a button
- Integrated outlet spout (external Ø 7 mm) prevents dripping and allows tubing to be attached

Technical specifications:

Art. No.	APE4.1
Delivery rate	1,8 l/min
Immersion depth	400 mm
Ø Immersion tube	8 mm
Conductive	Yes
Drum	up to 5 l

Delivery incl. earthing cable and PTFE riser (internal Ø 6 mm, 1 mm wall thickness, 400 mm length).

Thread	Art. No.	Pack Qty.	€
GL 45	**APE4.1**	1 unit(s)	487,00

Anti-static set ROTH

ROTH SELECTION.

Protects against fire and explosion due to electrostatic charge when filling from solvent barrels. Consists of two isolated cables (each L 3 m, Ø 3 mm) with clamping tongs on both sides and a blank copper wire (L 3 m, Ø 2 mm) with a clamping tong on one side.

Version	Art. No.	Pack Qty.	€
ROTH anti-static set	**0213.1**	1 unit(s)	52,35

Solvent pump hand pump

ROTH SELECTION. Material: PTFE, Stainless steel 1.4301.

For ultra-pure fluids and highly flammable media.

- Works according to the excess pressure principle
- Fixed drainage elbow with stopcock
- Pump can be shut off hermetically by two ball valves

Technical specifications:

Art. No.	N103.1
Immersion depth	275 / 410 mm
Ø Immersion tube	16 mm
Conductive	Yes
Drum	10 l and 25 l
Weight	1,2 kg

Note:

Note: The container and the pump must be earthed using the ROTH anti-static set (Art. No. 0213.1) during filling of flammable liquids.

In addition, no thread adapters can be mounted on the barrel screw joint supplied.

Delivery incl. barrel screw joint and immersion tubes for 10 l (length incl. pump ball: 450 mm) and 25 l (length incl. pump ball: 575 mm) containers.

Thread	Art. No.	Pack Qty.	€
2″ steel fine thread	**N103.1**	1 unit(s)	455,80

Solvent pumps

Solvent pump SEKUROKA®

Carl ROTH. Material: PTFE, Stainless steel 1.4301 and 1.4305.

For filling of flammable liquids.

- Works according to the piston stroke principle.
- Immersion tube is continuously adjustable to barrel depth.
- Near-complete emptying of the barrels.
- Removable drainage elbow for connecting a drainage hose with stopcock, please order separately.

Technical specifications:

Art. No.	N502.1	N503.1
Delivery rate	140 ml	200 ml
Immersion depth	570 mm	910 mm
Ø Immersion tube	32 mm	
Conductive	Yes	
Drum	up to 50 l	up to 200 l
Weight	1.2 kg	1.8 kg

Note:

The delivery rate refers to one stroke.

The container and the pump must be earthed using the ROTH anti-static set (Art. No. 0213.1) during filling of flammable liquids.

Delivery incl. barrel screw joint.

Thread	Length (mm)	Art. No.	Pack Qty.	€
2″ steel fine thread	680	**N502.1**	1 unit(s)	258,00
2″ steel fine thread	1,020	**N503.1**	1 unit(s)	282,75

Solvent pump foot pump

Bürkle. Material: PTFE, Stainless steel 1.4301.

For ultra-pure fluids and highly flammable media.

- Works according to the excess pressure principle
- A barrel screw joint and stopcock allow the container and pump to be hermetically sealed
- Immersion tube can be continuously adjusted to barrel depth

Technical specifications:

Art. No.	CPT5.1	CPT6.1
Delivery rate	20 l/min	
Immersion depth	950 mm	
Ø Immersion tube	21.3 mm	
Conductive	Yes	
Drum	up to 220 l	
Weight	3.5 kg	4.4 kg

Note: The container and the pump must be earthed using the ROTH anti-static set (Art. No. 0213.1) during filling of flammable liquids.

Delivery incl. barrel screw joint.

Pic.	Version	Thread	Length (mm)	Art. No.	Pack Qty.	€
(1)	with discharge elbow	2″ steel fine thread	1,485	**CPT5.1**	1 unit(s)	518,15
(2)	with drainage hose	2″ steel fine thread	1,485	**CPT6.1**	1 unit(s)	693,40

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Barrel pumps, electric

Barrel pump

Bürkle. Material: Hastelloy, PP, PVDF, PTFE (in contact with media).

- Unique hybrid system makes filling liquids fast and versatile, i.e. by changing the supply units to use either with battery or mains adapter
- The drive can be disconnected easily via a clip lock. This makes it possible to use one drive for filling at several stationary pump stations
- continuously variable control of flow rate from 0.4 l/min to 12 l/min via TouchPanel
- barrel screw joint can be continuously adjusted with respect to height and this secures the barrel pump in the barrel

Available as an option:

- Flexible drain hose with nozzle.
  Drain hose connection ¾″

Technical specifications:

Art. No.	PL80.1	PL81.1	PL82.1	PL83.1	PL84.1	PL85.1
Motor Ex-protected	no					
Delivery rate	12 l/min					
Immersion depth	500 mm	700 mm	1000 mm	500 mm	700 mm	1000 mm
Ø Immersion tube	25 mm					
Weight	750 kg			580 kg		
Power supply	Lithium-Ion rechargeable battery/14.4 V/1.5 Ah					

AccuOne

- Battery-operated barrel pump (offers versatility and independence from the power supply)
- Up to 600 litres of delivery volume per battery charge

Delivery incl. fixed drainage elbow, battery and charger.

Barrel screw joint not included, please order separately.

Length (mm)	Art. No.	Pack Qty.	€
825	**PL80.1**	1 unit(s)	574,05
1,025	**PL81.1**	1 unit(s)	590,20
1,325	**PL82.1**	1 unit(s)	607,40

EnergyOne

- Mains-operated barrel pump (offers versatility and independence from battery charging)
- Unlimited filling duration

Delivery incl. fixed drainage adapter, mains adapter and international plug adapter.

Barrel screw joint not included, please order separately.

Length (mm)	Art. No.	Pack Qty.	€
825	**PL83.1**	1 unit(s)	485,90
1,025	**PL84.1**	1 unit(s)	502,05
1,325	**PL85.1**	1 unit(s)	518,15

Barrel pump electric

Lutz-Pumpen.

To pump fluid media out of large containers

Technical specifications:

Art. No.	KH51.1	KH52.1	KA12.1	X352.1	KA13.1	KA14.1
Motor Ex-protected	no				yes	
Delivery rate	75 l/min		85 l/min	80 l/min	95 l/min	
Immersion depth	700 mm	1000 mm				
Delivery height	7 nWC		19 nWC	17 nWC	14 nWC	
Density	1.3 kg/dm³		1.4 kg/dm³	1.8 kg/dm³	1.6 kg/dm³	
Viscosity	300 mPas			800 mPas	350 mPas	
Performance	200 W		500 W	575 W	460 W	
Cable length	3 m		5 m			
Mains connection	230 V, 50 Hz					

Set

For aqueous fluids, diluted acids and alkalis, hydrogen peroxide, etc.

Material:

- Nozzle made of PP
- Immersion tube made of PP

Delivery incl. 1.5 m PVC tubes ¾″, single-handed tap valve, suspension apparatus.

Version	Art. No.	Pack Qty.	€
1	**KH51.1**	1 unit(s)	682,65
2	**KH52.1**	1 unit(s)	714,90

Set 3

For thin alkalis, sodium hydroxide, potassium hydroxide, ammonia water, formic acid, acetic acid, etc.

Material:

- Nozzle made of PP/FEP
- Immersion tube made of PP

Delivery incl. 2.0 m PVC spiral hose ¾″ (DN 19), nozzle, barrel adapter (PP).

Version	Art. No.	Pack Qty.	€
3	**KA12.1**	1 unit(s)	1.106,20

Set 4

For most concentrated acids and alkalis, such as hydrochloric acid, sulphuric acid, hydrofluoric acid, etc.

Material:

- Nozzle made of PVDF
- Immersion tube made of PVDF

Delivery incl. 2.0 m specialised chemical hose ¾″ (DN 19), nozzle, barrel adapter (PP).

Version	Art. No.	Pack Qty.	€
4	**X352.1**	1 unit(s)	2.209,15

Barrel pumps, electric

Set 5 Ex
For highly flammable hydrocarbons, such as ethanol, gasoline, isopropanol, kerosene, methanol, petroleum, etc.

Material:
- Nozzle made of brass/PTFE
- Immersion tube made of stainless steel

Delivery incl. 2.0 m coolant hose ¾″ (DN 19), conductive hose connections, nozzle, equipotential bonding, PP barrel adapter, safety plug not protected against explosions. Universal motor protected against explosions according to ignition protection category II 2 G EEx de IIC T6 (ATEX), stainless steel pump system protected against explosions according to ignition protection category Ex II 1/2 G IIB T4 (ATEX).

Version	Art. No.	Pack Qty.	€
5 Ex	**KA13.1**	1 unit(s)	2.439,20

Set 6 Ex
For potentially explosive liquids, such as acetone, conc. formic acid, ethyl acetate, butyl acetate, conc. acetic acid, nicotine, toluene, styrene, etc.

Material:
- Nozzle made of Niro/FEP
- Immersion tube made of stainless steel

Delivery incl. 2.0 m chemical hose ¾″ (DN 19), conductive hose connections, nozzle, equipotential bonding, PP barrel adapter, safety plug not protected against explosions. Universal motor protected against explosions according to ignition protection category II 2 G EEx de IIC T6 (ATEX), stainless steel pump system protected against explosions according to ignition protection category Ex II 1/2 G IIB T4 (ATEX).

Version	Art. No.	Pack Qty.	€
6 Ex	**KA14.1**	1 unit(s)	3.116,45

Canister pump battery-operated

Bohlender. Material: PP, PTFE, Hastelloy.

Suitable for low-risk filling and transferring of liquids that are similar to water (e.g. alkalis, acids, etc.). Can be universally used and easy to operate. Powerful and light (500 g incl. batteries). Two batteries (Mono 1.5 V) are required for operation.

Technical specifications:

Art. No.	E490.1	E491.1
Motor Ex-protected	no	
Delivery rate	6 l/min	
Immersion depth	400 mm	600 mm
Ø Immersion tube	25 mm	

Delivery without batteries, please order separately.

Length (mm)	Art. No.	Pack Qty.	€
630	**E490.1**	1 unit(s)	446,15
830	**E491.1**	1 unit(s)	463,35

Dispensers Piccolo

Vitlab.

With two fixed volumes. Ideally suited to dispensing long series. Manual push-button delivery, automatic refilling. Good chemical resistance thanks to high-quality materials, but not suitable for vapourous media.

- Precise media delivery
- Freely rotatable discharge tube on the bottle
- Choice of 2 fixed volumes
- Valve block with GL 28 thread

Parts in contact with media:
PTFE, FEP, ETFE, PFA, borosilicate glass, platinum-iridium

Technical specifications:

Art. No.	Y698.1	Y699.1	Y697.1
Correctness	1,0 %		2,0 %
Variation coefficient	0,2 %		0,4 %

Volume (µl)	Art. No.	Pack Qty.	€
100 / 250	**Y697.1**	1 unit(s)	245,10
500 / 1000	**Y698.1**	1 unit(s)	245,10
1000 / 2000	**Y699.1**	1 unit(s)	245,10

Automatic pipettes

BRAND. Material: DURAN® glass (Dosing attachment).

Calibrated to “Ex”. Neck: NS 29/32. Labelling in green enamel paint. Particularly suited for dispensing suspensions.

Delivery without bottle, please order separately.

Volume (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
5	±1,0	**Y446.1**	1 unit(s)	58,50
10	±1,0	**Y447.1**	1 unit(s)	60,65
20	±2,0	**Y448.1**	1 unit(s)	64,70
25	±2,5	**Y449.1**	1 unit(s)	68,00
50	±5,0	**Y450.1**	1 unit(s)	90,65
100	±10,0	**Y451.1**	1 unit(s)	94,75

Dispensers ROTILABO® II

A 121 °C

Carl ROTH. Autoclavable: Yes.

- Direct displacing piston with wiping PFA lip seal reduces crystallisation of liquids
- Improved volume adjustment due to internal toothed rack, volumes can be set quickly and precisely
- Valve block rotatable by 360° on the bottle, with GL 45 thread
- Swivelling cap does not obstruct dispensing
- Vent valve with safety bulb closes dosing channel if discharge tube is not fitted
- Screwable ventilation stoppers for quick assembly of a drying tube
- Telescopic intake tube, infinitely adjustable to different bottle heights
- Suitable for calibration in conjunction with measuring instrument inspection acc. to ISO 9001 and GLP; change to factory calibration is displayed
- Autoclavable at 121 °C (2 bar), acc. to DIN EN 285, with no need to disassemble

Materials in contact with media: Borosilicate glass, Al_2O_3 ceramic, ETFE, FEP, PFA, PTFE, platinum-iridium, PP (cap).

Limits of use:
Temperature from +15 °C to +40 °C, steam pressure up to max. 500 mbar, kinematic viscosity up to 500 mm^2/s, density up to 2.2 g/cm^3.

Technical specifications:

Art. No.	HAC6.1	HAC7.1	HAC8.1	HAC9.1	HAE0.1	HAE1.1
Nominal volume	2 ml	5 ml	10 ml	25 ml	50 ml	100 ml
Correctness	±10	±25	±50	±125	±250	±500
Variation coefficient	±2	±5	±10	±25	±50	±100
Operating temperature	+15 – +40 °C					
Adapter	GL 25, GL 28/S 28, GL 32, GL 38, S 40			GL 32, GL 38, S 40		
Suction tube length	240 mm			330 mm		

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation	Art. No.	Pack Qty.	€
0,2–2	0,05	**HAC6.1**	1 unit(s)	294,55
0,5–5	0,10	**HAC7.1**	1 unit(s)	294,55
1–10	0,20	**HAC8.1**	1 unit(s)	294,55
2,5–25	0,50	**HAC9.1**	1 unit(s)	405,30
5–50	1,0	**HAE0.1**	1 unit(s)	428,95
10–100	1,0	**HAE1.1**	1 unit(s)	556,85

Dispensers Dispensette® S

BRAND. Autoclavable: Yes.

Range of applications:
Colour code: red. For dispensing aggressive reagents directly from the supply bottle, e.g. concentrated bases and acids such as H_3PO_4, H_2SO_4 (excluding, e.g., HCl, HNO_3 and HF), saline solutions and a wide range of organic solvents.

Properties:

- The "floating piston" design makes dispensing easy
- Rapid ventilation through improved fluid mechanics
- Valves without additional seals for easier cleaning
- Rotates through 360°, valve block with GL 45 thread
- Discharge tube with swivel-mounted screw cap for protection against media contact
- Telescopic suction tube adjustable to different bottle sizes
- DE-M approved
- Suitable for calibration in conjunction with measuring instrument inspection according to ISO 9011 and GLP
- Change to factory calibration is shown
- Easy to disassemble for cleaning
- Fully autoclavable at 121 °C
- Microfilter can be connected to the ventilation opening for sterile dispensing

NEW / +

A 121 °C

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, platinum-iridium, ETFE, FEP, PFA, PTFE and PP.

Limits of use:
Max. vapour pressure 600 mbar; max. viscosity 500 mm^2/s; max. temperature +40 °C; max. density 2.2 g/cm^3.

Analogue without recirculation valve
Quickly adjustable dispensing volume, safe and reliable volume adjustment via the internal toothed rack.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1HNK.1	1HNL.1	1HNN.1	1HNP.1	1HNT.1	1HNX.1	1HNY.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	25 ml	50 ml	100 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl	±125 µl	±250 µl	±500 µl
Variation coefficient	±2 µl		±5 µl	±10 µl	±25 µl	±50 µl	±100 µl
Operating temperature	+15 – +40 °C						
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40				GL 32-33, GL 38, S 40		
Suction tube length	240 mm				330 mm		

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
0,1–1	0,02	**1HNK.1**	1 unit(s)	324,65
1–10	0,20	**1HNP.1**	1 unit(s)	324,65
0,2–2	0,05	**1HNL.1**	1 unit(s)	324,65
0,5–5	0,10	**1HNN.1**	1 unit(s)	324,65
5–50	1,00	**1HNX.1**	1 unit(s)	460,10
10–100	1,00	**1HNY.1**	1 unit(s)	627,80
2,5–25	0,50	**1HNT.1**	1 unit(s)	427,85

Analogue with recirculation valve
Quickly adjustable dispensing volume, safe and reliable volume adjustment via the internal toothed rack.
Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	1HK3.1	ECL9.1	ECN0.1	ECN1.1	ECN2.1	ECN3.1	ECN4.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	25 ml	50 ml	100 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl	±125 µl	±250 µl	±500 µl
Variation coefficient	±2 µl		±5 µl	±10 µl	±25 µl	±50 µl	±100 µl
Operating temperature	+15 – +40 °C						
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40				GL 32-33, GL 38, S 40		
Suction tube length	240 mm				330 mm		

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
0,1–1	0,02	**1HK3.1**	1 unit(s)	373,05
1–10	0,20	**ECN1.1**	1 unit(s)	366,60
0,2–2	0,05	**ECL9.1**	1 unit(s)	366,60
0,5–5	0,10	**ECN0.1**	1 unit(s)	366,60
5–50	1,00	**ECN3.1**	1 unit(s)	498,80
10–100	1,00	**ECN4.1**	1 unit(s)	680,50
2,5–25	0,50	**ECN2.1**	1 unit(s)	471,95

Digital without recirculation valve
Easy-to-read digital display via mechanical counter. Easy-Calibration technology for fast calibration.
Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1HK6.1	1HK7.1	1HK8.1	1HK9.1	1HKA.1	1HKC.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	25 ml	50 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl	±125 µl	±250 µl
Variation coefficient	±2 µl		±5 µl	±10 µl	±25 µl	±50 µl
Operating temperature	+15 – +40 °C					
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40				GL 32-33, GL 38, S 40	
Suction tube length	240 mm				330 mm	

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
0,1–1	0,005	**1HK6.1**	1 unit(s)	373,05
1–10	0,05	**1HK9.1**	1 unit(s)	373,05
0,2–2	0,01	**1HK7.1**	1 unit(s)	373,05
0,5–5	0,02	**1HK8.1**	1 unit(s)	373,05
5–50	0,20	**1HKC.1**	1 unit(s)	500,95
2,5–25	0,10	**1HKA.1**	1 unit(s)	470,85

Digital with recirculation valve
Easy-to-read digital display via mechanical counter. Easy-Calibration technology for fast calibration.
Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	1HK4.1	ECL4.1	ECL5.1	ECL6.1	ECL7.1	ECL8.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	25 ml	50 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl	±125 µl	±250 µl
Variation coefficient	±2 µl		±5 µl	±10 µl	±25 µl	±50 µl
Operating temperature	+15 – +40 °C					
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40				GL 32-33, GL 38, S 40	
Suction tube length	240 mm				330 mm	

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
0,1–1	0,005	**1HK4.1**	1 unit(s)	413,90
1–10	0,05	**ECL6.1**	1 unit(s)	410,65
0,2–2	0,01	**ECL4.1**	1 unit(s)	410,65
0,5–5	0,02	**ECL5.1**	1 unit(s)	410,65
5–50	0,20	**ECL8.1**	1 unit(s)	546,10
2,5–25	0,10	**ECL7.1**	1 unit(s)	509,55

Dispensers

Fixed-volume without recirculation valve

Non-adjustable dispensing volume for routine applications.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1HNA.1	1HNC.1	1HNE.1	1HNH.1
Nominal volume	1 ml	2 ml	5 ml	10 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl
Variation coefficient	±2 µl		±5 µl	±10 µl
Operating temperature	+15 – +40 °C			
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40			
Suction tube length	240 mm			

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Art. No.	Pack Qty.	€
1	**1HNA.1**	1 unit(s)	324,65
2	**1HNC.1**	1 unit(s)	324,65
5	**1HNE.1**	1 unit(s)	324,65
10	**1HNH.1**	1 unit(s)	324,65

Fixed with recirculation valve

Non-adjustable dispensing volume for routine applications.

Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	ECN5.1	ECN6.1	ECN7.1	ECN8.1
Nominal volume	1 ml	2 ml	5 ml	10 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl
Variation coefficient	±2 µl		±5 µl	±10 µl
Operating temperature	+15 – +40 °C			
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40			
Suction tube length	240 mm			

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Art. No.	Pack Qty.	€
1	**ECN5.1**	1 unit(s)	368,75
2	**ECN6.1**	1 unit(s)	368,75
5	**ECN7.1**	1 unit(s)	368,75
10	**ECN8.1**	1 unit(s)	368,75

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Dispensers Dispensette® *S Organic*

NEW / +

A 121 °C

BRAND. Autoclavable: Yes.

Range of applications:
Colour code: Yellow. Ideal for accurately dispensing organic solvents, e.g. chlorinated and fluorinated hydrocarbons such as trichlorofluoroethane and dichloromethane, acids such as concentrated HCl and HNO_3 (excluding HF) as well as for trifluoroacetic acid (TFA), tetrahydrofuran (THF) and peroxides.

Properties:

- The "floating piston" design makes dispensing easy
- Rapid ventilation through improved fluid mechanics
- Valves without additional seals for easier cleaning
- Rotates through 360°, valve block with GL 45 thread
- Discharge tube with swivel-mounted screw cap for protection against media contact
- Telescopic suction tube adjustable to different bottle sizes
- DE-M approved
- Suitable for calibration in conjunction with measuring instrument inspection according to ISO 9011 and GLP
- Change to factory calibration is shown
- Easy to disassemble for cleaning
- Fully autoclavable at 121 °C
- Microfilter can be connected to the ventilation opening for sterile dispensing

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, tantalum, ETFE, FEP, PFA, PTFE and PP.

Limits of use:
Max. vapour pressure 600 mbar; max. viscosity 500 mm^2/s; max. temperature +40 °C; max. density 2.2 g/cm^3.

Analogue without recirculation valve

Quickly adjustable dispensing volume, safe and reliable volume adjustment via the internal toothed rack.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1K03.1	1K04.1	1K05.1	1K06.1	1K07.1
Nominal volume	5 ml	10 ml	25 ml	50 ml	100 ml
Correctness	±25 µl	±50 µl	±125 µl	±250 µl	±500 µl
Variation coefficient	±5 µl	±10 µl	±25 µl	±50 µl	±100 µl
Operating temperature	+15 – +40 °C				
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40		GL 32-33, GL 38, S 40		
Suction tube length	240 mm		330 mm		

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–10	0,2	**1K04.1**	1 unit(s)	328,95
0,5–5	0,1	**1K03.1**	1 unit(s)	328,95
5–50	1,0	**1K06.1**	1 unit(s)	469,80
10–100	1,0	**1K07.1**	1 unit(s)	641,80
2,5–25	0,5	**1K05.1**	1 unit(s)	430,00

Analogue with recirculation valve

Quickly adjustable dispensing volume, safe and reliable volume adjustment via the internal toothed rack.

Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	ECN9.1	ECP0.1	ECP1.1	ECP2.1	ECP3.1
Nominal volume	5 ml	10 ml	25 ml	50 ml	100 ml
Correctness	±25 µl	±50 µl	±125 µl	±250 µl	±500 µl
Variation coefficient	±5 µl	±10 µl	±25 µl	±50 µl	±100 µl
Operating temperature	+15 – +40 °C				
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40		GL 32-33, GL 38, S 40		
Suction tube length	240 mm		330 mm		

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–10	0,2	**ECP0.1**	1 unit(s)	368,75
0,5–5	0,1	**ECN9.1**	1 unit(s)	368,75
5–50	1,0	**ECP2.1**	1 unit(s)	506,35
10–100	1,0	**ECP3.1**	1 unit(s)	680,50
2,5–25	0,5	**ECP1.1**	1 unit(s)	471,95

Dispensers

Digital without recirculation valve

Easy-to-read digital display via mechanical counter. Easy-Calibration technology for fast calibration.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1K6L.1	1K6N.1	1K6P.1	1K6T.1
Nominal volume	5 ml	10 ml	25 ml	50 ml
Correctness	±25 µl	±50 µl	±125 µl	±250 µl
Variation coefficient	±5 µl	±10 µl	±25 µl	±50 µl
Operating temperature	+15 – +40 °C			
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40		GL 32-33, GL 38, S 40	
Suction tube length	240 mm		330 mm	

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–10	0,05	**1K6N.1**	1 unit(s)	375,20
0,5–5	0,02	**1K6L.1**	1 unit(s)	375,20
5–50	0,20	**1K6T.1**	1 unit(s)	516,00
2,5–25	0,10	**1K6P.1**	1 unit(s)	474,10

Digital with recirculation valve

Easy-to-read digital display via mechanical counter. Easy-Calibration technology for fast calibration.

Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	1K69.1	1K6A.1	1K6C.1	1K6E.1
Nominal volume	5 ml	10 ml	25 ml	50 ml
Correctness	±25 µl	±50 µl	±125 µl	±250 µl
Variation coefficient	±5 µl	±10 µl	±25 µl	±50 µl
Operating temperature	+15 – +40 °C			
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40		GL 32-33, GL 38, S 40	
Suction tube length	240 mm		330 mm	

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–10	0,05	**1K6A.1**	1 unit(s)	416,05
0,5–5	0,02	**1K69.1**	1 unit(s)	416,05
5–50	0,20	**1K6E.1**	1 unit(s)	553,65
2,5–25	0,10	**1K6C.1**	1 unit(s)	512,80

Fixed-volume without recirculation valve

Non-adjustable dispensing volume for routine applications.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1K67.1	1K68.1
Nominal volume	5 ml	10 ml
Correctness	±25 µl	±50 µl
Variation coefficient	±5 µl	±10 µl
Operating temperature	+15 – +40 °C	
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40	
Suction tube length	240 mm	

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Art. No.	Pack Qty.	€
5	**1K67.1**	1 unit(s)	307,45
10	**1K68.1**	1 unit(s)	307,45

Fixed-volume with recirculation valve
Non-adjustable dispensing volume for routine applications.

Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	1K65.1	1K66.1
Nominal volume	5 ml	10 ml
Correctness	±25 µl	±50 µl
Variation coefficient	±5 µl	±10 µl
Operating temperature	+15 – +40 °C	
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40	
Suction tube length	240 mm	

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Art. No.	Pack Qty.	€
5	**1K65.1**	1 unit(s)	368,75
10	**1K66.1**	1 unit(s)	368,75

Dispensers seripettor®

BRAND.

Properties:

- Dispensing: Push plunger down, fills automatically
- Dispensing sterile media: Screw the valve block with filling tube onto the filled bottle, seal the valve block with the cap, attach the autoclavable sterile filter (0.2 µm) at the side and autoclave at 121 °C. Remove the cap from the valve block under clean bench conditions, screw in the sterile dispensing unit and attach the actuating unit
- Suitable for serial dispensing by means of flexible PTFE dispensing hose with a safety handle, length approx. 800 mm, please order separately
- If the snug fitting plunger seal is worn, the dispensing unit can be changed
- Screws directly onto bottle with thread GL 45

Limits of use:
15 to 40 °C, max. vapour pressure 500 mbar, max. density 2.2 g/cm^3, viscosity 300 mm^2/s (2-ml device), 150 mm^2/s (10-ml device) or 75 mm^2/s (25-ml device)

Technical specifications:

Art. No.	PP91.1	PP92.1	PP93.1	PP94.1	HX64.1	HX65.1
Nominal volume	2 ml	10 ml	25 ml	2 ml	10 ml	25 ml
Correctness	±24 µl	±120 µl	±300 µl	±24 µl	±120 µl	±300 µl
Variation coefficient	±4 µl	±20 µl	±50 µl	±4 µl	±20 µl	±50 µl
Operating temperature	+15 – +40 °C					
Adapter	GL 32-33, GL 38, S 40					
Suction tube length	250 mm			125 - 240 mm		

Delivery incl. discharge tube, filling tube, replacement dispensing unit and PP thread adapter.

Standard
For aqueous solutions, buffer solutions, culture media, thinned, non-oxidised acids and agar culture media up to max. 60 °C.

Materials in contact with media: FEP, PP, PE, EPDM

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–10	0,20	**PP92.1**	1 unit(s)	155,55
0,2–2	0,04	**PP91.1**	1 unit(s)	155,55
2,5–25	0,50	**PP93.1**	1 unit(s)	184,90

Pro
For aqueous solutions, buffer solutions, culture media, acids (e.g. concentrated HCl), polar solvents (e.g. acetone) and UV-sensitive media.

Materials in contact with media: PP, PE, borosilicate glass, Al_2O_3 ceramic, ETFE, PFA, FEP, PTFE, Pt-Ir

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
0,2–2	0,04	**PP94.1**	1 unit(s)	275,20
1–10	0,20	**HX64.1**	1 unit(s)	289,20
2,5–25	0,50	**HX65.1**	1 unit(s)	383,80

Dispensers Dispensette® S Trace Analysis analogue

BRAND.

Range of application: For accurate dispensing of high purity media in trace analysis. Dispensing of metal traces, usually in the low ppb range, or even in the ppt range, depending on the application. The established cleaning process for use in trace analysis is explained in the operating instructions. Can be used as a dispenser for hydrofluoric acid with a platinum-iridium valve spring.

Properties:

- Depending on requirements, the spring material is made of platinum-iridium or tantalum
- Valves without additional ring seals for easier cleaning
- Dispensing plunger with snug fitting seal
- Complete dispensing unit easily replaceable when worn
- Reliable volume control via internal toothed rack
- Rotates through 360°, valve block with GL 45 thread
- Discharge tube with swivel-mounted screw cap for protection against media contact
- Telescopic suction tube adjustable to different bottle sizes
- DE-M approved
- Suitable for calibration in conjunction with measuring instrument inspection according to ISO 9011 and GLP
- Change to factory calibration is shown
- Microfilter can be connected for sterile dispensing

Materials in contact with media:
High-purity plastics (PTFE, ETFE, PCTFE, FEP and PFA), sapphire valves, platinum-iridium or tantalum spring material.

Limits of use:
Max. vapour pressure 600 mbar; max. viscosity 500 mm²/s; max. temperature +40 °C; max. density 3.8 g/cm³.

Technical specifications:

Art. No.	ECX1.1	ECX3.1	ECX2.1	ECX4.1
Correctness	±50 µl			
Variation coefficient	±10 µl			
Operating temperature	+15 – +40 °C			
Adapter	GL 28/ S 28 (ETFE), GL 32 (ETFE), S 40 (PTFE)			
Suction tube length	240 mm			

With recirculation valve
Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation

Delivery incl. quality certificate, recirculation tune, telescopic filling tube, valve mounting tool and thread adapter

Version	Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
Tantalum, with RDV	1–10	0,2	**ECX4.1**	1 unit(s)	793,35
Platinum-iridium, with RDV	1–10	0,2	**ECX2.1**	1 unit(s)	793,35

Without recirculation valve
Discharge tube without recirculation valve, prevents contamination of the bottle contents

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and thread adapter

Version	Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
Platinum-iridium, without RDV	1–10	0,2	**ECX1.1**	1 unit(s)	749,30
Tantalum, without RDV	1–10	0,2	**ECX3.1**	1 unit(s)	749,30

Bottle holders for dispensers

BRAND. Material: PP.

For secure attachment of bottle top dispensers or digital burettes during work with small storage bottles. Made entirely from plastic and therefore ideal for trace analysis and use in aggressive environments (e.g. acid vapours in extraction).

- Base plate: L 220 x W 160 mm
- Stand rod length: 325 mm
- Weight approx. 1.1 kg

Version	Art. No.	Pack Qty.	€
Bottle holders	**CNN2.1**	1 unit(s)	184,90

Dispensers FORTUNA® POLYFIX®

Poulten & Graf. Autoclavable: Yes.

- Conformity-certified
- Precision dispensing plunger
- Quick adjustment with easy action
- Rotatable fine adjustment
- Screws directly onto bottle with thread GL 32

A 121 °C

Technical specifications:

Art. No.	P312.1	PK97.1	PK99.1	P313.1	PK98.1	PL00.1
Nominal volume	10 ml			50 ml		
Correctness	±60 µl			±300 µl		
Variation coefficient	±20 µl			±100 µl		
Operating temperature	+15 – +50 °C					
Adapter	GL 40, GL 45					
Suction tube length	350 mm					

Delivery incl. discharge tube set, PTFE intake hose, two PP thread adapters.

With glass piston and clear glass cylinder
For dispensing aqueous media.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2–10	0,2	**P312.1**	1 unit(s)	145,65
10–50	1,0	**P313.1**	1 unit(s)	164,50

With PTFE-coated piston and clear glass cylinder
For dispensing weak acids and bases.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2–10	0,2	**PK97.1**	1 unit(s)	192,45
10–50	1,0	**PK98.1**	1 unit(s)	211,80

With glass piston and brown glass cylinder
For dispensing light-sensitive media.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2–10	0,2	**PK99.1**	1 unit(s)	193,50
10–50	1,0	**PL00.1**	1 unit(s)	225,75

Dispensers FORTUNA® OPTIFIX®

Poulten & Graf. Autoclavable: Yes.

Properties:

- Ergonomic design with colour-code system
- Resistant to abrasion, UV radiation, acids and acid vapours
- Valve block without metal springs; no contamination of the dispensed liquid
- Quick volume adjustment with easy action and additional rotatable fine adjustment
- Visually recognisable dosing direction
- Screws directly onto bottle with thread GL 32
- Easy to dismantle and clean
- Conformity testing acc. to DIN EN ISO 8655-5

A 121 °C

BASIC

For dosing aqueous media, crystallizing substances and diluted acids and alkalis.

Plastic-coated, glass dispensing cylinder. Dosing cylinder made of glass, PTFE-coated.

Technical specifications:

Nominal volume	2 ml	5 ml	10 ml	30 ml	50 ml	100 ml	200 ml	300 ml	500 ml
Correctness	±12 µl	±30 µl	±60 µl	±180 µl	±300 µl	±600 µl	±1200 µl	±1800 µl	±3000 µl
Variation coefficient	±4 µl	±10 µl	±20 µl	±60 µl	±100 µl	±200 µl	±400 µl	±600 µl	±1000 µl
Operating temperature	+15 – +35 °C								
Adapter	GL 40, GL 45								
Suction tube length	350 mm						510 mm		

Delivery incl. PTFE intake hose and two PP thread adapters.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,1	**E822.1**	1 unit(s)	325,75
2–10	0,2	**E823.1**	1 unit(s)	325,75
0,5–2	0,1	**E821.1**	1 unit(s)	325,75
6–30	0,5	**E824.1**	1 unit(s)	448,30
10–50	1,0	**E825.1**	1 unit(s)	490,20
20–100	2,0	**E826.1**	1 unit(s)	825,60
40–200	5,0	**E827.1**	1 unit(s)	1.234,10
60–300	5,0	**E828.1**	1 unit(s)	1.721,10
100–500	5,0	**E829.1**	1 unit(s)	1.929,65

SOLVENT

For dosing solvents and low-viscosity media (up to 100 mPa · s).

Plastic-coated, glass dispensing cylinder. Dosing piston made of glass, without coating.

Delivery incl. PTFE intake hose and two PP thread adapters.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,1	**E834.1**	1 unit(s)	325,75
2–10	0,2	**E835.1**	1 unit(s)	325,75
0,5–2	0,1	**E833.1**	1 unit(s)	325,75
6–30	0,5	**E836.1**	1 unit(s)	459,05
10–50	1,0	**E837.1**	1 unit(s)	490,20
20–100	2,0	**E838.1**	1 unit(s)	825,60
40–200	5,0	**E839.1**	1 unit(s)	1.226,60
60–300	5,0	**E840.1**	1 unit(s)	1.731,85
100–500	5,0	**E841.1**	1 unit(s)	1.941,45

SAFETY
For dosing strong acids and aggressive chemicals.
Plastic-coated, glass dispensing cylinder. Dosing cylinder made of glass, PTFE-coated with sealing lip.
Delivery incl. PTFE intake hose and two PTFE thread adapters.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,1	**E843.1**	1 unit(s)	423,55
2–10	0,2	**E844.1**	1 unit(s)	423,55
0,5–2	0,1	**E842.1**	1 unit(s)	423,55
6–30	0,5	**E845.1**	1 unit(s)	582,65
10–50	1,0	**E846.1**	1 unit(s)	636,40
20–100	2,0	**E847.1**	1 unit(s)	903,00

SAFETY S
For dispensing fuming acids and other aggressive chemicals as well as odorous liquids.
Plastic-coated, glass dispensing cylinder. Dosing cylinder made of glass, PTFE-coated with sealing lip.
With safety stopcock on the discharge tube and an additional safety valve in the ventilation channel.
Delivery incl. PTFE intake hose and two PTFE thread adapters.

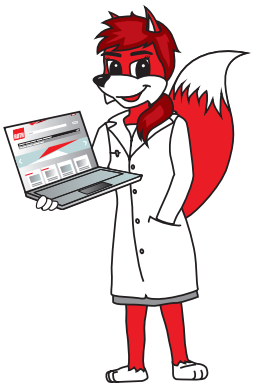
Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,1	**PL12.1**	1 unit(s)	522,45
2–10	0,2	**PL13.1**	1 unit(s)	522,45
0,5–2	0,1	**PL11.1**	1 unit(s)	522,45
10–50	1,0	**PL15.1**	1 unit(s)	758,95
20–100	2,0	**PL16.1**	1 unit(s)	1.024,50
6–30	0,5	**PL14.1**	1 unit(s)	704,15

HF
With robust PTFE-encased dispensing plunger, dispensing cylinder made of PTFE. For dispensing highly aggressive and toxic chemicals (e.g. hydrofluoric acid).
Delivery incl. PTFE intake hose and two PTFE thread adapters.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,1	**PL17.1**	1 unit(s)	760,05
2–10	0,2	**PL18.1**	1 unit(s)	760,05
6–30	0,5	**PL19.1**	1 unit(s)	1.127,70
10–50	1,0	**PL20.1**	1 unit(s)	1.681,30

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Dispensers

A 121 °C

Dispensers ceramus® classic

Hirschmann. Autoclavable: Yes.

Properties:

- Ceramic flasks: No abrasion, no swelling, no thermal problems and high chemical resistance
- Variable volume setting
- Intake hose firmly screwed on, creating a tight seal
- Complete reproducibility of work
- Quick and safe volume adjustment
- Components are easy to change
- Rotates through 360°, valve block with GL 32 thread
- Can be steam sterilised at 121 °C/2 bar without needing to be dismantled
- Conformity certified

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, ECTFE, Hastelloy

Technical specifications:

Art. No.	1591.1	1592.1	1593.1	1594.1	1595.1	1596.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	30 ml	60 ml
Correctness	±6 µl	±12 µl	±30 µl	±60 µl	±180 µl	±360 µl
Variation coefficient	±2 µl	±4 µl	±10 µl	±20 µl	±60 µl	±120 µl
Operating temperature	+4 – +50 °C					
Adapter	GL 28, S40, GL 45					
Suction tube length	310 mm					

Delivery incl. 3 thread adapters, one assembly key, quality certificate.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,10	**1593.1**	1 unit(s)	320,35
0,2–1	0,05	**1591.1**	1 unit(s)	320,35
2–10	0,25	**1594.1**	1 unit(s)	320,35
0,4–2	0,05	**1592.1**	1 unit(s)	320,35
5–30	0,50	**1595.1**	1 unit(s)	420,35
10–60	1,00	**1596.1**	1 unit(s)	460,10

A 121 °C

Dispensers PP

Hirschmann. Autoclavable: Yes.

With glass flasks for dispensing aqueous and organic media. Sterilisable up to 121 °C, with a A32 screw thread. Conformity certified.

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, PP, Hastelloy

Technical specifications:

Art. No.	P207.1	P208.1
Nominal volume	10 ml	60 ml
Correctness	±60 µl	±360 µl
Variation coefficient	±20 µl	±120 µl
Operating temperature	+4 – +50 °C	
Adapter	GL 28, S 40, GL 45	
Suction tube length	310 mm	

Delivery incl. three thread adapters, quality certificate.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2–10	0,25	**P207.1**	1 unit(s)	236,50
10–60	1,00	**P208.1**	1 unit(s)	349,40

A 121 °C

Dispensers ceramus®

Hirschmann. Autoclavable: Yes.

Properties:

- Media return system
- Ceramic flasks: No abrasion, no swelling, no thermal problems and high chemical resistance
- Intake hose firmly screwed on, creating a tight seal
- Freely rotatable dispenser on the bottle
- Luer lock connection at the back
- Ergonomic grip
- Quick and safe volume adjustment
- Complete reproducibility of work
- Components are easy to change
- Rotates through 360°, valve block with GL 45 thread
- Can be steam sterilised at 121 °C/2 bar without needing to be dismantled
- Conformity certified

Delivery incl. three thread adapters, one assembly key, quality certificate.

Variable

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, ECTFE, Hastelloy

Technical specifications:

Art. No.	T300.1	T301.1	T302.1	T303.1	T304.1	T305.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	30 ml	60 ml
Correctness	±6 µl	±12 µl	±30 µl	±60 µl	±180 µl	±360 µl
Variation coefficient	±2 µl	±4 µl	±10 µl	±20 µl	±60 µl	±120 µl
Operating temperature	+4 – +50 °C					
Adapter	GL 32, GL 38, S 40					
Suction tube length	310 mm					

Volume (ml)	Graduation	Art. No.	Pack Qty.	€
1–5	0,10	**T302.1**	1 unit(s)	366,60
0,2–1	0,05	**T300.1**	1 unit(s)	366,60
2–10	0,25	**T303.1**	1 unit(s)	366,60
0,4–2	0,05	**T301.1**	1 unit(s)	366,60
5–30	0,50	**T304.1**	1 unit(s)	469,80
10–60	1,00	**T305.1**	1 unit(s)	509,55

Fixed

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, ECTFE, Hastelloy

Technical specifications:

Art. No.	T326.1	T327.1	T328.1	T329.1	T330.1	T331.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	25 ml	50 ml
Correctness	±6 µl	±12 µl	±30 µl	±60 µl	±150 µl	±300 µl
Variation coefficient	±2 µl	±4 µl	±10 µl	±20 µl	±50 µl	±100 µl
Operating temperature	+4 – +50 °C					
Adapter	GL 32, GL 38, S 40					
Suction tube length	310 mm					

Volume (ml)	Art. No.	Pack Qty.	€
1	**T326.1**	1 unit(s)	376,25
2	**T327.1**	1 unit(s)	376,25
5	**T328.1**	1 unit(s)	376,25
10	**T329.1**	1 unit(s)	376,25
25	**T330.1**	1 unit(s)	452,60
50	**T331.1**	1 unit(s)	525,70

HF

For dispensing hydrofluoric acid and other problematic media.

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, ECTFE, platinum-iridium

Technical specifications:

Art. No.	T306.1
Nominal volume	10 ml
Correctness	±60 µl
Variation coefficient	±20 µl
Operating temperature	+4 – +50 °C
Adapter	GL 32, GL 38, S 40
Suction tube length	310 mm

Volume (ml)	Graduation	Art. No.	Pack Qty.	€
2–10	0,25	**T306.1**	1 unit(s)	940,65

Dispenser

Dispenser Ultra / Ultra HF

ROTH SELECTION.

For dispensing highly pure acids and alkalis.
Suitable for use in ultra trace analysis.

General features of all models:

- **Free of metals**
- Made of high quality and highly pure plastics (PTFE, TFM and PFA)
- Calibrated and mechanically tested for precision and accuracy
- 38-430 thread (fits ROTIPURAN® Ultra products)

When using bottles with a GL45 thread, please order fastening for dispenser KK11.1 separately.

Ultra

Properties:

- Acid cleansed
- Manufactured in cleanroom (class 100)

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
0,5–5	0,5	±0,02	**KK97.1**	1 unit(s)	3.219,65

Ultra HF

Properties:

- Specially for dispensing hydrofluoric acids
- Also suitable for analytical acids

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
0,5–5	0,5	±0,02	**KK98.1**	1 unit(s)	2.547,75

Accessories for Ultra/Ultra HF dispensers

ROTH SELECTION.

Bottle holder for Ultra/Ultra HF dispensers
Stabilises bottles when using a dispenser. The four-screw system is suitable for both square bottles and round bottles. The bottle holder is designed for ROTIPURAN® Supra and Ultra bottles with capacities from 250 ml to 2 litres. Also suitable for bottles with a diameter from approx. 7.0 cm to 11.5 cm.

Version	Art. No.	Pack Qty.	€
Bottle holder	**KK99.1**	1 unit(s)	133,20

Adapter to GL 45
Material: PTFE. For bottles with GL45 thread, specially for the use of ROTIPURAN® Supra products with Ultra and Ultra HF dispensers.

Version	Art. No.	Pack Qty.	€
Adapter	**KK11.1**	1 unit(s)	375,20

Digital dispensers opus® Dispensers

Hirschmann.

For motor-driven dosing directly from the lab bottle. Microprocessor-controlled piston stroke system guarantees maximum accuracy and precise, reproducible results.

Properties:

- Safe and easy handling via external touchscreen with clearly arranged menu keys; with quick-cal function for simple calibration of other temperatures or other media
- High media flexibility thanks to the highly-resistant, inert materials
- Media carrying parts are steam sterilisable (121 °C)
- Valve block with GL 45 thread
- Time-controlled serial dosing up to 9999 reruns, enables integration in automated process runs
- Methods memory for 9 different procedures
- Media feedback system for ventilation without loss of reagent
- Universal Luer connection for dry pipes, filters etc.
- Can be battery- or mains-operated (battery not included in the delivery; please order separately)
- Stepper function for delivery of up to 10 different partial quantities
- Intake and draining speeds can be set
- 4 languages (G, E, F, S) integrated by default
- Optional system platform for stability, please order separately

Materials in contact with media:
Borosilicate glass, PTFE, FEP, ECTFE, Hastelloy

Control panel:

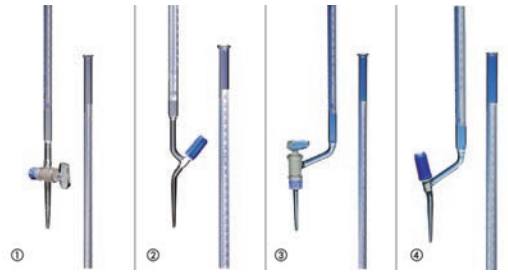
- Touchscreen: 3.5″ with 320 x 240 pixel
- PC port: USB or RS 232
- Dimensions: W 110 x D 130 x H 55 mm
- Weight without battery: 230 g

Technical specifications:

Art. No.	PA71.1	LK06.1	LK07.1
Max. piston stroke	10 ml	20 ml	50 ml
Volume range	0,010–99,999 ml	0,10–200 ml	1,00–500 ml
Resolution	<1 µl		<2 µl
Correctness	0,6 %		
Variation coefficient	0,2 %		
Operating temperature	+4 – +40 °C		
Weight	660 g		
Adapter	GL 32, GL 38, S 40		
Mains connection	230 V, 50 Hz		

Delivery incl. thread adapter, intake hose, return hose, output unit dispenser, valve assembly spanner, touchscreen control, power supply unit, data power cable, quality certificate according to DIN EN ISO 8655.

Version	Art. No.	Pack Qty.	€
10 ml	**PA71.1**	1 unit(s)	2.022,10
20 ml	**LK06.1**	1 unit(s)	2.022,10
50 ml	**LK07.1**	1 unit(s)	2.022,10



Burette with Schellbach stripes Class B

Hirschmann. Material: DURAN® glass.

Clear glass. With line graduation. Scale length: 500 mm. Blue graduated. DIN EN ISO 385 certified.

(1) With a straight glass stopcock, NS 12.5/28

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET57.1**	2 unit(s)	100,45
25	0,05	±0,045	**ET58.1**	2 unit(s)	100,45
50	0,10	±0,075	**ET59.1**	2 unit(s)	101,45

(2) With a straight valve stopcock and a PTFE spindle

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET60.1**	2 unit(s)	114,25
25	0,05	±0,045	**ET61.1**	2 unit(s)	114,25
50	0,10	±0,075	**ET62.1**	2 unit(s)	114,25

(3) With a glass stopcock on the side, NS 12.5/28

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET78.1**	2 unit(s)	100,05
25	0,05	±0,045	**ET79.1**	2 unit(s)	100,05
50	0,10	±0,075	**ET80.1**	2 unit(s)	100,05

(4) With a valve stopcock on the side and a PTFE spindle

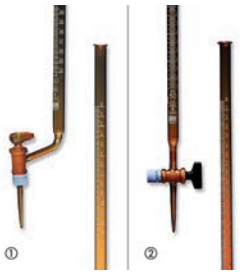
Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET81.1**	2 unit(s)	142,30
25	0,05	±0,045	**ET82.1**	2 unit(s)	142,30
50	0,10	±0,075	**ET83.1**	2 unit(s)	142,30

Burette class B made from plastic

ROTH SELECTION. Material: PVC (burette tube), PMP (tap), FEP (plug valve).

Reduced risk of breakage and injury. Suitable for routine use. Without Schellbach stripes. DIN 12700 certified.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
25	0,1	**9717.1**	1 unit(s)	90,50
50	0,1	**XC74.1**	1 unit(s)	94,50



Burette Class B

Hirschmann. Material: DURAN® glass.

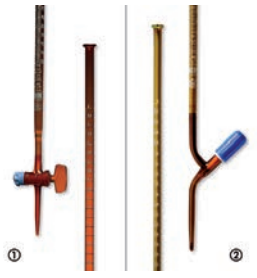
Brown glass. With line graduation. Scale length: 500 mm. White graduated. DIN EN ISO 385 certified.

(2) With a straight glass stopcock

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET63.1**	2 unit(s)	136,00
25	0,05	±0,045	**ET64.1**	2 unit(s)	136,00
50	0,10	±0,075	**ET65.1**	2 unit(s)	136,00

(1) With a glass stopcock on the side

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET84.1**	2 unit(s)	141,85
25	0,05	±0,045	**ET85.1**	2 unit(s)	141,85
50	0,10	±0,075	**ET86.1**	2 unit(s)	141,85



Burette Class AS

Hirschmann. Material: DURAN® glass.

Brown glass. Conformity certified with dated batch identification. Main point ring division. Scale length: 500 mm. White graduated. DIN EN ISO 385 certified.

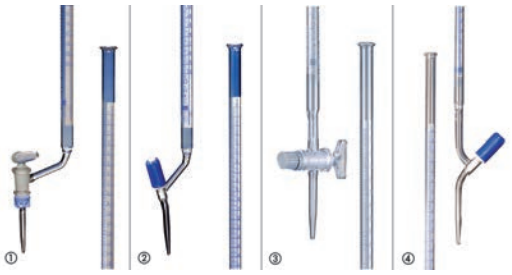
(1) With a straight glass stopcock

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET72.1**	2 unit(s)	197,80
25	0,05	±0,03	**ET73.1**	2 unit(s)	197,80
50	0,10	±0,05	**ET74.1**	2 unit(s)	197,80

(2) With a straight valve stopcock and a PTFE spindle

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET75.1**	2 unit(s)	198,90
25	0,05	±0,03	**ET76.1**	2 unit(s)	198,90
50	0,10	±0,05	**ET77.1**	2 unit(s)	198,90

Burettes



Burette with Schellbach stripes Class AS

Hirschmann. Material: DURAN® glass.

Clear glass. Certificate of conformity with dated batch identification and main point ring division. Calibrated to Ex. Scale length: 500 mm. Blue graduated. DIN EN ISO 385 certified.

(1) With a glass stopcock on the side, NS 12.5/28

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**T736.1**	2 unit(s)	136,05
25	0,05	±0,03	**T737.1**	2 unit(s)	136,05
50	0,10	±0,05	**T738.1**	2 unit(s)	136,05

(2) With a valve stopcock on the side and a PTFE spindle

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**T739.2**	2 unit(s)	173,10
25	0,05	±0,03	**T740.2**	2 unit(s)	173,10
50	0,10	±0,05	**T741.2**	2 unit(s)	173,10

(3) With a straight glass stopcock, NS 12.5/28

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET66.1**	2 unit(s)	136,00
25	0,05	±0,03	**ET67.1**	2 unit(s)	136,00
50	0,10	±0,05	**ET68.1**	2 unit(s)	136,00

(4) With a straight valve stopcock and a PTFE spindle

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET69.1**	2 unit(s)	150,45
25	0,05	±0,03	**ET70.1**	2 unit(s)	150,45
50	0,10	±0,05	**ET71.1**	2 unit(s)	150,45

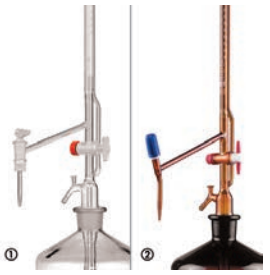
Pellet titration apparatus Class B with a glass stopcock on the side and an intermediate stopcock

Hirschmann. Material: DURAN® glass.

Brown glass. With line graduation. Scale length: 500 mm. White graduated. DIN EN ISO 385 certified.

Delivery incl. 2 l glass bottle. Without blowball, please order separately

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET87.1**	1 unit(s)	269,85
25	0,05	±0,045	**ET88.1**	1 unit(s)	269,85
50	0,10	±0,075	**ET89.1**	1 unit(s)	269,85



Pellet titration apparatus Class AS

Hirschmann. Material: DURAN® glass.

Certificate of conformity with dated batch identification and main point ring division. Scale length: 500 mm. DIN EN ISO 385 certified.

Delivery incl. 2 l glass bottle. Without blowball, please order separately.

(1) With a glass stopcock on the side and an intermediate stopcock, clear glass
Blue graduated.

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET90.1**	1 unit(s)	263,40
25	0,05	±0,03	**ET91.1**	1 unit(s)	263,40
50	0,10	±0,05	**ET92.1**	1 unit(s)	263,40

(2) With a PTFE spindle stop cock on the side and an intermediate tap, clear glass
Blue graduations.

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**1C5L.1**	1 unit(s)	336,50
25	0,05	±0,03	**1C5N.1**	1 unit(s)	336,50
50	0,1	±0,5	**1C5P.1**	1 unit(s)	336,50

(3) With a PTFE spindle stopcock on the side and an intermediate tap, brown glass
White graduated.

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET93.1**	1 unit(s)	362,30
25	0,05	±0,03	**ET94.1**	1 unit(s)	362,30
50	0,10	±0,05	**ET95.1**	1 unit(s)	362,30

Rubber blower for titration apparatus

ROTH SELECTION. Material: PVC, soft.

Hose length: 25 cm. Total length: 34 cm.

Version	Art. No.	Pack Qty.	€
Rubber blower	**ET98.1**	1 unit(s)	12,90

Titrating burettes according to Dr Schilling

Bürkle.

With Schellbach stripe. The burette is a universal aid in laboratories, electroplating, water treatment stations, sewage treatment plants, field studies, etc.
Precise dosing system with push-button, fine titration with micro screw and exact outlet tip, ultrapure drop formation.

- EX-calibrated
- With blue ring-barking
- Automatic zero-point extraction
- Feet on bottle for enhanced stability
- Graduation corresponds to Class B (tolerances according to DIN ISO 385)

Materials in contact with media:
PE, PP, natural rubber and borosilicate glass 3.3.

(1) Automatic

Volume (ml)	Graduation (ml)	Bottle volume (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
5	0,05	500	±0,015	**8226.1**	1 unit(s)	62,25
10	0,05	500	±0,045	**8227.1**	1 unit(s)	62,25
15	0,10	500	±0,045	**8228.1**	1 unit(s)	62,25
25	0,10	1,000	±0,075	**8229.1**	1 unit(s)	62,25
50	0,10	1,000	±0,075	**8230.1**	1 unit(s)	73,80

(2) Shatter-proof
Glass burette with plastic casing increases durability and serves as shatter protection.

Volume (ml)	Graduation (ml)	Bottle volume (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
15	0,1	500	±0,045	**HEX0.1**	1 unit(s)	70,20
25	0,1	1,000	±0,075	**HEX1.1**	1 unit(s)	70,20
50	0,1	1,000	±0,075	**HEX2.1**	1 unit(s)	84,95

Double bulb insufflator with net

ROTH SELECTION. Material: Natural rubber, PVC.

For generating a consistent overpressure. As one bulb is pumped, the second fills with air. The net prevents the second bulb from bursting with increasing air pressure. Tube length 25 cm, hardness 40 Shore A, black.

Version	Art. No.	Pack Qty.	€
Double bulb insufflators	**1CCE.1**	1 unit(s)	61,30

Digital burette

Vitlab.

Pulse-free dispensing. Continuous delivery of desired volume without creating a reserve. Easy and fatigue-free operation of the control elements. Volume dispensed per turn of the handwheels: 2.5 ml (continuous E) or 5.0 ml (continuous RS).

Properties:

- Specially developed return dosing system for ventilation without loss of reagent
- Power supply with longlife, easy-to-change 1.5 V AAA batteries and charge indicator
- Electronics removable as a unit, maintenance friendly modular design
- Dispensing range 0.01 ml to 999.9 ml
- Discharge tube rotatable through 360°
- Vertically and horizontally adjustable discharge tube
- Digital burette with safety valve and standard GL 45 thread
- Telescopic suction tube for different bottle sizes from 200 to 350 mm
- Simple calibration program
- Connection for drying tube
- The defined margins of error according to DIN EN ISO 8655-3 are not exceeded even when dispensing partial volumes
- Not suitable for crystallising media

Parts in contact with media:
Borosilicate glass 3.3., FEP, ETFE, PFA, PTFE, platinum-iridium

Permissible conditions of use:
Temperature +15 to +40 °C, vapour pressure up to max. 500 mbar, density 2.2 g/cm³

Technical specifications:

Art. No.	AA89.1	AA90.1
Nominal volume	25 ml	50 ml
Correctness	±50 µl	±100 µl
Variation coefficient	±25 µl	±50 µl
Operating temperature	+15 – +40 °C	
Adapter	GL 32, GL 38, S 40	
Suction tube length	200 – 350 mm	
Power supply	2 x AAA 1.5 V batteries	

Delivery incl. Three PP thread adapters, quality certificate with test values, one telescopic filling tube, one discharge tube and batteries.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Continuous E	2,5	**AA89.1**	1 unit(s)	781,55
Continuous RS	5,0	**AA90.1**	1 unit(s)	781,55

Digital burettes

Digital burette Titrette®

BRAND.

Bottle-top burette for quick and reliable titration. High accuracy provides results within Class A error margins according to DIN EN ISO 385.

Properties:

- Smooth-acting gear for accurate trickle titration
- Lightweight and stable thanks to compact design
- Freely rotatable valve block, GL 45 thread
- Titrating tube is horizontally and vertically adjustable for flexible positioning
- Easy to use, no switching over between filling and titrating
- Can be removed for cleaning
- Can be calibrated without tools
- The next calibration due date can be stored
- The current displayed value can be stored with automatic stop
- Adjustable up to 20 ml to three decimal places
- DE-M approved

Parts in contact with the media:
Borosilicate glass, Al_2O_3, ETFE, PFA, FEP, PTFE, platinum-iridium, PP.

Permissible conditions of use:
Temperature +15 to +40 °C, vapour pressure up to max. 500 mbar, viscosity up to 500 mm^2/s.

Technical specifications:

Art. No.	NN43.1	PP87.1	PP88.1	NN44.1	PP89.1	PP90.1
Nominal volume	10 ml	25 ml	50 ml	10 ml	25 ml	50 ml
Correctness	±10 µl	±18 µl	±30 µl	±10 µl	±18 µl	±30 µl
Variation coefficient	±5 µl	±6 µl	±10 µl	±5 µl	±6 µl	±10 µl
Operating temperature	+15 – +40 °C					
Adapter	GL 32, S 40, NS 29/32					
Suction tube length	170–330 mm					
Power supply	2 x AAA 1.5 V batteries					

Delivery incl. three PP thread adapters, quality certificate, telescopic filling tube made from FED, recirculation tube, two coloured light-protection windows, batteries.

Standard

Volume (ml)	Art. No.	Pack Qty.	€
10	**NN43.1**	1 unit(s)	848,20
25	**PP87.1**	1 unit(s)	863,25
50	**PP88.1**	1 unit(s)	863,25

With RS 232 port

Volume (ml)	Art. No.	Pack Qty.	€
10	**NN44.1**	1 unit(s)	1.056,75
25	**PP89.1**	1 unit(s)	1.056,75
50	**PP90.1**	1 unit(s)	1.056,75

Digital burette opus® titration

Hirschmann.

For motor-driven titration directly from the lab bottle. Microprocessor-controlled piston stroke system guarantees maximum accuracy and precise, reproducible results.

- Safe and easy handling via external touchscreen with clearly arranged menu keys; with quick-cal function for simple calibration of other temperatures or other media
- High media flexibility thanks to the highly-resistant, inert materials (see below)
- Media carrying parts are steam sterilisable (121 °C)
- Serial dispensing function allows integration in automated processes
- Method memory for nine different titration procedures
- Media feedback system for ventilation without loss of reagent
- Universal Luer connection for dry pipes, filters etc.
- GL 45 internal thread
- Can be battery- or mains-operated (battery not included in the delivery; please order separately)
- Volume pre-selection, fast titration and drop titration options available
- Intake and draining speeds can be set
- 4 languages (G, E, F, S) integrated by default

Materials in contact with media:
Borosilicate glass, ECTFE, FEP, PTFE, Hastelloy

Control panel:

- Touchscreen: 3.5″ with 320 x 240 pixel
- PC port: USB or RS 232
- Dimensions: W 110 x D 130 x H 55 mm
- Weight without battery: 230 g

Technical specifications:

Art. No.	PA73.1	LK08.1	LK09.1
Max. piston stroke	10 ml	20 ml	50 ml
Volume range	0,010 – 99,999 ml	0,10 – 200 ml	1,00 – 500 ml
Resolution	<1 µl		<2 µl
Correctness	±20 µl	±40 µl	±100 µl
Variation coefficient	±7 µl	±14 µl	±35 µl
Operating temperature	+4 – +40 °C		
Weight	660 g		
W x D x H	63 x 80 x 320 mm		
Adapter	GL 32, GL 38, S 40		
Mains connection	230 V, 50 Hz		

Delivery incl. three thread adapters, intake hose, return hose, titration output unit, valve assembly spanner, touchscreen control, power supply unit, data power cable, quality certificate according to DIN EN ISO 8655.

Version	Art. No.	Pack Qty.	€
10 ml	**PA73.1**	1 unit(s)	1.642,60
20 ml	**LK08.1**	1 unit(s)	1.642,60
50 ml	**LK09.1**	1 unit(s)	1.642,60

Digital burettes

Digital burette solarus®

Hirschmann.

Properties:

- Power supply via solar cell, i.e. no batteries, no charging
- Large display, display from 0.01 to 99.99 ml
- 2-button operator guidance
- "Quick-Cal" function for individual calibration
- Basic unit with A45 screw thread
- Bidirectional RS 232 interface
- Handwheels with soft-touch surface
- No reagent loss through return system
- Media-transporting parts including the output unit steam-sterilisable at 121 °C / 2 bar

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, ECTFE, FEP, PTFE and Hastelloy

Technical specifications:

Art. No.	HLY7.1	Y063.1	Y064.1
Nominal volume	10 ml	20 ml	50 ml
Correctness	±30 µl	±40 µl	±100 µl
Variation coefficient	±10 µl	±20 µl	±50 µl
Adapter	GL 32, GL 38, S 40		
Suction tube length	310 mm		

Delivery incl. three thread adapters, output unit, intake hose, return hose and quality certificate according to DIN EN ISO 8655.

Volume (ml)	Art. No.	Pack Qty.	€
10	**HLY7.1**	1 unit(s)	903,00
20	**Y063.1**	1 unit(s)	903,00
50	**Y064.1**	1 unit(s)	903,00

Titrator TitroLine® 5000

SI Analytics.

Very easy to use automatic titrator for pH and mV titration: Select saved standard method, connect electrodes and press Start. In just a few minutes, the sample is titrated and the result is displayed on the screen. Result can also be output as a PDF file on USB.

Technical specifications:

Art. No.	HAN4.1	HAN5.1	HAN6.1
Type	TitroLine® 5000		
Max. piston stroke	20 ml		
Volume range	0,000 – 9999.999 ml		
Display resolution	0,005 – 0,025 ml		
Dosing speed	40 ml/min		
Dosing accuracy	systematically 0.15%, incidentally 0.05%		
pH measuring range	-3 to +17		
Voltage measuring range	-1900 to +1900 mV		
Temperature measuring range	-30 to +115 °C		
pH resolution	0,01		
Voltage resolution	1 mV		
Temperature resolution	1 °C		
pH accuracy	±0.05		
Voltage accuracy	±1 mV		
Temperature accuracy	±0.5 °C		
Connection	pH: DIN 19262, °C: 2 x 4 mm banana plugs (NTC 30 kΩ, PT 1000)		
Calibration points	pH 1/2/3		
Port	2 x RS 232-C, 1 x USB A, 1 x USB B		
W x D x H	135 x 205 x 310 mm		
Mains connection	100–240 V, 50/60 Hz		

Set 1
Range of applications: Current redox titrations, such as iodine and peroxide value, permanganate index, COD and other applications (Set 1 + metal combination electrode Pt 62 RG)

Delivery incl. support rod, electrode/burette tip holder, hose kit and titration syringe, test tubes, magnetic stirrer, magnetic stirring rod, screw cap with GL 45 thread, NS 14.5/M8x1 adapter, drying tube, USB data cable and mains adapter.

Electrode not included, please order separately.

Version	Art. No.	Pack Qty.	€
Set 1	**HAN4.1**	1 unit(s)	3.198,15

Set 2
Range of applications: Current acid-alkali titrations such as acid capacity, nitrogen according to the Kjeldahl method and total acid in wine and beverages

Delivery incl. pH combination electrode A7780, buffer solution (pH 4.00 and 7.00), support rod, electrode/burette tip holder, hose kit and titration syringe, test tubes, magnetic stirrer, magnetic stirring rod, screw cap with GL 45 thread, NS 14.5/M8x1 adapter, drying tube, USB data cable and mains adapter.

Version	Art. No.	Pack Qty.	€
Set 2	**HAN5.1**	1 unit(s)	3.418,50

Titrator

Set 3
Range of applications: Titration of chloride and sodium chloride (salt) in foods such as mustard, cheese, milk, water and other samples

Delivery incl. metal combination electrode AgCl 62 RG with connecting cable, support rod, electrode/burette tip holder, hose kit and titration syringe, test tubes, magnetic stirrer, magnetic stirring rod, screw cap with GL 45 thread, NS 14.5/M8x1 adapter, drying tube, USB data cable and mains adapter.

Version	Art. No.	Pack Qty.	€
Set 3	**HAN6.1**	1 unit(s)	3.504,50

Accessories for TitroLine® 5000

SI Analytics.

Ph combination electrode A7780
With integrated temperature sensor and fixed cable length 1 m (DIN 19262 + banana 1x4 mm).

Suitable for	Art. No.	Pack Qty.	€
TitroLine® 5000	**HAN7.1**	1 unit(s)	311,75

Metal combination electrode AgCl 62 RG
With connector.

Delivery without connecting cable, please order separately.

Suitable for	Art. No.	Pack Qty.	€
TitroLine® 5000	**HAN8.1**	1 unit(s)	362,30

Metal combination electrode Pt 62 RG
With connector.

Delivery without connecting cable, please order separately.

Suitable for	Art. No.	Pack Qty.	€
TitroLine® 5000	**HAN9.1**	1 unit(s)	321,45

Connecting cable
Length 1 m (DIN 19262).

Suitable for	Art. No.	Pack Qty.	€
metal combination electrodes	**HAP0.1**	1 unit(s)	62,05

Disposable syringe Injekt®

B. Braun. Material: PP, PE.

Acc. to ISO 7886-1. Two-piece, individually packed. Black graduation, smudge-proof.
Scale extended beyond the nominal volume. Reliable piston stopper for problem-free collection to maximum volume.
Latex-, PVC- and silicone-free.

(1) With Luer fitting
Sterile.

Medical device class Is

ID: 0123

Volume (ml)	Max. volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2	3	0,1	**0056.1**	100 unit(s)	7,90
5	6	0,2	**0057.1**	100 unit(s)	10,90
10	12	0,5	**0058.1**	100 unit(s)	16,80
20	24	1,0	**0059.1**	100 unit(s)	22,80

(2) With Luer-Lock fitting
Sterile. Suitable for cytostatic agents

Medical device class Is

ID: 0123

Volume (ml)	Max. volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2	3	0,1	**EP95.1**	100 unit(s)	22,50
5	6	0,2	**EP96.1**	100 unit(s)	26,85
10	12	0,5	**EP97.1**	100 unit(s)	38,20
20	24	1,0	**EP98.1**	100 unit(s)	83,85

S

Disposable syringe Injekt® F

B. Braun. Material: PP, PE. **Sterile**.

Acc. to ISO 7886-1. Two-piece fine dosage syringes. Individually packed, latex-free and PVC-free. Green piston rod, black graduation, smudge-proof.
With efficiency pin on the piston rod to reduce the remaining volume.
Centric Luer fitting.

Medical device class Is

ID: 0123

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,01	**T987.1**	100 unit(s)	20,60

S

Disposable syringe Omnifix®

B. Braun. Material: PP. **Sterile**.

Acc. to ISO 7886-1. Three-piece, individually packed. Black graduation, smudge-proof. Reliable piston stopper prevents accidental removal of piston rod.
Smooth-running plunger with double sealing ring for slow and bubble-free collection and injecting. Particularly suitable for dosing smaller volumes, made of synthetic rubber, latex-free, PVC-free.

(1) With Luer fitting

Medical device class Is

ID: 0123

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
3	0,1	**LY22.1**	100 unit(s)	9,60
5	0,2	**C537.1**	100 unit(s)	16,10
10	0,5	**C538.1**	100 unit(s)	21,45
20	1,0	**C539.1**	100 unit(s)	33,55
30	1,0	**T548.1**	100 unit(s)	88,70
50	1,0	**T549.2**	100 unit(s)	168,80

(2) With Luer-Lock fitting

Medical device class IIa

ID: 0123

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
3	0,1	**LY21.1**	100 unit(s)	36,25
5	0,2	**C541.1**	100 unit(s)	41,85
10	0,5	**C542.1**	100 unit(s)	46,90
20	1,0	**T550.1**	100 unit(s)	80,65
30	1,0	**T551.1**	100 unit(s)	102,15
50	1,0	**T552.2**	100 unit(s)	177,40

S

Disposable syringe Omnifix® F

B. Braun. Material: PP, PS. **Sterile**.

Three-piece fine dosage syringes. Individually packed, latex-free and PVC-free. Plunger made of synthetic rubber, black graduation, smudge-proof. Centric Luer fitting.
Smooth-running with double sealing ring for dosing very small volumes. For extremely slow filling and injecting. Minimal residual volume.

Duo

Delivery incl. cannula (25 G, outer Ø 0.5 mm, length 16 mm).

Medical device class IIa

ID: 0123

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,01	**0053.1**	100 unit(s)	37,05

Solo

Delivery without needle.

Medical device class Is

ID: 0123

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,01	**H999.1**	100 unit(s)	19,10

S

Disposable syringe Omnifix® Solo

B. Braun. Material: PP. **Sterile**.

Three-piece smooth-running plunger with double sealing ring. Reliable piston stopper. Easy-to-read, smudge-proof graduation. Centric catheter fitting Ø 7-10 mm.

Purpose: Wound irrigation syringe and blister syringe

Delivery incl. Luer adapter.

Medical device class Is

ID: 0123

Volume (ml)	Graduation	Art. No.	Pack Qty.	€
100	2,0	**HY16.1**	1 unit(s)	5,95

NEW / +

S

Disposable syringe SOL-M™

B. Braun. Material: PP. **Sterile**.

According to DIN EN ISO-NORM 7886-1. 3-piece, individually packed. With Luer fitting. Black graduation, smudge-proof. Latex- and PVC-free.

Smooth-running plunger with double sealing ring for slow, bubble-free withdrawal and injection, particularly when dosing small quantities. Reliable piston stopper prevents accidental removal of piston rod.

Medical device class Is

ID: 2797

Without efficiency pin

Volume (ml)	Graduation (ml)	Dead volume (µl)	Pack.	Art. No.	Pack Qty.	€
1	0,01	48	100 x 1	**1LA6.1**	100 unit(s)	23,20

With efficiency pin
Syringe plunger with efficiency pin to reduce the dead volume to the minimum.

Volume (ml)	Graduation (ml)	Dead volume (µl)	Pack.	Art. No.	Pack Qty.	€
1	0,01	17	100 x 1	**1LA7.1**	100 unit(s)	24,20

S

Insulin syringes Omnican®

B. Braun. **Sterile**.

Acc. to EN ISO 8537. Three-piece syringe with integrated plunger stop. Individually packed, latex- and PVC-free. Integrated stainless steel needle for minimal loss of fluid. With triple facet bevel and silicone coating. Ø 0.30 mm (30 G), length 12 mm.

Technical specifications:

Art. No.	AKN8.1	AKN9.1	AKP0.1
Type	Omnican® 40	Omnican® 50	Omnican® 100
Usable for	U-40 insulin	U-100 insulin	

Delivery incl. protective caps.

Medical device class IIa

ID: 0123

Volume (ml)	Vol. (I.E.)	Graduation (I.E.)	Art. No.	Pack Qty.	€
1	40	1,0	**AKN8.1**	100 unit(s)	49,90
0,5	50	1,0	**AKN9.1**	100 unit(s)	49,90
1	100	2,0	**AKP0.1**	100 unit(s)	49,90

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Syringes/Cannulas

121 °C

Glass syringe

Poulten & Graf. Material: Borosilicate glass. Non-sterile. Autoclavable: Yes.

Precisely adapted piston. Printed on brown graduation. Autoclavable up to 134 °C.

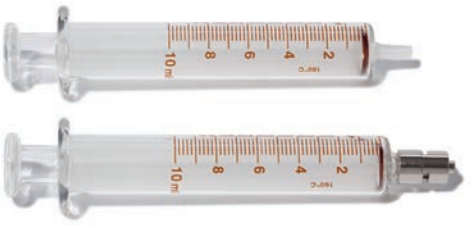
Not a medical device / Not an IVD product

With Luer fitting (glass)

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,05	**C676.1**	1 unit(s)	8,90
2	0,1	**C677.1**	1 unit(s)	8,90
3	0,1	**C678.1**	1 unit(s)	8,90
5	0,2	**C679.1**	1 unit(s)	8,90
10	0,2	**C680.1**	1 unit(s)	11,25
20	1,0	**C681.1**	1 unit(s)	16,90
30	1,0	**C682.1**	1 unit(s)	21,85
50	2,0	**C683.1**	1 unit(s)	39,05
100	4,0	**C684.1**	1 unit(s)	63,00

With Luer-Lock fitting (glass, metal)

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,05	**C685.1**	1 unit(s)	12,00
2	0,1	**C686.1**	1 unit(s)	12,00
3	0,1	**C687.1**	1 unit(s)	12,40
5	0,2	**C688.1**	1 unit(s)	12,40
10	0,2	**C689.1**	1 unit(s)	14,65
20	1,0	**C690.1**	1 unit(s)	22,20
30	1,0	**C691.1**	1 unit(s)	27,00
50	2,0	**C692.1**	1 unit(s)	42,45
100	4,0	**C693.1**	1 unit(s)	83,35



121 °C

Glass syringe Dosys™

Socorex. Material: Borosilicate glass. Autoclavable: Yes.

Fused brown scale, permanent and easy to read. Precision piston and cylinder can be exchanged. Impervious to fluids. Sterilisable up to 160 °C.
Suitable for: dilutions, sampling, viscous liquids, corrosive reagents, colourants, etc.

Not a medical device / Not an IVD product

With Luer fitting (glass)

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,05	**HKL8.1**	3 unit(s)	31,90
5	0,2	**HKL9.1**	3 unit(s)	31,90
10	0,2	**HKN0.1**	3 unit(s)	36,10
20	1	**HKN1.1**	2 unit(s)	36,10
100	10	**HKN2.1**	1 unit(s)	53,70

With Luer-Lock fitting (glass, metal)

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,05	**HKN3.1**	3 unit(s)	34,40
2	0,1	**HKN4.1**	3 unit(s)	34,40
5	0,2	**HKN5.1**	3 unit(s)	36,10
10	0,2	**HKN6.1**	3 unit(s)	40,30
20	1	**HKN7.1**	2 unit(s)	41,95
50	2	**HKN8.1**	1 unit(s)	45,35
100	10	**HKN9.1**	1 unit(s)	59,60
150	10	**HKP0.1**	1 unit(s)	442,75
200	10	**HKP1.1**	1 unit(s)	457,85
250	10	**HKP2.1**	1 unit(s)	446,50

S

Disposable needles Sterican®

B. Braun. Material: Chrome-nickel steel with silicone coating. **Sterile**.
PP connection. Individually packed.
Fits all syringes with Luer and Luer-Lock fitting.

Purpose: Blood collection, intravenous injection, subcutaneous injection, intramuscular injection, joint and soft tissue injection, fine needle aspiration, intravitreal injection

Medical device class IIa

ID: 0123

Long bevel facet

Colour	Ø ext. (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
grey	0.40	20	27 G	**X133.1**	100 unit(s)	6,90
brown	0.45	25	26 G	**C718.1**	100 unit(s)	8,25
violet	0.55	25	24 G	**X132.1**	100 unit(s)	6,90
blue	0.60	25	23 G	**C719.1**	100 unit(s)	8,25
blue	0.60	30	23 G	**X129.1**	100 unit(s)	6,90
blue	0.60	60	23 G	**C720.1**	100 unit(s)	11,30
blue	0.60	80	23 G	**C629.1**	100 unit(s)	16,70
black	0.70	30	22 G	**X128.1**	100 unit(s)	6,90
green	0.80	40	21 G	**X127.1**	100 unit(s)	6,90
green	0.80	50	21 G	**0060.1**	100 unit(s)	11,30
green	0.80	120	21 G	**C630.1**	100 unit(s)	30,85
yellow	0.90	40	20 G	**C721.1**	100 unit(s)	8,25
yellow	0.90	70	20 G	**C722.1**	100 unit(s)	12,45
grey	1.10	50	19 G	**C723.1**	100 unit(s)	11,00

Short bevel facet

Colour	Ø ext. (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
pink	1.20	40	18 G	**C724.1**	100 unit(s)	11,00

Blunt bevel facet

Colour	Ø ext. (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
grey	0.40	25	27 G	**HY15.1**	100 unit(s)	19,15
green	0.80	22	21 G	**X134.1**	100 unit(s)	9,90

NEW / +

A 121 °C

Injection needles

Socorex. Material: Stainless steel (rust-free). Autoclavable: Yes.
Fits all syringes with Luer and Luer-Lock fitting. With ground surface.

Not a medical device / Not an IVD product

Ø ext. (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
0.45	18	26 G	**1HCP.1**	12 unit(s)	14,15
0.45	21	26 G	**1HCT.1**	12 unit(s)	14,15
0.50	23	25 G	**1HCX.1**	12 unit(s)	14,15
0.55	25	24 G	**1HCY.1**	12 unit(s)	14,15
0.60	25	23 G	**1HE0.1**	12 unit(s)	14,15
0.65	30	-	**1HE1.1**	12 unit(s)	14,15
0.70	32	22 G	**1HE2.1**	12 unit(s)	14,15
0.80	35	21 G	**1HE3.1**	12 unit(s)	21,10
0.90	38	20 G	**1HE4.1**	12 unit(s)	21,10
1.00	60	19 G	**1HE5.1**	12 unit(s)	36,75
1.20	40	18 G	**1HE6.1**	12 unit(s)	23,40

Microlitre syringes

Microlitre syringe MICROLITER® series 700

HAMILTON. Material: Borosilicate glass, Stainless steel.

For dispensing liquids. The piston is ground in to the glass body and the needle is fixed in place.

Technical specifications:
Correctness:≤ ±1% of the nominal volume. Test pressure: 0.6 MPa. Operating temperature: -10 to +50 °C

Not a medical device / Not an IVD product

Tip type 2
Needle with 12° grinding, slightly bent inwards; for penetrating septa during all chromatographic methods.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
701 N	10	0,1	0.13	0.47	51	26s ga	**X033.1**	1 unit(s)	38,10
702 N	25	0,5	0.15	0.72	51	22s ga	**X034.1**	1 unit(s)	49,85
705 N	50	1,0	0.15	0.72	51	22s ga	**X035.1**	1 unit(s)	61,85
710 N	100	1,0	0.15	0.72	51	22s ga	**X036.1**	1 unit(s)	72,55
725 N	250	5,0	0.15	0.72	51	22s ga	**X038.1**	1 unit(s)	80,85
750 N	500	10,0	0.41	0.72	51	22 ga	**X039.1**	1 unit(s)	91,70

Tip type 3
Needle with 90° grinding, blunt; for HPLC applications or for exact dispensing, for example, for thin-layer chromatography.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
701 NR	10	0,1	0.13	0.47	51	22s ga	**EY37.1**	1 unit(s)	51,95
702 NR	25	0,5	0.15	0.72	51	22s ga	**EY38.1**	1 unit(s)	54,10
705 NR	50	1,0	0.15	0.72	51	22s ga	**EY39.1**	1 unit(s)	59,75
710 NR	100	1,0	0.15	0.72	51	22s ga	**EY40.1**	1 unit(s)	75,85
725 NR	250	5,0	0.41	0.72	51	22 ga	**EY41.1**	1 unit(s)	77,85
750 NR	500	10,0	0.41	0.72	51	22 ga	**EY42.1**	1 unit(s)	89,95

Microlitre syringe series 700 standard GC

HAMILTON. Material: Borosilicate glass, Stainless steel.

For dispensing liquids with Agilent autosamplers HP 7683/HP 7673. The piston is ground in to the glass body. Needle with 8° grinding (special cone tip for autosamplers), fixed in place.

Technical specifications:
Correctness:≤ ±1% of the nominal volume. Test pressure: 0.6 MPa. Operating temperature: -10 to +50 °C

Not a medical device / Not an IVD product

Type	Vol. (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
701 ASN 23S	10	0.34	0.64	43	23s ga	**X060.1**	1 unit(s)	57,35
701 ASN 26S	10	0.13	0.47	43	26s ga	**X061.1**	1 unit(s)	59,80

Microlitre syringes

Microlitre syringe MICROLITER® series 7000

HAMILTON. Material: Borosilicate glass, Stainless steel.

For dispensing liquids, free from dead volume, with very low nominal volumes. The needle and Wolfram piston are perfectly coordinated. The volume dispensing takes place in the needle.

Technical specifications:
Correctness:≤ ±1% of the nominal volume. Test pressure: 0.6 MPa. Operating temperature: -10 to +50 °C

Not a medical device / Not an IVD product

Tip type 2
Needle with 12° grinding, slightly bent inwards; for penetrating septa during all chromatographic methods.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
7000.5 KH	0.5	0,005	0.10	0.51	70	25 ga	**X056.1**	1 unit(s)	120,35
7001 KH	1.0	0,01	0.14	0.51	70	25 ga	**X057.1**	1 unit(s)	93,60
7002 KH	2.0	0,02	0.20	0.51	70	25 ga	**X058.1**	1 unit(s)	114,15
7105 KH	5.0	0,05	0.32	0.56	70	24 ga	**X059.1**	1 unit(s)	105,10

Tip type 3
Needle with 90° grinding, blunt; for HPLC applications or for exact dispensing, for example, for thin-layer chromatography.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
7000.5 KH	0.5	0,005	0.10	0.51	70	25 ga	**EY52.1**	1 unit(s)	120,35
7001 KH	1.0	0,01	0.14	0.51	70	25 ga	**EY53.1**	1 unit(s)	93,60
7002 KH	2.0	0,02	0.20	0.51	70	25 ga	**EY54.1**	1 unit(s)	118,10
7105 KH	5.0	0,05	0.32	0.56	70	24 ga	**EY55.1**	1 unit(s)	108,10

Microlitre syringe GASTIGHT® series 1000

HAMILTON. Material: Borosilicate glass, Stainless steel, Aluminium PTFE-coated.

For dispensing liquids and media with a high vapour pressure. Glass body and piston are replaceable. With PTFE Luer-Lock connection.

Technical specifications:
Correctness:≤ ±1% of the nominal volume. Test pressure: 0.6 MPa. Operating temperature: -10 to +50 °C

Delivery without needle, please order separately.

Not a medical device / Not an IVD product

Type	Vol. (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1001 TLL	1.0	0,01	**X041.1**	1 unit(s)	79,10
1002 TLL	2.5	0,05	**X042.1**	1 unit(s)	76,00
1005 TLL	5.0	0,10	**X043.1**	1 unit(s)	92,35
1010 TLL	10.0	0,20	**X044.1**	1 unit(s)	101,75

Microlitre syringes

Needles KF for 1000 series GASTIGHT® syringes

HAMILTON. Material: Stainless steel.
Luer-Lock connection PCTFE, 22G.

Not a medical device / Not an IVD product

Tip type 2
Needle with 12° grinding, slightly bent inwards; for penetrating septa during all chromatographic methods.

Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
0.41	0.72	51	**X045.2**	6 unit(s)	123,60

Tip type 3
Needle with 90° grinding, blunt; for HPLC applications or for exact dispensing, for example, for thin-layer chromatography.

Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
0.41	0.72	51	**EY43.1**	6 unit(s)	120,05

Microlitre syringe GASTIGHT® series 1700

HAMILTON. Material: Borosilicate glass, Stainless steel.
For dispensing liquids and gases. Glass body and piston are replaceable. With PTFE tips for sealing. Replaceable needle.

Technical specifications:
Correctness:≤ ±1% of the nominal volume. Test pressure: 0.6 MPa. Operating temperature: -10 to +50 °C

Not a medical device / Not an IVD product

Tip type 2
Needle with 12° grinding, slightly bent inwards; for penetrating septa during all chromatographic methods.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
1701 RN	10	0,1	0.13	0.47	51	26s ga	**X046.1**	1 unit(s)	71,35
1702 RN	25	0,5	0.15	0.72	51	22s ga	**X047.1**	1 unit(s)	75,75
1705 RN	50	1,0	0.15	0.72	51	22s ga	**X048.1**	1 unit(s)	75,75
1710 RN	100	1,0	0.15	0.72	51	22s ga	**X049.1**	1 unit(s)	80,50
1725 RN	250	5,0	0.15	0.72	51	22s ga	**X050.1**	1 unit(s)	80,50
1750 RN	500	10,0	0.41	0.72	51	22 ga	**X051.1**	1 unit(s)	80,50

Tip type 3
Needle with 90° grinding, blunt; for HPLC applications or for exact dispensing, for example, for thin-layer chromatography.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
1701 RNR	10	0,1	0.15	0.72	51	22s ga	**EY44.1**	1 unit(s)	73,95
1702 RNR	25	0,5	0.15	0.72	51	22s ga	**EY45.1**	1 unit(s)	73,95
1705 RNR	50	1,0	0.15	0.72	51	22s ga	**EY46.1**	1 unit(s)	75,80
1710 RNR	100	1,0	0.15	0.72	51	22s ga	**EY47.1**	1 unit(s)	83,00
1725 RNR	250	5,0	0.41	0.72	51	22 ga	**EY48.1**	1 unit(s)	80,10
1750 RNR	500	10,0	0.41	0.72	51	22 ga	**EY49.1**	1 unit(s)	80,10

Microlitre syringes

Microlitre syringe standard

ROTH SELECTION. Material: Borosilicate glass, Stainless steel 1.4301.

Needle with chamfered tip, fixed in place. This syringe may not be used for fluoric or strongly acidic liquids.

Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

Vol. (µl)	Graduation (µl)	Dead volume (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
5	0,1	0,0 ±0,3	0.13	0.52	50	**E114.1**	1 unit(s)	47,25
10	0,1	0,9 ±0,3	0.13	0.52	50	**E115.1**	1 unit(s)	37,05
25	0,5	1,7 ±0,3	0.18	0.52	50	**E116.1**	1 unit(s)	46,20
50	1,0	1,7 ±0,3	0.18	0.52	50	**E117.1**	1 unit(s)	46,75
100	2,0	1,7 ±0,3	0.18	0.52	50	**E118.1**	1 unit(s)	54,10
250	5,0	3,6 ±0,3	0.30	0.56	50	**E119.1**	1 unit(s)	65,15
500	10,0	3,6 ±0,3	0.30	0.56	50	**E120.1**	1 unit(s)	69,35

Microlitre syringe for HPLC

ROTH SELECTION. Material: Borosilicate glass, Stainless steel 1.4301.

For Rheodyne valves. The specially polished, blunt needle tip ensures the perfect density and prevents damage to the seal and rotor. Needle fixed in place.

Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

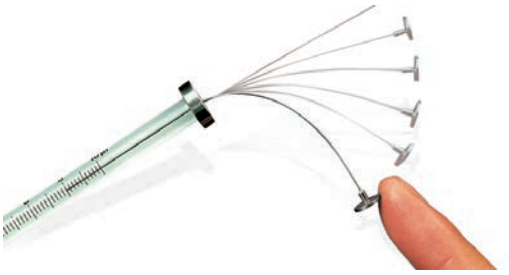
Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
25	0,5	0.18	0.72	51	**E121.1**	1 unit(s)	45,15
50	1,0	0.18	0.72	51	**E122.1**	1 unit(s)	47,25
100	2,0	0.18	0.72	51	**E123.1**	1 unit(s)	52,45
200	5,0	0.18	0.72	51	**E124.1**	1 unit(s)	65,50
500	10,0	0.18	0.72	51	**E125.1**	1 unit(s)	79,10

Microlitre syringes

Microlitre syringe with super-elastic plunger

ROTH SELECTION. Material: Borosilicate glass, Stainless steel 1.4301.

No longer possible to bend. Super-elastic plungers made from Ni-Ti alloy. Plungers always return to their original shape. Needle fixed in place.



Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

Version	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
Needle sharp, for GC	5	0,1	0.13	0.52	50	**E108.1**	1 unit(s)	66,60
Needle sharp, for GC	10	0,2	0.13	0.52	50	**E109.1**	1 unit(s)	42,20
Needle blunt, for Waters	10	0,2	0.13	0.51	50	**E113.1**	1 unit(s)	49,35
Needle blunt, for Rheodyne	10	0,2	0.18	0.72	51	**E111.1**	1 unit(s)	46,95

Microlitre syringe for autosamplers

ROTH SELECTION. Material: Borosilicate glass, Stainless steel 1.4301.

For Agilent (HP) model 7673A. The models with the super-elastic plungers made from Ni-Ti alloy guarantee a longer useable life. Needle with conical tip, fixed in place.

Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

Version	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
Standard plungers	5	0,1	0.15	0.64	43	23 G	**H136.1**	1 unit(s)	75,30
Super-elastic plungers	5	0,1	0.15	0.64	43	23 G	**H140.1**	1 unit(s)	92,40
Standard plungers	10	0,2	0.15	0.64	43	23 G	**H138.1**	1 unit(s)	55,20
Super-elastic plungers	10	0,2	0.15	0.64	43	23 G	**H142.1**	1 unit(s)	69,10

Microlitre syringe with plunger guide

ROTH SELECTION. Material: Borosilicate glass, Stainless steel 1.4301.

Needle with chamfered tip, fixed in place.

Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

PTFE sleeve
Offers greater protection for the plunger in the guide.

Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
10	0,1	0.18	0.52	50	**E127.1**	1 unit(s)	67,75

Microlitre syringes

Variable external guide
A fixing screw allows repeated injections for the same volume of liquid.

Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
10	0,1	0.18	0.52	50	**E126.1**	1 unit(s)	74,80

Syringe Gas-tight

ROTH SELECTION. Material: Borosilicate glass, PTFE, Stainless steel 1.4301.
With specially polished syringe hole and PTFE plunger tip. Gas and liquid-tight up to a pressure of 5.0 kg/cm².

Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

With Luer-Lock connection
Ideal for applications requiring particular inertness.

Delivery without needle.

Vol. (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1.0	0,02	**E133.1**	1 unit(s)	116,55
2.5	0,05	**E134.1**	1 unit(s)	121,75
5.0	0,10	**E135.1**	1 unit(s)	133,55
10.0	0,20	**E136.1**	1 unit(s)	133,55

With screw-top connection
Needle with chamfered tip, replaceable.

Delivery incl. needle.

Vol. (ml)	Graduation (ml)	Dead volume (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
1.0	0,02	2,2 ±0,3	0.30	0.56	30	24 G	**E128.1**	1 unit(s)	157,00
2.5	0,05	2,2 ±0,3	0.30	0.56	30	24 G	**E129.1**	1 unit(s)	157,00
5.0	0,10	2,2 ±0,3	0.30	0.56	30	24 G	**E130.1**	1 unit(s)	157,00
10.0	0,20	2,2 ±0,3	0.30	0.56	30	24 G	**E131.1**	1 unit(s)	189,20

Needles for gas-tight syringes

ROTH SELECTION.

Not a medical device / Not an IVD product

With Luer-Lock connection
Chamfered tip.

Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
0.30	0.56	50	24 G	**E137.1**	5 unit(s)	80,00

With screw-top connection

Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
0.30	0.56	30	24 G	**E132.1**	5 unit(s)	81,40

Centrifugal pump NDP 14/2

Harton.

With magnetic coupling. Ideal for circulating and recirculating chemicals and liquefied gases. Magnetic "break resistance" protects the motor from external forces. Minimal power consumption and long service life thanks to low friction.

- Output is non-adjustable
- Suitable for continuous operation
- Not self-priming. Not suitable for dry operation.

Technical specifications:

Art. No.	A902.1
Type	NDP 14/2
Delivery rate	13,8 l/min
Delivery height	2.3 m
Media temperature	-20 – +85 °C
Connection	External thread ¼″
Power consumption	51 W
Materials in contact with media	PP, EPDM, Ceramic
L x W x H	150 x 112 x 100 mm
Weight	1,7 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
NDP 14/2	**A902.1**	1 unit(s)	292,35

Centrifugal pump NEMP 50/7

Harton.

With magnetic coupling. Suitable for pumping aggressive chemicals, acids, alkalis and liquefied gases. No shaft seal, ensuring reduced wear and long service life.

- Output is non-adjustable
- Suitable for continuous operation
- Not self-priming. Not suitable for dry operation.

Technical specifications:

Art. No.	A903.1
Type	NEMP 50/7
Delivery rate	52 l/min
Delivery height	6.0 m
Media temperature	-20 – +85 °C
Connection	External thread ½″
Power consumption	95 W
Materials in contact with media	PP, EPDM, Ceramic
L x W x H	214 x 102 x 143 mm
Weight	3 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
NEMP 50/7	**A903.1**	1 unit(s)	608,40

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

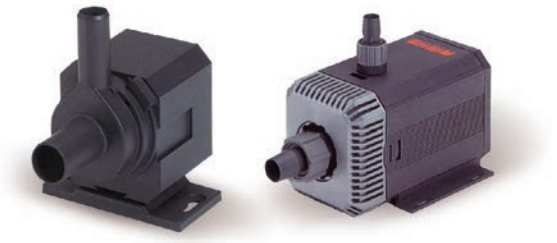
Centrifugal pumps

Centrifugal pump eco series

Eheim.

With magnetic coupling for conveying and recirculating water. Complete with 1.5 m cable and connector.

- Can also be used within the pumped medium
- Output is non-adjustable
- Suitable for continuous operation
- Not self-priming. Not suitable for dry operation



Technical specifications:

Art. No.	A908.1	Y492.1	E234.1	A906.1
Type	eco 1	eco 2	eco 3	eco 4
Delivery rate	4,5 l/min	40 l/min	10 l/min	20 l/min
Delivery height	0.75 m	3.7 m	1.5 m	2.0 m
Media temperature	+4 – +35 °C			
Inlet connection	17 mm	28 mm/¾″	13 mm/⅜″	17 mm/½″
Outlet connection	13 mm	18 mm/¾″	13 mm/¼″	13 mm/⅜″
Power consumption	4 W	65 W	10 W	28 W
IP rating	67			
L x W x H	87 x 48 x 88 mm	218 x 116 x 161 mm	147 x 75 x 119 mm	178 x 96 x 121 mm
Weight	0.45 kg	2.5 kg	1.0 kg	1.6 kg
Mains connection	230 V, 50 Hz			

Type	Art. No.	Pack Qty.	€
eco 1	**A908.1**	1 unit(s)	70,25
eco 2	**Y492.1**	1 unit(s)	256,95
eco 3	**E234.1**	1 unit(s)	127,40
eco 4	**A906.1**	1 unit(s)	168,80

Diaphragm liquid pump LIQUIPORT®

KNF.

Suitable for pumping neutral and aggressive liquids (please take the chemical resistance of the pump head into account).

- The delivery rate can be adjusted within the 10–100% range via the rotary knob with LED display
- Standby mode
- Maximum pressure limit
- Self-priming
- Safe to run dry
- Long service life

NF 100 version

Technical specifications:

Art. No.	EL62.1	EL63.1	EL64.1
Type	NF 100 KT.18 S	NF 100 TT.18 S	NF 100 FT.18 S
Delivery rate	200-1300 ml/min		
Suction lift	3 nWC		
Pressure lift	10 nWC		
Max. pressure	1 bar		
Media temperature	+5 – +80 °C		
Connection	for hose inner Ø 8 mm		
Motor power	12 W		
IP rating	65		
Materials in contact with media	Pump head: PP, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PVDF, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PTFE, Diaphragms: PTFE-coated, Valves: FFKM
W x D x H	99 x 130 x 177 mm		
Weight	0.8 kg		
Mains connection	100–230 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
NF 100 KT.18 S	**EL62.1**	1 unit(s)	662,20
NF 100 TT.18 S	**EL63.1**	1 unit(s)	812,70
NF 100 FT.18 S	**EL64.1**	1 unit(s)	1.954,35

Diaphragm liquid pumps

NF 1.100 version

Technical specifications:

Art. No.	EL65.1	EL66.1	EL67.1
Type	NF 1.100 KT. 18 S	NF 1.100 TT. 18 S	NF 1.100 FT. 18 S
Delivery rate	200-1300 ml/min		
Suction lift	3 nWC		
Pressure lift	40 nWC		
Max. pressure	4 bar		
Media temperature	+5 – +80 °C		
Connection	for hose inner Ø 8 mm		
Motor power	12 W		
IP rating	65		
Materials in contact with media	Pump head: PP, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PVDF, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PTFE, Diaphragms: PTFE-coated, Valves: FFKM
W x D x H	99 x 130 x 177 mm		
Weight	0.8 kg		
Mains connection	100–230 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
NF 1.100 KT. 18 S	**EL65.1**	1 unit(s)	771,85
NF 1.100 TT. 18 S	**EL66.1**	1 unit(s)	919,15
NF 1.100 FT. 18 S	**EL67.1**	1 unit(s)	2.062,95

NF 300 version

Technical specifications:

Art. No.	EL68.1	EL69.1	EL70.1
Type	NF 300 KT.18 S	NF 300 TT.18 S	NF 300 FT.18 S
Delivery rate	500-3000 ml/min		
Suction lift	3 nWC		
Pressure lift	10 nWC		
Max. pressure	1 bar		
Media temperature	+5 – +80 °C		
Connection	for hose inner Ø 12 mm		
Motor power	29 W		
IP rating	65		
Materials in contact with media	Pump head: PP, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PVDF, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PTFE, Diaphragms: PTFE-coated, Valves: FFKM
W x D x H	160 x 104 x 188 mm		
Weight	1.5 kg		
Mains connection	100–230 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
NF 300 KT.18 S	**EL68.1**	1 unit(s)	842,80
NF 300 TT.18 S	**EL69.1**	1 unit(s)	1.068,55
NF 300 FT.18 S	**EL70.1**	1 unit(s)	2.500,45

NF 1.300 version

Technical specifications:

Art. No.	EL71.1	EL72.1	EL73.1
Type	NF 1.300 KT.18 S	NF 1.300 TT.18 S	NF 1.300 FT.18 S
Delivery rate	500-3000 ml/min		
Suction lift	3 nWC		
Pressure lift	40 nWC		
Max. pressure	4 bar		
Media temperature	+5 – +80 °C		
Connection	for hose inner Ø 12 mm		
Motor power	29 W		
IP rating	65		
Materials in contact with media	Pump head: PP, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PVDF, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PTFE, Diaphragms: PTFE-coated, Valves: FFKM
W x D x H	160 x 104 x 188 mm		
Weight	1.5 kg		
Mains connection	100–230 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
NF 1.300 KT.18 S	**EL71.1**	1 unit(s)	909,45
NF 1.300 TT.18 S	**EL72.1**	1 unit(s)	1.133,05
NF 1.300 FT.18 S	**EL73.1**	1 unit(s)	2.566,05

Diaphragm liquid pumps

Diaphragm metering pump SIMDOS® 10

KNF.

Suitable for pumping and metering neutral and aggressive liquids (please take the chemical resistance of the pump head into account).

- Optimised pump head with safety feature prevents the medium from leaking into the drive chamber in the event of leaks.
- Operating modes: Continuous pumping (unlimited time), continuous pumping with timed switch-off, volumetric metering and series metering
- With calibration function for better accuracy
- Adjustable pump characteristics (e. g. for vaporous, viscous liquids)
- Pause function without loss of data
- Safe to run dry, self-priming and maintenance-free

Technical specifications:

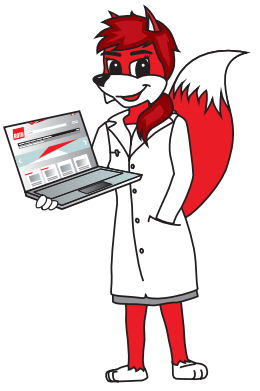
Art. No.	PA27.1	PA28.1	PA29.1
Type	FEM 1.10 KT.18 S2	FEM 1.10 TT.18 S2	FEM 1.10 FT.18 S2
Delivery rate	1-100 ml/min		
Dispensing volume	1-1000 ml		
Metering time	1 s - 99 h 59 min		
Suction lift	3 nWC		
Pressure lift	60 nWC		
Max. pressure	6 bar		
Media temperature	+5 – +80 °C		
Connection	for hose inner Ø 4 mm/outer Ø 6 mm		
Power consumption	24 W		
IP rating	65		
Noise level	≤ 40 db		
Materials in contact with media	Pump head: PP, Diaphragms: PTFE-coated EPDM, Valve plate/seals: FFKM	Pump head: PVDF, Diaphragms: PTFE-coated EPDM, Valve plate/seals: FFKM	Pump head: PTFE, Diaphragms: PTFE-coated EPDM, Valve plate/seals: FFKM
W x D x H	93 x 134 x 144 mm		
Weight	0,9 kg		
Mains connection	100–240 V, 50/60 Hz		

Delivery incl. connection kit (hose and screw fitting) and intake filter.

Type	Art. No.	Pack Qty.	€
FEM 1.10 KT.18 S2	**PA27.1**	1 unit(s)	1.522,20
FEM 1.10 TT.18 S2	**PA28.1**	1 unit(s)	1.630,80
FEM 1.10 FT.18 S2	**PA29.1**	1 unit(s)	2.803,60

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Diaphragm liquid pumps

Diaphragm metering pump DDE series

Grundfos.

Powerful, speed-controlled stepper motor. Constant, continuous dosing performance. Adjustment range up to 1:1000. Pump status can be recognised via the traffic light principle. PTFE diaphragm with universal chemical resistance.

Technical specifications:

Art. No.	PE71.1	PE72.1
Type	DDE 6-10	DDE 15-4
Delivery rate	6 l/h	15 l/h
Suction lift	6 nWC	
Max. pressure	10 bar	4 bar
Media temperature	-10 – +45 °C	
Connection	for hose inner Ø 4 mm/outer Ø 6 mm	for hose inner Ø 6 mm/outer Ø 9 mm
Ambient temperature	0 – +45 °C	
IP rating	65	
Noise level	60 db	
Materials in contact with media	PVC, FKM, Ceramic	
W x D x H	102 x 251 x 196 mm	102 x 251 x 200.5 mm
Weight	2,4 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. mounting plates as a base or for wall installation.

Type	Art. No.	Pack Qty.	€
DDE 6-10	**PE71.1**	1 unit(s)	562,25
DDE 15-4	**PE72.1**	1 unit(s)	722,40

Peristaltic pump ROTH Cyclo II

ROTH SELECTION.

For all applications in the laboratory and analytics and biotechnology applications.

- Pump head (Ø 62 mm) can be rotated 90°
- Easy cleaning thanks to easily removable pump head
- Simple to use with two rotary knobs:
  Continuous speed adjustment from 0–100 %
  Reversible direction of rotation (clockwise/counterclockwise)
- Hose with a wall thickness of 1.6 mm can be used
- Variable hose contact pressure
- Easy hose replacement in seconds
- Temperature and current limiting for maximum reliability
- Stackable

Technical specifications:

Art. No.	Y374.1	EP75.1	EP74.1	EP76.1
Pump type	1-channel	2-channel	1-channel	2-channel
Pump head	3 rollers		6 rollers	
Delivery rate	12–240 ml/min		9,6–192 ml/min	
Max. pressure	1 bar			
Motor power	10 W			
L x W x H	131 x 134 x 190 mm			
Weight	1,6 kg			
Mains connection	100–230 V			

Optional accessory (please order separately): Hose cassettes for different hose Ø.

Delivery incl. hose cassette for hose with inner Ø of 4.8 mm and wall thickness of 1.6 mm. Without pump hoses, please order separately.

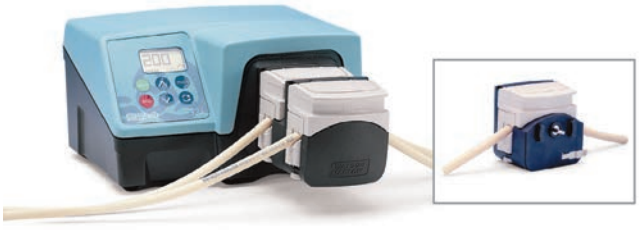
With 3-roller pump head

Version	Art. No.	Pack Qty.	€
1-channel	**Y374.1**	1 unit(s)	1.406,10
2-channel	**EP75.1**	1 unit(s)	1.568,45

With 6-roller pump head
For lower pulsation.

Version	Art. No.	Pack Qty.	€
1-channel	**EP74.1**	1 unit(s)	1.460,95
2-channel	**EP76.1**	1 unit(s)	1.718,95

Peristaltic pumps



Peristaltic pump Sci-Q 323

Watson-Marlow.

Particularly suitable for general applications in laboratory and research applications.

- Quick and easy hose laying thanks to flip-top pump head
- Digital speed control
- Manual control
- Easy-to-read display and washable membrane keyboard
- Chemical-resistant housing
- Maintenance-free, quiet motor
- Usable with hoses with a wall thickness of 1.6 mm
- Can be expanded with additional pump heads to a maximum of six parallel channels

Technical specifications:

Art. No.	Y545.1
Pump type	Sci-Q 323
Delivery rate	0,45–2000 ml/min
Speed	15–400 rpm
Operating temperature	+5 – +40 °C
Display	digital
Noise level	< 70 db
L x W x H	225 x 230 x 132 mm
Weight	4,7 kg
Mains connection	120/230 V, 50/60 Hz

Delivery rate depending on the hose size and the number of rollers in the pump head:

Inner Ø (mm)	Delivery rate (ml/min)		Max. pump heads
	3-roller	4-roller	
0.5	0.45–12	0.45–12	6
0.8	1.1–28	0.90–24	6
1.6	4.1–110	3.8–100	4
3.2	15–400	13–340	2
4.8	33–880	29–760	2
6.4	54–1400	45–1200	1
8	75–2000	60–1600	1

Optional accessory (please order separately): Additional pump heads for multichannel operation and pump heads with four rollers for lower pulsation.

Delivery incl. one 3-roller end pump head. Without pump hoses, please order separately.

Type	Art. No.	Pack Qty.	€
Sci-Q 323	**Y545.1**	1 unit(s)	3.989,35

Peristaltic pump set Hei-FLOW

Heidolph.

For conveying liquids with precision. Delivery rates depending on the hose size.

Properties of the pump drive:

- Analogue speed adjustment
- Constant speed even under varying load
- Reversible direction of rotation (clockwise/counterclockwise)
- Stackable housing (max. two pump drives)

Characteristics of pump head:

- For hose wall thickness of 1.6 mm
- Outer hose Ø freely selectable between 4 mm and 9.5 mm
- Low pulsation is ensured by five rollers
- Easy and quick hose replacement
- Stainless steel rollers and roller mounts

Technical specifications:

Art. No.	CH22.1	EL51.1
Pump type	Value 01	Advantage 01
Delivery rate	0,8–413 l/min	0,4–409 l/min
Control accuracy	±2 %	±0,5
Speed	10–120 rpm	5–120 rpm
Motor power	71 W	100 W
Port	none	analogue
Display	Digital	
L x W x H	256 x 225 x 166 mm	
Weight	6,8 kg	8,2 kg
Mains connection	110–240 V, 50/60 Hz	

Delivery rate depending on the hose size:

Inner Ø (mm)	Delivery rate (ml/min)	
	Value 01	Advantage 01
0.8	0.8–9	0.4–9
1.7	3–41	2–40
3.1	11–134	5–126
4.8	25–292	12–233
6.3	36–413	17–409

(1) Value 01

Delivery incl. SP quick 1.6 pump head and 1 m Tygon® and silicone hose with inner **Ø of 3.1 mm** each.

Pic.	Version	Type	Art. No.	Pack Qty.	€
(1)	Set	Hei-FLOW Value 01	**CH22.1**	1 unit(s)	2.544,00

(2) Advantage 01
With maximum speed button for faster filling and drainage of hoses

Delivery incl. SP quick 1.6 pump head and 1 m Tygon® and silicone hose with inner **Ø of 0.8 mm** each.

Pic.	Version	Type	Art. No.	Pack Qty.	€
(2)	Set	Hei-FLOW Advantage 01	**EL51.1**	1 unit(s)	2.942,00

Pump drive Hei-FLOW

Heidolph.

Peristaltic pump for conveying and metering liquids with precision.

- Simple calibration of conveyed and dispensed volumes
- Intermittent dispensing
- With maximum speed button for faster filling and drainage of hoses
- Constant speed even under varying load
- Reversible direction of rotation (clockwise/counterclockwise)
- Stackable housing (max. two pump drives)

Technical specifications:

Art. No.	CYC4.1	CYC5.1
Pump type	Precision 01	Precision 06
Delivery rate	0,02–409 ml/min	2–2072 ml/min
Dispensing volume	0,1–9999 ml	
Control accuracy	±0,5 %	±0,5
Speed	5–120 rpm	24–600 rpm
Motor power	100 W	
Port	analogue and digital (RS 232)	
Display	digital	
L x W x H	256 x 225 x 166 mm	
Weight	8.3 kg	7.7 kg
Mains connection	110–240 V, 50/60 Hz	

Modular design: The pump drive, pump head and pump hose can be freely combined.

Delivery without pump head and pump hose, please order separately.

Precision 01

Suitable for single-channel and multichannel operation.

Version	Type	Art. No.	Pack Qty.	€
Pump drive	Hei-FLOW Precision 01	**CYC4.1**	1 unit(s)	3.188,00

Precision 06

Suitable for single-channel operation.

Version	Type	Art. No.	Pack Qty.	€
Pump drive	Hei-FLOW Precision 06	**CYC5.1**	1 unit(s)	3.048,00

Single-channel pump head SP quick (SWS 1.6 mm) for Hei-FLOW

Heidolph.

With automatic hose anchoring.

- For standard hose with a wall thickness of 1.6 mm
- Outer hose Ø freely selectable between 4 and 9.5 mm
- Low pulsation is ensured by five rollers
- Easy and quick hose replacement
- Stainless steel rollers and roller mounts

Delivery rate depending on the hose size:

Inner Ø (mm)	Delivery rate (ml/min)	
	Precision 01	Precision 06
0.6	0.38–9	2–33
1.7	2–40	8–186
3.1	5–126	26–653
4.8	12–233	59–1529
6.3	17–409	89–2072

Version	Type	Art. No.	Pack Qty.	€
single-channel pump head	SP quick 1,6	**CYC6.1**	1 unit(s)	499,00

Accessories for Hei-FLOW Precision 01 in multi-channel operation

Heidolph.

Adapter

Version	Type	Art. No.	Pack Qty.	€
Adapter	Adapter for multi-channel pump heads	**CYC7.1**	1 unit(s)	121,00

Hose cassette

Version	Type	Art. No.	Pack Qty.	€
Hose cassette	Hose cassette	**CYC9.1**	1 unit(s)	252,00

Four-channel pump head C4 for Hei-FLOW Precision 01

Heidolph.

With automatic hose anchoring.

- For use with up to four hose cassettes, with snap lock for easy insertion even during operation
- Low pulsation is ensured by eight rollers
- For two stopper hoses with a wall thickness of 0.9 mm
- Hose outer diameters of between 0.2 mm and 2.8 mm are freely selectable
- To feed and convey different volumes, hoses of different diameters can be inserted into the hose cassette
- Roller pressure can be adjusted using an adjustment screw

Delivery rate depending on the hose size:

Inner Ø (mm)	Delivery rate (ml/min)
	Precision 01
0.2	0.02–0.49
0.5	0.08–2
0.9	0.24–6
1.4	0.60–14
6.3	2–36

Delivery without adapter and hose cassettes (max. 4), please order separately.

Version	Type	Art. No.	Pack Qty.	€
four-channel pump head	C4	**CYC8.1**	1 unit(s)	816,00

Pump drive rotarus®

Hirschmann.

Efficient, precise peristaltic pump that enables a flexible range of applications by using various pump heads and hoses. Particularly suitable for use in the pharmaceutical and food production sectors thanks to its stainless steel housing.

- Control panel directly on the pump housing for quick and easy input of basic functions
- Quick-change pump heads
- Reversible direction of rotation (clockwise/counterclockwise)
- Load-based speed control
- Suitable for continuous operation
- Stackable

Technical specifications:

Art. No.	AXN5.1	AXN7.1	AXN9.1	AXN6.1	AXN8.1	AXP0.1
Pump type	50i			100i		
Delivery rate	0,0005–1200 ml/min			0,025–6900 ml/min		
Steps	0.1 U/min					
Speed	0,2–100 rpm			5,0–500 rpm		
Power consumption	60 W			90 W		
Motor power	50 W			85 W		
Port	USB and RS 232					
Display	digital					
IP rating	65					
L x W x H	220 x 100 x 100 mm			270 x 220 x 100 mm		
Weight	7.3 kg			10.1 kg		
Mains connection	115–240 V, 50/60 Hz					

Comparison of pump models:

rotarus® model	standard	flow	volume
Control panel on pump housing	x	x	x
External control panel with touchscreen	-	x	x
Memory for 20 methods	-	x	x
Calibration function	-	x	x
Pumps by speed	x	x	x
Pumps by flow rate	-	x	x
Pumps by target volume (dispensing)	-	-	x
Autom. pump head detection	-	x	x
Autom. hose detection	-	x	x
Hose lifetime monitoring	-	x	x
Autom. hose leak and blockage detection	-	x	x

Modular design: The pump drive, pump head and pump hose can be freely combined.

Delivery without pump head and pump hose, please order separately.

50i series
For low flow rates or high-viscosity media

Version	Type	Art. No.	Pack Qty.	€
flow	rotarus® 50i	**AXN7.1**	1 unit(s)	3.509,90
volume	rotarus® 50i	**AXN9.1**	1 unit(s)	4.192,50
standard	rotarus® 50i	**AXN5.1**	1 unit(s)	2.693,95

100i series
For high flow rates

Version	Type	Art. No.	Pack Qty.	€
flow	rotarus® 100i	**AXN8.1**	1 unit(s)	3.913,00
volume	rotarus® 100i	**AXP0.1**	1 unit(s)	4.461,25
standard	rotarus® 100i	**AXN6.1**	1 unit(s)	3.376,60

Peristaltic pumps

Single-channel pump head rotarus® PK 10-16

Hirschmann.

- With automatic hose anchoring
- RFID head and hose data recognition

Alternatively, up to three single-channel pump heads can be connected in series for multichannel operation.
• Three stainless steel rollers
• Housing made of anodised aluminium
• For hoses with an inner Ø of 1.6–11.1 mm and a wall thickness of 1.6 mm
• Cascadable

Delivery rate depending on the hose size:

Inner Ø (mm)	Delivery rate (ml/min)	
	50i series	100i series
1.6	0.08–40	1.9–200
3.2	0.32–160	0.8–850
8	1.7–840	42–3900
11	2.8–1500	69–5400

Type	Art. No.	Pack Qty.	€
PK 10-16	**AXP1.1**	1 unit(s)	1.419,00

Four-channel pump head rotarus® MKF 4-8

Hirschmann.

- With automatic hose anchoring
- RFID head and hose data recognition
- 8 rollers made of Rulon®
- Housing made of polysulfone (PSU)
- For hoses with an inner Ø of 0.19–2.79 mm, variable wall thickness
- Adjustable contact pressure

Delivery rate depending on the hose size:

Inner Ø (mm)	Delivery rate (ml/min)	
	50i series	100i series
0.19	0.001–0.40	0.021–0.90
0.25	0.0017–0.85	0.043–2.1
1.42	0.026–13.0	0.66–32.0
2.79	0.048–22.7	1.7–82.1

Delivery incl. four hose cassettes.

Type	Art. No.	Pack Qty.	€
MKF 4-8	**AXP2.1**	1 unit(s)	1.827,50

Piston vacuum pump ROTILABO® CR-KP292

ROTH SELECTION.

Compact pump for vacuum and pressure applications. Suitable for pumping air and neutral gases.

Application:
Pressure filtration of aqueous solutions, use in vacuum ovens, vacuum drying and gas sampling.

Technical specifications:

Art. No.	CYA9.1
Type	CR-KP292
Delivery rate	9,2 l/min
End vacuum (abs.)	292 mbar
Overpressure	3,3 bar
Media temperature	+10 – +60 °C
Connection	for hose inner Ø 6 mm
Motor power	25 W
Ambient temperature	+10 – +40 °C
W x D x H	114 x 194 x 191 mm
Weight	2 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
CR-KP292	**CYA9.1**	1 unit(s)	331,10

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Diaphragm vacuum pumps

Diaphragm vacuum pump ROTILABO® CR-MV100

ROTH SELECTION.

Chemical-resistant, for conveying and compressing neutral and aggressive gases and vapours in accordance with the resistance of the given materials. Vacuum is continuously variable via manual vacuum controller (needle valve).

Application:
Suitable for vacuum filtration, vacuum drying and solid phase extraction.

Technical specifications:

Art. No.	ECK4.1
Type	CR-MV100
Delivery rate	10 l/min
End vacuum (abs.)	100 mbar
Measuring range	1000–1 mbar
Graduation	50 mbar
Overpressure	2,5 bar
Media temperature	+10 – +60 °C
Connection	for hose inner Ø 6 mm
Motor power	48 W
Ambient temperature	+10 – +40 °C
Materials in contact with media	Seal: EPDM, Hose nozzle: PP, Valve: FKM, Diaphragm: PTFE-coated, Hose/separator: PVC, Pump head: Ryton
W x D x H	144 x 198 x 244 mm
Weight	2,7 kg
Mains connection	90–260 V, 50/60 Hz

Delivery incl. vacuum metering block with pressure gauge and exhaust silencer.

Type	Art. No.	Pack Qty.	€
CR-MV100	**ECK4.1**	1 unit(s)	815,95

Diaphragm vacuum pump LABOPORT® Mini

KNF.

Ideal for pumping and evacuating slightly aggressive or corrosive gases and vapours.

- Suitable for continuous operation
- Very quiet and low vibration
- Thermal switch and mains fuse

Technical specifications:

Art. No.	Y372.1	Y373.1
Type	N 816.3 KT.18	N 816.1.2 KT.18
Delivery rate	16,0 l/min	30,0 l/min
End vacuum (abs.)	20 mbar	160 mbar
Overpressure	0,5 bar	
Media temperature	+5 – +40 °C	
Connection	Hose inner Ø 6 mm	
Motor power	100 W	
Ambient temperature	+5 – +40 °C	
IP rating	20	
Materials in contact with media	Pump head: PPS, Diaphragm: PTFE-coated, Valves: FFPM	
W x D x H	90 x 361 x 141 mm	102 x 361 x 141 mm
Weight	3,95 kg	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
N 816.3 KT.18	**Y372.1**	1 unit(s)	821,30
N 816.1.2 KT.18	**Y373.1**	1 unit(s)	838,50

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Diaphragm vacuum pumps

Diaphragm vacuum pump LABOPORT® speed-controlled

KNF.

Chemically resistant diaphragm pump, compact in design, with small footprint. Can be easily adapted to the respective application by means of integrated, manual speed control via a rotary knob. Very energy efficient and quiet. Surface is very easy to clean.

Technical specifications:

Art. No.	1EK3.1	1EK1.1	1EK2.1
Type	N 96	N 820 G	N 840 G
Delivery rate	7 l/min	20 l/min	34 l/min
End vacuum (abs.)	≤130 mbar	6 mbar	
Overpressure	2,5 bar	0,1 bar	
Media temperature	+5 – +40 °C		
Connection	for hose inner Ø 6 mm	for hose inner Ø 8–9,5 mm	
Motor power	19 W	66 W	100 W
Ambient temperature	+5 – +40 °C		
IP rating	40	30	
Materials in contact with media	Pump head: PPS, Diaphragm: PTFE-coated, Valves: FKM	Pump head: TFM™ PTFE, Diaphragm: PTFE-coated, Valves: FFPM	
W x D x H	156 x 75 x 119 mm	163 x 259 x 220 mm	177 x 289 x 240 mm
Weight	1,3 kg	8,8 kg	11,3 kg
Mains connection	100–240 V, 50/60 Hz		

N 96

Application: Filtration, liquid suction

Pic.	Type	Art. No.	Pack Qty.	€
(1)	N 96	**1EK3.1**	1 unit(s)	445,05

N 800 G series

Ideal for very aggressive/corrosive gases and vapours.

Application: Centrifugal concentration, rotary evaporation, distillation, degassing, desiccation, solid phase extraction.

- High steam and condensate resistance through integrated gas ballast valve
- Inner, media-contact area ATEX-compliant according to "(EX) II 2/-G IIB+H2 T3 internal atmosphere only"

Pic.	Type	Art. No.	Pack Qty.	€
(2)	N 820 G	**1EK1.1**	1 unit(s)	1.893,10
(3)	N 840 G	**1EK2.1**	1 unit(s)	2.084,45

Diaphragm vacuum pump LABOPORT® N 938.50.KT

KNF.

Chemical-resistant diaphragm vacuum pumps for a wide range of applications in the laboratory. The two pump heads' parallel and series connections ensure that evacuation is very fast.

- Corrosion-resistant
- Suitable for continuous operation
- Compact, quiet and reliable
- Small footprint

Application

Degassing, desiccation, liquid suction, solid phase extraction

Optional accessories (please order separately): fine adjustment head with manual vacuum control via leakage air.

Technical specifications:

Art. No.	1EA9.1
Type	N 938.50.KT
Delivery rate	30 l/min, 1,8 m³/h
End vacuum (abs.)	15 mbar
Overpressure	0,5 bar
Media temperature	+5 – +40 °C
Connection	for hose inner Ø 10 mm
Motor power	110 W
Ambient temperature	+5 – +40 °C
IP rating	20
Materials in contact with media	Pump head: PPS, Diaphragms: PTFE-coated, Valves: FFPM
W x D x H	212 x 317 x 110 mm
Weight	6,8 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
N 938.50.KT	**1EA9.1**	1 unit(s)	1.382,45

Diaphragm vacuum pumps

Diaphragm vacuum pump LABOPORT® chemical-resistant

KNF.

Ideal for pumping and evacuating aggressive gases and vapours.
Application:
For vacuum filtration, drying and distillation, gel drying, SPE, rotary evaporators, vacuum ovens.

- Inner media-contact area ATEX-compliant according to "ATEX II 2GB IIB+H2 T3X internal atmosphere only"
- High gas-tightness
- Suitable for continuous operation

Technical specifications:

Art. No.	C563.1	C564.1
Type	N 820.3 FT.18	N 840.3 FT.18
Delivery rate	20 l/min	34 l/min
End vacuum (abs.)	8 mbar	
Overpressure	1 bar	
Media temperature	+5 – +40 °C	
Connection	for hose inner Ø 10 mm	
Motor power	120 W	245 W
Ambient temperature	+5 – +40 °C	
IP rating	44	
Materials in contact with media	Pump head: TFM™ PTFE, Diaphragms: PTFE-coated, Valves: FFPM	
W x D x H	144 x 312 x 207 mm	166 x 341 x 226 mm
Weight	9.3 kg	12,6 kg
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
N 820.3 FT.18	**C563.1**	1 unit(s)	1.817,85
N 840.3 FT.18	**C564.1**	1 unit(s)	1.988,75

Diaphragm vacuum pump LABOPORT® SD series

KNF.

Chemical-resistant, **suitable for highly aggressive and corrosive gases and vapours.**
Self-drying, **for moist gases:** During the evacuation process, the pump blows condensate liquid out of the pump heads at high speed. The vacuum remains constant during this application.
Application:
For applications such as steam sterilisers or vacuum drying in vacuum drying ovens, to significantly speed up the evacuation time.

- High steam and condensate resistance
- Gas-tight, leak rate approx. 6 x 10^{-3} mbar x l/s
- With thermal switch and mains fuse

Technical specifications:

Art. No.	Y369.1	1EK0.1	Y370.1
Type	N 820.3 FT.40.18	N 860.3 FT.40.18	N 840.3 FT.40.18
Delivery rate	20 l/min, 1,2 m^3/h	60 l/min, 3,6 m^3/h	34 l/min, 2,04 m^3/h
End vacuum (abs.)	10 mbar	4 mbar	10 mbar
Overpressure	1 bar		
Media temperature	+5 – + 40 °C		
Connection	for hose inner Ø 10 mm	for hose inner Ø 12 mm	for hose inner Ø 10 mm
Motor power	120 W	220 W	245 W
Ambient temperature	+5 – + 40 °C		
IP rating	44	54	44
Materials in contact with media	Pump head: PTFE, Diaphragms: PTFE-coated, Valves: FFPM		
W x D x H	177 x 312 x 220 mm	291 x 331 x 278 mm	189 x 341 x 239 mm
Weight	9,6 kg	14,8 kg	12,9 kg
Mains connection	230 V, 50 Hz		

Type	Art. No.	Pack Qty.	€
N 820.3 FT.40.18	**Y369.1**	1 unit(s)	2.152,15
N 840.3 FT.40.18	**Y370.1**	1 unit(s)	2.591,85
N 860.3 FT.40.18	**1EK0.1**	1 unit(s)	4.112,95

Diaphragm vacuum pumps

Diaphragm vacuum pump N 920 KT.29.18G

KNF.

For all applications that still require a **large suction capacity** at **low pressure**.
For pumping and extracting air, gases and vapours, for sampling and evacuating containers or systems.

- **The delivery rate can be adjusted by changing the speed** using the potentiometer.
- Ideal for aggressive and corrosive gases and vapours.
- Very quiet and low vibration.
- Diaphragm stabilisation system for high suction capacity in the lower vacuum range.
- With integrated gas ballast valve for reducing condensate formation within the pump head.

Application:
For various processes and procedures, e.g. in laboratories, which need to be performed under vacuum conditions. Also usable in the semi-conductor and pharmaceutical industries and in chemical and analysis technology.

Technical specifications:

Art. No.	EP19.1
Type	N 920 KT.29.18G
Delivery rate	21 l/min
End vacuum (abs.)	2 mbar
End vacuum abs. with gas ballast	<5 mbar
Overpressure	0,5 bar
Media temperature	+5 – +40 °C
Connection	for hose inner Ø 10 mm
Motor power	135 W
Ambient temperature	+10 – +40 °C
IP rating	20
Materials in contact with media	Pump head: PPS, Diaphragms: PTFE-coated, Valves: FFPM, Gas ballast valve: PVDF
W x D x H	158 x 324 x 226 mm
Weight	8,5 kg
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
N 920 KT.29.18G	**EP19.1**	1 unit(s)	2.603,65

Diaphragm vacuum pump ME 1 series

Vacuubrand.

Ideal for pumping and evacuating gases and vapours.
Application:
Uses such as vacuum filtration for sample preparation in chemical, microbiology, wastewater and other analytical processes.

- Simple to use with central power button mounted on pump housing
- Extremely quiet and low vibration
- Requires minimal benchtop space
- Long diaphragm service life

Technical specifications:

Art. No.	NA17.1	NA18.1
Type	ME 1	ME 1C
Cylinder	1	
Steps	1	
Delivery rate	11,7 l/min, 0,7 m³/h	
End vacuum (abs.)	100 mbar	
Media temperature	+10 – +40 °C (>100 mbar), 0 – +60°C (<100 mbar)	
Inlet connection	for hose inner Ø 6–10 mm	for hose inner Ø 8–10 mm
Outlet connection	Silencer/G ⅛″	for hose inner Ø 8–10 mm
Motor power	40 W	
Ambient temperature	+10 – +40 °C	
IP rating	40	
Materials in contact with media	Aluminium, ETFE	ETFE, PTFE
W x D x H	121 x 247 x 145 mm	
Weight	5 kg	
Mains connection	230 V, 50/60 Hz	

Optional accessories (please order separately): fine adjustment head with manual vacuum control via leakage air, rotatable in different directions for optimal visibility.

ME 1
Wide range of applications for neutral gases and vapours.

Type	Art. No.	Pack Qty.	€
ME 1	**NA17.1**	1 unit(s)	676,20

ME 1C
Specially designed for aggressive gases and vapours.

Type	Art. No.	Pack Qty.	€
ME 1C	**NA18.1**	1 unit(s)	899,80

Diaphragm vacuum pumps

Diaphragm vacuum pump MD 1 series

Vacuubrand.

For evacuating and conveying gases down to an extremely low end vacuum.

- **Three-stage, for a high suction capacity even at low pressures**
- Very quiet and low vibration
- Long service life
- Easy diaphragm and valve replacements

Technical specifications:

Art. No.	ETY5.1	HC95.1
Type	MD 1	MD 1C
Cylinder	4	
Steps	3	
Delivery rate	20 l/min, 1,2 m³/h	21,7 l/min, 1,3 m³/h
End vacuum (abs.)	1,5 mbar	2 mbar
End vacuum abs. with gas ballast		4 mbar
Media temperature	+10 – +40 °C (>100 mbar), 0 – +60°C (<100 mbar)	
Inlet connection	for hose inner Ø 6 mm	for hose inner Ø 8–10 mm
Outlet connection	G1/8″ silencer	for hose inner Ø 8 mm
Motor power	80 W	
Ambient temperature	+10 – +40 °C	
IP rating	42	
Materials in contact with media	Pump head: Aluminium, Diaphragms: PTFE, Valves: FPM	Pump head: PTFE/ETFE, Diaphragms: PTFE, Valves: FFPM
W x D x H	143 x 303 x 163 mm	143 x 316 x 175 mm
Weight	6,5 kg	6,9 kg
Mains connection	200–230 V, 50/60 Hz	

MD 1
Wide range of applications for neutral gases and vapours.

Type	Art. No.	Pack Qty.	€
MD 1	**ETY5.1**	1 unit(s)	1.553,40

MD 1C
Specially designed for aggressive gases through the use of chemical-resistant fluoroplastics, as well as excellent condensate resistance due to built-in gas ballast valve.

Type	Art. No.	Pack Qty.	€
MD 1C	**HC95.1**	1 unit(s)	2.639,15

Diaphragm vacuum pump ME 4 series

Vacuubrand.

Ideal for analytic applications in the laboratory and industrial operations.

- Continuous, oil-free evacuation and conveying of gases
- Very low leak rate thanks to particularly tightly sealed connection technology. Reliable output data
- Long diaphragm service life
- Particularly quiet and smooth running thanks to compact drive
- Long service life
- Easy diaphragm and valve replacements

Technical specifications:

Art. No.	KH50.1	1EA7.1
Type	ME 4 NT	ME 4C NT
Cylinder	2	
Steps	1	
Delivery rate	67 l/min, 4,0 m³/h	65 l/min, 3,9 m³/h
End vacuum (abs.)	70 mbar	
Overpressure	1 bar	0,1 bar
Media temperature	+10 – +40 °C	
Inlet connection	for hose inner Ø 8–10 mm	
Outlet connection	2 x silencer / G1/4″	
Motor power	180 W	
Ambient temperature	+10 – +40 °C	
IP rating	40	
Noise level	45 db	
Materials in contact with media	Pump head: Aluminium, Diaphragms: FPM, Valves: FPM	ETFE pump head, carbon fibre-reinforced, Diaphragms: PTFE, Valves: PTFE
W x D x H	239 x 243 x 198 mm	243 x 254 x 198 mm
Weight	11 kg	
Mains connection	200–230 V, 50/60 Hz	

ME 4NT
Wide range of applications for neutral gases and vapours.

Extremely high diaphragm durability thanks to highly flexible FKM double diaphragms with fabric reinforcement.

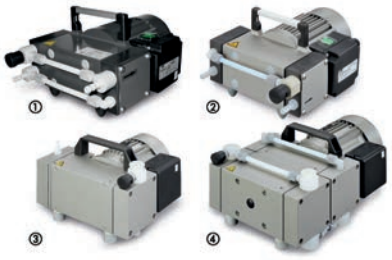
Type	Art. No.	Pack Qty.	€
ME 4 NT	**KH50.1**	1 unit(s)	1.429,75

ME 4C NT
Specially designed for aggressive gases and vapours.

Long diaphragm service life thanks to the diaphragms' PTFE sandwich design.

Type	Art. No.	Pack Qty.	€
ME 4C NT	**1EA7.1**	1 unit(s)	2.052,20

Diaphragm vacuum pumps



Diaphragm vacuum pump MPC series

WELCH Vacuum.

Ideal for pumping and compressing **neutral and aggressive gases and vapours.**
With integrated gas ballast valve for reducing condensate formation within the pump head.

Application:
In physical and chemical laboratories for vacuum filtration, distillation, drying, etc.

Technical specifications:

Art. No.	1AA3.1	CE38.1	CE39.1	CE40.1
Type	MPC 201 E	MPC 101 Z	MPC 301 Z	MPC 601 T
Cylinder	2			4
Steps	1	2		3
Delivery rate	30 l/min 1,8 m³/h	16,7 l/min 1 m³/h	38,3 l/min 2,3 m³/h	75,0 l/min 4,5 m³/h
End vacuum (abs.)	< 75 mbar	< 8 mbar		< 2 mbar
End vacuum abs. with gas ballast	90 mbar	18 mbar		9 mbar
Media temperature	+10 – +40 °C			
Connection	for hose inner Ø 8 mm			
Motor power	60 W		180 W	370 W
Ambient temperature	+10 – +40 °C			
IP rating	54			
Materials in contact with media	Connection/pump head: PTFE with carbon fibre reinforcement, Seal: EPDM, Screw fitting: PVDF, Valves: PEEK, Diaphragm disc: NBR, Connecting elements: PP			
W x D x H	195 x 225 x 147 mm		230 x 265 x 169 mm	230 x 380 x 169 mm
Weight	6,5 kg		11,2 kg	18,3 kg
Mains connection	230 V, 50/60 Hz			

Pic.	Type	Art. No.	Pack Qty.	€
(1)	MPC 201 E	**1AA3.1**	1 unit(s)	1.306,15
(2)	MPC 101 Z	**CE38.1**	1 unit(s)	1.338,40
(3)	MPC 301 Z	**CE39.1**	1 unit(s)	1.800,65
(4)	MPC 601 T	**CE40.1**	1 unit(s)	3.542,15

Rotary vane pump package ROTILABO® CR-DS40

ROTH SELECTION.

Robust, two-stage vacuum pump primarily for vacuum ovens, freeze dryers and the Schlenkline technique. Its innovative technology means that it has a long service life and is highly reliable and low-maintenance.

- Lower operating temperature thanks to optimised cooling, which reduces the chemical activity in the pump and the oil consumption
- Extended oil change intervals thanks to the large oil storage tank
- Larger oil capacity results in increased dilution of chemical vapours, minimisation of oil degradation rates and reduction in chemical damage in the pump
- Decelerated metal corrosion thanks to the additional coating of pump module and oil storage tank which, in conjunction with cold traps, extend the maintenance intervals

Technical specifications:

Art. No.	1A9E.1
Type	CR-DS40
Delivery rate	38 l/min, 2,3 m³/h
End vacuum (abs.)	3 x 10^{-3} mbar
End vacuum abs. with gas ballast	9 x 10^{-2} mbar
Media temperature	+10 – +40 °C
Connection	KF DN 16 small flange
Oil filling	0,45 l
Motor power	290 W
Ambient temperature	+10 – +40 °C
IP rating	54
Noise level	50 db
W x D x H	384 x 138 x 211 mm
Weight	15 kg
Mains connection	115–230 V, 50/60 Hz

Delivery incl. oil mist filter, adapter (DN 16 small flange to DN 10/8 mm hose nozzle), 1 l pump oil, funnel, clamping and centring rings.

Type	Art. No.	Pack Qty.	€
CR-DS40	**1A9E.1**	1 unit(s)	1.898,45

Rotary vane pumps

Rotary vane pump package CRVpro series

WELCH Vacuum.

Complete packages with two-stage rotary vane pumps.

- Low operating temperature due to enhanced cooling geometry
- Coating of the pump body and the oil container as protection against chemical vapours
- Low oil consumption and corrosion inhibition due to low heat development during operation
- Large oil reservoir reduces the concentration of chemicals, thereby increasing the oil change intervals

Application:

- Freeze dryer (CRVpro 4/6/8)
- Vacuum centrifuge (CRVpro 6)
- Vacuum ovens (CRVpro 8)
- Schlenk technology (CRVpro 4)
- Glove box (CRVpro 8)

Technical specifications:

Art. No.	**HKE0.1**	**HKE1.1**	**HKE2.1**
Type	CRVpro 4	CRVpro 6	CRVpro 8
Delivery rate	63 l/min, 3,8 m^3/h	85 l/min, 5,1 m^3/h	122 l/min, 7,3 m^3/h
End vacuum (abs.)	2 x 10^{-3} mbar		
End vacuum abs. with gas ballast	7 x 10^{-2} mbar		
Media temperature	+10 – +40 °C		
Connection	KF DN 16 small flange	DN 16 KF small flange	
Oil filling	1,15 l		1,0 l
Motor power	370 W		
Ambient temperature	+10 – +40 °C		
IP rating	54		
Noise level	50 db		
W x D x H	463 x 157 x 230 mm		
Weight	21 kg	22 kg	22,5 kg
Mains connection	115–230 V, 50/60 Hz		

Delivery incl. AKD 16 oil mist separator, 2-way ball valve, adapter (DN 16 small flange to DN 10/8 mm hose nozzle), vacuum hose (1.5 m), oil change set incl. 2 x 1 l oil, clamping and centring rings.

Type	Art. No.	Pack Qty.	€
CRVpro 4	**HKE0.1**	1 unit(s)	2.671,40
CRVpro 6	**HKE1.1**	1 unit(s)	2.961,65
CRVpro 8	**HKE2.1**	1 unit(s)	3.509,90

Rotary vane pumps

Rotary vane pump XS series

Vacuubrand.

For pressure ranges up to 10^{-3} mbar.

Advantages:

- High suction capacity, even at low ultimate pressure
- High water vapour resistance (with 40 mbar gas ballast)
- Active corrosion protection against ingress of corrosive gases and oil components at a standstill through vacuum-tight closed oil circuit
- New circulation lubrication system
- Compact design and low weight
- Starts reliably even at low temperatures
- Long oil change intervals thanks to high usable oil volume
- Easy maintenance thanks to telescopic design

Technical specifications:

Art. No.	CE14.1	CE15.1	NA10.1	HC94.1	NA11.1	CTL3.1	CTL2.1
Type	RE 2.5	RZ 2.5	RZ 2.5 package	RZ 6	RZ 6 package	RZ 6 package with DCP	RZ 9
Steps	1	2					
Delivery rate	38 l/min, 2,3 m³/h			95 l/min, 5,7 m³/h			143 l/min, 8,9 m³/h
End vacuum (abs.)	3 x 10^{-1} mbar	2 x 10^{-3} mbar					
End vacuum abs. with gas ballast	8 x 10^{-1} mbar	1 x 10^{-2} mbar					
Water vapour tolerance	40 mbar						
Media temperature	+10 – +40 °C (>100 mbar), 0 – +60°C (<100 mbar)						
Inlet connection	DN 16 small flange						DN 25 small flange
Outlet connection	for hose inner Ø 10 mm						DN 25 small flange
Oil filling	0,18–0,51 l	0,1–0,28 l		0,34–0,73 l			0,2–0,8 l
Motor power	180 W			300 W			370 W
Ambient temperature	+12 – +40 °C						
IP rating	40						
W x D x H	125 x 308 x 190 mm			142 x 370 x 207 mm			232 x 460 x 232 mm
Weight	10,2 kg	11,4 kg		16,4 kg			24,2 kg
Mains connection	200–230 V, 50/60 Hz						

Single-stage

Delivery incl. oil filling, thermal motor circuit breaker, power cord (length: 2 m), clamping and centring ring for suction piece.

Type	Art. No.	Pack Qty.	€
RE 2.5	**CE14.1**	1 unit(s)	1.623,25

Two-stage

Delivery incl. oil filling, thermal motor circuit breaker, power cord (length: 2 m), clamping and centring ring for suction piece – can also be used for exhaust port with RZ 9.

Type	Art. No.	Pack Qty.	€
RZ 2.5	**CE15.1**	1 unit(s)	2.219,90
RZ 6	**HC94.1**	1 unit(s)	2.843,40
RZ 9	**CTL2.1**	1 unit(s)	3.708,75

Basic package

Delivery incl. oil filling, thermal motor circuit breaker, power cord (length: 2 m), FO exhaust filter, VS 16 butterfly valve, PP adapter (DN 16 small flange to DN 10 hose nozzle), clamping and centring rings.

Type	Version	Art. No.	Pack Qty.	€
RZ 2.5 package	with FO + VS 16 + SW DN 10	**NA10.1**	1 unit(s)	2.537,00
RZ 6 package	with FO + VS 16 + SW DN 10	**NA11.1**	1 unit(s)	3.047,65

Package with vacuum meter

Delivery incl. oil filling, thermal motor circuit breaker, power cord (length: 2 m), FO exhaust filter, VS 16 butterfly valve, PP adapter (DN 16 small flange to DN 10 hose nozzle), clamping and centring rings, DCP 3000 vacuum meter with VSP 3000 pressure sensor.

Type	Version	Art. No.	Pack Qty.	€
RZ 6 package with DCP	with FO + VS 16 + SW DN 10 + set comprising DCP 3000 and VSP 3000	**CTL3.1**	1 unit(s)	4.138,75

Vacuum measuring devices and systems

Vacuum meter

ROTH SELECTION.

The devices are connected to a vacuum pump in series on the suction side. Stand mounting possible (using spring clamps on the back of the device).

Technical specifications:

Art. No.	NA03.1	Y457.1
Type	VAC	VAR
Version	meter	controller
Measuring range	1020–0 mbar	
Resolution	10 mbar	
Connection	for hose inner Ø 8 mm	
W x D x H	80 x 80 x 150 mm	

(1) VAR with manual regulator
For controlling the vacuum and keeping it constant via a control button. Continuously adjustable for a variable vacuum level.

Type	Version	Art. No.	Pack Qty.	€
VAR	controller	**Y457.1**	1 unit(s)	246,20

(2) VAC
For displaying the current vacuum level.

Type	Version	Art. No.	Pack Qty.	€
VAC	meter	**NA03.1**	1 unit(s)	170,95

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Vacuum meter DVR 2pro

Vacuubrand.

Chemical-resistant materials in area in contact with media for excellent long-term stability and accuracy.

- Integrated ceramic diaphragm pressure transducer (aluminium oxide)
- Digital pressure display, with additional analogue representation
- Automatic switch-off after 1 to 600 min or continuous operation
- Adjustable measuring cycle: Automatic, 1x per 3 s, 1x per 1 s or 3x per 1 s
- Switchable pressure display (mbar, torr, hPa)

Technical specifications:

Art. No.	HTE7.1
Type	DVR 2pro
Measuring range	1060–1 mbar
Resolution	0.1 mbar
Measuring principle	capacitive absolute pressure transducer, regardless of the gas type
Accuracy	< ±1 mbar/±1 digit
Connection	KF DN 16 small flange DN 6/10 mm stepped hose nozzle Hose connection for PTFE hoses (inner Ø 8 mm, outer Ø 10 mm)
Ambient temperature	+10 – +40 °C
L x W x H	115 x 115 x 56 mm
Weight	400 g
Power supply	E-Block 9 V battery

Delivery incl. vacuum connecting parts, stand rod and battery.

Type	Art. No.	Pack Qty.	€
DVR 2pro	**HTE7.1**	1 unit(s)	677,25

NEW / +

Vacuum meter VMpro 2

WELCH Vacuum.

Robust, durable and reliable. Digital multi-range vacuum meter for measuring the vacuum in the coarse and fine vacuum ranges. Chemically resistant and therefore ideal for corrosive and aggressive gases and vapours. Combined sensor unites PIRANI technology with the benefits of a ceramic capacitive membrane sensor. In the measuring range between 10 mbar and the atmosphere, capacitive membrane technology delivers highly accurate values for reliable pressure measurement, regardless of the type of gas.

- With backlit LCD display for easy readability and for simple monitoring of the vacuum; the current measuring principle is also displayed
- High accuracy and excellent resolution in the atmospheric pressure range to $5x10^{-4}$ mbar
- Both pressure sensors are active at all times: With a low vacuum (<1 mbar), the signal from the PIRANI sensor is used exclusively for pressure measurement, and for a weaker vacuum (>10 mbar), only the signal from the capacitive membrane sensor is used. In the mixing area (1-10 mbar), both signals are weighted in proportion to the pressure and the output signal is thus determined
- Can be connected to practically any vacuum pump and any vacuum system
- LED status display

Technical specifications:

Art. No.	**1LLE.1**
Type	VMpro 2
Measuring range	1500–5x 10^{-4} mbar
Resolution	1 mbar (1050–100 mbar), 0.5 mbar (99–1 mbar), 0.1 mbar (0.9–0.1 mbar), 0.01 mbar (0.09–0.01 mbar), 0.001 mbar (0.009–0.001 mbar)
Measuring principle	capacitive and acc. to PIRANI
Accuracy	±2.5 % of the measured value (950–1050 mbar) ±5 % of the measured value (100–950 mbar) ±15 % of the measured value (1x10^{-3}–100 mbar) ±50 % of the measured value (5x10^{-4}–1x10^{-3} mbar)
Connection	KF DN 16 small flange, Nozzle for internal hose Ø 8–10 mm
Ambient temperature	+10 – +50 °C
W x D x H	45 x 28 x 94 mm
Weight	120 g
Mains connection	100–240 V, 50/60 Hz

Delivery incl. DN 8-10 hose nozzle, T-piece, clamping and centring ring, plug-in power supply.

Type	Art. No.	Pack Qty.	€
VMpro 2	**1LLE.1**	1 unit(s)	1.113,70

Vacuum meter DCP 3000

Vacuubrand.

- LCD graphic display with digital pressure indicator and bar graph
- Separate pressure transducer for flexible positioning of the measuring device (cable length 2 m)
- Sensor material for contact with media: Aluminium oxide ceramic.
- Switchable pressure display (mbar, torr, hPa)
- Can be used as a tabletop device or with a stand

Technical specifications:

Art. No.	**LY74.1**	**LY75.1**
Type	DCP 3000 with VSK 3000 pressure transducer	DCP 3000 with VSP 3000 pressure transducer
Measuring range	1060–0.1 mbar	1000–0.001 mbar
Resolution	0.1 mbar	10% of displayed decade
Measuring principle	capacitive absolute pressure transducer, regardless of the gas type	Heat conduction according to PIRANI, depending on the gas type
Accuracy	< ±1 mbar/± 1 digit	±15% of the measured value (10–0.01 mbar)
Connection	for hose inner Ø 6, 8 or 10 mm	
Ambient temperature	+10 – +40 °C	
L x W x H	124 x 124 x 114 mm	
Weight	440 g	
Mains connection	100–230 V, 50/60 Hz	

Delivery incl. DCP 3000 vacuum meter with required pressure transducer, measuring cable and support.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	DCP 3000 with VSK 3000 pressure transducer	**LY74.1**	1 unit(s)	1.214,75
(2)	DCP 3000 with VSP 3000 pressure transducer	**LY75.1**	1 unit(s)	1.193,25

Vacuum meter VACUU VIEW

Vacuubrand.

For monitoring vacuum processes with particularly high precision.

- Lit pressure display makes it easy to read the measured values
- Display with menu navigation, simple adjustment of display options, e.g. pressure unit
- Compact design with integrated sensors; is practical to position for lab and process set-ups
- Sensor chemical-resistant for increased service life, even for aggressive applications
- Stable plastic housing with good chemical resistance
- Switchable pressure display (mbar, torr, hPa)

Technical specifications:

Art. No.	1E9H.1	1E9E.1
Type	VACUU VIEW Extended	VACUU VIEW Standard
Measuring range	1100–0.001 mbar	1100–1 mbar
Resolution	1 mbar (1100–10 mbar), 0.1 mbar (10–1 mbar), 0.01 mbar (1–0.1 mbar), 0.001 mbar (0.1–0.001 mbar)	1 mbar (1100–100 mbar), 0.1 mbar (100–1 mbar)
Measuring principle	Capacitive and acc. to PIRANI	capacitive
Accuracy	±3 mbar (1100–5 mbar) ±15% from the measured value (5–0.01 mbar)	< ±1 mbar/±1 digit
Connection	KF DN 16 small flange, DN 6/10 mm stepped hose nozzle	
Ambient temperature	+10 – +40 °C	
L x W x H	50 x 62 x 103 mm	
Weight	190 g	
Mains connection	100–230 V, 50/60 Hz	

Delivery incl. DN 6/10 mm hose nozzle and plug-in power supply.

(1) Standard
With chemical-resistant ceramic membrane sensor for measurements in the coarse vacuum range. Detection of the applied absolute pressure, regardless of the gas type, according to the capacitive measuring principle.

Type	Art. No.	Pack Qty.	€
VACUU VIEW Standard	**1E9E.1**	1 unit(s)	906,25

(2) Extended
A chemical-resistant combination comprising a ceramic membrane sensor and ceramic jacketed Pirani sensor for measurements in the coarse and fine vacuum ranges.

Type	Art. No.	Pack Qty.	€
VACUU VIEW Extended	**1E9H.1**	1 unit(s)	1.011,60

Vacuum controllers VCpro 601

WELCH Vacuum.

Two-point controller for regulating a rough vacuum, for universal use. Robust vacuum sensor, chemically resistant and very precisely adjustable to ±1 mbar.

- With large, multilingual colour display and light/dark screen mode for optimum visibility
- Measured values can be presented digitally as a curve progression or in an analogue manner as individual values
- Integrated solvents library with stored distillation-specific parameters or freely adjustable boiling points; storage of individual pressure histories for innovative processes possible
- With communication port for remote control/monitoring, for downloading logged process data and for software updates
- Various safety levels can be accessed for self-defined user approvals
- Selectable pressure unit (mbar/Torr/psi)
- Integrated ventilation valve for inert gas/room air and solenoid control valve for vacuum
- Connection for cooling water valve available

Technical specifications:

Art. No.	1ATL.1
Type	VCpro 601
Measuring range	1100–1 mbar
Resolution	1 mbar
Measuring principle	Capacitive absolute pressure transducer, regardless of the gas type
Accuracy	Sensor: 0.3% full scale Control: 1 mbar
Connection	For hose inner Ø 8 mm
Venting valve connection	For hose inner Ø 4 mm
Ambient temperature	+15 – +30 °C
L x W x H	195 x 178 x 105 mm
Weight	1500 g
Mains connection	115–240 V, 50/60 Hz

Delivery incl. VCpro 601 vacuum controller with vacuum valve, venting valve and holder for stand removal.

Type	Art. No.	Pack Qty.	€
VCpro 601	**1ATL.1**	1 unit(s)	1.724,30

Vacuum controller VACUU·SELECT compact

Vacuubrand.

For controlling a vacuum in the coarse vacuum range. Measures and displays the absolute pressure. Compact unit, simple installation, for increased process efficiency.

- Operation via glass touchscreen, even when wearing thick laboratory gloves
- Highly intuitive, application-oriented operator guidance with integrated help function and contextual tips for application
- Saves time thanks to preset vacuum processes for all common laboratory applications
- Independently detects the boiling point during solvent evaporation, e.g. using the rotary evaporator
- Storage of individual vacuum processes using an application editor for reproducible results
- Ceramic membrane vacuum sensor integrated in the device, measurement connection at the valve block. Easy to connect the controller between the pump and vacuum application
- Chemical vacuum power valve: Electromagnetic flip-flop valve for controlling the vacuum you require in the application, with graduated hose nozzles
- Integrated venting valve: Simple pressure compensation or ventilation with inert gas at the end of the process
- Integrated non-return valve: No interference with adjacent applications using a shared vacuum source
- Switchable pressure display (mbar, torr, hPa)

Technical specifications:

Art. No.	1E97.1	1E98.1
Type	VACUU·SELECT compact	
Version	Tabletop device	Stand-mounted device
Measuring range	1080–0.1 mbar	
Resolution	0.1 mbar	
Measuring principle	capacitive absolute pressure transducer, regardless of the gas type	
Accuracy	< ±1 mbar	
Connection	for hose inner Ø 6/10 mm	
Venting valve connection	for hose inner Ø 4–5 mm	
Ambient temperature	+10 – +40 °C	
L x W x H	191 x 127 x 187 mm	152 x 127 x 189 mm
Weight	2000 g	
Mains connection	100–230 V, 50/60 Hz	

Tabletop device

Delivery incl. VACUU·SELECT compact controller in a tabletop version, with suction line valve, non-return valve, integrated ceramic membrane vacuum sensor, venting valve and mains adapter.

Type	Version	Art. No.	Pack Qty.	€
VACUU·SELECT compact	Tabletop device	**1E97.1**	1 unit(s)	2.232,80

Stand-mounted device

Delivery incl. VACUU·SELECT compact controller for stand mounting, with suction line valve, non-return valve, integrated ceramic membrane vacuum sensor, venting valve and mains adapter.

Type	Version	Art. No.	Pack Qty.	€
VACUU·SELECT compact	Stand-mounted device	**1E98.1**	1 unit(s)	2.231,70

Vacuum system SC 920 G

KNF.

Chemical-resistant, suitable for aggressive and corrosive gases and vapours.

- Control optionally via operating unit or PC
- LCD screen displays actual and target values
- Automatic boiling point detection and boiling point tracking using integrated ramp function
- High recovery rates even with solvents that have very low boiling points
- Delivery rate (in %) can be adjusted via speed
- Integrated gas ballast valve reduces condensate formation within the pump head
- Quiet operation

Control panel:

- Display: LCD
- Operation: Touchscreen/rotary pushbutton
- Dimensions (W x H x D): 90 x 205 x 55 mm

Technical specifications:

Art. No.	EHP1.1
System	SC 920 G
Delivery rate	21 l/min
End vacuum (abs.)	2 mbar
End vacuum abs. with gas ballast	5 mbar
Connection	for hose inner Ø 10 mm
Ambient temperature	+5 – +40 °C
Materials in contact with media	Pump head: PPS, Diaphragms: PTFE-coated, Valves: FFPM, Seals: FPM, Hose nozzles: PVDF
Port	Mini USB
W x D x H	366 x 294 x 423 mm
Weight	15.2 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 2x collecting flasks (each 500 ml, made of glass, coated), 2x flask clamps, USB cable for connecting to a PC and software (compatible with Windows).

Type	Art. No.	Pack Qty.	€
SC 920 G	**EHP1.1**	1 unit(s)	4.886,95

Vacuum systems

Vacuum system LABOXACT® SEM series

KNF.

With fine adjustment valve. Chemical resistant. Specially designed for use on rotary evaporators.

Features:

- **Digital vacuum gauge**, displays the current pressure in the system
- **Fine adjustment valve** for continuously variable vacuum regulation
- **Safety venting valve** enables the piston to be ventilated in order to interrupt the evaporation process
- **Separate on/off switch** for the pump
- **Inert gas connection**
- Delivered fully assembled

Advantages:

- Safe evaporation control
- High recovery rates even with solvents that have very low boiling points
- Gentle distillation thanks to closed system layout
- Continuously variable regulation of the vacuum via fine adjustment valve
- Once the required vacuum has been achieved, the fine adjustment valve can be closed and the pump can be switched off
- Maintenance-free and quiet

Technical specifications:

Art. No.	AY12.1	AY13.1	AY14.1
System	SEM 820	SEM 840	SEM 842
Pump type	N 820.3 FT.18	N 840.3 FT.18	N 842.3 FT.18
Delivery rate	20 l/min	34 l/min	
End vacuum (abs.)	8 mbar		2 mbar
Connection	for hose inner Ø 10 mm		
Materials in contact with media	Pump head: TFM™ PTFE, Diaphragms: PTFE-coated, Valves: FFPM		
L x W x H	442 x 305 x 481 mm		
Weight	14.5 kg	17.8 kg	18.6 kg
Mains connection	230 V, 50 Hz		

Delivery incl. base plate, separator, condenser, fine adjustment valve, vacuum gauge (digital), safety venting valve, wiring and hoses.

Type	Art. No.	Pack Qty.	€
SEM 820	**AY12.1**	1 unit(s)	3.172,35
SEM 840	**AY13.1**	1 unit(s)	3.557,20
SEM 842	**AY14.1**	1 unit(s)	4.558,00

Vacuum system LABOPORT® SC series

KNF.

With vacuum controller. Chemical resistant. For laboratories that require a clean and controlled vacuum.

Applications:

- Vacuum distillation and filtration
- Rotary evaporators
- Vacuum drying
- Vacuum impregnation
- Gel drying, etc.

Features:

- **Vacuum controllers** for controlled vacuum processes
- The control unit switches the pump off or on again if the required vacuums are achieved or exceeded
- Delivered fully assembled

Advantages:

- Automatic vacuum control
- Controlled solvent recovery via high-performance condenser (pressure-side)
- Collects particles in the system (suction-side)
- Maintenance-free and quiet

Technical specifications:

Art. No.	AY16.1	AY17.1	AY18.1
System	SC 820	SC 840	SC 842
Pump type	N 820.3 FT.18	N 840.3 FT.18	N 842.3 FT.18
Delivery rate	20 l/min	34 l/min	
End vacuum (abs.)	8 mbar		2 mbar
Overpressure	1 bar		
Connection	for hose inner Ø 10 mm		
Materials in contact with media	Pump head: TFM™ PTFE, Diaphragms: PTFE-coated, Valves: FFPM		
L x W x H	397 x 289 x 506 mm	417 x 289 x 506 mm	
Weight	16.0 kg	19.3 kg	20.1 kg
Mains connection	230 V, 50 Hz		

Delivery incl. base plate, separator, condenser, vacuum controller with control unit, wiring and hoses.

Type	Art. No.	Pack Qty.	€
SC 820	**AY16.1**	1 unit(s)	4.798,80
SC 840	**AY17.1**	1 unit(s)	4.890,20
SC 842	**AY18.1**	1 unit(s)	6.215,65

Vacuum system LVS 105 T-10 ef+

WELCH Vacuum.

Specially designed for rotary evaporators, distillation, filtration, vacuum ovens and vacuum drying. With chemical-resistant diaphragm vacuum pump and vacuum controller VCpro600. To ensure a freely selectable vacuum of ±1 mbar, the pump speed is continuously adapted to the gas load.

Advantages:

- Faster process results are ensured by constant evaporation and degassing
- Automatic vacuum adjustment and control
- Controller with large, multilingual colour display and light/dark screen mode for optimum visibility
- Integrated solvent library with stored distillation-specific parameters and freely adjustable boiling points; storage of individual pressure curves for novel processes possible
- With communication interface for remote control/monitoring, for downloading logged process data and for software updates
- Low-noise operation through speed reduction

Technical specifications:

Art. No.	NH35.1
System	LVS 105 T-10 ef+
Delivery rate	18 l/min
End vacuum (abs.)	< 2,0 mbar
Connection	for hose inner Ø 8 mm
Materials in contact with media	Pump head: PTFE with carbon fibre reinforcement, Diaphragms: Elastomer with PTFE coating, Valves: PEEK, Seals: EPDM, Screw fittings/connecting elements: PP, PVDF, Vacuum hose: PTFE
Port	RS 232, LAN
W x D x H	250 x 260 x 435 mm
Weight	9,5 kg
Mains connection	115–240 V, 50/60 Hz

Delivery incl. chemical-resistant diaphragm pump, built-in controller, ecoflex control unit, suction-side separator with 500 ml round bottom flask, pressure-side intensive cooler with 500 ml round bottom flask and safety valve.

Type	Art. No.	Pack Qty.	€
LVS 105 T-10 ef+	**NH35.1**	1 unit(s)	3.799,05

Vacuum system PC 3000 VARIO select series

Vacuubrand.

Optimal solution for chemical processes requiring a precise vacuum, such as rotary evaporation, vacuum drying or vacuum concentration, by combining the speed-controlled VARIO chemical diaphragm pump and VACUU·SELECT vacuum controller.

- Uncompromising chemical version: Excellent chemical resistance throughout from the suction side to the pressure side
- Precise and efficient vacuum control via the pump speed (VARIO technology).
- Vacuum controller with graphical user interface and predefined vacuum processes for all standard laboratory applications.
- Automatic boiling point detection and vacuum adaptation for short process times.
- Application, required vacuum and other parameters can also be individually configured and controlled.
- Very quiet and low vibration operation.
- Excellent environmental compatibility through low energy consumption, extended maintenance intervals and efficient solvent recovery.
- Suction-side separator made of glass with protective coating retains particles and droplets, very compact pressure-side emission condenser enables almost 100% solvent recovery.
- Interfaces for remote monitoring, remote control, data transfer (export/import), software updating

Technical specifications:

Art. No.	1EN0.1	1EN1.1
System	PC 3001 VARIO select	PC 3003 VARIO select
Delivery rate	33 l/min, 2,0 m³/h	46 l/min, 2,8 m³/h
End vacuum (abs.)	2 mbar	0,6 mbar
End vacuum abs. with gas ballast	4 mbar	1,5 mbar
Overpressure	0,1 bar	
Ambient temperature	+10 – +40 °C	
Materials in contact with media	ETFE pump head, carbon fibre-reinforced, Diaphragms: PTFE sandwich, Valves: Perfluoroelastomer (FFKM), Cylinder wiring/hose nozzles: PTFE, ETFE, ECTFE	
Port	USB type A, LAN	
Motor power	160 W	530 W
L x W x H	303 x 306 x 400 mm	419 x 243 x 457 mm
Weight	8,2 kg	21,1 kg
Mains connection	230 V, 50/60 Hz	

Delivery incl. chemical-resistant diaphragm pump, vacuum controller, emission condenser, separator, round flask and hose connections.

PC 3001 VARIO select
Extremely compact and powerful, very good end vacuum even with the opened gas ballast valve.

Type	Art. No.	Pack Qty.	€
PC 3001 VARIO select	**1EN0.1**	1 unit(s)	6.126,45

PC 3003 VARIO select
Ideal for high boilers and low evaporation temperatures due to the particularly low end vacuum.

Type	Art. No.	Pack Qty.	€
PC 3003 VARIO select	**1EN1.1**	1 unit(s)	8.514,00

Extraction system biovac 106

WELCH Vacuum.

For safe and precise extraction of liquid, non-explosive residues from slides, Petri dishes and other containers.

- Incl. chemical-resistant diaphragm pump with long service life
- Connections to the diaphragm pump and to the handpiece via quick couplings with double-sided shut-off valve
- The pipette holder enables a variety of pipette tips or glass tips to be used. Delivery incl. eight-channel suction rake
- Integrated collection container (autoclavable) with integrated float valve, closes automatically once the max. fill level has been reached
- Integrated filter mount for diaphragm filter between the collection container and the diaphragm pump. Diaphragm filters up to max. pore size of 0.22 µm, Ø 55 mm can be used. Factory-integrated: 0.22 µm PTFE filter, Ø 55 mm
- If necessary, the pump can be switched on via a footswitch which can be purchased as an option

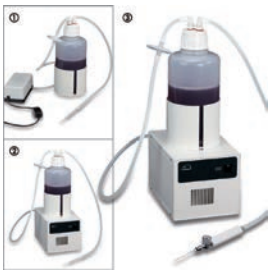
Technical specifications:

Art. No.	KH49.1
Type	biovac 106
Bottle volume	2,000 ml
Delivery rate	12 l/min, 0,72 m³/h
End vacuum (abs.)	100 mbar
Overpressure	1 bar
Ambient temperature	+10 – +40 °C
W x D x H	357 x 145 x 277 mm
Weight	8 kg
Mains connection	115–230 V, 50/60 Hz

Note: When the quick couplings are fitted, unscrew the cap before autoclaving and place it on the bottle.

Delivery incl. mains adapter.

Type	Art. No.	Pack Qty.	€
biovac 106	**KH49.1**	1 unit(s)	1.886,65



Extraction system

Hettich Benelux.

For safe vacuum extraction of liquid residues.

Basic equipment:

- Vacuum pump
- Collecting bottle made of PP, vacuum-resistant, autoclavable
- Screw cap with two quick-release couplings for tight sealing of the collecting bottle after the hoses are disconnected
- Ventilation insert for pressure compensation during autoclaving of collecting bottle
- Safety filter to protect the vacuum pump and surrounding area
- Silicone hose (3 m) for placing the extraction system away from the workbench

Technical specifications:

Art. No.	CE30.1	CE31.1	HA39.1	HA40.1	CE32.1	CE33.1
Type	AZ 02	AZ 04	AC 02	AC 04	AA 02	AA 04
Bottle volume	2,000 ml	4,000 ml	2,000 ml	4,000 ml	2,000 ml	4,000 ml
Delivery rate	8 l/min		25 l/min		17 l/min	
End vacuum (abs.)	700 mbar		250 mbar		100 mbar	
Ambient temperature	+4 – +40 °C					
W x D x H	75 x 170 x 60 mm		170 x 220 x 155 mm			
Weight	1.5 kg		4.5 kg		5.5 kg	
Mains connection	230 V, 50 Hz					

Note: When the quick couplings are fitted, unscrew the cap before autoclaving and place it on the bottle.

AZ model

- Simple system for extraction of small volumes
- Attachment of Pasteur pipettes or aspiration pipettes directly to the hose
- Please order metal stand for the collecting bottle separately

Pic.	Type	Art. No.	Pack Qty.	€
(1)	AZ 02	**CE30.1**	1 unit(s)	485,90
(1)	AZ 04	**CE31.1**	1 unit(s)	508,50

AC model

- Lacquered aluminium housing
- Compact design, safety bottle holder mounted on high-performance vacuum pump
- Suitable for up to two sampling points (optional)

Pic.	Type	Art. No.	Pack Qty.	€
(2)	AC 02	**HA39.1**	1 unit(s)	1.118,00
(2)	AC 04	**HA40.1**	1 unit(s)	1.151,35

AA model

- Lacquered aluminium housing
- Compact design, safety bottle holder mounted on high-performance vacuum pump
- Suitable for up to four sampling points (optional)
- Handle with AH 01 trumpet valve for attaching various suction instruments and a mechanical flow rate control system; incl. adapter for Pasteur pipettes, adapter for 1 ml pipette tips and angle adapter
- Vacuum pump with automatic cut-out. The pump cuts out automatically when extraction is completed using the handle and the final vacuum is reached

Pic.	Type	Art. No.	Pack Qty.	€
(3)	AA 02	**CE32.1**	1 unit(s)	1.625,40
(3)	AA 04	**CE33.1**	1 unit(s)	1.648,00

Extraction system BioChemVacuuCenter BVC

Vacuubrand.

Safe, precise and effective extraction of liquids in all areas of laboratory work (chemistry, biochemistry and biology).

- Ergonomic VHC^{pro} extraction handle with continuous tube; mechanism does not come into contact with fluids
- With swivelling pipette holder, for left- and right-handed users
- Lockable button for continuous extraction, µl precision extraction using thumbwheel
- Simultaneous extraction at two workstations is possible by connecting an optional second extraction handle
- Hydrophobic protective filter with 0.2 µm pore size for protection of the pump unit and the surrounding area

NEW / +

Technical specifications:

Art. No.	1EP8.1	XE35.1	1EP9.1	XE36.1	1EPA.1	XE37.1
Type	BVC Basic G	BVC Basic	BVC Control G	BVC Control	BVC Professional G	BVC Professional
Bottle volume	2,000 ml	4,000 ml	2,000 ml	4,000 ml	2,000 ml	4,000 ml
Pump type	without		ME 1C			
Delivery rate			11,7 l/min, 0,7 m³/h			
End vacuum (abs.)			150 mbar			
Control range			850 – 150 mbar			
Ambient temperature			+10 – +40 °C			
L x W x H	230 x 180 x 430 mm	250 x 200 x 490 mm	408 x 194 x 430 mm	408 x 194 x 500 mm	408 x 194 x 430 mm	408 x 194 x 500 mm
Weight	3,2 kg	2,8 kg	7,7 kg	7,3 kg	7,7 kg	7,3 kg
Mains connection	230 V, 50/60 Hz					

(1) Basic model

- Without vacuum pump, for connecting to external vacuum sources
- With mechanical vacuum controller for optimal working volume

Delivery incl. housing, collecting bottle (vacuum-resistant, autoclavable), sterilisable protective filter (0.2 µm pore size), VHC^{pro} extraction handle (autoclavable), three adapters for mounting different pipettes and tips, silicone hose (length: 2 m).

Type	Version	Art. No.	Pack Qty.	€
BVC Basic G	2 l glass collecting bottle, with hose nozzles	**1EP8.1**	1 unit(s)	1.043,85
BVC Basic	4 l PP collecting bottle, with hose nozzles	**XE35.1**	1 unit(s)	821,30

(2) Control model

- With powerful, chemical-resistant ME 1C diaphragm pump (switch-off vacuum of 150 mbar abs., delivery rate of 11.7 l/min)
- Continuous precision adjustment of vacuum/suction power electronically via touch panel
- Continuous vacuum with minimised pumping times thanks to automatic pump activation/deactivation
- Very low noise level for a pleasant working environment

Delivery incl. diaphragm pump and control unit, housing, collecting bottle (vacuum-resistant, autoclavable), sterilisable protective filter (0.2 µm pore size), VHC^{pro} extraction handle (autoclavable), three adapters for mounting different pipettes and tips, silicone hose (length: 2 m).

Type	Version	Art. No.	Pack Qty.	€
BVC Control G	2 l glass collecting bottle, with hose nozzles	**1EP9.1**	1 unit(s)	2.029,60
BVC Control	4 l PP collecting bottle, with hose nozzles	**XE36.1**	1 unit(s)	1.682,40

(3) Professional model

- With powerful, chemical-resistant ME 1C diaphragm pump (switch-off vacuum of 150 mbar abs., delivery rate of 11.7 l/min)
- Continuous precision adjustment of vacuum/suction power electronically via touch panel
- Continuous vacuum with minimised pumping times thanks to automatic pump activation/deactivation
- Very low noise level for a pleasant working environment
- non-contact fill level sensor for electronic monitoring of the fluid level in the collecting bottle
- Disinfection routine for the suction hose for drawing in disinfectants after the pump is shut down automatically

Delivery incl. diaphragm pump and control unit, fill level sensor, housing, collecting bottle (vacuum-resistant, autoclavable), sterilisable protective filter (0.2 µm pore size), VHC^{pro} extraction handle (autoclavable), three adapters for mounting different pipettes and tips, silicone hose (length: 2 m).

Type	Version	Art. No.	Pack Qty.	€
BVC Professional G	2 l glass collecting bottle, with hose nozzles	**1EPA.1**	1 unit(s)	2.472,50
BVC Professional	4 l PP collection bottle, with self-closing quick couplings	**XE37.1**	1 unit(s)	2.219,90

Water jet pumps

Water jet pump

ROTH SELECTION. Material: PP.

For extraction of liquids and vapours as well as generating vacuum. With built-in non-return valve. Can be disassembled, making cleaning easy.

Connection for the tap:

- Union nut R¾″ or
- Reducer R½″ or
- Hose connection (connector) with outer Ø 10–12 mm
- Optional accessory (please order separately):
  Adapter from R¾″ to M22 x 1 (Perlator thread), with seal

Vacuum connection:

- Connector with outer Ø 6–9 mm

Technical specifications:

- Water consumption: Approx. 220 l/h at a flow pressure of 3.5 bar
- Delivery rate: Approx. 450 l of air/h at a flow pressure of 3.5 bar
- Abs. end vacuum at a water pressure of 3.5 bar:
  Approx. 16 mbar at +12 °C
  Approx. 24 mbar at +20 °C
- Length of the water jet pump with R¾″ connection: Approx. 210 mm

Version	Art. No.	Pack Qty.	€
Water jet pump	**7366.1**	1 unit(s)	49,95

Accessories adapter for water jet pump

Vitlab.

Designation	Art. No.	Pack Qty.	€
Adapter with Perlator thread	**N876.1**	1 unit(s)	13,40

Low-pressure water jet pump

Thermo. Material: Brass nickel-plated with plastic sleeve.

With built-in non-return valve.

Technical specifications:

- Water consumption: 4–12 l/min
- Delivery rate: 2.5 l/min (at a water pressure of 5 bar)
- Abs. end vacuum: 16 mbar (at 0.5 bar and +14 °C)
- Dimensions: H 185 x W 80 mm
- Weight approx. 250 g
- Suction piece connection, 9–14 mm

Version	Art. No.	Pack Qty.	€
with tubing connection and 2 hose clips	**9660.1**	1 unit(s)	177,00
with ½″ screw connection (20 mm)	**9661.1**	1 unit(s)	188,00
with ¾″ screw connection (26 mm)	**9662.1**	1 unit(s)	188,00

Tube ROTILABO® Rubber

ROTH SELECTION. Material: Natural rubber.

Not pressure-resistant.

Standard design

Technical specifications:

Temperature stability	-10 to +50 °C
Colour	red
Hardness	45 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
5	8	1,5	**0674.1**	10 m	18,05
6	10	2,0	**0675.1**	10 m	24,55
6	10	2,0	**0675.2**	25 m	53,45
8	12	2,0	**0676.1**	10 m	29,55
8	12	2,0	**0676.2**	25 m	64,15
10	14	2,0	**0677.1**	10 m	32,75
12	17	2,5	**T981.1**	12 m	51,20
14	20	3,0	**T982.1**	12 m	72,25
16	22	3,0	**T983.1**	12 m	93,70
20	28	4,0	**T984.1**	5 m	63,20

Vacuum design

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
5	15	5,0	**0678.1**	5 m	30,05
6	16	5,0	**0679.1**	5 m	32,60
6	16	5,0	**0679.2**	25 m	130,75
8	18	5,0	**0680.1**	5 m	39,05
8	18	5,0	**0680.2**	25 m	157,65
10	20	5,0	**0681.1**	5 m	41,35
12	22	5,0	**T985.1**	5 m	59,80
15	31	8,0	**T986.1**	5 m	120,25

Set

Standard tubes (length 10 m each):
internal Ø 6 mm, external Ø 10 mm and internal Ø 8 mm, external Ø 12 mm

Vacuum tubes (length 5 m each):
internal Ø 6 mm, external Ø 16 mm and internal Ø 8 mm, external Ø 18 mm

Type	Art. No.	Pack Qty.	€
Set	**H279.1**	1 set	108,40

Tube ROTILABO® PE

ROTH SELECTION. Material: PE.
Hard, odourless.

Technical specifications:

Temperature stability	-40 to +80 °C
Colour	translucent
Hardness	45 Shore D

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1	1,8	0,4	**9583.1**	25 m	12,20
1	1,8	0,4	**9583.2**	100 m	32,90
2	4,0	1,0	**9584.1**	25 m	22,40
2	4,0	1,0	**9584.2**	100 m	66,90
3	5,0	1,0	**9585.1**	25 m	32,70
4	6,0	1,0	**9586.1**	25 m	26,90
5	7,0	1,0	**9587.1**	25 m	27,90
6	8,0	1,0	**9589.1**	25 m	29,80
7	9,0	1,0	**9591.1**	25 m	35,05
8	10,0	1,0	**9593.1**	25 m	39,65
9	11,0	1,0	**9594.1**	10 m	20,05
10	12,0	1,0	**9595.1**	10 m	22,80
12	14,0	1,0	**9596.1**	10 m	24,70

A 121 °C

Tubing ROTILABO® Flex

ROTH SELECTION. Material: PFA. Autoclavable: Yes.
Chemical-resistant, suitable for vacuum, non-porous. Highly flexible and therefore ideal for narrow spaces and thermal length extensions. For example, the 40 mm-length cylindrical end sections can be joined to connectors. Dimensions apply to end sections.

Technical specifications:

Temperature stability	-270 to +260 °C
Colour	translucent

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
6	8	1	**Y484.1**	1 m	87,75
8	10	1	**Y485.1**	1 m	89,25
10	12	1	**Y486.1**	1 m	100,30
14	16	1	**Y487.1**	1 m	123,60
16	18	1	**Y488.1**	1 m	179,55
18	20	1	**Y489.1**	1 m	176,30

A 121 °C

Tube ROTILABO® FEP

ROTH SELECTION. Material: FEP. Autoclavable: Yes.
Flexible, non-porous, gas-tight.

Technical specifications:

Temperature stability	-270 to +205 °C
Colour	translucent
Hardness	55–60 Shore D

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.8	1,6	0,4	**C022.1**	10 m	23,30
1.6	3,2	0,8	**Y504.1**	5 m	32,15
2.0	4,0	1,0	**C023.1**	10 m	55,75
4.0	6,0	1,0	**C024.1**	10 m	88,20
4.0	6,4	1,2	**Y505.1**	5 m	58,05
4.4	6,4	1,0	**Y506.1**	5 m	50,05
6.0	8,0	1,0	**C025.1**	5 m	61,15
6.4	9,5	1,6	**Y507.1**	5 m	131,90
8.0	10,0	1,0	**C026.1**	5 m	76,80
9.5	12,7	1,6	**Y508.1**	5 m	147,35
10.0	12,0	1,0	**C027.1**	5 m	104,55

A 121 °C

Tube ROTILABO® PTFE

ROTH SELECTION. Material: PTFE opaque PTFE. Autoclavable: Yes.

Rigid, anti-adhesive, with low water absorption, chemical-resistant, gas permeable.

Technical specifications:

Temperature stability	-200 to +260 °C
Colour	colourless
Hardness	55 Shore D

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	3	0,5	**1173.1**	5 m	16,35
2	4	1,0	**1174.1**	5 m	23,10
4	6	1,0	**1175.1**	5 m	27,55
5	7	1,0	**1176.1**	5 m	32,00
6	8	1,0	**1177.1**	5 m	38,30
8	10	1,0	**1178.1**	5 m	46,90
10	12	1,0	**1179.1**	5 m	49,85
12	14	1,0	**XX06.1**	5 m	53,30

Safety gas tubes ROTILABO®

ROTH SELECTION. Material: Chloroprene rubber.

For supplying Bunsen burners operated with gas in accordance with DIN 30665. With kink-proof elastic end fittings, suitable for all three gas families in accordance with DVGW worksheet G 260. **Suitable for pressures up to 100 mbar.** DVGW tested and registered.

Technical specifications:

Temperature stability	to +70 °C
Colour	red
Hardness	60 Shore A

Not suitable for connection to gas cylinders.

Ø Internal (mm)	Length (cm)	Art. No.	Pack Qty.	€
9	50	**1716.1**	1 unit(s)	39,90
9	60	**A268.1**	1 unit(s)	41,80
9	75	**1717.1**	1 unit(s)	46,05
9	100	**1718.1**	1 unit(s)	53,80
9	125	**A269.1**	1 unit(s)	60,60
9	150	**1719.1**	1 unit(s)	63,70
9	200	**A270.1**	1 unit(s)	79,00
9	300	**A271.1**	1 unit(s)	117,55

Gas tubes ROTILABO®

ROTH SELECTION. Material: Chloroprene rubber.

For laboratory gas burners operated with gas in accordance with DIN 30665. Suitable for all three gas families outlined in the G260 worksheet from the German Association for Gas and Water Industries (DVGW). Compliant with DIN 30664 Part 1, without casing and armouring. **Suitable for pressures of up to 100 mbar.** DVGW-tested and registered.

Technical specifications:

Temperature stability	to +70 °C
Colour	red
Hardness	60 Shore A

Not suitable for connection to gas cylinders.

Ø Internal (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
9.5	14	**E485.1**	5 m	54,45

Tube ROTILABO® PVC

ROTH SELECTION. Material: PVC DEHP-free.

Flexible.

Technical specifications:

Temperature stability	-20 to +60 °C
Colour	translucent
Hardness	75 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1	1,8	0,4	**9724.1**	100 m	41,70
2	4,0	1,0	**9725.1**	100 m	27,95
3	5,0	1,0	**9726.1**	100 m	34,45
4	7,0	1,5	**9727.1**	100 m	56,30
5	8,0	1,5	**9730.1**	100 m	67,60
6	10,0	2,0	**9732.1**	50 m	60,45
7	11,0	2,0	**9733.1**	50 m	74,50
8	12,0	2,0	**9736.1**	50 m	77,25
12	16,0	2,0	**XX05.1**	50 m	95,50

Pressure tubing PVC

Nalgene. Material: PVC with fabric insert.

Can be sterilised by gas or chemicals. Very flexible and easy to bend. Neutral taste and authorised for the food industry (FDA approval). Suitable for pressure applications, weak acids, alkalis and salt solutions. Internal Ø and max. working pressure marked on the tubing.

Technical specifications:

Temperature stability	-21 to +82 °C
Colour	translucent
Hardness	65 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Max. pressure	Art. No.	Pack Qty.	€
4.8	9,5	2,4	19 bar (23 °C) 9,5 bar (52 °C)	**CA88.1**	15 m	87,10
8.0	12,7	2,4	19 bar (23 °C) 9,5 bar (52 °C)	**CA90.1**	15 m	97,65
9.5	14,3	2,4	17 bar (23 °C) 8,6 bar (52 °C)	**CA91.1**	15 m	100,95
12.7	19,1	3,2	15,8 bar (23 °C) 7,9 bar (52 °C)	**CA92.1**	15 m	132,25
15.9	22,2	3,2	15,8 bar (23 °C) 7,9 bar (52 °C)	**CA93.1**	15 m	201,05
19.1	25,4	3,2	12 bar (23 °C) 6 bar (52 °C)	**CA94.1**	15 m	227,90
25.4	33,4	4,0	9,6 bar (23 °C) 4,8 bar (52 °C)	**CA95.1**	15 m	319,30

A 121 °C

Tube ROTILABO® silicone

ROTH SELECTION. Material: Silicone opaque silicone.
Autoclavable: Yes.

Temperature-resistant up to +260 °C for short periods of time

Standard design

Soft, flexible. Suitable for peristaltic pumps.

Technical specifications:

Temperature stability	-60 to +200 °C
Colour	colourless
Hardness	60 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.5	2,5	1,0	**9554.1**	25 m	26,10
1.0	1,8	0,4	**9555.1**	25 m	19,15
1.0	3,0	1,0	**9556.1**	25 m	24,65
1.5	3,5	1,0	**9557.1**	25 m	23,55
2.0	4,0	1,0	**9559.1**	25 m	26,30
2.0	6,0	2,0	**9560.1**	25 m	58,05
2.5	4,5	1,0	**9561.1**	25 m	32,25
3.0	5,0	1,0	**9562.1**	25 m	33,55
3.0	6,0	1,5	**9563.1**	25 m	49,85
3.0	7,0	2,0	**9565.1**	25 m	72,75
4.0	6,0	1,0	**9566.1**	25 m	40,40
4.0	7,0	1,5	**9568.1**	25 m	57,95
4.0	8,0	2,0	**N874.1**	25 m	87,55
4.0	8,0	2,0	**N875.1**	5 m	17,55
5.0	7,0	1,0	**9569.1**	25 m	55,45
5.0	8,0	1,5	**9571.1**	25 m	71,70
6.0	9,0	1,5	**9572.1**	25 m	78,40
6.0	10,0	2,0	**9573.1**	10 m	48,30
7.0	10,0	1,5	**9574.1**	10 m	39,60
7.0	11,0	2,0	**9575.1**	10 m	53,00
8.0	11,0	1,5	**9576.1**	10 m	44,80
8.0	12,0	2,0	**9577.1**	10 m	58,95
9.0	12,0	1,5	**9578.1**	10 m	52,80
9.0	13,0	2,0	**9580.1**	10 m	65,90
10.0	14,0	2,0	**9581.1**	10 m	68,45
12.0	16,0	2,0	**T975.1**	5 m	37,60
14.0	20,0	3,0	**T976.1**	5 m	67,20
16.0	21,0	2,5	**T977.1**	5 m	60,95
18.0	24,0	3,0	**T978.1**	5 m	70,05
20.0	26,0	3,0	**T979.1**	5 m	88,00

Hoses

Vacuum design
Thick-walled.

Technical specifications:

Temperature stability	-60 to +180 °C
Colour	colourless
Hardness	55 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
3	9	3	**9737.1**	5 m	37,70
4	12	4	**9738.1**	5 m	50,70
5	15	5	**9740.1**	5 m	73,35
6	12	3	**9742.1**	5 m	47,20
7	15	4	**9744.1**	5 m	78,50
8	16	4	**9746.1**	5 m	87,95
10	20	5	**9747.1**	5 m	111,20
12	22	5	**T980.1**	5 m	121,85

A 121 °C

Tube Versilic®

Saint-Gobain. Material: Silicone Peroxide-cured. Autoclavable: Yes.

Temperature-resistant up to +220 °C for short periods of time. Biologically inert (USP XXIII Class 6), no inhibiting effect on cell cultures.

Acc. to the following standards:

- European Pharmocopoeia
- Biological tests by the United States Pharmacopeia Class VI
- Biocompatibility requirements of the ISO 10993 standard (General toxic irritation and sensitisation, cytotoxicity, hemocompatibility)
- FDA
- Manufactured under GMP conditions, ISO 9001 and EN 13485

Technical specifications:

Temperature stability	-50 to +200 °C
Colour	translucent
Hardness	60 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.0	3,0	1,0	**HC61.1**	50 m	51,75
2.0	4,0	1,0	**HC62.1**	50 m	72,25
3.0	5,0	1,0	**HC63.1**	50 m	76,50
3.0	5,0	1,0	**HC63.2**	10 m	n. a.
3.0	6,0	1,5	**HC64.1**	50 m	113,70
4.0	6,0	1,0	**HC65.1**	50 m	87,55
5.0	8,0	1,5	**HC66.1**	25 m	77,35
6.0	9,0	1,5	**HC67.1**	25 m	87,20
6.0	12,0	3,0	**HC68.1**	25 m	192,45
7.0	10,0	1,5	**HC69.1**	25 m	98,50
8.0	12,0	2,0	**HC70.1**	25 m	148,20
8.0	12,0	2,0	**HC70.2**	10 m	n. a.
8.0	14,0	3,0	**HC71.1**	25 m	236,50
10.0	14,0	2,0	**HC72.1**	25 m	169,85
10.0	18,0	4,0	**HC73.1**	25 m	370,90

A 121 °C

Tube for peristaltic pumps

ROTH SELECTION. Material: Silicone treated silicone.
Autoclavable: Yes.

Ultra-smooth surface to prevent adhesions, deposits and bacterial growth. Compliant with USP Class VI, Eur. Ph. 6.5: 3.1.9 and FDA regulations 21 CFR 177.2600.

Technical specifications:

Temperature stability	-20 to +80 °C
Colour	translucent
Hardness	60 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.5	3,7	1,6	**CH23.1**	5 m	47,00
0.8	4,0	1,6	**CH24.1**	5 m	47,00
1.6	4,8	1,6	**CH25.1**	5 m	67,05
3.2	6,4	1,6	**CH26.1**	5 m	67,05
4.8	8,0	1,6	**CH27.1**	5 m	78,75
6.4	9,5	1,6	**CH28.1**	5 m	88,00
8.0	11,2	1,6	**CH29.1**	5 m	108,60

Hoses

A 121 °C

Tube PharMed®

Saint-Gobain. Material: TPV. Autoclavable: Yes.

For fermentation processes, cultivation of cell cultures, among other purpose, special tubes for peristaltic pumps. Good chemical resistance. Low gas permeability, good resistance to ageing.

Technical specifications:

Temperature stability	-50 to +135 °C
Colour	natural
Hardness	64 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.5	3,7	1,6	**Y534.1**	7.5 m	96,20
0.8	4,0	1,6	**Y535.1**	7.5 m	114,50
1.6	4,8	1,6	**H191.1**	7.5 m	148,25
3.2	6,4	1,6	**H192.1**	7.5 m	148,25
4.8	8,0	1,6	**H193.1**	7.5 m	148,35
6.4	9,5	1,6	**H194.1**	7.5 m	172,00
8.0	11,2	1,6	**H195.1**	7.5 m	184,90
9.5	15,9	3,2	**H196.1**	7.5 m	285,95
12.7	19,0	3,2	**H197.1**	7.5 m	348,30

A 121 °C

Tube TYGON® LMT-55

Saint-Gobain. Material: PVC-based DEHP-free. Autoclavable: Yes.

Smooth, polished inner wall. Good chemical resistance to many inorganic solutions.

Technical specifications:

Temperature stability	-50 to +74 °C
Colour	translucent
Hardness	55 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	3,2	0,8	**CAN7.1**	15 m	23,05
1.6	4,8	1,6	**CAN8.1**	15 m	44,75
2.4	5,6	1,6	**CAN9.1**	15 m	56,15
3.2	6,4	1,6	**CAP0.1**	15 m	66,50
4.8	7,9	1,6	**CAP1.1**	15 m	94,05
6.4	9,5	1,6	**CAP2.1**	15 m	108,20
6.4	11,1	2,4	**CAP3.1**	15 m	170,95
7.9	11,1	1,6	**CAP4.1**	15 m	126,55
7.9	12,7	2,4	**CAP5.1**	15 m	182,75
9.5	12,7	1,6	**CAP6.1**	15 m	143,20
9.5	15,9	3,2	**CAP7.1**	15 m	264,45

A 121 °C

Tube PharMed® BPT for multichannel pump heads

Saint-Gobain. Material: TPV. Autoclavable: Yes.

With biocompatible fluid surface specially for microbiological applications. Impervious to UV rays and light. Low gas permeability. In accordance with USP Class VI, ISO 10993 and FDA.

With stopper
Two stoppers, stopper gap: 152 mm.

Technical specifications:

Temperature stability	-50 to +135 °C
Colour	natural
Hardness	64 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thick-ness (mm)	Length (mm)	Colour coding	Art. No.	Pack Qty.	€
0.51	2,31	0,90	381	orange/ yellow	**CYN7.1**	6 unit(s)	80,60
0.76	2,46	0,85	381	black/ black	**CYN8.1**	6 unit(s)	82,75
0.89	2,56	0,85	381	orange/ orange	**CYN9.1**	6 unit(s)	80,60
1.52	3,22	0,85	381	yellow/ blue	**CYP0.1**	6 unit(s)	80,60
2.06	3,76	0,85	381	violet/ violet	**CYP1.1**	6 unit(s)	80,60
2.79	4,49	0,85	381	violet/ white	**CYP2.1**	6 unit(s)	80,60

For extending
Extension tubing for stopper tubing.

Technical specifications:

Temperature stability	-50 to +135 °C
Colour	natural
Hardness	64 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.51	2,31	0,90	**CYP3.1**	3 m	40,70
0.76	2,46	0,85	**CYP4.1**	3 m	40,70
0.89	2,56	0,85	**CYP5.1**	3 m	40,70
1.52	3,22	0,85	**CYP6.1**	3 m	40,70
2.06	3,76	0,85	**CYP7.1**	3 m	40,70
2.79	4,49	0,85	**CYP8.1**	3 m	40,70

A 121 °C

Tube TYGON® LMT-55 for multichannel pump heads

Saint-Gobain. Material: PVC-based DEHP-free. Autoclavable: Yes.

Smooth, polished inner wall. Good chemical resistance to many inorganic solutions.

With stopper
Two stoppers, stopper gap: 152 mm.

Technical specifications:

Temperature stability	-50 to +74 °C
Colour	translucent
Hardness	55 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thick-ness (mm)	Length (mm)	Colour coding	Art. No.	Pack Qty.	€
0.51	2,31	0,90	381	orange/ yellow	**CYP9.1**	12 unit(s)	49,25
0.76	2,46	0,85	381	black/ black	**CYT0.1**	12 unit(s)	49,25
0.89	2,56	0,85	381	orange/ orange	**CYT1.1**	12 unit(s)	49,25
1.52	3,22	0,85	381	yellow/ blue	**CYT2.1**	12 unit(s)	49,25
2.06	3,76	0,85	381	violet/ violet	**CYT3.1**	12 unit(s)	49,25
2.79	4,49	0,85	381	violet/ white	**CYT4.1**	12 unit(s)	49,25

For extending
Extension tubing for stopper tubing.

Technical specifications:

Temperature stability	-50 to +74 °C
Colour	translucent
Hardness	55 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.51	2,31	0,90	**CYT5.1**	10 m	65,45
0.76	2,46	0,85	**CYT6.1**	10 m	65,45
0.89	2,56	0,85	**CYT7.1**	10 m	65,45
1.52	3,22	0,85	**CYT8.1**	10 m	65,45
2.06	3,76	0,85	**CYT9.1**	10 m	65,45
2.79	4,49	0,85	**CYX0.1**	10 m	65,45

A 121 °C

Tube TYGON® S3™ E-3603

Saint-Gobain. Material: PVC-based DEHP-free. Autoclavable: Yes.

FDA-compliant. Very smooth, polished inner wall. Good chemical resistance.

Standard design

For normal laboratory purposes; also suitable for coolers, incubators and peristaltic pumps.

Technical specifications:

Temperature stability	-46 to +74 °C
Colour	translucent
Hardness	56 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	3,2	0,8	**YL81.1**	15 m	23,45
1.6	4,8	1,6	**YL82.1**	15 m	46,75
2.4	4,0	0,8	**EHE7.1**	15 m	29,50
3.2	4,8	0,8	**YL83.1**	15 m	34,45
3.2	6,4	1,6	**YL84.1**	15 m	68,20
4.8	6,4	0,8	**YL85.1**	15 m	46,75
4.8	8,0	1,6	**YL86.1**	15 m	96,40
6.4	9,5	1,6	**YL87.1**	15 m	108,75
6.4	11,2	2,4	**YL88.1**	15 m	175,25
9.5	12,7	1,6	**YL89.1**	15 m	150,85
9.5	14,3	2,4	**YL90.1**	15 m	192,45
9.5	15,9	3,2	**YL91.1**	15 m	279,50
12.7	15,9	1,6	**YL92.1**	15 m	179,55
12.7	17,5	2,4	**YL93.1**	15 m	245,10
12.7	19,1	3,2	**YL94.1**	15 m	333,25
19.0	25,4	3,2	**YL95.1**	15 m	423,55

Vacuum design

For use with, for example, desiccators, filtration systems and vacuum pumps.

Technical specifications:

Temperature stability	-46 to +74 °C
Colour	translucent
Hardness	56 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4.8	14,4	4,8	**YL96.1**	15 m	332,20
6.4	15,9	4,8	**YL97.1**	15 m	388,10
9.5	22,3	6,4	**YL98.1**	15 m	629,95
12.7	28,7	8,0	**YL99.1**	15 m	1.005,15

A 121 °C

Tube VERSILON™ 2001

Saint-Gobain. Material: TPO. Autoclavable: Yes.

Without plasticisers and oils. Very flexible, very good food chemical resistance, durable. Longer service life when used in peristaltic pumps. In accordance with FDA requirements.

Technical specifications:

Temperature stability	-78 to +57 °C
Colour	translucent
Hardness	69 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	4,8	1,6	**EL12.1**	15 m	114,40
3.2	6,4	1,6	**EL13.1**	15 m	147,25
4.8	8,0	1,6	**EL14.1**	15 m	162,35
6.4	9,5	1,6	**EL15.1**	15 m	307,45
8.0	11,2	1,6	**EL16.1**	15 m	336,50
9.5	12,7	1,6	**EL17.1**	15 m	361,20

Hoses

A 121 °C

Tube TYGON® E-1000 Ultra-Soft

Saint-Gobain. Material: PVC-based DEHP-free. Autoclavable: Yes.

Soft, pliable, stays flexible even at low temperatures (-55 °C). Good alternative to silicone tubing with good chemical resistance. Suitable for general laboratory applications and peristaltic pumps.

Technical specifications:

Temperature stability	-55 to +52 °C
Colour	translucent
Hardness	40 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	4,8	1,6	**TP79.1**	15 m	68,55
3.2	6,4	1,6	**TP80.1**	15 m	101,90
4.8	8,0	1,6	**TP81.1**	15 m	144,35
6.4	9,6	1,6	**TP82.1**	15 m	138,75
6.4	12,7	3,2	**TP83.1**	15 m	275,20
8.0	11,2	1,6	**TP84.1**	15 m	193,50
9.5	12,7	1,6	**TP85.1**	15 m	232,20
12.7	15,9	1,6	**TP86.1**	15 m	269,85

Tube TYGON® F-4040-A

Saint-Gobain. Material: TPE.

For conveying petrol, kerosine, fuel oil and glycol-based coolants. No swelling and hardening. Ozone- and UV-resistant.

Technical specifications:

Temperature stability	-34 to +74 °C
Colour	yellow
Hardness	57 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
3.2	6,4	1,6	**AEC4.1**	15 m	80,25
4.8	8,0	1,6	**AEC5.1**	15 m	104,15
6.4	9,5	1,6	**AEC6.1**	15 m	120,45
8.0	11,2	1,6	**AEC7.1**	15 m	149,45
9.5	12,7	1,6	**AEC8.1**	15 m	168,80
12.7	15,9	1,6	**AEC9.1**	15 m	241,90

Tube TYGON® 2375

Saint-Gobain. Material: TPO.

Flexible. Without plasticisers. Suitable for extreme chemical applications. Resists acids, alkalis, ketones (methyl ethyl ketone), salts and alcohols. The smooth inner surface minimises the deposition of particle matter.

Technical specifications:

Temperature stability	-59 to +54 °C
Colour	translucent
Hardness	75 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	4,8	1,6	**NA64.1**	15 m	114,15
3.2	6,4	1,6	**NA65.1**	15 m	142,65
4.8	8,0	1,6	**NA66.1**	15 m	155,40
6.4	9,5	1,6	**NA67.1**	15 m	173,10
8.0	11,2	1,6	**NA68.1**	15 m	192,45
9.5	12,7	1,6	**NA69.1**	15 m	212,85
12.7	19,1	3,2	**NA70.1**	15 m	441,85

Tube Viton®

ROTH SELECTION. Material: Fluorinated rubber.

Good resistance to ozone and the effects of the weather, as well as gasoline and mineral oils.

Technical specifications:

Temperature stability	-10 to +200 °C
Colour	black
Hardness	75 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4	6	1,0	**EX14.1**	5 m	42,90
5	7	1,0	**EX15.1**	5 m	54,40
6	8	1,0	**EX16.1**	5 m	57,85
7	9	1,0	**EX17.1**	5 m	87,15
8	11	1,5	**EX18.1**	5 m	117,90
9	13	2,0	**EX19.1**	5 m	157,70
10	14	2,0	**EX20.1**	5 m	169,85

Hose ROTILABO® Butyl

ROTH SELECTION. Material: Butyl rubber (IIR).

Without insert. Approx. 8x less air diffusion than other natural rubber hoses. Good chemical resistance.

Technical specifications:

Temperature stability	-35 to +100 °C
Colour	black
Hardness	60 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
3	7	2	**TE85.1**	5 m	25,95
6	10	2	**TE86.1**	5 m	32,15
6	14	4	**TE87.1**	5 m	48,45

Tube ISO-VERSINIC®

Saint-Gobain. Material: Fluorinated rubber.

Temperature resistant up to +300 °C for short periods of time. Suitable for producing very aggressive chemicals and demanding applications in industry laboratories. Good resistance to hydrocarbons, oils, strong acids, oxidising agents, aromatic and chlorinated solvents. Resistant to ageing and weathering. Flame-resistant.

Technical specifications:

Temperature stability	-20 to +200 °C	
Colour	black	
Hardness	60 Shore A (HC36.1–HC37.1)	70 Shore A (HC38.1–HC42.1)

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
3.0	5,0	1,0	**HC36.1**	5 m	90,15
4.0	6,0	1,0	**HC37.1**	5 m	92,75
5.0	8,0	1,5	**HC38.1**	5 m	134,95
6.0	9,0	1,5	**HC39.1**	5 m	150,65
7.0	10,0	1,5	**HC40.1**	5 m	175,25
8.0	12,0	2,0	**HC41.1**	5 m	264,45
10.0	14,0	2,0	**HC42.1**	5 m	311,75

Tube VERSILON™ F-5500-A

Saint-Gobain. Material: Fluorinated rubber.

Excellent resistance to corrosive chemicals, oils, fuels, solvents and most acids. Resistant to ozone, sunlight and weathering, also tear-proof and hard-wearing. Suitable for peristaltic pumps due to their high flexibility and elasticity.

Technical specifications:

Temperature stability	-51 to +204 °C
Colour	black
Hardness	60 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	3,2	0,8	**EY77.1**	15 m	210,70
3.2	6,4	1,6	**EY78.1**	15 m	579,45
4.8	8,0	1,6	**EY79.1**	15 m	768,65
6.4	9,5	1,6	**EY80.1**	15 m	965,35
8.0	11,2	1,6	**EY81.1**	15 m	1.278,20
9.5	12,7	1,6	**EY82.1**	15 m	n. a.

Tube TYGON® A-60-G

Saint-Gobain. Material: TPE.

Suitable for peristaltic pumps, chemical and industrial applications. Ozone-resistant. Long service life, good weather-resistance. Lower gas permeability compared to rubber hoses. Very good resistance to inorganic fluids.

Technical specifications:

Temperature stability	-60 to +135 °C
Colour	black
Hardness	61 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	4,8	1,6	**AH61.1**	15 m	65,15
3.2	6,4	1,6	**AH62.1**	15 m	63,95
4.8	8,0	1,6	**AH63.1**	15 m	74,55
6.4	9,5	1,6	**AH64.1**	15 m	82,75
6.4	11,2	2,4	**AH65.1**	15 m	113,65
8.0	11,2	1,6	**AH66.1**	15 m	102,60
9.5	12,7	1,6	**AH67.1**	15 m	107,80
11.1	14,3	1,6	**AH68.1**	15 m	216,10
12.7	17,5	2,4	**AH69.1**	15 m	241,90

Accessories for hoses

Tube cutter

ROTH SELECTION.

Suitable for	Art. No.	Pack Qty.	€
Tube external Ø of up to 13 mm	**6737.1**	1 unit(s)	21,15

Tubing gauge ROTILABO®

ROTH SELECTION.

For determining the internal or external Ø of tubes, glass tubes, etc.
With engraved numbers that are easy to read.
Dimensions: L 165 x W 90 mm.

Suitable for	Art. No.	Pack Qty.	€
Tubing of internal Ø 1–25 mm Tubing of external Ø of 1.5–21 mm	**4892.1**	1 unit(s)	7,60

Hose and tube cutter ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, high-gloss.

For cutting tubing and reaction vessels.
Blade length: 2.5 cm. Total length: 10 cm.

Delivery incl. synthetic leather case.

Suitable for	Art. No.	Pack Qty.	€
External Ø of up to 10 mm	**CK56.1**	1 unit(s)	24,20

Tube clamps ROTILABO®

ROTH SELECTION. Material: POM.

Resistant to UV radiation and have good chemical properties.
Temperature range: -40 to +90 °C (up to +110 °C for short periods).

Suitable for	Art. No.	Pack Qty.	€
Tube external Ø of 6.0–6.5 mm	**EX50.1**	10 unit(s)	4,60
Tube external Ø of 9.0–10.0 mm	**EX51.1**	10 unit(s)	4,60
Tube external Ø of 10.0–11.0 mm	**EX52.1**	10 unit(s)	4,60
Tube external Ø of 11.0–12.0 mm	**EX53.1**	10 unit(s)	4,60
Tube external Ø of 12.0–14.0 mm	**EX54.1**	10 unit(s)	4,60
Tube external Ø of 13.0–15.0 mm	**EX55.1**	10 unit(s)	4,60
Tube external Ø of 15.0–17.0 mm	**EX56.1**	10 unit(s)	4,60
Tube external Ø of 17.0–19.0 mm	**EX57.1**	10 unit(s)	4,60
Tube external Ø of 18.0–20.0 mm	**EX58.1**	10 unit(s)	5,40
Tube external Ø of 20.0–22.0 mm	**EX59.1**	10 unit(s)	5,40
Tube external Ø of 23.0–25.0 mm	**EX61.1**	10 unit(s)	5,40

Tube clamps with worm drive

ROTH SELECTION. Material: Stainless steel 1.4016, galvanised screw.

Suitable for	Art. No.	Pack Qty.	€
Tube external Ø of 8–12 mm	**AEH1.1**	10 unit(s)	13,25
Tube external Ø of 10–16 mm	**AEH2.1**	10 unit(s)	13,25
Tube external Ø of 12–20 mm	**AEH3.1**	10 unit(s)	15,10
Tube external Ø of 16–27 mm	**AEH4.1**	10 unit(s)	15,75
Tube external Ø of 20–32 mm	**AEH5.1**	10 unit(s)	16,20

Accessories for hoses

Tube clamp coloured

ROTH SELECTION. Material: PVDF, handles made of galvanised steel, screw nut made of aluminum.

Continuously variable flow control for flexible tubes. Temperature stable up to +140 °C.

Suitable for	Colour	Art. No.	Pack Qty.	€
Tube external Ø of up to 10 mm	blue	**YE70.1**	1 unit(s)	3,75
Tube external Ø of up to 10 mm	green	**YE71.1**	1 unit(s)	3,70
Tube external Ø of up to 10 mm	red	**YE68.1**	1 unit(s)	3,75
Tube external Ø of up to 10 mm	yellow	**YE69.1**	1 unit(s)	3,75
Tube external Ø of up to 15 mm	blue	**YE74.1**	1 unit(s)	5,55
Tube external Ø of up to 15 mm	green	**YE75.1**	1 unit(s)	5,55
Tube external Ø of up to 15 mm	red	**YE72.1**	1 unit(s)	5,55
Tube external Ø of up to 15 mm	yellow	**YE73.1**	1 unit(s)	5,55
Tube external Ø of up to 20 mm	blue	**YE78.1**	1 unit(s)	6,75
Tube external Ø of up to 20 mm	green	**YE79.1**	1 unit(s)	6,75
Tube external Ø of up to 20 mm	red	**YE76.1**	1 unit(s)	6,75
Tube external Ø of up to 20 mm	yellow	**YE77.1**	1 unit(s)	6,75

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Tube clamps ROTILABO® with screw conductive

ROTH SELECTION. Material: Metal.

For safely securing tubing to pipes and taps. With phosphorous bronze band, anti-magnetic and largely resistant to aggressive liquids and vapours. Conductive.

Suitable for	Art. No.	Pack Qty.	€
Tube external Ø of 5–10 mm	**N042.1**	10 unit(s)	29,35
Tube external Ø of 7–12 mm	**N043.1**	10 unit(s)	29,35
Tube external Ø of 9–14 mm	**N044.1**	10 unit(s)	29,35
Tube external Ø of 12–17 mm	**5252.1**	10 unit(s)	29,35
Tube external Ø of 17–22 mm	**0784.1**	10 unit(s)	29,35
Tube external Ø of 22–27 mm	**N045.1**	10 unit(s)	29,35
Tube external Ø of 25–30 mm	**0785.1**	10 unit(s)	29,35

NEW/+

Hose clamp ROTILABO® metal

ROTH SELECTION. Material: Steel (galvanised), aluminium nut.

Continuously variable flow control for various hoses. Very heat-resistant and stable.

Suitable for	Art. No.	Pack Qty.	€
Hose external dimensions Ø of up to 10 mm	**1L7K.1**	5 unit(s)	16,50
Hose external dimensions Ø of up to 15 mm	**1L7L.1**	5 unit(s)	26,40
Hose external dimensions Ø of up to 20 mm	**1L7N.1**	5 unit(s)	28,55
Hose external dimensions Ø of up to 30 mm	**1L7P.1**	5 unit(s)	43,70

Accessories for hoses

Pinchcock ROTILABO®

ROTH SELECTION. Material: Stainless steel.

With clamping springs. Variable mounting bracket allows the clamp to be permanently opened. Tubing is securely attached to the pinchcock using clips. Single-handed operation possible.

Delivery incl. 20 cm silicone tubing.

Suitable for	Art. No.	Pack Qty.	€
Tube external Ø of 10–15 mm	**H452.1**	1 unit(s)	11,45

Pinchcock according to Mohr

ROTH SELECTION. Material: Brass nickel-plated.

For shutting off flexible tubing.
Single-handed operation possible.

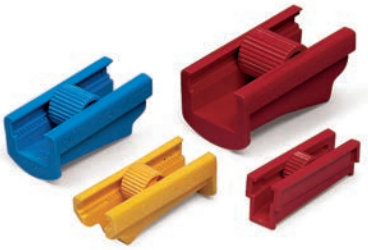
Length (mm)	Suitable for	Art. No.	Pack Qty.	€
50	Tube external Ø of up to 20 mm	**KY01.1**	5 unit(s)	30,25
60	Tube external Ø of up to 25 mm	**KY02.1**	5 unit(s)	31,85
70	Tube external Ø of up to 30 mm	**KY03.1**	5 unit(s)	32,55
80	Tube external Ø of up to 35 mm	**KY04.1**	5 unit(s)	34,00

Clamping scissors ROTILABO®

ROTH SELECTION. Material: PA glass fibre reinforced.

For clamping and holding tubing, etc. Largely resistant to chemicals, highly robust, temperature-resistant up to +130 °C.

Version	Length (mm)	Art. No.	Pack Qty.	€
With smooth edges	110	**LH90.1**	10 unit(s)	14,75
With offset edges	130	**N141.1**	10 unit(s)	11,95

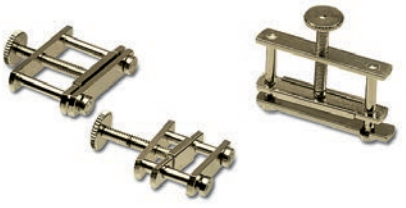


Tube clamp ROTILABO® Keck type

ROTH SELECTION. Material: PBT.

Can be operated single-handedly, can be continuously adjusted to total closure, causes no damage to the tubing, can be sterilised up to +160 °C.

Suitable for	Colour	Art. No.	Pack Qty.	€
Tube external Ø of up to 10 mm	blue	**1159.1**	12 unit(s)	51,10
Tube external Ø of up to 14 mm	red	**1158.1**	12 unit(s)	53,65
Tube external Ø of up to 4.5 mm	red	**1161.1**	12 unit(s)	30,35
Tube external Ø of up to 6 mm	yellow	**1160.1**	12 unit(s)	48,95



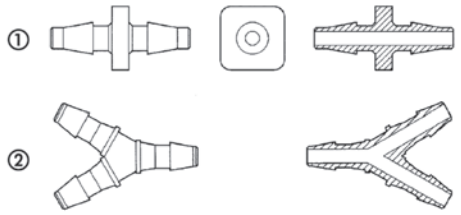
Tube clamp ROTILABO® according to Hoffmann

ROTH SELECTION. Material: Metal chrome-plated.

Can be finely adjusted. The lower bar can be opened.

Width (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
13	12 x 11	**1585.1**	5 unit(s)	19,60
17	17 x 16	**1586.1**	5 unit(s)	18,40
20	20 x 16	**1587.1**	5 unit(s)	19,00
25	25 x 16	**1588.1**	5 unit(s)	20,65
30	30 x 16	**1589.1**	5 unit(s)	21,25

Hose connectors



Hose connectors ROTILABO® Mini

ROTH SELECTION. Material: PP transparent.

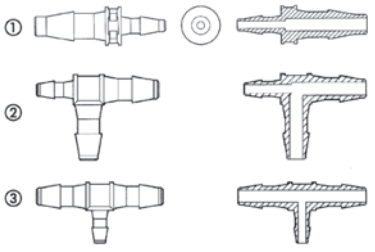
Not a medical device / Not an IVD product

(1) Straight shape

Suitable for	Art. No.	Pack Qty.	€
Hose inner Ø 1.6 mm	**CT33.1**	10 unit(s)	17,10
Hose inner Ø 2.4 mm	**CT34.1**	10 unit(s)	17,10
Hose inner Ø 3.2 mm	**CT35.1**	10 unit(s)	17,10

(2) Y-shape

Suitable for	Art. No.	Pack Qty.	€
Hose inner Ø 1.6 mm	**CT36.1**	10 unit(s)	18,85
Hose inner Ø 2.4 mm	**CT37.1**	10 unit(s)	18,85
Hose inner Ø 3.2 mm	**CT38.1**	10 unit(s)	18,85



Hose reducers ROTILABO® Mini

ROTH SELECTION. Material: PP transparent.

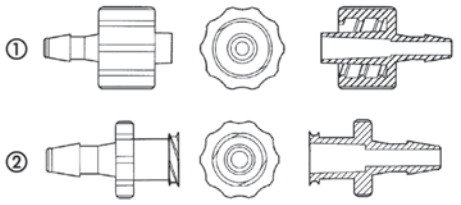
Not a medical device / Not an IVD product

(1) Straight shape

Suitable for	Art. No.	Pack Qty.	€
Hose inner Ø 1.6/4.0 mm	**CT42.1**	10 unit(s)	18,60
Hose inner Ø 2.4/4.0 mm	**CT43.1**	10 unit(s)	18,60
Hose inner Ø 3.2/4.0 mm	**CT44.1**	10 unit(s)	18,60
Hose inner Ø 2.4/4.8 mm	**CT46.1**	10 unit(s)	18,60
Hose inner Ø 3.2/4.8 mm	**CT47.1**	10 unit(s)	19,25

T-shape

Pic.	Suitable for	Art. No.	Pack Qty.	€
(3)	Hose inner Ø 1.6/2.4/1.6 mm	**CT52.1**	10 unit(s)	24,20
(3)	Hose inner Ø 1.6/3.2/1.6 mm	**CT53.1**	10 unit(s)	24,20
(3)	Hose inner Ø 2.4/3.2/2.4 mm	**CT55.1**	10 unit(s)	24,20
(3)	Hose inner Ø 3.2/1.6/3.2 mm	**CT56.1**	10 unit(s)	24,20

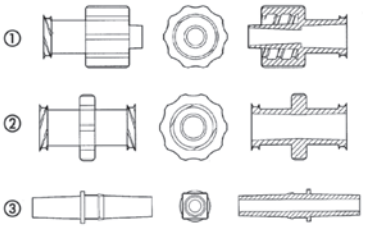


Luer hose connectors ROTILABO®

ROTH SELECTION. Material: PP transparent.

Not a medical device / Not an IVD product

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Luer Lock Female / hose inner Ø 1.6 mm	**CT58.1**	10 unit(s)	13,45
(1)	Luer Lock Female / hose inner Ø 2.4 mm	**CT59.1**	10 unit(s)	13,45
(1)	Luer Lock Female / hose inner Ø 3.2 mm	**CT60.1**	10 unit(s)	13,45
(1)	Luer Lock Female / hose inner Ø 4.0 mm	**CT61.1**	10 unit(s)	13,45
(2)	Luer Lock Male / hose inner Ø 1.6 mm	**CT62.1**	10 unit(s)	13,45
(2)	Luer Lock Male / hose inner Ø 2.4 mm	**CT63.1**	10 unit(s)	13,45
(2)	Luer Lock Male / hose inner Ø 3.2 mm	**CT64.1**	10 unit(s)	13,45
(2)	Luer Lock Male / hose inner Ø 4.0 mm	**CT65.1**	10 unit(s)	13,45

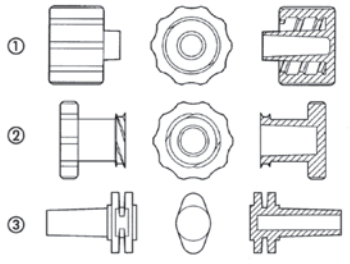


Luer connectors ROTILABO®

ROTH SELECTION. Material: PP transparent.

Not a medical device / Not an IVD product

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Luer Lock female / Luer Male	**CT66.1**	10 unit(s)	15,60
(2)	Luer Lock Male / Luer Lock Male	**CT67.1**	10 unit(s)	15,60
(3)	Luer Female / Luer Female	**CT68.1**	10 unit(s)	15,60



Luer stopper ROTILABO®

ROTH SELECTION. Material: PP transparent.

Not a medical device / Not an IVD product

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Luer Lock female	**CT69.1**	10 unit(s)	10,25
(2)	Luer Lock male	**CT70.1**	10 unit(s)	12,80
(3)	Luer female	**CT71.1**	10 unit(s)	12,80

Hose connectors

A 121 °C

Hose connectors ROTILABO® T-shape

ROTH SELECTION. Material: PP natural, translucent.
Autoclavable: Yes.

Purpose: for any tubing system and vacuum line

In vitro diagnostic medical device according to IVDD

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
4	Hose inner Ø 3 mm	**E763.1**	10 unit(s)	9,10
6	Hose inner Ø 4–5 mm	**E764.1**	10 unit(s)	9,90
8	Hose inner Ø 6–7 mm	**E765.1**	10 unit(s)	9,20
10	Hose inner Ø 8–9 mm	**E766.1**	10 unit(s)	11,75
12	Hose inner Ø 10–11 mm	**E767.1**	10 unit(s)	12,80
14	Hose inner Ø 12–13 mm	**E768.1**	10 unit(s)	16,00
16	Hose inner Ø 14–15 mm	**E769.1**	10 unit(s)	20,30

A 121 °C

Hose connectors ROTILABO® angle shape

ROTH SELECTION. Material: PP natural, translucent.
Autoclavable: Yes.

Purpose: for any tubing system and vacuum line

In vitro diagnostic medical device according to IVDD

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
4	Hose inner Ø 3 mm	**E784.1**	10 unit(s)	7,15
6	Hose inner Ø 4–5 mm	**E785.1**	10 unit(s)	7,30
8	Hose inner Ø 6–7 mm	**E786.1**	10 unit(s)	10,40
10	Hose inner Ø 8–9 mm	**E787.1**	10 unit(s)	10,95
12	Hose inner Ø 10–11 mm	**E788.1**	10 unit(s)	13,25
14	Hose inner Ø 12–13 mm	**E789.1**	10 unit(s)	16,00
16	Hose inner Ø 14–15 mm	**E790.1**	10 unit(s)	20,55

A 121 °C

Hose connectors ROTILABO® cross shape

ROTH SELECTION. Material: PP natural, translucent.
Autoclavable: Yes.

Purpose: for any tubing system and vacuum line

In vitro diagnostic medical device according to IVDD

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
4	Hose inner Ø 3 mm	**E777.1**	10 unit(s)	17,00
6	Hose inner Ø 4–5 mm	**E778.1**	10 unit(s)	17,95
8	Hose inner Ø 6–7 mm	**E779.1**	10 unit(s)	18,75
10	Hose inner Ø 8–9 mm	**E780.1**	10 unit(s)	21,85
12	Hose inner Ø 10–11 mm	**E781.1**	10 unit(s)	23,05
14	Hose inner Ø 12–13 mm	**E782.1**	10 unit(s)	25,25

A 121 °C

Hose connectors ROTILABO® Y-shape

ROTH SELECTION. Autoclavable: Yes.

Purpose: for any tubing system and vacuum line

In vitro diagnostic medical device according to IVDD

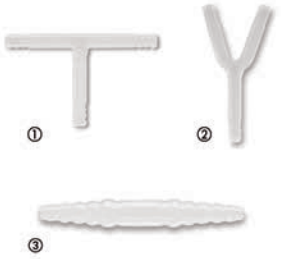
(1) With straight ends
Material: PP natural, translucent.

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
4	Hose inner Ø 3 mm	**E770.1**	10 unit(s)	9,15
6	Hose inner Ø 4–5 mm	**E771.1**	10 unit(s)	11,80
8	Hose inner Ø 6–7 mm	**E772.1**	10 unit(s)	14,15
10	Hose inner Ø 8–9 mm	**E773.1**	10 unit(s)	16,50
12	Hose inner Ø 10–11 mm	**E774.1**	10 unit(s)	21,10
14	Hose inner Ø 12–13 mm	**E775.1**	10 unit(s)	22,75
16	Hose inner Ø 14–15 mm	**E776.1**	10 unit(s)	24,70

Hose connectors

(2) With conical ends
Material: PP.

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
4 / 5	Hose inner Ø 3–5 mm	**TT50.1**	10 unit(s)	14,80
7 / 9	Hose inner Ø 7–9 mm	**TT52.1**	10 unit(s)	19,55
10 / 11,5	Hose inner Ø 9–11 mm	**TT53.1**	10 unit(s)	20,90
12 / 14	Hose inner Ø 11–13 mm	**TT54.1**	10 unit(s)	22,95
14 / 15,5	Hose inner Ø 13–15 mm	**TT55.1**	10 unit(s)	26,40
5,5 / 7	Hose inner Ø 5–7 mm	**TT51.1**	10 unit(s)	17,10



Hose connectors made of glass

ROTH SELECTION. Material: DURAN® glass.

Not a medical device / Not an IVD product

(1) T-shape
With straight ends.

Ø ext. (mm)	Length (mm)	Suitable for	Art. No.	Pack Qty.	€
8	115	Hose inner Ø 6–8 mm	**EKH1.1**	1 unit(s)	5,50
10	115	Hose inner Ø 8–10 mm	**EKH2.1**	1 unit(s)	8,10

(2) Y-shape
With straight ends.

Ø ext. (mm)	Length (mm)	Suitable for	Art. No.	Pack Qty.	€
8	115	Hose inner Ø 6–8 mm	**EKH3.1**	1 unit(s)	5,75
10	115	Hose inner Ø 8–10 mm	**EKH4.1**	1 unit(s)	8,85

(3) Straight
With conical ends.

Ø ext. (mm)	Length (mm)	Suitable for	Art. No.	Pack Qty.	€
6–14	110	Hose inner Ø 6–14 mm	**EKH5.1**	1 unit(s)	8,40

Hose connectors ROTILABO® straight shape

ROTH SELECTION. Material: HDPE white.

Not a medical device / Not an IVD product

Ø Internal (mm)	Suitable for	Art. No.	Pack Qty.	€
7	Hose inner Ø 10 mm	**E797.1**	10 unit(s)	12,85
9	Hose inner Ø 12 mm	**E798.1**	10 unit(s)	13,95
15	Hose inner Ø 19 mm	**E799.1**	10 unit(s)	15,00
20	Hose inner Ø 25 mm	**E800.1**	10 unit(s)	12,40

A 121 °C

Hose connectors ROTILABO® straight shape with conical ends

ROTH SELECTION. Material: PP white. Autoclavable: Yes.

Purpose: for any tubing system and vacuum line

In vitro diagnostic medical device according to IVDD

Ø Internal (mm)	Suitable for	Art. No.	Pack Qty.	€
2	Hose inner Ø 4–5 mm	**E791.1**	10 unit(s)	9,30
3	Hose inner Ø 5–7 mm	**E792.1**	10 unit(s)	10,55
4	Hose inner Ø 8–10 mm	**E793.1**	10 unit(s)	11,10
6	Hose inner Ø 10–12 mm	**E794.1**	10 unit(s)	13,40
8	Hose inner Ø 12–14 mm	**E795.1**	10 unit(s)	14,30
10	Hose inner Ø 14–16 mm	**E796.1**	10 unit(s)	17,95

Hose connectors

121 °C

Hose reducers ROTILABO®

ROTH SELECTION. Material: PP white. Autoclavable: Yes.
Purpose: for any tubing system and vacuum line
With conical ends. Temperature stable up to +130 °C. Length 87 mm.

In vitro diagnostic medical device according to IVDD

Suitable for	Art. No.	Pack Qty.	€
Hose inner Ø 8–12/4–8 mm	**E801.1**	10 unit(s)	17,15
Hose inner Ø 12–16/4–8 mm	**E802.1**	10 unit(s)	18,75
Hose inner Ø 12–16/8–12 mm	**E803.1**	10 unit(s)	21,20

121 °C

Hose connectors straight shape universal

ROTH SELECTION. Autoclavable: Yes.
With conical ends.

Not a medical device / Not an IVD product

Pic.	Materialspecification	Suitable for	Art. No.	Pack Qty.	€
(1)	PP	Hose inner Ø 4–17/8–17 mm	**Y523.1**	10 unit(s)	21,70
(2)	PVDF	Hose inner Ø 4–17/8–17 mm	**Y524.1**	10 unit(s)	32,00

Hose couplings ROTILABO®

ROTH SELECTION. Material: PE natural, translucent.
Purpose: for joining hoses made of glass, rubber or plastic.

Excellent sealing properties and can be disassembled effortlessly at any time. Conical, temperature stable up to +100 °C.

In vitro diagnostic medical device according to IVDD

Ø Internal (mm)	Suitable for	Art. No.	Pack Qty.	€
2	Hose inner Ø 4–5 mm	**E806.1**	10 unit(s)	16,10
3	Hose inner Ø 6–7 mm	**E807.1**	10 unit(s)	18,35
4	Hose inner Ø 8–9 mm	**E808.1**	10 unit(s)	20,70
6	Hose inner Ø 9–12 mm	**E809.1**	10 unit(s)	22,50
7	Hose inner Ø 11–14 mm	**E810.1**	10 unit(s)	26,45

Non-return valves ROTILABO®

ROTH SELECTION. Material: PP natural colours, translucent.
Suitable for liquids. Consists of two parts. Prevents pressure drop and backflow. With conical ends. Temperature stable up to +100 °C.

Not a medical device / Not an IVD product

Length (mm)	Suitable for	Art. No.	Pack Qty.	€
60	Hose inner Ø 7.8–10 mm	**E804.1**	5 unit(s)	18,75
70	Hose inner Ø 9.5–12.5 mm	**E805.1**	5 unit(s)	29,30

Hose connectors

Quick-release coupling

ROTH SELECTION. Material: PP, EPDM, Stainless steel.

For easy, leak-free connection and disconnection of hoses. With hose connector. Optionally with shut-off, stops the flow automatically upon disconnection. Can be sterilised with gamma rays.

- NW flow opening: 3.2 mm
- Temperature range: 0 to +71 °C
- Operating pressure: Vacuum up to 8.3 bar

Not a medical device / Not an IVD product

(1) Female connection straight

Suitable for	Shut-off	Art. No.	Pack Qty.	€
Hose inner Ø 3.2 mm	Yes	**HAH8.1**	1 unit(s)	16,35
Hose inner Ø 6.4 mm	Yes	**HAK0.1**	1 unit(s)	16,35

(2) Male connection straight

Suitable for	Shut-off	Art. No.	Pack Qty.	€
Hose inner Ø 1.6 mm	Yes	**HAK2.1**	1 unit(s)	14,55
Hose inner Ø 3.2 mm	No	**HAK3.1**	1 unit(s)	5,30
Hose inner Ø 3.2 mm	Yes	**HAK4.1**	1 unit(s)	14,55
Hose inner Ø 6.4 mm	Yes	**HAK6.1**	1 unit(s)	14,55

(3) Male connection angled

Suitable for	Shut-off	Art. No.	Pack Qty.	€
Hose inner Ø 6.4 mm	No	**KA53.1**	1 unit(s)	19,90
Hose inner Ø 6.4 mm	Yes	**HAK9.1**	1 unit(s)	16,05

NEW / +

A 121 °C

Luer hose connectors made of metal with conical ends

ROTH SELECTION. Material: Brass nickel-plated, bright chrome-plated. Autoclavable: Yes.

For connecting needles, syringes and taps to hoses.
LLM: Luer Lock Male, LLF: Luer Lock Female

Not a medical device / Not an IVD product

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	LLM/hose inner Ø 2–6 mm	**1HCC.1**	1 unit(s)	22,80
(2)	LLM/hose inner Ø 5–9 mm	**1HCE.1**	1 unit(s)	22,80
(3)	LLF/hose inner Ø 2–6 mm	**1HCH.1**	1 unit(s)	24,55
(4)	LLF/hose inner Ø 5–9 mm	**1HCK.1**	1 unit(s)	24,55

NEW / +

A 121 °C

Luer hose connectors made of metal with straight ends

ROTH SELECTION. Material: Brass nickel-plated, bright chrome-plated. Autoclavable: Yes.

For connecting needles, syringes and taps to hoses.
LLM: Luer Lock Male, LLF: Luer Lock Female

Not a medical device / Not an IVD product

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	LLM/hose inner Ø 1.5 mm	**1HC7.1**	1 unit(s)	11,90
(2)	LLM/hose inner Ø 3.0 mm	**1HC8.1**	1 unit(s)	10,05
(3)	LLF/hose inner Ø 1.5 mm	**1HC9.1**	1 unit(s)	13,55
(4)	LLF/hose inner Ø 3.0 mm	**1HCA.1**	1 unit(s)	11,60

Hose connectors

NEW / +

A 121 °C

Luer valve made of metal

ROTH SELECTION. Material: Brass nickel-plated, bright chrome-plated. Autoclavable: Yes.

Suitable for pressures up to 3 bar.
LLM: Luer Lock Male, LLF: Luer Lock Female

Not a medical device / Not an IVD product

Pic.	Version	Suitable for	Art. No.	Pack Qty.	€
(1)	2-way tap	LLF / LLM	**1HCL.1**	1 unit(s)	43,70
(2)	3-way tap	LLF / LLM / LLM	**1HCN.1**	1 unit(s)	51,95

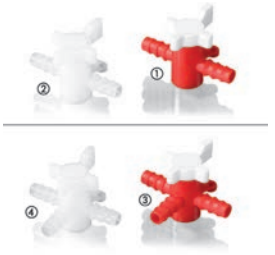
Hose valve ROTILABO®

ROTH SELECTION. Material: LDPE natural colours.

Temperature range: -20 to +70 °C. Withstands pressures up to 0.4 bar.

Not a medical device / Not an IVD product

Ø ext. (mm)	Length (mm)	Suitable for	Art. No.	Pack Qty.	€
10	70	Hose inner Ø 8–9 mm	**1622.1**	5 unit(s)	21,45
13	95	Hose inner Ø 11–12 mm	**1623.1**	5 unit(s)	26,35



Hose valve

Bürkle.

For the transfer of liquids or gases. Max. pressure 1 bar. Operating temperature +5 to +40 °C. Available in various materials: PVDF (natural colours) offers better chemical resistance than PP/PE (red/white).

Not a medical device / Not an IVD product

2-way tap

Materialspecification	Ø Internal (mm)	Suitable for	Art. No.	Pack Qty.	€
PP/PE	4	Hose inner Ø 5–7 mm	**1015.1**	1 unit(s)	7,90
PP/PE	6	Hose inner Ø 7–9 mm	**1016.1**	1 unit(s)	9,05
PP/PE	8	Tubing of internal Ø 9–11 mm	**1017.1**	1 unit(s)	10,20
PP/PE	8	Hose inner Ø 11–13 mm	**CPH6.1**	1 unit(s)	10,20
PVDF	4	Hose inner Ø 5–7 mm	**1761.1**	1 unit(s)	14,35
PVDF	6	Hose inner Ø 7–9 mm	**1762.1**	1 unit(s)	16,75
PVDF	8	Hose inner Ø 9–11 mm	**1763.1**	1 unit(s)	19,60
PVDF	8	Hose inner Ø 11–13 mm	**CPH7.1**	1 unit(s)	19,60

3-way tap

Materialspecification	Ø Internal (mm)	Suitable for	Art. No.	Pack Qty.	€
PP/PE	4	Hose inner Ø 5–7 mm	**1018.1**	1 unit(s)	13,60
PP/PE	6	Hose inner Ø 7–9 mm	**1019.1**	1 unit(s)	17,20
PP/PE	8	Hose inner Ø 9–11 mm	**1020.1**	1 unit(s)	17,80
PP/PE	8	Hose inner Ø 11–13 mm	**CPH8.1**	1 unit(s)	17,05
PVDF	4	Hose inner Ø 5–7 mm	**1766.1**	1 unit(s)	22,00
PVDF	6	Hose inner Ø 7–9 mm	**1767.1**	1 unit(s)	24,15
PVDF	8	Hose inner Ø 9–11 mm	**1768.1**	1 unit(s)	26,35
PVDF	8	Hose inner Ø 11–13 mm	**CPH9.1**	1 unit(s)	22,80

Hose connectors

Hose connections ROTILABO® system Keck

ROTH SELECTION. Material: PBT, aeals made of EPDM.

For quickly establishing secure and leak-tight connections between hoses and glass nozzles/glass threads. Excellent chemical and temperature resistance up to +130 °C.

Not a medical device / Not an IVD product

For glass threads

Delivery incl. screw cap, hose part and seals.

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
9,0	GL 14 (Schott), yellow	**H075.1**	10 unit(s)	63,45

For glass nozzles

Delivery incl. clamping ring, screw cap, hose part and seals.

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
9,0	GL 14 (Schott), yellow	**H072.1**	10 unit(s)	80,65

A 121 °C

Hose couplings ROTILABO® system Keck

ROTH SELECTION. Autoclavable: Yes.

Not a medical device / Not an IVD product

Hose nozzles

Made of PBT, seal made of EPDM. Outer Ø 9 mm, length 43 mm. Light blue colour.

Delivery without connecting pieces, please order separately.

Version	Art. No.	Pack Qty.	€
Hose nozzles	**0354.1**	10 unit(s)	30,65

Connecting pieces

White colour, 8 mm outlet.

Delivery without hose nozzles, please order separately.

Version	Art. No.	Pack Qty.	€
Connecting pieces	**0343.1**	5 unit(s)	18,20

Draincock red/natural

ROTH SELECTION. Material: PE.

With separate ventilation channel. Continuously variable regulation of the discharge speed.

Not suitable for glass threads.

Thread	Art. No.	Pack Qty.	€
DIN 45	**X530.1**	3 unit(s)	25,35
DIN 50	**X531.1**	3 unit(s)	30,80

Draincock FLUXX®

ROTH SELECTION. Material: PE.

The patented ventilation system allows easy, clean and fast filling and transfer of liquids without gurgling.

Not suitable for glass threads.

Thread	Art. No.	Pack Qty.	€
DIN 51 / DIN 40	**T358.1**	3 unit(s)	12,50
DIN 61 / DIN 40	**T359.1**	3 unit(s)	13,75

Spout

ROTH SELECTION. Material: PE, Alkozell seal.

Flexible spout tube with snap-on lid, screwed into a screw cap. With riser for smooth pouring.

Not suitable for glass threads

Thread	Art. No.	Pack Qty.	€
DIN 45	**TE90.1**	2 unit(s)	17,90
DIN 51	**TE91.1**	2 unit(s)	17,90
DIN 61	**TE92.1**	2 unit(s)	18,60

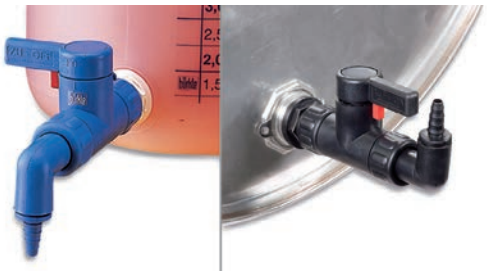
Draincocks

Draincock Compact

Bürkle. Material: PP, seals made of PE/PTFE.

Closes tight. Easy to open and close. Can be operated single-handed. Space-saving design: The tap does not protrude beyond the base of the container and can remain on the container in storage.
Optimised drainage spout for an even, splash-free flow.

Thread	Art. No.	Pack Qty.	€
G¾″ (internal thread)	**PE42.1**	1 unit(s)	16,25



Draincock

Bürkle.

Closes tight. Easy to open and close. Can be operated single-handed. With rotating non-drip nozzle and metering scale. With reducing outlet spout (outside Ø 6–8 mm) for narrow bottle openings.

Non-self-ventilating draincock.

Stopcock
Material: PP Seal made of PE/PTFE.

Delivery incl. reducing outlet spout.

Thread	Conductive	Art. No.	Pack Qty.	€
G¾″ (internal thread)	No	**2683.1**	1 unit(s)	25,65

PA stopcock
Material: PA electrically conductive, Seal made of PTFE.
Note: The drum and the tap must be grounded using the Roth antistatic set (Art. No. 0213.1) during filling with flammable liquids.

Delivery incl. reducing outlet spout and electrically conductive PA adapter for drum with G¾″ internal thread.

Thread	Conductive	Art. No.	Pack Qty.	€
G¾″ (internal thread)	Yes	**LP75.1**	1 unit(s)	30,60

Draincock Air

Bürkle. Material: PE, seal made of natural rubber.
Self-ventilating.

Thread	Art. No.	Pack Qty.	€
G¾″ external thread	**Y496.1**	3 unit(s)	18,10

Draincock PP

Bürkle. Material: PP.
Ball valve suitable for crystallising media. Pressure max. 4 bar at 20 °C.

Delivery without hose connector, please order separately.

Thread	Art. No.	Pack Qty.	€
G¾″ external thread	**P943.1**	1 unit(s)	58,35

Accessories hose connector for PP draincock

Bürkle.

Version	Art. No.	Pack Qty.	€
Bent 90°	**P946.1**	1 unit(s)	3,80
straight	**P947.1**	1 unit(s)	2,65

Capillary pipettes

Capillary pipettes ringcaps®

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

Purpose: Removal of samples from the human body.

- Not heparinised
- According to ISO 7550
- Correctness up to 5 µl 0.3%, from 10 µl 0.25%
- Variation coefficient up to 5 µl 0.60%, from 10 µl 0.50%
- Conformity certified

A 121 °C

In vitro diagnostic medical device according to IVDD

1 mark

Vol. (µl)	Length (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
10	125	0,47	1,25	4 x 250	**A757.1**	1,000 unit(s)	113,05
20	125	0,63	1,50	4 x 250	**A758.1**	1,000 unit(s)	113,05
25	125	0,72	1,50	4 x 250	**A759.1**	1,000 unit(s)	113,05
40	125	1,02	1,50	4 x 250	**A760.1**	1,000 unit(s)	113,05
50	125	1,02	1,50	4 x 250	**A761.1**	1,000 unit(s)	113,05
100	125	1,39	1,95	4 x 250	**A762.1**	1,000 unit(s)	113,05

2 marks

Volume (µl)	Length (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
5/10	125	0,47	1,25	4 x 250	**A764.1**	1,000 unit(s)	113,35
20/40	125	1,02	1,50	4 x 250	**A765.1**	1,000 unit(s)	113,35
50/100	125	1,39	1,95	4 x 250	**A766.1**	1,000 unit(s)	113,35
100/200	125	1,89	2,50	4 x 100	**A767.1**	400 unit(s)	74,25

5 marks

Volume (µl)	Length (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
1/2/3/4/5	125	0,29	1,25	4 x 250	**A756.1**	1,000 unit(s)	121,80

Capillary pipettes minicaps

Hirschmann. Material: DURAN® glass.

Purpose: Removal of samples from the human body.

- Independent filling via capillary action (end-to-end)
- Not heparinised
- According to ISO 7550
- Correctness 0.5%
- Variation coefficient 1%
- Conformity certified

In vitro diagnostic medical device according to IVDD

Vol. (µl)	Colour coding	Length (mm)	Tolerance (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
0.5	black	31	±1,0	0,14	0,56	10 x 100	**L918.2**	1,000 unit(s)	101,00
1	blue	31	±1,0	0,20	0,68	10 x 100	**0771.2**	1,000 unit(s)	102,10
2	red	31	±1,0	0,28	0,74	10 x 100	**L919.2**	1,000 unit(s)	101,00
3	yellow	31	±1,0	0,34	0,83	10 x 100	**L920.2**	1,000 unit(s)	101,00
3.33	yellow	36	±1,0	0,34	0,82	10 x 100	**L921.2**	1,000 unit(s)	101,00
4	green	31	±1,0	0,40	0,83	10 x 100	**L922.2**	1,000 unit(s)	101,00
5	white	31	±1,0	0,45	0,89	10 x 100	**L923.2**	1,000 unit(s)	101,00
6.66	natural	72	±1,0	0,34	0,82	10 x 100	**L924.2**	1,000 unit(s)	101,00
10	orange	31	±1,0	0,63	0,90	10 x 100	**L925.2**	1,000 unit(s)	101,00
20	black	30	±0,5	0,92	1,40	10 x 100	**L926.2**	1,000 unit(s)	101,00

Capillary pipettes

Capillary pipettes micro hematocrit

Marienfeld. Material: AR-GLAS®.

Micro hematocrit capillary tubes for centrifugation of blood samples.

- Colour-coded end is fire-polished to reduce centrifuge wear
- Thickness 0.2 ±0.025 mm
- According to ISO 12772

In vitro diagnostic medical device according to IVDD

With sodium heparinisation

Sodium heparin (80 iu/ml ±30%) applied as a thin, homogeneous film delays coagulation of blood.

Vol. (µl)	Length (mm)	Tolerance (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
60	75	±0,5	0,9–1,2	1,3–1,4	10 x 100	**TX79.1**	1,000 unit(s)	31,10
75	75	±0,5	1,1–1,2	1,5–1,6	10 x 100	**TX80.1**	1,000 unit(s)	30,10

Without heparinisation

Immediately after filling, seal with wax and centrifuge.

Vol. (µl)	Length (mm)	Tolerance (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
60	75	±0,5	0,9–1,0	1,3–1,4	10 x 100	**TX77.1**	1,000 unit(s)	33,65
75	75	±0,5	1,1–1,2	1,5–1,6	10 x 100	**TX78.1**	1,000 unit(s)	27,00

Pasteur pipettes

ROTH SELECTION. Material: Soda-lime glass (hydrolytic class 3). Autoclavable: Yes.

For one-time use in serological and microbiological laboratories. Also suitable for filling and draining NMR vials.

- Uniformly shaped
- Double thickness 0.55-0.8 mm
- With neck for cotton stoppers

A 121 °C

Without cotton plug

Non-sterile.

Vol. (ml)	Total length (mm)	Ø ext. (mm)	Tip length (mm)	Outer tip Ø (mm)	Version	Sterility	Art. No.	Pack Qty.	€
2	150	7	60	1.3	open tip	Non-sterile	**4518.1**	1,000 unit(s)	56,10
2	230	7	140	1.3	open tip	Non-sterile	**4522.1**	1,000 unit(s)	66,50
2.5	270	7	160	1.3	open tip	Non-sterile	**HX77.1**	1,000 unit(s)	130,05
2.5	300	7	195	1.5	open tip	Non-sterile	**HX78.1**	500 unit(s)	78,40
3	350	7	230	1.5	open tip	Non-sterile	**HX79.1**	1,000 unit(s)	319,30

With cotton plug

Non-sterile.

Vol. (ml)	Total length (mm)	Ø ext. (mm)	Tip length (mm)	Outer tip Ø (mm)	Version	Sterility	Art. No.	Pack Qty.	€
2	150	7	60	1.3	open tip	Non-sterile	**E326.1**	1,000 unit(s)	125,95
2	230	7	140	1.3	open tip	Non-sterile	**E327.1**	1,000 unit(s)	123,70

With cotton plug sterile

Sterile.

Vol. (ml)	Total length (mm)	Ø ext. (mm)	Tip length (mm)	Version	Sterility	Art. No.	Pack Qty.	€
2	150	7	60	closed tip	**Sterile**	**AHA3.1**	1,000 unit(s)	173,10
2	230	7	140	closed tip	**Sterile**	**AHA4.1**	1,000 unit(s)	162,35

Pasteur/disposable pipettes

Pasteur pipettes

DWK Life Sciences. Material: Borosilicate glass 5.1. Autoclavable: Yes.

For single use in microbiological and serological laboratories. Ideal for distributing aliquot quantities of liquid.

- In accordance with ISO 7712
- Practically inert borosilicate glass (USP type I neutral glass)
- With neck for cotton stoppers
- Good resistance to temperature variation, suitable for transferring hot liquids
- Excellent chemical resistance to acid and alkaline solutions

A 121 °C

DURAN WHEATON KIMBLE

Vol. (ml)	Total length (mm)	Ø ext. (mm)	Tip length (mm)	Outer tip Ø (mm)	Pack.	Art. No.	Pack Qty.	€
2	147.5	6.95	55	1.1	4 x 250	**HXH7.1**	1,000 unit(s)	52,15
2	227.5	6.95	135	1.1	4 x 250	**HXH8.1**	1,000 unit(s)	57,30

Pasteur pipettes plastic sterile

ROTH SELECTION. Material: PS. **Sterile**.

For use with pipette bulbs or as aspiration pipettes in combination with suction systems. Safe alternative to Pasteur pipettes made of glass.

S

Vol. (ml)	Total length (mm)	Ø ext. (mm)	Outer tip Ø (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
2	145	6	1.5	**Sterile**	4 x 50, individual	**EKN7.1**	200 unit(s)	80,50
3	230	6	1.5	**Sterile**	4 x 50, individual	**EKN8.1**	200 unit(s)	79,30

Aspiration pipettors sterile

ROTH SELECTION. Material: PS. **Sterile**.

Pipettes without cotton plug, without graduation.
Suitable for vacuum applications and liquid handling where no high precision is required.
Safe alternative to Pasteur pipettes made of glass.

S

Vol. (ml)	Total length (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
2	271	**Sterile**	individually	**NA41.2**	200 unit(s)	25,00

Pasteur/disposable pipettes

Pasteur pipettes ungraduated

ROTH SELECTION. Material: LDPE.

Single-use pipettes with integrated suction ball for straightforward transfer of liquids where precision volume is not required. Suitable for media aliquoting thanks to reproducible droplet size.

- No slipping with latex gloves
- Precise, fine tip for reproducible results

Not a medical device / Not an IVD product

1 ml, universal

For routine work and quick liquid transfers.

Vol. (ml)	Filling capacity (ml)	Total volume (l)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	0.9	1.8	87	4.8	40	26	Non-sterile	1 x 500	**1CC3.1**	500 unit(s)	20,90

1 ml, fine tip

Manageable pipette for applications involving limited space.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	1	1.6	51	1.2	30	34	Non-sterile	1 x 500	**1CC4.1**	500 unit(s)	35,25

2 ml, extra long

For use in sampling, coating of columns in chromatography or for transferring into columns.

Vol. (ml)	Filling capacity (ml)	Total volume (l)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
2	2.3	5.6	225	5	40	25	Non-sterile	1 x 400	**1CC5.1**	400 unit(s)	22,60

3 ml, fine tip

For precision liquid application.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.3	5.8	147	4.6	19	53	Non-sterile	1 x 500	**1CC6.1**	500 unit(s)	39,30

3 ml, narrow stem

Narrow stem for special applications, e.g. pipetting in semi-micro cuvettes. Suitable for filling and heat sealing for the purpose of storing liquids.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.2	6.9	155	8	32	31	Non-sterile	1 x 500	**1CC7.1**	500 unit(s)	23,70

3 ml, narrow stem, extra long

Extra long , slimline body for pipetting in narrow vessels.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.3	4.5	155	2.5	38	26	Non-sterile	1 x 500	**1CC8.1**	500 unit(s)	23,10

4 ml, fine tip (extended)

Suitable for loading electrophoresis gels.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
4	3.7	5.8	157	4.6	20	50	Non-sterile	1 x 500	**1CC9.1**	500 unit(s)	37,10

6 ml, wide opening

For viscous samples, e.g. creams, oils, sludges, paints. Can be used as a funnel if the suction ball is cut open centrally and a filter is placed. Suitable for use as a spatula if the suction ball is cut at an angle.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
6	6.2	9.5	137	6.1	50	20	Non-sterile	1 x 250	**1CCA.1**	250 unit(s)	14,20

Pasteur/disposable pipettes

10 ml, extra long
For use in sampling, pipetting of media from tall vessels, coating of columns in chromatography or for transferring into columns.

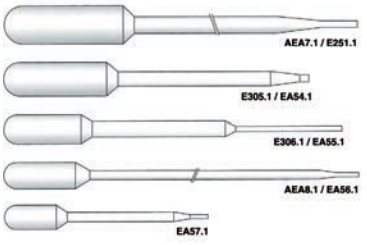
Vol. (ml)	Filling capacity (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
10	10.7	300	50	20	Non-sterile	1 x 100	**E251.1**	100 unit(s)	33,55

10 ml, narrow stem
For dispensing larger liquid volumes. Slimline stem for narrow vessels.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
10	11.6	15.3	155	3	52	19	Non-sterile	1 x 250	**1CCC.1**	250 unit(s)	20,70

Pasteur pipettes ungraduated

ROTH SELECTION. Material: LDPE.
Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.

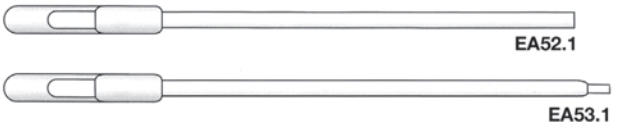


Not a medical device / Not an IVD product

Vol. (ml)	Filling capacity (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Version	Sterility	Pack.	Art. No.	Pack Qty.	€
7	7.3	300	50	20	very long	**Sterile**	indiv.	**AEA7.1**	100 unit(s)	82,15
5	4.8	137	62	16	wide opening, for viscose media	Non-sterile	1 x 250	**E305.1**	250 unit(s)	28,10
5	4.8	137	62	16	Wide opening, for cell culture	**Sterile**	indiv.	**EA54.1**	250 unit(s)	76,85
3	3.0	155	34	29	long tip, for cells	Non-sterile	1 x 500	**E306.1**	500 unit(s)	44,55
3	3.0	155	34	29	long tip, for cells	**Sterile**	50 x 10	**EA55.1**	500 unit(s)	68,55
2	2.3	225	40	25	long	**Sterile**	indiv.	**AEA8.1**	400 unit(s)	102,80
2	2.3	225	40	25	long	Non-sterile	1 x 400	**EA56.1**	400 unit(s)	34,40
1	0.9	87	40	25	short	Non-sterile	1 x 500	**EA57.1**	500 unit(s)	30,45

Mixing pipettes ungraduated

ROTH SELECTION. Material: LDPE.
Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.



Not a medical device / Not an IVD product

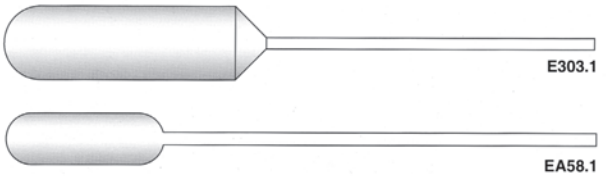
Vol. (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Version	Sterility	Art. No.	Pack Qty.	€
0.2	124	50	20	standard	Non-sterile	**EA52.1**	500 unit(s)	30,80
0.2	131	25	40	fine	Non-sterile	**EA53.1**	500 unit(s)	32,00

Pasteur/disposable pipettes

Pasteur pipettes ungraduated

ROTH SELECTION. Material: LDPE.

Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.



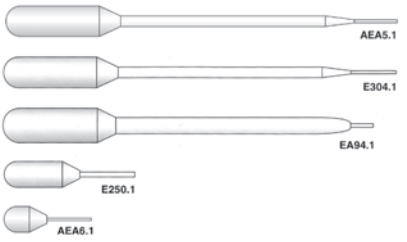
Not a medical device / Not an IVD product

Vol. (ml)	Filling capacity (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.3	155	40	25	Non-sterile	1 x 500	**EA58.1**	500 unit(s)	25,65
8	8.0	155	52	19	Non-sterile	1 x 250	**E303.1**	250 unit(s)	35,95

Pasteur pipettes ultra-fine tip ungraduated

ROTH SELECTION. Material: LDPE.

Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.



Not a medical device / Not an IVD product

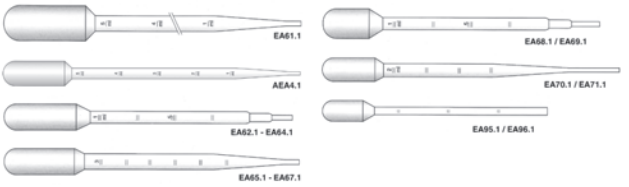
Vol. (ml)	Filling capacity (ml)	Total length (mm)	Outer tip Ø (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3.5	3.5	157	1.1	20	50	**Sterile**	individually	**AEA5.1**	400 unit(s)	109,30
3.5	3.5	157	1.1	20	50	Non-sterile	1 x 500	**E304.1**	500 unit(s)	64,25
3	3.3	147	1.1	18	55	Non-sterile	1 x 500	**EA94.1**	500 unit(s)	55,10
1	1.0	51	1.5	22	45	Non-sterile	1 x 500	**E250.1**	500 unit(s)	51,50
0.5	0.5	36	1.1	25	40	Non-sterile	1 x 500	**AEA6.1**	500 unit(s)	46,35

Pasteur/disposable pipettes

Pasteur pipettes graduated

ROTH SELECTION. Material: LDPE.

Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.



Not a medical device / Not an IVD product

Filling volume 0.8 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
0.3	0.8	0,1-0,3	116	47	21	Non-sterile	1 x 500	**EA95.1**	500 unit(s)	37,10
0.3	0.8	0,1-0,3	116	47	21	**Sterile**	25 x 20	**EA96.1**	500 unit(s)	57,90

Filling volume 1.8 ml

Filling volume 1.8 ml is achieved by pressing the suction ball. To achieve a filling capacity 2 ml, the stem must also be squeezed.

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
2	1.8	0,5-2	152	41	24	Non-sterile	1 x 500	**EA70.1**	500 unit(s)	36,60
2	1.8	0,5-2	152	41	24	**Sterile**	25 x 20	**EA71.1**	500 unit(s)	60,20

Filling volume 2.2 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	2.2	0,25-1	140	40	25	Non-sterile	1 x 500	**EA68.1**	500 unit(s)	34,10
1	2.2	0,25-1	140	40	25	**Sterile**	25 x 20	**EA69.1**	500 unit(s)	54,10

Filling volume 3.2 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.2	0,5-3	155	50	20	Non-sterile	1 x 500	**EA65.1**	500 unit(s)	21,10
3	3.2	0,5-3	155	50	20	**Sterile**	individually	**EA66.1**	500 unit(s)	90,00
3	3.2	0,5-3	155	50	20	**Sterile**	25 x 20	**EA67.1**	500 unit(s)	47,65

Filling volume 3.4 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	3.4	0,25-1	155	40	25	Non-sterile	1 x 500	**EA62.1**	500 unit(s)	21,85
1	3.4	0,25-1	155	40	25	**Sterile**	individually	**EA63.1**	500 unit(s)	94,50
1	3.4	0,25-1	155	40	25	**Sterile**	25 x 20	**EA64.1**	500 unit(s)	43,35

Filling volume 6.2 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
5	6.2	1-5	217	54	19	**Sterile**	12 x 20	**AEA4.1**	240 unit(s)	47,45
5	6.2	1-5	217	54	19	Non-sterile	1 x 250	**EA61.1**	250 unit(s)	27,05

Pasteur/disposable pipettes

Pasteur pipettes graduated

ROTH SELECTION. Material: LDPE.

Single-use pipettes with integrated suction ball for straightforward transfer of liquids. With graduation for approximation of dispensed volume. Suitable for media aliquoting thanks to reproducible droplet size.

- Clear graduation
- No slipping with latex gloves
- Precise, fine tip for reproducible results

Not a medical device / Not an IVD product

0.3 ml

For drawing and dispensing small volumes, for transferring into and out of multiwell plates, and for pH measuring instruments (drawing and redispensing of filling solutions for electrodes).

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
0.3	0.8	1.5	0,1 / 0,2 / 0,3	116	3	45	22	Non-sterile	1 x 500	**1CAC.1**	500 unit(s)	20,75
0.3	0.8	1.5	0,1 / 0,2 / 0,3	116	3	45	22	**Sterile**	25 x 20	**1CAE.1**	500 unit(s)	32,15

1 ml, small suction ball

For drawing and dispensing small volumes, for sample preparation in chromatography (autosampler vials 1 ml), and for pH measuring instruments (addition of acids and bases).

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	2.1	3.9	0,25 / 0,5 / 0,75 / 1	140	4.7	40	25	Non-sterile	1 x 500	**1CAH.1**	500 unit(s)	20,80
1	2.1	3.9	0,25 / 0,5 / 0,75 / 1	140	4.7	40	25	**Sterile**	25 x 20	**1CAK.1**	500 unit(s)	40,00

1 ml, large suction ball

For sample preparation in chromatography (autosampler vials 1 ml).

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	3.5	5.8	0,25 / 0,5 / 0,75 / 1	155	4.6	40	25	Non-sterile	1 x 500	**1CAL.1**	500 unit(s)	20,50
1	3.5	5.8	0,25 / 0,5 / 0,75 / 1	155	4.6	40	25	**Sterile**	25 x 20	**1CAN.1**	500 unit(s)	38,65

1 ml, large suction ball, wide opening

For handling reagents, for microscope slide examinations and for quickly transferring media.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	4.3	5.8	0,25 / 0,5 / 0,75 / 1	152	2.8	50	20	Non-sterile	1 x 500	**1CAP.1**	500 unit(s)	19,80

2 ml

For handling reagents, for microscope slide examinations and for quickly transferring media.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
2	1.8	4.6	1 / 2	152	7.1	40	25	Non-sterile	1 x 500	**1CAT.1**	500 unit(s)	21,10
2	1.8	4.6	1 / 2	152	7.1	40	25	**Sterile**	25 x 20	**1CAX.1**	500 unit(s)	31,40

Pasteur/disposable pipettes

3 ml

For sample preparation in chromatography (autosampler vials 2 ml). For handling reagents, for microscope slide examinations. Suitable for filling and heat sealing for the purpose of storing liquids.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.2	7.7	1 / 2 / 3	155	7.9	47	21	Non-sterile	1 x 500	**1CAY.1**	500 unit(s)	20,50
3	3.2	7.7	1 / 2 / 3	155	7.9	47	21	**Sterile**	500 x 1	**1CC0.1**	500 unit(s)	49,50
3	3.2	7.7	1 / 2 / 3	155	7.9	47	21	**Sterile**	25 x 20	**1CC1.1**	500 unit(s)	32,65

5 ml

For dispensing larger liquid volumes and quickly transferring media. Suitable for filling and heat sealing for the purpose of storing liquids.

Vol. (ml)	Filling capacity (ml)	Total volume (l)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
5	7.4	13.7	1 / 2 / 3 / 4 / 5	217	3.0	52	19	Non-sterile	1 x 250	**1CC2.1**	250 unit(s)	15,50

Pasteur pipettes with folding bellows graduated

Kartell. Material: PE.

Dropping pipettes for use in laboratory analytics.

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Ø Inner outlet (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
1.5	0,5-1,5	134	8	2	Non-sterile	1 x 100	**TT22.1**	100 unit(s)	17,20
5	1-5	195	5.5	1.5	Non-sterile	1 x 100	**TT23.1**	100 unit(s)	19,65

Serological pipettes ROTILABO®

ROTH SELECTION. Material: PS, Plug made of polyester fibre. **Sterile**.

- Easy-to-read graduation
- With additional reverse graduation
- RNase/DNase-free and not pyrogenic

S

Not a medical device / Not an IVD product

Vol. (ml)	Filling capacity (ml)	Graduations (ml)	Total length (mm)	Ø ext. (mm)	Outer tip Ø (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
1	1.04	0.01	279	4.7	3.4	**Sterile**	10 x (100 x 1)	**N231.2**	1,000 unit(s)	129,85
1	1.04	0.01	279	4.7	3.4	**Sterile**	40 x 25	**N232.1**	1,000 unit(s)	113,85
2	2.08	0.01	270	5.5	3.7	**Sterile**	10 x (100 x 1)	**N236.2**	1,000 unit(s)	138,35
2	2.08	0.01	270	5.5	3.7	**Sterile**	40 x 25	**N237.1**	1,000 unit(s)	117,95
5	7.5	0.1	348	8	3.4	**Sterile**	4 x (50 x 1)	**N239.2**	200 unit(s)	47,60
10	13	0.1	347	10	3.35	**Sterile**	4 x (50 x 1)	**N242.1**	200 unit(s)	50,70
10	13	0.1	347	10	3.35	**Sterile**	20 x 25	**N243.2**	500 unit(s)	110,00
25	32	0.25	311	15	4.8	**Sterile**	4 x (50 x 1)	**N245.1**	200 unit(s)	126,45
50	60	1	368	18	5.5	**Sterile**	4 x (25 x 1)	**ET25.2**	100 unit(s)	197,80

Pasteur/disposable pipettes

Serological pipettes CELLSTAR®

Greiner Bio-One. Material: PS, Polyester plugs. **Sterile**.

- Maximum accuracy
- High visual transparency
- Easy-to-read graduation
- Pipette tip design guarantees pipetting without droplets
- Increased volume capacity thanks to the extended negative graduation
- Fitted with a synthetic filter to prevent liquids from being drawn into the pipette
- Pipette colour code according to international standards for easy identification
- Expiration date and lot number printed on each individual piece of packaging
- Individually packed in plastic/plastic packaging with a peel-off function
- **Free of detectable DNase, RNase and human DNA**
- **Free of detectable endotoxins, free of cytotoxic substances**

S

Not a medical device / Not an IVD product

Vol. (ml)	Filling capacity (ml)	Graduations (ml)	Total length (mm)	Ø ext. (mm)	Outer tip Ø (mm)	Colour coding	Sterility	Pack.	Art. No.	Pack Qty.	€
1	1.25	0.01	277	4.55	2.75	yellow	**Sterile**	10 x (100 x 1)	**1A74.1**	1,000 unit(s)	302,10
2	2.5	0.01	277	5.65	4.05	green	**Sterile**	10 x (100 x 1)	**1A75.1**	1,000 unit(s)	268,75
5	7.5	0.1	336.5	8	3.05	blue	**Sterile**	4 x (50 x 1)	**1A76.1**	200 unit(s)	72,60
10	13	0.1	340	9.5	3.2	orange	**Sterile**	4 x (50 x 1)	**1A77.1**	200 unit(s)	77,75
25	35	0.2	343	14.3	4.76	red	**Sterile**	4 x (50 x 1)	**1A78.1**	200 unit(s)	121,30
50	60	0.5	343	18.1	5.3	violet	**Sterile**	5 x (20 x 1)	**1A79.1**	100 unit(s)	144,10

Short shape

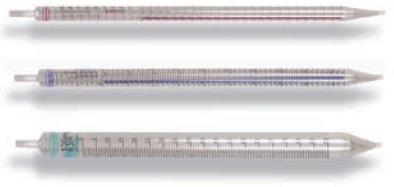
Short shape pipettes enable users to work comfortably and without straining their back. Practical for use at low heights, e.g. under the flow cabinet.

Vol. (ml)	Filling capacity (ml)	Graduations (ml)	Total length (mm)	Ø ext. (mm)	Outer tip Ø (mm)	Colour coding	Sterility	Pack.	Art. No.	Pack Qty.	€
5	8	0.1	221	9.5	3.2	blue	**Sterile**	4 x (50 x 1)	**1A7A.1**	200 unit(s)	222,55
10	20	0.2	221	14.3	4.76	orange	**Sterile**	4 x (50 x 1)	**1A7C.1**	200 unit(s)	308,55

Serological pipettes

Bürkle. Material: PS. **Sterile**.

For aqueous solutions.



S

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Pack.	Art. No.	Pack Qty.	€
25	**Sterile**	50 x 1	**CPP2.1**	50 unit(s)	122,10
50	**Sterile**	25 x 1	**CPP3.1**	25 unit(s)	105,75
100	**Sterile**	10 x 1	**CPP4.1**	10 unit(s)	232,20

Pasteur/disposable pipettes

Serological pipettes ROTILABO® large opening

ROTH SELECTION. Material: PS, Plug made of polyester fibre. **Sterile**.

For pepitting viscose liquids, for the cell cutlure.

- Easy-to-read graduation
- RNase-/DNase-free, non-pyrogenic, non-cytotoxic and non-haemolytic

S

Not a medical device / Not an IVD product

Vol. (ml)	Graduations (ml)	Sterility	Pack.	Art. No.	Pack Qty.	€
10	0.1	**Sterile**	individually	**ET30.1**	200 unit(s)	49,75

Demeter pipettes sterile

ROTH SELECTION. Material: PS, Plug made of polyester fibre. **Sterile**.

Dilution pipettes for bacteriological examinations in food laboratories and in the dairy products industry.

- RNase/DNase-free, not pyrogenic

S

Not a medical device / Not an IVD product

Vol. (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Outer tip Ø (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
2.2	1,0 / 2,0 / 2,1 / 2,2	282.5	6.3	3.7	**Sterile**	40 x 25	**NA44.1**	1,000 unit(s)	112,65

Graduated pipettes plastic

Vitlab. Material: PP.

- Blue graduated
- EX calibrated
- Shatter-proof

Cleaning with low alkaline cleaning agents is recommended up to a max. temperature of 60 °C in order to avoid changes in volume.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Ø Outer upper (mm)	Art. No.	Pack Qty.	€
1	0,1	±0,02	300	8	**XY57.1**	12 unit(s)	162,35
2	0,1	±0,02	300	8	**XY58.1**	12 unit(s)	165,55
5	0,1	±0,05	330	8	**XY59.1**	12 unit(s)	170,95
10	0,1	±0,10	330	10	**XY60.1**	12 unit(s)	210,70
10	0,1	±0,10	320	8	**XY61.1**	12 unit(s)	278,45

Bulb / graduated pipettes

Bulb pipettes plastic

Vitlab. Material: PP.

- Blue graduated
- EX calibrated
- Shatter-proof

Cleaning with low alkaline cleaning agents is recommended up to a max. temperature of 60 °C in order to avoid changes in volume.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Art. No.	Pack Qty.	€
1	±0,02	300	**YA06.1**	12 unit(s)	157,35
2	±0,02	300	**YA07.1**	12 unit(s)	168,80
5	±0,03	300	**YA08.1**	6 unit(s)	152,55
10	±0,04	440	**YA09.1**	6 unit(s)	156,35
25	±0,05	450	**YA10.1**	6 unit(s)	168,80
50	±0,10	460	**YA11.1**	6 unit(s)	174,15

Suction piston graudated pipette

Hirschmann. Material: AR-GLAS®.

With main-point ring graduation, graduated up to the tip.

- Brown graduated
- Upper zero point

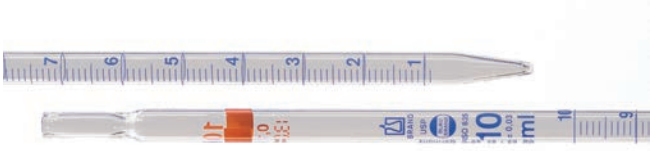
Vol. (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,01	**T742.1**	1 unit(s)	21,35
2	0,02	**T743.1**	1 unit(s)	21,75
5	0,05	**T744.1**	1 unit(s)	25,55
10	0,1	**T745.1**	1 unit(s)	27,45
20	0,1	**T746.1**	1 unit(s)	34,05
25	0,1	**T747.1**	1 unit(s)	35,30
50	0,2	**T748.1**	1 unit(s)	65,35

Graduated pipettes BLAUBRAND® type 2 class AS, USP

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Graduation and inscriptions in high-contrast blue enamel paint.

- Blue graduated
- Upper nominal capacity
- Calibrated to 'Ex'
- Total delivery
- DE-M approved



A 121 °C

Total length ± 10 mm. HXN1.1: limit of error USP ±0.01 ml.

Delivery incl. USP batch certificate.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
1	0,01	± 0,007 USP	360	Yes	DIN EN ISO 835	**HXN1.1**	12 unit(s)	74,30
2	0,02	± 0,01 USP	360	Yes	DIN EN ISO 835	**HXN2.1**	12 unit(s)	74,30
5	0,05	± 0,02 USP	360	Yes	DIN EN ISO 835	**HXN3.1**	12 unit(s)	87,05
10	0,1	± 0,03 USP	360	Yes	DIN EN ISO 835	**HXN4.1**	12 unit(s)	87,05

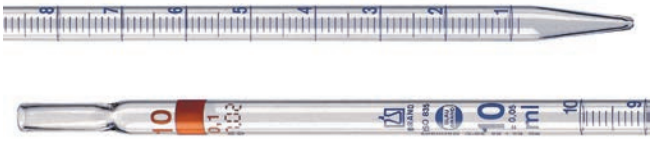
Bulb / graduated pipettes

Graduated pipettes BLAUBRAND® type 2 class AS

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Graduation and inscriptions in high-contrast blue enamel paint.

- Blue graduated
- Upper nominal capacity
- Calibrated to 'Ex'
- Total delivery
- DE-M approved*



A 121 °C

Total length ± 10 mm. *HXK9.1 not DE-M marked.

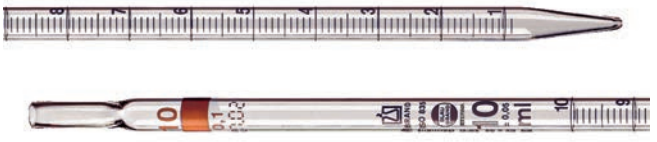
Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.5	0,01	± 0,006	360	No	DIN EN ISO 835	**HXK5.1**	12 unit(s)	81,35
1	0,01	± 0,007	360	No	DIN EN ISO 835	**HXK6.1**	12 unit(s)	64,10
1	0,01	± 0,007	360	Yes	DIN EN ISO 835	**HXK7.1**	12 unit(s)	84,15
1	0,1	± 0,007	360	No	DIN EN ISO 835	**HXK8.1**	12 unit(s)	64,10
2	0,01	± 0,010	360	No	in addition	**HXK9.1**	12 unit(s)	90,65
2	0,02	± 0,010	360	No	DIN EN ISO 835	**HXL0.1**	12 unit(s)	64,10
2	0,02	± 0,010	360	Yes	DIN EN ISO 835	**HXL1.1**	12 unit(s)	84,15
2	0,1	± 0,010	360	No	DIN EN ISO 835	**HXL2.1**	12 unit(s)	64,10
5	0,05	± 0,030	360	Yes	DIN EN ISO 835	**HXL3.1**	12 unit(s)	77,20
5	0,1	± 0,030	360	Yes	DIN EN ISO 835	**HXL4.1**	12 unit(s)	74,95
10	0,1	± 0,05	360	Yes	DIN EN ISO 835	**HXL5.1**	12 unit(s)	77,20
20	0,1	± 0,1	360	Yes	DIN EN ISO 835	**HXL6.1**	6 unit(s)	78,35
25	0,1	± 0,1	450	Yes	DIN EN ISO 835	**HXL7.1**	6 unit(s)	78,35
50	0,5	± 0,2	450	Yes	in addition	**HXL8.1**	6 unit(s)	127,90

Graduated pipettes type 2 SILBERBRAND ETERNA class B

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Graduation and inscription in ETERNA permanent amber diffusion colour.

- Brown graduated
- Upper nominal capacity
- Calibrated to 'Ex'
- Total delivery



A 121 °C

Total length ±10 mm.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
1	0,01	± 0,007	360	No	DIN EN ISO 835	**HXN6.1**	12 unit(s)	47,80
2	0,01	± 0,010	360	No	in addition	**HXN9.1**	12 unit(s)	63,45
2	0,02	± 0,010	360	No	DIN EN ISO 835	**HXP0.1**	12 unit(s)	48,25
5	0,05	± 0,030	360	Yes	DIN EN ISO 835	**HXP3.1**	12 unit(s)	54,25
5	0,1	± 0,030	360	Yes	DIN EN ISO 835	**HXP4.1**	12 unit(s)	49,80
10	0,1	± 0,05	360	Yes	DIN EN ISO 835	**HXP5.1**	12 unit(s)	54,25
25	0,1	± 0,15	450	Yes	DIN EN ISO 835	**HXP7.1**	6 unit(s)	50,40

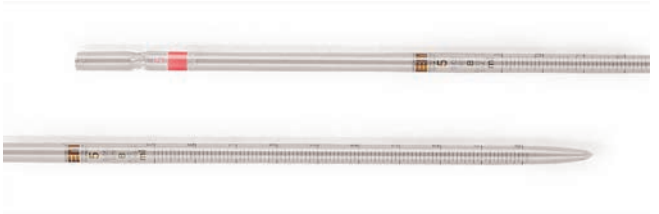
Bulb / graduated pipettes

Graduated pipettes type 3 class B

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

The volume displayed is achieved through normal draining of the graduated pipette. Graduated up to the tip.

- Brown graduated
- Upper zero point
- EX calibrated



A 121 °C

Total length ±5 mm.

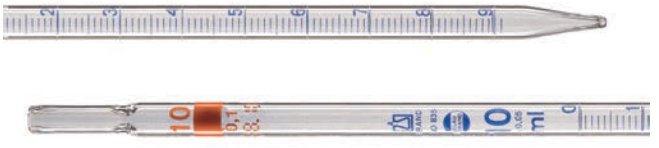
Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.5	0,01	±0,0075	360	No	in addition	**E941.1**	12 unit(s)	38,15
1	0,01	±0,01	360	No	DIN EN ISO 835	**E942.1**	12 unit(s)	33,70
2	0,02	±0,015	360	No	DIN EN ISO 835	**E943.1**	12 unit(s)	33,70
5	0,05	±0,045	360	Yes	DIN EN ISO 835	**E944.1**	12 unit(s)	48,50
5	0,1	±0,045	360	Yes	in addition	**E945.1**	12 unit(s)	38,95
10	0,1	±0,075	360	Yes	DIN EN ISO 835	**E946.1**	12 unit(s)	42,50
20	0,1	±0,15	360	Yes	in addition	**E947.1**	6 unit(s)	35,65
25	0,1	±0,15	450	Yes	DIN EN ISO 835	**E948.1**	6 unit(s)	40,15
50	0,2	±0,30	450	Yes	in addition	**E949.1**	6 unit(s)	65,85

Graduated pipettes BLAUBRAND® type 3 class AS

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Graduation and inscription in high-contrast blue enamel paint

- Blue graduated
- Upper zero point
- Calibrated to 'Ex'
- Total delivery
- DE-M approved*



A 121 °C

Total length ± 10 mm. *HXT2.1: not DE-M marked.

Delivery incl. Batch certificate

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.5	0,01	± 0,006	360	No	DIN EN ISO 835	**HXP8.1**	12 unit(s)	81,35
1	0,01	± 0,007	360	No	DIN EN ISO 835	**HXP9.1**	12 unit(s)	64,10
1	0,01	± 0,007	360	Yes	DIN EN ISO 835	**HXT0.1**	12 unit(s)	99,50
1	0,1	± 0,007	360	No	DIN EN ISO 835	**HXT1.1**	12 unit(s)	64,10
2	0,01	± 0,010	360	No	in addition	**HXT2.1**	12 unit(s)	83,35
2	0,02	± 0,010	360	No	DIN EN ISO 835	**HXT3.1**	12 unit(s)	64,10
2	0,02	± 0,010	360	Yes	DIN EN ISO 835	**HXT4.1**	12 unit(s)	99,50
2	0,1	± 0,010	360	No	DIN EN ISO 835	**HXT5.1**	12 unit(s)	64,10
5	0,05	± 0,030	360	Yes	DIN EN ISO 835	**HXT6.1**	12 unit(s)	76,85
5	0,1	± 0,030	360	Yes	DIN EN ISO 835	**HXT7.1**	12 unit(s)	74,95
10	0,1	± 0,05	360	Yes	DIN EN ISO 835	**HXT8.1**	12 unit(s)	76,85
20	0,1	± 0,1	360	Yes	DIN EN ISO 835	**HXT9.1**	6 unit(s)	78,75
25	0,1	± 0,1	450	Yes	DIN EN ISO 835	**HXX0.1**	6 unit(s)	78,75
50	0,5	± 0,2	450	Yes	in addition	**HXX1.1**	6 unit(s)	127,90

Bulb / graduated pipettes

Graduated pipettes type 3, class AS

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

With main-point ring graduation, graduated up to the tip.

- Blue graduated
- Upper zero point
- EX calibrated
- Conformity certified
- With dated batch code

A 121 °C

Total length ±5 mm.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.5	0,01	±0,005	360	No	DIN EN ISO 835	**E950.1**	12 unit(s)	51,85
1	0,01	±0,007	360	No	DIN EN ISO 835	**E951.1**	12 unit(s)	51,50
2	0,02	±0,01	360	No	DIN EN ISO 835	**E952.1**	12 unit(s)	51,50
5	0,05	±0,03	360	Yes	DIN EN ISO 835	**E953.1**	12 unit(s)	57,65
5	0,1	±0,03	360	Yes	in addition	**E954.1**	12 unit(s)	56,20
10	0,1	±0,05	360	Yes	DIN EN ISO 835	**E955.1**	12 unit(s)	57,65
20	0,1	±0,1	360	Yes	in addition	**E956.1**	6 unit(s)	54,65
25	0,1	±0,1	450	Yes	DIN EN ISO 835	**E957.1**	6 unit(s)	56,40
50	0,2	±0,2	450	Yes	in addition	**E958.1**	6 unit(s)	100,85

Small pack

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
1	0,01	±0,007	360	No	DIN EN ISO 835	**E951.2**	6 unit(s)	45,90
2	0,02	±0,01	360	No	DIN EN ISO 835	**E952.2**	6 unit(s)	46,40
5	0,05	±0,03	360	Yes	DIN EN ISO 835	**E953.2**	6 unit(s)	53,90
10	0,1	±0,05	360	Yes	DIN EN ISO 835	**E955.2**	6 unit(s)	53,20
20	0,1	±0,1	360	Yes	in addition	**E956.2**	3 unit(s)	51,55
25	0,1	±0,1	450	Yes	DIN EN ISO 835	**E957.2**	3 unit(s)	51,55
50	0,2	±0,2	450	Yes	in addition	**E958.2**	3 unit(s)	88,30

Graduated pipettes type 3 class AS

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

With main-point ring graduation, graduated up to the tip. Graduated with permanent silver diffusion colour.

- Brown graduated
- Upper zero point
- Calibrated to Ex
- Conformity certified
- With dated batch code

A 121 °C

Total length ±5 mm.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.5	0,01	±0,005	360	No	DIN EN ISO 835	**AH36.1**	12 unit(s)	68,45
1	0,01	±0,007	360	No	DIN EN ISO 835	**AH37.1**	12 unit(s)	59,70
2	0,02	±0,01	360	No	DIN EN ISO 835	**AH38.1**	12 unit(s)	59,70
5	0,05	±0,03	360	Yes	DIN EN ISO 835	**AH39.1**	12 unit(s)	67,25
5	0,1	±0,03	360	Yes	in addition	**AH40.1**	12 unit(s)	66,40
10	0,1	±0,05	360	Yes	DIN EN ISO 835	**AH41.1**	12 unit(s)	67,25
20	0,1	±0,1	360	Yes	in addition	**AH42.1**	6 unit(s)	66,55
25	0,1	±0,1	450	Yes	DIN EN ISO 835	**AH43.1**	6 unit(s)	67,95
50	0,2	±0,2	450	Yes	in addition	**AH44.1**	6 unit(s)	117,55

Bulb / graduated pipettes

Graduated pipettes BLAUBRAND® sprue class A

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Graduation and inscriptions in high-contrast blue enamel paint.

- Blue graduated
- Upper nominal capacity
- Calibrated to 'In'
- Total delivery
- Limits of error and tolerances according to DIN 12689
- DE-M approved

A 121 °C

Total length ±10 mm.

Delivery incl. batch certificate.

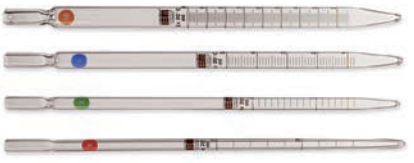
Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.1	0,001	± 0,001	360	No	DIN 12689	**HXL9.1**	12 unit(s)	85,80
0.2	0,002	± 0,002	360	No	DIN 12689	**HXN0.1**	12 unit(s)	85,80

Graduated pipettes for tissue cultures

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

With main-point ring graduation. Short shape for use in sterile benches.

- Brown graduated
- Botton zero point
- Calibrated to Ex



A 121 °C

Total length ±3 mm.

Vol. (ml)	Graduation (ml)	Total length (mm)	Cotton stopper end	Art. No.	Pack Qty.	€
1	0,1	230	Yes	**X157.1**	12 unit(s)	73,65
2	0,1	230	Yes	**X158.1**	12 unit(s)	73,65
5	0,1	230	Yes	**X159.1**	12 unit(s)	73,65
10	0,1	230	Yes	**X160.1**	12 unit(s)	88,65
25	0,2	230	Yes	**X162.1**	12 unit(s)	143,85

Cotton cord for pipettes

BRAND. Material: Cotton 100 %, degreased.

Light version (approx. 13 g/10 m).

Cotton stoppers can extend the draining time and thus affect the accuracy of the measurement. The results of tests using pipettes that were stoppered in cotton stopper machines were within the specified limits of error.

Version	Art. No.	Pack Qty.	€
Cotton cord	**HYE6.1**	1 kg	103,75

Bulb / graduated pipettes

Graduated pipettes wide opening

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

With wide opening for tissue cultures or viscous media.

- Brown graduated
- Zero point at the top, graduated to the tip

A 121 °C

Total length ±5 mm.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Art. No.	Pack Qty.	€
1	0,01	±0,01	360	No	**HLC3.1**	12 unit(s)	96,75
2	0,02	±0,015	360	No	**HLC4.1**	12 unit(s)	96,75
5	0,1	±0,045	360	Yes	**HLC5.1**	12 unit(s)	99,90
10	0,1	±0,075	360	Yes	**HLC6.1**	12 unit(s)	111,10
25	0,1	±0,15	450	Yes	**HLC7.1**	6 unit(s)	103,90

Bulb pipettes BLAUBRAND® 1 mark class AS

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Ring marking and inscription in high-contrast blue enamel paint.

- Calibrated to 'Ex'
- Waiting time of 5 s
- DE-M approved

A 121 °C

Total length ±10 mm (HYE5.1 ±15 mm).

Delivery incl. batch certificate.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
0.5	± 0,005	300	DIN EN ISO 648	**HYA7.1**	12 unit(s)	77,40
1	± 0,008	300	DIN EN ISO 648	**HYA8.1**	12 unit(s)	64,70
2	± 0,010	330	DIN EN ISO 648	**HYA9.1**	12 unit(s)	64,70
2.5	± 0,010	330	DIN EN ISO 648	**HYC0.1**	6 unit(s)	43,60
3	± 0,010	330	DIN EN ISO 648	**HYC1.1**	6 unit(s)	36,50
4	± 0,015	400	DIN EN ISO 648	**HYC2.1**	6 unit(s)	42,25
5	± 0,015	400	DIN EN ISO 648	**HYC3.1**	6 unit(s)	39,35
6	± 0,015	400	DIN EN ISO 648	**HYC4.1**	6 unit(s)	54,20
7	± 0,015	400	DIN EN ISO 648	**HYC5.1**	6 unit(s)	54,60
8	± 0,02	440	DIN EN ISO 648	**HYC6.1**	6 unit(s)	54,60
9	± 0,02	440	DIN EN ISO 648	**HYC7.1**	6 unit(s)	54,20
10	± 0,02	440	DIN EN ISO 648	**HYC8.1**	6 unit(s)	42,90
15	± 0,03	510	DIN EN ISO 648	**HYC9.1**	6 unit(s)	54,20
20	± 0,03	510	DIN EN ISO 648	**HYE0.1**	6 unit(s)	54,70
25	± 0,03	520	DIN EN ISO 648	**HYE1.1**	6 unit(s)	55,65
30	± 0,03	520	DIN EN ISO 648	**HYE2.1**	6 unit(s)	64,35
40	± 0,05	540	DIN EN ISO 648	**HYE3.1**	6 unit(s)	80,25
50	± 0,05	540	DIN EN ISO 648	**HYE4.1**	6 unit(s)	73,60
100	± 0,08	585	DIN EN ISO 648	**HYE5.1**	6 unit(s)	101,60

Bulb / graduated pipettes

Bulb pipettes BLAUBRAND® ETERNA 1 mark class AS

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Ring markings and inscriptions in ETERNA permanent amber diffusion colour

- Calibrated to 'Ex'
- Waiting time of 5 s
- DE-M approved

A 121 °C

Total length ±10 mm.

Delivery incl. batch certificate.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
1	± 0,008	300	DIN EN ISO 648	**HXX2.1**	12 unit(s)	64,70
2	± 0,010	330	DIN EN ISO 648	**HXX3.1**	12 unit(s)	64,70
5	± 0,015	400	DIN EN ISO 648	**HXX4.1**	6 unit(s)	41,50
10	± 0,02	440	DIN EN ISO 648	**HXX5.1**	6 unit(s)	42,90
20	± 0,03	510	DIN EN ISO 648	**HXX6.1**	6 unit(s)	54,70
25	± 0,03	520	DIN EN ISO 648	**HXX7.1**	6 unit(s)	55,65
50	± 0,05	540	DIN EN ISO 648	**HXX8.1**	6 unit(s)	73,60

Bulb pipettes BLAUBRAND® 1 mark class AS, USP

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Ring marking and inscription in high-contrast blue enamel paint.

- Calibrated to 'Ex'
- Waiting time of 5 s
- DE-M approved

A 121 °C

Total length ± 10 mm (HYA6.1 ± 15 mm). HXX9.1: limit of error USP ±0.006 ml.

Delivery incl. USP batch certificate.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
0.5	± 0,005	300	DIN EN ISO 648	**HXX9.1**	12 unit(s)	98,70
1	± 0,008	300	DIN EN ISO 648	**HXY0.1**	12 unit(s)	77,40
2	± 0,010	330	DIN EN ISO 648	**HXY1.1**	12 unit(s)	77,40
3	± 0,010	330	DIN EN ISO 648	**HXY2.1**	6 unit(s)	47,45
4	± 0,015	400	DIN EN ISO 648	**HXY3.1**	6 unit(s)	55,35
5	± 0,015	400	DIN EN ISO 648	**HXY4.1**	6 unit(s)	47,45
6	± 0,015	400	DIN EN ISO 648	**HXY5.1**	6 unit(s)	65,35
7	± 0,015	400	DIN EN ISO 648	**HXY6.1**	6 unit(s)	65,35
8	± 0,02	440	DIN EN ISO 648	**HXY7.1**	6 unit(s)	65,35
9	± 0,02	440	DIN EN ISO 648	**HXY8.1**	6 unit(s)	65,35
10	± 0,02	440	DIN EN ISO 648	**HXY9.1**	6 unit(s)	49,15
15	± 0,03	510	DIN EN ISO 648	**HYA0.1**	6 unit(s)	60,85
20	± 0,03	510	DIN EN ISO 648	**HYA1.1**	6 unit(s)	61,50
25	± 0,03	520	DIN EN ISO 648	**HYA2.1**	6 unit(s)	62,65
30	± 0,03	520	DIN EN ISO 648	**HYA3.1**	6 unit(s)	72,95
40	± 0,05	540	DIN EN ISO 648	**HYA4.1**	6 unit(s)	89,70
50	± 0,05	540	DIN EN ISO 648	**HYA5.1**	6 unit(s)	82,35
100	± 0,08	585	DIN EN ISO 648	**HYA6.1**	6 unit(s)	114,25

Bulb / graduated pipettes

Bulb pipettes 1 mark class AS

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

Ring marking and brown marking (resistant silver-diffusion colour).

- Calibrated to EX
- Conformity certified
- With dated batch code

A 121 °C

Total length ±10 mm.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
0.5	±0,005	325	DIN EN ISO 648	**AC84.1**	12 unit(s)	62,95
1	±0,008	325	DIN EN ISO 648	**AC85.1**	12 unit(s)	62,95
2	±0,01	350	DIN EN ISO 648	**AC86.1**	12 unit(s)	62,65
3	±0,01	350	in addition	**AC87.1**	6 unit(s)	36,00
4	±0,015	410	in addition	**AC88.1**	6 unit(s)	40,90
5	±0,015	410	DIN EN ISO 648	**AC89.1**	6 unit(s)	39,65
10	±0,02	450	DIN EN ISO 648	**AC90.1**	6 unit(s)	44,10
15	±0,03	520	in addition	**AC91.1**	6 unit(s)	46,45
20	±0,03	520	DIN EN ISO 648	**AC92.1**	6 unit(s)	55,60
25	±0,03	530	DIN EN ISO 648	**AC93.1**	6 unit(s)	55,80
30	±0,03	530	in addition	**AC94.1**	6 unit(s)	64,95
40	±0,05	550	in addition	**AH33.1**	6 unit(s)	71,65
50	±0,05	550	DIN EN ISO 648	**AH34.1**	6 unit(s)	71,10
100	±0,08	600	DIN EN ISO 648	**AH35.1**	6 unit(s)	99,75

Bulb pipettes 2 marks class AS

Hirschmann. Material: AR-GLAS®.

With two volume markings, lower marking as zero point. Ring markings and brown labelling (resistant silver-diffusion colour).

- Partial drain, volumetric measurement between both markings
- For media with special draining behaviour
- Conformity certified

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
0.5	±0,005	300	DIN EN ISO 648	**HLC8.1**	12 unit(s)	73,10
1	±0,008	325	DIN EN ISO 648	**HLC9.1**	12 unit(s)	73,10
2	±0,01	350	DIN EN ISO 648	**HLE0.1**	12 unit(s)	101,25
3	±0,01	350	in addition	**HLE1.1**	6 unit(s)	53,30
5	±0,015	410	DIN EN ISO 648	**HLE2.1**	6 unit(s)	59,20
10	±0,02	450	DIN EN ISO 648	**HLE3.1**	6 unit(s)	64,05
15	±0,03	520	in addition	**HLE4.1**	6 unit(s)	75,55
20	±0,03	520	DIN EN ISO 648	**HLE5.1**	6 unit(s)	81,10
25	±0,03	530	DIN EN ISO 648	**HLE6.1**	6 unit(s)	81,10
50	±0,05	550	DIN EN ISO 648	**HLE7.1**	6 unit(s)	95,60
100	±0,08	600	DIN EN ISO 648	**HLE8.1**	6 unit(s)	132,60

Bulb / graduated pipettes

Bulb pipettes 1 mark, class AS

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

Blue ring marking and labelling.

- EX calibrated
- Conformity certified
- With dated batch code

A 121 °C

Total length ±10 mm.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
1	±0,008	325	DIN EN ISO 648	**E972.1**	12 unit(s)	59,85
2	±0,01	350	DIN EN ISO 648	**E973.1**	12 unit(s)	64,35
2.5	±0,01	350	DIN EN ISO 648	**HLH7.1**	6 unit(s)	46,50
3	±0,01	350	in addition	**E974.1**	6 unit(s)	34,80
5	±0,015	410	DIN EN ISO 648	**E976.1**	6 unit(s)	39,15
10	±0,02	450	DIN EN ISO 648	**E977.1**	6 unit(s)	42,75
15	±0,03	520	in addition	**E978.1**	6 unit(s)	43,70
20	±0,03	520	DIN EN ISO 648	**E979.1**	6 unit(s)	51,65
25	±0,03	530	DIN EN ISO 648	**E980.1**	6 unit(s)	53,05
50	±0,05	550	DIN EN ISO 648	**E983.1**	6 unit(s)	70,45
100	±0,08	600	DIN EN ISO 648	**E984.1**	6 unit(s)	92,90

Small pack

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
1	±0,008	325	DIN EN ISO 648	**E972.2**	6 unit(s)	52,65
2	±0,01	350	DIN EN ISO 648	**E973.2**	6 unit(s)	52,65
5	±0,015	410	DIN EN ISO 648	**E976.2**	3 unit(s)	27,95
10	±0,02	450	DIN EN ISO 648	**E977.2**	3 unit(s)	32,65
20	±0,03	520	DIN EN ISO 648	**E979.2**	3 unit(s)	39,60
25	±0,03	530	DIN EN ISO 648	**E980.2**	3 unit(s)	40,30
50	±0,05	550	DIN EN ISO 648	**E983.2**	3 unit(s)	49,90
100	±0,08	600	DIN EN ISO 648	**E984.2**	3 unit(s)	68,45

Bulb pipettes 1 mark class B

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

Ring marking and brown marking (resistant silver-diffusion colour).

- EX calibrated

A 121 °C

Total length ±10 mm.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
1	±0,012	325	DIN EN ISO 648	**E960.1**	12 unit(s)	45,55
2	±0,015	350	DIN EN ISO 648	**E961.1**	12 unit(s)	52,60
5	±0,023	410	DIN EN ISO 648	**E964.1**	6 unit(s)	31,55
10	±0,03	450	DIN EN ISO 648	**E965.1**	6 unit(s)	39,60
20	±0,045	520	DIN EN ISO 648	**E967.1**	6 unit(s)	48,55
25	±0,045	530	DIN EN ISO 648	**E968.1**	6 unit(s)	49,95
50	±0,075	550	DIN EN ISO 648	**E969.1**	6 unit(s)	60,25
100	±0,12	600	DIN EN ISO 648	**E970.1**	6 unit(s)	83,60

Manual pipetting aids

Pipetting ball ROTILABO®

ROTH SELECTION. Material: Natural rubber.

Glass ball valve is opened by pressing marked point.

Standard model

Length: 125 mm, Weight: 50 g.

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes up to 10 ml	**0251.1**	1 unit(s)	8,15

Universal model

Matches pipettes Ø up to 9 mm. Length: 152 mm, Weight: 58 g.

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes up to 100 ml	**PC78.1**	1 unit(s)	7,35

Accessories adapter for pipetting bulbs

NEW / +

ROTH SELECTION. Material: Natural rubber.

For securely holding pipettes with a small diameter in pipetting bulbs. Suitable, e.g. for small bulb pipettes.

Colour	Art. No.	Pack Qty.	€
red	**1L10.1**	15 unit(s)	29,20

Pipetting ball ROTILABO® Flip

ROTH SELECTION. Material: Natural rubber.

Suitable for pipettes Ø 6–8 mm.

- With removal safety valve
- Evacuation via automatic valve
- Aspiration and draining using two working points
- Interior cleaning possible

Version	Suitable for	Colour	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes 10-100 ml	red	**C261.1**	1 unit(s)	10,50
manually	Graduated/volumetric pipettes 10-100 ml	yellow	**C262.1**	1 unit(s)	11,20
manually	Graduated/volumetric pipettes 10-100 ml	green	**C263.1**	1 unit(s)	11,20
manually	Graduated/volumetric pipettes 10-100 ml	blue	**C264.1**	1 unit(s)	11,20

Set

Sorted by colour: red, yellow, green, blue.

Version	Suitable for	Colour	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes 10-100 ml	assorted colours	**ETY6.1**	4 unit(s)	42,00

Manual pipetting aids

Pipetting bulb Howorka

ROTH SELECTION. Material: Natural rubber.

Manual pipette controller for Pasteur, graduated and volumetric pipettes for all common pipe diameters. Resistant to the effects of acids, bases, oils and solvents in the short term.

- Easy to operate with a special opening for an immediate sealing effect
- No additional valves or disruptive air cushions
- Almost no limit to the suction volume with multiple repetitions of the suction process
- After suction via the meniscus, the bulb is lifted and the pointer indicates the calibration mark
- Easy to clean
- Individual parts are autoclavable

Applications:

- Pipetting aqueous media, organic solvents and viscous substances
- Filling narrow-necked burettes
- Filling, emptying and cleaning separating columns
- Filling and emptying capillaries
- Filtering through filter tubes

Version	Vol. (ml)	Suitable for	Art. No.	Pack Qty.	€
manually	20	Graduated/volumetric pipettes up to 20 ml	**KKK6.1**	1 unit(s)	23,15
manually	50	Graduated/volumetric pipettes up to 50 ml	**KKK7.1**	1 unit(s)	26,70

Pipette bulb

ROTH SELECTION. Material: PVC.

Version	Vol. (ml)	Suitable for	Ball Ø (mm)	Ø Hole (mm)	Art. No.	Pack Qty.	€
manually	5	Pasteur pipettes, graduated/volumetric pipettes up to 5 ml	25	6	**C260.1**	5 unit(s)	19,90
manually	7.5	Graduated/volumetric pipettes up to 5 ml	30	6	**H616.1**	5 unit(s)	24,90
manually	20	Graduated/volumetric pipettes up to 10 ml	42	6	**H617.1**	5 unit(s)	27,05
manually	30	Graduated/volumetric pipettes up to 25 ml	48	6	**H618.1**	5 unit(s)	36,10
manually	85	Graduated/volumetric pipettes up to 50 ml	62	6	**H619.1**	2 unit(s)	16,70
manually	140	Graduated/volumetric pipettes 10-100 ml	72	6	**H620.1**	2 unit(s)	22,80
manually	220	Graduated/volumetric pipettes 20-200 ml	84	6	**H621.1**	2 unit(s)	28,45
manually	340	Graduated/volumetric pipettes 20-200 ml	94	6	**H622.1**	1 unit(s)	17,50

Manual pipetting aids

Pipette bulb

ROTH SELECTION. Material: Natural rubber.

Nature

Version	Vol. (ml)	Suitable for	Colour	Ø Hole (mm)	Art. No.	Pack Qty.	€
manually	1.8	Pasteur pipettes	natural	5.5	**8404.1**	100 unit(s)	46,40

Red

Version	Vol. (ml)	Suitable for	Colour	Ø Hole (mm)	Art. No.	Pack Qty.	€
manually	5	Graduated/volumetric pipettes up to 5 ml	red	6	**ATN7.1**	5 unit(s)	16,05
manually	10	Graduated/volumetric pipettes up to 10 ml	red	6	**ATN8.1**	3 unit(s)	19,35
manually	2	Pasteur pipettes	red	5	**YX53.1**	100 unit(s)	66,45

Pipette bulb

ROTH SELECTION. Material: Silicone. Autoclavable: Yes.

A 121 °C

Version	Vol. (ml)	Suitable for	Ø Hole (mm)	Art. No.	Pack Qty.	€
manually	1	Pasteur pipettes	5	**C529.1**	10 unit(s)	16,25
manually	2	Pasteur pipettes	6	**C530.1**	5 unit(s)	12,55
manually	5	Graduated/volumetric pipettes up to 5 ml	8	**C531.1**	5 unit(s)	22,35
manually	10	Graduated/volumetric pipettes up to 10 ml	8	**C532.1**	5 unit(s)	36,45

Suction aid

ROTH SELECTION. Material: Silicone. Autoclavable: Yes.

Fatigue-free pipetting thanks to thin wall combined with soft silicone.

- Extra large volume of over 2 ml
- Anti-roll profile
- Oval body for better handling
- Insertion aid for the pipette

A 121 °C

Version	Vol. (ml)	Suitable for	Colour	Art. No.	Pack Qty.	€
Manual	2	Pasteur pipettes	anthracite	**1C9C.1**	100 unit(s)	106,95
Manual	2	Pasteur pipettes	red	**1C9E.1**	100 unit(s)	106,95
Manual	2	Pasteur pipettes	yellow	**1C9H.1**	100 unit(s)	106,95
Manual	2	Pasteur pipettes	blue	**1C9K.1**	100 unit(s)	106,95
Manual	2	Pasteur pipettes	turquoise	**1C9L.1**	100 unit(s)	106,95
Manual	2	Pasteur pipettes	pink	**1C9N.1**	100 unit(s)	106,95

Manual pipetting aids

Pipette bulb

Saint-Gobain. Material: Natural rubber.

Version	Vol. (ml)	Suitable for	Colour	Art. No.	Pack Qty.	€
manually	1	Pasteur pipettes	grey	**1C6N.1**	10 unit(s)	22,40
manually	2	Pasteur pipettes	grey	**1C6P.1**	10 unit(s)	26,30
manually	5	Graduated/volumetric pipettes up to 5 ml	grey	**1C6T.1**	10 unit(s)	42,70
manually	10	Graduated/volumetric pipettes up to 10 ml	grey	**1C6X.1**	10 unit(s)	69,30
manually	15	Graduated/volumetric pipettes up to 15 ml	grey	**1C6Y.1**	10 unit(s)	91,05

Pipetting aid

ROTH SELECTION. Material: Rubber, PE.

- With 3-point operation
- Can be dismantled for cleaning purposes
- Pull the head part to accelerate the aspiration speed

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes up to 50 ml	**C614.1**	1 unit(s)	32,25

Pipetting aid pi-pump 2500

ROTH SELECTION. Material: Plastic.

Thumbwheel for drawing and dispensing liquid.
Size 2-25 ml with venting lever for quick emptying.

Version	Size	Suitable for	Colour	Art. No.	Pack Qty.	€
manually	25	Graduated/volumetric pipettes up to 25 ml	red	**0387.1**	1 unit(s)	19,00
manually	10	Graduated/volumetric pipettes up to 10 ml	green	**0388.1**	1 unit(s)	16,85
manually	2	Graduated/volumetric pipettes up to 2 ml	blue	**0389.1**	1 unit(s)	16,85
manually	0	Graduated/volumetric pipettes up to 0,2 ml	yellow	**0390.1**	1 unit(s)	16,85

Manual pipetting aids

A 121 °C

Pipetting aid macro

BRAND. Autoclavable: Yes.

- Suction of up to 50 ml in 11 seconds following one-time ventilation
- Single-level operation for sucking and delivering liquid
- Spring-loaded control lever for delicate pipetting
- Blow-Out function
- Drip stop via hydrophobic membrane filter (3 µm)
- Fully autoclavable at 121 °C (2 bar) according to DIN EN 285
- Replaceable valve system

Effortless pipetting: The further up the pipette lever is operated, the faster the pipette is filled. To deliver the liquid, move the pipette lever fully downward. Even when flowing freely, the pipette's volume accuracy is not affected.

Delivery incl. replacement filter.

Version	Suitable for	Colour	Art. No.	Pack Qty.	€
manually	Graduated/ volumetric pipettes 0.1-200 ml	grey	**X478.1**	1 unit(s)	52,95
manually	Graduated/ volumetric pipettes 0.1-200 ml	blue	**X479.1**	1 unit(s)	52,95
manually	Graduated/ volumetric pipettes 0.1-200 ml	magenta	**X480.1**	1 unit(s)	52,95
manually	Graduated/ volumetric pipettes 0.1-200 ml	green	**X482.1**	1 unit(s)	52,95

Pipetting aid ROTILABO®

ROTH SELECTION.

Manual pipette controller for precise and convenient pipetting.

- Ergonomic grip
- With operating lever for liquid intake and delivery
- Blow-Out function for blowing out the pipette
- Pipette holder (made of PP) and silicone adapter, autoclavable
- Dimensions: Length 230 mm, ø 54 mm

Delivery incl. membrane filter to protect against ingress of liquids as well as two additional pipette holders in the colours green and white for colour-coding.

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes 1 to 100 ml, serological pipettes	**HYT0.1**	1 unit(s)	60,60

Pipetting aid ROTILABO® *ergo*

ROTH SELECTION.

Manual pipette controller for precise and convenient pipetting with one hand.

- Ergonomic grip
- With operating lever for liquid intake and delivery
- Blow-Out function for blowing out the pipette
- Pipette holder (made of PP) and silicone adapter, autoclavable
- Dimensions: length 180 mm, width 45 mm, height 120 mm

Delivery incl. membrane filter to protect against liquid penetration.

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes 1 to 50 ml, serological pipettes	**HYT1.1**	1 unit(s)	60,65

Pipetting aids

Pipetting aid pipetus® junior

Hirschmann.

Manual pipetting aid with ergonomic shape. Defined intake of the pipetting medium possible, approx. 2 ml per complete stroke.

- Silicone adapter ensure tight fit of the pipette
- Fine dosing valves
- Weight 115 g

Delivery incl. round filter (PTFE, pore width 0.2 µm, hydrophob).

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes 0.5–100 ml	**L468.1**	1 unit(s)	139,75

Pipetting aid pipetus® standard

Hirschmann.

Electric pipetting aid. Additional safety for special environments through separation of electric pump and handheld unit. Ideally suited for working in explosion-proof areas, with toxic reactants or in clean-room technology.

- Light handheld unit with external pump
- Select the pipetting speed directly at the pump part
- Ergonomic shape for fatigue-free working
- Suitable for EX and blow-out pipettes
- Exact meniscus setting with fine precision-dosing valves, valve pins made of ceramic compound
- Integrated safety check valve

Hose length 150 cm. cable length 140 cm.
Mains connection: 230 V, 50 Hz.

Delivery incl. round filter (PTFE, pore width 0.2 µm, hydrophob), hand part, dual hose and pump with power supply.

Version	Suitable for	Art. No.	Pack Qty.	€
with electric pump	Graduated/volumetric pipettes 0.1-100 ml	**1534.1**	1 unit(s)	274,15

With large-volume filter
With additional large capacity filter on the pump section for sterile work.

Version	Suitable for	Art. No.	Pack Qty.	€
with electric pump	Graduated/volumetric pipettes 0.1-100 ml	**B010.1**	1 unit(s)	292,40

Battery-powered pipette controller pipetus®

Hirschmann.

- Press a button to take up and discharge the medium
- Integrated colour display for visual checking of all functions
- Display of set pipetting speed (5 levels are selectable)
- Pre-selected pipetting mode (EX or Blow-Out)
- Exact meniscus setting with fine precision-dosing valves, valve pins made of ceramic compound
- Continuous pipetting for up to 1 week
- Permanent battery capacity display
- Charge via charging station or charger, overcharge protection
- Silicone adapter ensures absolute tight fit for all pipettes
- Integrated safety check valve
- Hydrophobic PTFE membrane filter, pore width 0,2 µm
- Pipette holder, sterilisable (excl. PTFE filter) at 121 °C
- Weight 200 g

Delivery incl. 2 round filters (PTFE, pore width 0.2 µm, hydrophob), 1 safety valve, socket charger and inductive charging station.

Version	Suitable for	Art. No.	Pack Qty.	€
battery-operated	Graduated/volumetric pipettes 0.1–200 ml	**N472.1**	1 unit(s)	428,95

Battery-powered pipette controller ROTILABO®

ROTH SELECTION.

Pipette holder made of PP, autoclavable. Replaceable PTFE membrane filter prevents contaminations.

- Ergonomically shaped housing for fatigue-free working
- UV-resistant housing material
- 2 pipetting speeds (High or Low Speed)
- Gravity mode, for non-motorised fluid drainage
- 20 h continuous duty, can be used while charging is in progress
- LED-based low battery indicator
- User friendly thanks to concave shaped finger pads
- With labelling space on the side
- Five coloured pipette holders for distinguishing between apparatus
- Additional pipette adapter for low pipetting volumes
- Weight approx. 200 g
- 5 years warranty

Delivery incl. power supply (100–240 V, 50/60 Hz), Li-Ion battery, 1 replacement membrane filters (PTFE 0.45 µm), 5 pipette holder, silicon adapter, stand, wall holder.

Version	Suitable for	Art. No.	Pack Qty.	€
Battery operated	Graduated/volumetric pipettes 1–100 ml	**TC16.1**	1 unit(s)	264,45

Battery-powered pipette controller accu-jet® S

NEW / +

BRAND.

Easy and precise pipetting of large and small volumes: With just one hand you have sensitive control of the pipetting speed, from fast, powerful absorption with exact meniscus configuration to precise discharge of even small volumes. Thanks to precise control, the exact volume required will always be achieved, even when using graduated and volumetric pipettes made of glass/plastic. Without having to move your hand, the motor speed can be regulated between particularly powerful and particularly sensitive operation and to switch between free flow (with "EX"-calibrated pipettes) or rapid blowing of the liquid with motor power.

- Precise volume adjustment thanks to accurate control
- Integrated parking position for rear storage with attached pipette
- Continuously-adjustable control of the pipetting speed
- Fast: 25 ml pipette filled in 3 s at max. motor speed
- 8 hours of continuous pipetting without recharging (with 10 ml pipette)
- Pipetting is possible during the loading cycle
- Two-tone battery charge indicator, intelligent battery charging electronics
- Ergonomic handle and balanced weight distribution
- Robust design, straightforward maintenance and repair
- Protection against ingress of liquid through the membrane filter and additional safety valve
- Valve system directs liquid vapour straight out of the device, reduces risk of corrosion

Note about sustainability:

The packaging is made from more than 90% recycled material. Production uses electricity from renewable sources.

With mains adapter

Delivery incl. universal mains adapter (100-240 V/50-60 Hz), nickel-metal hydride battery, wall bracket and 2 replacement membrane filters 0.2 µm, sterile.

Version	Suitable for	Colour	Art. No.	Pack Qty.	€
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	berry	**1LH0.1**	1 unit(s)	418,20
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	petrol	**1LH1.1**	1 unit(s)	418,20
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	amethyst	**1LH2.1**	1 unit(s)	417,10
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	anthracite	**1LH3.1**	1 unit(s)	418,20

Without mains adapter

Delivery without universal mains adapter, incl. nickel-metal hydride battery, wall bracket and 2 replacement membrane filters 0.2 µm, sterile.

Version	Suitable for	Colour	Art. No.	Pack Qty.	€
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	berry	**1LH4.1**	1 unit(s)	392,40
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	petrol	**1LH5.1**	1 unit(s)	392,40
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	amethyst	**1LH6.1**	1 unit(s)	392,40
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	anthracite	**1LH7.1**	1 unit(s)	392,40

Pipette accessories

Pipette rinsing system ROTILABO®

Kartell. Material: HDPE.

For gentle cleaning of pipettes according to the siphon principle. A complete rinsing system consist of a rinser unit and/or cleaning container as well as the pipette basket in each case.

Please order all individual elements separately.

(1) Rinser
With drain siphon for an automatic water exchange. Suitable for use with pipette baskets.

Delivery without hose.

Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Pipette length 460 mm	170	735	**Y810.1**	1 unit(s)	176,30
Pipette length 600 mm	170	990	**Y809.1**	1 unit(s)	181,70

(2) Cleaning container
For pre-cleaning the pipettes or burettes with cleaning agent.

Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Pipette length 460 mm	162	505	**Y812.1**	1 unit(s)	83,50
Pipette length 600 mm	162	650	**Y811.1**	1 unit(s)	83,50

(3) Pipette basket
For immersing the pipettes into the cleaning container and/or rinser and for transporting the pipettes. Basket height 300 mm.
Optionally available: extension piece to extend the pipette basket Y813.1 from 650 to 870 mm.

Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Pipette length 460 mm	145	500	**Y814.1**	1 unit(s)	41,15
Pipette length 600 mm	145	650	**Y813.1**	1 unit(s)	43,90

Pipette cleaning container

ROTH SELECTION. Material: LDPE.

For gentle cleaning of volumetric and graduated pipettes. Versatile, also suitable for storing and wetting pipettes.

(1) Cleaning cylinder
Leakproof pipette cylinder. Secure standing through wide foot.

Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Cleaning basket CXT0.1	152	460	**CXP8.1**	1 unit(s)	138,70
Cleaning basket CXT1.1	152	610	**CXP9.1**	1 unit(s)	145,15

(2) Cleaning basket
Pipette basket with boreholes for draining. Inner foam padding prevents damage to pipettes.

Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Pipette length 460 mm	102	580	**CXT0.1**	1 unit(s)	181,70
Pipette length 610 mm	102	810	**CXT1.1**	1 unit(s)	201,05

A 121 °C

Pipette stands

Kartell. Material: PP. Autoclavable: Yes.

16 slots: For 8 pipettes up to Ø 8 mm and 8 pipettes up to Ø 16 mm. Small boreholes in the bottom part allow liquid to drain off.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
200	75	150	**HX82.1**	1 unit(s)	14,75

Pipette accessories

Pipette stands

Kartell. Material: PP.

Top part (pipette support)
28 slots: For 18 pipettes up to Ø 10 mm and 10 pipettes up to Ø 15 mm. Small boreholes in the bottom layer allow the liquid to drain off. Can also be used without foot.

Delivery without foot.

Ø (mm)	Art. No.	Pack Qty.	€
175	**HX80.1**	1 unit(s)	28,65

Foot
With rod made of PVC. For flexible height adjustment of the top part.

Delivery without top part (pipette support).

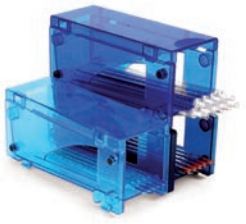
Ø (mm)	Art. No.	Pack Qty.	€
230	**HX81.1**	1 unit(s)	17,95

Pipette stands ROTILABO®

ROTH SELECTION.

Rotatable. With 94 openings of varying diameter for graduation and volumetric pipettes of different sizes (Ø max. 13 mm). With reinforced foot and additional, rotatable support plate to preserve the pipette tips.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
230	470	**7364.1**	1 unit(s)	61,35



Pipette stands pipettor combi rack

ROTH SELECTION. Material: ABS.

For storage of measuring pipettes and disposable pipettes below the sterile bench or exhaust hood.

- Inclined storage of pipettes for safe storage
- Straight lid, usable as additional work surface
- Racks can be combined horizontally or vertically
- Magnets on both sides for mounting the racks to metal walls

Delivery incl. three pipette racks in complementing blue tones.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
301	100	127.5	**NA53.1**	1 set	91,40

Pipette stands ROTILABO® pipettor rack

ROTH SELECTION.

Rack with 4 tiers to accommodate measuring pipettes.

ABS
Material: ABS. With brackets on both side for pipetting aids and pipetting balls.

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
red	291	88	401	**CX90.1**	1 unit(s)	113,00
blue	291	88	401	**CX89.1**	1 unit(s)	113,00

Acrylic
Material: PMMA.

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
translucent	291	88	401	**CX88.1**	1 unit(s)	175,25

Dispenser pipettes

Dispenser pipette HandyStep®

BRAND.

Electronic multi-dispenser with touch operation.

- Touch operation with intuitive menu navigation and integrated assistance
- Variable volume adjustment between 1.0 µl and 50 ml
- Automatic size recognition for BRAND PD-Tips//
- Button for automatic tip ejection to avoid contamination
- Compatible with dispenser tips from other manufacturers
- Inductive charging, quick charging via a USB-C port
- One fully charged battery provides many hours of continuous operation
- Long service life thanks to high-quality materials
- Smooth surfaces make cleaning/disinfecting easy
- Languages: German, English, Spanish, French and Chinese

Standard modes: Multi-dispensing, auto dispensing, pipetting and favourites.

Not a medical device / Not an IVD product

(1) Touch

Delivery incl. Li-battery, universal mains adapter (for Europe, UK, USA, Japan, Australia, New Zealand), USB type C cable, wall/shelf holder, standard PD-Tips // (each PD-Tip in sizes 0.5 ml, 1.25 ml, 2.5 ml, 5 ml and 12.5 ml), instructions for use and quality certificate.

Version	Art. No.	Pack Qty.	€
HandyStep® touch	**KHL2.1**	1 unit(s)	707,05

(1) Touch Set

Delivery incl. charging stand, Li-battery, universal mains adapter (for Europe, UK, USA, Japan, Australia, New Zealand), USB type C cable, wall/shelf holder, standard PD-Tips // (each PD-Tip in sizes 0.5 ml, 1.25 ml, 2.5 ml, 5 ml and 12.5 ml), instructions for use and quality certificate.

Version	Art. No.	Pack Qty.	€
HandyStep® touch incl. charging stand	**1CCY.1**	1 unit(s)	780,80

(2) Touch S
Additional functions: Sequential dispensing, multi-aspiration and titration.

Delivery incl. Li-battery, universal mains adapter (for Europe, UK, USA, Japan, Australia, New Zealand), USB type C cable, wall/shelf holder, standard PD-Tips // (each PD-Tip in sizes 0.5 ml, 1.25 ml, 2.5 ml, 5 ml and 12.5 ml), instructions for use and quality certificate.

Version	Art. No.	Pack Qty.	€
HandyStep® touch S	**KHL3.1**	1 unit(s)	888,00

(2) Touch S Set
Additional functions: Sequential dispensing, multi-aspiration and titration.

Delivery incl. charging stand, Li-battery, universal mains adapter (for Europe, UK, USA, Japan, Australia, New Zealand), USB type C cable, wall/shelf holder, standard PD-Tips//(each PD-Tip in sizes 0.5 ml, 1.25 ml, 2.5 ml, 5 ml and 12.5 ml), instructions for use and quality certificate.

Version	Art. No.	Pack Qty.	€
HandyStep® touch S incl. charging stand	**1CE0.1**	1 unit(s)	980,70

Dispenser pipette HandyStep® S

BRAND.

Manual multi-dispenser for fast, repetitive dispensing of liquids. PD-Tips allow volumes of between 2 µl and 5 ml to be dispensed in up to 49 increments in a single filling without refilling. HandyStep® S and PD-Tips work according to the positive displacement principle. High viscosity, high density and high vapour pressure liquid media can be dispensed with extremely high precision. Direct displacement allows contamination-free operation since no aerosols are formed.

- Ergonomic design
- Stroke length setting wheel with nine positions
- Easy tip attachment - the PD-Tips are inserted straight from below
- Safe tip removal at the touch of a button - no need to touch the dispenser tips
- Easy-to-read display, no battery required
- Innovative plastics provide increased resistance to chemicals
- For use with PD-Tips, Combitips®, Combitips® plus, Ritips®, Repet-Tips, Encode™-Tips and other compatible tips
- Operating temperature range: 15 to 40 °C
- Maintenance-free, factory-calibrated
- Includes a quality certificate
- DE-M approved

Technical specifications:

PD-Tip size (ml)	Volume range (µl)	Correctness ≤ ±% Stroke setting = % of nominal volume			Variation coefficient ≤% Stroke setting = % of nominal volume		
		1 = 2%	3 = 6%	5 = 10%	1 = 2%	3 = 6%	5 = 10%
0.1	2 – 10	4.0	2.4	1.6	6.0	3.0	2.0
0.5	10 – 50	2.5	1.5	1.0	2.5	1.5	1.0
1.0	20 – 100	2.5	1.5	1.0	2.0	1.2	0.8
1.25	25 – 125	2.5	1.4	0.9	2.0	1.1	0.7
2.5	50 – 250	1.8	1.1	0.7	1.5	0.9	0.6
5.0	100 – 500	1.8	1.1	0.7	1.5	0.9	0.7
10.0	200 – 1000	1.8	1.1	0.7	2.0	1.2	0.8
12.5	250 – 1250	1.8	1.1	0.8	3.2	2.0	1.4
25	500 – 2500	1.5	0.9	0.6	3.0	1.5	1.0
50	1000 – 5000	1.5	0.8	0.5	5.0	1.8	1.2

HandyStep S precision table® in combination with PD-Tips. Error limits refer to the set dispensing volume according to PD-Tip size, with the device, tip, environment and distilled water at a uniform temperature (20 °C) and with smooth operation. This test is performed according to DIN EN ISO 8655-5. The nominal volume is the maximum volume printed on the PD-Tip.

Delivery incl. shelf/rack mount and three PD-Tips: 0.1, 1 and 10 ml.

Not a medical device / Not an IVD product

Version	Designation	Art. No.	Pack Qty.	€
Manual	HandyStep® S	**EH21.1**	1 unit(s)	238,65

Dispenser pipettes

Dispenser tips PD-Tips //

BRAND. Material: PP (Cylinder), HDPE piston.

Precision tips with patented type encoding.

- Compatible with different dispensing systems
- Compatible with automatic size recognition: HandyStep® touch, HandyStep® electronic, Gilson® Repetman®, Rainin AutoRep™ E
- Compatible without automatic size recognition: HandyStep® S, HandyStep®, Rainin AutoRep™ S, Rainin AutoRep™ M, Eppendorf®, Multipette® 4780 and EDOS® 5221
- Meets the requirements of ISO 8655

Stroke setting	1	1.5	2	2.5	3	3.5	4	4.5	5
Number of steps	49	32	24	19	15	13	11	10	9
PD-Tips (ml)	**Dispensing volume (µl)**								
0.1	2	3	4	5	6	7	8	9	10
0.5	10	15	20	25	30	35	40	45	50
1	20	30	40	50	60	70	80	90	100
1.25	25	37.5	50	62.5	75	87.5	100	112.5	125
2.5	50	75	100	125	150	175	200	225	250
5	100	150	200	250	300	350	400	450	500
10	200	300	400	500	600	700	800	900	1000
12.5	250	375	500	625	750	875	1000	1125	1250
25	500	750	1000	1250	1500	1750	2000	2250	2500
50	1000	1500	2000	2500	3000	3500	4000	4500	5000

Volume table in combination with Brand HandyStep® S. The dispensing volumes may vary when using other devices. Using electronic multi-dispensers (e.g. HandyStep® Touch) provides greater variability.

Delivery incl. adapter (volumes of 25 and 50 ml only) and batch certificate.

Not a medical device / Not an IVD product

BIO-CERT®
Sterile.

- DNA-/RNase-/ATP- and endotoxin-free

Volume (ml)	Dispensing volume (µl)	Pack.	Art. No.	Pack Qty.	€
0.1	2-10	individually	**KHL9.1**	100 unit(s)	180,60
0.5	10-50	individually	**KHN0.1**	100 unit(s)	158,70
1	20-100	individually	**KHN1.1**	100 unit(s)	158,70
1.25	25-125	individually	**KHN2.1**	100 unit(s)	158,70
2.5	50-250	individually	**KHN3.1**	100 unit(s)	158,70
5	100-500	individually	**KHN4.1**	100 unit(s)	158,70
10	200-1000	individually	**KHN5.1**	100 unit(s)	158,70
12.5	250-1250	individually	**KHN6.1**	100 unit(s)	158,70
25	500-2500	individually	**KHN7.1**	25 unit(s)	47,35
50	1000-5000	individually	**KHN8.1**	25 unit(s)	49,85

Standard
Non-sterile.

Volume (ml)	Dispensing volume (µl)	Pack.	Art. No.	Pack Qty.	€
0.1	2-10	loose	**KHN9.1**	100 unit(s)	85,50
0.5	10-50	loose	**KHP0.1**	100 unit(s)	76,10
1	20-100	loose	**KHP1.1**	100 unit(s)	76,10
1.25	25-125	loose	**KHP2.1**	100 unit(s)	76,10
2.5	50-250	loose	**KHP3.1**	100 unit(s)	76,10
5	100-500	loose	**KHP4.1**	100 unit(s)	76,10
10	200-1000	loose	**KHP5.1**	100 unit(s)	76,10
12.5	250-1250	loose	**KHP6.1**	100 unit(s)	76,10
25	500-2500	loose	**KHP7.1**	50 unit(s)	52,75
50	1000-5000	loose	**KHP8.1**	25 unit(s)	29,20

Set
Non-sterile. 20 PD-Tips for each of the following sizes: 0.5 ml, 1 ml, 1.25 ml, 2.5 ml, 5 ml, 10 ml and 12.5 ml.

Version	Art. No.	Pack Qty.	€
PD-Tip set	**KHP9.1**	1 set	106,65

Dispenser tips Ritips® evolution

ROTH SELECTION.

Universal dispenser tips, suitable for many common dispenser pipettes such as Ripette®, Ripette® pro, HandyStep® S, HandyStep® electronic, Multipette® M4 (without activated display), Multipette® stream, Multipette® plus, Multipette® 4780, Repetman®, Biohit eLine™, Minilab 100/101, STEPMATE Handrop.

Not a medical device / Not an IVD product

Standard
Non-sterile.

Volume (ml)	Dispensing volume (µl)	Pack.	Art. No.	Pack Qty.	€
0.1	2-10	loose	**KKA3.1**	100 unit(s)	99,40
0.2	4-20	loose	**KKA4.1**	100 unit(s)	99,40
0.5	10-50	loose	**KKA5.1**	100 unit(s)	99,40
1	20-100	loose	**KKA6.1**	100 unit(s)	99,40
2.5	50-250	loose	**KKA7.1**	100 unit(s)	99,40
5	100-500	loose	**KKA8.1**	100 unit(s)	99,40
10	200-1000	loose	**KKA9.1**	100 unit(s)	99,40
25	500-2500	loose	**KKC0.1**	25 unit(s)	29,75
50	1000-5000	loose	**KKC1.1**	25 unit(s)	29,60

Bioclean®
Sterile. DNA-/RNase-/ATP-free, pyrogen-free.

Volume (ml)	Dispensing volume (µl)	Pack.	Art. No.	Pack Qty.	€
0.1	2-10	individually	**KKC2.1**	100 unit(s)	166,65
0.2	4-20	individually	**KKC3.1**	100 unit(s)	166,65
0.5	10-50	individually	**KKC4.1**	100 unit(s)	166,65
1	20-100	individually	**KKC5.1**	100 unit(s)	166,65
2.5	50-250	individually	**KKC6.1**	100 unit(s)	166,65
5	100-500	individually	**KKC7.1**	100 unit(s)	166,65
10	200-1000	individually	**KKC8.1**	100 unit(s)	166,65
25	500-2500	individually	**KKC9.1**	25 unit(s)	51,00
50	1000-5000	individually	**KKE0.1**	25 unit(s)	54,25

Dispenser pipettes

Dispenser tips Ritips®

Ritter.

Classic dispenser tips, suitable for Ripette®, Ripette® pro, HandyStep®, Distriman®, Multipette® 4780 dispenser pipettes, and other compatible dosing systems. In compliance with ISO 8655.

Control wheel	1	2	3	4	5		
Number of steps	48	23	15	11	8		
Tip (ml)	**Dispensing volume (µl)**					**Non accuracy**	**Non precision**
0,05	1	2	3	4	5	±2,5 %	≤5 %
0,5	10	20	30	40	50	±0,8 %	≤0,7 %
1,25	25	50	75	100	125	±0,8 %	≤0,5 %
2,5	50	100	150	200	250	±0,8 %	≤0,4 %
5,0	100	200	300	400	500	±0,4 %	≤0,3 %
12,5	250	500	750	1000	1250	±0,3 %	≤0,3 %
25,0	500	1000	1500	2000	2500	±0,2 %	≤0,3 %
50,0	1000	2000	3000	4000	5000	±0,2 %	≤0,2 %

Not a medical device / Not an IVD product

Standard
Non-sterile. For optimum results, use Art. No. H679.1 in combination with 10 µl pipette tips only.

Volume (ml)	Dispensing volume	Pack.	Art. No.	Pack Qty.	€
0.05	1-5 µl	loose	**H679.1**	100 unit(s)	118,00
0.5	10-50	loose	**H680.1**	100 unit(s)	82,90
1.25	25-125	loose	**H681.1**	100 unit(s)	82,90
2.5	50-250	loose	**H682.1**	100 unit(s)	82,90
5	100-500	loose	**H683.1**	100 unit(s)	82,90
12.5	250-1250	loose	**H684.1**	100 unit(s)	82,90
25	500-2500	loose	**H685.2**	25 unit(s)	28,10
50	1000-5000	loose	**H686.2**	25 unit(s)	28,10

Bioclean®
Sterile.

- DNA/RNase/ATP-free and pyrogen-free

Volume (ml)	Dispensing volume (µl)	Pack.	Art. No.	Pack Qty.	€
0.5	10-50	individually	**H688.1**	100 unit(s)	143,00
1.25	25-125	individually	**H689.1**	100 unit(s)	143,00
2.5	50-250	individually	**H690.1**	100 unit(s)	143,00
5	100-500	individually	**H691.1**	100 unit(s)	143,00
12.5	250-1250	individually	**H692.1**	100 unit(s)	143,00
25	500-2500	individually	**H693.2**	25 unit(s)	47,55
50	1000-5000	individually	**H694.2**	25 unit(s)	47,55

Dispenser pipette Ripette®

Ritter.

Adjustable piston pipettor for serial pipetting in the voume range from 1 µl to 5 ml, without refilling, with up to 48 dispensing settings. Tested according to DIN EN ISO 8655, with Certificate of Conformity. Easy to operate setting device cuts down on fatigue during long-term use. Light, robust construction, ergonomic design.

Technical specifications:

Program	1	2	3	4	5
Number of steps	48	23	15	11	8
Tip size (ml)	**Dispensing volume (µl)**				
0,05	1	2	3	4	5
0,10	2	4	6	8	10
0,20	4	8	12	16	20
0,50	10	20	30	40	50
1,00	20	40	60	80	100
1,25	25	50	75	100	125
2,50	50	100	150	200	250
5,00	100	200	300	400	500
10,00	200	400	600	800	1000
12,50	250	500	750	1000	1250
25,00	500	1000	1500	2000	2500
50,00	1000	2000	3000	4000	5000

Delivery incl. adapter for 50 ml dispenser tips.

Not a medical device / Not an IVD product

Version	Colour	Art. No.	Pack Qty.	€
manual	red	**H768.1**	1 unit(s)	250,50
manual	violet	**HLK5.1**	1 unit(s)	250,50
manual	blue	**HLK6.1**	1 unit(s)	250,50
manual	grey	**HLK7.1**	1 unit(s)	250,50

Dispenser pipettes

Dispenser pipette Ripette® pro

Ritter.

Manual series dispenser with sight glass for easy tip selection and setting the dispensing volume.

- Stroke setting wheel with 10 positions
- 10 program numbers and 12 tip sizes give you a choice of 120 different setting options
- Straightforward display of stroke setting and dispensing volume in sight glass
- Anatomical design, easy-action dispensing button, low weight
- Good chemical resistance
- Suitable for Ritips®, PD-Tips, Combitips®, Combitips® plus
- Includes a quality certificate
- Conformity certified, with serial number

Technical specifications:

Program	1	2	3	4	5	6	7	8	9	10
Number of steps	48	31	23	18	15	11	10	9	8	7
Tip size (ml)	**Dispensing volume (µl)**									
0,05	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5
0,10	2	3	4	5	6	7	8	9	10	11
0,20	4	6	8	10	12	14	16	18	20	22
0,50	10	15	20	25	30	35	40	45	50	55
1,00	20	30	40	50	60	70	80	90	100	110
1,25	25	37,5	50	62,5	75	87,5	100	112,5	125	137,5
2,50	50	75	100	125	150	175	200	225	250	275
5,00	100	150	200	250	300	350	400	450	500	550
10,00	200	300	400	500	600	700	800	900	1000	1100
12,50	250	375	500	625	750	875	1000	1125	1250	1375
25,00	500	750	1000	1250	1500	1750	2000	2250	2500	2750
50,00	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500

Delivery incl. adapter for 50 ml dispenser tips.

Not a medical device / Not an IVD product

Version	Designation	Art. No.	Pack Qty.	€
manual	Ripette® pro	**YK24.1**	1 unit(s)	312,85

Dispenser pipette Stepper™ 416

Socorex.

Compact and reliable repeater pipette for precise serial dispensing in the volume range from 10 µl to 5 ml.

- Four-finger activation function eliminates thumb fatigue
- Dose range: 53 volumes from 10 to 5000 µl
- 3 different tip sizes, colour-coded
- Up to 73 doses per filling
- Enables fast work rates, up to 2 doses per second
- Stop mechanism: Self-locking mechanism prevents false delivery
- Individually calibrated with test certificate

A separate adjustable head of matching colour is available for each tip size; it displays the dosing volume and number for a filled tip. An automatic locking mechanism prevents dosing errors once the remaining liquid in the dispenser tip is no longer sufficient for complete dosing.

Not a medical device / Not an IVD product

Version	Designation	Art. No.	Pack Qty.	€
manual	Stepper™ 416	**6952.1**	1 unit(s)	374,10

A 121 °C

Dispenser tips Ecostep™ for Stepper™ 416

Socorex. Non-sterile. Autoclavable: Yes.

Material: PP. Colour-coded.

Not a medical device / Not an IVD product

Volume (ml)	Graduation	Dispensing volume	Art. No.	Pack Qty.	€
0.75	5	10–100 µl	**6953.1**	100 unit(s)	128,50
3.75	25	50–500 µl	**6969.1**	100 unit(s)	151,85
37.5	250	500–5000 µl	**6987.1**	100 unit(s)	173,10

Dispenser pipettes

A 121 °C

Dispenser pipette Acura® 865

Socorex. Autoclavable: Yes.

Manual dispensing pipette for serial dosing in microlitre range.

- Three-way valve allows continuous dosing
- Low weight and ergonomic design for fatigue-free working
- Easy to operate function keys
- Gentle piston stroke activation
- Large volume display window
- Rotatable valve unit
- Liquid can be supplied by hose, syringe or, optionally, bottle EP91.1
- Simple calibration system
- With individual serial number and control certificate

Volume (µl)	Graduation (µl)	Non accuracy (%)	Non precision (%)
5–50	0,1	5 µl <±5,0	5 µl <±2,0
		50 µl <±1,5	50 µl <±0,4
20–200	0,2	20 µl <±2,5	20 µl <±1,5
		200 µl <±1,0	200 µl <±0,3
100–1000	1	100 µl <±1,5	100 µl <±0,6
		1000 µl <±0,6	1000 µl <±0,2

Delivery incl. silicone hose, single-channel dosing cannula made of stainless steel, valve cap for drawing-off liquid from a disposable syringe.

Not a medical device / Not an IVD product

Version	Volume (µl)	Graduation (µl)	Art. No.	Pack Qty.	€
manual	5 to 50	0,1	**EP88.1**	1 unit(s)	446,35
manual	2 to 200	0,2	**EP89.1**	1 unit(s)	408,95
manual	100 to 1000	1,0	**EP90.1**	1 unit(s)	381,85

Accessories for Acura® 865

Socorex.

Not a medical device / Not an IVD product

Bottle, Luer fitting, PP, 30 ml
For sucking up from the bottle

Designation	Art. No.	Pack Qty.	€
Bottle made of PP, Luer fitting, 30 ml	**EP91.1**	1 unit(s)	50,20

8-channel stainless steel cannula, Luer-Lock
Other accessories

Designation	Art. No.	Pack Qty.	€
8-channel cannula made of stainless steel with Luer-Lock fitting	**EP92.1**	1 unit(s)	158,15

A 121 °C

Single-channel microlitre pipette Acura® *manual* 810 for dilutions

Socorex. Autoclavable: Yes.

Stem pipette for 1:10 dilutions
Air displacement pipette with two pre-calibrated fixed volumes in one piston stroke allows sequential delivery of 1 and 0.1 ml of the same liquid. For more flexibility, the volumes can be used either individually or in combination for dilutions.
The metal cone provides a perfect seat for long PP stem tips, ideal for taking samples from narrow vessels Stomacher®- bags and other blending bags. The Acura® manual 810 is an ideal alternative to conventional graduated pipettes for serial 1:10 dilutions in bacteriology.

Properties:

- Two pre-calibrated fixed volumes – no adjustment necessary
- The two volumes 1 and 0.1 ml can be calibrated separately
- Easy performance of all functions
- Excellent ergonomics, lightweight
- Metal shaft allows the use of long stem tips
- Justip™ system to adjust the height of the tip ejector
- Simple, efficient ejection of stem tips
- Replaceable PE protective filter

Technical specifications:

Volume: 100 µl:

- Inaccuracy (E %): <±2,0
- Imprecision (CV %): <±2,5

Volume: 1000 µl:

- Inaccuracy (E %): <±0,5
- Imprecision (CV %): <±0,4

The values were achieved with distilled water at a constant (±0.5 °C) ambient temperature between 20 and 25 °C, in accordance with. EN ISO 8655.

In vitro diagnostic medical device according to IVDD

Version	Volume (µl)	Art. No.	Pack Qty.	€
Single-channel, fixed volume	100 / 1000	**HK00.1**	1 unit(s)	567,60

Accessories for Acura® 810

Socorex.

Not a medical device / Not an IVD product

Stem tips
Sterile.

Designation	Pack.	Art. No.	Pack Qty.	€
Stem tips made of PP L 190 mm, Ø inner 4 mm	40 x 25	**HK01.2**	1,000 unit(s)	88,40

Protective filter

Designation	Art. No.	Pack Qty.	€
Protection filter made of PE for protection against penetration of liquid	**HK02.1**	100 unit(s)	68,50

Direct displacement pipettes

Positive displacement pipette digital Transferpettor

BRAND.

Piston pipettes for difficult media
For foaming media (e.g. tenside solutions), high-vapour-pressure media (e.g. alcohols, ether, hydrocarbons), viscous media and high-density media (e.g. concentrated protein solutions, oils, resins, fats, glycerine, mercury, sulphuric acid).

Unlike air displacement pipettes, the piston of the positive displacement pipette is in direct contact with the liquid to be pipetted. This principle always provides precise reproducible results, regardless of the pipetting speed and the ambient conditions. Capillaries and tips can be reused, since the minimal residual wetting is negligible for most applications. Where carry-over is not permitted, such as with infectious or radioactive media, air displacement pipettes with disposable tips should be used. With DE-M marking and quality certificate.

Applications:

- Media with densities up to 13.6 g/cm³
- Viscosity up to 140,000 mm²/s (depending on size of apparatus)
- Vapour pressure up to 500 mbar
- Working temperature range 15 to 40 °C

Technical specifications:

Art. No.	NA87.1	NA88.1	NA89.1	NA90.1	NA91.1	NA92.1	NA93.1	NA94.1
Correctness	10 µl ≤1,0 %	25 µl ≤0,8 %	50 µl ≤0,6 %	100 µl ≤0,6 %	500 µl ≤0,5 %	1000 µl ≤0,5 %	5000 µl ≤0,5 %	10000 µl ≤0,5 %
Variation coefficient	10 µl ≤0,8 %	25 µl ≤0,5 %	50 µl ≤0,4 %	100 µl ≤0,4 %	500 µl ≤0,2 %	1000 µl ≤0,2 %	5000 µl ≤0,2 %	10000 µl ≤0,2 %

Not a medical device / Not an IVD product

Volume (µl)	Graduation	Colour coding	Art. No.	Pack Qty.	€
2.5 to 10	0,01	orange	**NA87.1**	1 unit(s)	377,35
5 to 25	0,1	white/white	**NA88.1**	1 unit(s)	377,35
10 to 50	0,1	green	**NA89.1**	1 unit(s)	377,35
20 to 100	0,1	blue	**NA90.1**	1 unit(s)	377,35
100 to 500	1,0	green	**NA91.1**	1 unit(s)	377,35
200 to 1000	1,0	yellow	**NA92.1**	1 unit(s)	377,35
1000 to 5000	10,0	red	**NA93.1**	1 unit(s)	377,35
2000 to 10000	10,0	orange	**NA94.1**	1 unit(s)	377,35

Accessories for digital Transferpettor

BRAND.

Not a medical device / Not an IVD product

Caps

Pic.	Materialspecification	Suitable for	Colour coding	Art. No.	Pack Qty.	€
(1)	Glass	Volume: 1, 2, 5 µl	white	**NA95.1**	100 unit(s)	35,70
(1)	Glass	Volume: 10 µl	orange	**NA96.1**	100 unit(s)	35,70
(1)	Glass	Volume: 20 µl	black	**NA97.1**	100 unit(s)	35,70
(1)	Glass	Volume: 25 µl	white/white	**NA98.1**	100 unit(s)	35,70
(1)	Glass	Volume: 50 µl	green	**NA99.1**	100 unit(s)	35,70
(1)	Glass	Volume: 100, 200 µl	blue/red	**PA00.1**	50 unit(s)	19,15
(2)	PP	Volume: 100–500 µl	green	**PA01.1**	10 unit(s)	31,30
(2)	PP	Volume: 200–1000 µl	yellow	**PA02.1**	10 unit(s)	31,30
(2)	PP	Volume: 1000–5000 µl	red	**PA03.1**	10 unit(s)	31,30
(2)	PP	Volume: 2000–10,000 µl	orange	**PA04.1**	10 unit(s)	31,30

Seals

Pic.	Materialspecification	Suitable for	Art. No.	Pack Qty.	€
(3)	PTFE	Volume: 20, 25 µl	**PA05.1**	3 unit(s)	19,20
(3)	PTFE	Volume: 50 µl	**PA06.1**	3 unit(s)	19,20
(3)	PTFE	Volume: 100, 200 µl	**PA07.1**	3 unit(s)	19,20
(4)	PE	Volume: 100–500 µl	**PA08.1**	10 unit(s)	24,15
(4)	PE	Volume: 200–1000 µl	**PA09.1**	10 unit(s)	24,15
(4)	PE	Volume: 1000–5000 µl	**PA10.1**	10 unit(s)	24,15
(4)	PE	Volume: 2000–10,000 µl	**PA11.1**	10 unit(s)	24,15

Direct displacement pipettes

Positive displacement pipette MICROMAN® E

Gilson.

Positive displacement system without air cushion between sample and piston prevents contamination as well as aerosol formation and produces precise and reproducible pipetting results. Caps fit straight out of the box, pistons and capillaries lock into place automatically ("QuickSnap system").
Conformity certified to DIN EN ISO 8655 with test protocol.
CE/IVD marking.

For problematic media, e.g.:

- Viscous media, e.g. oils, glycerol, gel loading buffer
- Media with a high vapour pressure (acetone, hexane or other solvents)
- Sterile media
- PCR/qPCR preparations
- Radioactive media
- Cold/warm solutions

Advantages:

- QuickSnap system for easy handling
- Volume lock for safe pipetting
- Ergonomically designed and comfortable handle
- Lightweight and narrow CP tips for narrow vessels

Technical specifications:

Art. No.	CTT1.1	CTT2.1	CTT3.1	CTT4.1	CTT5.1	CTT6.1
Correctness	10 µl ≤1,5 %	25 µl ≤1,2 %	50 µl ≤1,4 %	100 µl ≤1 %	250 µl ≤1 %	1000 µl ≤0,8 %
Variation coefficient	10 µl ≤0,6 %	25 µl ≤0,4 %	50 µl ≤0,6 %	100 µl ≤0,4 %	250 µl ≤0,2 %	1000 µl ≤0,4 %

Not a medical device / Not an IVD product

Type	Volume (µl)	Art. No.	Pack Qty.	€
M10E	1 to 10	**CTT1.1**	1 unit(s)	306,40
M25E	3 to 25	**CTT2.1**	1 unit(s)	306,40
M50E	20 to 50	**CTT3.1**	1 unit(s)	306,40
M100E	10 to 100	**CTT4.1**	1 unit(s)	306,40
M250E	50 to 250	**CTT5.1**	1 unit(s)	306,40
M1000E	100 to 1000	**CTT6.1**	1 unit(s)	306,40

Accessories CP tips for positive displacement pipettes MICROMAN® E

Gilson. Material: PP, Polyester, type CP100/CP100ST and CP250/CP250ST made of PP and PE.

Capillary piston tips, suitable for Gilson MICROMAN® and MICROMAN® E.

Not a medical device / Not an IVD product

Standard
Non-sterile.

Type	Volume (µl)	Suitable for	Pack.	Art. No.	Pack Qty.	€
CP10	1 to 10	M10E	Rack (2 x 96)	**CTT7.1**	192 unit(s)	79,55
CP25	3 to 25	M25E	Bag	**CTT9.1**	200 unit(s)	72,05
CP25	3 to 25	M25E	Rack (10 x 96)	**CTX0.1**	960 unit(s)	374,10
CP100	10 to 100	M100E	Rack (2 x 96)	**CTX5.1**	192 unit(s)	79,55
CP50	20 to 50	M50E	Bag	**CTX2.1**	200 unit(s)	72,05
CP50	20 to 50	M50E	Rack (10 x 96)	**CTX3.1**	960 unit(s)	374,10
CP250	50 to 250	M250E	Bag	**CTX7.1**	200 unit(s)	72,05
CP250	50 to 250	M250E	Rack (10 x 96)	**CTX8.1**	960 unit(s)	374,10
CP1000	100 to 1000	M1000E	Rack (2 x 91)	**CTY0.1**	182 unit(s)	79,55

Sterile
Sterile. Free of detectable DNA, RNA, DNase, RNase, ATP and pyrogens.

Type	Volume (µl)	Suitable for	Pack.	Art. No.	Pack Qty.	€
CP10ST	1 to 10	M10E	Rack (2 x 96)	**CTT8.1**	192 unit(s)	94,60
CP25ST	3 to 25	M25E	Rack (6 x 96)	**CTX1.1**	576 unit(s)	279,50
CP100ST	10 to 100	M100E	Rack (2 x 96)	**CTX6.1**	192 unit(s)	94,60
CP50ST	20 to 50	M50E	Rack (6 x 96)	**CTX4.1**	576 unit(s)	279,50
CP250ST	50 to 250	M250E	Rack (6 x 96)	**CTX9.1**	576 unit(s)	279,50
CP1000ST	100 to 1000	M1000E	Rack (2 x 91)	**CTY1.1**	182 unit(s)	94,60

Microlitre pipettes, ROTH

Single-channel microlitre pipette ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

Robust quality pipettes with variable volume for routine work and demanding applications.

- Ergonomic finger support for comfortable handling and single-hand operation
- Separate tip eject button
- Central, large pipettor button for even plunger movement
- Separate volume adjustment, for left- and right-handed users
- Easy-to-read display
- Integrated calibration function for easy adjustment without tools
- Corrosion-resistant plunger and ejector
- Slim shaft
- Fully autoclavable at 121 °C (2 bar) according to DIN EN 285
- A filter for protection of the pipettes is optional with volumes of 5 ml and higher. Please order separately

A 121 °C

Technical specifications:

Art. No.	TA21.1	TA22.1	TA23.1	TA24.1	TA25.1	TA26.1	TA27.1
Volume	0.5 to 10 µl	2 to 20 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl	1000 to 10000 µl
Nominal volume	10 µl	20 µl	100 µl	200 µl	1,000 µl	5,000 µl	10,000 µl
Correctness	±1,0 %	±0,8 %	±0,6 %				
Variation coefficient	±0,5 %	±0,4 %	±0,2 %				

Calibrated to ‚Ex'. Margins of error refer to the nominal volume (= max. volume) printed on the device, assuming that the device, ambient air and distilled water are at the same temperature (20 °C), and that the instrument is operated evenly and smoothly. Margins of error are within the limits specified in DIN EN ISO 8655-2.

Not a medical device / Not an IVD product

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, variable	0.5 to 10	0,01	20	**TA21.1**	1 unit(s)	268,75
Single-channel, variable	2 to 20	0,02	200	**TA22.1**	1 unit(s)	246,20
Single-channel, variable	10 to 100	0,1	200/300	**TA23.1**	1 unit(s)	230,05
Single-channel, variable	20 to 200	0,2	200/300	**TA24.1**	1 unit(s)	246,20
Single-channel, variable	100 to 1000	1	1000	**TA25.1**	1 unit(s)	230,05
Single-channel, variable	500 to 5000	5	5000	**TA26.1**	1 unit(s)	252,65
Single-channel, variable	1000 to 10000	10	10000	**TA27.1**	1 unit(s)	265,55

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Microlitre pipettes, BRAND

Single-channel microlitre pipette Transferpette® S

BRAND. Autoclavable: Yes.

Manual plunger pipettes for demanding applications.

- In any position: Comfortable one-handed operation
- For every hand: Ergonomic design
- Short lifting distance and low operational forces
- Universal tip attachment cone
- Thinner shaft for drawing liquids from narrow vessels
- Fully autoclavable at 121 °C
- DE-M approved

A 121 °C

Delivery incl. quality certificate and shelf-holder, labelling foils and silicone grease.

In vitro diagnostic medical device according to IVDD

Variable

- Secure: Volume lock prevents any accidental adjustments
- Colour code on the volume adjustment wheel, shaft and volume lock
- Can be easily adjusted without the need for tools thanks to Easy Calibration technology

Technical specifications:

Art. No.	KLY3.1	KLY5.1	KLY6.1	KLY7.1	KLY8.1	KLY9.1	KNA0.1	KNA1.1	KNA2.1	KLY4.1
Volume	0.1 to 1 µl	0.5 to 10 µl	2 to 20 µl	5 to 50 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl	1000 to 10000 µl	0.1 to 2.5 µl
Correctness	1 µl ≤± 2,0 %	10 µl ≤±1,0 %	20 µl ≤± 0,8 %	50 µl ≤±0,8 %	100 µl ≤±0,6 %	200 µl ≤±0,6 %	1000 µl ≤±0,6 %	5000 µl ≤±0,6 %	10000 µl ≤±0,6 %	2,5 µl ≤±1 ,4 %
Variation coefficient	1µl ≤1,2 %	10 µl ≤0,5 %	20 µl ≤0,4 %	50 µl ≤0,3 %	100 µl ≤0,2 %	200 µl ≤0,2 %	1000 µl ≤0,2 %	5000 µl ≤0,2 %	10000 µl ≤0,2 %	2,5 µl ≤0,7 %

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
D-1	Single-channel, variable	0.1 to 1	0,001	20	**KLY3.1**	1 unit(s)	276,30
D-2.5	Single-channel, variable	0.1 to 2.5	0,002	20	**KLY4.1**	1 unit(s)	276,30
D-10	Single-channel, variable	0.5 to 10	0,01	20	**KLY5.1**	1 unit(s)	276,30
D-20	Single-channel, variable	2 to 20	0,02	200	**KLY6.1**	1 unit(s)	247,25
D-50	Single-channel, variable	5 to 50	0,05	200	**KLY7.1**	1 unit(s)	247,25
D-100	Single-channel, variable	10 to 100	0,1	200	**KLY8.1**	1 unit(s)	247,25
D-200	Single-channel, variable	20 to 200	0,2	200	**KLY9.1**	1 unit(s)	247,25
D-1000	Single-channel, variable	100 to 1000	1	1000/1250	**KNA0.1**	1 unit(s)	247,25
D-5000	Single-channel, variable	500 to 5000	5	5000	**KNA1.1**	1 unit(s)	276,30
D-10000	Single-channel, variable	1000 to 10000	10	10000	**KNA2.1**	1 unit(s)	276,30

Fixed volume

Technical specifications:

Art. No.	KNA3.1	KNA4.1	KNA5.1	KNA6.1	KNA7.1	KNA8.1	KNA9.1	KNC0.1	KNC1.1
Volume	10 µl	20 µl	25 µl	50 µl	100 µl	200 µl	500 µl	1000 µl	2000 µl
Correctness	≤±1,0 %	≤±0,8 %			≤±0,6 %				≤±0,8 %
Variation coefficient	≤0,5 %	≤0,4 %			≤0,2 %				≤0,3 %

Type	Version	Volume (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
F-10	Single-channel, fixed volume	10	20	**KNA3.1**	1 unit(s)	155,95
F-20	Single-channel, fixed volume	20	200	**KNA4.1**	1 unit(s)	155,95
F-25	Single-channel, fixed volume	25	200	**KNA5.1**	1 unit(s)	155,95
F-50	Single-channel, fixed volume	50	200	**KNA6.1**	1 unit(s)	155,95
F-100	Single-channel, fixed volume	100	200	**KNA7.1**	1 unit(s)	155,95
F-200	Single-channel, fixed volume	200	200	**KNA8.1**	1 unit(s)	155,95
F-500	Single-channel, fixed volume	500	1000	**KNA9.1**	1 unit(s)	155,95
F-1000	Single-channel, fixed volume	1000	1000	**KNC0.1**	1 unit(s)	155,95
F-2000	Single-channel, fixed volume	2000	5000	**KNC1.1**	1 unit(s)	155,95

Microlitre pipettes, BRAND

Multi-channel microlitre pipette Transferpette® S

BRAND. Autoclavable: Yes.

Manual plunger pipettes for demanding applications.

- In any position: Comfortable one-handed operation
- For every hand: Ergonomic design
- Short lifting distance and low operational forces
- Universal tip attachment cone
- Four-digit volume display for maximum accuracy, always clearly visible
- Featuring Easy Calibration technology for adjustment without tools
- Secure: Volume lock prevents any accidental adjustments
- Easy to attach and eject the tips thanks to O-rings
- With freely rotatable pipetting unit (360°)
- Fully autoclavable at 121 °C
- DE-M approved

A 121 °C

Delivery incl. quality certificate, 1 x shelf holder, 1 x reagent reservoir, assembly key, labelling foils, silicone grease and 1 x set of shaft seals.

In vitro diagnostic medical device according to IVDD

8-channel

Technical specifications:

Art. No.	KNC2.1	KNC3.1	KNC4.1	KNC5.1	KNC6.1
Volume	0.5 to 10 µl	5 to 50 µl	10 to 100 µl	20 to 200 µl	30 to 300 µl
Correctness	10 µl ≤±1,6 %	50 µl ≤±0,8 %	100 µl ≤±0,8 %	200 µl ≤±0,8 %	300 µl ≤±0,6 %
Variation coefficient	10 µl ≤1,0 %	20 µl ≤0,4 %	100 µl ≤0,3 %	200 µl ≤0,3 %	300 µl ≤0,3 %

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
M8-10	Multi-channel	0.5 to 10	0,01	20	**KNC2.1**	1 unit(s)	648,25
M8-50	Multi-channel	5 to 50	0,05	200	**KNC3.1**	1 unit(s)	648,25
M8-100	Multi-channel	10 to 100	0,1	200	**KNC4.1**	1 unit(s)	648,25
M8-200	Multi-channel	20 to 200	0,2	200	**KNC5.1**	1 unit(s)	648,25
M8-300	Multi-channel	30 to 300	0,5	300	**KNC6.1**	1 unit(s)	648,25

12-channel

Technical specifications:

Art. No.	KNC7.1	KNC8.1	KNC9.1	KNE0.1	KNE1.1
Volume	0.5 to 10 µl	5 to 50 µl	10 to 100 µl	20 to 200 µl	30 to 300 µl
Correctness	10 µl ≤±1,6 %	50 µl ≤±0,8 %	100 µl ≤±0,8 %	200 µl ≤±0,8 %	300 µl ≤±0,6 %
Variation coefficient	10 µl ≤1,0 %	20 µl ≤0,4 %	100 µl ≤0,3 %	200 µl ≤0,3 %	300 µl ≤0,3 %

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
M12-10	Multi-channel	0.5 to 10	0,01	20	**KNC7.1**	1 unit(s)	742,85
M12-50	Multi-channel	5 to 50	0,05	200	**KNC8.1**	1 unit(s)	742,85
M12-100	Multi-channel	10 to 100	0,1	200	**KNC9.1**	1 unit(s)	742,85
M12-200	Multi-channel	20 to 200	0,2	200	**KNE0.1**	1 unit(s)	742,85
M12-300	Multi-channel	30 to 300	0,5	300	**KNE1.1**	1 unit(s)	742,85

Microlitre pipettes, BRAND

Single-channel microlitre pipette set Transferpette® S

BRAND.

In vitro diagnostic medical device according to IVDD

Micro starter kit

Delivery incl. three Transferpette® S pipettes, variable and three shelf holders.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	0,1-2,5 µl, 0,5-10 µl, 10-100 µl	**KNE2.1**	1 unit(s)	750,35

Standard starter kit

Delivery incl. three Transferpette® S pipettes, variable and three shelf holders.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	0,5-10 µl, 10-100 µl, 100-1000 µl	**KNE3.1**	1 unit(s)	726,70

Midi starter kit

Delivery incl. three Transferpette® S pipettes, variable and three shelf holders.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	2-20 µl, 20-200 µl, 100-1000 µl	**KNE4.1**	1 unit(s)	709,50

Macro starter kit

Delivery incl. three Transferpette® S pipettes, variable and three shelf holders.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	100-1000 µl, 500-5000 µl, 1000-10000 µl	**KNE5.1**	1 unit(s)	750,35

Pipette packs 1

Delivery incl. five Transferpette® S pipettes and table stands for six devices.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	0,1-2,5 µl, 0,5-10 µl, 2-20 µl, 20-200 µl, 100-1000 µl	**KNE6.1**	1 unit(s)	1.223,35

Pipette packs 2

Delivery incl. five Transferpette® S pipettes and table stands for six devices.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	0,5-10 µl, 10-100 µl, 20-200 µl, 100-1000 µl, 500-5000 µl	**KNE7.1**	1 unit(s)	1.223,35

Microlitre pipettes, BRAND

Single-channel microlitre pipette Transferpette® electronic

BRAND.

Microprocessor-controlled plunger pipette.

- Ergonomic design makes working easier
- Height-adjustable finger support to optimise the positioning of your hand for the function keys
- Five functions:
  Pipetting, mixing, reverse pipetting, dispensing, gel electrophoresis mode
- High pipetting speed
- Eight hours' continuous pipetting possible
- Ready for use during charging cycle
- Refresh mode to increase the battery life
- Slim pipette shaft allows pipetting into even the narrowest vessels
- Easy Calibration function for adjustment without tools
- Fully autoclavable pipette shaft
- DE-M approved
- Includes a quality certificate

In vitro diagnostic medical device according to IVDD

With mains adapter

Technical specifications:

Art. No.	CH82.1	AA39.1	AA40.1	AA41.1	CH83.1
Volume	0.5 to 10 µl	2 to 20 µl	10 to 200 µl	50 to 1000 µl	250 to 5000 µl
Nominal volume	10 µl	20 µl	200 µl	1,000 µl	5,000 µl
Correctness	±1,0 %		±0,8 %	±0,6 %	
Variation coefficient	±0,4 %		±0,2 %		

Delivery incl. mains adapter (110–240 V/50–60 Hz).

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, electronic	0.5 to 10	0,01	10/20	**CH82.1**	1 unit(s)	365,50
Single-channel, electronic	2 to 20	0,02	20	**AA39.1**	1 unit(s)	365,50
Single-channel, electronic	10 to 200	0,2	200/300	**AA40.1**	1 unit(s)	365,50
Single-channel, electronic	50 to 1000	1,0	1000/1250	**AA41.1**	1 unit(s)	365,50
Single-channel, electronic	250 to 5000	5,0	5000	**CH83.1**	1 unit(s)	365,50

Without mains adapter

Technical specifications:

Art. No.	CH84.1	AA42.1	AA43.1	AA44.1	CH85.1
Volume	0.5 to 10 µl	2 to 20 µl	10 to 200 µl	50 to 1000 µl	250 to 5000 µl
Nominal volume	10 µl	20 µl	200 µl	1,000 µl	5,000 µl
Correctness	±1,0 µl	±1,0 %	±0,8 %	±0,6 %	±0,6 µl
Variation coefficient	±0,4 %		±0,2 %		

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, electronic	0.5 to 10	0,01	10/20	**CH84.1**	1 unit(s)	348,30
Single-channel, electronic	2 to 20	0,02	20	**AA42.1**	1 unit(s)	347,25
Single-channel, electronic	10 to 200	0,2	200/300	**AA43.1**	1 unit(s)	347,25
Single-channel, electronic	50 to 1000	1,0	1000/1250	**AA44.1**	1 unit(s)	347,25
Single-channel, electronic	250 to 5000	5,0	5000	**CH85.1**	1 unit(s)	348,30

Microlitre pipettes, BRAND

Multi-channel microlitre pipette Transferpette® electronic

BRAND.

Microprocessor-controlled plunger pipette.

- Ergonomic design makes working easier
- Height-adjustable finger support to optimise the positioning of your hand for the function keys
- Five functions:
  Pipetting, mixing, reverse pipetting, dispensing, gel electrophoresis mode
- High pipetting speed
- Eight hours' continuous pipetting possible
- Ready for use during charging cycle
- Refresh mode to increase the battery life
- Easy Calibration function for adjustment without tools
- Fully autoclavable pipette shaft
- DE-M approved
- Includes a quality certificate

Delivery incl. mains adapter (110–240 V/50–60 Hz).

In vitro diagnostic medical device according to IVDD

8-channel

Technical specifications:

Art. No.	CNL2.1	CNL3.1	CNL4.1	CNL5.1	CNL6.1
Volume	0.5 to 10 µl	1 to 20 µl	5 to 100 µl	10 to 200 µl	15 to 300 µl
Nominal volume	10 µl	20 µl	100 µl	200 µl	300 µl
Correctness	±1,2 %	±1,0 %	±0,8 %		±0,6 %
Variation coefficient	±0,8 %	±0,5 %	±0,25 %		

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Multi-channel, electronic	0.5 to 10	0,01	10/20	**CNL2.1**	1 unit(s)	769,70
Multi-channel, electronic	1 to 20	0,02	10/20	**CNL3.1**	1 unit(s)	769,70
Multi-channel, electronic	5 to 100	0,1	200/300	**CNL4.1**	1 unit(s)	769,70
Multi-channel, electronic	10 to 200	0,2	200/300	**CNL5.1**	1 unit(s)	769,70
Multi-channel, electronic	15 to 300	0,5	200/300	**CNL6.1**	1 unit(s)	769,70

12-channel

Technical specifications:

Art. No.	CNL7.1	CNL8.1	CNL9.1	CNN0.1	CNN1.1
Volume	0.5 to 10 µl	1 to 20 µl	5 to 100 µl	10 to 200 µl	15 to 300 µl
Nominal volume	10 µl	20 µl	100 µl	200 µl	300 µl
Correctness	±1,2 %	±1,0 %	±0,8 %		±0,6 %
Variation coefficient	±0,8 %	±0,5 %	±0,25 %		

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Multi-channel, electronic	0.5 to 10	0,01	10/20	**CNL7.1**	1 unit(s)	889,05
Multi-channel, electronic	1 to 20	0,02	10/20	**CNL8.1**	1 unit(s)	889,05
Multi-channel, electronic	5 to 100	0,1	200/300	**CNL9.1**	1 unit(s)	889,05
Multi-channel, electronic	10 to 200	0,2	200/300	**CNN0.1**	1 unit(s)	889,05
Multi-channel, electronic	15 to 300	0,5	200/300	**CNN1.1**	1 unit(s)	889,05

Microlitre pipettes, Gilson

Single-channel microlitre pipette Pipetman® G

Gilson.

Adjustable air-cushion plunger pipette offering one of the lowest pipetting forces on the market. Low effort for ejecting tips thanks to the metal clip ejector. (TP74.1 and TP75.1 without chip ejector.)
These pipette models are noted for their robustness, accuracy, ease of maintenance and long service life.

- Easy dismantling and maintenance
- Despite the low pipetting force, the initial pressure point is easy to feel during pipetting
- P5000G and P10 ml G pipettes come with a protective filter which protects the plunger and prevents contamination
- Conformity certified according to DIN EN ISO 8655 with test protocol

Technical specifications:

Art. No.	TP68.1	TP69.1	TP70.1	TP71.1	TP72.1	TP73.1	TP74.1	TP75.1
Volume	0.2 to 2 µl	1 to 10 µl	2 to 20 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	1000 to 5000 µl	1000 to 10000 µl
Nominal volume	2 µl	10 µl	20 µl	100 µl	200 µl	1,000 µl	5,000 µl	10,000 µl
Correctness	±1,5 %	±1 %		±0,8 %			±0,6 %	
Variation coefficient	±0,7 %	±0,4 %	±0,3 %	±0,15 %			±0,16 %	

Not a medical device / Not an IVD product

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P2G	Single-channel, variable	0.2 to 2	0,002	10	**TP68.1**	1 unit(s)	279,50
P10G	Single-channel, variable	1 to 10	0,02	10	**TP69.1**	1 unit(s)	279,50
P20G	Single-channel, variable	2 to 20	0,02	200	**TP70.1**	1 unit(s)	279,50
P100G	Single-channel, variable	10 to 100	0,2	200	**TP71.1**	1 unit(s)	279,50
P200G	Single-channel, variable	20 to 200	0,2	200	**TP72.1**	1 unit(s)	279,50
P1000G	Single-channel, variable	100 to 1000	2,0	1000	**TP73.1**	1 unit(s)	279,50
P5000G	Single-channel, variable	1000 to 5000	2,0	5000	**TP74.1**	1 unit(s)	279,50
P10mLG	Single-channel, variable	1000 to 10000	20,0	10000	**TP75.1**	1 unit(s)	279,50

Single-channel microlitre pipette set Pipetman® G

Gilson.

Delivery incl. three Pipetman® microlitre pipettes G, two filled boxes with pipette tips, three single-pipette holders, and three plastic ejectors.

Not a medical device / Not an IVD product

Type	Version	Volume range (µl)	Capacity	Art. No.	Pack Qty.	€
Starter kit G	Starter kit	2-20 / 20-200 / 100-1000	P20G, P200G, P1000G	**TP76.1**	1 unit(s)	756,80
Starter kit G micro volume	Starter kit	0,2-2 / 1-10 / 10-100	P2G, P10G, P100G	**TP77.1**	1 unit(s)	756,80

Microlitre pipettes, Gilson

Single-channel microlitre pipette Pipetman® L

Gilson. Autoclavable: Yes.

Lightweight and safe yet robust quality pipette.
Pipette with improved pipetting strength, increases the performance without sacrificing on comfort.

- Patented Lock/Unlock System for safe pipetting
- The set volume is locked during the first pipetting operation
- Easy release of the volume adjustment lock
- Ergonomic handle
- Adjustable tip ejector for left- and right-handed users
- Plastic tip ejectors (TT03.1 and TT04.1 without tip ejector)
- 2D identification code
- Fully autoclavable

A 121 °C

Technical specifications:

Art. No.	TP97.1	TP98.1	TP99.1	TT00.1	TT01.1	TT02.1	TT03.1	TT04.1
Volume	0.2 to 2 µl	1 to 10 µl	2 to 20 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl	1000 to 10000 µl
Nominal volume	2 µl	10 µl	20 µl	100 µl	200 µl	1,000 µl	5,000 µl	10,000 µl
Correctness	±1,5 %	±1 %		±0,8 %			±0,6 %	
Variation coefficient	±0,7 %	±0,4 %	±0,3 %	±0,15 %			±0,16 %	

Not a medical device / Not an IVD product

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P2L	Single-channel, variable	0.2 to 2	0,002	10	**TP97.1**	1 unit(s)	307,45
P10L	Single-channel, variable	1 to 10	0,02	10	**TP98.1**	1 unit(s)	307,45
P20L	Single-channel, variable	2 to 20	0,02	200	**TP99.1**	1 unit(s)	307,45
P100L	Single-channel, variable	10 to 100	0,2	200	**TT00.1**	1 unit(s)	307,45
P200L	Single-channel, variable	20 to 200	0,2	200	**TT01.1**	1 unit(s)	307,45
P1000L	Single-channel, variable	100 to 1000	2,0	1000	**TT02.1**	1 unit(s)	307,45
P5000L	Single-channel, variable	500 to 5000	2,0	5000	**TT03.1**	1 unit(s)	307,45
P10mL L	Single-channel, variable	1000 to 10000	20,0	10000	**TT04.1**	1 unit(s)	307,45

Single-channel microlitre pipette set Pipetman® L

Gilson.

Not a medical device / Not an IVD product

Delivery incl. three Pipetman® microlitre pipettes L, two filled boxes with pipette tips and three pipette holders.

Version	Volume range (µl)	Capacity	Art. No.	Pack Qty.	€
Starter kit	2-20 / 50-200 / 100-1000	P20L, P200L, P1000L	**CTY2.1**	1 unit(s)	887,95
Starter kit	0,2-2 / 0,5-10 / 10-100	P2L, P10L, P100L	**CTY3.1**	1 unit(s)	925,60

Microlitre pipettes, Socorex

Single-channel microlitre pipette Acura® *manual* XS 826

Socorex. Autoclavable: Yes.

- Outstanding ergonomic profile
- Easy to operate function keys
- Extremely gentle pipetting action, easier on the hands
- Separate, large tip eject button, easy tip ejection
- Narrow pipette shaft
- Reduced shaft length allows optimised instrument guidance
- Conical shaft end for easy access to reaction vials
- Justip™ tip adjustment system allows exact calibration of the shaft height
- Reduced weight (to 83 from 88 g)
- Innovative calibration system (Swift-Set)
- Tamper-proof seal label for protection of the calibrator
- Individual serial number and inspection certificate
- Fully autoclavable

A 121 °C

Technical specifications:

Art. No.	TX47.1	TX48.1	TX49.1	TX50.1	TX51.1	TX52.1	TX53.1	TX54.1
Volume	0.1 to 2 µl	0.5 to 10 µl	1 to 10 µl	2 to 20 µl	5 to 50 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl
Nominal volume	2 µl	10 µl		20 µl	50 µl	100 µl	200 µl	1,000 µl
Correctness	±2 %	±1 %				±0,8 %		±0,5 %
Variation coefficient	±1,5 %	±0,5 %	±0,7 %	±0,5 %	±0,4 %	±0,2 %		

In vitro diagnostic medical device according to IVDD

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, variable	0.1 to 2	0,002	10	**TX47.1**	1 unit(s)	336,70
Single-channel, variable	0.5 to 10	0,01	10	**TX48.1**	1 unit(s)	336,70
Single-channel, variable	1 to 10	0,01	200	**TX49.1**	1 unit(s)	316,05
Single-channel, variable	2 to 20	0,02	200	**TX50.1**	1 unit(s)	316,05
Single-channel, variable	5 to 50	0,1	200	**TX51.1**	1 unit(s)	316,05
Single-channel, variable	10 to 100	0,1	200	**TX52.1**	1 unit(s)	316,05
Single-channel, variable	20 to 200	0,2	200	**TX53.1**	1 unit(s)	316,05
Single-channel, variable	100 to 1000	1,0	1000	**TX54.1**	1 unit(s)	316,05

Single-channel microlitre pipette set Acura® *manual* XS 826 TwiXS pack

Socorex.

Delivery incl. two Acura® *manual* single-channel microlitre pipettes XS, shelf holder for two pipettes and inspection certificate.

In vitro diagnostic medical device according to IVDD

Type	Version	Volume range (µl)	Art. No.	Pack Qty.	€
TwiXS E	Starter kit	0,1-2 / 2-20	**TX55.1**	1 set	586,95
TwiXS G	Starter kit	0,5-10 / 10-100	**TX56.1**	1 set	586,95
TwiXS H	Starter kit	2-20 / 20-200	**TX57.1**	1 set	568,90
TwiXS K	Starter kit	5-50 / 20-200	**TX58.1**	1 set	568,90
TwiXS N	Starter kit	10-100 / 100-1000	**TX59.1**	1 set	568,90
TwiXS Q	Starter kit	20-200 / 100-1000	**TX60.1**	1 set	568,90

Microlitre pipettes, Socorex

Single-channel microlitre pipette Acura® *manual*

Socorex. Autoclavable: Yes.

- Easy to operate function keys
- Extremely gentle plunger activation
- Separate, large tip eject button
- Gentle tip ejection
- Narrow pipette shaft
- Justip™ tip adjustment system allows exact calibration of the shaft height
- Low weight
- Innovative, rapid calibration system with integrated key
- Individual serial number and inspection certificate
- Fully autoclavable

A 121 °C

In vitro diagnostic medical device according to IVDD

Variable

Technical specifications:

Art. No.	AT26.1	AT27.1	AT28.1	AT29.1	AT30.1	AT31.1	AT32.1	AT33.1	AT34.1	AT35.1
Volume	0.1 to 2 µl	0.5 to 10 µl	1 to 10 µl	2 to 20 µl	5 to 50 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl	1000 to 10000 µl
Nominal volume	2 µl	10 µl		20 µl	50 µl	100 µl	200 µl	1,000 µl	5,000 µl	10,000 µl
Correctness	±2 %	±1 %				±0,8 %		±0,5 %	±0,7 %	±0,5 %
Variation coefficient	±1,5 %	±0,5 %	±0,7 %	±0,5 %	±0,4 %	±0,2 %			±0,4 %	±0,2 %

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
825	Single-channel, variable	0.1 to 2	0,002	10	**AT26.1**	1 unit(s)	303,15
825	Single-channel, variable	0.5 to 10	0,01	10	**AT27.1**	1 unit(s)	303,15
825	Single-channel, variable	1 to 10	0,01	200	**AT28.1**	1 unit(s)	283,80
825	Single-channel, variable	2 to 20	0,02	200	**AT29.1**	1 unit(s)	283,80
825	Single-channel, variable	5 to 50	0,1	200	**AT30.1**	1 unit(s)	283,80
825	Single-channel, variable	10 to 100	0,1	200	**AT31.1**	1 unit(s)	283,80
825	Single-channel, variable	20 to 200	0,2	200	**AT32.1**	1 unit(s)	283,80
825	Single-channel, variable	100 to 1000	1,0	1000	**AT33.1**	1 unit(s)	283,80
835	Single-channel, variable	500 to 5000	10,0	5000	**AT34.1**	1 unit(s)	312,20
835	Single-channel, variable	1000 to 10000	10,0	10000	**AT35.1**	1 unit(s)	312,20

Fixed volume

Technical specifications:

Art. No.	AN94.1	AN95.1	AN96.1	AN97.1	AN98.1	AN99.1	AP00.1	AP01.1	AP02.1	AP03.1	AP04.1	AP05.1	AP06.1	AP07.1	AP08.1
Volume	1 µl	5 µl	10 µl	20 µl	25 µl	50 µl	100 µl	200 µl	250 µl	500 µl	1000 µl	2000 µl	2500 µl	5000 µl	10000 µl
Correctness	±2 %	±1,4 %	±0,7 %								±0,6 %	±0,8 %		±0,7 %	±0,5 %
Variation coefficient	±2 %	±1 %	±0,7 %	±0,5 %	±0,6 %	±0,5 %	±0,3 %	±0,4 %		±0,3 %	±0,2 %	±0,5 %		±0,4 %	±0,2 %

Type	Version	Volume (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
815	Single-channel, fixed volume	1	10	**AN94.1**	1 unit(s)	196,10
815	Single-channel, fixed volume	5	10	**AN95.1**	1 unit(s)	196,10
815	Single-channel, fixed volume	10	10	**AN96.1**	1 unit(s)	196,10
815	Single-channel, fixed volume	20	200/300	**AN97.1**	1 unit(s)	196,10
815	Single-channel, fixed volume	25	200/300	**AN98.1**	1 unit(s)	196,10
815	Single-channel, fixed volume	50	200/300	**AN99.1**	1 unit(s)	196,10
815	Single-channel, fixed volume	100	200/300	**AP00.1**	1 unit(s)	196,10
815	Single-channel, fixed volume	200	200/300	**AP01.1**	1 unit(s)	196,10
815	Single-channel, fixed volume	250	1000	**AP02.1**	1 unit(s)	196,10
815	Single-channel, fixed volume	500	1000	**AP03.1**	1 unit(s)	196,10
815	Single-channel, fixed volume	1000	1000	**AP04.1**	1 unit(s)	196,10
835F	Single-channel, fixed volume	2000	2000	**AP05.1**	1 unit(s)	234,80
835F	Single-channel, fixed volume	2500	5000	**AP06.1**	1 unit(s)	234,80
835F	Single-channel, fixed volume	5000	5000	**AP07.1**	1 unit(s)	234,80
835F	Single-channel, fixed volume	10000	10000	**AP08.1**	1 unit(s)	234,80

Microlitre pipettes, Socorex

Single-channel microlitre pipette set Acura® *manual* TrioPack

A 121 °C

Socorex. Autoclavable: Yes.

Delivery incl. 3 Acura® single-channel microlitre pipettes and inspection certificate.

In vitro diagnostic medical device according to IVDD

Type	Version	Volume range (µl)	Art. No.	Pack Qty.	€
Trio C	Starter kit	0,1-2 / 0,5-10 / 5-50	**TY62.1**	1 unit(s)	801,10
Trio J	Starter kit	0,1-2 / 2-20 / 20-200	**TY63.1**	1 unit(s)	784,35
Trio M	Starter kit	1-10 / 5-50 / 20-200	**TY64.1**	1 unit(s)	766,30
Trio O	Starter kit	0,5-10 / 10-100 / 100-1000	**TY65.1**	1 unit(s)	784,35
Trio P	Starter kit	1-10 / 10-100 / 100-1000	**TY66.1**	1 unit(s)	766,30
Trio S	Starter kit	2-20 / 20-200 / 100-1000	**TY67.1**	1 unit(s)	766,30
Trio T	Starter kit	5-50 / 20-200 / 100-1000	**TY68.1**	1 unit(s)	766,30
Trio V	Starter kit	10-100 / 100-1000 / 500-5000	**TY69.1**	1 unit(s)	792,10
Trio Y	Starter kit	100-1000 / 500-5000 / 1000-10000	**TY70.1**	1 unit(s)	817,90

Multi-channel microlitre pipette Acura® *manual*

Socorex. Autoclavable: Yes.

- 360° rotatable housing for maximum comfort while working
- Gradual tip ejection
- Easy to operate function keys
- Extremely gentle plunger activation
- Separate, large tip eject button
- Gentle tip ejection
- Justip™ tip adjustment system allows exact calibration of the shaft height
- Low weight
- Innovative calibration system with integrated key
- Individual serial number and inspection certificate
- Fully autoclavable

A 121 °C

Technical specifications:

Art. No.	AT46.1	AT43.1	AT47.1	AT44.1	AT48.1	AT45.1
Volume	0.5 to 10 µl		5 to 50 µl		40 to 350 µl	
Nominal volume	10 µl		50 µl		350 µl	
Correctness	±1,5 %		±0,8 %			
Variation coefficient	±1 %		±0,4 %		±0,3 %	

In vitro diagnostic medical device according to IVDD

8-channel

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
855	Multi-channel	0.5 to 10	0,01	10	**AT43.1**	1 unit(s)	780,45
855	Multi-channel	5 to 50	0,1	200/300	**AT44.1**	1 unit(s)	731,45
855	Multi-channel	40 to 350	0,4	350	**AT45.1**	1 unit(s)	731,45

12-channel

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
855	Multi-channel	0.5 to 10	0,01	10	**AT46.1**	1 unit(s)	899,15
855	Multi-channel	5 to 50	0,1	200/300	**AT47.1**	1 unit(s)	839,80
855	Multi-channel	40 to 350	0,4	350	**AT48.1**	1 unit(s)	839,80

Microlitre pipettes, Sartorius

Single-channel microlitre pipette Proline® Plus variable

Sartorius. Autoclavable: Yes.

For all types of routine laboratory work.
The ergonomic design enables effortless operation and minimises the effort required.

- Robust, yet light and easy to use
- Graduated volume setting, easy-to-read display
- Thermal insulation of internal components for improved accuracy
- Highly resistant to chemicals and UV light
- Compatible with numerous tips
- Long shaft for narrow laboratory vessels
- Easy to clean; no tools required for opening
- Supplied with tools for easy self-calibration
- Suitable for both left-handed and right-handed users
- High level of accuracy and precision according to ISO 8655
- Individual quality certificate
- Replaceable Safe-Cone filters to prevent contamination of the pipette and the sample material (for pipettes from 10 µl). Please order separately.
- Fully autoclavable when Safe-Cone filters are removed

A 121 °C

Technical specifications:

Art. No.	NA71.1	NA72.1	NA73.1	NA74.1	NA75.1	NA76.1	NA77.1	NA78.1
Volume	0.1 to 3 µl	0.5 to 10 µl	2 to 20 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl	1000 to 10000 µl
Nominal volume	3 µl	10 µl	20 µl	100 µl	200 µl	1,000 µl	5,000 µl	10,000 µl
Correctness	±1,3 %	±1 %	±0,9 %	±0,8 %	±0,6 %		±0,5 %	±0,6 %
Variation coefficient	±0,8 %	±0,6 %	±0,4 %	±0,15 %		±0,2 %		

Not a medical device / Not an IVD product

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, variable	0.1 to 3	0,002	10	**NA71.1**	1 unit(s)	234,00
Single-channel, variable	0.5 to 10	0,01	10	**NA72.1**	1 unit(s)	234,00
Single-channel, variable	2 to 20	0,02	200/300	**NA73.1**	1 unit(s)	234,00
Single-channel, variable	10 to 100	0,1	200/300/350	**NA74.1**	1 unit(s)	234,00
Single-channel, variable	20 to 200	0,2	200/300/350	**NA75.1**	1 unit(s)	234,00
Single-channel, variable	100 to 1000	1,0	1000	**NA76.1**	1 unit(s)	234,00
Single-channel, variable	500 to 5000	10,0	5000	**NA77.1**	1 unit(s)	234,00
Single-channel, variable	1000 to 10000	20,0	10000	**NA78.1**	1 unit(s)	234,00

Multi-channel microlitre pipette Proline® Plus

Sartorius. Autoclavable: Yes.

For all types of routine laboratory work.
The ergonomic design enables effortless operation and minimises the effort required.

- Robust, yet light and easy to use
- Graduated volume setting, easy-to-read display
- Optiload tip loading mechanism
- Thermal insulation of internal components for improved accuracy
- Highly resistant to chemicals and UV light
- Compatible with numerous tips
- Easy to clean; no tools required for opening
- Supplied with tools for easy self-calibration
- Suitable for both left-handed and right-handed users
- High level of accuracy and precision according to ISO 8655
- Individual quality certificate
- Replaceable Safe-Cone filters to prevent contamination of the pipette and the sample material (for pipettes from 10 µl). Please order separately.
- Fully autoclavable when Safe-Cone filters are removed

A 121 °C

Technical specifications:

Art. No.	NA79.1	NA82.1	NA80.1	NA83.1	NA81.1	NA84.1
Volume	0.5 to 10 µl		10 to 100 µl		30 to 300 µl	
Nominal volume	10 µl		100 µl		300 µl	
Correctness	±1,1 %	±1,5 %	±0,7 %		±0,6 %	
Variation coefficient	±1 %		±0,25 %			

Not a medical device / Not an IVD product

Microlitre pipettes, Sartorius

8-channel

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Multi-channel	0.5 to 10	0,01	10	**NA79.1**	1 unit(s)	687,00
Multi-channel	10 to 100	0,1	200/300/350	**NA80.1**	1 unit(s)	687,00
Multi-channel	30 to 300	0,2	300/350	**NA81.1**	1 unit(s)	687,00

12-channel

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Multi-channel	0.5 to 10	0,01	10	**NA82.1**	1 unit(s)	750,00
Multi-channel	10 to 100	0,1	200/300/350	**NA83.1**	1 unit(s)	750,00
Multi-channel	30 to 300	0,2	300/350	**NA84.1**	1 unit(s)	750,00

Single-channel microlitre pipette mLINE® variable

A 121 °C

Sartorius. Autoclavable: Yes.

mLINE® single-channel pipettes are extremely light, requiring very little effort for pipetting and tip ejection.

- Ergonomic design allows fatigue-free operation
- Thermal insulation of internal components for improved accuracy
- Easy-to-read display
- Opti-Load tip loading mechanism for easy tip ejection
- Start button enables automatic Safe-Cone filter ejection
- Ergonomic finger support with ID window for individual labelling
- Five different coloured button covers for colour coding
- Conformity certified with test protocol
- Safe-Cone filter to prevent contamination of the pipette and the sample material (for pipettes from 10 µl). Please order separately.
- Fully autoclavable when Safe-Cone filters are removed

Technical specifications:

Art. No.	KC10.1	AN21.1	AN22.1	AN23.1	AN24.1	AN25.1	AN26.1
Volume	0.1 to 3 µl	0.5 to 10 µl	2 to 20 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl
Nominal volume	3 µl	10 µl	20 µl	100 µl	200 µl	1,000 µl	5,000 µl
Correctness	±1,3 %	±1 %	±0,9 %	±0,8 %	±0,6 %		±0,5 %
Variation coefficient	±0,8 %	±0,6 %	±0,4 %	±0,15 %		±0,2 %	±0,15 %

Not a medical device / Not an IVD product

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, variable	0.1 to 3	0,002	10/20	**KC10.1**	1 unit(s)	303,00
Single-channel, variable	0.5 to 10	0,01	10/20	**AN21.1**	1 unit(s)	303,00
Single-channel, variable	2 to 20	0,02	200/300	**AN22.1**	1 unit(s)	303,00
Single-channel, variable	10 to 100	0,1	200/300	**AN23.1**	1 unit(s)	303,00
Single-channel, variable	20 to 200	0,2	200/300	**AN24.1**	1 unit(s)	303,00
Single-channel, variable	100 to 1000	1,0	1000	**AN25.1**	1 unit(s)	303,00
Single-channel, variable	500 to 5000	10,0	5000	**AN26.1**	1 unit(s)	303,00

Microlitre pipette accessories

Pipette carousel Twister® universal 336

Socorex. Material: PA, PC.

Carousel stand for the most common pipette brands.
360° axial rotation allows easy access to instruments.

Colour	Slots	Art. No.	Pack Qty.	€
red	6	**TX66.1**	1 unit(s)	130,30
blue	6	**TX62.1**	1 unit(s)	130,30
grey	6	**TX65.1**	1 unit(s)	130,30
green	6	**TX63.1**	1 unit(s)	130,30
white	6	**TX67.1**	1 unit(s)	130,30
orange	6	**TX64.1**	1 unit(s)	130,30
yellow	6	**TX68.1**	1 unit(s)	130,30

Pipette stands universal 337

Socorex. Material: PA.

For all common microlitre pipette brands. Space-saving.

Colour	Slots	Width (mm)	Depth (mm)	Art. No.	Pack Qty.	€
ice blue	7	195	140	**T278.1**	1 unit(s)	105,80
light grey	7	195	140	**T277.1**	1 unit(s)	105,80
mint green	7	195	140	**T279.1**	1 unit(s)	105,80
vanilla yellow	7	195	140	**T280.1**	1 unit(s)	105,80

Pipette stands ROTILABO®

ROTH SELECTION. Material: PMMA.

Suitable for all common pipette brands.

- Stable and shatter-proof
- Slot Ø 20 mm

Slots	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	280	80	165	**A804.1**	1 unit(s)	104,15

Pipette carousel

ROTH SELECTION. Material: ABS.

Suitable for all standard models. Holds up to 8 single-channel pipettes or 4 multi-channel pipettes vertically in order to prevent contamination. Customised colour scheme thanks to interchangeable upper sections. Inserts can be removed from the upper level to make space for larger pipettes. Can be cleaned with soap/water and standard laboratory disinfectants.

Delivery incl. white frame, eight single-coloured bases, as well as 2 x 8 coloured tops and a handle. Delivered unassembled.

Colour	Slots	Art. No.	Pack Qty.	€
blue/green	8	**HYP7.1**	1 unit(s)	114,40
violet/colourless	8	**HYP8.1**	1 unit(s)	114,40
colourless/colourful	8	**HYP9.1**	1 unit(s)	114,40

Pipette carousel Flip & Grip™

ROTH SELECTION.

Carousel stand for the most common pipette brands. Holds up to 12 single-channel pipettes (6 on the handle + 6 attached to the pipetting button) or 3 multi-channel plus 3 single-channel pipettes. With heavy base for stability on laboratory benches. Pipette holder can be screwed under a shelf overhead to save storage space.

Colour	Slots	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
blue	6	332	193	**XT82.1**	1 unit(s)	88,30
magenta	6	332	193	**XT84.1**	1 unit(s)	88,30
mint green	6	332	193	**XT83.1**	1 unit(s)	88,30

Microlitre pipette accessories

Pipette stands

ROTH SELECTION. Material: ABS.

Suitable for picking up narrow pipettes.
Top cut-out: W 25 mm, bottom cut-out: W 20 mm.

Slots	Width (mm)	Depth (mm)	Art. No.	Pack Qty.	€
6	294	173	**N949.1**	1 unit(s)	46,55

Pipette stands ROTILABO®

ROTH SELECTION. Material: PMMA.

Suitable for all conventional pipettes with finger support. Rubber feet for stability.

Single stand

Slots	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	125	115	230	**HEC2.1**	1 unit(s)	28,65

For four pipettes

Slots	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
4	305	115	230	**HEC1.1**	1 unit(s)	48,05

Wall holders for microlitre pipettes

ROTH SELECTION. Material: ABS.

For vertical storage of two microlitre pipettes.

- Suitable for all common brands
- Suitable for single-channel and multi-channel pipettes
- For narrow pipettes, the upper part of the pipette holder can be made smaller using the inserts included in the delivery

Delivery incl. two mounting plates and six bases (2 x blue, 2 x green, 2 x colourless) and six tops (2 x blue, 2 x green, 1 x purple, 1 x yellow), which can be combined in any way for fastening the pipettes.
Delivery without mounting material.

Version	Art. No.	Pack Qty.	€
Wall holder	**HYP6.1**	2 unit(s)	42,25

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Pipette tips and refill systems

Pipette tips

ROTH SELECTION. Material: PP. Autoclavable: Yes.

NEW / +

A 121 °C

MIKRO 0.1–10 µl graduated

Graduated. Suitable for BRAND, Sartorius.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	31.5	Non-sterile	Bag	loose	**K138.1**	1,000 unit(s)	20,40
0.1 to 10	Standard	colourless	31.5	Non-sterile	Refill	10 x 96	**KE22.1**	960 unit(s)	41,30
0.1 to 10	Standard	colourless	31.5	Non-sterile	Box (hinged lid)	10 x 96	**CLC9.1**	960 unit(s)	51,25

KRISTALL 0.5–20 µl

Suitable for Eppendorf, Sartorius, Socorex.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 20	Standard	colourless	45	Non-sterile	Bag	loose	**9260.1**	1,000 unit(s)	20,50
0.5 to 20	Standard	colourless	45	Non-sterile	Refill	10 x 96	**CLE0.1**	960 unit(s)	42,90
0.5 to 20	Standard	colourless	45	Non-sterile	Box (hinged lid)	10 x 96	**CLE1.1**	960 unit(s)	50,05

UNIVERSAL 1–200 µl

Non-sterile. Suitable for ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Standard	yellow	50	Non-sterile	Bag	loose	**1LP1.1**	1,000 unit(s)	10,75
1 to 200	Standard	yellow	50	Non-sterile	Box (hinged lid)	10 x 96	**1LP2.1**	960 unit(s)	41,95
1 to 200	Standard	yellow	50	Non-sterile	Refill	10 x 96	**1LP3.1**	960 unit(s)	37,65

UNIVERSAL 5–200 µl graduated

Graduated. Suitable for Eppendorf, Gilson, Sartorius, Socorex.

In vitro diagnostic medical device according to IVDD

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
5 to 200	Standard	colourless	51	Non-sterile	Bag	loose	**B002.1**	1,000 unit(s)	19,90
5 to 200	Standard	colourless	51	Non-sterile	Box (slip lid)	10 x 96	**CPX3.1**	960 unit(s)	70,85

UNIVERSAL 1–300 µl

Suitable for BRAND, Eppendorf, Gilson, Sartorius.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 300	Standard	colourless	52	Non-sterile	Bag	loose	**XC75.1**	1,000 unit(s)	22,75
1 to 300	Standard	colourless	52	Non-sterile	Refill	10 x 96	**XC76.1**	960 unit(s)	51,80
1 to 300	Standard	colourless	52	Non-sterile	Box (hinged lid)	10 x 96	**XC77.1**	960 unit(s)	55,75

UNIVERSAL 40–350 µl

Suitable for Socorex.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
40 to 350	Standard	colourless	60	Non-sterile	Bag	loose	**AT49.1**	1,000 unit(s)	79,40
40 to 350	Standard	colourless	60	Non-sterile	Box (hinged lid)	10 x 96	**AT50.1**	960 unit(s)	141,90

Pipette tips and refill systems

UNIVERSAL 100–1200 µl
Suitable for Eppendorf, Gilson, Sartorius, Socorex.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1200	Standard	blue	71	Non-sterile	Bag	loose	**2679.1**	1,000 unit(s)	13,15
100 to 1200	Standard	colourless	71	Non-sterile	Bag	loose	**B006.1**	1,000 unit(s)	16,10
100 to 1200	Standard	colourless	71	Non-sterile	Refill	16 x 60	**KE23.1**	960 unit(s)	48,20
100 to 1200	Standard	blue	71	Non-sterile	Refill	16 x 60	**KE24.1**	960 unit(s)	50,80
100 to 1200	Standard	colourless	71	Non-sterile	Box (hinged lid)	10 x 60	**CLE2.1**	600 unit(s)	40,55
100 to 1200	Standard	blue	71	Non-sterile	Box (hinged lid)	10 x 60	**CLE3.1**	600 unit(s)	37,75

50-1200 µl
Suitable for Sartorius.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1200	Standard	colourless	71.5	Non-sterile	Bag	loose	**LT33.2**	480 unit(s)	24,90
50 to 1200	Standard	colourless	71.5	Non-sterile	Box (hinged lid)	10 x 96	**LT34.1**	960 unit(s)	87,65

Pipette tips

Material: PP. Autoclavable: Yes.

A 121 °C

MAKRO 0.1–2 ml Suitable for Eppendorf, Socorex.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 2000	Standard	colourless	10	115	Non-sterile	Bag	loose	**K315.1**	250 unit(s)	34,55

MAKRO 1–5 ml Suitable for Sartorius, Socorex, Labmate

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 5000	Standard	colourless	12.5	134	Non-sterile	Bag	loose	**CX70.1**	300 unit(s)	34,20
1000 to 5000	Standard	colourless	12.5	134	Non-sterile	Box (sliding lid)	1 x 50	**XP91.1**	50 unit(s)	26,50

MAKRO 1–5 ml Suitable for Starlab, Gilson, Oxford

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 5000	Standard	colourless	12	120	Non-sterile	Bag	loose	**5846.1**	250 unit(s)	24,00
1000 to 5000	Standard	colourless	12	120	Non-sterile	Box (slip lid)	1 x 50	**XP92.1**	50 unit(s)	26,50

MAKRO 1–5 ml Suitable for Eppendorf, Sartorius, Socorex
Graduated.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 5000	Standard	colourless	12.5	123	Non-sterile	Bag	2 x 250	**AT51.1**	500 unit(s)	167,70
1000 to 5000	Standard	colourless	12.5	123	Non-sterile	Box (slip lid)	2 x 50	**AT52.1**	100 unit(s)	82,30

Pipette tips and refill systems

MAKRO 1–5 ml Suitable for BRAND, Finnpipette®

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 5000	Standard	colourless	9	148	Non-sterile	Bag	loose	**6946.2**	500 unit(s)	54,40
1000 to 5000	Standard	colourless	9	148	Non-sterile	Box	loose	**6946.1**	75 unit(s)	14,95
1000 to 5000	Standard	colourless	9	148	Non-sterile	Box (sliding lid)	1 x 50	**XP93.1**	50 unit(s)	26,50

MAKRO 0.5–5 ml Suitable for ROTH, BRAND

In vitro diagnostic medical device according to IVDD

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
500 to 5000	Standard	colourless	9.5	160	Non-sterile	Bag	loose	**HL73.1**	200 unit(s)	26,85
500 to 5000	Standard	colourless	9.5	160	Non-sterile	Box (slip lid)	1 x 28	**HL74.1**	28 unit(s)	46,55

MAKRO 1–10 ml Suitable for Socorex, Finnpipette®

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 10000	Standard	colourless	15.5	150	Non-sterile	Bag	loose	**E736.1**	100 unit(s)	42,85
1000 to 10000	Standard	colourless	15.5	150	Non-sterile	Box (hinged lid)	1 x 24	**PC77.1**	24 unit(s)	32,15

MAKRO 1–10 ml Suitable for Gilson

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 10000	Standard	colourless	160	Non-sterile	Bag	4 x 50	**HTA0.1**	200 unit(s)	50,55
1000 to 10000	Standard	colourless	160	Non-sterile	Box (slip lid)	1 x 30	**HTA1.1**	30 unit(s)	19,25

MAKRO 1–10 ml Suitable for ROTH, BRAND, Eppendorf, Sartorius

In vitro diagnostic medical device according to IVDD

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 10000	Standard	colourless	14.5	156.5	Non-sterile	Bag	loose	**HL75.1**	100 unit(s)	24,95
1000 to 10000	Standard	colourless	14.5	156.5	Non-sterile	Box (slip lid)	1 x 18	**HL76.1**	18 unit(s)	58,55

Pipette tips large opening

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- With extra large opening for the protection of cells
- Suitable for pipetting of suspensions or for viscous liquids
- RNase/DNase/human DNA and pyrogen free

A 121 °C

Not a medical device / Not an IVD product

1-200 µl
Suitable for BRAND, Eppendorf, Gilson, ROTH.

Volume (µl)	Version	Colour	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Cell-Saver	colourless	Non-sterile	Bag	loose	**AEA9.1**	1,000 unit(s)	51,05

100-1000 µl, with filter, sterile
With aerosol filter. Suitable for Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

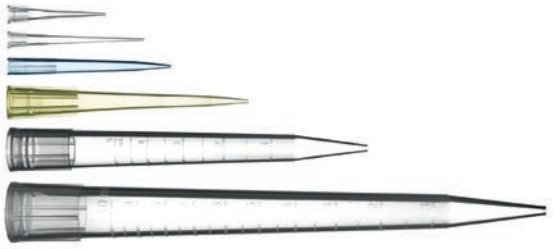
Volume (µl)	Version	Colour	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1000	Cell-Saver	colourless	**Sterile**	Box (slip lid)	6 x 96	**CHC6.1**	576 unit(s)	123,00

Pipette tips and refill systems

Pipette tips ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Made of non-cytotoxic, biologically inert and highly transparent polypropylene
- Production under strictly controlled clean room conditions
- Extra smooth inner surface
- Graduation for quick and convenient visual volume testing
- Universal fit to many popular pipette brands, simple and effortless ejection
- Special design prevents DNA denaturation
- **Free from RNase/DNase and human DNA**
- **Pyrogen and PCR-inhibitor free**
- **Non-metallic**



NEW / +

A 121 °C

In vitro diagnostic medical device according to IVDD

10 µl

Graduation at 2 and 10 µl, for quick volume control. Suitable for: Sartorius, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, ROTH.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	31.2	Non-sterile	Bag	loose	**1EK4.1**	1,000 unit(s)	11,30
0.1 to 10	Standard	colourless	31.2	Non-sterile	Box (hinged lid)	10 x 96	**1EK5.1**	960 unit(s)	42,85
0.1 to 10	Standard	colourless	31.2	Non-sterile	Refill	10 x 96	**1EK6.1**	960 unit(s)	29,60

10/20 µl XL

Graduation at 2 and 10 µl, for quick volume control. Suitable for: Sartorius, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, ROTH.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 20	Standard	colourless	45.8	Non-sterile	Bag	loose	**1EK7.1**	1,000 unit(s)	12,90
0.5 to 20	Standard	colourless	45.8	Non-sterile	Box (hinged lid)	10 x 96	**1EK8.1**	960 unit(s)	44,10
0.5 to 20	Standard	colourless	45.8	Non-sterile	Refill	10 x 96	**1EK9.1**	960 unit(s)	31,05

200 µl

Graduation at 10, 50 and 200 µl, for quick volume control. Suitable for: Sartorius, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, ROTH.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
20 to 200	Standard	colourless	53.4	Non-sterile	Bag	loose	**1EKA.1**	1,000 unit(s)	10,20
20 to 200	Standard	yellow	53.4	Non-sterile	Bag	loose	**1EKC.1**	1,000 unit(s)	10,20
20 to 200	Standard	colourless	53.4	Non-sterile	Box (hinged lid)	10 x 96	**1EKE.1**	960 unit(s)	42,85
20 to 200	Standard	colourless	53.4	Non-sterile	Refill	10 x 96	**1EKH.1**	960 unit(s)	29,60

1000 µl

Graduation at 100, 500 and 1000 µl, for quick volume control. Suitable for: Sartorius, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, ROTH.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1000	Standard	colourless	84.3	Non-sterile	Bag	loose	**1EKK.1**	1,000 unit(s)	15,50
100 to 1000	Standard	blue	84.3	Non-sterile	Bag	loose	**1EKL.1**	1,000 unit(s)	15,50
100 to 1000	Standard	colourless	84.3	Non-sterile	Box (hinged lid)	8 x 96	**1EKN.1**	768 unit(s)	35,35
100 to 1000	Standard	colourless	84.3	Non-sterile	Refill	10 x 96	**1EKP.1**	960 unit(s)	37,65

5 ml

Graduation in 0.5 ml increments, for quick volume control. Suitable for: Gilson, Rainin®.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
500 to 5000	Standard	colourless	124	Non-sterile	Bag	loose	**1EKT.1**	250 unit(s)	25,85

10 ml

Graduation in 1 ml increments, for quick volume control. Suitable for: Sartorius, Eppendorf, Rainin®, Gilson

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 10000	Standard	colourless	181	Non-sterile	Bag	loose	**1EKX.1**	200 unit(s)	59,15

Filter tips ROTILABO®

NEW / +

ROTH SELECTION. Material: PP, Filter made of PE. Autoclavable: No.

Filter tips eliminate harmful aerosol transfer during pipetting and protect pipette shafts from contamination and cross-contamination. In this way, reproducible and reliable results are guaranteed. The efficient barrier against aerosols and vapours also protects against radioactive, environmentally harmful or corrosive substances penetration the pipette body.

- Made of non-cytotoxic, biologically inert and highly transparent polypropylene
- Hydrophobic filters made of pure polyethylene
- Free of chemical additives, no risk of cross-contamination in case the liquid comes into contact with the filter
- Filter pore size of 10-40 µm for extremely high filter density
- Production under strictly controlled clean room conditions
- Extra smooth inner surface
- Graduation for quick and convenient visual volume testing
- Universal fit to many popular pipette brands, simple and effortless ejection
- Special design prevents DNA denaturation
- **Free from RNase/DNase and human DNA**
- **Pyrogen and PCR-inhibitor free**
- **Non-metallic**

In vitro diagnostic medical device according to IVDD

10 µl

Graduation at 2 and 10 µl, for quick volume control. Suitable for: ROTH, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	31.2	Non-sterile	Bag	loose	**1EL5.1**	1,000 unit(s)	44,45
0.1 to 10	Standard	colourless	31.2	**Sterile**	Box (hinged lid)	10 x 96	**1EL6.1**	960 unit(s)	61,80

10/20 µl XL

Graduation at 2 and 10 µl, for quick volume control. Suitable for: ROTH, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 20	Standard	colourless	45.8	Non-sterile	Bag	loose	**1EL7.1**	1,000 unit(s)	48,15
0.5 to 20	Standard	colourless	45.8	**Sterile**	Box (hinged lid)	10 x 96	**1EL8.1**	960 unit(s)	61,80

20 µl

Graduation at 10 µl, for quick volume control. Suitable for: Eppendorf, Gilson.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
2 to 20	Standard	colourless	53.4	Non-sterile	Bag	loose	**1EL9.1**	1,000 unit(s)	43,65
2 to 20	Standard	colourless	53.4	**Sterile**	Box (hinged lid)	10 x 96	**1ELA.1**	960 unit(s)	61,80

100 µl

Graduation at 10 and 50 µl, for quick volume control. Suitable for: Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
2 to 100	Standard	colourless	53.4	Non-sterile	Bag	loose	**1ELC.1**	1,000 unit(s)	43,65
2 to 100	Standard	colourless	53.4	**Sterile**	Box (hinged lid)	10 x 96	**1ELE.1**	960 unit(s)	61,80

200 µl

Graduation at 10, 50 and 200 µl, for quick volume control. Suitable for: ROTH, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
2 to 200	Standard	colourless	53.4	Non-sterile	Bag	loose	**1ELH.1**	1,000 unit(s)	43,65
2 to 200	Standard	colourless	53.4	**Sterile**	Box (hinged lid)	10 x 96	**1ELK.1**	960 unit(s)	61,80

1000 µl

Graduation at 100, 500 and 1000 µl, for quick volume control. Suitable for: ROTH, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

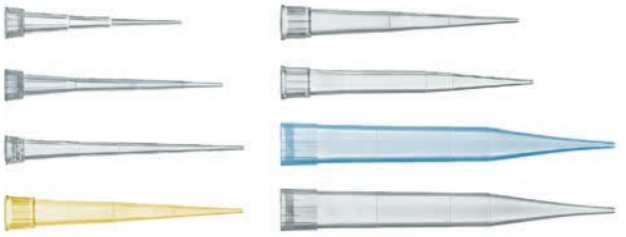
Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1000	Standard	colourless	84.3	Non-sterile	Bag	loose	**1ELL.1**	1,000 unit(s)	53,60
100 to 1000	Standard	colourless	84.3	**Sterile**	Box (hinged lid)	8 x 96	**1ELN.1**	768 unit(s)	59,05

Pipette tips and refill systems

Pipette tips

BRAND. Material: PP. Autoclavable: Yes.

- High quality PP types, free from DiHEMDA and oleamide
- Produced in a cleanroom environment, automatically palletised and packaged
- Produced without plasticizer, cadmium-free colour pigments
- Palletised tips, free of DNA, RNase, Endotoxins and ATP
- Sterile tips incl. BIO-CERT®-grade packaging: Sterile according to ISO 11137 and AAMI guidelines, an SAL of 10^{-6} is guaranteed, with certificate



A 121 °C

In vitro diagnostic medical device according to IVDD

0.1–20 µl
Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius. Specially designed for nanoscale applications.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 20	Standard	colourless	37	Non-sterile	Bag	loose	**AL17.1**	1,000 unit(s)	35,45
0.1 to 20	Standard	colourless	37	Non-sterile	Refill unit (palletised)	10 x 96	**ALT4.1**	960 unit(s)	63,70
0.1 to 20	Standard	colourless	37	Non-sterile	Box (combi-lid)	5 x 96	**HL65.1**	480 unit(s)	50,70
0.1 to 20	Standard	colourless	37	**Sterile**	Box (combi-lid)	10 x 96	**ALT5.1**	960 unit(s)	115,25
0.1 to 20	Ultra Low Retention	colourless	37	Non-sterile	Box (combi-lid)	5 x 96	**ALT6.1**	480 unit(s)	66,50
0.1 to 20	Ultra Low Retention	colourless	37	**Sterile**	Box (combi-lid)	10 x 96	**ALT7.1**	960 unit(s)	128,45

0.5–20 µl
Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 20	Standard	colourless	46	Non-sterile	Refill	10 x 96	**1CE1.1**	960 unit(s)	65,35
0.5 to 20	Standard	colourless	46	Non-sterile	Bag	loose	**HKA4.1**	1,000 unit(s)	33,40
0.5 to 20	Standard	colourless	46	Non-sterile	Refill unit (palletised)	10 x 96	**HKA5.1**	960 unit(s)	53,90
0.5 to 20	Standard	colourless	46	Non-sterile	Box (combi-lid)	5 x 96	**HKA6.1**	480 unit(s)	48,05

1-50 µl
Graduation at 2.5 µl, 10, 25 and 50 µl, for quick volume control. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 50	Standard	colourless	50	Non-sterile	Bag	loose	**ALT8.1**	1,000 unit(s)	25,10
1 to 50	Standard	colourless	50	Non-sterile	Refill unit (palletised)	10 x 96	**ALT9.1**	960 unit(s)	59,20
1 to 50	Standard	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**ALX0.1**	480 unit(s)	51,85
1 to 50	Standard	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ALX1.1**	960 unit(s)	112,05
1 to 50	Ultra Low Retention	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**ALX2.1**	480 unit(s)	60,95
1 to 50	Ultra Low Retention	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ALX3.1**	960 unit(s)	132,15

2-200 µl
Graduated at 20 and 100 µl, for quick volume control. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
2 to 200	Standard	colourless	50	Non-sterile	Refill	10 x 96	**1CE2.1**	960 unit(s)	58,95
2 to 200	Standard	yellow	50	Non-sterile	Bag	loose	**HL67.1**	1,000 unit(s)	21,80
2 to 200	Standard	colourless	50	Non-sterile	Refill unit (palletised)	10 x 96	**ALX4.1**	960 unit(s)	55,15
2 to 200	Standard	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**HL68.1**	480 unit(s)	45,05
2 to 200	Standard	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ALX5.1**	960 unit(s)	104,40
2 to 200	Ultra Low Retention	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**ALX6.1**	480 unit(s)	58,35
2 to 200	Ultra Low Retention	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ALX7.1**	960 unit(s)	120,60

Pipette tips and refill systems

5-300 µl
Graduation at 50, 100 and 300 µl, for quick volume control. Thin-walled tip, suitable for reverse pipetting. Ideal for working with multichannel pipettes. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
5 to 300	Standard	colourless	53	Non-sterile	Bag	loose	**ALX8.1**	1,000 unit(s)	27,35
5 to 300	Standard	colourless	53	Non-sterile	Refill	10 x 96	**ALX9.1**	960 unit(s)	55,15
5 to 300	Standard	colourless	53	Non-sterile	Box (combi-lid)	5 x 96	**ALY0.1**	480 unit(s)	50,05
5 to 300	Standard	colourless	53	**Sterile**	Box (combi-lid)	10 x 96	**ALY1.1**	960 unit(s)	103,25
5 to 300	Ultra Low Retention	colourless	53	Non-sterile	Box (combi-lid)	5 x 96	**ALY2.1**	480 unit(s)	58,35
5 to 300	Ultra Low Retention	colourless	53	**Sterile**	Box (combi-lid)	10 x 96	**ALY3.1**	960 unit(s)	120,90

50-1000 µl
Graduation at 250, 500 and 1000 µl, for quick volume control. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

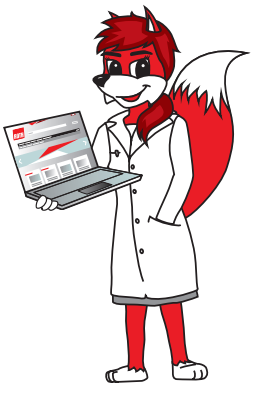
Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1000	Standard	colourless	70	Non-sterile	Refill	10 x 96	**1CE3.1**	960 unit(s)	64,20
50 to 1000	Standard	blue	70	Non-sterile	Bag	2 x 500	**HL70.1**	1,000 unit(s)	25,60
50 to 1000	Standard	blue	70	Non-sterile	Bag	10 x 500	**HL70.2**	5,000 unit(s)	104,50
50 to 1000	Standard	colourless	70	Non-sterile	Refill	10 x 96	**ALY4.1**	960 unit(s)	56,25
50 to 1000	Standard	colourless	70	Non-sterile	Box (combi-lid)	5 x 96	**HL71.1**	480 unit(s)	46,25
50 to 1000	Standard	colourless	70	**Sterile**	Box (combi-lid)	10 x 96	**ALY5.1**	960 unit(s)	116,30
50 to 1000	Ultra Low Retention	colourless	70	Non-sterile	Box (combi-lid)	5 x 96	**ALY6.1**	480 unit(s)	60,60
50 to 1000	Ultra Low Retention	colourless	70	**Sterile**	Box (combi-lid)	10 x 96	**ALY7.1**	960 unit(s)	136,45

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations



Pipette tips and refill systems

Filter tips

BRAND. Material: PP with PE filter. Autoclavable: Yes.

- With aerosol filter
- High quality PP types, free from DiHEMDA and oleamide
- Produced in a cleanroom environment, automatically palletised and packaged
- Produced without plasticizer, cadmium-free colour pigments
- Free of DNA, RNase, endotoxins and ATP
- Sterile tips incl. BIO-CERT®-grade packaging: Sterile according to ISO 11137 and AAMI guidelines, an SAL of 10^{-6} is guaranteed, with certificate

A 121 °C

In vitro diagnostic medical device according to IVDD

0.1–1 µl
Specially designed for nanoscale applications. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	
0.1 to 1	Standard	colourless	37	Non-sterile	Refill unit (palletised)	10 x 96	**ALY9.1**	960 unit(s)	117,25
0.1 to 1	Standard	colourless	37	**Sterile**	Box (combi-lid)	10 x 96	**ANA0.1**	960 unit(s)	149,60
0.1 to 1	Ultra Low Retention	colourless	37	Non-sterile	Box (combi-lid)	5 x 96	**ANA1.1**	480 unit(s)	83,65
0.1 to 1	Ultra Low Retention	colourless	37	**Sterile**	Box (combi-lid)	10 x 96	**ANA2.1**	960 unit(s)	199,95

1-20 µl
Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	
1 to 20	Standard	colourless	50	Non-sterile	Refill unit (palletised)	10 x 96	**ANA4.1**	960 unit(s)	108,40
1 to 20	Standard	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ANA5.1**	960 unit(s)	142,25
1 to 20	Ultra Low Retention	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**ANA6.1**	480 unit(s)	70,85
1 to 20	Ultra Low Retention	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ANA7.1**	960 unit(s)	165,55

5-200 µl
Graduated at 20 and 100 µl for quick volume control. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	
5 to 200	Standard	colourless	50	Non-sterile	Refill unit (palletised)	10 x 96	**ANA9.1**	960 unit(s)	95,80
5 to 200	Standard	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ANC0.1**	960 unit(s)	125,25
5 to 200	Ultra Low Retention	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**ANC1.1**	480 unit(s)	70,20
5 to 200	Ultra Low Retention	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ANC2.1**	960 unit(s)	146,95

50-1000 µl
Graduation at 250, 500 and 1000 µl for quick volume control. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	
50 to 1000	Standard	colourless	70	Non-sterile	Refill unit (palletised)	10 x 96	**ANC4.1**	960 unit(s)	117,50
50 to 1000	Standard	colourless	70	**Sterile**	Box (combi-lid)	10 x 96	**ANC5.1**	960 unit(s)	144,45
50 to 1000	Ultra Low Retention	colourless	70	Non-sterile	Box (combi-lid)	5 x 96	**ANC6.1**	480 unit(s)	77,65
50 to 1000	Ultra Low Retention	colourless	70	**Sterile**	Box (combi-lid)	10 x 96	**ANC7.1**	960 unit(s)	156,00

Pipette tips and refill systems

Pipette tips MµltiⓇ

Sorenson. Material: PP. Autoclavable: Yes.

- Positioning rings in neck of tip for better grip on the pipette
- Very high transparency
- Colourless tips, metal and cadmium free
- Tapered tips
- RNase/DNase, human DNA, PCR-inhibitor and pyrogen free

A 121 °C

Not a medical device / Not an IVD product

MIKRO ULTRA 0.1–10 µl

Graduated at 2 µl and 10 µl. Suitable for BRAND, Eppendorf, Gilson, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	LowBinding	colourless	28.8	Non-sterile	Bag	loose	**NL51.1**	1,000 unit(s)	41,55
0.1 to 10	Standard	colourless	28.8	Non-sterile	Refill	10 x 96	**NL61.1**	960 unit(s)	42,40
0.1 to 10	Standard	colourless	28.8	Non-sterile	Bag	loose	**P866.1**	1,000 unit(s)	31,40
0.1 to 10	Standard	colourless	28.8	Non-sterile	Box (slip lid)	10 x 96	**P867.1**	960 unit(s)	64,05
0.1 to 10	Standard	colourless	28.8	**Sterile**	Box (slip lid)	10 x 96	**P868.1**	960 unit(s)	68,95
0.1 to 10	LowBinding	colourless	28.8	**Sterile**	Box (slip lid)	10 x 96	**PC91.1**	960 unit(s)	71,65
0.1 to 10	LowBinding	colourless	28.8	Non-sterile	Box (slip lid)	10 x 96	**X590.1**	960 unit(s)	76,80

Long Reach 0.1–10 µl

Graduated at 2 µl, 5 µl and 10 µl. Suitable for Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Eppendorf, BRAND.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	45.3	Non-sterile	Bag	loose	**KP26.1**	1,000 unit(s)	33,35
0.1 to 10	Standard	colourless	45.3	Non-sterile	Box (slip lid)	10 x 96	**KP27.1**	960 unit(s)	71,60
0.1 to 10	Standard	colourless	45.3	**Sterile**	Box (slip lid)	10 x 96	**KP28.1**	960 unit(s)	82,25
0.1 to 10	Standard	colourless	45.3		Refill	10 x 96	**KP34.1**	960 unit(s)	44,25

KRISTALL 0.5–10 µl

Suitable for Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Eppendorf, BRAND.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 10	Standard	colourless	45.5	Non-sterile	Bag	loose	**2393.1**	1,000 unit(s)	33,25
0.5 to 10	Standard	colourless	45.5	Non-sterile	Box (slip lid)	10 x 96	**8144.1**	960 unit(s)	86,45
0.5 to 10	Standard	colourless	45.5	**Sterile**	Box (slip lid)	10 x 96	**8148.1**	960 unit(s)	95,10
0.5 to 10	LowBinding	colourless	45.5	Non-sterile	Bag	loose	**NL52.1**	1,000 unit(s)	39,20
0.5 to 10	LowBinding	colourless	45.5	**Sterile**	Box (slip lid)	10 x 96	**PC92.1**	960 unit(s)	84,75
0.5 to 10	LowBinding	colourless	45.5	Non-sterile	Box (slip lid)	10 x 96	**X591.1**	960 unit(s)	77,45

Pipette tips and refill systems

UNIVERSAL 1–200 µl
Suitable for Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Oxford, Eppendorf, BRAND.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Standard	colourless	50.7	Non-sterile	Bag	loose	**7058.1**	1,000 unit(s)	20,10
1 to 200	Standard	colourless	50.7	Non-sterile	Box (slip lid)	10 x 96	**8151.1**	960 unit(s)	53,75
1 to 200	Standard	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**8154.1**	960 unit(s)	65,45
1 to 200	Standard	yellow	50.7	Non-sterile	Bag	loose	**8156.1**	1,000 unit(s)	18,80
1 to 200	Standard	yellow	50.7	Non-sterile	Box (slip lid)	10 x 96	**8157.1**	960 unit(s)	54,10
1 to 200	Standard	yellow	50.7	**Sterile**	Box (slip lid)	10 x 96	**8159.1**	960 unit(s)	59,35
1 to 200	Standard	colourless	50.7		Refill	10 x 96	**T686.1**	960 unit(s)	38,15
1 to 200	Standard	yellow	50.7		Refill	10 x 96	**T687.1**	960 unit(s)	38,15

UNIVERSAL 1–200 µl graduated
Graduated. Suitable for Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Eppendorf, BRAND.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Standard	yellow	50.7	Non-sterile	Bag	loose	**E707.1**	1,000 unit(s)	29,55
1 to 200	Standard	colourless	50.7	Non-sterile	Box (slip lid)	10 x 96	**EC33.1**	960 unit(s)	53,55
1 to 200	Standard	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**EL96.1**	960 unit(s)	64,10
1 to 200	LowBinding	colourless	50.7	Non-sterile	Bag	loose	**NL53.1**	1,000 unit(s)	33,40
1 to 200	Standard	yellow	50.7	Non-sterile	Box (slip lid)	10 x 96	**NL55.1**	960 unit(s)	53,00
1 to 200	Standard	yellow	50.7	**Sterile**	Box (slip lid)	10 x 96	**NL56.1**	960 unit(s)	60,15
1 to 200	LowBinding	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**PC93.1**	960 unit(s)	69,45
1 to 200	Standard	colourless	50.7	Non-sterile	Bag	loose	**PP71.1**	1,000 unit(s)	29,55
1 to 200	LowBinding	colourless	50.7	Non-sterile	Box (slip lid)	10 x 96	**X592.1**	960 unit(s)	57,75

UNIVERSAL 1–300 µl
Graduated at 10 µl, 50 µl and 100 µl. Suitable for BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 300	Standard	colourless	58.57	Non-sterile	Bag	loose	**KC07.1**	1,000 unit(s)	25,85
1 to 300	Standard	colourless	58.57	Non-sterile	Box (slip lid)	10 x 96	**KC08.1**	960 unit(s)	53,30
1 to 300	Standard	colourless	58.57	**Sterile**	Box (slip lid)	10 x 96	**KC09.1**	960 unit(s)	64,00

UNIVERSAL 100–1000 µl
Suitable for BRAND, Eppendorf, Gilson, Finnpipette®, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1000	Standard	blue	78.3	Non-sterile	Bag	loose	**8160.1**	1,000 unit(s)	32,10
100 to 1000	Standard	blue	78.3	Non-sterile	Box (slip lid)	10 x 100	**8161.1**	1,000 unit(s)	63,25
100 to 1000	Standard	blue	78.3	**Sterile**	Box (slip lid)	10 x 100	**8162.1**	1,000 unit(s)	71,60
100 to 1000	Standard	colourless	78.3	Non-sterile	Bag	loose	**8163.1**	1,000 unit(s)	30,00
100 to 1000	Standard	colourless	78.3	Non-sterile	Box (slip lid)	10 x 100	**8164.1**	1,000 unit(s)	64,20
100 to 1000	Standard	colourless	78.3	**Sterile**	Box (slip lid)	10 x 100	**8165.1**	1,000 unit(s)	76,55
100 to 1000	LowBinding	colourless	78.3	Non-sterile	Bag	loose	**NL54.1**	1,000 unit(s)	34,35
100 to 1000	LowBinding	colourless	78.3	**Sterile**	Box (slip lid)	10 x 100	**PC94.1**	1,000 unit(s)	74,10
100 to 1000	LowBinding	colourless	78.3	Non-sterile	Box (slip lid)	10 x 100	**X594.1**	1,000 unit(s)	68,25

UNIVERSAL 50–1250 µl
Graduated at 200 µl, 500 µl and 1000 µl. Suitable for Eppendorf, Gilson, Finnpipette®, Oxford, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1250	Standard	colourless	102	Non-sterile	Box (hinged lid)	8 x 96	**EL23.1**	768 unit(s)	73,95
50 to 1250	Standard	colourless	102	**Sterile**	Box (hinged lid)	8 x 96	**EL24.1**	768 unit(s)	93,75
50 to 1250	Standard	colourless	102	Non-sterile	Bag	loose	**NL57.1**	768 unit(s)	30,15

Pipette tips and refill systems

Pipette tip refill system MµLti® Platinum Reload

Sorenson. Autoclavable: Yes.

Pipette tips in pre-assembled inserts.
Easy to use: Transfer the inserts with tips into the empty rack, tips are ready for use immediately.

- Reusable boxes with hinged lid
- Stackable
- Free of human DNA and PCR inhibitors
- RNase-/DNase-free, pyrogen-free

A 121 °C

Not a medical device / Not an IVD product

Starter kit 0.1–10 µl

Delivery incl. 10 boxes (hinged lid).

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
45.3	colourless	Non-sterile	10 x 96	**PK18.1**	960 unit(s)	67,95

Starter kit 1–200 µl

Delivery incl. 10 boxes (hinged lid)

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
50.7	colourless	Non-sterile	10 x 96	**NL65.1**	960 unit(s)	63,20

Starter kit 1–200 µl

Delivery incl. 10 boxes (hinged lid)

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
51.44	yellow	Non-sterile	10 x 96	**PK19.1**	960 unit(s)	66,30

Starter kit 1–300 µl

Delivery incl. 10 boxes (hinged lid)

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
58.57	colourless	Non-sterile	10 x 96	**PK20.1**	960 unit(s)	86,50

Starter kit 50–1250 µl

Delivery incl. 8 boxes (hinged lid)

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
102	colourless	Non-sterile	8 x 96	**PK21.1**	768 unit(s)	73,00

Refill set 0,1–10 µl

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
45.3	colourless	Non-sterile	4 x (10 x 96)	**PK22.1**	3,840 unit(s)	157,10

Refill set 1–200 µl

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
50.7	colourless	Non-sterile	4 x (10 x 96)	**NL66.1**	3,840 unit(s)	141,15
50.7	colourless	Non-sterile	4 x (10 x 96)	**NL67.1**	3,840 unit(s)	162,35

Refill set 1–200 µl

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
51.44	yellow	Non-sterile	4 x (10 x 96)	**PK23.1**	3,840 unit(s)	143,30

Refill set 1–300 µl

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
58.57	colourless	Non-sterile	4 x (10 x 96)	**PK24.1**	3,840 unit(s)	180,60

Refill set 50–1250 µl

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
102	colourless	Non-sterile	4 x (8 x 96)	**PK25.1**	3,072 unit(s)	207,50

Pipette tips and refill systems

Pipette tip station MµltiⓇ TipStation

Sorenson. Material: PP (100% recycled plastic).

5-layer pipette tip station.
Ideal for loading multichannel pipettes.

- 960 pipette tips in a MµltiⓇ TipStation
- 2 x 96 (=192) pipette tips in each layer
- The lid can be positioned over one half of the layer (96 tips) to minimise the risk of contamination
- Space-saving

Not a medical device / Not an IVD product

0.1–10 µl Long Reach

Suitable for: Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Eppendorf, BRAND.

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
45.3	colourless	**Sterile**	5 x 960	**EL29.1**	4,800 unit(s)	248,35
45.3	colourless	Non-sterile	5 x 960	**EL30.1**	4,800 unit(s)	225,75

1-200 µl

Suitable for: Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Oxford, Eppendorf, BRAND.

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
51.44	yellow	**Sterile**	5 x 960	**EL33.1**	4,800 unit(s)	216,10
51.44	yellow	Non-sterile	5 x 960	**EL34.1**	4,800 unit(s)	217,15

Filter tips MµltiGuard® sterile

Sorenson. Material: PP. **Sterile**. Autoclavable: Yes.

- With aerosol filter
- Specially developed hydrophobic membranes for protection against contamination from bio-hazardous, toxic or radioactive substances
- Made of fully inert material – to eliminate "false signals" during PCR experiments
- RNase/DNase, human DNA, PCR-inhibitor and pyrogen free

S A 121 °C

Not a medical device / Not an IVD product

Ultra G 0.1–10 µl

Graduated at 2 µl and 10 µl. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	28.8	**Sterile**	Box (slip lid)	10 x 96	**T613.1**	960 unit(s)	89,55
0.1 to 10	LowBinding	colourless	28.8	**Sterile**	Box (slip lid)	10 x 96	**X595.1**	960 unit(s)	112,70

0.1–10 µl

Graduated at 2 µl, 5 µl and 10 µl. Extra long. Suitable for Eppendorf, Finnpipette®, Gilson, Oxford, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	45.34	**Sterile**	Box (hinged lid)	10 x 96	**EL28.1**	960 unit(s)	93,15

LongReach 0.1–10 µl

Graduated at 2 µl, 5 µl and 10 µl. Extra long. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	45.34	**Sterile**	Box (slip lid)	10 x 96	**Y816.1**	960 unit(s)	107,65

E 0.5–10 µl

Suitable for BRAND, Eppendorf, Gilson, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 10	Standard	colourless	45.5	**Sterile**	Box (slip lid)	10 x 96	**A567.1**	960 unit(s)	97,00
0.5 to 10	LowBinding	colourless	45.5	**Sterile**	Box (slip lid)	10 x 96	**X596.1**	960 unit(s)	112,70

Pipette tips and refill systems

1-20 µl
Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 20	Standard	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**9770.1**	960 unit(s)	97,20
1 to 20	LowBinding	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**X597.1**	960 unit(s)	112,70

1-100 µl
Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 100	Standard	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**XC78.1**	960 unit(s)	102,15

1-200 µl
Suitable for Finnpipette®, Oxford, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Standard	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**9771.1**	960 unit(s)	97,20

NX 1–200 µl
Graduated at 10 µl, 50 µl and 100 µl. Suitable for Eppendorf, Gilson, Finnpipette®, Oxford.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	LowBinding	colourless	58.57	**Sterile**	Box (slip lid)	10 x 96	**EL27.1**	960 unit(s)	123,00

XT 1–300 µl
Graduated at 10 µl, 50 µl, 100 µl and 200 µl. Suitable for BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 300	Standard	colourless	77.5	**Sterile**	Box (slip lid)	10 x 96	**KL03.1**	960 unit(s)	111,20
1 to 300	LowBinding	colourless	77.5	**Sterile**	Box (slip lid)	10 x 96	**KL04.1**	960 unit(s)	119,95

1-200 µl
Graduated at 10 µl, 50 µl, 100 µl and 200 µl. Suitable for BRAND, Eppendorf, Gilson, Finnpipette®, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Standard	colourless	77.5	**Sterile**	Box (slip lid)	10 x 96	**H698.1**	960 unit(s)	93,65
1 to 200	LowBinding	colourless	77.5	**Sterile**	Box (slip lid)	10 x 96	**X599.1**	960 unit(s)	112,90

100-1000 µl
Suitable for BRAND, Eppendorf, Gilson, Finnpipette®, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1000	Standard	colourless	78.3	**Sterile**	Box (slip lid)	10 x 100	**9773.1**	1,000 unit(s)	96,95
100 to 1000	LowBinding	colourless	78.3	**Sterile**	Box (slip lid)	10 x 100	**X601.1**	1,000 unit(s)	112,90

XT 50–1250 µl
Graduated at 200 µl, 500 µl and 1000 µl. Suitable for Eppendorf, Gilson, Finnpipette®, Oxford, Sartorius.

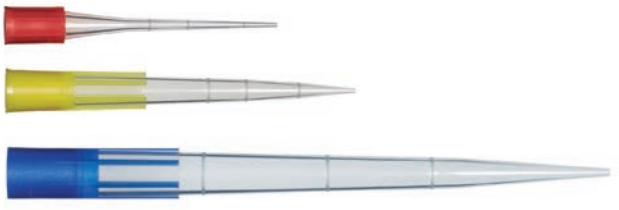
Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1250	Standard	colourless	102	**Sterile**	Box (hinged lid)	8 x 96	**EL25.1**	768 unit(s)	95,95

Pipette tips and refill systems

Pipette tips MµLti® OneTouch

Sorenson. Material: PP, elastic shaft made of TPE.

- RNase/DNase, human DNA, pyrogen and PCR-inhibitor free



Not a medical device / Not an IVD product

0.1–20 µl

Graduated at 1 µl, 5 µl and 10 µl. Suitable for extending syringes with Luer connection.Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 20	Standard	colourless, red	45.38	Non-sterile	Box (slip lid)	10 x 96	**KT09.1**	960 unit(s)	71,35
0.1 to 20	Standard	colourless, red	45.38	**Sterile**	Box (slip lid)	10 x 96	**KT10.1**	960 unit(s)	75,75
0.1 to 20	Standard	colourless, red	45.38	**Sterile**	Cardboard box (slip lid)	10 x 96	**KT11.1**	960 unit(s)	75,75

1-350 µl

Graduated at 10 µl, 50 µl and 100 µl. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 350	Standard	colourless, yellow	58.5	Non-sterile	Box (slip lid)	10 x 96	**KP90.1**	960 unit(s)	71,65
1 to 350	Standard	colourless, yellow	58.5	**Sterile**	Box (slip lid)	10 x 96	**KP91.1**	960 unit(s)	75,75
1 to 350	Standard	colourless, yellow	58.5	**Sterile**	Cardboard box (slip lid)	10 x 96	**KP92.1**	960 unit(s)	75,75

50-1250 µl

Graduated at 200 µl, 500 µl and 1000 µl. Suitable for Eppendorf, Finnpipette®, Gilson, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1250	Standard	colourless, blue	102.2	Non-sterile	Box (hinged lid)	8 x 96	**KT14.1**	768 unit(s)	71,35
50 to 1250	Standard	colourless, blue	102.2	**Sterile**	Box (hinged lid)	8 x 96	**KT15.1**	768 unit(s)	75,75
50 to 1250	Standard	colourless, blue	102.2	**Sterile**	Cardboard box (slip lid)	12 x 64	**KT16.1**	768 unit(s)	82,90

Filter tips MµLti® OneTouch sterile

Sorenson. Material: PP, elastic shaft made of TPE.

- With aerosol filter
- RNase/DNase, human DNA, pyrogen and PCR-inhibitor free

Not a medical device / Not an IVD product

0.1–20 µl

Graduated at 1 µl, 5 µl and 10 µl. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 20	Standard	colourless, red	45.38	**Sterile**	Box (slip lid)	10 x 96	**KT12.1**	960 unit(s)	123,85
0.1 to 20	Standard	colourless, red	45.38	**Sterile**	Cardboard box (slip lid)	10 x 96	**KT13.1**	960 unit(s)	123,85

1-350 µl

Graduated at 1 µl, 5 µl and 10 µl. Suitable for BRAND, Eppendorf, Finnpipette®, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 350	Standard	colourless, yellow	58.5	**Sterile**	Box (slip lid)	10 x 96	**KP93.1**	960 unit(s)	123,85
1 to 350	Standard	colourless, yellow	58.5	**Sterile**	Cardboard box (slip lid)	10 x 96	**KP94.1**	960 unit(s)	123,85

Pipette tips and refill systems

50-1250 µl
Graduated at 200 µl, 500 µl and 1000 µl. SSuitable for Eppendorf, Finnpipette®, Gilson, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1250	Standard	colourless, blue	102.2	**Sterile**	Box (hinged lid)	8 x 96	**KT17.1**	768 unit(s)	123,85
50 to 1250	Standard	colourless, blue	102.2	**Sterile**	Cardboard box (slip lid)	12 x 64	**KT18.1**	768 unit(s)	123,85

Pipette tips MµLti®

Sorenson. Material: PP. Autoclavable: Yes.

- Suitable for loading SDS-PAGE protein gels, horizontal agarose and DNA sequencing gels
- Precise pipetting of minute samples at the lower end of the micron range (restriction enzyme digestion, nick translation, enzyme assay, immune precipitation and DNA sequencing reaction)
- RNase/DNase/human DNA, PCR-inhibitor and pyrogen free

A 121 °C

Not a medical device / Not an IVD product

MiniFlex 0.1–10 µl, round
Graduation at 2 µl for checking the accuracy of pipettes. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Flex tips	colourless	45.72	Non-sterile	Box (slip lid)	1 x 200	**A569.1**	200 unit(s)	39,05
0.1 to 10	Flex tips	colourless	45.72	**Sterile**	Box (slip lid)	1 x 200	**NL58.1**	200 unit(s)	42,05

MiniFlex 0.1–10 µl, flat 0.4 mm
Graduation at 2 µl for checking the accuracy of pipettes. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Flex tips	colourless	45.72	Non-sterile	Box (slip lid)	1 x 200	**A570.1**	200 unit(s)	77,20

MiniFlex 0.1–10 µl, flat 0.2 mm
Graduation at 2 µl for checking the accuracy of pipettes. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, Sartorius, Socorex

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Flex tips	colourless	45.72	Non-sterile	Box (slip lid)	1 x 200	**A571.1**	200 unit(s)	106,25

Flex 1-200 µl, round
Graduation from 5 µl for quick volume control. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Flex tips	colourless	82.55	Non-sterile	Box (slip lid)	1 x 200	**6144.1**	200 unit(s)	40,60
1 to 200	Flex tips	colourless	82.55	**Sterile**	Box (slip lid)	1 x 200	**NL60.1**	200 unit(s)	45,30
1 to 200	Flex tips	colourless	82.55	Non-sterile	Bag	loose	**Y419.1**	1,000 unit(s)	54,05

Flex 1-200 µl, flat 0.4 mm
Graduation from 5 µl for quick volume control. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Flex tips	colourless	82.55	Non-sterile	Box (slip lid)	1 x 200	**6128.1**	200 unit(s)	76,20

Flex 1-200 µl, flat 0.2 mm
Graduation from 5 µl for quick volume control. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

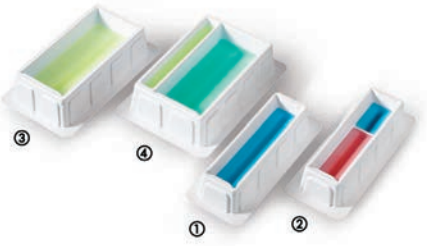
Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Flex tips	colourless	82.55	Non-sterile	Box (slip lid)	1 x 200	**6124.1**	200 unit(s)	102,50

Reagent reservoirs

Reagent reservoirs

ROTH SELECTION. Material: PS.

- Minimum reagent loss through conical collecting channel on the bottom
- Graduated volume markings on the inner wall
- Reinforced side walls and wider base for better stability



Volume 25 ml

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(1)	white	146	57	26	Non-sterile	10 x 10	**CYN5.1**	100 unit(s)	125,25
(1)	white	146	57	26	**Sterile**	10 x 10	**HT65.1**	100 unit(s)	134,95
(1)	white	146	57	26	**Sterile**	indiv.	**HT66.1**	50 unit(s)	120,40

Volume 25 ml partitioned

Reservoir partitioned in 2 chambers with capacity 5 or 10 ml, suitable for 8 and 4-channel pipettes.

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(2)	white	146	57	26	Non-sterile	10 x 10	**CYN4.1**	100 unit(s)	125,25
(2)	white	146	57	26	**Sterile**	10 x 10	**HT67.1**	100 unit(s)	134,95
(2)	white	146	57	26	**Sterile**	indiv.	**HT68.1**	50 unit(s)	120,40

Volume 100 ml

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(3)	white	146	83	32	Non-sterile	10 x 10	**CYN6.1**	100 unit(s)	163,40
(3)	white	146	83	32	**Sterile**	10 x 10	**HT69.1**	100 unit(s)	139,50
(3)	white	146	83	32	**Sterile**	indiv.	**HT70.1**	50 unit(s)	151,60

Volume 100 + 15 ml sterile

With additional reservoir at the side.

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(4)	white	146	102	32	**Sterile**	10 x 10	**HT71.1**	100 unit(s)	144,00

Reagent reservoirs Bio-pure™ sterile

ROTH SELECTION. Material: PET, biodegradable.

- Minimum reagent loss through conical collecting channel on the bottom
- Reinforced side walls and wider base for better stability
- Packed in biodegradable bags and recyclable boxes

Volume 25 ml

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(1)	white	146	57	26	**Sterile**	10 x 10	**AXC7.1**	100 unit(s)	134,05

Volume 25 ml (partitioned)

Reservoir partitioned in 2 chambers with capacity 5 or 10 ml, suitable for 8 and 4-channel pipettes.

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(2)	white	146	57	26	**Sterile**	10 x 10	**AXC8.1**	100 unit(s)	134,05

Volume 100 ml

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(3)	white	146	83	32	**Sterile**	10 x 10	**AXC9.1**	100 unit(s)	161,00

Reagent reservoirs

Reagent reservoirs

ROTH SELECTION. Material: PS.

- Compatible with 8 and 12-channel pipettes
- Robust design for safe handling
- V-shaped base for non-loss pipetting
- Graduations on the inside wall
- Spouts at the corners
- **RNase/DNase-free, pyrogen-free**

Volume 25 ml

Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
147	61	25	Non-sterile	1 x 100	**EKT6.1**	100 unit(s)	93,35
147	61	25	**Sterile**	20 x 5	**EKT7.1**	100 unit(s)	105,60
147	61	25	**Sterile**	indiv.	**EKT8.1**	50 unit(s)	88,15

Volume 50 ml

Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
147	76	28	Non-sterile	1 x 100	**EKT9.1**	100 unit(s)	102,60
147	76	28	**Sterile**	20 x 5	**EKX0.1**	100 unit(s)	115,35
147	76	28	**Sterile**	indiv.	**EKX1.1**	50 unit(s)	100,95

Volume 100 ml

Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
147	80	32	Non-sterile	1 x 100	**EKX2.1**	100 unit(s)	112,45
147	80	32	**Sterile**	20 x 5	**EKX3.1**	100 unit(s)	109,60
147	80	32	**Sterile**	indiv.	**EKX4.1**	50 unit(s)	104,20

Reagent reservoirs ROTILABO®

ROTH SELECTION.

- Graduations on the inside wall
- Spout for pouring without loss of substance or dripping
- V-shaped channel in the base for pipetting without loss of substance
- Strengthened side walls and a wide base ensure stability
- Stackable
- **RNase-/DNase-free, pyrogen-free**

Volume 5 ml

Graduated at 5 ml.

Length (mm)	Inner length (mm)	Width (mm)	Inner width (mm)	Height (mm)	Inner height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
107	72	54	21	19	18	**Sterile**	50 x 1	**KLE5.1**	50 unit(s)	45,70

Volume 10 ml

Graduated at 5 ml/10 ml.

Length (mm)	Inner length (mm)	Width (mm)	Inner width (mm)	Height (mm)	Inner height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
107	72	54	21	19	18	Non-sterile	1 x 100	**KLE6.1**	100 unit(s)	56,95
107	72	54	21	19	18	**Sterile**	100 x 1	**KLE7.1**	100 unit(s)	89,15

Reagent reservoirs

Reagent reservoirs ROTILABO® transparent

ROTH SELECTION. Material: PVC.

- Graduations on the inside wall
- Spout for pouring without loss of substance or dripping
- V-shaped channel in the base for pipetting without loss of substance
- Strengthened side walls and a wide base ensure stability
- Stackable
- **RNase-/DNase-free, pyrogen-free**

Volume 50 ml

Graduated at 25 ml/50 ml.

Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
102	28	30	**Sterile**	20 x 5	**KLE8.1**	100 unit(s)	124,70
102	28	30	Non-sterile	1 x 100	**KLE9.1**	100 unit(s)	53,65

Volume 100 ml

Graduated at 50 ml/100 ml.

Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
109	48	32	Non-sterile	1 x 100	**KLH0.1**	100 unit(s)	68,40

Reagent reservoir cooler ROTILABO®

ROTH SELECTION. Material: PP.

Filled with coolant. Suitable for reagent reservoirs ROTILABO®, transparent. Cools media for up to three hours at a temperature of 5 °C. Stackable.

For 50 ml reservoirs

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
violet	144	74	45	**KLE1.1**	2 unit(s)	63,10
blue	144	74	45	**KLE2.1**	2 unit(s)	63,10

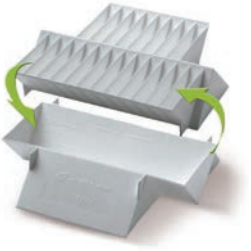
For 100 ml reservoirs

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
violet	150	90	43	**KLE3.1**	2 unit(s)	61,75
blue	150	90	43	**KLE4.1**	2 unit(s)	61,75

Reagent reservoirs Trifill Multi-channel

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Trifill is a combination of three reservoir units. With V-shaped, graduated liquid container, max. volume 50 ml, as well as 8 and 12 graduated liquid reservoirs. Max. filling capacity of 5 ml per numbered, V-shaped chamber.



A 121 °C

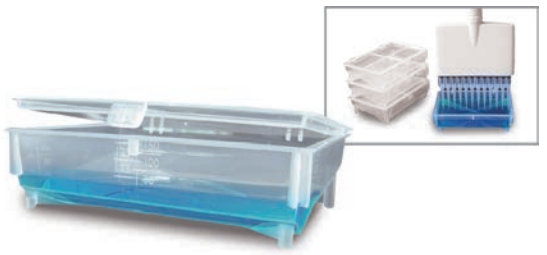
Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Art. No.	Pack Qty.	€
white	120	111	40	Non-sterile	**AA87.1**	10 unit(s)	46,55

Reagent reservoirs

Reagent reservoirs 175 ml

ROTH SELECTION. Material: PP, transparent. Autoclavable: Yes.

- Volume 175 ml
- Graduated at: 25, 50, 75, 100, 125, 150 ml
- Stable
- Reusable
- Compatible with 8/12-channel pipettes as well as 96-well pipetting systems



A 121 °C

With lid
Removable lid, easy to open.

Inner length (mm)	Inner width (mm)	Inner height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
113.6	75.5	28.7	**Sterile**	20 x 5	**APX0.1**	100 unit(s)	246,20
113.6	75.5	28.7	Non-sterile	10 x 10	**APX1.1**	100 unit(s)	173,10

Without lid

Inner length (mm)	Inner width (mm)	Inner height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
113.6	75.5	28.7	**Sterile**	20 x 5	**APX2.1**	100 unit(s)	215,00
113.6	75.5	28.7	Non-sterile	10 x 10	**APX3.1**	100 unit(s)	144,60

Reagent reservoirs for 8-channel pipettes

ROTH SELECTION. Material: PS. Non-sterile.
Single compartments with round bottom for minimal reagent loss.
Capacity per well approx. 7 ml.

Colour	Length (mm)	Width (mm)	Sterility	Art. No.	Pack Qty.	€
white	126.5	84	Non-sterile	**NA12.1**	100 unit(s)	82,65

Reagent reservoirs for 8/12-channel pipettes

ROTH SELECTION. Material: PP. Autoclavable: Yes.
With 12 numbered, V-shaped wells. Capacity per well approx. 3 ml.
Temperature stable from -80 to +121 °C.

A 121 °C ❄❄

Delivery incl. lid.

Sterility	Pack.	Art. No.	Pack Qty.	€
Non-sterile	indiv.	**EKT5.1**	50 unit(s)	264,00
Sterile	indiv.	**EKT4.1**	20 unit(s)	85,75

Microtiter plates and accessories

Deepwell plates Riplate®

Ritter. Material: PP. Autoclavable: Yes.

Suitable for all common automation systems, plate size 1 and 2 ml suitable for multi-channel pipettes.

- Alphanumeric well identification
- Includes angled corner for proper orientation
- Stackable
- SBS dimensions
- Optimised base structure minimises specimen losses
- Temperature-stable up to -85 °C
- Centrifugable to 3000 x g
- Sterile article, individually packed

A 121 °C ❄❄

Applications:
High Throughput Screening (HTS), general analysis necessitating the use of a stock plate; serial dilution; reagent transfer; cell and tissue cultures; specimen storage.

Technical specifications:

Art. No.	CEX7.1	EN06.1	EN07.1	EN08.1	TC23.1
L x W x H	127.8 x 85.5 x 44.0 mm	127.3 x 84.7 x 41.2 mm	127.8 x 85.5 x 44.0 mm		

Wells	Volume per well (µl)	Working volume (µl)	Format	Type	Version	Sterility	Art. No.	Pack Qty.	€
24	10000	9,900	4 x 6	Riplate® sw 10 ml	rectangular/ V-shaped	Non-sterile	**TC23.1**	20 unit(s)	122,50
48	5000	4,900	8 x 6	Riplate® sw 5 ml	rectangular/ V-shaped	Non-sterile	**EN08.1**	20 unit(s)	120,40
96	2200	1,900	8 x 12	Riplate® rw 2 ml	round/round	Non-sterile	**CEX7.1**	20 unit(s)	104,85
96	1200	1,000	8 x 12	Riplate® rw 1 ml	round/round	Non-sterile	**EN06.1**	20 unit(s)	94,40
96	2500	2,400	8 x 12	Riplate® sw 2 ml	rectangular/round	Non-sterile	**EN07.1**	20 unit(s)	104,85

Medio

For sample storage, requires 50 % less storage space due to reduced height.

Technical specifications:

Art. No.	TC22.1
L x W x H	127.8 x 85.5 x 27.0 mm

Wells	Volume per well (µl)	Working volume (µl)	Format	Type	Version	Sterility	Art. No.	Pack Qty.	€
96	1200	1,000	8 x 12	Riplate® 1 ml medio	round/round	Non-sterile	**TC22.1**	32 unit(s)	143,35

Plus

With raised wells: reduction of cross-contaminations, improved lamination or sealing with adhesive film.

Technical specifications:

Art. No.	TC21.1
L x W x H	127.8 x 85.5 x 41.0 mm

Wells	Volume per well (µl)	Working volume (µl)	Format	Type	Version	Sterility	Art. No.	Pack Qty.	€
96	1200	1,000	8 x 12	Riplate® 1 ml plus	round/round	Non-sterile	**TC21.1**	20 unit(s)	92,65

Accessories sealing mats

Ritter.

❄❄

Suitable for	Sterility	Art. No.	Pack Qty.	€
Riplate® 1 ml medio / Riplate® rw 2 ml	Non-sterile	**CEX8.1**	20 unit(s)	56,45
Riplate® 1 ml / Riplate® 1 ml plus	Non-sterile	**EN09.1**	20 unit(s)	56,45
Riplate® sw 2 ml	Non-sterile	**EN10.1**	20 unit(s)	56,45
Riplate® sw 5 ml	Non-sterile	**TC24.1**	20 unit(s)	63,60
Riplate® sw 10 ml	Non-sterile	**TC25.1**	20 unit(s)	69,10

Microtiter plates and accessories

Deepwell plates Riplate® magnetic

Ritter. Material: PP.

For cleaning, mixing, centrifuging samples. For storing and preparing substances. For cleaning proteins as well as for DNA extraction via automatic magnet separation. Corresponds to the SBS standard (Society for Biomolecular Screening).

- Resistant to common chemicals. solvents and alcohols
- High stability also when centrifuging
- Cylindrical wells for optimum sample mixing
- Slightly raised rim of the well prevents cross-contamination
- Alphanumeric marking for registering and identifying the samples
- Production under clean-room conditions Class 8

Application:
Specially developed for robots for magnetic separation:
Automated magnetic separation is often used for cleaning proteins as well as for DNA extraction. This technology that is based on magnetic particles enables fast and efficient preparation of samples with high throughput. In order to perform this separation process reproducibly in the long-term, precise plastic plates made of ultrapure polypropylene were developed, the Riplate® magnetic. Production under Class 8 clean-room conditions ensures the sustainability of these products as well as reliable analysis results.
Suitable for:
KingFisher™ 96 Flex Magnetic Particle Processors.

Volume per well (µl)	Working volume (µl)	Type	Art. No.	Pack Qty.	€
200	100	Riplate® 96 SRW magnetic, 0.2 ml	**HLK2.2**	60 unit(s)	308,55
2000	1,000	Riplate® 96 SRW magnetic, 2 ml	**HLK3.2**	60 unit(s)	330,05

Reaction vial system BioTube™

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Ideal for storing, transporting and freezing samples as well as for use in many biological tests, e.g. PCR, radio immunoassays (RIA), enzyme immunoassays (EIA) or cell growth studies. Racks can be removed from their base, e.g. for homogeneous heating of vials in a water bath.

- Rack with snap-on lid, filled with 96 vials
- Vials arranged in microtritation plate format 8 x 12
- Suitable for working with multichannel pipettors
- With alphanumeric marking on outside of rack
- Label inside rack
- Temperature-stable up to -90 °C

A 121 °C ❄❄

Delivery without cap strips, please order separately.

Volume per well (µl)	Sterility	Art. No.	Pack Qty.	€
1200	Non-sterile	**EC05.1**	10 unit(s)	70,85
1200	**Sterile**	**EC06.1**	10 unit(s)	76,25

Accessories for reaction vial systems BioTube™

ROTH SELECTION.

Material: PP. Autoclavable: Yes.

Vol. (ml)	Version	Sterility	Art. No.	Pack Qty.	€
1.2	Single receptacles	Non-sterile	**EC07.1**	960 unit(s)	36,45
1.2	8 strips	Non-sterile	**YC41.1**	120 unit(s)	32,80

Cap strips

Material: PE. Autoclavable: No.

Version	Sterility	Art. No.	Pack Qty.	€
8 strips	Non-sterile	**EC08.1**	120 unit(s)	22,90
8 strips	**Sterile**	**EC09.1**	120 unit(s)	24,20

Microtiter plates and accessories

Micro Racks

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Racks with lid, filled with 96 microtubes. Tubes number-coded on the base. Pressure tested for leak tightness.

- SBS standard microtest plate format 8 x 12
- Sides can be labelled, e.g. with a bar-code
- Suitable for use in combination with automatic dispensing systems and robots
- Racks are stackable and suitable for stacker systems
- Temperature-stable down to -80 °C

A 121 °C ❄❄

Technical specifications:

Art. No.	XK05.1	XK08.1
L x W x H	127.76 x 85.48 x 20.4 mm	127.76 x 85.48 x 28.4 mm

Vol. (ml)	Format	Sterility	Art. No.	Pack Qty.	€
0.65	8 x 12	Non-sterile	**XK05.1**	50 unit(s)	479,45
1.20	8 x 12	Non-sterile	**XK08.1**	50 unit(s)	479,45

Micro Tubes

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Wit round bottom. A individual vials or 8-tube strips for use in micro-racks.

A 121 °C ❄❄

Vol. (ml)	Ø x H (mm)	Version	Sterility	Pack.	Art. No.	Pack Qty.	€
0.65	8.3 x 28	Single container	Non-sterile	5 x 1000	**XK10.1**	5,000 unit(s)	194,60
0.65	8.3 x 28	8 strips	Non-sterile	5 x 120	**XK11.1**	600 unit(s)	218,25
1.20	8.3 x 44.1	Single container	Non-sterile	5 x 1000	**XK12.1**	5,000 unit(s)	194,60
1.20	8.3 x 44.1	8 strips	Non-sterile	5 x 120	**XK13.1**	600 unit(s)	201,05

Accessories for microtubes

A 121 °C ❄❄

ROTH SELECTION. Material: TPE. Autoclavable: Yes.

For sealing 0.65 and 1.2 ml micro tubes. Can be punctured with syringe needles for sampling and filling.

Version	Sterility	Art. No.	Pack Qty.	€
8 tube cap strip	Non-sterile	**XK18.1**	1,000 unit(s)	177,40
8 x 12 sealing mats	Non-sterile	**XK19.1**	100 unit(s)	264,45

Microtiter plates and accessories

Microtitration plates 6 well

Boettger. Material: PS. Non-sterile.

For all bacteriological work that requires multiple partitioning of the culture tray. Simple, space-saving alternative to six conventional 35 mm Petri dishes.

- Manufactured under aseptic conditions
- Recesses, alphanumerically marked, well Ø 35 mm
- Max. volume 15 ml per well
- Centrifuges up to 4500 x g
- Temperature stable from -20 to approx. +60 °C

Delivery incl. lid.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
6	2-5	translucent	Non-sterile	50 x 2	**ATC0.1**	100 unit(s)	118,70

Microtitration plates ROTILABO®

Boettger. Material: PS. Non-sterile.

- With 96 alphanumerically marked recesses
- Manufactured under aseptic conditions
- Stackable

Delivery without lid.

F-profile

With transparent F-bottom, for good sample visibility.

Pic.	Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
(3)	96	0,405	translucent	Non-sterile	**9293.1**	100 unit(s)	75,40

U-profil

With round bottom, for mixing and washing samples.

Pic.	Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
(1)	96	0,345	translucent	Non-sterile	**9291.1**	100 unit(s)	60,60

V-profil

With conical bottom, for optimum sample recovery.

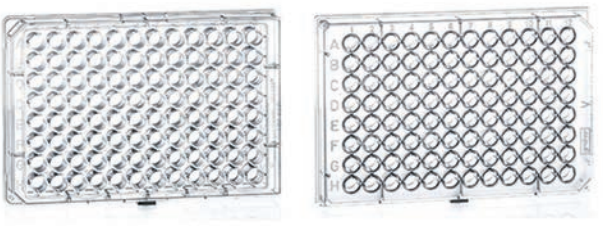
Pic.	Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
(2)	96	0,335	translucent	Non-sterile	**9292.1**	100 unit(s)	70,35

Microtiter plates and accessories

Microtitration plates

Greiner Bio-One. Material: PS.

- Solid base
- Free of detectable endotoxins
- Free of detectable DNase, RNase and human DNA



F-profile

Ideal for extremely precise optical measurements. The cell geometry does not deflect the measurement light beam.

- Cell geometry: F-base/standard (flat base)
- For microscopic applications (bottom reading)
- Excellent optical properties thanks to the flat base of the cells

Wells	Volume per well (µl)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	25-340	translucent	Non-sterile	10 x 10	**1A70.1**	100 unit(s)	110,15
96	25-340	translucent	**Sterile**	50 x 2	**1A71.1**	100 unit(s)	134,20

V-profile

Particularly well suited to applications where the entire sample volume must be removed by pipette. For precise pipetting because the sample is collected at the base. Ideal for storing samples.

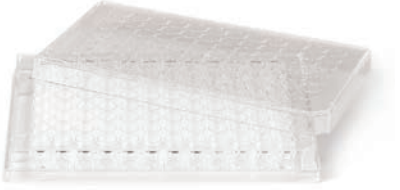
- Cell geometry: V-base (conical base)
- Suitable for +/- analyses

Wells	Volume per well (µl)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	40-200	translucent	Non-sterile	10 x 10	**1A72.1**	100 unit(s)	111,55
96	40-200	translucent	**Sterile**	50 x 2	**1A73.1**	100 unit(s)	134,05

Microtitration plates sterile

ROTH SELECTION. Material: PS. **Sterile**.

- F-profile (flat-shaped base)
- Optically clear for good visualization
- Increased well edge reduces evaporation
- Condensation rings in the lid reduce cross-contamination
- Alphanumeric numbering
- Gamma-sterilised
- Non-pyrogenic



S

Delivery incl. lid.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,39	translucent	**Sterile**	individual	**EKL9.1**	100 unit(s)	213,00

Microtiter plates and accessories

Microtitration plates pureGrade™

BRAND.

Untreated surface.
Manufactured according to ANSI/SBS standards 1 to 4-2004 to ensure compatibility when carrying out manual processes and, in particular, automatic processes.

Properties of BRAND*plates*® microtiter plates:

- 96 well standard format
- Alphanumerically coded
- **Free of endotoxins, DNase, DNA, RNase, non-cytotoxic**

Properties of the pureGrade™ microtiter plates:

- Chimney-shaped cavities
- Colour code: grey for standard plates
- F-profile (flat bottom shape) for precision optical measurements

F-bottom, transparent
Material: PS. Transparent bottom in F-profile (flat bottom shape) for precise optical measurements.

Delivery without lid.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,35	translucent	Non-sterile	20 x 5	**CNP7.1**	100 unit(s)	109,95

F-bottom, transparent, sterile
Material: PS. Transparent bottom in F-profile (flat bottom shape) for precise optical measurements. Sterilised through β-irradiation. Ideal for bacteriological assays.

Delivery incl. lid.

Wells	Volume per well (µl)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	350	translucent	**Sterile**	individual	**XT64.1**	50 unit(s)	132,95

UV
Material: Polymer (UV polymer, slightly hydrophilic), rack PS.

- Suitable for the determination of nucleic acid and protein concentrations (at 260 and 280 nm respectively)
- Transmission at 240 nm is 80 %
- Bottom: UV-transparent film, wall thickness 25 µm

Delivery without lid.

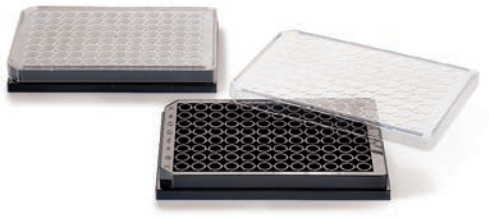
Wells	Volume per well (µl)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	350	translucent	Non-sterile	5 x 10	**XT65.1**	50 unit(s)	740,70

Microtitration plates ROTILABO®

ROTH SELECTION. Material: PS. Non-sterile.

Black plates for low background and reduced light scatter during applications in fluorescence microscopy.

- Alphanumerically marked cavities with flat bottom
- „Chimney top“ well design reduces the risk of contamination
- SBS dimensions
- **Free of RNase, DNase and human-DNA**



Delivery without lid.

Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
96	0,35	black	Non-sterile	**CEK8.1**	100 unit(s)	375,20

Microtiter plates and accessories

Microtitration plates ROTILABO® Polypropylene

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

- Good chemical stability e.g. against DMSO, phenol and chloroform
- SBS dimensions, suitable for robot systems
- Wells in round U-profile for maximum sample recovery with reduced capillary effect
- **Free of DNase, RNase and human DNA**

A 121 °C

Delivery without cap mats.

Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
96	0,35	colourless	Non-sterile	**CEL3.1**	100 unit(s)	204,25

Microtitration plates immunoGrade™

BRAND. Material: PS.

For optimal binding of IgG.
Manufactured according to ANSI/SBS standards 1 to 4-2004 to ensure compatibility when carrying out manual processes and, in particular, automatic processes.

Properties of BRAND*plates*® microtiter plates:

- 96 well standard format
- Alphanumerically coded
- **Free of endotoxins, DNase, DNA, RNase, non-cytotoxic**

Properties of immunoGrade™ microtiter plates:

- Colour code: blue for immunology
- Highest binding capacity for molecules with hydrophilic and hydrophobic regions
- Ideal surface for most standard ELISA assays
- Suitable for solid phase immunoassays
- Equivalent to high-binding products from other manufacturers

Delivery without lid.

F-bottom (transparent)

Transparent bottom in F-profile (flat bottom shape) for precise optical measurements.

Wells	Volume per well (ml)	Colour	Pack.	Art. No.	Pack Qty.	€
96	0,35	translucent	20 x 5	**XT66.1**	100 unit(s)	180,60
96	0,33	black	20 x 5	**XT71.1**	100 unit(s)	869,70

U-bottom

U-bottom (round bottom shape), ideal for mixing and washing samples.

Wells	Volume per well (ml)	Colour	Pack.	Art. No.	Pack Qty.	€
96	0,33	white	20 x 5	**XT67.1**	100 unit(s)	351,55

Microtitration plates ROTILABO® 384 well

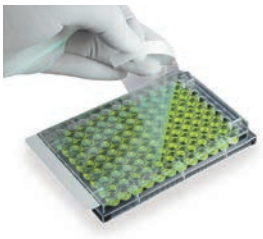
ROTH SELECTION. Material: PS. Non-sterile.

- Black plates for low background and reduced light scatter during applications in fluorescence microscopy
- Alphanumerically marked cavities with flat bottom
- Reduced capillary effect thanks to rounded corners
- SBS dimensions
- **Free of DNase, RNase and human DNA**

Delivery without lid.

Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
384	0,12	translucent	Non-sterile	**CEL0.1**	100 unit(s)	338,65
384	0,12	black	Non-sterile	**CEL1.1**	100 unit(s)	375,20

Sealing films



Sealing film ROTILABO® for microtest plates

ROTH SELECTION.

Minimises cross-contaminations of the samples when handling and during transport. With perforated ends for simple and fast adhesion.

Technical specifications:

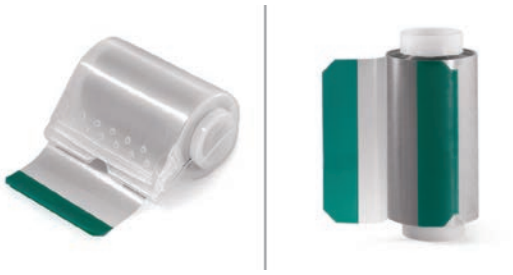
Art. No.	EN76.1	EN77.1	H769.1	H770.1	X172.1
Gas-permeable	No				
Puncturable	No		Yes		No
Temperature stability	-40 to +120 °C				-20 to +80 °C

Polyester
Material: Polyester self-adhesive. Also suitable for ELISA plates. Minimises evaporation. Films with thickness 25 µm can be penetrated using a single-channel pipette.

L x W (mm)	Thickn. (µm)	Sterility	Art. No.	Pack Qty.	€
141 x 79.4	25	Non-sterile	**H769.1**	100 unit(s)	83,40
141 x 79.4	25	**Sterile**	**H770.1**	100 unit(s)	111,00
146 x 79.4	50	Non-sterile	**EN76.1**	100 unit(s)	55,90
146 x 79.4	50	**Sterile**	**EN77.1**	100 unit(s)	83,65

Aluminium
Material: Aluminium (aluminium-coated paper), self-adhesive, acrylic-based adhesive. Good diffusion barrier.

L x W (mm)	Thickn. (µm)	Sterility	Art. No.	Pack Qty.	€
130 x 78	65	Non-sterile	**X172.1**	100 unit(s)	38,40



Sealing film (Roll) for microtitration plates

ROTH SELECTION. Material: Polyester (self-adhesive).

For closing microtest plates. Minimises cross-contaminations of the samples during incubation, transport and brief storage. Also suitable for ELISA plates. Without intermedia layer of paper, for fast handling.

Technical specifications:

Art. No.	APT6.1
Gas-permeable	No
Puncturable	No
Temperature stability	-40 to +120 °C

L x W (mm)	Thickn. (µm)	Sterility	Pack.	Art. No.	Pack Qty.	€
122 x 79	38	Non-sterile	100 single films on the roll	**APT6.1**	2 unit(s)	119,85

Accessories dispenser for rolls of sealing film

ROTH SELECTION. Material: PP. Non-sterile.

Handy dispenser for quick unrolling and adhesion of covering films from rolls.

Delivery incl. 2 roll of covering film (APT6.1)

L x W (mm)	Sterility	Art. No.	Pack Qty.	€
80 x 105	Non-sterile	**APT7.1**	1 unit(s)	128,90

Seal roller ROTILABO®

ROTH SELECTION. Material: Rubber (Roller), Metal (frame).

For more effective sealing of microtest, PCR and Deep-Well plates with sealing foil or sealing mats as the roller presses them on more evenly. Roller width: 100 mm, roller Ø: 30 mm.

Colour	Art. No.	Pack Qty.	€
white	**HE23.1**	1 unit(s)	42,50

Sealing films

S ❄❄

Sealing film gas-permeable sterile

ROTH SELECTION. Material: PU (polyurethane-based film, self-adhesive). **Sterile**.

- For closing microtitration plates
- Prevents well-to-well contamination
- Allows exchange of oxygen, CO_2 and water vapour
- Ideal for aerobe cell cultures, for biological and immunological cell bases, cell selection, screening
- Gamma-sterilised, not cytotoxic

Technical specifications:

Art. No.	T093.1
Gas-permeable	Yes
Puncturable	Yes
Temperature stability	-80 to +110 °C

L x W (mm)	Thickn. (µm)	Sterility	Art. No.	Pack Qty.	€
153 x 78	25	**Sterile**	**T093.1**	100 unit(s)	149,10

❄

Sealing film ROTILABO® for cell cultures

ROTH SELECTION. Material: Cellulose (plastic), self-adhesive.

Hydrophobic sealing film for cell culture and deep-well plates.

- Gas-permeable, for even air and CO_2 exchange
- Minimises evaporation and cross-contaminations
- Perforated ends for simple and fast adhesion
- Not cytotoxic

Technical specifications:

Art. No.	EN84.1	EN85.1
Gas-permeable	Yes	
Puncturable	Yes	
Temperature stability	-20 to +80 °C	

L x W (mm)	Sterility	Art. No.	Pack Qty.	€
142.9 x 82.6	Non-sterile	**EN84.1**	100 unit(s)	100,10
142.9 x 82.6	**Sterile**	**EN85.1**	50 unit(s)	70,35

❄❄

Sealing film ROTILABO® PCR

ROTH SELECTION.

For sealing PCR plates.

- Suitable for use in thermocyclers
- Perforated ends for simple and fast adhesion
- **Free of nucleic acid, RNase/DNase-free**

Technical specifications:

Art. No.	EN80.1	EN81.1	KKE1.1	KKE2.1	EN82.1	EN83.1
Gas-permeable	No					
Puncturable	Yes			No		
Temperature stability	-80 to +120 °C			-40 to +125 °C	-40 to +120 °C	

Polypropylene
Material: PP self-adhesive.

- Easy to use

L x W (mm)	Thickn. (µm)	Sterility	Pack.	Art. No.	Pack Qty.	€
135.1 x 79.4	50	Non-sterile	1 x 100	**EN82.1**	100 unit(s)	86,60
135.1 x 79.4	50	**Sterile**	1 x 100	**EN83.1**	100 unit(s)	110,60

Aluminium
Material: Aluminium Self-adhesive.

- Excellent barrier properties
- No sample evaporation

L x W (mm)	Thickn. (µm)	Sterility	Pack.	Art. No.	Pack Qty.	€
146.1 x 82.6	36	Non-sterile	1 x 100	**EN80.1**	100 unit(s)	109,35
146.1 x 82.6	36	**Sterile**	2 x 25	**EN81.1**	50 unit(s)	90,05

Sealing films

Sealing film PCR Individual strips

Self-adhesive. For sealing PCR reaction vials (Eight-tube strips) or individual rows on PCR trays.

- Suitable for use in thermal cyclers
- Perforated ends make them easy and quick to attach
- **RNase-/DNase-free**

Technical specifications:

Art. No.	KKE7.1	KKE6.1
Puncturable	No	Yes
Temperature stability	-40 to +120 °C	-80 to +120 °C

Aluminium

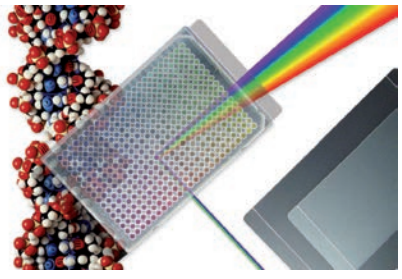
- Ideal for standard PCR applications and for storage
- Suitable for light-sensitive applications
- Resistant to DMSO

Thickn. (µm)	Art. No.	Pack Qty.	€
50	**KKE6.1**	300 unit(s)	38,65

Polyester

- Ideal for standard PCR applications and for storage
- Suitable for RT-PCR

Thickn. (µm)	Art. No.	Pack Qty.	€
50	**KKE7.1**	400 unit(s)	59,70



Sealing film for RT-PCR

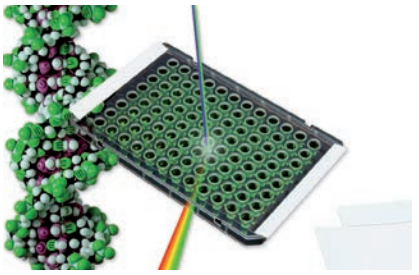
ROTH SELECTION. Material: Polyester (visually transparent), with strong, non-absorbant and non-fluorescent adhesive.

Suitable for ELISA, real-time qPCR applications as well as for protein crystallisation. On plastic carrier film, easy to remove.
Length between perforations 121.9 mm.
Free of DNase, RNase and nuclein acid.

Technical specifications:

Art. No.	APT8.1
Gas-permeable	No
Puncturable	No
Temperature stability	-40 to +120 °C

L x W (mm)	Thickn. (µm)	Sterility	Art. No.	Pack Qty.	€
142.9 x 79.4	50	Non-sterile	**APT8.1**	100 unit(s)	141,95



Sealing film PCR with special adhesive

ROTH SELECTION. Material: Polyolefin (visually transparent), with integrated, encapsulated silicone adhesive.

The initially non-sticking adhesive is activated by applying pressure to the PCR plate for optimum sealing, while the area directly above the well remains unchanged. The high visual clarity at these points ensures reproducible results.
Suitable for ELISA, real-time qPCR applications, quantitative DNA amplifications, as well as protein crystallisation.

- Low autofluorescence
- Resistant to DMSO
- **Free of DNase, RNase and DNA**

Technical specifications:

Art. No.	APT9.1
Gas-permeable	No
Puncturable	No
Temperature stability	-70 to +100 °C

Length between perforations 113 mm.

L x W (mm)	Thickn. (µm)	Sterility	Art. No.	Pack Qty.	€
139.7 x 78.6	50	Non-sterile	**APT9.1**	100 unit(s)	220,40

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

PCR plates and vessels

PCR trays ROTILABO® 96 well

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Black, alphanumeric numbering
- Thin-walled for optimal heat transfer between thermocycler and sample
- Cavities with raised edge to aid covering with PCR film
- Suitable for most standard thermocyclers
- **RNase-, DNase- and human-DNA-free**

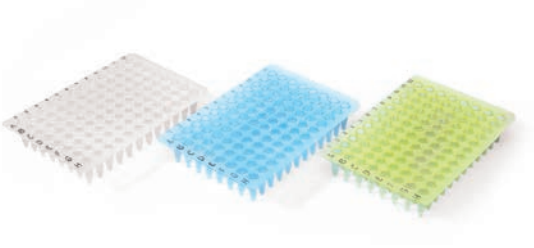
A 121 °C

Version	Type	Volume per well (µl)	Cut corner	Colour	Art. No.	Pack Qty.	€
Standard	with half rack	250	A12	colourless	**CEN0.1**	50 unit(s)	158,05
Low Profile	with whole rack	150	H1	colourless	**CEN1.1**	50 unit(s)	158,05

PCR trays ROTILABO® 96 well

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Black, alphanumeric numbering
- Volume per well 0,3 ml (working volume max. 250 µl, filling volume max. 300 µl)
- Thin-walled for optimal heat transfer between thermocycler and sample
- Cavities with raised edge to aid covering with PCR film
- Suitable for most standard thermocyclers
- **DNase-, RNase- and human DNA-free**



A 121 °C

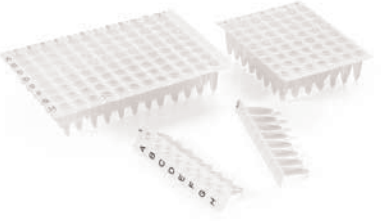
Version	Type	Volume per well (µl)	Cut corner	Colour	Art. No.	Pack Qty.	€
Standard	without frame	250	H12	colourless	**CEL7.1**	50 unit(s)	158,05
Standard	without frame	250	H12	blue	**CEL8.1**	50 unit(s)	161,25
Standard	without frame	250	H12	yellow	**CEL9.1**	50 unit(s)	161,25

PCR trays ROTILABO® 96 well with partitioning

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With perforation, separable into individual PCR-strips or smaller trays.

- Black, alphanumeric numbering
- Thin-walled for optimal heat transfer between thermocycler and sample
- Cavities with raised edge to aid covering with PCR film
- Suitable for most standard thermocyclers
- **DNase-, RNase- and human DNA-free**



A 121 °C

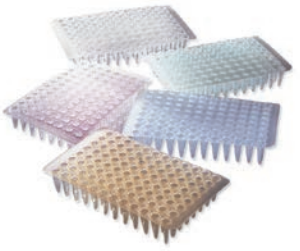
Type	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
without frame	250	colourless	**CEN2.1**	50 unit(s)	174,15

PCR plates and vessels

PCR trays Mμlti® 96 well μltraPlate

Sorenson. Material: PP. Autoclavable: Yes.

- Extremely thin wall, producing an even heat transfer and short cycle times for PCR experiments
- Easy to close with lid clips or sealing foil
- Alphanumerical coding for easy identification of samples
- Suitable for all current thermocyclers
- **Free of RNase/DNase/human DNA, PCR-inhibitor and pyrogen free**



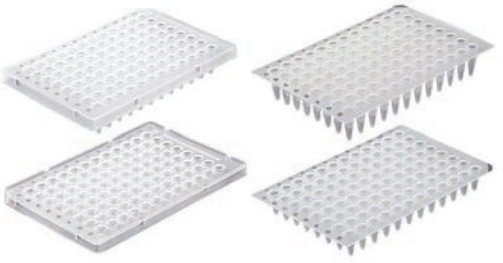
A 121 °C

Version	Type	Volume per well (µl)	Cut corner	Colour	Art. No.	Pack Qty.	€
Standard	without rack	200	H12	colourless	**N421.1**	25 unit(s)	123,55
Standard	without rack	200	H12	red	**N422.1**	25 unit(s)	115,65
Standard	without rack	200	H12	blue	**N423.1**	25 unit(s)	115,65
Standard	without rack	200	H12	green	**N424.1**	25 unit(s)	115,65
Standard	without rack	200	H12	yellow	**N425.1**	25 unit(s)	115,65

PCR trays 96 well

BRAND. Material: PP. Autoclavable: Yes.

- Blue, alphanumeric coding
- Cut corner for easier orientation
- Even, fast and precise heat transfer
- Smooth, inert container inner
- Reduced formation of enzymes and nucleic acids
- Reliable sealing with associated sealing mats
- Frame suitable for labelling
- PCR plates without rack suitable for all conventional thermocyclers
- Suitable for real-time PCR
- **Free from DNase/RNase, DNA and endotoxins**



A 121 °C

Version	Type	Volume per well (µl)	Cut corner	Colour	Pack.	Art. No.	Pack Qty.	€
Standard	with half frame	200	A12	colourless	10 x 5	**EYT4.1**	50 unit(s)	178,45
Standard	without rack	200	A12	colourless	10 x 5	**HAE6.1**	50 unit(s)	178,45
Low Profile	with half frame (raised)	150	A1	colourless	10 x 5	**EYT5.1**	50 unit(s)	178,45
Low Profile	without rack	150	H12	colourless	10 x 5	**HAE7.1**	50 unit(s)	178,45

PCR plates and vessels

PCR trays

BRAND. Material: PP. Autoclavable: Yes.

- Extra-thin, even wall thickness, for optimal heat transfer and short cycle times
- Thin-walled PCR trays for constant, fast and precise heat transfer
- Tubes have smooth and inert inner surfaces to minimise binding of enzymes and nucleic acids
- Wells have raised rims for protection against cross-contamination and reliable sealing with suitable sealing mats
- Suitable for all standard quantitative real-time thermocyclers
- **DNase-, DNA- and RNase-free**

A 121 °C

24 well

Version	Type	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Standard	without rack	200	colourless	**XT94.1**	40 unit(s)	71,10

48 well

Version	Type	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Standard	without rack	200	colourless	**XT95.1**	20 unit(s)	68,95

384 well

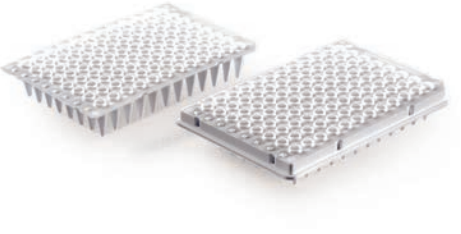
For sample volumes from 2 to 30 µl. The plates can be equipped using conventional multi-channel pipettes or by robot systems.

Version	Type	Volume per well (µl)	Colour	Pack.	Art. No.	Pack Qty.	€
Standard	with whole rack	40	colourless	5 x 10	**XT98.1**	50 unit(s)	352,60

PCR trays 96 well Real time

BRAND. Material: PP.

- Colour white, for the qPCR
- Significantly better results than clear 8-tube strips or trays in fluorescence measurements
- Evenly dyed with titanium dioxide to achieve an optimal reflection of fluorescence signals in combination with smooth surfaces



Version	Type	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Standard	without rack	200	white	**XX02.1**	50 unit(s)	218,25
Standard	with half rack	200	white	**XX03.1**	50 unit(s)	218,25

PCR strips 8 Real time

BRAND. Material: PP.

- Colour white, for the qPCR
- Significantly better results than clear 8-tube strips or trays in fluorescence measurements
- Evenly dyed with titanium dioxide to achieve an optimal reflection of fluorescence signals in combination with smooth surfaces
- Vials with retaining tab at one end
- **Free from DNase/RNase, DNA and endotoxins**

Delivery without cap strips.

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
without lid	200	white	**XX01.1**	125 unit(s)	109,15

PCR plates and vessels

PCR strips 12

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- PCR reaction strips, each with 12 reaction vials
- Thin-walled PCR vials guarantee optimum temperature exchange when heating and cooling during the PCR cycles
- **DNase-, RNase- and DNA-free**

A 121 °C

Delivery without cap strips.

Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
200	colourless	**EL74.1**	125 unit(s)	134,40

PCR strips 8

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- PCR reaction strips, each with 8 reaction vials
- Lid suspended individually
- Extremely thin-walled PCR vials guarantee optimum temperature exchange when heating and cooling down during the PCR cycles
- **DNase-, RNase- and DNA-free**

A 121 °C

Flat lid
Flat lid with penetrable cannula.

Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
200	colourless	**CH87.1**	125 unit(s)	117,20
200	blue	**CH88.1**	125 unit(s)	117,20
200	green	**CH89.1**	125 unit(s)	117,20
200	red	**CH90.1**	125 unit(s)	117,20
200	yellow	**CH91.1**	125 unit(s)	117,20

Convex cap
Convex cap, not puncturable.

Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
200	colourless	**CH92.1**	125 unit(s)	117,20
200	blue	**CH93.1**	125 unit(s)	117,20
200	green	**CH94.1**	125 unit(s)	117,20
200	red	**CH95.1**	125 unit(s)	117,20
200	yellow	**CH96.1**	125 unit(s)	117,20

PCR strips ROTILABO® 8 with single lids

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Single lid attached, flat
- Volume 0.2 ml (max. working volume 250 µl, max. filling volume 300 µl)
- Thin-walled for optimal heat transfer between thermocycler and sample
- Suitable for most standard thermocyclers
- Suitable for real-time PCR
- **DNase-, RNase- and human DNA-free**

A 121 °C

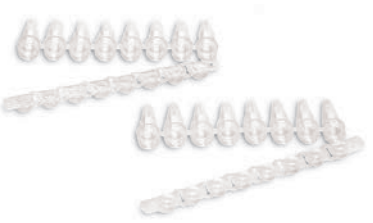
Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Flat caps	200	colourless	**CEN5.1**	120 unit(s)	107,75

PCR plates and vessels

PCR strips ROTILABO® 8

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Volume 0.2 ml (max. working volume 250 µl, max. filling volume 300 µl)
- Numbering 1 to 8 for sample differentiation
- Thin-walled for optimal heat transfer between thermocycler and sample
- Suitable for most standard thermocyclers
- Containers with flat lids, suitable for real-time PCR
- **DNase-, RNase- and human DNA-free**



A 121 °C

Delivery incl. cap strips.

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Cover strips flat	200	colourless	**CEN4.1**	125 unit(s)	109,95
Cover strips convex	200	colourless	**CEN3.1**	125 unit(s)	109,95

PCR strips 8

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- PCR reaction strips, each with 8 reaction vials
- Attached cap strips allow easy opening and closing
- Convex cap
- Thin-walled PCR vials guarantee optimum temperature exchange when heating and cooling during the PCR cycles
- **DNase-, RNase- and DNA-free**

A 121 °C

Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
200	colourless	**CK82.1**	125 unit(s)	106,45
200	blue	**CK83.1**	125 unit(s)	106,45
200	green	**CK84.1**	125 unit(s)	106,45
200	pink	**CK85.1**	125 unit(s)	106,45
200	yellow	**CK86.1**	125 unit(s)	106,45

PCR strips 8

BRAND. Material: PP. Autoclavable: Yes.

- Extra-thin, even wall thickness, for optimal heat transfer and short cycle times
- Made of high-grade pure plastics containing no additives
- Produced under clean room conditions according to ISO 14 644-1 Class 5, 7 and 8
- Suitable for all standard thermocyclers
- Caps are easy to open and close
- **DNase-, DNA- and RNase-free**

A 121 °C

(1) Attached cap strips

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Cover convex	200	colourless	**XT89.1**	125 unit(s)	141,30

(2) Attached single cap

Flat single cap for optimal protection against contamination. Ideal for real-time PCR.

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Flat caps	200	colourless	**XT90.1**	120 unit(s)	148,20
Low Profile, flat caps	150	colourless	**CNT0.1**	120 unit(s)	152,80

(3) Separate cap strips
Vials with retaining tab on one end. Capped strips with a small lip on the side of each cap for careful, contamination-free opening. Vials with flat lids suitable for real-time PCR.

Delivery incl. cap strips.

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Flat cap	200	colourless	**HAE9.1**	250 unit(s)	227,90
Cover convex	200	colourless	**HAE8.1**	250 unit(s)	230,05

(3) Without lid
Suitable for use with flat lids for real-time PCR.

Delivery without cap strips.

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
without lid	200	colourless	**XT91.1**	125 unit(s)	97,20

PCR strips MµltiⓇ 8 µltraStrips

Sorenson. Material: PP. Autoclavable: Yes.
Suitable for all conventional thermocycles, such as Perkin Elmer, Biometra.

- **Free of RNase/DNase-free, human DNAi, PCR inhibitor and pyrogen**

A 121 °C

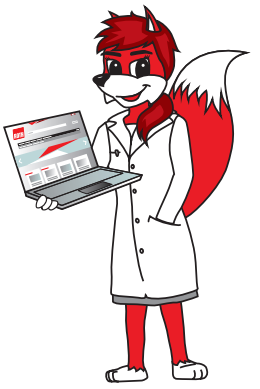
Sterile

Delivery incl. cap strips (8, convex, not puncturable).

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Convex cap	200	colourless	**E712.1**	120 unit(s)	201,05

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Reaction vessels

PCR individual vials

BRAND. Material: PP. Autoclavable: Yes.

Attached lid with secure fit, loss of liquid due to evaporation is reduced to a minimum. Lids are easy to open and close.

- Extra-thin, even wall thickness, for optimal heat transfer and short cycle times
- Made of high-grade pure plastics containing no additives
- Produced under clean room conditions according to ISO 14 644-1 Class 5, 7 and 8
- Suitable for all standard thermocyclers
- Containers with flat lids, suitable for real-time PCR
- **DNase, DNA and RNase free**

A 121 °C

Version	Vol. (ml)	Colour	Art. No.	Pack Qty.	€
Convex caps	0.2	colourless	**XT86.1**	1,000 unit(s)	71,65
Flat caps	0.2	colourless	**XT87.1**	1,000 unit(s)	59,80
Flat caps	0.5	colourless	**XT88.1**	1,000 unit(s)	54,00

PCR individual vials ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Volume 0.2 ml (max. working volume 250 µl, max. filling volume 300 µl)
- Thin-walled for optimal heat transfer between thermocycler and sample
- Suitable for all current thermocoupless
- Containers with flat lids, suitable for real-time PCR
- **Free of DNase, RNase and human DNA**

A 121 °C

Pic.	Version	Vol. (µl)	Colour	Art. No.	Pack Qty.	€
(1)	Convex cap	200	colourless	**CEL5.1**	1,000 unit(s)	63,50
(2)	Flat cap	200	colourless	**CEL6.1**	1,000 unit(s)	63,50

PCR individual vials MµLti®

Sorenson. Material: PP. Autoclavable: Yes.

- Extremely thin wall, fast and uniform heat transfer
- Suitable for all current thermocoupless
- **Free of RNase/DNase/human DNA, PCR-inhibitor and pyrogen free**

A 121 °C

Version	Vol. (µl)	Colour	Art. No.	Pack Qty.	€
Flat lid	500	colourless	**A774.1**	1,000 unit(s)	68,00
Flat lid	200	colourless	**H560.1**	1,000 unit(s)	127,30
Flat lid	200	red	**H561.1**	1,000 unit(s)	127,30
Flat lid	200	blue	**H562.1**	1,000 unit(s)	127,30
Flat lid	200	green	**H563.1**	1,000 unit(s)	127,30
Flat lid	200	yellow	**H564.1**	1,000 unit(s)	127,90

Reaction vessels

Reaction vials ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Graduated, frosted labelling area

A 121 °C

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
1.5	colourless	18,000	18,000	-70 to +121	**4182.1**	1,000 unit(s)	18,25
1.5	red	18,000	18,000	-70 to +121	**4189.1**	1,000 unit(s)	24,60
1.5	blue	18,000	18,000	-70 to +121	**4190.1**	1,000 unit(s)	24,60
1.5	yellow	18,000	18,000	-70 to +121	**4204.1**	1,000 unit(s)	24,60
1.5	green	18,000	18,000	-70 to +121	**4209.1**	1,000 unit(s)	24,60

Assorted colours

Colours available: red, blue, yellow, green, transparent.

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Pack.	Art. No.	Pack Qty.	€
1.5	assorted colours	18,000	18,000	-70 to +121	5 x 1000	**5913.1**	5,000 unit(s)	97,75

Reaction vials ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Additional volume above the last graduation allows for liquid expansion
- Graduated, frosted labelling space
- Ergonomic lid, opens with one hand, with click closure
- Puncturable lid
- **RNase/DNase-free, pyrogen-free, PCR inhibitor-free, metal-free**

NEW / +

A 121 °C

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Sterility	Art. No.	Pack Qty.	€
1.5	colourless	25,000	70,000	-20 to +121	**Sterile**	**ENE8.2**	500 unit(s)	12,80
1.5	colourless	25,000	70,000	-20 to +121	Non-sterile	**ENE9.2**	500 unit(s)	11,80
1.5	black	25,000	70,000	-20 to +121	Non-sterile	**ENH0.2**	500 unit(s)	12,60
2.0	colourless	25,000	70,000	-20 to +121	**Sterile**	**ENH1.2**	500 unit(s)	13,95
2.0	colourless	25,000	70,000	-20 to +121	Non-sterile	**ENH2.2**	500 unit(s)	12,80

Reaction vessels

Safety reaction tubes ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Firm plug fit, e.g. for applications under thermal load. Vessel base of 2 ml tubes is rounded on inside to enhance pellet formation.

- Graduated, with labelling space
- Penetrable lid membrane

A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	colourless	18,000	18,000	-70 to +121	**XC62.1**	1,000 unit(s)	17,90
1.5	colourless	18,000	18,000	-70 to +121	**XC63.1**	1,000 unit(s)	21,70
2	colourless	18,000	18,000	-70 to +121	**NA16.1**	1,000 unit(s)	21,15

Reaction vials 2 ml

BRAND. Material: PP. Autoclavable: Yes.

- Graduated, frosted labelling space on the side
- Lid membrane with even thickness of approx. 0.3 mm, can be penetrated by the analyser
- **Free of RNase, DNase, DNA and endotoxins**

A 121 °C ❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Art. No.	Pack Qty.	€
2.0	colourless	20,000	20,000	**CK06.1**	500 unit(s)	36,55

Reaction vessels

Safety reaction vessels

BRAND. Material: PP. Autoclavable: Yes.

Additional lid lock for extra tightness, prevents unintentional opening of the lid. The wide lid rim allows easy handling using only one hand.

- Graduated with frosted labelling space
- Manufactured from high quality medical grade polypropylene
- Produced under clean-room conditions to ISO 14 644-1 Class 8
- **RNase-, DNase-, DNA- and endotoxins-free**

A 121 °C

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	10	30	30,000	30,000	-190 to +121	**CNT3.1**	500 unit(s)	27,95
1.5	10.75	40.8	30,000	30,000	-190 to +121	**CNT4.1**	1,000 unit(s)	47,50
2	12.8	40	30,000	30,000	-190 to +121	**CNT5.1**	500 unit(s)	28,95

Reaction vials 1.5 ml without lid

Kartell. Material: PP. Autoclavable: Yes.

Dimensions: outside Ø 11.0 x H 39.5 mm.

- Frosted labelling space on the side

A 121 °C

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Art. No.	Pack Qty.	€
1.5	colourless	6,000	6,000	**CK05.2**	1,000 unit(s)	25,80

Reaction vessels

Reaction vials MµltiⓇ

Sorenson. Material: PP. Autoclavable: Yes.

- Graduation every 250 µl
- Frosted labelling spaces
- Leak-tight closure
- Flat, markable lid
- **RNase/DNase-free, human DNA-free, PCR inhibitor-free, pyrogen-free**

A 121 °C ❄❄

Not a medical device / Not an IVD product

SafeSeal

Vol. (ml)	Filling capacity (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	0.65	colourless	25,000	25,000	-80 to +121	**7060.1**	1,000 unit(s)	27,05
1.5	1.7	colourless	25,000	25,000	-80 to +121	**7080.1**	1,000 unit(s)	38,00
2	2	colourless	25,000	25,000	-80 to +121	**7083.1**	800 unit(s)	55,35

SafeSeal assorted colours

Colours available: red, blue, green, yellow, purple.

Vol. (ml)	Filling capacity (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	0.65	assorted colours	25,000	25,000	-80 to +121	**7096.1**	1,000 unit(s)	58,25
2	2	assorted colours	25,000	25,000	-80 to +121	**N457.1**	800 unit(s)	66,55

SafeSeal LowBinding

Optimised surface with polymer coating, thus minimum sample adhesion.

Vol. (ml)	Filling capacity (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	0.65	colourless	25,000	25,000	-80 to +121	**7137.1**	1,000 unit(s)	95,20
1.5	1.7	colourless	25,000	25,000	-80 to +121	**7154.1**	1,000 unit(s)	95,20
2	2	colourless	25,000	25,000	-80 to +121	**7181.1**	1,000 unit(s)	104,95

Reaction vials MµltiⓇ Dolphin 2 ml

Sorenson. Material: PP. Autoclavable: Yes.

With special design to facilitate sample removal, particularly for DNA/RNA centrifuging.

- Flat lid with syringe penetration zone
- Easy to label due to roughened side surfaces and flat lid
- **RNase/DNase-free, human DNA-free, PCR inhibitor-free, pyrogen-free**

A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
2	colourless	15,000	15,000	-80 to +121	**E708.1**	1,000 unit(s)	61,80

Reaction vessels

Reaction vials ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- **RNase/DNase-free**

121 °C

Not a medical device / Not an IVD product

0.5 ml
Graduated.

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	colourless	30,000	30,000	-90 to +121	**EA83.1**	1,000 unit(s)	58,05

1.5 ml
Graduated.

Vol. (ml)	Colour	Ø ext. (mm)	Height (mm)	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
1.5	colourless	10.67	41.15	26,000	26,000	-90 to +121	**EA84.1**	1,000 unit(s)	66,25

2 ml
Graduated.

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
2	colourless	25,000	25,000	-90 to +121	**EA85.1**	1,000 unit(s)	85,60

Reaction vials ROTILABO® 1.5 ml black

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for storage of light-sensitive samples

121 °C

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
1.5	black	15,000	15,000	-80 to +121	**AA80.1**	500 unit(s)	29,50

Reaction vessels

Safety reaction tubes 5 ml

ROTH SELECTION. Autoclavable: Yes.

- Tight closing seal
- Graduated labelling space on side of vessel and lid
- **Free of RNase/DNase/human**
- **PCR Inhibitor-free, ATP-free**
- **Pyrogen-free**

A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Sterility	Pack.	Art. No.	Pack Qty.	€
5	colourless	21,000	21,000	-80 to +100	**Sterile**	individually	**HNY1.1**	50 unit(s)	68,25
5	colourless	21,000	21,000	-80 to +100	Non-sterile	1 x 100	**HNY2.1**	100 unit(s)	21,20

Reaction vials 5 ml

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Dimensions: vial-Ø 15 mm (incl. edge 18 mm) x H 61 mm.

- Easy to open lock for simple handling
- Labelling space on side of vessel and lid
- **RNase/DNase-free, pyrogen-free**

A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Sterility	Pack.	Art. No.	Pack Qty.	€
5	colourless	5,000	5,000	-90 to +121	**Sterile**	10 x 20	**EKY3.1**	200 unit(s)	73,45
5	colourless	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY4.1**	200 unit(s)	72,80
5	blue	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY5.1**	200 unit(s)	72,80
5	green	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY6.1**	200 unit(s)	72,80
5	yellow	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY7.1**	200 unit(s)	72,80
5	pink	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY8.1**	200 unit(s)	72,80
5	black	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY9.1**	200 unit(s)	78,40

Reaction vials ROTILABO® 5 ml

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Graduated labelling space on side of vessel and lid
- Leak-tight closure
- Vial Ø 15 mm (incl. edge 18 mm) x H 60 mm

A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
5	colourless	5,000	5,000	-80 to +121	**PE68.1**	250 unit(s)	59,25
5	black	5,000	5,000	-80 to +121	**PE69.1**	250 unit(s)	59,25

Reaction vessels

Locking clips ROTILABO®

ROTH SELECTION.

For reaction vials. Secure closure of vials when cooking or freezing. With grip lug for easy adjustment and removal of the vials. Reusable. Assorted colours.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
0.5 ml reaction vials	**N216.1**	100 unit(s)	46,00
1.5 / 2 ml reaction vials	**N217.1**	100 unit(s)	46,00

A 121 °C

Reaction vial opener ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

Opens and closes reaction vials. The opener only touches the outside edge of the lid, reduces risk of contamination. Assorted colours.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
0.2-2 ml reaction vials	**AA94.1**	10 unit(s)	19,05

A 121 °C ❄❄

Reaction vials SnapTwist™

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- **Time-saving cap:** simply press for a secure closure, open with only a ¼ turn
- With clear polished surface
- Leak-proof lip seal on closure
- Temperature-stable from -90 to +100 °C
- **RNase, DNase, DNA and pyrogen-free**

Not a medical device / Not an IVD product

Freestanding
Centrifugable up to 17 000 x g.

Delivery without cap.

Vol. (ml)	Lock	Art. No.	Pack Qty.	€
1.5	Lip seal	**YK13.1**	1,000 unit(s)	85,50
1.8	Lip seal	**YK15.1**	1,000 unit(s)	81,60

Conical
Centrifugable up to 20 000 x g.

Delivery without cap.

Vol. (ml)	Lock	Art. No.	Pack Qty.	€
1.5	Lip seal	**YK14.1**	1,000 unit(s)	74,75
1.8	Lip seal	**YK16.1**	1,000 unit(s)	91,40

❄❄

Accessories cap for reaction vials SnapTwist™

ROTH SELECTION. Material: HDPE. Non-sterile. Autoclavable: No.
Cap inserts for identification available as an option (CK72.1 ff).

Not a medical device / Not an IVD product

Lock	Colour	Art. No.	Pack Qty.	€
Lip seal	colourless	**YK17.1**	1,000 unit(s)	74,75
Lip seal	blue	**YK18.1**	1,000 unit(s)	74,75
Lip seal	green	**YK19.1**	1,000 unit(s)	74,75
Lip seal	violet	**YK20.1**	1,000 unit(s)	74,75
Lip seal	red	**YK21.1**	1,000 unit(s)	74,75
Lip seal	yellow	**YK22.1**	1,000 unit(s)	74,75
Lip seal	white	**YK23.1**	1,000 unit(s)	74,75

Screw cap tubes

Screw vials sterile

ROTH SELECTION. Material: PP, Screw cap made of **HDPE,** with seal made of **TPS**. **Sterile**. Autoclavable: Yes.

- 1.5 and 2 ml reaction vials with labelling space
- Temperature-stable from -80 to +121 °C
- Screw cap Ø 13 mm
- **RNase/DNase-free, pyrogen-free**

S A 121 °C ❄❄

Delivery incl. screw-on lid.

Not a medical device / Not an IVD product

Free-standing

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	TPS seal	10.5	48	**XC80.1**	200 unit(s)	48,70
1.5	TPS seal	10.5	48	**XC82.1**	200 unit(s)	48,70
2	TPS seal	10.5	48	**XC84.1**	200 unit(s)	48,70

Conical

Centrifugable to 25 000 x g.

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	TPS seal	8.0	47	**XC79.1**	200 unit(s)	48,70
1.5	TPS seal	10.5	47	**XC81.1**	200 unit(s)	48,70
2	TPS seal	11.5	47	**XC83.1**	200 unit(s)	48,70

Screw vials

Sarstedt. Material: PP, Cap with O-ring seal made of EPDM. Non-sterile. Autoclavable: Yes.

- Centrifugable to 20000 x g
- Without graduation and labelling field
- With knurling, for single-handed insertion into suitable stands
- Cap attached, non-screwed
- In accordance with IATA requirements

A 121 °C ❄❄

In vitro diagnostic medical device according to IVDD

Free-standing

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	EPDM seal	10.8	44	**HPX5.1**	500 unit(s)	63,35

Conical

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	EPDM seal	10.8	44	**HPX3.1**	500 unit(s)	63,35
2	EPDM seal	10.8	44	**HPX4.1**	500 unit(s)	63,35

Screw cap tubes

Screw vials

ROTH SELECTION. Material: PP, screw cap with silicone seal.
Autoclavable: Yes.

- Only 1¼ rotations of the lid for fast opening and closing
- Temperature-stable from -196 to +121 °C
- Lid inserts for identification available as an option (see CK72.1 ff.)
- **RNase/DNase/DNA-free and pyrogen-free**

A 121 °C ❄❄❄

Not a medical device / Not an IVD product

Free-standing

Non-sterile.

- Without graduation and labelling field
- Centrifugability in g: 17,000

Delivery incl. screw-on lid (for attachment, packed separately).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	Silicone seal	13	47	**CK57.1**	1,000 unit(s)	198,90
1.5	Silicone seal	13	47	**CK58.1**	1,000 unit(s)	170,95
2	Silicone seal	13	47	**CK60.1**	1,000 unit(s)	170,95

Free-standing sterile

Sterile.

- Without graduation and labelling field
- Centrifugability in g: 17,000

Delivery incl. screw cap (attached, fitted).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	Silicone seal	13	47	**CK62.1**	500 unit(s)	117,20
1.5	Silicone seal	13	47	**CK63.1**	500 unit(s)	117,20
2	Silicone seal	13	47	**CK65.1**	500 unit(s)	117,20

Free-standing sterile, graduated

Sterile.

- With graduation and labelling area
- Centrifugability in g: 17,000

Delivery incl. screw cap (attached, fitted).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	Silicone seal	13	47	**CK67.1**	500 unit(s)	175,25
1.5	Silicone seal	13	47	**CK68.1**	500 unit(s)	155,90
2	Silicone seal	13	47	**CK70.1**	500 unit(s)	155,90

Conical

Non-sterile.

- Without graduation and labelling field
- Centrifugability in g: 20,000

Delivery incl. screw-on lid (for attachment, packed separately).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	Silicone seal	13	47	**CK59.1**	1,000 unit(s)	170,95
2	Silicone seal	13	47	**CK61.1**	1,000 unit(s)	201,05

Screw cap tubes

Conical sterile
Sterile.

- Without graduation and labelling field
- Centrifugability in g: 20,000

Delivery incl. screw cap (attached, fitted).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	Silicone seal	13	47	**CK64.1**	500 unit(s)	117,20
2	Silicone seal	13	47	**CK66.1**	500 unit(s)	145,15

Conical sterile, graduated
Sterile.

- With graduation and labelling area
- Centrifugability in g: 20,000

Delivery incl. screw cap (attached, fitted).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	Silicone seal	13	47	**CK69.1**	500 unit(s)	155,90
2	Silicone seal	13	47	**CK71.1**	500 unit(s)	155,90

Screw vials sterile

ROTH SELECTION. Material: PP. **Sterile**. Autoclavable: Yes.

Ideal for storage in freezers, for applications in boiling water bath or for centrifuging. Tight sealing due to combination of lip seal and silicone ring in cap.

- Graduated, with large labelling space
- Only 1¼ rotations of the lid for fast opening and closing
- Thick-walled for high stability
- Excellent visual clarity
- Temperature-stable from -196 to +121 °C
- **RNase/DNase/DNA-free and pyrogen-free**

S A 121 °C ❄❄❄

Delivery incl. screw-on lid (mounted).

Not a medical device / Not an IVD product

Free-standing
Single-handed opening in appropriate racks (e.g. AEN2.1ff) through longitudinal rib at the top edge and engaging device on the bottom.

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
0.5	Lip seal + silicone seal	13	47	10 x 50	**AET3.1**	500 unit(s)	138,70
1.5	Lip seal + silicone seal	13	47	10 x 50	**AET4.1**	500 unit(s)	145,15
2	Lip seal + silicone seal	13	47	10 x 50	**AET6.1**	500 unit(s)	145,15

Conical
Centrifugable to 20 000 x g.

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
1.5	Lip seal + silicone seal	13	47	10 x 50	**AET5.1**	500 unit(s)	145,15

Screw cap tubes

Screw vials

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

Ideal for storage in freezers, for applications in boiling water bath or for centrifuging. Tight sealing due to combination of lip seal and silicone ring in cap.

- Graduated, with large labelling space
- Only 1¼ rotations of the lid for fast opening and closing
- Thick-walled for high stability
- Excellent visual clarity
- Temperature-stable from -196 to +121 °C
- **RNase/DNase/DNA-free and pyrogen-free**

A 121 °C ❄❄❄

Delivery without lid.

Not a medical device / Not an IVD product

Free-standing
Single-handed opening in appropriate racks (e.g. AEN2.1ff) through longitudinal rib at the top edge and engaging device on the bottom.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	13	47	**AET7.1**	1,000 unit(s)	112,90
1.5	13	47	**AET8.1**	1,000 unit(s)	112,90
2	13	47	**AEX0.1**	1,000 unit(s)	112,90

Conical
Centrifugable to 20 000 x g.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	13	47	**AET9.1**	1,000 unit(s)	112,90

Screw vials

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

- Graduated, with labelling space
- Temperature-stable from -196 to +121 °C
- **RNase/DNase/DNA-free and pyrogen-free**

A 121 °C ❄❄❄

Delivery without lid.

Not a medical device / Not an IVD product

Free-standing

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	11	44	**AEK4.1**	1,000 unit(s)	149,45
2	11	44	**AEK6.1**	1,000 unit(s)	108,60

Conical
Centrifugable to 20 000 x g.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	11	44	**AEK5.1**	1,000 unit(s)	149,45

Accessories screw caps with septum

ROTH SELECTION. Material: PP, Septum made of PTFE/silicone.

Tight seal through integrated septum. Easy to pierce with pipette tips or cannula.

Not a medical device / Not an IVD product

Lock	Art. No.	Pack Qty.	€
PTFE/silicone-septum	**AEK7.1**	250 unit(s)	145,15

Screw cap tubes

Screw vials

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

- For storing light-sensitive samples
- Only 1¼ rotations of the lid for fast opening and closing
- Temperature-stable from -196 to +121 °C
- **RNase/DNase/DNA-free and pyrogen-free**

A 121 °C ❄❄❄

Delivery without screw-on lid.

Not a medical device / Not an IVD product

Free-standing

Vol. (ml)	Lock	Colour	Art. No.	Pack Qty.	€
0.5	Silicone seal	brown	**CK47.1**	1,000 unit(s)	112,90
1.5	Silicone seal	brown	**CK48.1**	1,000 unit(s)	112,90
2	Silicone seal	brown	**CK50.1**	1,000 unit(s)	112,90

Conical

Centrifugable to 20 000 x g.

Vol. (ml)	Lock	Colour	Art. No.	Pack Qty.	€
1.5	Silicone seal	brown	**CK49.1**	1,000 unit(s)	112,90
2	Silicone seal	brown	**CK51.1**	1,000 unit(s)	112,90

Accessories screw-on lid

A 121 °C ❄❄❄

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

- Suitable for reaction vials (CK47.1 ff, AET7.1 ff)
- Brown lids offer optimum light protection in combination with brown reaction vials
- Lid inserts for identification available as an option (see CK72.1 ff)

Not a medical device / Not an IVD product

Screw-on lid attached

Lock	Colour	Art. No.	Pack Qty.	€
Silicone seal	white	**CK53.1**	1,000 unit(s)	149,45

Loose

Lock	Colour	Art. No.	Pack Qty.	€
Silicone seal	brown	**AEK2.1**	1,000 unit(s)	123,65
Silicone seal	red	**CK54.1**	1,000 unit(s)	117,20
Silicone seal	white	**CK55.1**	1,000 unit(s)	117,20

Cryogenic vials Cryo.s™ sterile

S ❄❄❄

Greiner Bio-One. Material: PP, transparent. **Sterile**.

For storage of tissue, cells, fungi, bacteria, spores, cellular extractions or bodily fluids at ultra-low temperatures for research and development as well as diagnostic purposes. Cryo.s™ cryogenic tubes must not be stored in the liquid phase of liquid nitrogen, but rather only in the superjacent gas phase. Not intended for an application in the area of reproduction.

- For sample storage at -20/-80 °C and in the gas phase above LN_2
- Suitable for shipping via air freight
- White labelling space, scratch resistant
- Colour of screw cap: natural
- Free of heavy metals, USP class VI-certified
- Temperature-stable from -196 to +121 °C
- **Free of detectable RNase, DNase, and human DNA, detectable endotoxins and cytotoxic substances**

Delivery incl. 150 (volume 1-2 ml) and/or 100 (volume 5 ml) cap inserts for additional identification of the caps.

In vitro diagnostic medical device according to IVDD

Screw cap tubes

Round bottom inside thread

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
2	Lip seal	12.5	48	5 x 100	**HLX1.1**	500 unit(s)	195,65
5	Lip seal	12.5	86	6 x 50	**HLX3.1**	300 unit(s)	132,10

Star foot outer thread

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
2	Lip seal	12.5	47	5 x 100	**HLX4.1**	500 unit(s)	195,65
3	Lip seal	12.5	83	6 x 50	**HLX5.1**	300 unit(s)	132,10

Star foot i

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
1	Lip seal	12.5	42	5 x 100	**HLX0.1**	500 unit(s)	195,65
2	Lip seal	12.5	48	5 x 100	**HLX2.1**	500 unit(s)	195,65

Cryogenic vials True North™ sterile

ROTH SELECTION. Material: PP. **Sterile**. Autoclavable: Yes.

Lid via vial with identical Ø (13 mm), therefore also suitable for cryogenic box format 10 x 10. Suitable for storage in freezers or liquid nitrogen (gas phase). Temperature-stable from -196 to +121 °C.

- Graduated, with labelling space
- **RNase/DNase-free, non-pyrogenic and non-cytotoxic**

S A 121 °C ❄❄❄

Colour assortment: coloured lid (blue, red, green, violet, grey).

Not a medical device / Not an IVD product

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
2	Silicone seal	13	49	assorted colours	10 x 50	**TP67.1**	500 unit(s)	188,15
2	Silicone seal	13	49	colourless	10 x 50	**XT57.1**	500 unit(s)	176,30

Accessories screw-on lid

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

Flat cap, suitable for automatic packaging machines. Suitable for vials AET7.1 ff.

- **RNase/DNase/DNA-free and pyrogen-free**

A 121 °C ❄❄❄

Not a medical device / Not an IVD product

Lock	Colour	Designation	Art. No.	Pack Qty.	€
Lip seal and silicone seal	yellow	Lid, yellow	**AEX1.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	red	Lid, red	**AEX2.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	green	Lid, green	**AEX3.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	blue	Lid, blue	**AEX4.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	white	Lid, white	**AEX5.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	colourless	Lid, colourless	**AEX6.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	assorted colours	Lid, assorted colours (yellow, red, green, blue, white)	**AEX7.1**	1,000 unit(s)	115,05

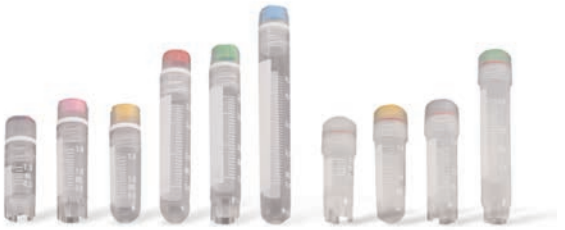
Screw cap tubes

Cryogenic vials sterile

ROTH SELECTION. Material: PP. **Sterile**. Autoclavable: Yes.

Suitable for storage of cell cultures, serums, blood components, bacteriological cultures and other liquids at low temperatures in refrigerators or nitrogen vessels. Suitable for storage of samples in he gas phase of liquid nitrogen. Lid and vial made of identical material, even expansion of the material, no danger of explosion.

- Non-slip lid with vertical strips
- 1¼ turn for quick cap opening and closing
- White labelling space
- High transparency, sample readily visible
- Round inside bottom, contents empty completely
- Temperature-stable up to -196 °C
- Gamma-sterilised
- **RNase/DNase/DNA-free and pyrogen-free**



S | A 121 °C | ❄❄❄

In vitro diagnostic medical device according to IVDD

Round bottom outer thread

Centrifugability in g: 17,000

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	Lip seal + silicone seal	12.5	48	**AEH7.1**	100 unit(s)	46,15
2	Lip seal	12.5	48	**E291.1**	100 unit(s)	35,30
2	Silicone seal	12.5	48	**E315.1**	100 unit(s)	46,80

Round bottom inside thread

Centrifugability in g: 17,000

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	Silicone seal	12.5	48	**E310.1**	100 unit(s)	42,80
4	Silicone seal	12.5	72	**E311.1**	100 unit(s)	49,25
5	Silicone seal	12.5	92	**E313.1**	100 unit(s)	48,30

Free-standing outer thread

Self-standing vials with thread on the bottom, thus possible to open with one hand in stands with engaging device.

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.2	Lip seal + silicone seal	12.5	43	**AEH6.1**	100 unit(s)	46,15
1.2	Lip seal	12.5	43	**E290.1**	100 unit(s)	32,15
1.2	Silicone seal	12.5	43	**E314.1**	100 unit(s)	46,80
2	Lip seal + silicone seal	12.5	49	**AEH8.1**	100 unit(s)	40,10
2	Lip seal	12.5	49	**E292.1**	100 unit(s)	32,15
2	Silicone seal	12.5	49	**E316.1**	100 unit(s)	41,40
3	Lip seal + silicone seal	12.5	72	**AEH9.1**	100 unit(s)	40,10
3	Lip seal	12.5	72	**E293.1**	100 unit(s)	34,30
3	Silicone seal	12.5	72	**E317.1**	100 unit(s)	48,95
4	Lip seal + silicone seal	12.5	78	**AEK0.1**	100 unit(s)	52,60
4	Lip seal	12.5	78	**E294.1**	100 unit(s)	40,35
4	Silicone seal	12.5	78	**E318.1**	100 unit(s)	51,50
5	Lip seal + silicone seal	12.5	92	**AEK1.1**	100 unit(s)	57,65
5	Lip seal	12.5	92	**E295.1**	100 unit(s)	40,35
5	Silicone seal	12.5	92	**E319.1**	100 unit(s)	46,80

Free-standing inside thread

Self-standing vials with thread on the bottom, thus possible to open with one hand in stands with engaging device.

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.2	Silicone seal	12.5	43	**E308.1**	100 unit(s)	39,25
2	Silicone seal	12.5	49	**E309.1**	100 unit(s)	39,25
4	Silicone seal	12.5	78	**E312.1**	100 unit(s)	49,25

Screw-top jars

❄❄❄

Accessories lid inserts for cryogenic vials

ROTH SELECTION. Material: PP.

For colour-coding and easier identification of samples.
Suitable for 1.2 to 5 ml cryogenic vials.

Colour	Art. No.	Pack Qty.	€
red	**E322.1**	500 unit(s)	18,50
blue	**E321.1**	500 unit(s)	18,50
green	**E323.1**	500 unit(s)	18,50
white	**E320.1**	500 unit(s)	18,50
yellow	**E324.1**	500 unit(s)	18,50
assorted colours	**E325.1**	500 unit(s)	18,50

❄❄❄

Accessories holder for cryogenic vials

ROTH SELECTION. Material: Aluminium.

For storage of up to 5 cryogenic vials 1.2 or 2 ml in liquid nitrogen vessels and Dewar vessels.

Length (mm)	Art. No.	Pack Qty.	€
290	**P169.1**	12 unit(s)	15,00

NEW / +

❄❄❄

Cryo holder

ROTH SELECTION. Material: Aluminium.

Flexible cryo holder, suitable for up to six cryogenic tubes up to 5 ml.
For storage in a freezer or Dewar vessel.

Length (mm)	Art. No.	Pack Qty.	€
150	**1L8X.1**	12 unit(s)	28,80

NEW / +

❄❄❄

Accessories sleeve for cryo holder

ROTH SELECTION. Material: PVC.

Transparent sleeve protects cryogenic tubes in the cryo holder during storage.

Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
275	14.5	**1L8Y.1**	100 unit(s)	83,35

S | A 121 °C | ❄❄❄

Cryogenic vials 10 ml sterile

ROTH SELECTION. Material: PP, Lid made of HDPE. **Sterile**.
Autoclavable: Yes.

Suitable for storage of cell cultures, serums, blood components, bacteriological cultures and other liquids.

- Self-standing
- Outer thread
- Non-slip lid with vertical strips
- White labelling space
- High transparency, sample readily visible
- Round inside bottom, contents empty completely
- Gamma-sterilised
- **RNase/DNase/DNA-free and pyrogen-free**

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Lock	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	Silicone seal	17	14	84	**P168.1**	50 unit(s)	28,50
10	Silicone seal	17	14	84	**P168.2**	500 unit(s)	266,60

Filtration, Water Purification & Dialysis

Analytical sieve machines 776
Bottle Top filter systems, disposable 741
Centrifuge filter systems 740
Chromatography accessories 787
Dialysis accessories 797
Dialysis tubular membranes 789
Dialysis systems 795
Extraction thimbles 775
Filter devices made of plastic, glass or stainless steel 747
Filter holders 750
Filter papers for qualitative analysis 767
Filter papers for quantitative analysis 770
Filter papers for special applications 772
Filter units 737
Folded filters 769
Glass / Quartz fibre filter papers 765
Ion exchange devices 778
Membrane filters 753
Pure water systems 781
Round filters 770
Spray bottles and atomizers 788
Syringe filters 708
TLC spray devices 787
Wasser purification 779

Syringe filters

Syringe filters ROTILABO®

ROTH SELECTION. Non-sterile.

With hydrophilic or hydrophobic membranes.

Not a medical device / Not an IVD product

MCE

With hydrophilic membrane made of mixed cellulose ester (cellulose acetate and nitrate) for filtration of aqueous solutions.

Technical specifications:

Art. No.	P820.1	P818.1	P819.1
Ø Membrane	25 mm		
Ø Housing	29 mm		
Housing material	PVC		
Sample volume	~100 ml		
Dead volume	<100 µl		
Filtration area	3.9 cm²		
Max. application temperature	45 °C		
Max. operating pressure	5 bar		
Inlet connection	Luer lock connector		
Outlet connection	Luer connector		

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,8	Non-sterile	25	**P820.1**	100 unit(s)	162,35
0,22	Non-sterile	25	**P818.1**	100 unit(s)	162,35
0,45	Non-sterile	25	**P819.1**	100 unit(s)	162,35

Nylon

With hydrophilic nylon membrane for filtration of aqueous and many organic solutions.

Technical specifications:

Art. No.	CCX8.1	KY61.1	CCX9.1	KY64.1
Ø Membrane	13 mm	30 mm	13 mm	30 mm
Ø Housing	19 mm	33 mm	19 mm	33 mm
Housing material	PP			
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml
Dead volume	<15 µl	<80 µl	<15 µl	<80 µl
Filtration area	0.8 cm²	4.52 cm²	0.8 cm²	4.52 cm²
Max. application temperature	45 °C			
Max. operating pressure	10 bar	8.6 bar	10 bar	8.6 bar
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,20	Non-sterile	13	**CCX8.1**	100 unit(s)	149,45
0,20	Non-sterile	30	**KY61.1**	100 unit(s)	155,90
0,45	Non-sterile	13	**CCX9.1**	100 unit(s)	149,45
0,45	Non-sterile	30	**KY64.1**	100 unit(s)	160,20

PES

With hydrophilic membrane made of polyethersulfone (PES) for separation of extremely fine particles in aqueous solutions.

Technical specifications:

Art. No.	P821.1
Ø Membrane	30 mm
Ø Housing	33 mm
Housing material	PP
Sample volume	~100 ml
Dead volume	<80 µl
Filtration area	4.52 cm²
Max. application temperature	45 °C
Max. operating pressure	8.6 bar
Inlet connection	Luer lock connector
Outlet connection	Luer connector

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	30	**P821.1**	100 unit(s)	149,45

PTFE

With hydrophobic membrane made of polytetrafluoroethylene (PTFE) for filtration of organic solutions and for air filtration.

Technical specifications:

Art. No.	CCY2.1	P815.1	CCY3.1	P816.1	P817.1
Ø Membrane	13 mm	25 mm	13 mm	25 mm	
Ø Housing	19 mm	29 mm	19 mm	29 mm	
Housing material	PP	PE	PP	PE	
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml	
Dead volume	<15 µl	<100 µl	<15 µl	<100 µl	
Filtration area	0.8 cm²	3.9 cm²	0.8 cm²	3.9 cm²	
Max. application temperature	45 °C				
Max. operating pressure	10 bar	5 bar	10 bar	5 bar	
Inlet connection	Luer lock connector				
Outlet connection	Luer connector				

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,20	Non-sterile	13	**CCY2.1**	100 unit(s)	149,45
0,20	Non-sterile	25	**P815.1**	100 unit(s)	162,35
0,45	Non-sterile	13	**CCY3.1**	100 unit(s)	149,45
0,45	Non-sterile	25	**P816.1**	100 unit(s)	162,35
5,0	Non-sterile	25	**P817.1**	100 unit(s)	162,35

PVDF

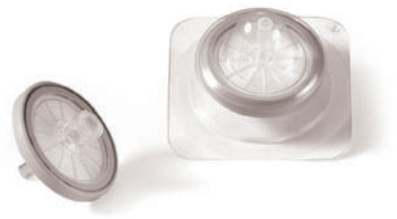
With hydrophilic membrane made of polyvinylidene fluoride (PVDF) for filtration of aqueous and slightly organic solutions.

Technical specifications:

Art. No.	CCY0.1	KY62.1	CCY1.1	KY63.1
Ø Membrane	13 mm	30 mm	13 mm	30 mm
Ø Housing	19 mm	33 mm	19 mm	33 mm
Housing material	PP			
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml
Dead volume	<15 µl	<80 µl	<15 µl	<80 µl
Filtration area	0.8 cm²	4.52 cm²	0.8 cm²	4.52 cm²
Max. application temperature	45 °C			
Max. operating pressure	10 bar	8.6 bar	10 bar	8.6 bar
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	13	**CCY0.1**	100 unit(s)	149,45
0,22	Non-sterile	30	**KY62.1**	100 unit(s)	155,90
0,45	Non-sterile	13	**CCY1.1**	100 unit(s)	149,45
0,45	Non-sterile	30	**KY63.1**	100 unit(s)	160,20

Syringe filters



S

Syringe filters ROTILABO®

ROTH SELECTION. **Sterile**.

Individually packed. With Luer lock inlet and Luer outlet.

Not a medical device / Not an IVD product

MCE

With hydrophilic membrane made of mixed cellulose ester (MCE) for filtering additives, tissue culture media and antibiotics.

Technical specifications:

Art. No.	KH54.1	KH55.1
Ø Membrane	30 mm	
Ø Housing	33 mm	
Housing material	PMMA polymer	
Sample volume	~100 ml	
Dead volume	<80 µl	
Filtration area	4.52 cm²	
Max. application temperature	45 °C	
Max. operating pressure	8.6 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	**Sterile**	30	**KH54.1**	50 unit(s)	81,50
0,45	**Sterile**	30	**KH55.1**	50 unit(s)	81,50

PES

With hydrophilic membrane made of polyethersulfone (PES) for ultra-fast filtration of tissue culture media, additives and other aqueous solutions.

Technical specifications:

Art. No.	P668.1
Ø Membrane	30 mm
Ø Housing	33 mm
Housing material	PMMA polymer
Sample volume	~100 ml
Dead volume	<80 µl
Filtration area	4.52 cm²
Max. application temperature	45 °C
Max. operating pressure	8.6 bar
Inlet connection	Luer lock connector
Outlet connection	Luer connector

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	**Sterile**	30	**P668.1**	50 unit(s)	84,95

PVDF

With hydrophilic membrane made of polyvinylidene fluoride (PVDF) for filtration of protein solutions, tissue culture media, additives, antibiotics and alcoholic solutions.

Technical specifications:

Art. No.	P666.1	P667.1
Ø Membrane	30 mm	
Ø Housing	33 mm	
Housing material	PMMA polymer	
Sample volume	~100 ml	
Dead volume	<80 µl	
Filtration area	4.52 cm²	
Max. application temperature	45 °C	
Max. operating pressure	8.6 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	**Sterile**	30	**P666.1**	50 unit(s)	84,95
0,45	**Sterile**	30	**P667.1**	50 unit(s)	84,95

Syringe filters ROTILABO® glass fibre

ROTH SELECTION.

For prefiltration of samples with high particle loads. Retention range 1–2 µm, binder-free.
Housing made of PP, ultrasonically welded, housing made of PC, injection-moulded.

Technical specifications:

Art. No.	KC98.1	KC99.1	KE00.1
Ø Membrane	15 mm	25 mm	30 mm
Ø Housing	20 mm	30 mm	34 mm
Housing material	PP		PC
Sample volume	1–10 ml	10–100 ml	>100 ml
Dead volume	<25 µl	<65 µl	<170 µl
Total filter volume	0.335 ml	0.6 ml	0.864 ml
Filtration area	1.77 cm²	4.90 cm²	7.07 cm²
Max. operating pressure	7 bar		6 bar
Inlet connection	Luer lock connector		
Outlet connection	Luer connector		

Not a medical device / Not an IVD product

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
1-2	Non-sterile	15	**KC98.1**	100 unit(s)	68,20
1-2	Non-sterile	25	**KC99.1**	100 unit(s)	113,50
1-2	Non-sterile	30	**KE00.1**	100 unit(s)	201,05

Syringe filters

Syringe filters

With housing made of PP, ultrasonically welded (filter with membrane Ø 13 mm) or injection-moulded (filter with membrane Ø 25 mm). Sterile version (individually packed) available as an option.

Not a medical device / Not an IVD product

Cellulose acetate (CA)

Hydrophilic membrane for filtration of aqueous solutions.

Technical specifications:

Art. No.	1AN9.1	1ANA.1	1ANC.1	1ANE.1
Ø Membrane	13 mm	25 mm		
Ø Housing	17 mm	30 mm		
Housing material	PP			
Sample volume	< 10 ml	< 100 ml		
Inlet connection	Luer lock connector			
Outlet connection	Luer fitting			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	13	**1AN9.1**	100 unit(s)	54,60
0,22	**Sterile**	25	**1ANA.1**	100 unit(s)	122,40
0,45	Non-sterile	25	**1ANC.1**	100 unit(s)	98,30
0,45	**Sterile**	25	**1ANE.1**	100 unit(s)	122,40

Polyethersulfone (PES)

Hydrophilic membrane with low protein binding and high flow rate.

Technical specifications:

Art. No.	1ANH.1	1ANK.1
Ø Membrane	25 mm	
Ø Housing	30 mm	
Housing material	PP	
Sample volume	< 100 ml	
Inlet connection	Luer lock connector	
Outlet connection	Luer fitting	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	25	**1ANH.1**	100 unit(s)	103,85
0,22	**Sterile**	25	**1ANK.1**	100 unit(s)	122,40

Polyvinylidene fluoride (PVDF)

Hydrophilic membrane with low protein binding.

Technical specifications:

Art. No.	1ANL.1	1ANN.1	1ANP.1	1ANT.1
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	< 100 ml			
Inlet connection	Luer lock connector			
Outlet connection	Luer fitting			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	25	**1ANL.1**	100 unit(s)	106,00
0,22	**Sterile**	25	**1ANN.1**	100 unit(s)	133,45
0,45	Non-sterile	25	**1ANP.1**	100 unit(s)	106,00
0,45	**Sterile**	25	**1ANT.1**	100 unit(s)	133,45

Syringe filters

Nylon
Hydrophilic membrane which is highly resistant to many organic solvents.

Technical specifications:

Art. No.	1ANX.1	1ANY.1	1AP0.1	1AP1.1
Ø Membrane	13 mm	25 mm	13 mm	25 mm
Ø Housing	17 mm	30 mm	17 mm	30 mm
Housing material	PP			
Sample volume	< 10 ml	< 100 ml	< 10 ml	< 100 ml
Inlet connection	Luer lock connector			
Outlet connection	Luer fitting			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	13	**1ANX.1**	100 unit(s)	57,90
0,22	Non-sterile	25	**1ANY.1**	100 unit(s)	98,40
0,45	Non-sterile	13	**1AP0.1**	100 unit(s)	57,90
0,45	Non-sterile	25	**1AP1.1**	100 unit(s)	98,40

Hydrophilic polytetrafluoroethylene (PTFE)
Hydrophilic membrane with high chemical resistance.

Technical specifications:

Art. No.	1AP2.1	1AP3.1	1AP4.1	1AP5.1	1AP6.1
Ø Membrane	13 mm	25 mm		13 mm	25 mm
Ø Housing	17 mm	30 mm		17 mm	30 mm
Housing material	PP				
Sample volume	< 10 ml	< 100 ml		< 10 ml	< 100 ml
Inlet connection	Luer lock connector				
Outlet connection	Luer fitting				

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	13	**1AP2.1**	100 unit(s)	85,20
0,22	Non-sterile	25	**1AP3.1**	100 unit(s)	109,25
0,22	**Sterile**	25	**1AP4.1**	100 unit(s)	133,45
0,45	Non-sterile	13	**1AP5.1**	100 unit(s)	85,20
0,45	Non-sterile	25	**1AP6.1**	100 unit(s)	109,30

Hydrophobic polytetrafluoroethylene (PTFE)
Hydrophobic membrane with high chemical resistance.

Technical specifications:

Art. No.	1AP7.1	1AP8.1	1AP9.1	1APA.1	1APC.1	1APE.1
Ø Membrane	13 mm		25 mm		13 mm	25 mm
Ø Housing	17 mm		30 mm		17 mm	30 mm
Housing material	PP					
Sample volume	< 10 ml		< 100 ml		< 10 ml	< 100 ml
Inlet connection	Luer lock connector					
Outlet connection	Luer fitting					

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	13	**1AP7.1**	100 unit(s)	57,85
0,22	**Sterile**	13	**1AP8.1**	100 unit(s)	81,90
0,22	Non-sterile	25	**1AP9.1**	100 unit(s)	109,30
0,22	**Sterile**	25	**1APA.1**	100 unit(s)	122,40
0,45	Non-sterile	13	**1APC.1**	100 unit(s)	58,55
0,45	Non-sterile	25	**1APE.1**	100 unit(s)	109,30

Glass fibre
Glass fibre filters for clear filtration of liquids with high particle content.

Technical specifications:

Art. No.	1APH.1	1APK.1
Ø Membrane	13 mm	25 mm
Ø Housing	17 mm	30 mm
Housing material	PP	
Sample volume	< 10 ml	< 100 ml
Inlet connection	Luer lock connector	
Outlet connection	Luer fitting	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,7	Non-sterile	13	**1APH.1**	100 unit(s)	54,60
0,7	Non-sterile	25	**1APK.1**	100 unit(s)	85,20

Syringe filters

Syringe filters ROTILABO®

ROTH SELECTION.

With pressure- and chemical-resistant housing made of PP, housing ultrasonically welded (filter with membrane Ø 15 mm) or injection-moulded (filter with membrane Ø 25 and 30 mm). Sterile version (individually packed) available as an option.

Not a medical device / Not an IVD product

Cellulose acetate (CA)

Hydrophilic membrane with very low protein adsorption (3.8 µg/cm²) for biological samples (e.g. enzyme solutions, biological macromolecules) and for clarification and sterile filtration of aqueous solutions.

Technical specifications:

Art. No.	KC60.1	KC70.1	KC80.1	KC61.1	KC71.1	KC81.1
Ø Membrane	25 mm		30 mm	25 mm		30 mm
Ø Housing	30 mm		34 mm	30 mm		34 mm
Housing material	PP					
Sample volume	10–100 ml		>100 ml	10–100 ml		>100 ml
Dead volume	<65 µl		<170 µl	<65 µl		<170 µl
Total filter volume	0.6 ml		0.864 ml	0.6 ml		0.864 ml
Filtration area	4.90 cm²		7.07 cm²	4.90 cm²		7.07 cm²
Max. operating pressure	7 bar		6 bar	7 bar		6 bar
Inlet connection	Luer lock connector					
Outlet connection	Luer connector					

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	25	light grey	**KC60.1**	100 unit(s)	131,05
0,2	**Sterile**	25	light grey	**KC70.1**	100 unit(s)	149,60
0,2	Non-sterile	30	light grey	**KC80.1**	100 unit(s)	217,15
0,45	Non-sterile	25	grey	**KC61.1**	100 unit(s)	131,05
0,45	**Sterile**	25	grey	**KC71.1**	100 unit(s)	146,15
0,45	Non-sterile	30	grey	**KC81.1**	100 unit(s)	225,75

Mixed cellulose ester (MCE)

Hydrophilic membrane with high non-specific adsorption capacity for sample preparation for aqueous media and for separating microbiological material (bacteria, yeast, etc.).

Technical specifications:

Art. No.	PA63.1	PA64.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	15	colourless	**PA63.1**	100 unit(s)	95,30
0,45	**Sterile**	15	colourless	**PA64.1**	100 unit(s)	95,30

Syringe filters

Nylon

For the filtration of HPLC and GC solvents and for purification and sterile filtration of aqueous, alkaline and organic solutions. Hydrophilic, resistant to many solvents. High mechanical stability.

Technical specifications:

Art. No.	KC92.1	PA51.1	KC64.1	KC74.1	KC84.1	KC93.1	PA52.1	KC65.1	KC75.1	KC85.1
Ø Membrane	15 mm		25 mm		30 mm	15 mm		25 mm		30 mm
Ø Housing	20 mm		30 mm		34 mm	20 mm		30 mm		34 mm
Housing material	PP									
Sample volume	1–10 ml		10–100 ml		>100 ml	1–10 ml		10–100 ml		>100 ml
Dead volume	<25 µl		<65 µl		<170 µl	<25 µl		<65 µl		<170 µl
Total filter volume	0.335 ml		0.6 ml		0.864 ml	0.335 ml		0.6 ml		0.864 ml
Filtration area	1.77 cm²		4.90 cm²		7.07 cm²	1.77 cm²		4.90 cm²		7.07 cm²
Max. operating pressure	7 bar				6 bar	7 bar				6 bar
Inlet connection	Luer lock connector									
Outlet connection	Luer connector									

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	colourless	**KC92.1**	100 unit(s)	78,30
0,2	**Sterile**	15	colourless	**PA51.1**	100 unit(s)	95,30
0,2	Non-sterile	25	yellow	**KC64.1**	100 unit(s)	132,50
0,2	**Sterile**	25	yellow	**KC74.1**	100 unit(s)	161,05
0,2	Non-sterile	30	yellow	**KC84.1**	100 unit(s)	205,35
0,45	Non-sterile	15	colourless	**KC93.1**	100 unit(s)	78,30
0,45	**Sterile**	15	colourless	**PA52.1**	100 unit(s)	95,30
0,45	Non-sterile	25	light orange	**KC65.1**	100 unit(s)	132,50
0,45	**Sterile**	25	light orange	**KC75.1**	100 unit(s)	161,05
0,45	Non-sterile	30	light orange	**KC85.1**	100 unit(s)	205,35

Polyethersulfone (PES)

Hydrophilic membrane with low protein binding (< 20 µg/cm²) and high flow rates. Suitable for aqueous and partially organic media, e.g. for biological sample preparation.

Technical specifications:

Art. No.	PA59.1	NA21.1	PA60.1
Ø Membrane	15 mm	25 mm	15 mm
Ø Housing	20 mm	30 mm	20 mm
Housing material	PP		
Sample volume	1–10 ml	10–100 ml	1–10 ml
Dead volume	<25 µl	<65 µl	<25 µl
Total filter volume	0.335 ml	0.6 ml	0.335 ml
Filtration area	1.77 cm²	4.90 cm²	1.77 cm²
Max. operating pressure	7 bar		
Inlet connection	Luer lock connector		
Outlet connection	Luer connector		

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	15	colourless	**PA59.1**	100 unit(s)	90,80
0,2	Non-sterile	25	blue	**NA21.1**	100 unit(s)	123,50
0,45	**Sterile**	15	colourless	**PA60.1**	100 unit(s)	90,80

Polypropylene (PP)

Weakly hydrophobic all-round membrane for aqueous and organic media.

Technical specifications:

Art. No.	PA57.1
Ø Membrane	15 mm
Ø Housing	20 mm
Housing material	PP
Sample volume	1–10 ml
Dead volume	<25 µl
Total filter volume	0.335 ml
Filtration area	1.77 cm²
Max. operating pressure	7 bar
Inlet connection	Luer lock connector
Outlet connection	Luer connector

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	15	colourless	**PA57.1**	100 unit(s)	111,50

Syringe filters

Polytetrafluoroethylene (PTFE)

Hydrophobic membrane for the filtration of aggressive chemicals, acids and non-polar solvents. Low flow resistance to gases, can therefore also be used for air and gas filtration (e.g. for aeration and ventilation work and for sterile gas exchange).

Technical specifications:

Art. No.	KC94.1	PA53.1	KC66.1	KC76.1	KC86.1	KC95.1	PA54.1	KC67.1	KC77.1	KC87.1
Ø Membrane	15 mm		25 mm		30 mm	15 mm		25 mm		30 mm
Ø Housing	20 mm		30 mm		34 mm	20 mm		30 mm		34 mm
Housing material	PP									
Sample volume	1–10 ml		10–100 ml		>100 ml	1–10 ml		10–100 ml		>100 ml
Dead volume	<25 µl		<65 µl		<170 µl	<25 µl		<65 µl		<170 µl
Total filter volume	0.335 ml		0.6 ml		0.864 ml	0.335 ml		0.6 ml		0.864 ml
Filtration area	1.77 cm²		4.90 cm²		7.07 cm²	1.77 cm²		4.90 cm²		7.07 cm²
Max. operating pressure	7 bar				6 bar	7 bar				6 bar
Inlet connection	Luer lock connector									
Outlet connection	Luer connector									

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	colourless	**KC94.1**	100 unit(s)	78,30
0,2	**Sterile**	15	colourless	**PA53.1**	100 unit(s)	95,30
0,2	Non-sterile	25	magenta	**KC66.1**	100 unit(s)	147,10
0,2	**Sterile**	25	magenta	**KC76.1**	100 unit(s)	161,05
0,2	Non-sterile	30	magenta	**KC86.1**	100 unit(s)	222,55
0,45	Non-sterile	15	colourless	**KC95.1**	100 unit(s)	78,30
0,45	**Sterile**	15	colourless	**PA54.1**	100 unit(s)	95,30
0,45	Non-sterile	25	purple	**KC67.1**	100 unit(s)	147,10
0,45	**Sterile**	25	purple	**KC77.1**	100 unit(s)	161,05
0,45	Non-sterile	30	purple	**KC87.1**	100 unit(s)	222,55

Polyvinylidene fluoride (PVDF)

Slightly hydrophobic membrane for clarification and sterile filtration of organic and partially organic solutions. Protein adsorption 125 µg/cm².

Technical specifications:

Art. No.	KC96.1	PA55.1	KC68.1	KC78.1	KC88.1	KC97.1	PA56.1	KC69.1	KC79.1	KC89.1
Ø Membrane	15 mm		25 mm		30 mm	15 mm		25 mm		30 mm
Ø Housing	20 mm		30 mm		34 mm	20 mm		30 mm		34 mm
Housing material	PP									
Sample volume	1–10 ml		10–100 ml		>100 ml	1–10 ml		10–100 ml		>100 ml
Dead volume	<25 µl		<65 µl		<170 µl	<25 µl		<65 µl		<170 µl
Total filter volume	0.335 ml		0.6 ml		0.864 ml	0.335 ml		0.6 ml		0.864 ml
Filtration area	1.77 cm²		4.90 cm²		7.07 cm²	1.77 cm²		4.90 cm²		7.07 cm²
Max. operating pressure	7 bar				6 bar	7 bar				6 bar
Inlet connection	Luer lock connector									
Outlet connection	Luer connector									

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	colourless	**KC96.1**	100 unit(s)	98,90
0,2	**Sterile**	15	colourless	**PA55.1**	100 unit(s)	113,45
0,2	Non-sterile	25	violet	**KC68.1**	100 unit(s)	139,35
0,2	**Sterile**	25	violet	**KC78.1**	100 unit(s)	178,45
0,2	Non-sterile	30	violet	**KC88.1**	100 unit(s)	239,75
0,45	Non-sterile	15	colourless	**KC97.1**	100 unit(s)	98,90
0,45	**Sterile**	15	colourless	**PA56.1**	100 unit(s)	113,45
0,45	Non-sterile	25	blue	**KC69.1**	100 unit(s)	139,35
0,45	**Sterile**	25	blue	**KC79.1**	100 unit(s)	178,45
0,45	Non-sterile	30	blue	**KC89.1**	100 unit(s)	239,75

Syringe filters

Regenerated cellulose (RC)
Hydrophilic membrane with low non-specific adsorption performance for proteins (<10 µg/cm²). For filtering biological solutions and for preparing samples and degassing eluents for HPLC. Good resistance to aqueous and organic solutions.

Technical specifications:

Art. No.	KC90.1	PA49.1	KC62.1	KC72.1	KC82.1	KC91.1	PA50.1	KC63.1	KC73.1	KC83.1
Ø Membrane	15 mm		25 mm		30 mm	15 mm		25 mm		30 mm
Ø Housing	20 mm		30 mm		34 mm	20 mm		30 mm		34 mm
Housing material	PP									
Sample volume	1–10 ml		10–100 ml		>100 ml	1–10 ml		10–100 ml		>100 ml
Dead volume	<25 µl		<65 µl		<170 µl	<25 µl		<65 µl		<170 µl
Total filter volume	0.335 ml		0.6 ml		0.864 ml	0.335 ml		0.6 ml		0.864 ml
Filtration area	1.77 cm²		4.90 cm²		7.07 cm²	1.77 cm²		4.90 cm²		7.07 cm²
Max. operating pressure	7 bar				6 bar	7 bar				6 bar
Inlet connection	Luer lock connector									
Outlet connection	Luer connector									

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	colourless	**KC90.1**	100 unit(s)	111,45
0,2	**Sterile**	15	colourless	**PA49.1**	100 unit(s)	132,15
0,2	Non-sterile	25	orange	**KC62.1**	100 unit(s)	199,95
0,2	**Sterile**	25	orange	**KC72.1**	100 unit(s)	222,55
0,2	Non-sterile	30	orange	**KC82.1**	100 unit(s)	273,05
0,45	Non-sterile	15	colourless	**KC91.1**	100 unit(s)	111,45
0,45	**Sterile**	15	colourless	**PA50.1**	100 unit(s)	133,55
0,45	Non-sterile	25	red	**KC63.1**	100 unit(s)	199,95
0,45	**Sterile**	25	red	**KC73.1**	100 unit(s)	212,85
0,45	Non-sterile	30	red	**KC83.1**	100 unit(s)	273,05

The complete ROTH product range in the ROTH webshop

Over 30,000 items orderable around the clock!

Discover everything at **www.carlroth.com**

- Latest NEW products
- Continuous range extensions
- Detailed product information
- Additional information about the products
- Regular special offers
- ... and much more. Stay curious!

Syringe filters

Syringe filters ROTILABO® Mini-Tip

ROTH SELECTION.

With housing made of PP, ultrasonically welded, colourless. Ideally suitable for HPLC samples. The Mini-Tip opening is ideal for filtering in very small sample containers or vials.

Not a medical device / Not an IVD product

Cellulose acetate (CA)

Hydrophilic membrane with very low protein adsorption (3.8 µg/cm²) for biological samples (e.g. enzyme solutions, biological macromolecules) and for clarification and sterile filtration of aqueous solutions.

Technical specifications:

Art. No.	PP52.1	PP53.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Tip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	**PP52.1**	100 unit(s)	74,75
0,45	Non-sterile	15	**PP53.1**	100 unit(s)	74,75

Nylon

For the filtration of HPLC and GC solvents and for purification and sterile filtration of aqueous, alkaline and organic solutions. Hydrophilic, resistant to many solvents. High mechanical stability.

Technical specifications:

Art. No.	PP43.1	PP44.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Tip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	**PP43.1**	100 unit(s)	76,20
0,45	Non-sterile	15	**PP44.1**	100 unit(s)	76,20

Polytetrafluoroethylene (PTFE)

Hydrophobic membrane for the filtration of aggressive chemicals, acids and non-polar solvents. Low flow resistance to gases, can therefore also be used for air and gas filtration (e.g. for aeration and ventilation work and for sterile gas exchange).

Technical specifications:

Art. No.	PP45.1	PP46.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Tip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	**PP45.1**	100 unit(s)	76,20
0,45	Non-sterile	15	**PP46.1**	100 unit(s)	76,20

Polyvinylidene fluoride (PVDF)

Slightly hydrophobic membrane for clarification and sterile filtration of organic and partially organic solutions. Protein adsorption 125 µg/cm².

Technical specifications:

Art. No.	PP47.1	PP48.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Tip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	**PP47.1**	100 unit(s)	102,05
0,45	Non-sterile	15	**PP48.1**	100 unit(s)	102,05

Regenerated cellulose (RC)

Hydrophilic membrane with low non-specific adsorption performance for proteins (<10 µg/cm²). For filtering biological solutions and for preparing samples and degassing eluents for HPLC. Good resistance to aqueous and organic solutions.

Technical specifications:

Art. No.	PP41.1	PP42.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Tip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	**PP41.1**	100 unit(s)	111,45
0,45	Non-sterile	15	**PP42.1**	100 unit(s)	111,45

Syringe filters

A 121 °C

Syringe filters CAMEO™

GVS. Autoclavable: Yes.

Not a medical device / Not an IVD product

Cellulose acetate (CA)
Hydrophilic. Very low protein binding (approx. 3.8 µg/cm²). For sterile filtration of biological media (proteins, enzymes, buffer, cell culture, etc.), as well as for particle extraction from aqueous and alcohol-based solutions.

Technical specifications:

Art. No.	AH54.1	AH52.1	AH53.1
Ø Membrane	30 mm		
Ø Housing	34 mm		
Housing material	PP		
Sample volume	10-120 ml		
Dead volume	<60 µl		
Filtration area	4.8 cm²		
Max. application temperature	80 °C		
Max. operating pressure	8 bar		
Inlet connection	Luer lock connector		
Outlet connection	Luer connector		

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,8	Non-sterile	30	**AH54.1**	50 unit(s)	105,65
0,22	Non-sterile	30	**AH52.1**	50 unit(s)	105,65
0,45	Non-sterile	30	**AH53.1**	50 unit(s)	105,65

Nylon
Hydrophilic. Good chemical resistance, very low extractable substances content. For the filtration of organic solvents, for HPLC sample preparation and for sterile filtration and clarification of biological media. High protein binding (approx. 120 µg/cm²).

Technical specifications:

Art. No.	AH50.1	A068.2	A069.2	A070.2
Ø Membrane	30 mm			
Ø Housing	34 mm			
Housing material	PP			
Sample volume	10-120 ml			
Dead volume	<60 µl			
Filtration area	4.8 cm²			
Max. application temperature	80 °C			
Max. operating pressure	8 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
1,2	Non-sterile	30	**AH50.1**	50 unit(s)	105,65
0,22	Non-sterile	30	**A068.2**	50 unit(s)	88,20
0,45	Non-sterile	30	**A069.2**	50 unit(s)	88,20
5,0	Non-sterile	30	**A070.2**	50 unit(s)	88,20

Polytetrafluoroethylene (PTFE)
Hydrophobic. Excellent chemical resistance. For filtration of aggressive substances, solvent, gases and aerosols.

Technical specifications:

Art. No.	A075.2	A077.2	A076.2	A078.2
Ø Membrane	17 mm	30 mm	17 mm	30 mm
Ø Housing	22 mm	34 mm	22 mm	34 mm
Housing material	PP			
Sample volume	1-10 ml	10-120 ml	1-10 ml	10-120 ml
Dead volume	<15 µl	<60 µl	<15 µl	<60 µl
Filtration area	1.4 cm²	4.8 cm²	1.4 cm²	4.8 cm²
Max. application temperature	80 °C			
Max. operating pressure	8 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	17	**A075.2**	50 unit(s)	94,25
0,22	Non-sterile	30	**A077.2**	50 unit(s)	105,65
0,45	Non-sterile	17	**A076.2**	50 unit(s)	94,25
0,45	Non-sterile	30	**A078.2**	50 unit(s)	105,65

Syringe filters Millex® IC

MERCK MILLIPORE.

IC-certified.
Filter units specifically for sample preparation in ion chromatography.

- Low-binding hydrophilic PTFE membrane
- Low extractable substances content
- For clear filtration of aqueous and slightly organic solutions

Technical specifications:

Art. No.	XE82.1	XE83.1	XE84.1	XE85.1
Ø Membrane	13 mm	25 mm	13 mm	25 mm
Housing material	HDPE			
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml
Dead volume	<25 µl	<100 µl	<25 µl	<100 µl
Max. application temperature	45 °C			
Max. operating pressure	7 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Not a medical device / Not an IVD product

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Millex®-LG	0,20	Non-sterile	13	**XE82.1**	100 unit(s)	359,05
Millex®-LG	0,20	Non-sterile	25	**XE83.1**	50 unit(s)	287,05
Millex®-LH	0,45	Non-sterile	13	**XE84.1**	100 unit(s)	364,45
Millex®-LH	0,45	Non-sterile	25	**XE85.1**	50 unit(s)	351,55

Syringe filters

Syringe filters Millex®

MERCK MILLIPORE.

Not a medical device / Not an IVD product

Nylon

Hydrophilic membrane for clear filtration of aqueous and organic solutions.

Technical specifications:

Art. No.	XE16.1	XE02.1	XE18.1	XE03.1	XE17.1	XE19.1
Ø Membrane	13 mm	33 mm	13 mm	33 mm	13 mm	
Housing material	HDPE	PP	HDPE	PP	HDPE	
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml	~10 ml	
Dead volume	<25 µl	<100 µl	<25 µl	<100 µl	<25 µl	
Filtration area	0.65 cm²	4.5 cm²	0.65 cm²	4.5 cm²	0.65 cm²	
Max. application temperature	45 °C					
Max. operating pressure	7 bar	8.6 bar	7 bar	8.6 bar	7 bar	
Inlet connection	Luer lock connector					
Outlet connection	Luer connector				Luer cone connector with extended outlet	

Pic.	Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
	Millex®-GN	0,2	Non-sterile	13	**XE16.1**	100 unit(s)	295,65
	Millex®-GN	0,2	Non-sterile	33	**XE02.1**	50 unit(s)	213,95
	Millex®-HN	0,45	Non-sterile	13	**XE18.1**	100 unit(s)	295,65
	Millex®-HN	0,45	Non-sterile	33	**XE03.1**	50 unit(s)	213,95
(2)	Millex® GN with extended outlet	0,2	Non-sterile	13	**XE17.1**	100 unit(s)	302,10
(2)	Millex® HN with extended outlet	0,45	Non-sterile	13	**XE19.1**	100 unit(s)	302,10

Polyethersulfone (PES)

Hydrophilic membrane for filtration of aqueous solutions.

Technical specifications:

Art. No.	XE10.1	XC98.1	XE11.1	XC99.1
Ø Membrane	13 mm	33 mm	13 mm	33 mm
Housing material	HDPE	PP	HDPE	PP
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml
Dead volume	<25 µl	<100 µl	<25 µl	<100 µl
Filtration area	0.65 cm²	4.5 cm²	0.65 cm²	4.5 cm²
Max. application temperature	45 °C			
Max. operating pressure	7 bar	8.6 bar	7 bar	8.6 bar
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Millex®-GP	0,22	Non-sterile	13	**XE10.1**	100 unit(s)	294,55
Millex®-GP	0,22	Non-sterile	33	**XC98.1**	50 unit(s)	209,65
Millex®-HP	0,45	Non-sterile	13	**XE11.1**	100 unit(s)	294,55
Millex®-HP	0,45	Non-sterile	33	**XC99.1**	50 unit(s)	219,30

Syringe filters

Hydrophilic polytetrafluoroethylene (PTFE)
Hydrophilic LCR membrane with low protein binding for clear filtration of aqueous and organic solutions.

Technical specifications:

Art. No.	XE20.1	XE06.1	XE07.1	XE21.1	XE26.1
Ø Membrane	13 mm	4 mm		13 mm	25 mm
Housing material	HDPE				
Sample volume	~10 ml	~1 ml		~10 ml	~100 ml
Dead volume	<25 µl	<10 µl		<25 µl	<100 µl
Filtration area	0.65 cm²	0.1 cm²		0.65 cm²	3.9 cm²
Max. application temperature	45 °C				
Max. operating pressure	7 bar	14 bar		7 bar	
Inlet connection	Luer lock connector				
Outlet connection	Luer connector	Luer cone connector, graduated		Luer cone connector with extended outlet	Luer connector

Pic.	Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
	Millex®-LCR	0,45	Non-sterile	13	**XE20.1**	100 unit(s)	373,05
(1)	Millex®-LG	0,2	Non-sterile	4	**XE06.1**	100 unit(s)	227,90
(1)	Millex®-LH	0,45	Non-sterile	4	**XE07.1**	100 unit(s)	227,90
(2)	Millex® LCR with extended outlet	0,45	Non-sterile	13	**XE21.1**	100 unit(s)	392,40
(3)	Millex®-LCR	0,45	Non-sterile	25	**XE26.1**	50 unit(s)	356,90

Hydrophobic polytetrafluoroethylene (PTFE)
Hydrophobic Fluoropore membrane for clear filtration of organic solvents.

Technical specifications:

Art. No.	XE22.1	XE24.1	XE08.1	XE09.1	XE23.1	XE25.1	XE27.1	XE28.1
Ø Membrane	13 mm		4 mm		13 mm		25 mm	
Housing material	HDPE							
Sample volume	~10 ml		~1 ml		~10 ml		~100 ml	
Dead volume	<25 µl		<10 µl		<25 µl		<100 µl	
Filtration area	0.65 cm²		0.1 cm²		0.65 cm²		3.9 cm²	
Max. application temperature	45 °C							
Max. operating pressure	7 bar		14 bar		7 bar			
Inlet connection	Luer lock connector							
Outlet connection	Luer connector		Luer cone connector, graduated		Luer cone connector with extended outlet		Luer connector	

Pic.	Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
	Millex®-FG	0,2	Non-sterile	13	**XE22.1**	100 unit(s)	307,45
	Millex®-FH	0,45	Non-sterile	13	**XE24.1**	100 unit(s)	307,45
(1)	Millex®-FG	0,2	Non-sterile	4	**XE08.1**	100 unit(s)	220,40
(1)	Millex®-FH	0,45	Non-sterile	4	**XE09.1**	100 unit(s)	220,40
(2)	Millex® FG with extended outlet	0,2	Non-sterile	13	**XE23.1**	100 unit(s)	332,20
(2)	Millex® FH with extended outlet	0,45	Non-sterile	13	**XE25.1**	100 unit(s)	332,20
(3)	Millex®-FG	0,2	Non-sterile	25	**XE27.1**	50 unit(s)	362,30
(3)	Millex®-FH	0,45	Non-sterile	25	**XE28.1**	50 unit(s)	302,10

Syringe filters

Polyvinylidene fluoride (PVDF)
Hydrophilic Durapore® membrane for clear filtration of aqueous and slightly organic solutions.

Very low protein binding characteristics.

Technical specifications:

Art. No.	XE12.1	XE00.1	XE14.1	XE01.1	XE04.1	XE05.1	XE13.1	XE15.1
Ø Membrane	13 mm	33 mm	13 mm	33 mm	4 mm		13 mm	
Housing material	HDPE	PP	HDPE	PP	HDPE			
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml	~1 ml		~10 ml	
Dead volume	<25 µl	<100 µl	<25 µl	<100 µl	<10 µl		<25 µl	
Filtration area	0.65 cm²	4.5 cm²	0.65 cm²	4.5 cm²	0.1 cm²		0.65 cm²	
Max. application temperature	45 °C							
Max. operating pressure	7 bar	8.6 bar	7 bar	8.6 bar	14 bar		7 bar	
Inlet connection	Luer lock connector							
Outlet connection	Luer connector				Luer cone connector, graduated		Luer cone connector with extended outlet	

Pic.	Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
	Millex®-GV	0,22	Non-sterile	13	**XE12.1**	100 unit(s)	312,85
	Millex®-GV	0,22	Non-sterile	33	**XE00.1**	50 unit(s)	219,30
	Millex®-HV	0,45	Non-sterile	13	**XE14.1**	100 unit(s)	312,85
	Millex®-HV	0,45	Non-sterile	33	**XE01.1**	50 unit(s)	222,55
(1)	Millex®-GV	0,22	Non-sterile	4	**XE04.1**	100 unit(s)	227,90
(1)	Millex®-HV	0,45	Non-sterile	4	**XE05.1**	100 unit(s)	230,05
(2)	Millex® GV with extended outlet	0,22	Non-sterile	13	**XE13.1**	100 unit(s)	324,65
(2)	Millex® HV with extended outlet	0,45	Non-sterile	13	**XE15.1**	100 unit(s)	324,65

Syringe filters Millex® 33 mm

MERCK MILLIPORE. **Sterile**.

Individually packed. Housing made of modified acrylic.

S

Technical specifications:

Art. No.	XC58.1	XC57.1	XC55.1	XC61.1	XC59.1	XC56.1	XE79.1	XC60.1
Ø Membrane	33 mm							
Housing material	PMMA							
Sample volume	~100 ml			~200 ml	~100 ml		~200 ml	~100 ml
Dead volume	<100 µl							
Filtration area	4.5 cm²							
Max. application temperature	45 °C							
Max. operating pressure	10 bar							
Inlet connection	Luer lock connector							
Outlet connection	Luer connector							

Medical device class IIa MDD

ID: 0459

Mixed cellulose ester (MCE)
Hydrophilic membrane.

Intended use: Outside of the U.S. and Japan, Millex®-GS/HA/AA filter units may also be used for direct patient care and pharmacy admixture applications. In the hospital pharmacy, Millex® filter units can be used to sterile filter or clarify small volumes of protein pharmaceuticals, diagnostic imaging agents, chemotherapeutics, aqueous solutions, or water during admixture preparation. Direct patient care applications include sterilization and/or particulate removal from epidural and other liquid anesthetics as well as from irrigation solutions used in ophthalmic, otic, and other surgical procedures.

- Application: 0.2 µm filter units for the sterilisation of aqueous solutions, large pore sizes for prefiltration and clear filtration
- Colour code: blue
- Work volume: approx. 100 ml

Syringe filters

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
Millex®-AA	0,8	**Sterile**	33	blue	**XC57.1**	50 unit(s)	224,70
Millex®-GS	0,22	**Sterile**	33	blue	**XC55.1**	50 unit(s)	221,45
Millex®-HA	0,45	**Sterile**	33	blue	**XC56.1**	50 unit(s)	225,75

Polyethersulfone (PES)
Hydrophilic Millipore Express® membrane.

Intended use: Outside the U.S. and Japan, Millex®-GP/HP filter units are intended for use as a syringe filter to sterilize and/or clarify low volume solutions in direct patient care and pharmacy admixture applications.

- Application: Sterilisation of tissue culture media and additives, buffers, protein solutions, virus suspensions, DNA and other aqueous solutions
- Colour code: green
- Work volume: approx. 200 ml

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
Millex®-GP	0,22	**Sterile**	33	green	**XC61.1**	50 unit(s)	264,45
Millex®-HP	0,45	**Sterile**	33	green	**XE79.1**	50 unit(s)	244,05

Polyvinylidene fluoride (PVDF)
Hydrophilic Durapore® membrane.

Intended use: Outside the U.S. and Japan, Millex®-VV/GV/HV filter units are intended for use as a syringe filter to sterilize and/or clarify low volume solutions in direct patient care and pharmacy admixture applications.

- Application: Sterilisation of aqueous and protein solutions, syringe filter with lowest protein binding ratio
- Colour code: yellow
- Work volume: approx. 100 ml

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
Millex®-VV	0,1	**Sterile**	33	yellow	**XC58.1**	50 unit(s)	267,70
Millex®-GV	0,22	**Sterile**	33	yellow	**XC59.1**	50 unit(s)	264,45
Millex®-HV	0,45	**Sterile**	33	yellow	**XC60.1**	50 unit(s)	264,45

Syringe filters CHROMAFIL®

Macherey-Nagel. Autoclavable: Yes.

For clarification or sterile filtration of liquids or gases, as well as for sample preparation for use in HPLC, GC, ICP, AAS, TOC, DOC, IR, NMR, photometry, spectroscopy, etc.
Compacted PP housing with very low extractable substances content and good chemical resistance.
Autoclavable at 121 °C and 1.1 bar for 30 min.

A 121 °C

Not a medical device / Not an IVD product

CA non-sterile
Non-sterile. Hydrophilic cellulose acetate membrane for filtration of aqueous solutions. Ideal for use with biological macromolecules, water-soluble oligomers and polymers.

Extremely low protein binding capacity (21 µg per 25 mm filter).

Technical specifications:

Art. No.	XH38.1	XH38.2	XH39.1	XH39.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	6 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
CA-20/25	0,20	Non-sterile	25	**XH38.1**	100 unit(s)	122,00
CA-20/25	0,20	Non-sterile	25	**XH38.2**	400 unit(s)	488,00
CA-45/25	0,45	Non-sterile	25	**XH39.1**	100 unit(s)	122,00
CA-45/25	0,45	Non-sterile	25	**XH39.2**	400 unit(s)	488,00

Syringe filters

CA sterile

Hydrophilic cellulose acetate membrane for filtration of aqueous solutions. Ideal for use with biological macromolecules, water-soluble oligomers and polymers.

Extremely low protein binding capacity (21 µg per 25 mm filter).

Technical specifications:

Art. No.	XH42.1	XH43.1
Ø Membrane	25 mm	
Ø Housing	30 mm	
Housing material	PP	
Sample volume	5–100 ml	
Dead volume	~80 µl	
Filtration area	4.9 cm²	
Max. application temperature	55 °C	
Max. operating pressure	6 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
CA-20/25 (S)	0,20	**Sterile**	25	**XH42.1**	50 unit(s)	95,00
CA-45/25 (S)	0,45	**Sterile**	25	**XH43.1**	50 unit(s)	95,00

MV

Non-sterile. Hydrophilic cellulose ester composite membrane with very low adsorption for the filtration of aqueous and polar solutions.

Technical specifications:

Art. No.	XH49.1	XH49.2	XH50.1	XH50.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5-100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	6 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
MV A-20/25	0,20	Non-sterile	25	**XH49.1**	100 unit(s)	122,00
MV A-20/25	0,20	Non-sterile	25	**XH49.2**	400 unit(s)	488,00
MV A-45/25	0,45	Non-sterile	25	**XH50.1**	100 unit(s)	122,00
MV A-45/25	0,45	Non-sterile	25	**XH50.2**	400 unit(s)	488,00

PA

Non-sterile. PA (nylon) membrane for the filtration of medium polar organic-aqueous liquids.

Technical specifications:

Art. No.	XH53.1	XH55.1	XH57.1	XH57.2	XH54.1	XH56.1	XH58.1	XH58.2
Ø Membrane	3 mm	15 mm	25 mm		3 mm	15 mm	25 mm	
Ø Housing	6 mm	25 mm	30 mm		6 mm	25 mm	30 mm	
Housing material	PP							
Sample volume	≤1 ml	1–5 ml	5–100 ml		≤1 ml	1–5 ml	5–100 ml	
Dead volume	~5 µl	~35 µl	~80 µl		~5 µl	~35 µl	~80 µl	
Filtration area	0.07 cm²	1.6 cm²	4.9 cm²		0.07 cm²	1.6 cm²	4.9 cm²	
Max. application temperature	55 °C							
Max. operating pressure	6 bar							
Inlet connection	Luer lock connector							
Outlet connection	Luer	Mini-Spike	Luer			Mini-Spike	Luer	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
AO-20/3	0,20	Non-sterile	3	**XH53.1**	100 unit(s)	148,00
AO-20/15 MS	0,20	Non-sterile	15	**XH55.1**	100 unit(s)	122,00
AO-20/25	0,20	Non-sterile	25	**XH57.1**	100 unit(s)	122,00
AO-20/25	0,20	Non-sterile	25	**XH57.2**	400 unit(s)	488,00
AO-45/3	0,45	Non-sterile	3	**XH54.1**	100 unit(s)	148,00
AO-45/15 MS	0,45	Non-sterile	15	**XH56.1**	100 unit(s)	122,00
AO-45/25	0,45	Non-sterile	25	**XH58.1**	100 unit(s)	122,00
AO-45/25	0,45	Non-sterile	25	**XH58.2**	400 unit(s)	488,00

Syringe filters

PET

Non-sterile. Hydrophilic polyester all-round membrane for polar and nonpolar solutions. Particularly suitable for the filtration of eluent mixtures made of water and organic solvents for HPLC and for sample preparation for TOC/DOC determination.

Not cytotoxic, does not inhibit the growth of microorganisms and higher cells.

Technical specifications:

Art. No.	P300.1	P298.1	P298.2	P301.1	P299.1	P299.2
Ø Membrane	15 mm	25 mm		15 mm	25 mm	
Ø Housing	25 mm	30 mm		25 mm	30 mm	
Housing material	PP					
Sample volume	1–5 ml	5–100 ml		1–5 ml	5–100 ml	
Dead volume	~35 µl	~80 µl		~35 µl	~80 µl	
Filtration area	1.6 cm²	4.9 cm²		1.6 cm²	4.9 cm²	
Max. application temperature	55 °C					
Max. operating pressure	6 bar					
Inlet connection	Luer lock connector					
Outlet connection	Mini-Spike	Luer		Mini-Spike	Luer	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
PET-20/15 MS	0,20	Non-sterile	15	**P300.1**	100 unit(s)	122,00
PET-20/25	0,20	Non-sterile	25	**P298.1**	100 unit(s)	122,00
PET-20/25	0,20	Non-sterile	25	**P298.2**	400 unit(s)	488,00
PET-45/15 MS	0,45	Non-sterile	15	**P301.1**	100 unit(s)	122,00
PET-45/25	0,45	Non-sterile	25	**P299.1**	100 unit(s)	122,00
PET-45/25	0,45	Non-sterile	25	**P299.2**	400 unit(s)	488,00

PTFE

Non-sterile. Hydrophobic PTFE membrane for nonpolar liquids and gases. Highly resistant to solvents, acids and bases. Non-sterile.

Note: The membrane can be wetted with water by rinsing with alcohol and subsequently with water.

Technical specifications:

Art. No.	XH61.1	XH63.1	XH65.1	XH65.2	XH62.1	XH64.1
Ø Membrane	3 mm	15 mm	25 mm		3 mm	15 mm
Ø Housing	6 mm	25 mm	30 mm		6 mm	25 mm
Housing material	PP					
Sample volume	≤1 ml	1–5 ml	5–100 ml		≤1 ml	1–5 ml
Dead volume	~5 µl	~35 µl	~80 µl		~5 µl	~35 µl
Filtration area	0.07 cm²	1.6 cm²	4.9 cm²		0.07 cm²	1.6 cm²
Max. application temperature	55 °C					
Max. operating pressure	6 bar					
Inlet connection	Luer lock connector					
Outlet connection	Luer	Mini-Spike	Luer			Mini-Spike

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
O-20/3	0,20	Non-sterile	3	**XH61.1**	100 unit(s)	148,00
O-20/15 MS	0,20	Non-sterile	15	**XH63.1**	100 unit(s)	122,00
O-20/25	0,20	Non-sterile	25	**XH65.1**	100 unit(s)	122,00
O-20/25	0,20	Non-sterile	25	**XH65.2**	400 unit(s)	488,00
O-45/3	0,45	Non-sterile	3	**XH62.1**	100 unit(s)	148,00
O-45/15 MS	0,45	Non-sterile	15	**XH64.1**	100 unit(s)	122,00

Syringe filters

PVDF

Non-sterile. Hydrophilic PVDF membrane for polar and nonpolar solutions, water-soluble oligomers, proteins and other polymers.
Protein binding capacity: 82 µg per 25 mm filter.

Technical specifications:

Art. No.	XH69.1	XH70.1
Ø Membrane	15 mm	
Ø Housing	25 mm	
Housing material	PP	
Sample volume	1–5 ml	
Dead volume	~35 µl	
Filtration area	1.6 cm²	
Max. application temperature	55 °C	
Max. operating pressure	6 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Spike	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
PVDF-20/15 MS	0,20	Non-sterile	15	**XH69.1**	100 unit(s)	122,00
PVDF-45/15 MS	0,45	Non-sterile	15	**XH70.1**	100 unit(s)	122,00

RC

Non-sterile. Regenerated cellulose hydrophilic membrane with very low adsorption. For filtration of aqueous and organic-aqueous solutions. Protein binding capacity: 84 µg per 25 mm filter.

Technical specifications:

Art. No.	XH45.1	XH45.2	EE80.1	EE80.2	XH46.1	XH46.2	EE81.1	EE81.2
Ø Membrane	15 mm		25 mm		15 mm		25 mm	
Ø Housing	25 mm		30 mm		25 mm		30 mm	
Housing material	PP							
Sample volume	1–5 ml		5–100 ml		1–5 ml		5–100 ml	
Dead volume	~35 µl		~80 µl		~35 µl		~80 µl	
Filtration area	1.6 cm²		4.9 cm²		1.6 cm²		4.9 cm²	
Max. application temperature	55 °C							
Max. operating pressure	6 bar							
Inlet connection	Luer lock connector							
Outlet connection	Mini-Spike		Luer		Mini-Spike		Luer	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
RC-20/15 MS	0,2	Non-sterile	15	**XH45.1**	100 unit(s)	140,00
RC-20/15 MS	0,2	Non-sterile	15	**XH45.2**	800 unit(s)	980,00
RC-20/25	0,2	Non-sterile	25	**EE80.1**	100 unit(s)	140,00
RC-20/25	0,2	Non-sterile	25	**EE80.2**	400 unit(s)	560,00
RC-45/15 MS	0,45	Non-sterile	15	**XH46.1**	100 unit(s)	140,00
RC-45/15 MS	0,45	Non-sterile	15	**XH46.2**	800 unit(s)	980,00
RC-45/25	0,45	Non-sterile	25	**EE81.1**	100 unit(s)	140,00
RC-45/25	0,45	Non-sterile	25	**EE81.2**	400 unit(s)	560,00

GF/PET

Non-sterile. Hydrophilic PET all-round membrane with glass fibre prefilter for polar and nonpolar solutions. Especially suited to filtering eluent mixtures of water and organic solvents. Recommended for solutions with high proportions of suspended matter or highly viscous solutions; the glass fibre membrane removes large particles and prevents the membrane from being blocked. This improves filtration efficiency, increases filtrate yield and aids clarification of solutions with a high particulate matter load.

Technical specifications:

Art. No.	EE78.1	EE79.1
Ø Membrane	25 mm	
Ø Housing	30 mm	
Housing material	PP	
Sample volume	5–100 ml	
Dead volume	~80 µl	
Filtration area	4.9 cm²	
Max. application temperature	55 °C	
Max. operating pressure	12 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
GF/PET-20/25	1,0/0,20	Non-sterile	25	**EE78.1**	100 unit(s)	154,00
GF/PET-45/25	1,0/0,45	Non-sterile	25	**EE79.1**	100 unit(s)	154,00

Syringe filters

A 121 °C

Syringe filters CHROMAFIL® Xtra

Macherey-Nagel. Non-sterile. Autoclavable: Yes.

For clarification or sterile filtration of liquids or gases, as well as for sample preparation for use in HPLC, GC, ICP, AAS, TOC, DOC, IR, NMR, photometry, spectroscopy, method validation and certification. Non-coloured, pure compacted PP housing with good chemical resistance, very low extractable substances content and low bleeding. With imprint for quick and easy identification of membrane type, diameter and pore size.
Autoclavable at 121 °C and 1.1 bar for 30 min.

Not a medical device / Not an IVD product

CA

Hydrophilic cellulose acetate membrane for filtration of aqueous solutions. Ideal for use with biological macromolecules, water-soluble oligomers and polymers.

Extremely low protein binding capacity (21 µg per 25 mm filter).

Technical specifications:

Art. No.	XH44.1	XH44.2
Ø Membrane	25 mm	
Ø Housing	30 mm	
Housing material	PP	
Sample volume	5–100 ml	
Dead volume	~80 µl	
Filtration area	4.9 cm²	
Max. application temperature	55 °C	
Max. operating pressure	12 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra CA-20/25	0,20	Non-sterile	25	**XH44.1**	100 unit(s)	122,00
Xtra CA-20/25	0,20	Non-sterile	25	**XH44.2**	400 unit(s)	488,00

MV

Hydrophilic cellulose ester composite membrane with very low adsorption for the filtration of aqueous and polar solutions.

Technical specifications:

Art. No.	XH51.1	XH51.2	XH52.1	XH52.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	12 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra MV-20/25	0,20	Non-sterile	25	**XH51.1**	100 unit(s)	122,00
Xtra MV-20/25	0,20	Non-sterile	25	**XH51.2**	400 unit(s)	488,00
Xtra MV-45/25	0,45	Non-sterile	25	**XH52.1**	100 unit(s)	122,00
Xtra MV-45/25	0,45	Non-sterile	25	**XH52.2**	400 unit(s)	488,00

PA

Nylon membrane for the filtration of medium polar organic-aqueous liquids.

Technical specifications:

Art. No.	XH59.1	XH59.2	XH60.1	XH60.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	12 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra PA-20/25	0,20	Non-sterile	25	**XH59.1**	100 unit(s)	122,00
Xtra PA-20/25	0,20	Non-sterile	25	**XH59.2**	400 unit(s)	488,00
Xtra PA-45/25	0,45	Non-sterile	25	**XH60.1**	100 unit(s)	122,00
Xtra PA-45/25	0,45	Non-sterile	25	**XH60.2**	400 unit(s)	488,00

PES

Hydrophilic PES membrane for aqueous and slightly organic solutions. Very low adsorption of proteins, good resistance to acids and bases. Protein binding capacity: 29 µg per 25 mm filter.

Technical specifications:

Art. No.	XH73.1	XH73.2	XH74.1	XH74.2	XH75.1	XH75.2
Ø Membrane	25 mm					
Ø Housing	30 mm					
Housing material	PP					
Sample volume	5–100 ml					
Dead volume	~80 µl					
Filtration area	4.9 cm²					
Max. application temperature	55 °C					
Max. operating pressure	12 bar					
Inlet connection	Luer lock connector					
Outlet connection	Luer connector					

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra PES-20/25	0,20	Non-sterile	25	**XH73.1**	100 unit(s)	122,00
Xtra PES-20/25	0,20	Non-sterile	25	**XH73.2**	400 unit(s)	488,00
Xtra PES-45/25	0,45	Non-sterile	25	**XH74.1**	100 unit(s)	122,00
Xtra PES-45/25	0,45	Non-sterile	25	**XH74.2**	400 unit(s)	488,00
Xtra PES-500/25	5,0	Non-sterile	25	**XH75.1**	100 unit(s)	122,00
Xtra PES-500/25	5,0	Non-sterile	25	**XH75.2**	400 unit(s)	488,00

Syringe filters

PET

Hydrophilic PET all-round membrane for polar and nonpolar solutions. Particularly suitable for the filtration of eluent mixtures made of water and organic solvents for HPLC and for sample preparation for TOC/DOC determination.

Not cytotoxic, does not inhibit the growth of microorganisms and higher cells.

Technical specifications:

Art. No.	XH76.1	XH76.2	XH77.1	XH77.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	12 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra PET-20/25	0,2	Non-sterile	25	**XH76.1**	100 unit(s)	122,00
Xtra PET-20/25	0,2	Non-sterile	25	**XH76.2**	400 unit(s)	488,00
Xtra PET-45/25	0,45	Non-sterile	25	**XH77.1**	100 unit(s)	122,00
Xtra PET-45/25	0,45	Non-sterile	25	**XH77.2**	400 unit(s)	488,00

PTFE

Hydrophobic PTFE membrane for nonpolar liquids and gases. Highly resistant to solvents, acids and bases.

Note: The membrane can be wetted with water by rinsing with alcohol and subsequently with water.

Technical specifications:

Art. No.	XH68.1	XH66.1	XH66.2	XH67.1
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	12 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra PTFE-100/25	1,0	Non-sterile	25	**XH68.1**	100 unit(s)	122,00
Xtra PTFE-20/25	0,20	Non-sterile	25	**XH66.1**	100 unit(s)	122,00
Xtra PTFE-20/25	0,20	Non-sterile	25	**XH66.2**	400 unit(s)	488,00
Xtra PTFE-45/25	0,45	Non-sterile	25	**XH67.1**	100 unit(s)	122,00

PVDF

Hydrophilic PVDF-membrane for polar and nonpolar solutions, water-soluble oligomers, proteins and other polymers. Protein binding capacity: 82 µg per 25 mm filter.

Technical specifications:

Art. No.	XH71.1	XH72.1
Ø Membrane	25 mm	
Ø Housing	30 mm	
Housing material	PP	
Sample volume	5–100 ml	
Dead volume	~80 µl	
Filtration area	4.9 cm²	
Max. application temperature	55 °C	
Max. operating pressure	12 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra PVDF-20/25	0,20	Non-sterile	25	**XH71.1**	100 unit(s)	122,00
Xtra PVDF-45/25	0,45	Non-sterile	25	**XH72.1**	100 unit(s)	122,00

RC

Regenerated cellulose hydrophilic membrane with very low adsorption. For filtration of aqueous and organic-aqueous solutions. Protein binding capacity: 84 µg per 25 mm filter.

Technical specifications:

Art. No.	XH47.1	XH47.2	XH48.1	XH48.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	12 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra RC-20/25	0,2	Non-sterile	25	**XH47.1**	100 unit(s)	140,00
Xtra RC-20/25	0,2	Non-sterile	25	**XH47.2**	400 unit(s)	560,00
Xtra RC-45/25	0,45	Non-sterile	25	**XH48.1**	100 unit(s)	140,00
Xtra RC-45/25	0,45	Non-sterile	25	**XH48.2**	400 unit(s)	560,00

Syringe filters

Syringe filters SPARTAN®

Cytiva.

With hydrophilic membrane made of regenerated cellulose (RC). Specially developed for cleaning HPLC samples and for filtration of aqueous and organic solvents.

Technical specifications:

Art. No.	5989.2	5824.2	5992.2	0062.2
Ø Membrane	13 mm	30 mm	13 mm	30 mm
Ø Housing	17 mm	34 mm	17 mm	34 mm
Housing material	PP			
Sample volume	~5 ml	~100 ml	~5 ml	~100 ml
Dead volume	10 µl	50 µl	10 µl	50 µl
Filtration area	0.75 cm²	5.7 cm²	0.75 cm²	5.7 cm²
Max. application temperature	80 °C			
Max. operating pressure	7 bar			
Inlet connection	Luer-Lock connector			
Outlet connection	Luer connector			

Not a medical device / Not an IVD product

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	13	dark brown	**5989.2**	100 unit(s)	325,75
0,2	Non-sterile	30	dark brown	**5824.2**	100 unit(s)	374,10
0,45	Non-sterile	13	light brown	**5992.2**	100 unit(s)	325,75
0,45	Non-sterile	30	light brown	**0062.2**	100 unit(s)	369,80

Syringe filters ReZist®

Cytiva.

With hydrophobic PTFE membrane. For ventilation, gas filtration and HPLC sample preparation of organic solutions.

Technical specifications:

Art. No.	5994.2	5998.2	5996.2	6000.2
Ø Membrane	30 mm			
Ø Housing	34 mm			
Housing material	PP			
Inlet connection	Luer-Lock connector			
Outlet connection	Luer connector			

Not a medical device / Not an IVD product

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	30	white	**5994.2**	100 unit(s)	510,65
1,0	Non-sterile	30	yellow	**5998.2**	100 unit(s)	510,65
0,45	Non-sterile	30	green	**5996.2**	100 unit(s)	477,30
5,0	Non-sterile	30	grey	**6000.2**	100 unit(s)	510,65

Syringe filters

Syringe filters Minisart® High Flow

Sartorius.

Hydrophilic polyethersulphone membrane with low non-specific binding for aqueous media with a pH range of 3 to 12.
High flow rates due to asymmetrical membrane structure.
Free of PVC and phthalates, but limited compatibility with alcohols.
Minimum extractables and leachables.

Not a medical device / Not an IVD product

Non-sterile

Technical specifications:

Art. No.	1CNL.1	1CNN.1	1CNP.1	1CNT.1
Ø Membrane	28 mm			
Ø Housing	33 mm			
Housing material	MBS			
Filtration area	6.2 cm²			
Max. operating pressure	6 bar			
Inlet connection	Luer-Lock			
Outlet connection	Male Luer Lock	Male Luer Slip	Male Luer Lock	Male Luer Slip

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,22	Non-sterile	28	blue	**1CNL.1**	500 unit(s)	816,00
0,22	Non-sterile	28	blue	**1CNN.1**	500 unit(s)	816,00
0,45	Non-sterile	28	amber	**1CNP.1**	500 unit(s)	816,00
0,45	Non-sterile	28	amber	**1CNT.1**	500 unit(s)	816,00

Sterile (EtO-sterilised)

Technical specifications:

Art. No.	1CNX.1	1CNY.1	1CP0.1	1CP1.1	1CP2.1
Ø Membrane	28 mm				
Ø Housing	33 mm				
Housing material	MBS				
Filtration area	6.2 cm²				
Max. operating pressure	6 bar				
Inlet connection	Luer-Lock				
Outlet connection	Male Luer Lock		Male Luer Slip	Male Luer Lock	Male Luer Slip

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,1	**Sterile**	28	red	**1CNX.1**	50 unit(s)	138,00
0,22	**Sterile**	28	blue	**1CNY.1**	50 unit(s)	138,00
0,22	**Sterile**	28	blue	**1CP0.1**	50 unit(s)	138,00
0,45	**Sterile**	28	amber	**1CP1.1**	50 unit(s)	138,00
0,45	**Sterile**	28	amber	**1CP2.1**	50 unit(s)	138,00

Sterile (gamma-sterilised)

Technical specifications:

Art. No.	1CP3.1	1CP4.1
Ø Membrane	28 mm	
Ø Housing	33 mm	
Housing material	MBS	
Filtration area	6.2 cm²	
Max. operating pressure	6 bar	
Inlet connection	Luer-Lock	
Outlet connection	Male Luer Lock	Male Luer Slip

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,22	**Sterile**	28	blue	**1CP3.1**	50 unit(s)	138,00
0,45	**Sterile**	28	amber	**1CP4.1**	50 unit(s)	138,00

Syringe filters

Syringe filters Minisart® NML

Sartorius.

Hydrophilic SFCA membrane (surfactant-free cellulose acetate) with low non-specific binding for aqueous solutions and oils with a pH range of 4 to 8.
Free of surfactants, PVC and phthalates, but limited compatibility with alcohols. Minimum extractables and leachables.

Technical specifications:

Art. No.	1CPC.1	1CP9.1	1CPH.1	1CPL.1	1CPA.1	1CPK.1	1CPE.1
Ø Membrane	28 mm						
Ø Housing	33 mm						
Housing material	MBS						
Filtration area	6.2 cm²						
Max. operating pressure	4.5 bar						
Inlet connection	Luer-Lock						
Outlet connection	Male Luer Lock						Male Luer Slip

Not a medical device / Not an IVD product

Non-sterile

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
5	Non-sterile	28	brown	**1CPC.1**	500 unit(s)	843,00
0,8	Non-sterile	28	green	**1CP9.1**	500 unit(s)	791,00
1,2	Non-sterile	28	red	**1CPA.1**	500 unit(s)	791,00

Sterile (ETO-sterilised)

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,8	**Sterile**	28	green	**1CPH.1**	50 unit(s)	131,00
1,2	**Sterile**	28	red	**1CPK.1**	50 unit(s)	131,00
0,65	**Sterile**	28	pink	**1CPE.1**	50 unit(s)	131,00

Sterile (gamma-sterilised)

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,8	**Sterile**	28	green	**1CPL.1**	50 unit(s)	131,00

Syringe filters

Syringe filters Minisart® NML Plus

Sartorius.

Hydrophilic SFCA membrane (surfactant-free cellulose acetate) with prefilter (0.7 µm glass fibre) for the filtration of samples containing large amounts of particulate matter.
Suitable for aqueous solutions and oils with a pH range of 4 to 8.
Low non-specific binding. Free of PVC and phthalates, but limited compatibility with alcohols.
Minimum extractables and leachables.

Technical specifications:

Art. No.	1CPN.1	1CPX.1	1CPT.1	1CPP.1	1CPY.1
Ø Membrane	28 mm				
Ø Housing	33 mm				
Housing material	MBS				
Filtration area	6.2 cm²				
Max. operating pressure	4.5 bar				
Inlet connection	Luer-Lock				
Outlet connection	Male Luer Lock				

Not a medical device / Not an IVD product

Non-sterile

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	28	blue	**1CPN.1**	500 unit(s)	930,00
1,2	Non-sterile	28	red	**1CPT.1**	500 unit(s)	1.040,00
0,45	Non-sterile	28	yellow	**1CPP.1**	500 unit(s)	930,00

Sterile (EtO-sterilised)

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	28	blue	**1CPX.1**	50 unit(s)	155,00
0,45	**Sterile**	28	yellow	**1CPY.1**	50 unit(s)	155,00

Syringe filters Minisart® NML Plus

Sartorius.

Glass fibre membrane for the filtration of samples containing large amounts of particulate matter. Suitable for aqueous solutions and oils.
Low non-specific binding.
Free of PVC and phthalates, but limited compatibility with alcohols.
Minimum extractables and leachables.

Technical specifications:

Art. No.	1CX1.1	1CX2.1
Ø Membrane	28 mm	
Ø Housing	33 mm	
Housing material	MBS	
Filtration area	6.2 cm²	
Max. operating pressure	4.5 bar	
Inlet connection	Luer-Lock	
Outlet connection	Male Luer Lock	

Not a medical device / Not an IVD product

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,7	Non-sterile	28	colourless	**1CX1.1**	50 unit(s)	84,80
0,7	Non-sterile	28	colourless	**1CX2.1**	500 unit(s)	688,00

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Syringe filters

Syringe filters Minisart® NML with CE marking

Sartorius.

Hydrophilic SFCA membrane (surfactant-free cellulose acetate) with low non-specific binding for aqueous solutions and oils with a pH range of 4 to 8.
Free of surfactants, PVC and phthalates, but limited compatibility with alcohols. Minimum extractables and leachables.
Intended use: sterile filtration and/or clarification of low volume aqueous solutions. For pharmacy admixture applications in a laboratory environment before use for patient care.

Medical device class IIa MDD

ID: 0123

Non-sterile

Technical specifications:

Art. No.	1CT6.1	1CT7.1	1CT8.1	1CT9.1
Ø Membrane	28 mm			
Ø Housing	33 mm			
Housing material	MBS			
Filtration area	6.2 cm²			
Max. operating pressure	4.5 bar			
Inlet connection	Luer-Lock			
Outlet connection	Male Luer Lock	Male Luer Slip	Male Luer Lock	Male Luer Slip

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	28	blue	**1CT6.1**	500 unit(s)	901,00
0,2	Non-sterile	28	blue	**1CT7.1**	500 unit(s)	901,00
0,45	Non-sterile	28	yellow	**1CT8.1**	500 unit(s)	901,00
0,45	Non-sterile	28	yellow	**1CT9.1**	500 unit(s)	901,00

Sterile (EtO-sterilised)

Technical specifications:

Art. No.	1CTA.1	1CTC.1	1CTE.1	1CTH.1	1CTK.1
Ø Membrane	28 mm				
Ø Housing	33 mm				
Housing material	MBS				
Filtration area	6.2 cm²				
Max. operating pressure	4.5 bar				
Inlet connection	Luer-Lock				
Outlet connection	Male Luer Lock	Male Luer Slip	Male Luer Lock	Male Luer Slip	Male Luer Lock

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	28	blue	**1CTA.1**	50 unit(s)	150,00
0,2	**Sterile**	28	blue	**1CTC.1**	50 unit(s)	151,00
5	**Sterile**	28	brown	**1CTK.1**	50 unit(s)	151,00
0,45	**Sterile**	28	yellow	**1CTE.1**	50 unit(s)	150,00
0,45	**Sterile**	28	yellow	**1CTH.1**	50 unit(s)	151,00

Sterile (gamma-sterilised)

Technical specifications:

Art. No.	1CTL.1	1CTN.1
Ø Membrane	28 mm	
Ø Housing	33 mm	
Housing material	MBS	
Filtration area	6.2 cm²	
Max. operating pressure	4.5 bar	
Inlet connection	Luer-Lock	
Outlet connection	Male Luer Lock	

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	28	blue	**1CTL.1**	50 unit(s)	150,00
0,45	**Sterile**	28	yellow	**1CTN.1**	50 unit(s)	150,00

Syringe filters

Syringe filters Minisart® SRP

Sartorius. Autoclavable: Yes.

Hydrophobic PTFE membrane for the filtration of solvents, for use as breather filter or for aggressive media with a pH range of 1 to 14. Minimum extractables and leachables.
For hydrophilic solutions, priming with solvent is necessary to make the membrane permeable to aqueous liquids.

A 121 °C

Not a medical device / Not an IVD product

Non-sterile, with Male Spike outlet

Technical specifications:

Art. No.	1CL4.1	1CL5.1	1CL6.1	1CL7.1
Ø Membrane	15 mm			
Ø Housing	25 mm			
Housing material	PP			
Dead volume	10 µl			
Filtration area	1.7 cm²			
Max. operating pressure	4.5 bar			
Inlet connection	Luer-Lock			
Outlet connection	Male Spike			

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	colourless	**1CL4.1**	50 unit(s)	145,00
0,2	Non-sterile	15	colourless	**1CL5.1**	500 unit(s)	824,00
0,45	Non-sterile	15	colourless	**1CL6.1**	50 unit(s)	135,00
0,45	Non-sterile	15	colourless	**1CL7.1**	500 unit(s)	824,00

Non-sterile, with Male Luer Slip outlet

Technical specifications:

Art. No.	1CL8.1	1CLK.1	1CLL.1	1CL9.1	1CLA.1	1CLN.1	1CLP.1	1CLC.1	1CLE.1	1CLH.1	1CLT.1	1CLX.1	1CLY.1
Ø Membrane	4 mm			15 mm				25 mm					
Ø Housing	12 mm			25 mm				33 mm					
Housing material	PP												
Dead volume	1 µl			10 µl				100 µl					
Filtration area	0.07 cm²			1.7 cm²				4.8 cm²					
Max. operating pressure	4.5 bar												
Inlet connection	Luer-Lock												
Outlet connection	Male Luer Slip												

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	4	blue	**1CL8.1**	500 unit(s)	667,00
0,2	Non-sterile	15	colourless	**1CL9.1**	50 unit(s)	130,00
0,2	Non-sterile	15	colourless	**1CLA.1**	500 unit(s)	819,00
0,2	Non-sterile	25	colourless	**1CLC.1**	50 unit(s)	149,00
0,2	Non-sterile	25	colourless	**1CLE.1**	200 unit(s)	498,00
0,2	Non-sterile	25	colourless	**1CLH.1**	500 unit(s)	936,00
0,45	Non-sterile	4	yellow	**1CLK.1**	50 unit(s)	72,10
0,45	Non-sterile	4	yellow	**1CLL.1**	500 unit(s)	667,00
0,45	Non-sterile	15	colourless	**1CLN.1**	50 unit(s)	130,00
0,45	Non-sterile	15	colourless	**1CLP.1**	500 unit(s)	819,00
0,45	Non-sterile	25	colourless	**1CLT.1**	50 unit(s)	149,00
0,45	Non-sterile	25	colourless	**1CLX.1**	200 unit(s)	498,00
0,45	Non-sterile	25	colourless	**1CLY.1**	500 unit(s)	936,00

Syringe filters

Sterile (EtO-sterilised), with Male Luer Slip outlet

Technical specifications:

Art. No.	1CN0.1	1CN1.1
Ø Membrane	15 mm	25 mm
Ø Housing	25 mm	33 mm
Housing material	PP	
Dead volume	10 µl	100 µl
Filtration area	1.7 cm²	4.8 cm²
Max. operating pressure	4.5 bar	
Inlet connection	Luer-Lock	
Outlet connection	Male Luer Slip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	15	colourless	**1CN0.1**	50 unit(s)	144,00
0,2	**Sterile**	25	colourless	**1CN1.1**	50 unit(s)	180,00

Syringe filters Minisart® NY

Sartorius. Autoclavable: Yes.

Hydrophilic nylon membrane for solvents and aqueous solutions with a pH of 3 to 14. Low non-specific binding and rapid flow rates, minimum extractables and leachables.

A 121 °C

Technical specifications:

Art. No.	1CKP.1	1CKT.1	1CKY.1	1CL0.1	1CKX.1	1CL1.1	1CL2.1	1CL3.1
Ø Membrane	15 mm				25 mm			
Ø Housing	25 mm				33 mm			
Housing material	PP							
Filtration area	1.7 cm²				4.8 cm²			
Max. operating pressure	4.5 bar							
Inlet connection	Luer-Lock							
Outlet connection	Male Luer Slip							

Not a medical device / Not an IVD product

Non-sterile

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,20	Non-sterile	15	colourless	**1CKP.1**	50 unit(s)	109,00
0,20	Non-sterile	15	colourless	**1CKT.1**	500 unit(s)	783,00
0,20	Non-sterile	25	colourless	**1CKX.1**	500 unit(s)	846,00
0,45	Non-sterile	15	colourless	**1CKY.1**	50 unit(s)	109,00
0,45	Non-sterile	15	colourless	**1CL0.1**	500 unit(s)	783,00
0,45	Non-sterile	25	colourless	**1CL1.1**	500 unit(s)	846,00

Sterile (EtO-sterilised)

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,20	**Sterile**	25	colourless	**1CL2.1**	50 unit(s)	131,00
0,45	**Sterile**	25	colourless	**1CL3.1**	50 unit(s)	131,00

Syringe filters

Syringe filters Minisart® NY25 Plus

Sartorius. Autoclavable: Yes.

Hydrophilic nylon membrane with prefilter (0.7 µm glass fibre) for the filtration of samples containing large amounts of particulate matter. Suitable for solvents and aqueous solutions with a pH of 3 to 14. Low non-specific binding and rapid flow rates. Minimum extractables and leachables.

A 121 °C

Technical specifications:

Art. No.	1CNC.1	1CNE.1	1CNH.1	1CNK.1
Ø Membrane	25 mm			
Ø Housing	33 mm			
Housing material	PP			
Filtration area	4.8 cm²			
Max. operating pressure	4.5 bar			
Inlet connection	Luer-Lock			
Outlet connection	Male Luer Slip			

Not a medical device / Not an IVD product

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	25	colourless	**1CNC.1**	50 unit(s)	166,00
0,2	Non-sterile	25	colourless	**1CNE.1**	500 unit(s)	1.180,00
0,45	Non-sterile	25	colourless	**1CNH.1**	50 unit(s)	166,00
0,45	Non-sterile	25	colourless	**1CNK.1**	500 unit(s)	1.180,00

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Syringe filters

Syringe filters Minisart® RC

Sartorius. Autoclavable: Yes.

Hydrophilic membrane made of regenerated cellulose for the filtration of solvents and aqueous solutions with a pH of 3 to 14. Resistant to DMSO and other amides, ketones, esters and ether. Very low non-specific binding. Minimum extractables and leachables.

A 121 °C

Not a medical device / Not an IVD product

Non-sterile

Technical specifications:

Art. No.	1CK1.1	1CK2.1	1CK8.1	1CK9.1	1CK3.1	1CK4.1	1CKA.1	1CKC.1	1CK5.1	1CK6.1	1CK7.1	1CKE.1	1CKH.1	1CKK.1
Ø Membrane	4 mm				15 mm				25 mm					
Ø Housing	12 mm				25 mm				33 mm					
Housing material	PP													
Dead volume	5 µl				10 µl				150 µl					
Filtration area	0.07 cm²				1.7 cm²				4.8 cm²					
Max. operating pressure	4.5 bar													
Inlet connection	Luer-Lock													
Outlet connection	Male Luer Slip													

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	4	blue	**1CK1.1**	50 unit(s)	73,80
0,2	Non-sterile	4	blue	**1CK2.1**	500 unit(s)	669,00
0,2	Non-sterile	15	colourless	**1CK3.1**	50 unit(s)	110,00
0,2	Non-sterile	15	colourless	**1CK4.1**	500 unit(s)	787,00
0,2	Non-sterile	25	colourless	**1CK5.1**	50 unit(s)	120,00
0,2	Non-sterile	25	colourless	**1CK6.1**	200 unit(s)	383,00
0,2	Non-sterile	25	colourless	**1CK7.1**	500 unit(s)	851,00
0,45	Non-sterile	4	yellow	**1CK8.1**	50 unit(s)	73,80
0,45	Non-sterile	4	yellow	**1CK9.1**	500 unit(s)	669,00
0,45	Non-sterile	15	colourless	**1CKA.1**	50 unit(s)	110,00
0,45	Non-sterile	15	colourless	**1CKC.1**	500 unit(s)	787,00
0,45	Non-sterile	25	colourless	**1CKE.1**	50 unit(s)	120,00
0,45	Non-sterile	25	colourless	**1CKH.1**	200 unit(s)	383,00
0,45	Non-sterile	25	colourless	**1CKK.1**	500 unit(s)	851,00

Sterile (EtO-sterilised)

Technical specifications:

Art. No.	1CKL.1	1CKN.1
Ø Membrane	15 mm	25 mm
Ø Housing	25 mm	33 mm
Housing material	PP	
Dead volume	10 µl	150 µl
Filtration area	1.7 cm²	4.8 cm²
Max. operating pressure	4.5 bar	
Inlet connection	Luer-Lock	
Outlet connection	Male Luer Slip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	15	colourless	**1CKL.1**	50 unit(s)	120,00
0,2	**Sterile**	25	colourless	**1CKN.1**	50 unit(s)	132,00

Inline filter PTFE

ROTH SELECTION.

For gas filtration, ventilation and venting as well as for filtration of large amounts of liquid. Ultrasonically welded housing.
Sterile version (individually packed) available as an option.

Technical specifications:

Art. No.	HLL7.1	HLL9.1	HLL8.1	HLN0.1
Ø Membrane	47 mm			
Housing material	PP			
Filtration area	17.35 cm²			
Inlet connection	stepped tube connection (Ø 6–12 mm)			
Outlet connection	stepped tube connection (Ø 6–12 mm)			

Pore size (µm)	Membrane material	Sterility	Art. No.	Pack Qty.	€
0,2	Hydrophobic PTFE	Non-sterile	**HLL7.1**	50 unit(s)	412,80
0,2	Hydrophobic PTFE	**Sterile**	**HLL9.1**	50 unit(s)	462,25
0,45	Hydrophobic PTFE	Non-sterile	**HLL8.1**	50 unit(s)	412,80
0,45	Hydrophobic PTFE	**Sterile**	**HLN0.1**	50 unit(s)	462,25

A 121 °C

Inline filter Millex® PTFE

MERCK MILLIPORE. Autoclavable: Yes.

For the sterile filtration of gases, the sterile aeration of containers and for the sterilisation and clear filtration of organic solutions. Also suitable for preventing the ingress of liquids in downstream pumps and other devices.

Technical specifications:

Art. No.	CY08.1	CY06.1	CY07.1
Ø Membrane	50 mm		
Housing material	PP		
Filtration area	19.6 cm²		
Max. operating pressure	4 bar		
Max. application temperature	121 °C		
Inlet connection	stepped tube connection (Ø 6–13 mm) with internal Luer Cone		
Outlet connection	stepped tube connection (Ø 6–13 mm) with internal Luer Cone		

Type	Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
Millex®-FA	1,0	Hydrophobic PTFE	**CY08.1**	10 unit(s)	165,55
Millex®-FG	0,22	Hydrophobic PTFE	**CY06.1**	10 unit(s)	165,55
Millex®-FH	0,45	Hydrophobic PTFE	**CY07.1**	10 unit(s)	165,55

Filter units

Filter units Millex® glass fibre

MERCK MILLIPORE.

For pre-filtration of solutions and liquids with a high particle load that are difficult to filter. Protects downstream membranes against blocking quickly. Retention range approx. 2.0 µm.

Technical specifications:

Art. No.	CY09.1	CY10.1
Ø Membrane	25 mm	50 mm
Housing material	PVC	
Sample volume	100 ml	4000 ml
Dead volume	<100 µl	<1000 µl
Filtration area	3.9 cm²	19.6 cm²
Max. operating pressure	5 bar	4.1 bar
Max. application temperature	45 °C	
Inlet connection	female Luer Lock, internal	stepped tube connection (Ø 6–13 mm) with internal Luer Cone
Outlet connection	male Luer Cone, external	stepped tube connection (Ø 6–13 mm) with internal Luer Cone

Type	Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
Millex®-AP 25	~2	Glass fibre	**CY09.1**	50 unit(s)	131,15
Millex®-AP 50	~2	Glass fibre	**CY10.1**	10 unit(s)	76,65

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Syringe filters Millex® HPF

MERCK MILLIPORE. Non-sterile.

For clear filtration of solutions with a high particle load prior to instrument based assay.
With graduated glass fibre prefilter (10.0 to 0.7 µm), enabling two to four times higher throughput than syringe filters without prefilter. Housing made of HDPE with low extractable substances content.

Technical specifications:

Art. No.	XE30.1	XE33.1	XE31.1	XE34.1	XE32.1
Ø Membrane	25 mm				
Housing material	HDPE				
Sample volume	~100 ml				
Dead volume	<250 µl				
Filtration area	3.9 cm²				
Max. application temperature	45 °C				
Max. operating pressure	7 bar				
Inlet connection	Luer lock connector				
Outlet connection	Luer connector				

Not a medical device / Not an IVD product

Nylon
Hydrophilic membrane with glass fibre prefilter for clear filtration of aqueous and slightly organic solutions with a high particle load.

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Millex®-GN	0,2	Non-sterile	25	**XE30.1**	50 unit(s)	217,15
Millex®-HN	0,45	Non-sterile	25	**XE31.1**	50 unit(s)	236,50

Hydrophilic polytetrafluoroethylene (PTFE)
Hydrophilic membrane with glass fibre prefilter for clear filtration of aqueous and organic solutions with a high particle load. Low protein binding.

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Millex®-LLG	0,2	Non-sterile	25	**XE33.1**	50 unit(s)	222,55
Millex®-LCR	0,45	Non-sterile	25	**XE34.1**	50 unit(s)	219,30

Polyvinylidene fluoride (PVDF)
Hydrophilic Durapore® membrane with glass fibre prefilter. Very low protein binding, for clear filtration of protein solutions with a high particle load.

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Millex®-HV	0,45	Non-sterile	25	**XE32.1**	50 unit(s)	236,50

S

Filter units Millex® PES

MERCK MILLIPORE. **Sterile**.

Express® PES membrane with low protein binding and high flow speed. For sterile filtration of cell culture media and other aqueous solutions. With optional filling bell for reducing the risk of contamination.

The dead volume given refers to the volume left in the filter after purging the filter with air.

Technical specifications:

Art. No.	CY11.1	CY12.1
Ø Membrane	50 mm	
Housing material	MBS	
Sample volume	~4000 ml	
Dead volume	<1000 µl	
Filtration area	19.6 cm²	
Max. operating pressure	3.4 bar	
Max. application temperature	45 °C	
Inlet connection	stepped tube connection (Ø 6–13 mm) with internal Luer Cone	
Outlet connection	stepped tube connection (Ø 6–13 mm) with internal Luer Cone	

Type	Pore size (µm)	Membrane material	Sterility	Art. No.	Pack Qty.	€
Millex®-GP	0,22	PES	**Sterile**	**CY11.1**	10 unit(s)	169,85
Millex®-GP with filling cone	0,22	PES	**Sterile**	**CY12.1**	10 unit(s)	187,05

S

Filter units Sterivex™

MERCK MILLIPORE. **Sterile**.

For the sterile filtration of aqueous liquids. Filter units can be operated with syringe pumps or hose pumps. With optional filling bell for reducing the risk of contamination.

The dead volume given refers to the volume left in the filter after purging the filter with air.

Technical specifications:

Art. No.	CT79.1	CT80.1	CT81.1	CT82.1	CT83.1	CT84.1
Housing material	Eastar®					
Sample volume	1000 ml				2000 ml	
Dead volume	<200 µl					
Filtration area	10 cm²					
Max. operating pressure	3 bar					
Max. application temperature	45 °C					
Inlet connection	female Luer Lock					
Outlet connection	male Luer Lock					

Durapore® (PVDF) membrane
With extremely low protein binding. Filtration volume approx. 1 litre.

Type	Pore size (µm)	Membrane material	Sterility	Art. No.	Pack Qty.	€
With filling bell	0,22	PVDF	**Sterile**	**CT79.1**	10 unit(s)	173,10
Without filling bell	0,22	PVDF	**Sterile**	**CT80.1**	15 unit(s)	209,65
With filling bell	0,45	PVDF	**Sterile**	**CT81.1**	10 unit(s)	173,10
Without filling bell	0,45	PVDF	**Sterile**	**CT82.1**	15 unit(s)	209,65

Millipore Express® (PES) membrane
With low protein binding and high flow speed.
Filtration volume approx. 2 litres.

Type	Pore size (µm)	Membrane material	Sterility	Art. No.	Pack Qty.	€
With filling bell	0,22	PES	**Sterile**	**CT83.1**	10 unit(s)	161,25
Without filling bell	0,22	PES	**Sterile**	**CT84.1**	15 unit(s)	209,65

Filter units

S

Filter units Steripak™

MERCK MILLIPORE. **Sterile**.

Disposable filter units for sterile filtration of large volumes up to 20 l.
With Millipore Express® (PES) membranes with high flow rate and low protein binding. Packaged ready to use, for operation with hose pumps or pressurised containers.

- Filling bell on the outlet side of the unit increases the safety of the sterilisation process
- Manual ventilation opening prevents air blocking the membrane
- For sterile filtration of tissue culture media, buffers and other aqueous solutions

The dead volume given refers to the volume left in the filter after purging the filter with air.

Technical specifications:

Art. No.	CT85.1	CT86.1
Ø ext.	76 mm	
Housing material	SAN	
Sample volume	10000 ml	20000 ml
Dead volume	<2700 µl	
Filtration area	100 cm²	200 cm²
Max. operating pressure	5.2 bar	
Max. application temperature	45 °C	
Inlet connection	stepped tube connection (Ø 6–8 mm)	
Outlet connection	stepped tube connection and filling bell	

Type	Pore size (µm)	Membrane material	Sterility	Art. No.	Pack Qty.	€
GP 10	0,22	PES	**Sterile**	**CT85.1**	3 unit(s)	210,70
GP 20	0,22	PES	**Sterile**	**CT86.1**	3 unit(s)	258,00

Centrifuge filter unit Ultrafree

MERCK MILLIPORE.

Centrifuge filter units for sample volumes of no more than 0.5 or 2.0 ml. For use in fixed-angle rotors for 1.5 or 15 ml sample tubes. Filter unit and collector tube are made of PP.

- **Hydrophilic Durapore® PVDF-membrane:** Extremely low protein binding. Suitable for removal of particulate matter and precipitate from aqueous samples, and for protein and nucleic acid applications
- **Hydrophilic PTFE membrane:** for removal of precipitate from solvent-based samples

Procedure:

- Open the attached lid of the filter unit
- Fill the insert with the volume of sample
- Close the filtration unit and insert it in the centrifuge
- On completion of centrifuging, remove the filtration unit, open the lid and remove the insert
- The insert contains the residue and the sealable housing contains the filtrate

Ultrafree-MC: PVDF membrane, sample volume up to 0.5 ml
Filter insert volume max. 0.5 ml, collector tube volume 1.5 ml.

Technical specifications:

Art. No.	T341.1	T342.1	XH78.1	T343.1	XH80.1	T344.1	XH79.1
Version	Ultrafree-MC						
Sample volume	≤ 0,5 ml						
Centrifugability in g (max.)	12,000						
Filtration area	0.2 cm²						
Dead volume	5 µl						
Ø ext.	10.6 mm						
Height	45 mm						

Membrane material	Pore size (µm)	Sterility	Colour coding	Art. No.	Pack Qty.	€
PVDF	0,10	Non-sterile	orange	**T341.1**	25 unit(s)	161,25
PVDF	0,22	Non-sterile	yellow	**T342.1**	25 unit(s)	161,25
PVDF	0,22	**Sterile**	yellow	**XH78.1**	50 unit(s)	303,15
PVDF	0,45	Non-sterile	red	**T343.1**	25 unit(s)	161,25
PVDF	5,0	Non-sterile	dark green	**XH80.1**	100 unit(s)	502,05
PVDF	0,65	Non-sterile	purple	**T344.1**	25 unit(s)	161,25
PVDF	0,65	**Sterile**	purple	**XH79.1**	50 unit(s)	296,70

Centrifuge filter units

Ultrafree-MC: Hydrophilic PTFE membrane, sample volume up to 0.5 ml
Filter insert volume max. 0.5 ml, collector tube volume 1.5 ml.

Technical specifications:

Art. No.	XH81.1	XH82.1
Version	Ultrafree-MC	
Sample volume	≤ 0,5 ml	
Centrifugability in g (max.)	12,000	
Filtration area	0.2 cm²	
Dead volume	5 µl	
Ø ext.	10.6 mm	
Height	45 mm	

Membrane material	Pore size (µm)	Sterility	Colour coding	Art. No.	Pack Qty.	€
Hydrophilic PTFE	0,20	Non-sterile	yellow	**XH81.1**	25 unit(s)	192,45
Hydrophilic PTFE	0,45	Non-sterile	red	**XH82.1**	25 unit(s)	192,45

Ultrafree-CL: PVDF membrane, sample volume up to 2.0 ml
Filter insert volume max. 2 ml, collector tube volume 5 ml.

Technical specifications:

Art. No.	T345.1	T346.1	XH83.1	T347.1	XH85.1	XH84.1
Version	Ultrafree-CL					
Sample volume	≤ 2 ml					
Centrifugability in g (max.)	5,000					
Filtration area	0.8 cm²					
Dead volume	10 µl					
Ø ext.	16.3 mm					
Height	77 mm					

Membrane material	Pore size (µm)	Sterility	Colour coding	Art. No.	Pack Qty.	€
PVDF	0,10	Non-sterile	orange	**T345.1**	25 unit(s)	197,80
PVDF	0,22	Non-sterile	yellow	**T346.1**	25 unit(s)	197,80
PVDF	0,22	**Sterile**	yellow	**XH83.1**	50 unit(s)	359,05
PVDF	0,45	Non-sterile	red	**T347.1**	25 unit(s)	197,80
PVDF	5,0	Non-sterile	dark green	**XH85.1**	25 unit(s)	197,80
PVDF	0,65	Non-sterile	purple	**XH84.1**	25 unit(s)	197,80

Ultrafree-CL: Hydrophilic PTFE membrane, sample volume up to 2.0 ml
Filter insert volume max. 2 ml, collector tube volume 5 ml.

Technical specifications:

Art. No.	XH86.1	XH87.1
Version	Ultrafree-CL	
Sample volume	≤ 2 ml	
Centrifugability in g (max.)	5,000	
Filtration area	0.8 cm²	
Dead volume	10 µl	
Ø ext.	16.3 mm	
Height	77 mm	

Membrane material	Pore size (µm)	Sterility	Colour coding	Art. No.	Pack Qty.	€
Hydrophilic PTFE	0,22	Non-sterile	yellow	**XH86.1**	25 unit(s)	197,80
Hydrophilic PTFE	0,45	Non-sterile	red	**XH87.1**	25 unit(s)	197,80

S

Vacuum filter unit Steriflip®

MERCK MILLIPORE. Material: PP, modified acrylic (MBS). **Sterile**.

For filtration of sample volumes up to 50 ml.

- **Millipore Express® PES membrane** with high flow rate and low protein binding: For routine sterile filtration of tissue culture media, sera, buffers and other aqueous solutions
- **Durapore® PVDF membrane** with very low protein binding: For sterile and clear filtration of aqueous solutions
- **Hydrophilic nylon mesh filter:** For removing coarse particulate matter, e.g. for applications with stem, heart muscle and nerve cells, or skeletal tissue

Procedure:
Connect the filter unit to the centrifuge tube containing the sample. Rotate the filter unit through 180° and apply vacuum.
Optional: Screw the funnel attachment onto the sterile filter unit, fill with the sample and apply vacuum, Steriflip® filter unit filters directly into a sterile 50 ml centrifuge tube.

Technical specifications:

Art. No.	XH01.1	X348.1	XE99.1	XH02.1	XH00.1	XH03.1	XH04.1
Sample volume	50 ml						
Filtration area	7 cm²						
Dead volume	600 µl						
Max. application temperature	45 °C						

Delivery incl. fitted 50 ml centrifuge tube and lid (each packaged separately) and a single tube holder (blue).
Delivery without funnel attachment or second 50 ml centrifuge tube (e.g. Art. No. N462.1), please order separately.

Membrane material	Pore size (µm)	Sterility	Art. No.	Pack Qty.	€
Nylon	20	**Sterile**	**XH01.1**	25 unit(s)	235,45
PES	0,22	**Sterile**	**X348.1**	25 unit(s)	211,80
PVDF	0,22	**Sterile**	**XE99.1**	25 unit(s)	242,95
Nylon	40	**Sterile**	**XH02.1**	25 unit(s)	235,45
PVDF	0,45	**Sterile**	**XH00.1**	25 unit(s)	242,95
Nylon	60	**Sterile**	**XH03.1**	25 unit(s)	235,45
Nylon	100	**Sterile**	**XH04.1**	25 unit(s)	235,45

Accessories Funnel attachment for Steriflip® vacuum filter unit

MERCK MILLIPORE.

Type	Art. No.	Pack Qty.	€
Funnel attachment, 50 ml, PP, non-sterile	**XH05.1**	25 unit(s)	138,70

Bottle-top filters

S

Bottle-top filters Steritop™

MERCK MILLIPORE. **Sterile**.

For sterile filtration of tissue culture media, sera, additives, buffers and other aqueous solutions. Compatible with 45 mm or GL 45 screw top bottles suitable for vacuum.

- Low protein binding
- High flow speeds, short filtration times
- 40 cm^2 filtration surface
- Housing made of PS
- Max. application temperature 45 °C
- Vacuum connection for hoses with inner Ø of 6.5 to 12 mm

MILLIPORE Express® PLUS (PES) membrane
With low protein binding.

Pore size (µm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,22	150	**X334.1**	12 unit(s)	106,25
0,22	250	**X335.1**	12 unit(s)	127,95
0,22	500	**X336.1**	12 unit(s)	161,25
0,22	1,000	**X337.1**	12 unit(s)	251,55

Durapore® (PVDF) membrane
With very low protein binding.

Pore size (µm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,22	500	**CT99.1**	12 unit(s)	162,35

S

Receiver bottle Stericup®

MERCK MILLIPORE. Material: PS, PE screw cap. **Sterile**.
Receiver bottles for Steritop™ and Stericup® bottle-top filters.

Bottle volume (ml)	Thread	Art. No.	Pack Qty.	€
250	45 mm	**CX04.1**	12 unit(s)	62,15
500	45 mm	**CX05.1**	12 unit(s)	78,80
1,000	45 mm	**CX06.1**	12 unit(s)	127,95

S

Filtration unit Stericup® with MILLIPORE Express® PLUS (PES) membrane

MERCK MILLIPORE. **Sterile**.

A combination of bottle-top filter and collecting bottle. For routine sterile filtration of tissue culture media, sera, additives and other aqueous solutions. Ideal for use under laminar flow conditions thanks to its compact form. Stackable bottles.

- Low protein binding
- High flow speeds, short filtration times
- 73 mm membrane diameter
- 40 cm^2 filtration surface
- Housing made of PS
- Max. application temperature 45 °C
- Vacuum connection for hoses with inner Ø of 6.5 to 12 mm

Pore size 0.1 µm
For removal of mycoplasma.

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,10	73	250	250	**CX01.1**	12 unit(s)	177,40

Pore size 0.22 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,22	73	150	150	**X338.1**	12 unit(s)	127,95
0,22	73	250	250	**X339.1**	12 unit(s)	155,90
0,22	73	500	500	**X340.1**	12 unit(s)	242,95
0,22	73	500	1,000	**X341.1**	12 unit(s)	324,65
0,22	73	1,000	1,000	**X342.1**	12 unit(s)	341,85

Bottle-top filters

S

Filtration unit Stericup® with Durapore® (PVDF) membrane

MERCK MILLIPORE. **Sterile**.

A combination of bottle-top filter and collecting bottle. For routine sterile filtration of tissue culture media, sera, additives and other aqueous solutions. Ideal for use under laminar flow conditions thanks to its compact form. Bottles are stackable.

- Very low protein binding
- High flow speeds, short filtration times
- 73 mm membrane diameter
- 40 cm^2 filtration surface
- Housing made of PS
- Max. application temperature 45 °C
- Vacuum connection for hoses with inner Ø of 6.5 to 12 mm

Pore size 0.22 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,22	73	150	150	**CT87.1**	12 unit(s)	133,30
0,22	73	250	250	**CT88.1**	12 unit(s)	165,55
0,22	73	500	500	**CT89.1**	12 unit(s)	248,35
0,22	73	500	1,000	**CT90.1**	12 unit(s)	339,70
0,22	73	1,000	1,000	**CT91.1**	12 unit(s)	351,55

Pore size 0.45 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,45	73	150	150	**CT92.1**	12 unit(s)	127,95
0,45	73	250	250	**CT93.1**	12 unit(s)	158,05
0,45	73	500	500	**CT94.1**	12 unit(s)	241,90
0,45	73	1,000	1,000	**CT96.1**	12 unit(s)	348,30

S

Filtration unit with cellulose nitrate membrane

Nalgene. **Sterile**.

Triton-free cellulose nitrate membrane **(CN)** with excellent wetting properties and high flow rates for aqueous solutions. For cold sterilisation, clear filtration, prefiltration and ultrafiltration of buffers, microbiological culture media and other aqueous solutions.

Type:

- Green colour coding
- white membrane colour
- Filtration units made of PS
- Graduated filter upper sections and filter bottles
- With quick connector tube adapter and cotton stopper
- Leakproof screw cap
- Filtration units are non-pyrogenic and non-cytotoxic

Filtration units with volumes of 500 and 1000 ml are delivered with 12 glass fibre prefilters included.

Pore size 0.2 µm, without grid

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,20	50	150	150	**AC48.1**	12 unit(s)	128,75
0,20	50	250	250	**AC51.1**	12 unit(s)	143,65
0,20	75	500	500	**AC54.1**	12 unit(s)	236,50
0,20	75	500	1,000	**AC57.1**	12 unit(s)	287,05

Pore size 0.45 µm, with grid

Pore size (µm)	Ø Membrane (mm)	Grid colour	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,45	50	green	150	150	**AC49.1**	12 unit(s)	128,75
0,45	50	green	250	250	**AC52.1**	12 unit(s)	143,65
0,45	75	green	500	500	**AC55.1**	12 unit(s)	236,50
0,45	75	green	500	1,000	**AC58.1**	12 unit(s)	287,05

Pore size 0.8 µm, with grid

Pore size (µm)	Ø Membrane (mm)	Grid colour	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,80	50	black	150	150	**AC50.1**	12 unit(s)	128,75
0,80	50	black	250	250	**AC53.1**	12 unit(s)	143,65
0,80	75	black	500	500	**AC56.1**	12 unit(s)	236,50
0,80	75	black	500	1,000	**AC59.1**	12 unit(s)	287,05

Bottle-top filters

S

Receiver bottle for bottle-top filters

Nalgene. Material: PS, PE screw cap. **Sterile**.

Thread 45 mm. Screw cap can be closed with 1½ turns. Non-pyrogenic, non-cytotoxic. γ-sterilised.
Suitable for all bottle-top filters and filtration units with Art. No. AC08.1 to AC59.1.

Bottle volume (ml)	Thread	Art. No.	Pack Qty.	€
150	45 mm	**AC60.1**	24 unit(s)	125,00
250	45 mm	**AC61.1**	24 unit(s)	138,55
500	45 mm	**AC62.1**	12 unit(s)	99,25
1,000	45 mm	**AC63.1**	12 unit(s)	142,05

S

Filtration unit with SFCA membrane

Nalgene. **Sterile**.

Membranes made of surfactant-free cellulose acetate (SF**CA**) with extremely low protein binding and high flow rate. SFCA is ideal for applications in tissue culture and for filtration of sera containing protein, as the membranes do not contain any surfactants that could have a toxic effect on cells.
Type:

- Yellow colour coding
- Filtration units made of PS
- Graduated filter upper sections and filter bottles
- With quick connector tube adapter and cotton stopper
- Leakproof screw cap
- Filtration units are non-pyrogenic and non-cytotoxic

Filtration units Art. No. AC27.1 and AC28.1 are delivered with 12 glass fibre prefilters included.

Pore size 0.2 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,20	50	150	150	**AC23.1**	12 unit(s)	135,35
0,20	50	250	250	**AC25.1**	12 unit(s)	146,20
0,20	75	500	500	**AC27.1**	12 unit(s)	236,50
0,20	90	500	500	**AC29.1**	12 unit(s)	282,75
0,20	90	1,000	1,000	**AC31.1**	12 unit(s)	346,15

Pore size 0.45 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,45	50	150	150	**AC24.1**	12 unit(s)	135,35
0,45	50	250	250	**AC26.1**	12 unit(s)	146,20
0,45	75	500	500	**AC28.1**	12 unit(s)	236,50
0,45	90	500	500	**AC30.1**	12 unit(s)	282,75
0,45	90	1,000	1,000	**AC32.1**	12 unit(s)	346,15

S

Bottle-top filters with SFCA membrane

Nalgene. **Sterile**.

Filter with SF**CA** membrane for screwing onto bottles with thread 45 mm or GL 45. The leakproof screw cap enables vacuum filtration directly into a sterile bottle.
Type:

- Yellow colour coding
- Graduated filter upper section
- Quick connector tube adapter for tubes with internal Ø 6–8 mm
- Leakproof screwed connection for vacuum filtration
- Filtration units are non-pyrogenic and non-cytotoxic

Pore size 0.2 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,20	50	150	**AC33.1**	12 unit(s)	102,10
0,20	75	500	**AC35.1**	12 unit(s)	143,90
0,20	90	1,000	**AC37.1**	12 unit(s)	236,50

Pore size 0.45 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,45	50	150	**AC34.1**	12 unit(s)	102,10
0,45	75	500	**AC36.1**	12 unit(s)	143,90

Bottle-top filters

NEW / +

S

Filtration unit Rapid-Flow™ with PES membrane

Nalgene. **Sterile**.

Disposable filtration unit with hydrophilic polyethersulfone diaphragm **(PES).** The innovative Rapid-Flow™ design of the filter membrane carrier plate provides faster flow rates and higher flow volumes. The PES membrane with minimal protein binding and a minimal proportion of extractable substances is ideally suited to biological sterile filtration of cell culture media, sera, additives and buffers.

Type:

- Blue colour coding
- Filtration units made of PS
- Graduated filter upper sections and filter bottles
- With quick connector tube adapter and cotton stopper
- Leak-proof screw cap closure
- Gamma sterilised and individually packed
- Filtration units are **non-pyrogenic** and **non-cytotoxic**

Not a medical device / Not an IVD product

Pore size 0.1 µm

Application examples:

- 0.1 µm filters also protect against mycoplasma contamination

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,1	50	150	150	**1LAX.1**	12 unit(s)	127,25
0,1	50	250	250	**1LAY.1**	12 unit(s)	142,40
0,1	75	500	500	**1LC0.1**	12 unit(s)	223,60
0,1	90	1,000	1,000	**1LC1.1**	12 unit(s)	316,05

Pore size 0.2 µm

Application examples:

- 0.2 µm filters remove bacteria and microbes and are used for sterile filtration

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,2	50	150	150	**AC08.1**	12 unit(s)	128,65
0,2	50	250	250	**AC10.1**	12 unit(s)	146,95
0,2	75	500	500	**AC12.1**	12 unit(s)	229,00
0,2	90	500	500	**AC14.1**	12 unit(s)	270,90
0,2	90	1,000	1,000	**AC16.1**	12 unit(s)	289,20

Pore size 0.45 µm

Application examples:

- 0.45 µm filters ensure particle removal and fluid clarification

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,45	50	150	150	**AC09.1**	12 unit(s)	137,55
0,45	50	250	250	**AC11.1**	12 unit(s)	155,40
0,45	75	500	500	**AC13.1**	12 unit(s)	234,35
0,45	90	500	500	**AC15.1**	12 unit(s)	281,65
0,45	90	1,000	1,000	**AC17.1**	12 unit(s)	305,30

S

Bottle-top filters with PES membrane

Nalgene. **Sterile**.

Filter with **PES** membrane for screwing onto bottles with thread 45 mm or GL 45. The leakproof screw cap enables vacuum filtration directly into a sterile bottle. Art. No. AC18.1, AC20.1 and AC22.1 with PES membrane Supor®.

Type:

- Blue colour coding
- Graduated filter upper section
- Quick connector tube adapter for tubes with internal Ø 6–8 mm
- Leakproof screwed connection for vacuum filtration
- Filtration units are non-pyrogenic and non-cytotoxic

Pore size 0.2 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,20	50	150	**AC18.1**	12 unit(s)	101,45
0,20	75	500	**AC20.1**	12 unit(s)	132,20
0,20	90	1,000	**AC22.1**	12 unit(s)	269,85

Pore size 0.45 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,45	50	150	**AC19.1**	12 unit(s)	107,20
0,45	75	500	**AC21.1**	12 unit(s)	139,75

Bottle-top filters

S

Filtration unit with nylon membrane

Nalgene. **Sterile**.

Ideal for sterile filtration of culture media and sensitive cell and tissue cultures. Alcohol-resistant **nylon** membranes with extremely low content (<0.5 percent by weight) of extractable substances and high flow rates with short filtration times. Hydrophilic and free of surfactants.

Type:

- Red colour coding
- Filtration units made of PS
- Graduated filter upper sections and filter bottles
- With quick connector tube adapter and cotton stopper
- Leakproof screw cap
- Filtration units are non-pyrogenic and non-cytotoxic

Filtration units with a membrane Ø of 75 mm are delivered with 12 glass fibre prefilters included.

Pore size 0.2 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,20	50	150	150	**AC38.1**	12 unit(s)	163,40
0,20	50	250	250	**AC40.1**	12 unit(s)	172,00
0,20	75	500	500	**AC42.1**	12 unit(s)	275,20
0,20	75	500	1,000	**AC44.1**	12 unit(s)	336,50
0,20	90	500	500	**AC46.1**	12 unit(s)	336,50
0,20	90	1,000	1,000	**AC47.1**	12 unit(s)	382,70

Pore size 0.45 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,45	50	150	150	**AC39.1**	12 unit(s)	163,40
0,45	50	250	250	**AC41.1**	12 unit(s)	172,00
0,45	75	500	500	**AC43.1**	12 unit(s)	275,20
0,45	75	500	1,000	**AC45.1**	12 unit(s)	336,50

A 121 °C

Filter funnels reusable

Nalgene. Material: PSF. Autoclavable: Yes.

Graduated. For use with membranes Ø 47 or 50 mm.

Delivery incl. suction sleeve, suitable for suction bottles with an internal neck Ø 30 to 38 mm.

Funnel volume (ml)	Art. No.	Pack Qty.	€
250	**ATC8.1**	1 unit(s)	154,80
500	**ATC9.1**	1 unit(s)	213,95

A 121 °C

Filtration unit reusable

Nalgene. Material: PSF. Autoclavable: Yes.

Filter holder with receiver bottle for vacuum filtration with 47 mm or 50 mm membranes. With graduation and two tube connections for tubes with internal Ø 6–8 mm.

Delivery incl. cap for sterile filtrate storage.

Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
250	250	**KA84.1**	1 unit(s)	148,50
500	500	**KA85.1**	1 unit(s)	217,15
500	1,000	**KA86.1**	1 unit(s)	270,90

Bottle-top filters

A 121 °C

Bottle-top filter holders reusable

Nalgene. Material: PSF. Autoclavable: Yes.

For screwing onto vacuum-sealed bottles with 33 mm thread or GL 45. Ideal for vacuum filtration with 47 mm or 50 mm membranes. With graduations. Hose connection for hoses with inner Ø of 6–8 mm.

Funnel volume (ml)	Thread	Art. No.	Pack Qty.	€
500	33 mm	**KA89.1**	1 unit(s)	216,10
500	GL 45	**KA90.1**	1 unit(s)	216,10

S

Bottle-top filters Steritop™ E

MERCK MILLIPORE. Housing: PS, membrane: PES, hydrophilic. **Sterile**.

Funnelless bottle-top filter. This bottle-top filter enables direct filtration from a media bottle or tissue culture reagents/buffer bottle with a neck thread size of 38 mm or 45 mm into a vacuum-compatible, sterile screw top bottle with a neck thread of 45 mm or GL 45. The Steritop™ E funnelless bottle-top filter offers a more sustainable option for sterile filtration thanks to a considerable reduction in plastic and packaging material. For routine sterile filtration of tissue culture media, buffers, reagents and other aqueous liquids.

- Membrane material: Express® PLUS (PES) membrane, hydrophilic
- Low protein binding, high flow speed and short filtration time
- Housing: PS
- For sample volume: 150 to max. 1000 ml
- Membrane-Ø: 73 mm
- Filtration surface: 40 cm^2
- Pore size: 0.22 µm
- Max. usage temperature: 50 °C
- Vacuum connection: for tubes with inner Ø of 6.5 to 12 mm

Pore size (µm)	Ø Membrane (mm)	Thread	Art. No.	Pack Qty.	€
0,22	73	38 mm	**1CA0.1**	12 unit(s)	173,10
0,22	73	45 mm	**1CA1.1**	12 unit(s)	173,10

S

Filtration unit Stericup® E

MERCK MILLIPORE. Housing: PS, membrane: PES, hydrophilic. **Sterile**.

A combination of funnelless bottle-top filter and collecting bottle. The bottle-top filter enables direct filtration into the sterile collecting bottle from a media bottle or tissue culture reagents/buffer bottle with a neck thread size of 38 mm or 45 mm. The Stericup® E funnelless sterile vacuum system offers a more sustainable option for sterile filtration thanks to a considerable reduction in plastic and packaging material. For routine sterile filtration of tissue culture media, buffers and reagents. Ideal for use under laminar flow conditions thanks to its compact form. Stackable bottles.

- Membrane material: Express® PLUS (PES) membrane, hydrophilic
- Low protein binding, high flow speed and short filtration time
- Housing: PS
- Sample volume: 150 to max. 500/1000 ml
- Membrane-Ø: 73 mm
- Filtration surface: 40 cm^2
- Pore size: 0.22 µm
- Max. usage temperature: 50 °C
- Vacuum connection: for tubes with inner Ø of 6.5 to 12 mm
- Inlet connection: for screw top bottles 38 mm or 45 mm

Pore size (µm)	Ø Membrane (mm)	Bottle volume (ml)	Thread	Art. No.	Pack Qty.	€
0,22	73	500	38 mm	**1C9P.1**	12 unit(s)	241,90
0,22	73	500	45 mm	**1C9T.1**	12 unit(s)	241,90
0,22	73	1,000	38 mm	**1C9X.1**	12 unit(s)	340,80
0,22	73	1,000	45 mm	**1C9Y.1**	12 unit(s)	340,80

Filtration units and holders

121 °C

DURAN WHEATON KIMBLE

Filtration attachment DURAN®

DWK Life Sciences. Material: DURAN® glass, Funnel base made from PP, Viton® seals. Autoclavable: Yes.

- Replaceable filter plate, four different porosities available
- Simple and safe removal of the filtration substance
- Both sides of the filter plates can be cleaned
- **Note**: Lay filter plate between the Viton® seals

Delivery without filter plate, please order separately.

Funnel volume (ml)	Suitable for	Ø Outer outlet (mm)	Thread	Art. No.	Pack Qty.	€
30	Filter-plate-Ø 25 mm	10	28 mm	**1631.1**	1 unit(s)	21,40
250	Filter-plate-Ø 50 mm	12	54 mm	**1632.1**	1 unit(s)	51,70
1,000	Filter-plate-Ø 90 mm	18	95 mm	**CT08.1**	1 unit(s)	111,55

Accessories slit-sieve plate

DWK Life Sciences.

Suitable for filtration device Art. No. 1632.1, XT09.1 and HKL5.1.
Suitable as a holder for membrane and paper filters with Ø 47 mm.

Ø (mm)	Art. No.	Pack Qty.	€
48	**N886.1**	1 unit(s)	26,15

Accessories filter plate for filtration attachment DURAN®

DWK Life Sciences.

With glass edge.

Ø filter plate 25 mm
Suitable for for 30 ml-devices.

Porosity	Ø (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	25	**1633.1**	1 unit(s)	28,30
2 (40 – 100 µm)	25	**1634.1**	1 unit(s)	28,30
3 (16 – 40 µm)	25	**1635.1**	1 unit(s)	28,30
4 (10 – 16 µm)	25	**1636.1**	1 unit(s)	30,30

Ø filter plate 50 mm
Suitable for 250 ml-devices.

Porosity	Ø (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	50	**1637.1**	1 unit(s)	39,40
2 (40 – 100 µm)	50	**1638.1**	1 unit(s)	39,40
3 (16 – 40 µm)	50	**1639.1**	1 unit(s)	39,40
4 (10 – 16 µm)	50	**1640.1**	1 unit(s)	41,00

Ø filter plate 90 mm
Suitable for for 30 ml-devices.

Porosity	Ø (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	90	**CT09.1**	1 unit(s)	51,20
2 (40 – 100 µm)	90	**CT10.1**	1 unit(s)	51,20
3 (16 – 40 µm)	90	**CT11.1**	1 unit(s)	51,20
4 (10 – 16 µm)	90	**CT12.1**	1 unit(s)	54,70

121 °C

Vacuum filtration unit 25 mm

DWK Life Sciences. Material: Borosilicate glass acc. to ASTM E 438 type I, Class A. Autoclavable: Yes.

For filtration of small volumes, such as in microbiology or particle analyses. For filter Ø: 25 mm.

Delivery incl. 15 ml funnel attachment, funnel bottom section with glass frit as filter support (porosity: 40-60 µm), aluminium bracket and silicone stopper. **Delivery without** 150 ml suction bottle (Art. No. EYA6.1), please order separately.

Type	Suitable for	Art. No.	Pack Qty.	€
Filtration unit 25 mm	Filter Ø: 25 mm	**EYA0.1**	1 unit(s)	220,40

A 121 °C

Vacuum filtration unit 47 mm

DWK Life Sciences. Material: Borosilicate glass acc. to ASTM E 438 type I, Class A. Autoclavable: Yes.

For filtration of volumes up to approx. 1 l, in microbiology or particle analyses. For filter Ø of 47 mm.

Delivery incl. 300 ml funnel attachment, funnel bottom section with glass frit as filter support (porosity: 40-60 µm), aluminium bracket and silicone stopper. **Delivery without** 1000 ml suction bottle (Art. No. EYC5.1), please order separately.

Type	Suitable for	Art. No.	Pack Qty.	€
47 mm filtration unit	Filter Ø: 47 mm	**EYA7.1**	1 unit(s)	231,15

A 121 °C

Vacuum filtration unit GV 050/0

Cytiva. Material: DURAN® glass. Autoclavable: Yes.

For filter Ø 47–50 mm and upstream filter Ø 37 mm. Corrosion resistant, biologically inert and autoclavable at 121 °C and 1.1 bar overpressure (20 min).
Wide range of applications: Analytical biochemical and radiochemical work, particle tests in microelectronics.

Delivery incl. 250 ml insert, glass frit for filter support, glass nozzles, spring clips, rubber caps and PTFE ring.

Type	Funnel volume (ml)	Suitable for	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
GV 050/0	250	Filter Ø: 47/50 mm	14.75	**H434.1**	1 unit(s)	499,90

A 121 °C ❄❄ DURAN WHEATON KIMBLE

Vacuum filtration unit DURAN® 47 mm with ground joint

DWK Life Sciences. Material: Borosilicate glass, PTFE. Autoclavable: Yes.

For coarse and membrane filtration, retention analysis, particle tests and microbiology, as well as for filtration of alkali and aggressive media. For use with filter papers, membrane filters or glass filters with Ø of 47 mm or 50 mm. Temperature stable up to +180 °C.

- Parts in contact with media are made of glass and PTFE, therefore are suitable for universal use, biologically inert and corrosion resistant
- Scaled reservoir for easier metering and evaluation
- Plates are optionally available in porosity grades of 1-4, which means they are also suitable for analytical filtration
- Fast and easy to clean
- Connection hose suitable for hoses with an inside Ø of 5–8 mm

Delivery incl. slit-sieve plate as a filter holder, glass filter disc, porosity 2 and vaccum bottle.

Type	Funnel volume (ml)	Bottle volume (ml)	Suitable for	Art. No.	Pack Qty.	€
Filtration unit 250 ml / 1000 ml	250	1,000	Filter Ø: 47/50 mm	**XT09.1**	1 unit(s)	508,00
Filtration unit 500 ml / 2000 ml	500	2,000	Filter Ø: 47/50 mm	**HKL5.1**	1 unit(s)	604,00

Adapter DURAN® NS core 45/40 to GL 45

DWK Life Sciences. Material: PTFE.

Allows you to use filtration units with NS 45/40 ground sleeve on vacuum-sealed GL 45 laboratory bottles.

Version	Art. No.	Pack Qty.	€
NS core 45/40 to GL 45	**CCX4.1**	1 unit(s)	109,55

Filtration units and holders

A 121 °C

Vacuum filtration unit 47 mm with slots

DWK Life Sciences. Material: Borosilicate glass acc. to ASTM E 438 type I, Class A. Autoclavable: Yes.

For filtration of solvents, acids, bases and other aggressive liquids.
For filter Ø: 47 mm.

Delivery incl. 500 ml funnel attachment, funnel bottom section with 40/35 ground joint sleeve, vacuum connection (Ø 6 mm) and glass frit (porosity: 40-60 µm) as filtering support, aluminium clamp and 2000 ml vacuum bottle.

Type	Suitable for	Art. No.	Pack Qty.	€
Filtration unit 47 mm	Filter Ø: 47 mm	**EYC7.1**	1 unit(s)	631,05

A 121 °C

Vacuum filtration unit 90 mm

DWK Life Sciences. Material: Borosilicate glass acc. to ASTM E 438 type I, Class A. Autoclavable: Yes.

For filtration of large volumes, particle-loaded or viscous liquids.
For filter Ø 90 mm.

Delivery incl. 1000 ml funnel attachment with screw top, funnel bottom section with glass frit as filter support (porosity: 40–60 µm) and silicone stopper. **Delivery without** 2000 ml suction bottle (Art. No. EYC6.1), please order separately.

Type	Suitable for	Art. No.	Pack Qty.	€
Filtration unit 90 mm	Filter Ø: 90 mm	**EYE1.1**	1 unit(s)	661,15

A 121 °C

Vacuum filtration unit GV 050/2

Cytiva. Material: DURAN® glass. Autoclavable: Yes.

For filter Ø 47–50 mm. With glass frit as a filter support.
Ideal for microscopic retention analysis, particle tests, filtration of alkali and aggressive solutions as well as buffer solutions for the HPLC.
Biologically inert and corrosion-resistant.
Connection hose suitable for hoses with an inside Ø of 5–8 mm.
Outside Ø 450 mm (without clamp), height 135 mm. Weight: 1122 g.

Delivery incl. 250 ml funnel attachment, funnel bottom with ground joint sleeve NS 45, glass frit, PTFE centring ring, spring clip and 1000 ml suction bottle.

Type	Funnel volume (ml)	Bottle volume (ml)	Suitable for	Art. No.	Pack Qty.	€
GV 050/2	250	1,000	Filter Ø: 47/50 mm	**5986.1**	1 unit(s)	836,35

A 121 °C

Vacuum filtration unit 90 mm with slots

DWK Life Sciences. Material: Borosilicate glass acc. to ASTM E 438 type I, Class A. Autoclavable: Yes.

For filtration of large volumes, HPLC solvents and other aggressive liquids. For filter Ø: 90 mm.

Delivery incl. 1000 ml funnel attachment with screw clip, funnel bottom section with 40/35 ground joint sleeve, vacuum connection (Ø 6 mm) and glass frit (porosity: 40-60 µm) as filtering support. **Delivery without** 2000 ml suction bottle (Art. No. EYC6.1), please order separately.

Type	Suitable for	Art. No.	Pack Qty.	€
Filtration unit 90 mm	Filter Ø: 90 mm	**EXP5.1**	1 unit(s)	762,20

A 121 °C

Vacuum filtration unit MV 050

Cytiva. Material: Stainless steel. Autoclavable: Yes.

For **membrane filters of 47/50 mm** and upstream filters of 40 mm. Resistant to many aqueous and organic solutions. With perforated sieve for filter support. Steel frit insert (Art. No. CC12.1) available, please order separately. External Ø 110 mm, height 320 mm.

Version	Funnel volume (ml)	Suitable for	Art. No.	Pack Qty.	€
MV 050/0, with knurled screw clamp	500	Ø 47/50 mm	**CC09.1**	1 unit(s)	1.284,65
MV 050A/0, with snap buckle	500	Ø 47/50 mm	**CC10.1**	1 unit(s)	1.405,05

Suction attachment

Cytiva. Material: PP, Natural rubber seal.

Hole Ø: 9 mm. With hose connector for hoses with inside Ø of 7–9 mm. For use with vacuum-sealed GL 45 screw top bottles (Art. No. H995.1), please order separately.

Autoclavable: Yes.

Thread	Art. No.	Pack Qty.	€
GL 45	**CC56.1**	1 unit(s)	51,90

A 121 °C

Multiple vacuum filtration units AS series

Cytiva. Material: Stainless steel. Autoclavable: Yes.

For **filters** of Ø **47/50 mm** and pre-filters of Ø 40 mm. Stainless steel holder for 3 or 6 filtration inserts complete with 500 ml stainless steel inserts. Each insert can be operated with a separate tap. With quick-close system. Temperature-resistant up to 180 °C. Suction manifold with hose connectors for tubes with inside Ø of 8–10 mm.

Applications: Microbiological quality controls, retention analyses and serial filtration.

Delivery incl. perforated sieves for filter support.

Version	Suitable for	Art. No.	Pack Qty.	€
Six-fold dilter unit AS 610/3	Filter Ø: 47/50 mm	**CC33.1**	1 unit(s)	8.392,55

A 121 °C

Filter holder for syringes

Cytiva. Autoclavable: Yes.

Made from polysulfone or stainless steel. With silicone O-ring. Suitable for multiple uses with membrane, paper or round glass fibre filters. Maximum pressure loading: 7 bar. Connections: Luer or hose connectors (external Ø 11 mm), can be unscrewed.

Applications:
For clear and sterile filtration of biological media, reagents and buffer solutions, as well as aqueous solutions and gases.

Technical specifications:

Art. No.	CC19.1	CC23.1	CC20.1	CC21.1
Suitable for	Filter Ø: 25 mm		Filter Ø: 47/50 mm	
Ø Housing	30 mm		65 mm	
Housing material	PS	Stainless steel	PS	
Height	34 mm	26 mm	80 mm	95 mm
Max. application temperature	180 °C	200 °C	180 °C	
Max. operating pressure	7 bar			
Inlet connection	Luer-Lock connector		Luer-Lock	Hose olive
Outlet connection	Luer connector		Hose olive	

Polysulfone

Version	Art. No.	Pack Qty.	€
FP 025/1	**CC19.1**	10 unit(s)	170,95
FP 050/0	**CC20.1**	1 unit(s)	101,50
FP 050/1	**CC21.1**	1 unit(s)	101,50

Stainless steel

Version	Art. No.	Pack Qty.	€
FM 025/0	**CC23.1**	1 unit(s)	344,00

Filtration units and holders

Filter holder In-Line

MERCK MILLIPORE. Material: PP strengthened, nylon hand screws.

For filter Ø 47 mm. For pressure filtration of liquids or gases.
With stepped hose connectors.

Technical specifications:

Art. No.	XE95.1
Suitable for	Filter Ø: 47 mm
Ø ext.	76 mm
Height	120 mm
Filtration area	13.8 cm²
Max. application temperature	70 °C
Max. operating pressure	5.5 bar
Inlet connection	¼″ NPTF; connector for tube inside-Ø 6 mm to 9.5 mm
Outlet connection	¼″ NPTF; connector for tube inside-Ø 6 mm to 9.5 mm

Version	Art. No.	Pack Qty.	€
In-Line filter holder	**XE95.1**	1 unit(s)	299,95

A 121 °C

Filter holder Swinnex®

MERCK MILLIPORE. Material: PP. Autoclavable: Yes.

For filtration, cleaning or sterile filtration of small amounts of liquid by means of injection. 47 mm filter holder can also be used with a hose connector.

Technical specifications:

Art. No.	XE86.1	XE87.1	XE88.1
Suitable for	Filter Ø: 13 mm	Filter Ø: 25 mm	Filter Ø: 47 mm
Ø ext.	17 mm	32 mm	57 mm
Height	35 mm	37 mm	54 mm
Filtration area	0.7 cm²	3.4 cm²	13.8 cm²
Max. operating pressure	3.5 bar		5 bar
Inlet connection	Luer-Lock connector		¼″ NPTM/female Luer Lock connector
Outlet connection	Luer connector		¼″ hose connection/ female Luer Lock connector

Version	Art. No.	Pack Qty.	€
Swinnex® 13	**XE86.1**	10 unit(s)	112,90
Swinnex® 25	**XE87.1**	12 unit(s)	235,45
Swinnex® 47	**XE88.1**	8 unit(s)	536,45

A 121 °C ❄❄❄

Filter holder for syringes

Bohlender. Material: PTFE. Autoclavable: Yes.

For filter membranes with Ø of 13 or 25 mm. No discharge of trace elements to the medium being filtered. Simply screw off to easily change the filter membrane. Anti-adhesive surface makes cleaning easy.

Technical specifications:

Art. No.	Y933.1	Y934.1
Suitable for	Filter Ø: 13 mm	Filter Ø: 25 mm
Ø ext.	21 mm	34 mm
Filtration area	0.78 cm²	3.80 cm²
Max. operating pressure	2 bar	
Inlet connection	Female Luer Lock	
Outlet connection	Male Luer Lock	

Version	Art. No.	Pack Qty.	€
13 mm	**Y933.1**	1 unit(s)	240,80
25 mm	**Y934.1**	1 unit(s)	255,85

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

A 121 °C

Flow-through filter unit

Bohlender. Material: PTFE. Autoclavable: Yes.

Suitable for vacuum operation and overpressure operation up to approx. 5 bar. Does not discharge trace elements to the medium being filtered. Filter membrane is easy to change, by simply unscrewing the sample filter. Cutting rings can be used to connect plastic hoses. Includes suitable adapter for each of the two hose sizes. Anti-adhesive surface makes cleaning easy.

Technical specifications:

Art. No.	Y935.1	Y936.1	Y937.1
Suitable for	Filter Ø: 25 mm	Filter Ø: 47 mm	Filter Ø: 90 mm
Filtration area	3.1 cm²	13.8 cm²	52.0 cm²
Max. operating pressure	5 bar		
Inlet connection	GL 14, with adapters for hose with external Ø 3.2 and 6 mm	GL 18, with adapters for hose with external Ø 6 and 8 mm	GL 25, with adapters for hose with external Ø 8 and 10 mm
Outlet connection	GL 14, with adapters for hose with external Ø 3.2 and 6 mm	GL 18, with adapters for hose with external Ø 6 and 8 mm	GL 25, with adapters for hose with external Ø 8 and 10 mm

Delivery without filter membrane, please order separately.

Version	Art. No.	Pack Qty.	€
25 mm	**Y935.1**	1 unit(s)	327,90
47 mm	**Y936.1**	1 unit(s)	448,30
90 mm	**Y937.1**	1 unit(s)	836,35

A 121 °C ❄❄❄

Membrane filters PTFE

Bohlender. Material: Hydrophobic PTFE. Autoclavable: Yes.

Made of micro-porous PTFE. Membrane strength 0.2 mm. Temperature-stable from -200 to 250 °C.
For use with filter holders (Y933.1-Y934.1) and flow-through filters (Y935.1-Y936.1).

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1	47	**Y951.1**	10 unit(s)	66,40
0,05	13	**Y938.1**	10 unit(s)	30,70
0,05	25	**Y943.1**	10 unit(s)	48,30
0,05	47	**Y948.1**	10 unit(s)	74,30
5	47	**Y952.1**	10 unit(s)	65,45
0,20	47	**Y949.1**	10 unit(s)	66,85
0,45	47	**Y950.1**	10 unit(s)	77,20

A 121 °C

Membrane filters Nitrocellulose

GVS. Material: Cellulose nitrate. Autoclavable: Yes.

Hydrophilic. High flow rates. Biologically inert, non-cytotoxic. Maximum usage temperature 180 °C. Protein binding approx. 160 µg/cm².
Wide range of applications: gravimetric analysis, particulate analysis, microbiological analysis, sterile filtration of aqueous solutions.

Danger H228

0.22 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,22	47	Non-sterile	No	**A009.1**	100 unit(s)	105,75

0.45 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	Non-sterile	No	**A012.1**	100 unit(s)	102,10

Membrane filters

0.45 µm, Ø 47 mm, sterile with grid
Individually packed.

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	**Sterile**	Yes	**A023.1**	200 unit(s)	100,60

0.45 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	90	Non-sterile	No	**A014.1**	25 unit(s)	65,45

1.2 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
1,20	47	Non-sterile	No	**A021.1**	100 unit(s)	110,95

Membrane filters

GVS.

Hydrophilic.

Nylon
Material: Nylon polyester-reinforced. Non-sterile. Very low extractable substances content, fre of wetting agent. Good chemical resistance, polyester reinforcement for higher mechanical stability. Protein binding approx. 120 µg/cm². Maximum usage temperature 180 °C.

Wide application spectrum: solvent filtration (HPLC), sample preparation (HPLC, GC), sterile filtration of aqueous and organic solutions.

Pore size (µm)	Ø (mm)	Sterility	Art. No.	Pack Qty.	€
0,22	47	Non-sterile	**A026.1**	100 unit(s)	109,25
0,45	13	Non-sterile	**A029.1**	100 unit(s)	70,15
0,45	47	Non-sterile	**A031.1**	100 unit(s)	109,25

Track-etched polycarbonate
Material: PC. Non-sterile. Autoclavable: Yes. Exact pore sizes, very smooth surface. Very low extractable substances content. Low protein binding <5 µg/cm², ashing residue approx. 0.92 µg/cm². Maximum usage temperature 140 °C.

Wide range of applications: Particle analysis, microscopy, electron microscopy.

Pore size (µm)	Ø (mm)	Sterility	Art. No.	Pack Qty.	€
0,20	25	Non-sterile	**A044.1**	100 unit(s)	72,65
0,45	25	Non-sterile	**A045.1**	100 unit(s)	71,45
0,45	47	Non-sterile	**A046.1**	100 unit(s)	102,15

A 121 °C

Membrane filters cellulose mixed ester

Cytiva. Material: CME, hydrophilic. Autoclavable: Yes.

Versatile membrane made of cellulose acetate and cellulose nitrate mixed ester.
Application examples: sterile and clear filtration, particle separation and analysis, microbiological analyses, counting of germs, yeasts, fungi and particle, food biology, air pollutant measurements, etc.
Max. usage temperature 130 °C.
Gridded membranes **(line spacing 3.1 mm)** make it easier to count particles and micro-organisms; the dyes used are non-toxic and free of antibacterial substances.

- High dirt absorbing capacity prevents rapid clogging of the membrane
- Uniform membrane structure ensures high flow rates
- Very smooth and even surface aids microscopic evaluation
- Biologically inert and free of surfactants

Sterile membranes are individually packed.

0.2 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	47	Non-sterile	No	**NH80.1**	100 unit(s)	199,95

0.2 µm, Ø 47 mm, without grid, sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	47	**Sterile**	No	**NH83.1**	100 unit(s)	182,75

0.2 µm, Ø 47 mm, with grid, sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	47	**Sterile**	Yes	**NH84.1**	100 unit(s)	203,20

0.2 µm, Ø 142 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	142	Non-sterile	No	**ECT7.1**	25 unit(s)	210,70

0.45 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	Non-sterile	No	**NH81.1**	100 unit(s)	199,95

0.45 µm, Ø 47 mm, with grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	Non-sterile	Yes	**NH82.1**	100 unit(s)	167,70

Membrane filters

0.45 µm, Ø 47 mm, without grid, sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	**Sterile**	No	**NH85.1**	100 unit(s)	203,20

0.45 µm, Ø 142 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	142	Non-sterile	No	**ECT8.1**	25 unit(s)	193,50

A 121 °C

Membrane filters RC

Cytiva. Material: Cellulose, regenerated, hydrophilic, with support structure made of PP fleece. Autoclavable: Yes.

Suitable for aqueous and organic media. Thickness 155 µm.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,20	50	**5987.1**	100 unit(s)	395,60
0,45	50	**5988.1**	100 unit(s)	393,45

A 121 °C

Membrane filters Cellulose nitrate

Cytiva. Material: Cellulose nitrate, hydrophilic. Autoclavable: Yes.

Versatile standard membrane.
Applications: filtration of aqueous solutions, sample preparation, microbiological studies etc. High stability and flexibility, low extractable substances content. Max. usage temperature 80 °C.
Sterile Membranes are individually packed.
Gridded membranes **(line spacing 3.1 mm)** make it easier to count particles and micro-organisms; the dyes used are non-toxic and free of antibacterial substances.

0.1 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,10	47	Non-sterile	No	**NH68.1**	100 unit(s)	287,05

0.2 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	47	Non-sterile	No	**NH69.1**	100 unit(s)	251,55

0.2 µm, Ø 47 mm, without grid, sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	47	**Sterile**	No	**NH77.1**	100 unit(s)	149,10

0.45 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	Non-sterile	No	**NH70.1**	100 unit(s)	236,50

0.45 µm, Ø 47 mm, with grid, sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	**Sterile**	Yes	**NH78.1**	100 unit(s)	144,05

0.45 µm, Ø 47 mm, with grid, sterile, 200 pce.

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	**Sterile**	Yes	**NH79.1**	200 unit(s)	232,20

0.8 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,80	47	Non-sterile	No	**NH73.1**	100 unit(s)	264,45

1 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
1,0	47	Non-sterile	No	**NH74.1**	100 unit(s)	250,50

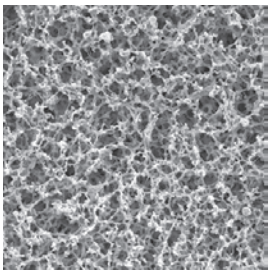
3 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
3,0	47	Non-sterile	No	**NH75.1**	100 unit(s)	250,50

5 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
5,0	47	Non-sterile	No	**NH76.1**	100 unit(s)	249,40

Membrane filters



A 121 °C

Membrane filters MF-Millipore™ Cellulose mixed ester

MERCK MILLIPORE. Material: CME, hydrophilic. Autoclavable: Yes.

Versatile standard membrane.
Applications: clear filtration and sterilisation of liquids, air particle analysis, contamination analysis of fuels and hydraulic liquids to determine the particulate load, biological applications such as cell harvesting or washing, micro-dialysis.

- Material: mixed ester made of cellulose nitrate and cellulose acetate
- Protein binding: 150 µg/cm²
- Membrane thickness: 105-150 µm
- Colour: white

0.025 µm, Ø 13 mm, without grid

Danger H228-H412

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,025	13	No	**CY35.1**	100 unit(s)	274,15

0.025 µm, Ø 25 mm, without grid

Danger H228-H412

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,025	25	No	**CY36.1**	100 unit(s)	353,70

0.025 µm, Ø 47 mm, without grid

Danger H228-H412

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,025	47	No	**CY37.1**	100 unit(s)	450,45

0.025 µm, Ø 90 mm, without grid

Danger H228-H412

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,025	90	No	**CY38.1**	25 unit(s)	407,45

0.22 µm, Ø 13 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,22	13	No	**CY39.1**	100 unit(s)	127,95

0.22 µm, Ø 25 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,22	25	No	**CY40.1**	100 unit(s)	149,45

0.22 µm, Ø 47 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,22	47	No	**CY41.1**	100 unit(s)	203,20

0.22 µm, Ø 90 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,22	90	No	**CY42.1**	100 unit(s)	521,40

0.45 µm, Ø 13 mm, with grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	13	Yes	**CY44.1**	100 unit(s)	149,45

0.45 µm, Ø 13 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	13	No	**CY43.1**	100 unit(s)	127,95

0.45 µm, Ø 25 mm, with grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	25	Yes	**CY46.1**	100 unit(s)	160,20

0.45 µm, Ø 25 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	25	No	**CY45.1**	100 unit(s)	134,40

0.45 µm, Ø 47 mm, with grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	47	Yes	**CY48.1**	100 unit(s)	220,40

0.45 µm, Ø 47 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	47	No	**CY47.1**	100 unit(s)	198,90

0.45 µm, Ø 90 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	90	No	**CY49.1**	100 unit(s)	525,70

Membrane filters

0.65 µm, Ø 13 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,65	13	No	**CY50.1**	100 unit(s)	127,95

0.65 µm, Ø 25 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,65	25	No	**CY51.1**	100 unit(s)	149,45

0.65 µm, Ø 47 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,65	47	No	**CY52.1**	100 unit(s)	209,65

0.65 µm, Ø 90 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,65	90	No	**CY53.1**	25 unit(s)	166,65

0.8 µm, Ø 13 mm, with grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	13	Yes	**CY55.1**	100 unit(s)	138,70

0.8 µm, Ø 13 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	13	No	**CY54.1**	100 unit(s)	127,95

0.8 µm, Ø 25 mm, with grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	25	Yes	**CY57.1**	100 unit(s)	160,20

0.8 µm, Ø 25 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	25	No	**CY56.1**	100 unit(s)	149,45

0.8 µm, Ø 47 mm, with grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	47	Yes	**CY59.1**	100 unit(s)	209,65

0.8 µm, Ø 47 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	47	No	**CY58.1**	100 unit(s)	203,20

0.8 µm, Ø 90 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	90	No	**CY60.1**	100 unit(s)	471,95

8.0 µm, Ø 13 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
8,0	13	No	**CY61.1**	100 unit(s)	123,65

8.0 µm, Ø 25 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
8,0	25	No	**CY62.1**	100 unit(s)	149,45

8.0 µm, Ø 47 mm, without grid

Danger H228

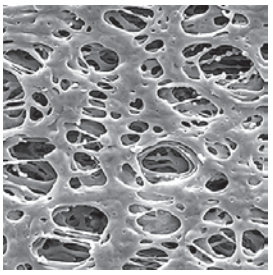
Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
8,0	47	No	**CY63.1**	100 unit(s)	209,65

8.0 µm, Ø 90 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
8,0	90	No	**CY64.1**	25 unit(s)	181,70

Membrane filters



121 °C

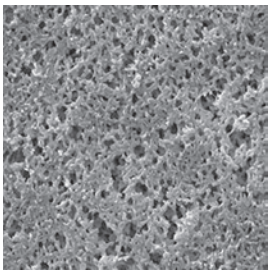
Membrane filters Express® PLUS PES

MERCK MILLIPORE. Material: PES, surface-modified, hydrophilic. Autoclavable: Yes.

Application examples: Ultrafast filtration of tissue media, buffers and other aqueous solutions.

- High flow rates and higher throughput
- Low protein binding
- Membrane strength: ≥ 150 µm and ≤ 200 µm
- Colour: white
- Surface: smooth

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,22	13	**CX07.1**	100 unit(s)	149,45
0,22	25	**CX08.1**	100 unit(s)	181,70
0,22	47	**CX09.1**	100 unit(s)	252,65
0,22	90	**CX10.1**	50 unit(s)	289,20
0,22	142	**XA42.1**	50 unit(s)	547,20
0,45	13	**XA43.1**	100 unit(s)	134,40
0,45	25	**XA44.1**	100 unit(s)	181,70
0,45	47	**XA45.1**	100 unit(s)	235,45
0,45	90	**XA46.1**	50 unit(s)	267,70
0,45	142	**XA47.1**	50 unit(s)	547,20



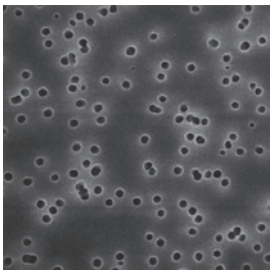
Membrane filters Nylon

MERCK MILLIPORE. Material: Nylon, hydrophilic.

Highly compatible with solvents.
Applications: sterile filtration, bioassays, filtration of solvents, clear filtration of aqueous solutions, as well as particle separation and analysis.

- Membrane thickness: 170 µm
- Colour: white
- Surface: smooth
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 75 °C

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,20	25	**XA48.1**	100 unit(s)	170,95
0,20	47	**XA49.1**	100 unit(s)	209,65
0,45	25	**XA50.1**	100 unit(s)	166,65
0,45	47	**XA51.1**	100 unit(s)	231,15
0,80	25	**XA52.1**	100 unit(s)	138,70
1,20	25	**XA54.1**	100 unit(s)	138,70
1,20	47	**XA55.1**	100 unit(s)	192,45



121 °C

Membrane filters Isopore™ Polycarbonate

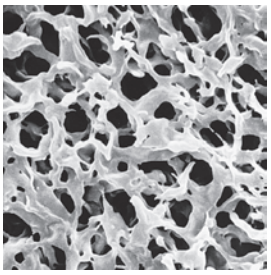
MERCK MILLIPORE. Material: PC, hydrophilic, not-hygroscopic. Autoclavable: Yes.

Smooth surface, suitable for microscopic evaluations.
Application examples: Chemotaxis studies, drink analyses, sterility tests, cell culture/cell biology, bioassays, cytology, environment/air analyses, epifluorescence measurements (black membranes).

- Membrane strength: 9-10 µm
- Max. working temperature: 140 °C
- Colour: white or black

Pore size (µm)	Ø (mm)	Colour	Art. No.	Pack Qty.	€
0,10	13	white	**CY17.1**	100 unit(s)	134,40
0,10	25	white	**CY18.1**	100 unit(s)	332,20
0,10	47	white	**CY19.1**	100 unit(s)	493,45
0,22	13	white	**CY20.1**	100 unit(s)	149,45
0,22	13	black	**CY24.1**	100 unit(s)	149,45
0,22	25	white	**CY21.1**	100 unit(s)	220,40
0,22	25	black	**CY25.1**	100 unit(s)	342,95
0,22	47	white	**CY22.1**	100 unit(s)	263,40
0,22	47	black	**CY26.1**	100 unit(s)	504,20
0,22	90	white	**CY23.1**	30 unit(s)	209,65
0,40	13	white	**CY28.1**	100 unit(s)	155,90
0,40	13	black	**CY32.1**	100 unit(s)	149,45
0,40	25	white	**CY29.1**	100 unit(s)	235,45
0,40	25	black	**CY33.1**	100 unit(s)	263,40
0,40	47	white	**CY30.1**	100 unit(s)	278,45
0,40	47	black	**CY34.1**	100 unit(s)	643,95
0,40	90	white	**CY31.1**	30 unit(s)	213,95

Membrane filters



A 121 °C

Membrane filters Durapore® PVDF hydrophilic

MERCK MILLIPORE. Material: PVDF, hydrophilic. Autoclavable: Yes.

Surface-modified polyvinylidene fluoride with very low protein binding.
Application examples: sterile filtration of protein solutions, tissue culture media, additives, antibiotics and alcoholic solutions; particle removal, biological assays (e.g. receptor binding studies TCA precipitation).

- Protein binding: 4 µg/cm²
- Membrane thickness: approx. 125 µm
- Colour: white
- Surface: smooth
- Max. working temperature: 85 °C

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,10	13	**CX11.1**	100 unit(s)	138,70
0,10	25	**CX12.1**	100 unit(s)	170,95
0,10	47	**CX13.1**	100 unit(s)	246,20
0,10	90	**CX14.1**	50 unit(s)	364,45
0,22	13	**CX15.1**	100 unit(s)	149,45
0,22	25	**CX16.1**	100 unit(s)	181,70
0,22	47	**CX17.1**	100 unit(s)	252,65
0,22	90	**CX18.1**	50 unit(s)	338,65
0,45	13	**CX19.1**	100 unit(s)	149,45
0,45	25	**CX20.1**	100 unit(s)	182,75
0,45	47	**CX21.1**	100 unit(s)	252,65
0,45	90	**CX22.1**	50 unit(s)	375,20
5,0	13	**CX27.1**	100 unit(s)	145,15
5,0	25	**CX28.1**	100 unit(s)	181,70
5,0	47	**CX29.1**	100 unit(s)	284,90
0,65	13	**CX23.1**	100 unit(s)	149,45
0,65	25	**CX24.1**	100 unit(s)	178,45
0,65	47	**CX25.1**	100 unit(s)	235,45
0,65	90	**CX26.1**	50 unit(s)	338,65

Membrane filters Durapore® PVDF hydrophobic

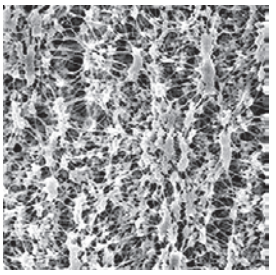
MERCK MILLIPORE. Material: PVDF, hydrophobic.

Application examples: clear filtration of air/gases, sterile filtration of gases.

- Protein binding: 150 µg/cm²
- Membrane thickness: approx. 125 µm
- Colour: white
- Surface: smooth
- Max. working temperature: 85 °C

Autoclavable: Yes.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,10	47	**CX31.1**	100 unit(s)	231,15
0,22	13	**CX32.1**	100 unit(s)	203,20
0,22	25	**CX33.1**	100 unit(s)	252,65
0,22	47	**CX34.1**	100 unit(s)	342,95
0,22	90	**CX35.1**	50 unit(s)	456,90
0,45	13	**CX36.1**	100 unit(s)	213,95
0,45	25	**CX37.1**	100 unit(s)	252,65
0,45	47	**CX38.1**	100 unit(s)	360,15
0,45	90	**CX39.1**	50 unit(s)	467,65



A 121 °C

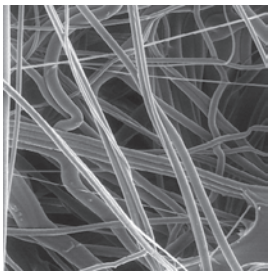
Membrane filters LCR PTFE hydrophilic

MERCK MILLIPORE. Material: Hydrophilic PTFE. Autoclavable: Yes.

Hydrophilised PTFE enables the filtration of aqueous solvents without previous wetting. For use with all common HPLC solvents.
Application examples: clear filtration of acids, bases, cryogenic liquids and fuels, analysis of hydraulic liquids, RNA isolation.

- Very low ionic strength, also suitable for IC
- Membrane strength: 150 µm
- Max. working temperature: 130 °C
- Colour: white

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,45	13	**CX67.1**	100 unit(s)	327,90
0,45	25	**CX68.1**	100 unit(s)	450,45
0,45	47	**CX69.1**	100 unit(s)	579,45



Prefilter PP

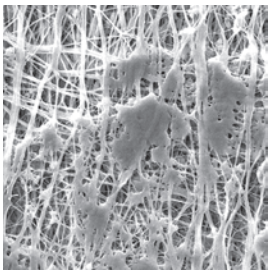
MERCK MILLIPORE. Material: PP, hydrophobic.

Pre-filters made of 100 % pure polypropylene. High particle retention and dirt absorbing capacity at low pressure drop.
Suitable for filtration of many organic solvents.

- Filter type: deep-bed filter
- Colour: white
- Surface: smooth
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 90 °C

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5,0	47	**XC01.1**	100 unit(s)	192,45
0,60	47	**XA98.1**	100 unit(s)	181,70
10,0	47	**XC02.1**	100 unit(s)	198,90
1,20	47	**XA99.1**	100 unit(s)	181,70
2,50	47	**XC00.1**	100 unit(s)	181,70
30,0	47	**XC03.1**	100 unit(s)	188,15

Membrane filters



A 121 °C

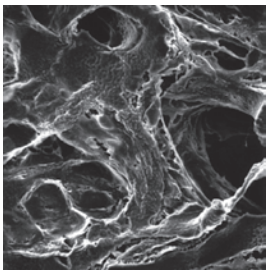
Membrane filters Fluoropore™ PTFE with laminated support structure

MERCK MILLIPORE. Material: Hydrophobic PTFE, HDPE. Autoclavable: Yes.

Membrane filter made of PTFE (polytetrafluoroethylene) with support structure made of high-density polyethylene fabric.
Application examples: clear filtration of acids, bases, solvents and alcoholic solutions, gas/air filtration, UV spectroscopy.
If wetted beforehand with methanol or ethanol, aqueous solutions can also be filtered.

- Membrane strength: 150 µm
- Max. working temperature: 130 °C
- Colour: white

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1,0	13	**CX52.1**	100 unit(s)	321,45
1,0	25	**CX53.1**	100 unit(s)	428,95
1,0	47	**CX54.1**	100 unit(s)	525,70
0,22	13	**CX44.1**	100 unit(s)	310,70
0,22	25	**CX45.1**	100 unit(s)	428,95
0,22	47	**CX46.1**	100 unit(s)	536,45
0,22	90	**CX47.1**	50 unit(s)	779,40
3,0	25	**CX56.1**	100 unit(s)	478,40
3,0	47	**CX57.1**	100 unit(s)	590,20
3,0	90	**CX58.1**	25 unit(s)	579,45
0,50	13	**CX48.1**	100 unit(s)	317,15
0,50	25	**CX49.1**	100 unit(s)	428,95
0,50	47	**CX50.1**	100 unit(s)	564,40
0,50	90	**CX51.1**	50 unit(s)	843,90



A 121 °C

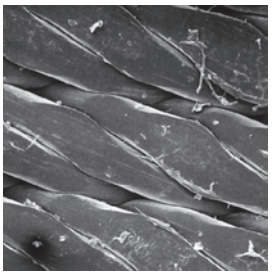
Membrane filters Mitex™ PTFE

MERCK MILLIPORE. Material: Hydrophobic PTFE. Autoclavable: Yes.

Hydrophobic PTFE membrane filter without support structure.
Application examples: filtration under extreme chemical or thermal conditions, clear filtration of acids, bases, cryogenic liquids and fuels, analysis of hydraulic liquids, RNA isolation.
If wetted beforehand with methanol or ethanol, aqueous solutions can also be filtered.

- Membrane strength: 130-140 µm
- Max. working temperature: 260 °C
- Colour: white

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5,0	13	**CX59.1**	100 unit(s)	342,95
5,0	25	**CX60.1**	100 unit(s)	385,95
5,0	47	**CX61.1**	100 unit(s)	633,20
5,0	90	**CX62.1**	25 unit(s)	482,70
10,0	13	**CX63.1**	100 unit(s)	338,65
10,0	25	**CX64.1**	100 unit(s)	375,20
10,0	47	**CX65.1**	100 unit(s)	590,20
10,0	90	**CX66.1**	25 unit(s)	478,40



Mesh filter PP

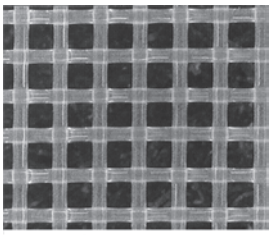
MERCK MILLIPORE. Material: PP, hydrophilic.

Mesh filters made of 100 % pure polypropylene.
Applications: clear filtration, collection of cells and protein precipitates, separation of large particles, analysis of particulate impurities.

- Colour: white
- Surface: smooth
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 100 °C

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
25	25	**XC04.1**	100 unit(s)	149,45
25	47	**XC05.1**	100 unit(s)	203,20
45	25	**XC06.1**	100 unit(s)	155,90
45	47	**XC07.1**	100 unit(s)	198,90

Membrane filters



Mesh filter Nylon

MERCK MILLIPORE. Material: Nylon, hydrophilic.

Mesh filter with high compatibility with solvents.
Applications: collection of algae and cells, particle analysis, separation of large particles, background filter for use in monitoring by automatic particle imaging systems, pre-filtration of solvents, monitoring of contamination in paints and lacquers.

- Colour: white
- Surface: smooth
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 100 °C

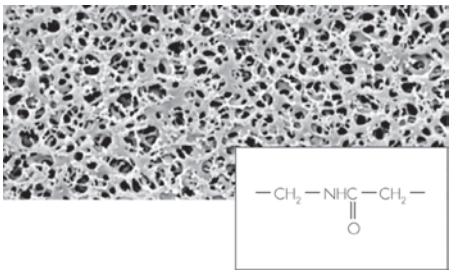
Circular filters

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
10	25	**XA56.1**	100 unit(s)	109,65
10	47	**XA57.1**	100 unit(s)	148,35
10	90	**XA58.1**	50 unit(s)	312,85
11	25	**XA59.1**	100 unit(s)	140,85
11	47	**XA60.1**	100 unit(s)	173,10
11	90	**XA61.1**	50 unit(s)	324,65
20	25	**XA62.1**	100 unit(s)	139,75
20	47	**XA63.1**	100 unit(s)	166,65
20	90	**XA64.1**	50 unit(s)	365,50
30	25	**XA65.1**	100 unit(s)	140,85
30	47	**XA66.1**	100 unit(s)	166,65
30	90	**XA67.1**	50 unit(s)	324,65
41	25	**XA68.1**	100 unit(s)	140,85
41	47	**XA69.1**	100 unit(s)	173,10
41	90	**XA70.1**	50 unit(s)	324,65
60	25	**XA71.1**	100 unit(s)	140,85
60	47	**XA72.1**	100 unit(s)	166,65
60	90	**XA73.1**	50 unit(s)	328,95
80	25	**XA74.1**	100 unit(s)	140,85
80	47	**XA75.1**	100 unit(s)	167,70
80	90	**XA76.1**	50 unit(s)	324,65
100	25	**XA77.1**	100 unit(s)	140,85
100	47	**XA78.1**	100 unit(s)	167,70
100	90	**XA79.1**	50 unit(s)	324,65
120	25	**XA80.1**	100 unit(s)	140,85
120	47	**XA81.1**	100 unit(s)	167,70
120	90	**XA82.1**	50 unit(s)	324,65
140	25	**XA83.1**	100 unit(s)	140,85
140	47	**XA84.1**	100 unit(s)	166,65
140	90	**XA85.1**	50 unit(s)	304,25
160	25	**XA86.1**	100 unit(s)	140,85
160	47	**XA87.1**	100 unit(s)	167,70
160	90	**XA88.1**	50 unit(s)	324,65
180	25	**XA89.1**	100 unit(s)	140,85
180	47	**XA90.1**	100 unit(s)	166,65
180	90	**XA91.1**	50 unit(s)	324,65

Filter rolls

Dimensions: W 30 x L 300 cm

Pore size (µm)	Art. No.	Pack Qty.	€
11	**XA92.1**	1 unit(s)	632,10
20	**XA93.1**	1 unit(s)	602,00
41	**XA94.1**	1 unit(s)	579,45
60	**XA95.1**	1 unit(s)	577,30
100	**XA96.1**	1 unit(s)	602,00
160	**XA97.1**	1 unit(s)	683,70



A 121 °C

Membrane filters Polyamide

Sartorius. Material: Nylon, hydrophilic. Autoclavable: Yes.

Good chemical resistance to alkaline solutions and organic solvents. Relatively high non-specific adsorption.

- Membrane thickness: 115 µm
- Colour: white

Application examples:
Removal of particulates from aqueous solutions and solvents.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,2	25	**1C0L.1**	100 unit(s)	96,70
0,2	47	**1C0N.1**	100 unit(s)	134,00
0,2	50	**1C0P.1**	100 unit(s)	140,00
0,2	90	**1C0T.1**	25 unit(s)	147,00
0,45	25	**1C0X.1**	100 unit(s)	96,70
0,45	47	**1C0Y.1**	100 unit(s)	134,00
0,45	50	**1C10.1**	100 unit(s)	140,00
0,45	90	**1C11.1**	25 unit(s)	142,00

Membrane filters

A 121 °C

Membrane filters Polyethersulfone

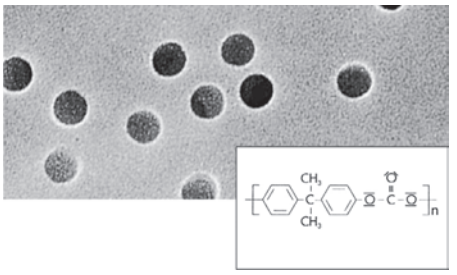
Sartorius. Material: PES, hydrophilic. Autoclavable: Yes.

High throughput, low protein adsorption, low content of extractable substances.

- Membrane thickness: 150 µm
- Colour: white
- Temperature-stable up to 180 °C

Application examples:
Filtration of aqueous solutions and proteins, sample preparation in environmental analytics.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,1	25	**1C1A.1**	100 unit(s)	133,00
0,1	47	**1C1C.1**	100 unit(s)	193,00
0,1	50	**1C1E.1**	100 unit(s)	200,00
0,2	25	**1C1H.1**	100 unit(s)	129,00
0,2	47	**1C1K.1**	100 unit(s)	193,00
0,2	50	**1C1L.1**	100 unit(s)	196,00
0,2	90	**1C1N.1**	50 unit(s)	169,00
0,45	25	**1C1P.1**	100 unit(s)	129,00
0,45	47	**1C1T.1**	100 unit(s)	193,00
0,45	50	**1C1X.1**	100 unit(s)	200,00



A 121 °C

Membrane filters Track-etched polycarbonate

Sartorius. Material: PC, hydrophilic. Autoclavable: Yes.

For filtration of aqueous solutions or gases.
Uniform and precise capillary pore structure thanks to the track-etching technique. Suitable for applications in which particulates need to be retained on the membrane surface or for the fractionation of particulates.

- Membrane thickness: 25 µm
- Colour: white
- Temperature-stable up to 140 °C

Application examples:
Particulate analysis, epifluorescence microscopy, fluid clarification, cytology, cell biology, water microbiology and environmental analysis.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,1	25	**1C12.1**	100 unit(s)	101,00
0,1	47	**1C13.1**	100 unit(s)	148,00
0,2	25	**1C14.1**	100 unit(s)	102,00
0,2	47	**1C15.1**	100 unit(s)	148,00
0,2	50	**1C16.1**	100 unit(s)	151,00
0,4	25	**1C17.1**	100 unit(s)	102,00
0,4	47	**1C18.1**	100 unit(s)	148,00
0,8	25	**1C19.1**	100 unit(s)	103,00

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Membrane filters

A 121 °C

Membrane filters PTFE

Sartorius. Material: Hydrophobic PTFE. Autoclavable: Yes.

Outstanding chemical resistance.
For hydrophilic media, priming with ethanol or methanol is necessary to make the membrane permeable to aqueous liquids.

- Membrane thickness: 65 - 100 µm
- Colour: white

Application examples:
Filtration of air, gases and chemicals.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,2	25	**1C1Y.1**	100 unit(s)	319,00
0,2	47	**1C20.1**	100 unit(s)	400,00
0,2	50	**1C21.1**	100 unit(s)	402,00
0,2	90	**1C22.1**	25 unit(s)	359,00
5	25	**1C2C.1**	100 unit(s)	373,00
5	47	**1C2E.1**	25 unit(s)	115,00
5	50	**1C2H.1**	100 unit(s)	473,00
1,2	25	**1C27.1**	100 unit(s)	373,00
1,2	47	**1C28.1**	100 unit(s)	475,00
1,2	50	**1C29.1**	100 unit(s)	473,00
1,2	90	**1C2A.1**	25 unit(s)	352,00
0,45	25	**1C23.1**	100 unit(s)	325,00
0,45	47	**1C24.1**	100 unit(s)	408,00
0,45	50	**1C25.1**	100 unit(s)	402,00
0,45	90	**1C26.1**	25 unit(s)	352,00

A 121 °C

Membrane filters cellulose acetate

Sartorius. Material: CA, hydrophilic. Autoclavable: Yes.

For filtration of aqueous solutions or gases. High throughput, good thermal and chemical resistance (pH 4-8), low adsorption. Suitable for pressure filtration.

- Membrane thickness: 120 – 140 µm
- Colour: white
- Temperature stable up to 180 °C

Application examples:
Analytical sample preparation, clear filtration.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,2	25	**1AX8.1**	100 unit(s)	93,40
0,2	47	**1AX9.1**	100 unit(s)	125,00
0,2	50	**1AXA.1**	100 unit(s)	134,00
0,2	90	**1AXC.1**	25 unit(s)	137,00
5	25	**1AY6.1**	100 unit(s)	156,00
5	47	**1AY7.1**	100 unit(s)	228,00
0,8	25	**1AXY.1**	100 unit(s)	101,00
0,8	47	**1AY0.1**	100 unit(s)	135,00
0,8	50	**1AY1.1**	100 unit(s)	145,00
0,8	90	**1AY2.1**	100 unit(s)	413,00
1,2	25	**1AY3.1**	100 unit(s)	147,00
1,2	47	**1AY4.1**	100 unit(s)	206,00
1,2	50	**1AY5.1**	100 unit(s)	227,00
0,45	25	**1AXE.1**	100 unit(s)	93,40
0,45	47	**1AXH.1**	100 unit(s)	125,00
0,45	50	**1AXK.1**	100 unit(s)	134,00
0,45	90	**1AXL.1**	25 unit(s)	137,00
0,65	25	**1AXN.1**	100 unit(s)	93,40
0,65	47	**1AXP.1**	100 unit(s)	125,00
0,65	50	**1AXT.1**	100 unit(s)	134,00
0,65	90	**1AXX.1**	25 unit(s)	137,00

Membrane filters

A 121 °C

Membrane filters cellulose nitrate mixed ester

Sartorius. Material: CME, hydrophilic. Autoclavable: Yes.

Composed of cellulose nitrate and a small content of cellulose acetate. For filtration of aqueous solutions or gases.

- Membrane thickness: 130 µm
- Colour: white
- Temperaturestable up to 130 °C

Application examples:
Analytical sample preparation, clear filtration, particulate analysis.

Danger H228

0.22 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,22	25	**1AY8.1**	100 unit(s)	88,90

0.22 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,22	47	**1AY9.1**	100 unit(s)	158,00

0.45 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,45	25	**1AYA.1**	100 unit(s)	90,00

0.45 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,45	47	**1AYC.1**	100 unit(s)	106,00

0.45 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,45	50	**1AYE.1**	100 unit(s)	106,00

0.45 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,45	90	**1AYH.1**	100 unit(s)	429,00

0.65 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,65	25	**1AYK.1**	100 unit(s)	117,00

0.65 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,65	47	**1AYL.1**	100 unit(s)	158,00

0.65 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,65	50	**1AYN.1**	100 unit(s)	172,00

0.8 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,8	25	**1AYP.1**	100 unit(s)	117,00

0.8 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,8	47	**1AYT.1**	100 unit(s)	158,00

0.8 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,8	50	**1AYX.1**	100 unit(s)	172,00

0.8 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,8	90	**1AYY.1**	25 unit(s)	175,00

1.2 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	25	**1C00.1**	100 unit(s)	117,00

1.2 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	47	**1C01.1**	100 unit(s)	162,00

1.2 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	50	**1C02.1**	100 unit(s)	170,00

1.2 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	90	**1C03.1**	25 unit(s)	180,00

3 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
3	25	**1C04.1**	100 unit(s)	117,00

3 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
3	47	**1C05.1**	100 unit(s)	162,00

3 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
3	50	**1C06.1**	100 unit(s)	170,00

3 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
3	90	**1C07.1**	25 unit(s)	180,00

5 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5	25	**1C08.1**	100 unit(s)	149,00

5 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5	47	**1C09.1**	100 unit(s)	213,00

5 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5	50	**1C0A.1**	100 unit(s)	220,00

Membrane filters

5 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5	90	**1C0C.1**	25 unit(s)	189,00

8 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
8	25	**1C0E.1**	100 unit(s)	117,00

8 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
8	47	**1C0H.1**	100 unit(s)	167,00

8 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
8	50	**1C0K.1**	100 unit(s)	170,00

A 121 °C

Membrane filters regenerated cellulose

Sartorius. Material: RC, hydrophilic, reinforced with cellulose nonwoven fabric. Autoclavable: Yes.

High resistance to aqueous and organic solvents (pH 3-12), low non-specific adsorption.

- Membrane thickness: 170 µm
- Colour: white
- Temperature stable up to 180 °C

Application examples:
Removal of particulates from solvents, purification and degassing of solutions for HPLC.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,2	25	**1C2K.1**	100 unit(s)	144,00
0,2	47	**1C2L.1**	100 unit(s)	207,00
0,2	50	**1C2N.1**	100 unit(s)	211,00
0,45	25	**1C2P.1**	100 unit(s)	142,00
0,45	47	**1C2T.1**	100 unit(s)	212,00
0,45	50	**1C2X.1**	100 unit(s)	211,00

Glass fibre round filters ROTILABO®

ROTH SELECTION. Material: Borosilicate glass fibres, 100%.

Free from binding agent, with fast flow rates, high load-capacity and exceptional retention. Max. application temperature 500 °C.

Type: CR259
Filtration speed according to Herzberg: 60 s. Surface weight: 52 g/m². Retention range :1.6 µm. Thickness: 0.26 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
CR259	25	**HTK7.1**	100 unit(s)	16,80
CR259	47	**HTK8.1**	100 unit(s)	22,50
CR259	55	**HTK9.1**	100 unit(s)	25,30
CR259	70	**HTL0.1**	100 unit(s)	34,40
CR259	90	**HTL1.1**	100 unit(s)	46,15
CR259	110	**HTL2.1**	100 unit(s)	60,20
CR259	125	**HTL3.1**	100 unit(s)	85,50
CR259	150	**HTL4.1**	100 unit(s)	105,15

Type: CR261
Filtration speed according to Herzberg: 100 s. Surface weight: 52 g/m². Retention range: up to 1.2 µm. Thickness: 0.26 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
CR261	25	**HTN2.1**	100 unit(s)	19,35
CR261	47	**HTN3.1**	100 unit(s)	25,30
CR261	55	**HTN5.1**	100 unit(s)	32,80
CR261	70	**HTN6.1**	100 unit(s)	39,25
CR261	90	**HTN7.1**	100 unit(s)	52,70
CR261	110	**HTN8.1**	100 unit(s)	66,65
CR261	125	**HTN9.1**	100 unit(s)	94,50
CR261	150	**HTP0.1**	100 unit(s)	117,20

Type: CR262
Filtration speed according to Herzberg: 30 s. Surface weight: 120 g/m². Retention range: up to 2.7 µm. Thickness: 0.53 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
CR262	47	**HTP1.1**	50 unit(s)	17,00
CR262	70	**HTP2.1**	50 unit(s)	29,05
CR262	90	**HTP3.1**	50 unit(s)	40,65

Type: CR263
Filtration speed according to Herzberg: 310 s. Surface weight: 75 g/m². Retention range: up to 0.7 µm. Thickness: 0.45 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
CR263	47	**HTP5.1**	100 unit(s)	43,75
CR263	70	**HTP6.1**	100 unit(s)	79,05
CR263	90	**HTP7.1**	50 unit(s)	64,30
CR263	110	**HTP8.1**	50 unit(s)	88,05

Glass/quartz fibre filter papers

Glass fibre round filters

Cytiva. Material: Borosilicate glass fibres, Inorganic binding agent.

- Chemically resistant to the majority of organic and inorganic solvents, aggressive chemicals and highly concentrated bases (not resistant to hydrofluoric acid)
- Constant weight, negligible influence on fluctuations in ambient humidity
- Mechanically stable (limited bending resistance)

Note: Filter units and clamping fixtures must have flexible sealing surfaces.

Type GF 6

Applications: Environmental analysis, biology, physics, drinks industry.

Use: Gas/air monitoring, water and waste water tests, scintillation measurements, dry mass determinations.

- Filtration speed: Low
- Retention rate: 99.97%
- Retention range: < 1 µm
- Surface weight: 80 g/m²
- Thickness: 0.35 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
GF 6	25	**AY36.1**	200 unit(s)	73,55
GF 6	47	**AY39.1**	200 unit(s)	107,45
GF 6	50	**AY40.1**	200 unit(s)	120,80
GF 6	55	**AY41.1**	100 unit(s)	111,30
GF 6	70	**AY42.1**	100 unit(s)	140,45
GF 6	90	**AY43.1**	100 unit(s)	193,50
GF 6	100	**AY44.1**	100 unit(s)	304,25
GF 6	110	**AY45.1**	100 unit(s)	311,75
GF 6	125	**AY46.1**	100 unit(s)	327,90
GF 6	150	**AY47.1**	100 unit(s)	449,35
GF 6	185	**AY48.1**	100 unit(s)	502,05
GF 6	200	**Y716.1**	100 unit(s)	581,60
GF 6	240	**AY49.1**	100 unit(s)	656,85

Type GF 8

Applications: Environmental analysis and industry.

Use: Determination of PCB, DDE, DDT, furans and dioxins in the air, dust calculations and filtration of coarse particles.

- Filtration speed: High
- Retention rate: 99%
- Retention range: 3 µm
- Surface weight: 80 g/m²
- Thickness: 0.35 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
GF 8	90	**AY51.1**	100 unit(s)	192,45

Type GF 92

Applications: Environmental analysis, biology, drinks industry.

Use: Membrane upstream filters, soot extraction from gas analysers.

- Filtration speed: Medium-fast
- Surface weight: 70 g/m²
- Retention range: 2–3 µm
- Thickness: 0.35 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
GF 92	47	**AY55.1**	200 unit(s)	165,55
GF 92	50	**AY56.1**	200 unit(s)	169,85
GF 92	100	**AY57.1**	100 unit(s)	246,20
GF 92	135	**AY58.1**	100 unit(s)	389,15
GF 92	142	**AY59.1**	100 unit(s)	396,70

A 121 °C

Quartz fibre round filters MN QF-10

Macherey-Nagel. Material: Quartz fibres. Autoclavable: Yes.

Made from pure quartz fibres, without binding agent. High chemical resistance to organic and inorganic solvents, acids (except hydrofluoric acid) and alkalis. For filtration of aggressive media in trace analytics, emissions control, airborne dust analytics, etc.
Extremely low metallic trace element content.

- Filtration speed (according to DIN 53137): <5 s
- Surface weight: 85 g/m²
- Retention range: Up to 0.3 µm
- Temperature stable up to 950 °C
- Thickness: 0.46 mm

Ø (mm)	Art. No.	Pack Qty.	€
45	**EN12.1**	100 unit(s)	194,00
47	**EN13.1**	100 unit(s)	194,00
50	**EN14.1**	100 unit(s)	198,00
90	**EN15.1**	100 unit(s)	479,00

Glass/quartz fibre filter papers

Glass fibre round filters

Macherey-Nagel.

For fast filtration with simultaneously high retention. Very good resistance to most organic and inorganic solvents (not resistant to hydrofluoric acid).

- Filtration speed, air: 15 s
- Surface weight: 70 g/m²
- Retention range: ≥0,6 µm
- Thickness: 0.35 mm

Type: MN 85/70
Material: Borosilicate glass fibres Organic binding agent.

Most commonly used glass fibre filter with high mechanical stability for general use. Temperature stable up to 200 °C.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 85/70	25	**EN17.1**	100 unit(s)	13,90
MN 85/70	37	**EN18.1**	100 unit(s)	17,20
MN 85/70	40	**EN19.1**	100 unit(s)	18,50
MN 85/70	45	**EN20.1**	100 unit(s)	18,50
MN 85/70	55	**EN21.1**	100 unit(s)	19,80
MN 85/70	70	**EN22.1**	100 unit(s)	24,50
MN 85/70	90	**EN23.1**	100 unit(s)	31,90
MN 85/70	110	**EN24.1**	100 unit(s)	40,40
MN 85/70	125	**EN25.1**	100 unit(s)	50,20
MN 85/70	150	**EN26.1**	100 unit(s)	66,20
MN 85/70	185	**EN27.1**	100 unit(s)	92,30
MN 85/70	200	**EN28.1**	100 unit(s)	139,00
MN 85/70	240	**EN29.1**	100 unit(s)	139,00
MN 85/70	270	**EN30.1**	100 unit(s)	163,00
MN 85/70	320	**EN31.1**	100 unit(s)	222,00

MN 85/70 BF
Material: Borosilicate glass fibres Free from binding agent.

Use, for example, as an upstream filter in the membrane filtration of particle-laden media. Temperature stable up to 500 °C.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 85/70 BF	25	**HK45.1**	100 unit(s)	23,90
MN 85/70 BF	37	**HK46.1**	100 unit(s)	30,30
MN 85/70 BF	45	**HK47.1**	100 unit(s)	32,50
MN 85/70 BF	55	**HK48.1**	100 unit(s)	35,50
MN 85/70 BF	70	**HK49.1**	100 unit(s)	43,50
MN 85/70 BF	90	**HK50.1**	100 unit(s)	57,90
MN 85/70 BF	110	**HK51.1**	100 unit(s)	73,00
MN 85/70 BF	125	**HK52.1**	100 unit(s)	91,40
MN 85/70 BF	150	**HK53.1**	100 unit(s)	124,00
MN 85/70 BF	185	**HK54.1**	100 unit(s)	175,00
MN 85/70 BF	240	**HK55.1**	100 unit(s)	247,00
MN 85/70 BF	270	**HK56.1**	100 unit(s)	297,00

Round filters ROTILABO®

ROTH SELECTION.

Filter paper for **qualitative analysis**. Made of 100% cellulose.
Ash content: 0.06%.

Type 111A
Very fast filtration speed. Filtration time according to DIN 53137: 10 s.

Surface weight: 80 g/m². Retention range: 12–15 µm.
Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
111A	25	12–15	**XP31.1**	100 unit(s)	7,65
111A	47	12–15	**XP32.1**	100 unit(s)	7,65
111A	55	12–15	**AP58.1**	100 unit(s)	7,80
111A	70	12–15	**AP59.1**	100 unit(s)	8,50
111A	90	12–15	**AP60.1**	100 unit(s)	11,00
111A	110	12–15	**AP61.1**	100 unit(s)	11,50
111A	125	12–15	**AP62.1**	100 unit(s)	14,60
111A	150	12–15	**AP63.1**	100 unit(s)	17,80
111A	185	12–15	**AP64.1**	100 unit(s)	21,70
111A	240	12–15	**AP65.1**	100 unit(s)	34,25

Type 112A
Fast filtration speed. Filtration time according to DIN 53137: 20 s.

Surface weight: 80 g/m². Retention range: 8–12 µm.
Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
112A	47	8–12	**XP34.1**	100 unit(s)	7,65
112A	55	8–12	**AP66.1**	100 unit(s)	7,80
112A	70	8–12	**AP67.1**	100 unit(s)	8,50
112A	90	8–12	**AP68.1**	100 unit(s)	11,00
112A	110	8–12	**AP69.1**	100 unit(s)	11,50
112A	125	8–12	**AP70.1**	100 unit(s)	14,60
112A	150	8–12	**AP71.1**	100 unit(s)	17,90
112A	185	8–12	**AP72.1**	100 unit(s)	21,55
112A	240	8–12	**AP73.1**	100 unit(s)	34,15

Type 113A
Medium filtration speed. Filtration time according to DIN 53137: 50 s.

Surface weight 87 g/m². Retention range: 5–8 µm. Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
113A	47	5–8	**XP36.1**	100 unit(s)	7,65
113A	55	5–8	**AP74.1**	100 unit(s)	7,80
113A	70	5–8	**AP75.1**	100 unit(s)	8,50
113A	90	5–8	**AP76.1**	100 unit(s)	10,95
113A	110	5–8	**AP77.1**	100 unit(s)	11,50
113A	125	5–8	**AP78.1**	100 unit(s)	14,60
113A	150	5–8	**AP79.1**	100 unit(s)	17,80
113A	185	5–8	**AP80.1**	100 unit(s)	21,70
113A	240	5–8	**AP81.1**	100 unit(s)	34,15

Filter papers for qualitative analysis

Type 114A
Low filtration speed. Filtration time according to DIN 53137: 100 s.
Surface weight: 80 g/m². Retention range: 3–5 µm. Thickness: 0.15 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
114A	47	3–5	**XP38.1**	100 unit(s)	7,65
114A	55	3–5	**AP82.1**	100 unit(s)	6,85
114A	70	3–5	**AP83.1**	100 unit(s)	7,50
114A	90	3–5	**AP84.1**	100 unit(s)	9,15
114A	110	3–5	**AP85.1**	100 unit(s)	10,20
114A	125	3–5	**AP86.1**	100 unit(s)	10,65
114A	150	3–5	**AP87.1**	100 unit(s)	14,90
114A	185	3–5	**AP88.1**	100 unit(s)	17,95
114A	240	3–5	**AP89.1**	100 unit(s)	28,50

Type 115A
Very low filtration speed. Filtration time according to DIN 53137: 180 s.
Surface weight 80 g/m². Retention range: 2–3 µm. Thickness: 0.14 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
115A	47	2–3	**XP40.1**	100 unit(s)	6,45
115A	55	2–3	**AP90.1**	100 unit(s)	6,85
115A	70	2–3	**AP91.1**	100 unit(s)	7,50
115A	90	2–3	**AP92.1**	100 unit(s)	9,05
115A	110	2–3	**AP93.1**	100 unit(s)	10,05
115A	125	2–3	**AP94.1**	100 unit(s)	12,60
115A	150	2–3	**AP95.1**	100 unit(s)	15,45
115A	185	2–3	**AP96.1**	100 unit(s)	18,05
115A	240	2–3	**AP97.1**	100 unit(s)	28,50

Type 601A
Low filtration speed. Filtration time according to DIN 53137: 88 s.
Surface weight: 73 g/m². Retention range: 5–13 µm.
Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
601A	55	5–13	**AP98.1**	100 unit(s)	7,85
601A	70	5–13	**CA04.1**	100 unit(s)	7,75
601A	90	5–13	**AT00.1**	100 unit(s)	7,80
601A	100	5–13	**AT01.1**	100 unit(s)	8,25
601A	110	5–13	**AT02.1**	100 unit(s)	8,25
601A	125	5–13	**AT03.1**	100 unit(s)	8,75
601A	150	5–13	**AT05.1**	100 unit(s)	10,60
601A	185	5–13	**AT06.1**	100 unit(s)	13,20
601A	210	5–13	**AT08.1**	100 unit(s)	15,25
601A	240	5–13	**AT09.1**	100 unit(s)	17,60
601A	250	5–13	**AT10.1**	100 unit(s)	17,60
601A	320	5–13	**AT11.1**	100 unit(s)	25,60
601A	330	5–13	**AT12.1**	100 unit(s)	25,60
601A	400	5–13	**AT13.1**	100 unit(s)	36,95

Round filters

Macherey-Nagel.
For **qualitative analysis**. Not chemically treated.
Ash content: 0.1 to 0.2%.

Type: MN 615
Medium filtration speed. Thin filter paper for general applications. Especially suited to filtration of water and saline solutions. Surface weight: 70 g/m². Thickness: 0.16 mm. Filtration time according to DIN 53137: 22 s. Retention range 4–12 µm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 615	55	4–12	**L870.1**	100 unit(s)	5,80
MN 615	70	4–12	**L871.1**	100 unit(s)	5,80
MN 615	90	4–12	**L872.1**	100 unit(s)	6,60
MN 615	110	4–12	**L873.1**	100 unit(s)	8,80
MN 615	125	4–12	**L874.1**	100 unit(s)	9,60
MN 615	150	4–12	**L875.1**	100 unit(s)	12,70
MN 615	185	4–12	**L876.1**	100 unit(s)	17,50
MN 615	240	4–12	**L877.1**	100 unit(s)	27,80

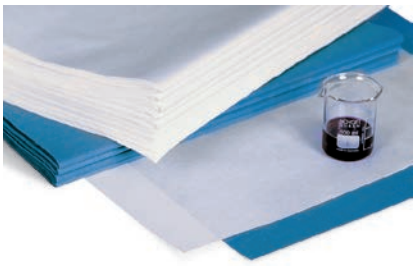
Type: MN 616
Medium filtration speed. For deposits such as sulphide, lead chromate, calcium oxalate. Surface weight: 85 g/m². Thickness: 0.20 mm. Filtration time according to DIN 53137: 27 s. Retention range 4–12 µm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 616	55	4–12	**L878.1**	100 unit(s)	6,60
MN 616	70	4–12	**L879.1**	100 unit(s)	6,60
MN 616	90	4–12	**L880.1**	100 unit(s)	9,10
MN 616	110	4–12	**L881.1**	100 unit(s)	11,70
MN 616	125	4–12	**L882.1**	100 unit(s)	13,90
MN 616	150	4–12	**L883.1**	100 unit(s)	17,70
MN 616	185	4–12	**L884.1**	100 unit(s)	24,90
MN 616	240	4–12	**L885.1**	100 unit(s)	40,60

Type: MN 619 eh
Low filtration speed. Density filter for fine deposits. Surface weight: 85 g/m². Thickness: 0.17 mm. Filtration time according to DIN 53137: 140 s. Retention range 2-4 µm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 619 eh	55	2–4	**L886.1**	100 unit(s)	6,60
MN 619 eh	70	2–4	**L887.1**	100 unit(s)	6,60
MN 619 eh	90	2–4	**L888.1**	100 unit(s)	9,10
MN 619 eh	110	2–4	**L889.1**	100 unit(s)	11,70
MN 619 eh	125	2–4	**L890.1**	100 unit(s)	13,90
MN 619 eh	150	2–4	**L891.1**	100 unit(s)	17,70
MN 619 eh	185	2–4	**L892.1**	100 unit(s)	24,90
MN 619 eh	240	2–4	**L893.1**	100 unit(s)	40,60

Filter papers for qualitative analysis



Filter papers ROTILABO®

ROTH SELECTION.

Qualitative filter papers made from 100% cellulose. High absorbency. Standard filter paper with a smooth surface for analysis. Larger sizes are ideal as surface protection paper or working surface. Colour: White.

Type 600
Weight: 64 g/m². Thickness: 0.15 mm. Retention range: 10–20 µm.

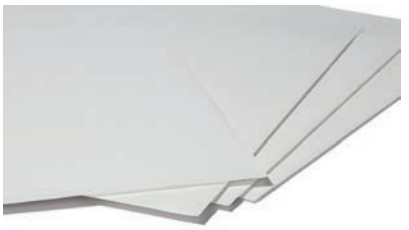
Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
600	420	520	10–20	**XP43.1**	500 unit(s)	87,35
600	500	500	10–20	**XP44.1**	500 unit(s)	104,05
600	600	600	10–20	**XP45.1**	500 unit(s)	143,60

Type 601
Weight: 73 g/m². Thickness: 0.16 mm. Retention range: 5–13 µm.

Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
601	450	450	5–13	**XP46.1**	500 unit(s)	242,95
601	460	570	5–13	**XP47.1**	100 unit(s)	55,80

Type 122
Weight: 73 g/m². Thickness: 0.17 mm. Retention range: 17–30 µm.

Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
122	520	520	17–30	**XP48.1**	500 unit(s)	229,00
122	600	600	17–30	**XP49.1**	500 unit(s)	267,70



Filter papers

Macherey-Nagel.

Alpha cellulose content approx. 95%. Format 58 x 58 cm.

Type: MN 713 medium filtration speed
Technical filter paper for general laboratory work.

Weight: 70 g/m². Filtration time: 20 s. Thickness: 0.15 mm.

Type	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
MN 713	58	58	**HPL1.1**	100 unit(s)	84,00

Type: MN 615 medium filtration speed
Qualitative standard paper for various applications. Weight: 70 g/m². Filtration time: 22 s. Ash content: 0.1%. Retention range: 4–12 µm. Thickness: 0.16 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 615	58	58	4-12	**HPL2.1**	100 unit(s)	140,00

Type: MN 617 fast filtration speed
Qualitative filter paper for quick filtering of coarse deposits. Weight: 85 g/m². Filtration time: 9 s. Ash content: 0.1%. Retention range: 7–12 µm. Thickness 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 617	58	58	7-12	**HPL3.1**	100 unit(s)	206,00

Type: MN 640 w fast filtration speed, ash-less
Quantitative filter paper for quick filtering of coarse deposits. Weight: 85 g/m². Filtration time: 9 s. Ash content: < 0.01%. Retention range: 7–12 µm. Thickness: 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
640 w	58	58	7-12 µm	**HPL4.1**	100 unit(s)	520,00

Type: MN 640 m medium filtration speed, ash-less
Quantitative standard paper for various applications. Weight: 85 g/m². Filtration time: 27 s. Ash content: < 0.01%. Retention range: 4–12 µm. Thickness: 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
Type: MN 640 m	58	58	4-12	**HPL5.1**	100 unit(s)	520,00

Type: MN 640 d low filtration speed, ash-less
Quantitative filter paper for fine and very fine deposits. Weight: 85 g/m². Filtration time: 140 s. Ash content: < 0.01%. Retention range: 2–4 µm. Thickness: 0.17 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 640 d	58	58	2-4	**HPL6.1**	100 unit(s)	520,00

Filter papers for qualitative analysis

Folded filters ROTILABO®

ROTH SELECTION.

Filter paper for **qualitative analysis**. Made of 100% cellulose. Ash content: 0.06%.

Type: 113P
Medium filtration speed. Filtration time according to DIN 53137: 50 s

Surface weight 87 g/m². Retention range: 5–8 µm. Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
113P	110	5–8	**CA07.1**	100 unit(s)	39,90
113P	125	5–8	**CA08.1**	100 unit(s)	43,55
113P	150	5–8	**CA09.1**	100 unit(s)	44,90
113P	185	5–8	**CA10.1**	100 unit(s)	49,80
113P	210	5–8	**CA11.1**	100 unit(s)	60,75
113P	240	5–8	**CA12.1**	100 unit(s)	68,35
113P	270	5–8	**CA13.1**	100 unit(s)	80,20
113P	320	5–8	**CA14.1**	100 unit(s)	107,30

Type: 600P
Fast filtration speed. Filtration time according to DIN 53137: 30 s

Surface weight: 64 g/m². Retention range: 13 µm. Thickness: 0.15 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
600P	100	13	**CA16.1**	100 unit(s)	24,60
600P	110	13	**CA17.1**	100 unit(s)	24,05
600P	125	13	**CA18.1**	100 unit(s)	24,80
600P	150	13	**CA20.1**	100 unit(s)	25,55
600P	185	13	**CA21.1**	100 unit(s)	27,80
600P	240	13	**CA23.1**	100 unit(s)	32,65
600P	320	13	**CA25.1**	100 unit(s)	42,60
600P	400	13	**CA27.1**	100 unit(s)	59,90
600P	450	13	**CA28.1**	100 unit(s)	85,60
600P	500	13	**CA29.1**	100 unit(s)	93,10

Type: 601P
Low filtration speed. Filtration time according to DIN 53137: 130 s

Surface weight: 73 g/m². Retention range: 5–13 µm.
Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
601P	100	5–13	**AY74.1**	100 unit(s)	26,40
601P	110	5–13	**AY75.1**	100 unit(s)	27,35
601P	125	5–13	**AY76.1**	100 unit(s)	27,70
601P	150	5–13	**AY78.1**	100 unit(s)	29,95
601P	185	5–13	**AY79.1**	100 unit(s)	32,40
601P	240	5–13	**AY81.1**	100 unit(s)	38,35
601P	320	5–13	**AY83.1**	100 unit(s)	56,40
601P	500	5–13	**AY87.1**	100 unit(s)	137,00

Folded filters

Macherey-Nagel.

For **qualitative analysis**. Ash content approx. 0.1%. Alpha cellulose content approx. 95%.

Type: MN 615 ¼
Medium filtration speed. Thin filter paper for general application, mainly for filtering water and saline solutions. Surface weight: 70 g/m². Filtration time according to DIN 53137: 22 s. Retention range: > 4 µm. Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 615 ¼	70	> 4	**A795.1**	100 unit(s)	26,95
MN 615 ¼	90	> 4	**A796.1**	100 unit(s)	26,95
MN 615 ¼	110	> 4	**A797.1**	100 unit(s)	26,95
MN 615 ¼	125	> 4	**A798.1**	100 unit(s)	26,95
MN 615 ¼	150	> 4	**A799.1**	100 unit(s)	26,95
MN 615 ¼	185	> 4	**A800.1**	100 unit(s)	29,30
MN 615 ¼	210	> 4	**A801.1**	100 unit(s)	42,50
MN 615 ¼	240	> 4	**Y856.1**	100 unit(s)	42,50
MN 615 ¼	270	> 4	**Y857.1**	100 unit(s)	49,20
MN 615 ¼	320	> 4	**Y858.1**	100 unit(s)	60,50
MN 615 ¼	380	> 4	**Y859.1**	100 unit(s)	88,20

Type: MN 617 ¼
Fast filtration speed. For filtering coarse deposits.
Surface weight: 85 g/m². Filtration time according to DIN 53137: 92 s.
Retention range: 7–12 µm. Thickness: 0.2 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 617 ¼	70	7–12	**EEY9.1**	100 unit(s)	29,90
MN 617 ¼	90	7–12	**EHA0.1**	100 unit(s)	29,90
MN 617 ¼	110	7–12	**EHA1.1**	100 unit(s)	29,90
MN 617 ¼	125	7–12	**EHA2.1**	100 unit(s)	29,90
MN 617 ¼	150	7–12	**EHA3.1**	100 unit(s)	29,90
MN 617 ¼	185	7–12	**EHA4.1**	100 unit(s)	36,10
MN 617 ¼	240	7–12	**EHA5.1**	100 unit(s)	54,40
MN 617 ¼	270	7–12	**EHA6.1**	100 unit(s)	64,20
MN 617 ¼	320	7–12	**EHA7.1**	100 unit(s)	83,40
MN 617 ¼	385	7–12	**EHA8.1**	100 unit(s)	122,00

Type: MN 619 eh¼
Low filtration speed. For fine and very fine deposits.
Surface weight: 85 g/m². Filtration time according to DIN 53137: 140 s.
Retention range: 2–4 µm. Thickness: 0.17 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 619 eh ¼	70	2–4	**EHA9.1**	100 unit(s)	29,30
MN 619 eh ¼	90	2–4	**EHC0.1**	100 unit(s)	29,30
MN 619 eh ¼	110	2–4	**EHC1.1**	100 unit(s)	29,30
MN 619 eh ¼	125	2–4	**EHC2.1**	100 unit(s)	29,30
MN 619 eh ¼	150	2–4	**EHC3.1**	100 unit(s)	29,30
MN 619 eh ¼	185	2–4	**EHC4.1**	100 unit(s)	36,10
MN 619 eh ¼	240	2–4	**EHC5.1**	100 unit(s)	54,40
MN 619 eh ¼	270	2–4	**EHC6.1**	100 unit(s)	64,20
MN 619 eh ¼	320	2–4	**EHC7.1**	100 unit(s)	83,40
MN 619 eh ¼	385	2–4	**EHC8.1**	100 unit(s)	122,00

Filter papers for quantitative analysis

Round filters ROTILABO®

ROTH SELECTION.

Filter paper for **qualitative analysis**. Made of 100% cellulose. Ash content: 0.007%.

Type 11A

Equivalent black strip, very fast filtration speed. Filtrations speed according to DIN 53137: 10 s. Surface weight: 84 g/m². Retention range 12–15 µm. Thickness: 0.18 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
11A	15	12–15	**XP13.1**	100 unit(s)	8,30
11A	42.5	12–15	**XP15.1**	100 unit(s)	8,30
11A	47	12–15	**XP16.1**	100 unit(s)	8,30
11A	55	12–15	**AP18.1**	100 unit(s)	9,30
11A	70	12–15	**AP19.1**	100 unit(s)	10,65
11A	90	12–15	**AP20.1**	100 unit(s)	14,95
11A	110	12–15	**AP21.1**	100 unit(s)	19,75
11A	125	12–15	**AP22.1**	100 unit(s)	24,90
11A	150	12–15	**AP23.1**	100 unit(s)	32,65
11A	185	12–15	**AP24.1**	100 unit(s)	46,35
11A	240	12–15	**AP25.1**	100 unit(s)	92,80

Type 12A

Fast filtration speed. Filtrations speed according to DIN 53137: 20 s. Surface weight: 84 g/m². Retention range 8–12 µm. Thickness: 0.18 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
12A	55	8–12	**AP26.1**	100 unit(s)	9,05
12A	70	8–12	**AP27.1**	100 unit(s)	10,65
12A	90	8–12	**AP28.1**	100 unit(s)	15,00
12A	110	8–12	**AP29.1**	100 unit(s)	19,70
12A	125	8–12	**AP30.1**	100 unit(s)	24,80
12A	150	8–12	**AP31.1**	100 unit(s)	32,65
12A	185	8–12	**AP32.1**	100 unit(s)	46,30
12A	240	8–12	**AP33.1**	100 unit(s)	92,90

Type 13A

Equivalent white strip, medium filtration speed. Filtrations speed according to DIN 53137: 50 s. Surface weight: 84 g/m². Retention range 5-8 µm. Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
13A	15	5–8	**XP20.1**	100 unit(s)	8,30
13A	42.5	5–8	**XP22.1**	100 unit(s)	8,30
13A	47	5–8	**XP23.1**	100 unit(s)	8,30
13A	55	5–8	**AP34.1**	100 unit(s)	9,10
13A	70	5–8	**AP35.1**	100 unit(s)	11,00
13A	90	5–8	**AP36.1**	100 unit(s)	15,00
13A	110	5–8	**AP37.1**	100 unit(s)	19,75
13A	125	5–8	**AP38.1**	100 unit(s)	24,75
13A	150	5–8	**AP39.1**	100 unit(s)	32,65
13A	185	5–8	**AP40.1**	100 unit(s)	46,30
13A	240	5–8	**AP41.1**	100 unit(s)	92,85

Type 14A

Low filtration speed. Filtrations speed according to DIN 53137: 100 s. Surface weight: 84 g/m². Retention range 3-5 µm. Thickness: 0.15 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
14A	55	3–5	**AP42.1**	100 unit(s)	9,05
14A	70	3–5	**AP43.1**	100 unit(s)	11,00
14A	90	3–5	**AP44.1**	100 unit(s)	14,05
14A	110	3–5	**AP45.1**	100 unit(s)	19,80
14A	125	3–5	**AP46.1**	100 unit(s)	24,85
14A	150	3–5	**AP47.1**	100 unit(s)	32,65
14A	185	3–5	**AP48.1**	100 unit(s)	46,30

Type 15A

Equivalent blue strip, very low filtration speed. Filtrations speed according to DIN 53137: 180 s. Surface weight: 84 g/m². Retention range 2-3 µm. Thickness: 0.14 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
15A	15	2–3	**XP27.1**	100 unit(s)	8,30
15A	47	2–3	**XP30.1**	100 unit(s)	8,30
15A	55	2–3	**AP50.1**	100 unit(s)	9,05
15A	70	2–3	**AP51.1**	100 unit(s)	11,00
15A	90	2–3	**AP52.1**	100 unit(s)	14,05
15A	110	2–3	**AP53.1**	100 unit(s)	19,70
15A	125	2–3	**AP54.1**	100 unit(s)	24,80
15A	150	2–3	**AP55.1**	100 unit(s)	32,65
15A	185	2–3	**AP56.1**	100 unit(s)	46,30
15A	240	2–3	**AP57.1**	100 unit(s)	92,85

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Filter papers for quantitative analysis

Round filters

Macherey-Nagel.

For **qualitative analysis**. Made from refined pulp washed in acid and linters with a α cellulose content of over 95%. Ash content < 0.01%. Temperature stable up to approx. +130 °C. Surface weight: 85 g/m².

Type: MN 640 w
Fast filtration speed. Filtration time according to DIN 53137: 9 s. Equivalent black strip. Soft filter with a loose structure for coarse deposits like iron and aluminium hydroxide, bismuth, copper, iron sulphide, nickel-dimethylglyoxime, etc. Standard filter for determining Si. Retention range: > 8 µm

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 640 w	55	> 8	**EEX7.1**	100 unit(s)	10,80
MN 640 w	70	> 8	**A780.1**	100 unit(s)	14,00
MN 640 w	90	> 8	**A781.1**	100 unit(s)	20,50
MN 640 w	110	> 8	**A782.1**	100 unit(s)	29,50
MN 640 w	125	> 8	**A783.1**	100 unit(s)	33,90
MN 640 w	150	> 8	**A784.1**	100 unit(s)	46,10
MN 640 w	185	> 8	**EEX8.1**	100 unit(s)	69,50
MN 640 w	240	> 8	**EEX9.1**	100 unit(s)	115,00
MN 640 w	320	> 8	**EEY0.1**	100 unit(s)	196,00

Type: MN 640 m
Medium filtration speed. Filtration time according to DIN 53137: 27 s. Equivalent white strip. For deposits such as sulphide, lead chromate, calcium oxalate. Typical uses: Gravimetrical analyses, quantitative determination of retention and purification processes. Retention range: > 4 µm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 640 m	55	> 4	**EEY1.1**	100 unit(s)	10,80
MN 640 m	70	> 4	**A785.1**	100 unit(s)	14,30
MN 640 m	90	> 4	**A786.1**	100 unit(s)	20,50
MN 640 m	110	> 4	**A787.1**	100 unit(s)	29,50
MN 640 m	125	> 4	**A788.1**	100 unit(s)	33,90
MN 640 m	150	> 4	**A789.1**	100 unit(s)	46,10
MN 640 m	185	> 4	**EEY2.1**	100 unit(s)	69,50
MN 640 m	240	> 4	**EEY3.1**	100 unit(s)	115,00
MN 640 m	320	> 4	**EEY4.1**	100 unit(s)	196,00

Type: MN 640 d
Low filtration speed. Filtration time according to DIN 53137: 140 s. Equivalent blue strip. Density filters for all fine and super fine deposits. Retention range: > 2 µm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 640 d	55	> 2	**EEY5.1**	100 unit(s)	10,80
MN 640 d	70	> 2	**A790.1**	100 unit(s)	14,30
MN 640 d	90	> 2	**A791.1**	100 unit(s)	20,50
MN 640 d	110	> 2	**A792.1**	100 unit(s)	29,50
MN 640 d	125	> 2	**A793.1**	100 unit(s)	33,90
MN 640 d	150	> 2	**A794.1**	100 unit(s)	46,10
MN 640 d	185	> 2	**EEY6.1**	100 unit(s)	69,50
MN 640 d	240	> 2	**EEY7.1**	100 unit(s)	115,00
MN 640 d	320	> 2	**EEY8.1**	100 unit(s)	196,00

Round filters hardened

Hahnemühle.

Ash-less for **quantitative analysis**.
α- cellulose content of over 95%, ash content approx. 0.002%.
Made of high-purity acid washed cotton linter pulp and cellulose mixed with a small quantity consolidating resin. Free of minerals and metal ions. High stability and resistance, very high wet strength. Deposits can be removed easily with no fibres.
For analytical applications, routine quantitative and gravimetric methods. Highly recommended for vacuum and pressure filtration, determination of metal ions, and filtration of acidic and alkaline solutions. Resistant to sulphuric and nitric acids (up to 40% at 50 °C) and alkalis (up to 10% at 20 °C).

Type 1505
Fast filtration speed. Herzberg filtration time: 50 s. Surface weight: 88 g/m². Retention range: 12–25 µm. Thickness: 0.17 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
1505	90	12–25	**NL29.1**	100 unit(s)	32,45
1505	110	12–25	**NL30.1**	100 unit(s)	38,30
1505	125	12–25	**NL31.1**	100 unit(s)	42,50
1505	150	12–25	**NL32.1**	100 unit(s)	53,80

Type 1506
Medium filtration speed. Herzberg filtration time: 170 s. Surface weight: 90 g/m². Retention range: 4–12 µm. Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
1506	90	4–12	**NL37.1**	100 unit(s)	32,90
1506	110	4–12	**NL38.1**	100 unit(s)	38,70
1506	125	4–12	**NL39.1**	100 unit(s)	42,50
1506	150	4–12	**NL40.1**	100 unit(s)	54,10

Type 1507
Low filtration speed. Herzberg filtration time: 600 s. Surface weight: 90 g/m². Retention range: ≤ 2 µm. Thickness: 0.14 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
1507	70	≤ 2	**NL44.1**	100 unit(s)	30,05
1507	90	≤ 2	**NL45.1**	100 unit(s)	32,90
1507	110	≤ 2	**NL46.1**	100 unit(s)	38,70
1507	125	≤ 2	**NL47.1**	100 unit(s)	42,50
1507	150	≤ 2	**NL48.1**	100 unit(s)	54,10
1507	185	≤ 2	**NL49.1**	100 unit(s)	92,65
1507	240	≤ 2	**NL50.1**	100 unit(s)	149,00

Special filter papers

Round filters phosphate-free

Macherey-Nagel. Material: Paper, phosphate-free.

For soil analyses and for P-analysis in smelting and steel works.

Type: MN 617 G
Fast filtration speed.

Surface weight: 85 g/m². Filtration time according to DIN 53137: 9 s.
Thickness: 0.2 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 617 G	55	**HK24.1**	100 unit(s)	6,90
MN 617 G	70	**HK25.1**	100 unit(s)	6,90
MN 617 G	90	**HK26.1**	100 unit(s)	9,10
MN 617 G	110	**HK27.1**	100 unit(s)	11,70
MN 617 G	125	**HK28.1**	100 unit(s)	13,90
MN 617 G	150	**HK29.1**	100 unit(s)	17,70
MN 617 G	185	**HK30.1**	100 unit(s)	24,90
MN 617 G	240	**HK31.1**	100 unit(s)	40,60
MN 617 G	320	**HK32.1**	100 unit(s)	70,40
MN 617 G	400	**HK33.1**	100 unit(s)	121,00

Type: MN 616 G
Medium filtration speed.

Surface weight: 85 g/m². Filtration time according to DIN 53137: 22 s.
Thickness: 0.2 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 616 G	55	**HK14.1**	100 unit(s)	6,90
MN 616 G	70	**HK15.1**	100 unit(s)	6,90
MN 616 G	90	**HK16.1**	100 unit(s)	9,50
MN 616 G	110	**HK17.1**	100 unit(s)	11,90
MN 616 G	125	**HK18.1**	100 unit(s)	14,20
MN 616 G	150	**HK19.1**	100 unit(s)	18,10
MN 616 G	185	**HK20.1**	100 unit(s)	24,90
MN 616 G	240	**HK21.1**	100 unit(s)	40,60
MN 616 G	320	**HK22.1**	100 unit(s)	70,40
MN 616 G	400	**HK23.1**	100 unit(s)	121,00

Type: MN 619 G
Low filtration speed.

Surface weight: 75 g/m². Filtration time according to DIN 53137: 100 s.
Thickness: 0.17 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 619 G	55	**HK04.1**	100 unit(s)	5,50
MN 619 G	70	**HK05.1**	100 unit(s)	5,50
MN 619 G	90	**HK06.1**	100 unit(s)	6,90
MN 619 G	110	**HK07.1**	100 unit(s)	9,50
MN 619 G	125	**HK08.1**	100 unit(s)	10,50
MN 619 G	150	**HK09.1**	100 unit(s)	14,30
MN 619 G	185	**HK10.1**	100 unit(s)	18,95
MN 619 G	240	**HK11.1**	100 unit(s)	30,30
MN 619 G	320	**HK12.1**	100 unit(s)	48,40
MN 619 G	400	**HK13.1**	100 unit(s)	83,40

Folded filters MN 280 ¼ phosphate-free

Macherey-Nagel. Material: Paper, acid washed and phosphate-free.

Low filtration speed. With optimum purification and a flat surface. For determination of the micronutrients available to plants (Mg, Mn, Cu, Zn, Co, B, Mo) as well as for soil analyses.
Surface weight: 75 g/m². Filtration time according to DIN 53137: 100 s.
Thickness: 0.18 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 280 ¼	110	**HK34.1**	100 unit(s)	56,70
MN 280 ¼	125	**HK35.1**	100 unit(s)	56,70
MN 280 ¼	150	**HK36.1**	100 unit(s)	56,70
MN 280 ¼	185	**HK37.1**	100 unit(s)	74,70
MN 280 ¼	240	**HK38.1**	100 unit(s)	96,50

Folded filters MN 615 ff ¼ for oil testing

Macherey-Nagel.

Medium filtration speed. For oil testing, free from oils and resins.
Thickness: 0.16 mm. Surface weight 70 g/m². Ether-soluble residue <0.1 mg on filters with Ø 270 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 615 ff ¼	110	**HK80.1**	100 unit(s)	62,20
MN 615 ff ¼	125	**HK81.1**	100 unit(s)	62,20
MN 615 ff ¼	150	**HK82.1**	100 unit(s)	62,20
MN 615 ff ¼	185	**HK83.1**	100 unit(s)	70,30
MN 615 ff ¼	240	**HK84.1**	100 unit(s)	111,00
MN 615 ff ¼	270	**HK85.1**	100 unit(s)	128,00

Special filter papers

Folded filters grained

Macherey-Nagel.

Surface weight: 75 g/m². Filtration time according to DIN 53137: 25 s. Grained surface. E.g. for analyses in breweries.

Type: MN 614 ¼
Medium filtration speed, bleached, low in nitrogen. Suitable for malt analysis as well as for filtration of essential oils, emulsions, essences, etc. Thickness 0.25 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 614 ¼	55	**HK57.1**	100 unit(s)	26,60
MN 614 ¼	70	**HK58.1**	100 unit(s)	26,60
MN 614 ¼	90	**HK59.1**	100 unit(s)	26,60
MN 614 ¼	110	**HK60.1**	100 unit(s)	26,60
MN 614 ¼	125	**HK61.1**	100 unit(s)	26,60
MN 614 ¼	150	**HK62.1**	100 unit(s)	26,60
MN 614 ¼	185	**HK63.1**	100 unit(s)	31,00
MN 614 ¼	240	**HK64.1**	100 unit(s)	46,30
MN 614 ¼	320	**HK65.1**	100 unit(s)	65,10
MN 614 ¼	400	**HK66.1**	100 unit(s)	106,00

Type: MN 620 ¼
Unbleached. Suitable for removing carbonic acids before the analysis, for example. Thickness: 0.26 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 620 ¼	70	**HK67.1**	100 unit(s)	21,80
MN 620 ¼	90	**HK68.1**	100 unit(s)	21,80
MN 620 ¼	110	**HK69.1**	100 unit(s)	21,80
MN 620 ¼	125	**HK70.1**	100 unit(s)	21,80
MN 620 ¼	150	**HK71.1**	100 unit(s)	21,80
MN 620 ¼	185	**HK72.1**	100 unit(s)	26,60
MN 620 ¼	240	**HK73.1**	100 unit(s)	36,00
MN 620 ¼	320	**HK74.1**	100 unit(s)	53,30
MN 620 ¼	385	**HK75.1**	100 unit(s)	74,10
MN 620 ¼	400	**HK76.1**	100 unit(s)	82,90

Germ testing paper ROTILABO®

ROTH SELECTION.

Folded, waterproof, germ testing paper. For carrying out germ resistance tests, e.g. for root vegetable seeds. Surface weight: 160 g/m². Shape: Width 110 mm, fold depth 20 mm, double folds (50 units), length 2 m.

Length (m)	Width (mm)	Art. No.	Pack Qty.	€
2	110	**AT14.1**	1 unit(s)	5,25

Phase separating paper MN 616 WA

Macherey-Nagel. Material: Paper, Impregnated with silicone.

Circular filters for **qualitative analysis**. The hydrophobic surface separates water from non water-miscible liquids. Enables partial quantities to be filtered out. Surface weight: 85 g/m². Temperature stable up to +120 °C. Largely solvent resistant.

Ø (mm)	Art. No.	Pack Qty.	€
125	**1284.1**	100 unit(s)	25,20

Single-use sieve

Material: Cardboard, water-resistant, nylon sieve cloth.

Suitable for liquids of various consistencies, for example varnishes and paints. Height: 12 cm, upper Ø approx. 16 cm.

Type	Retention range (µm)	Colour coding	Art. No.	Pack Qty.	€
superfine	125	blue	**TA93.1**	125 unit(s)	35,35
extra fine	150	turquoise	**AXL8.1**	125 unit(s)	35,25
fine	190	yellow	**TA92.1**	125 unit(s)	31,80
medium	260	orange	**TA91.1**	125 unit(s)	32,70
coarse	1000	white	**AXL9.1**	125 unit(s)	47,50

Test papers ROTILABO®

ROTH SELECTION.

Untreated cellulose sheets made from 100% cotton linters. Good absorbency, surface weight of 290 g/m², thickness 0.75 mm. For impregnating with agent solution.
Suitable for determining the resistance to antibiotics or chemotherapeutic substances in bacteria cultures and pathogenic organisms.

Ø (mm)	Art. No.	Pack Qty.	€
6	**KA07.1**	1,000 unit(s)	22,85
9	**KA08.1**	1,000 unit(s)	29,20
12	**KA09.1**	1,000 unit(s)	38,25
12.7	**KA10.1**	1,000 unit(s)	38,25
25	**KA11.1**	1,000 unit(s)	98,00

Special filter papers

Blotting paper blocks ROTILABO®

ROTH SELECTION.

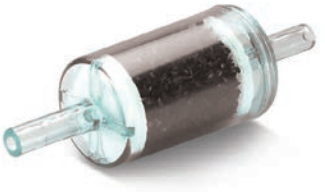
Highly absorbent paper for removing surplus liquid from small samples or microscope slides.
Surface weight: 73 g/m². Dimensions: L 100 x W 37 mm.

Length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
100	37	1 x 50 sheets	**XP50.1**	1 unit(s)	10,35

Activated carbon filter ROTILABO®

ROTH SELECTION.

For filtration of liquids or gases. Filter material: Activated carbon granules, **PC** casing. Temperature stable up to max. 70 °C, pressure stable up to max. 2 bar. For hose connections with inside Ø 6.3 mm. Dimensions: Ø 26 x L 82 mm.



Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
26	82	**HC24.1**	10 unit(s)	126,25

Extraction sleeves ROTILABO®

ROTH SELECTION. Material: Cellulose, 100%.

Grease-free, high mechanical strength and high retention capacity. Ideal for many extraction systems.

Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
19	90	**HTH3.1**	25 unit(s)	57,55
20	80	**HTH4.1**	25 unit(s)	64,40
22	80	**HTH5.1**	25 unit(s)	64,40
26	60	**HTH6.1**	25 unit(s)	64,40
28	80	**HTH7.1**	25 unit(s)	64,40
30	80	**HTH8.1**	25 unit(s)	64,40
30	100	**HTH9.1**	25 unit(s)	66,15
33	80	**HTK0.1**	25 unit(s)	61,85
33	94	**HTK1.1**	25 unit(s)	80,55
33	100	**HTK2.1**	25 unit(s)	67,20
33	118	**HTK3.1**	25 unit(s)	70,95
34	130	**HTK4.1**	25 unit(s)	96,65
41	123	**HTK5.1**	25 unit(s)	93,55
43	123	**HTK6.1**	25 unit(s)	112,90

Extraction sleeves

Extraction sleeves MN 645

Macherey-Nagel. Material: Cellulose.

For holding solids during Soxhlet and other extractions. Also suitable for separating solid or liquid particles from air and gases.
Extraction sleeves according to DIN 12449 are suitable for extractors according to DIN 12602 and 12604.

Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
23	20	80	not in acc. with DIN	**H202.1**	25 unit(s)	80,20
25	22	80	DIN 12449	**H203.1**	25 unit(s)	80,20
26	23	100	not in acc. with DIN	**H204.1**	25 unit(s)	80,20
27	24	60	not in acc. with DIN	**H205.1**	25 unit(s)	80,20
31	28	80	not in acc. with DIN	**H206.1**	25 unit(s)	80,20
32	29	100	not in acc. with DIN	**H207.1**	25 unit(s)	93,80
33	30	80	not in acc. with DIN	**H208.1**	25 unit(s)	80,20
33	30	100	not in acc. with DIN	**H210.1**	25 unit(s)	96,20
34	31	118	not in acc. with DIN	**H211.1**	25 unit(s)	118,00
36	33	94	DIN 12449	**H209.1**	25 unit(s)	96,20
36	33	205	DIN 12449	**L867.1**	25 unit(s)	159,00
52	48	230	DIN 12449	**L868.1**	25 unit(s)	213,00
61	57	315	DIN 12449	**L869.1**	25 unit(s)	315,00

Extraction sleeves made of glass fibres MN 649

Macherey-Nagel. Material: Borosilicate glass fibres.

Micro-glass fibres consist of binding-agent-free borosilicate glass, temperature stable for short periods up to 500 °C. The sleeves have a high chemical compatibility, a very high separation capacity and a very high particle retention capacity.
Suitable for emissions measurements at high temperatures, for separating dust particles or aerosols from gases or air flows.
Extraction sleeves according to DIN 12449 are suitable for extractors with defined nominal volumes according to DIN 12602 and 12604.

Ø ext. (mm)	Ø Internal (mm)	Wall thickness (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
17	15	1,0	50	not in acc. with DIN	**CYH8.1**	25 unit(s)	150,00
18	16	1,0	100	not in acc. with DIN	**CYH9.1**	25 unit(s)	150,00
25	22	1,5	80	DIN 12449	**CYK0.1**	25 unit(s)	150,00
26	23	1,5	90	not in acc. with DIN	**CYK1.1**	25 unit(s)	150,00
26	23	1,5	100	not in acc. with DIN	**CYK2.1**	25 unit(s)	150,00
30	27	1,5	80	not in acc. with DIN	**CYK3.1**	25 unit(s)	150,00
31	28	1,5	60	not in acc. with DIN	**CYK4.1**	25 unit(s)	150,00
31	28	1,5	120	not in acc. with DIN	**CYK5.1**	25 unit(s)	178,00
33	30	1,5	150	not in acc. with DIN	**CYK6.1**	25 unit(s)	219,00
36	33	1,5	80	not in acc. with DIN	**CYK7.1**	25 unit(s)	150,00
36	33	1,5	90	not in acc. with DIN	**CYK8.1**	25 unit(s)	181,00
36	33	1,5	94	DIN 12449	**CYK9.1**	25 unit(s)	181,00
36	33	1,5	100	not in acc. with DIN	**CYL0.1**	25 unit(s)	181,00
36	33	1,5	118	not in acc. with DIN	**CYL1.1**	25 unit(s)	218,00
36	33	1,5	205	DIN 12449	**CYL2.1**	25 unit(s)	292,00
36	35	1,5	150	not in acc. with DIN	**CYL3.1**	25 unit(s)	255,00
47	43	2,0	123	not in acc. with DIN	**CYL4.1**	25 unit(s)	277,00
52	48	2,0	230	DIN 12449	**CYL5.1**	25 unit(s)	388,00
61	57	2,0	315	DIN 12449	**CYL6.1**	25 unit(s)	595,00
79	75	2,0	330	not in acc. with DIN	**CYL7.1**	25 unit(s)	665,00

Analytical sieve machines

Analytical sieve machine HAVER EML 200 Premium series

Haver & Boecker.

For sieve analysis in accordance with ISO 2591-1. Measuring range 20 µm–125 mm. Suitable for test sieves with Ø 50 to 203 mm.

- Fast and easy to operate
- Amplitude is adjustable in 0.1 mm increments
- Intermittent operation or continuous operation
- Memory for storing various sieve modes (49 memory slots)
- Ethernet interface
- Optional TwinNut rapid clamping system allows easier and faster replacement of sieves without time-consuming screwing

Technical specifications:

Art. No.	ECE6.1	ECE7.1	ECE8.1	ECE9.1
Type	EML 200 Premium		EML 200 Premium Remote	
Measuring range	0.02–125 mm			
Movement type	three-dimensional			
Shaking amplitude (stroke)	0,1–3,0 mm			
Timer	1 to 99 min or continuous operation			
Interval operation	1 to 99 s			
Loading capacity from	min. 3 test sieves, one sieve pan			
Loading capacity up to	Max. 9 test sieves or 8.7 kg sieve stack weight			
Width	295 mm			
Depth	385 mm			
Height	880 mm			
Weight	38 kg			
Mains connection	110–230 V, 50/60 Hz			

(1) Model: Premium
Suitable for dry sieving.

Delivery incl. clamping system (2 x M20 guide bars, 660 mm long, 2 clamping nuts) and a machine cover with window.

Delivery without sieve pan (please order separately).

Type	Version	Art. No.	Pack Qty.	€
EML 200 Premium	Classic clamping system	**ECE6.1**	1 unit(s)	3.176,65
EML 200 Premium	TwinNut rapid clamping system	**ECE7.1**	1 unit(s)	3.343,25

(2) Model: Premium Remote
Suitable for wet and dry sieving.

Unit with protection class IP 54 and separate control unit for wall mounting allows the additional option of wet sieving.

Delivery incl. separate control device with wall holder and connecting cable, clamping system (2 x M20 guide bars, 660 mm long, 2 clamping nuts), machine cover with full-cone nozzle and window, water connector with socket and PVC hose (3 m long).

Delivery without sieve pan (please order separately).

Type	Version	Art. No.	Pack Qty.	€
EML 200 Premium Remote	Classic clamping system	**ECE8.1**	1 unit(s)	3.679,75
EML 200 Premium Remote	TwinNut rapid clamping system	**ECE9.1**	1 unit(s)	3.845,30

Accessories

Haver & Boecker.

For dry sieving
Suitable for EML 200 Pure, EML 200 Premium and EML 200 Premium Remote.

Version	Art. No.	Pack Qty.	€
Sieve pan for dry sieving, Ø 200 x H 50 mm, stainless steel	**ECC7.1**	1 unit(s)	56,50
Replacement machine cover with window	**ECE3.1**	1 unit(s)	199,95

For wet sieving
Suitable for EML 200 Premium Remote.

Version	Art. No.	Pack Qty.	€
Sieve pan with outlet and PVC hose for wet sieving	**ECH0.1**	1 unit(s)	174,15
Replacement machine cover with full-cone nozzle and window	**ECH1.1**	1 unit(s)	349,40
PVC hose (1/2″), 3 m	**ECH2.1**	1 unit(s)	13,55

Analytical sieve machines

Analytical sieve machine HAVER EML 200 Pure

Haver & Boecker.

For sieve analysis in accordance with ISO 2591-1. Standard model for dry sieving and fast and easy operation. Measuring range 20 µm–125 mm. Suitable for test sieves with Ø 50 to 203 mm.

- Two optional amplitudes to select from: 2.2 mm for coarse or 0.9 for fine materials
- Preset interval (10 s)
- Digital timer
- Anodised aluminium housing

Technical specifications:

Art. No.	ECE2.1
Type	EML 200 Pure
Measuring range	0.02–125 mm
Movement type	Three-dimensional
Shaking amplitude (stroke)	2,2 mm / 0,9 mm
Timer	1 min or continuous operation
Loading capacity from	Min. 3 test sieves with usable height 50 mm and one sieve pan
Loading capacity up to	Max. 9 test sieves with usable height 50 mm or 8.7 kg sieve stack weight
Width	295 mm
Depth	385 mm
Height	900 mm
Weight	38 kg
Mains connection	110–230 V, 50/60 Hz

Delivery incl. Classic „eco“ clamping system (2 x M16 guide bars, 660 mm long, 2 clamping nuts) and a machine cover with window. **Delivery without** sieve pan (Art. No. ECC7.1), please order separately.

Type	Art. No.	Pack Qty.	€
EML 200 Pure	**ECE2.1**	1 unit(s)	2.543,45

Test sieve Ø 200 mm

Haver & Boecker. Material: Stainless steel.

Sieve frame fabricated in stainless steel 1.4301 with stainless steel wire mesh base. Compliant with DIN ISO 3310, ASTM E11, ISO 565, BS 410, etc. Suitable for testing granulates, powders, plastics, silicon, dyes, metal filings etc.

- Strong sieve construction for long life
- Sieve mesh retains excellent tension, even during intensive use
- Smooth frame surface avoids cross contamination
- Usable height 50 mm

Delivery incl. PVC sealing ring and Certificate of Compliance 2.1 according to DIN EN 10 204.

Mesh size (mm)	Art. No.	Pack Qty.	€
0.02	**EAE7.1**	1 unit(s)	610,60
0.025	**EAE8.1**	1 unit(s)	358,00
0.032	**EAE9.1**	1 unit(s)	213,95
0.036	**EAH0.1**	1 unit(s)	204,25
0.038	**EAH1.1**	1 unit(s)	204,25
0.04	**EAH2.1**	1 unit(s)	147,30
0.045	**EAH3.1**	1 unit(s)	147,30
0.05	**EAH4.1**	1 unit(s)	120,40
0.053	**EAH5.1**	1 unit(s)	120,40
0.056	**EAH6.1**	1 unit(s)	120,40
0.063	**EAH7.1**	1 unit(s)	109,40
0.071	**EAH8.1**	1 unit(s)	109,40
0.075	**EAH9.1**	1 unit(s)	109,40
0.08	**EAK0.1**	1 unit(s)	109,40
0.09	**EAK1.1**	1 unit(s)	109,40
0.1	**EAK2.1**	1 unit(s)	109,40
0.106	**EAK3.1**	1 unit(s)	109,40
0.112	**EAK4.1**	1 unit(s)	109,40
0.125	**EAK5.1**	1 unit(s)	109,40
0.14	**EAK6.1**	1 unit(s)	109,40
0.15	**EAK7.1**	1 unit(s)	109,40
0.16	**EAK8.1**	1 unit(s)	109,40
0.18	**EAK9.1**	1 unit(s)	109,40
0.2	**EAL0.1**	1 unit(s)	109,40
0.212	**EAL1.1**	1 unit(s)	109,40
0.224	**EAL2.1**	1 unit(s)	109,40
0.25	**EAL3.1**	1 unit(s)	109,40
0.28	**EAL4.1**	1 unit(s)	109,40
0.3	**EAL5.1**	1 unit(s)	109,40
0.315	**EAL6.1**	1 unit(s)	109,40
0.355	**EAL7.1**	1 unit(s)	109,40
0.4	**EAL8.1**	1 unit(s)	109,40
0.425	**EAL9.1**	1 unit(s)	109,40
0.45	**EAN0.1**	1 unit(s)	109,40
0.5	**EAN1.1**	1 unit(s)	109,40
0.56	**EAN2.1**	1 unit(s)	109,40
0.6	**EAN3.1**	1 unit(s)	109,40
0.63	**EAN4.1**	1 unit(s)	109,40
0.71	**EAN5.1**	1 unit(s)	109,40
0.8	**EAN6.1**	1 unit(s)	109,40
0.85	**EAN7.1**	1 unit(s)	109,40
0.9	**EAN8.1**	1 unit(s)	109,40
1	**EAN9.1**	1 unit(s)	111,30
1.12	**EAP0.1**	1 unit(s)	111,30
1.18	**EAP1.1**	1 unit(s)	111,30
1.25	**EAP2.1**	1 unit(s)	111,30
1.4	**EAP3.1**	1 unit(s)	111,30

Analytical sieves

Mesh size (mm)	Art. No.	Pack Qty.	€
1.6	**EAP4.1**	1 unit(s)	111,30
1.7	**EAP5.1**	1 unit(s)	111,30
1.8	**EAP6.1**	1 unit(s)	111,30
2	**EAP7.1**	1 unit(s)	111,30
2.24	**EAP8.1**	1 unit(s)	111,30
2.36	**EAP9.1**	1 unit(s)	111,30
2.5	**EAT0.1**	1 unit(s)	111,30
2.8	**EAT1.1**	1 unit(s)	127,90
3.15	**EAT2.1**	1 unit(s)	127,90
3.35	**EAT3.1**	1 unit(s)	127,90
3.55	**EAT4.1**	1 unit(s)	127,90
4	**EAT5.1**	1 unit(s)	127,90
4.5	**EAT6.1**	1 unit(s)	127,90
4.75	**EAT7.1**	1 unit(s)	127,90
5	**EAT8.1**	1 unit(s)	127,90
5.6	**EAT9.1**	1 unit(s)	127,90
6.3	**EAX0.1**	1 unit(s)	127,90
6.7	**EAX1.1**	1 unit(s)	127,90
7.1	**EAX2.1**	1 unit(s)	128,30
8	**EAX3.1**	1 unit(s)	127,90
9	**EAX4.1**	1 unit(s)	127,90
9.5	**EAX5.1**	1 unit(s)	127,90
10	**EAX6.1**	1 unit(s)	127,90
11.2	**EAX7.1**	1 unit(s)	136,35
12.5	**EAX8.1**	1 unit(s)	136,35
13.2	**EAX9.1**	1 unit(s)	136,35
14	**EAY0.1**	1 unit(s)	136,35
16	**EAY1.1**	1 unit(s)	136,35
18	**EAY2.1**	1 unit(s)	136,35
19	**EAY3.1**	1 unit(s)	136,35
20	**EAY4.1**	1 unit(s)	136,35
22.4	**EAY5.1**	1 unit(s)	144,90
25	**EAY6.1**	1 unit(s)	144,90
26.5	**EAY7.1**	1 unit(s)	144,90
28	**EAY8.1**	1 unit(s)	144,90
31.5	**EAY9.1**	1 unit(s)	144,90
35.5	**ECA0.1**	1 unit(s)	144,90
37.5	**ECA1.1**	1 unit(s)	144,90
40	**ECA2.1**	1 unit(s)	144,90
45	**ECA3.1**	1 unit(s)	144,90
50	**ECA4.1**	1 unit(s)	144,90
53	**ECA5.1**	1 unit(s)	144,90
56	**ECA6.1**	1 unit(s)	144,90
63	**ECA7.1**	1 unit(s)	144,90
71	**ECA8.1**	1 unit(s)	144,90
75	**ECA9.1**	1 unit(s)	144,90
80	**ECC0.1**	1 unit(s)	144,90
90	**ECC1.1**	1 unit(s)	144,90
100	**ECC2.1**	1 unit(s)	144,90
106	**ECC3.1**	1 unit(s)	144,90
112	**ECC4.1**	1 unit(s)	144,90
125	**ECC5.1**	1 unit(s)	144,90

Ion exchanger Destillo 2

Herco.

Wall device for producing small amounts of demineralised water.

- Very effective, handy and functionally safe
- Hourly performance approx. 50 l water
- Capacity at 10° dH approx. 320 l, at 20° dH approx. 160 l water
- Conductivity display up to 100 µS/cm

Note: Capacity data apply for feed water with a total salt content of 10° dH; with a higher salt content or higher amounts of carbonic and silicic acid in the water, the capacity reduces.

Technical specifications:

Art. No.	**0092.1**
Type	Destillo 2
Cartridge filling	Mixed bed resin, disposable
Capacity	320 l
Flow rate	50 l/h
Clean water quality	0,1-20 µS/cm
Width	115 mm
Depth	115 mm
Height	520 mm
Connection	R ¾″
Mains connection	220–240 V, 50/60 Hz

Delivery incl. cartridges, conductivity tester, supply hose length 150 cm, outlet hose length 100 cm, wall screws and connecting cable length 150 cm.

Type	Art. No.	Pack Qty.	€
Destillo 2	**0092.1**	1 unit(s)	332,20

Accessories replacement cartridges for ion exchanger device Destillo 2

Herco.

Colour to prevent algae growth. Height 380 mm, Ø 90 mm, weight approx. 1400 g.

Technical specifications:

Art. No.	**0093.1**
Type	Disposable cartridge D 2
Ø	90 mm
Height	380 mm
Weight	1400 g

Type	Art. No.	Pack Qty.	€
Disposable cartridge D 2	**0093.1**	1 unit(s)	79,05

Ion exchanger DS series

stakpure.

Pressureless. Plastic ion exchanger system made of plastic (PE) for producing fully desalinated pure water using a mixed bed ion exchanger resin. Suitable for small laboratories with a daily requirement of up to 15 litres. Can be connected directly to the mains water supply. With analogue conductivity tester, hose set and integrated filter system to prevent escape of resin. Acc. to standards such as DIN EN 13060, ASTM and VDE 0510.

Note: Capacity data apply for feed water with a total salt content of 10° dH; with a higher salt content or higher amounts of carbonic and silicic acid in the water, the capacity reduces.

Technical specifications:

Art. No.	KCE7.1	KCE8.1
Type	DS 450	DS 750
Cartridge filling	Mixed bed resin, disposable	Mixed bed resin, regenerative
Capacity	425 l	750 l
Flow rate	50 l/h	100 l/h
Clean water quality	0,1-20 µS/cm	
Measuring range	0.1-50 µS/cm	
Ø	100 mm	175 mm
Height	600 mm	470 mm
Weight	3 kg	6 kg
Max. water temperature	30 °C	
Connection	R ¾″	
Mains connection	230 V, 50/60 Hz	

Delivery incl. cartridge, analogue conductivity tester and hose set. Model DS 450 also includes a wall mount.

Type	Art. No.	Pack Qty.	€
DS 450	**KCE7.1**	1 unit(s)	333,25
DS 750	**KCE8.1**	1 unit(s)	451,50

Ion exchanger cartridge DS series

stakpure. Material: Stainless steel AISI 316.

Pressure-resistant (up to 10 bar) stainless steel ion exchanger cartridges made of stainless steel, can be connected directed to the mains water.
For the production of demineralised water. Suitable for supplying ultra-pure water systems, analysis machines, dishwashers and autoclaves, or for industrial use with process water, battery water and cooling water. Acc. to standards such as ASTM, CLSI, DIN EN 285, VDE 0510.

Note: Capacity data apply for feed water with a total salt content of 10° dH; with a higher salt content or higher amounts of carbonic and silicic acid in the water, the capacity reduces.

Technical specifications:

Art. No.	KCE3.1	KCE4.1	KCE5.1	KCE6.1
Type	DS 1500	DS 2000	DS 2800	DS 4000
Cartridge filling	Mixed bed resin, regenerative			
Capacity	1,500 l	2,000 l	2,800 l	4,000 l
Flow rate	300 l/h		950 l/h	1,000 l/h
Clean water quality	0,1-20 µS/cm			
Ø	240 mm			
Height	410 mm	490 mm	570 mm	700 mm
Weight	14 kg	18 kg	24 kg	27 kg
Max. operating pressure	10 bar			
Max. water temperature	30 °C			
Connection	R ¾″			

Delivery without conductivity tester (Art. No. KCH2.1, analogue or Art. No. KCH1.1, digital), please order separately.

Type	Art. No.	Pack Qty.	€
DS 1500	**KCE3.1**	1 unit(s)	666,50
DS 2000	**KCE4.1**	1 unit(s)	741,75
DS 2800	**KCE5.1**	1 unit(s)	870,75
DS 4000	**KCE6.1**	1 unit(s)	1.171,75

Conductivity tester AC 100 analogue

stakpure.

Suitable for ion exchangers DS 1500 to DS 4000.
With integrated measuring cell. Analogue measured value display in µS/cm.

Technical specifications:

Art. No.	KCH2.1
Type	AC 100
Measuring range	0.1 to 50 µS/cm
Width	93 mm
Depth	123 mm
Height	170 mm
Connection	R ¾″
Mains connection	230 V, 50/60 Hz

Delivery incl. hose set (2 x 1.5 m hoses with R ¾″ connections).

Type	Art. No.	Pack Qty.	€
AC 100	**KCH2.1**	1 unit(s)	333,25

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Conductivity tester DC 400 digital

stakpure.

Suitable for ion exchangers DS 1500 to DS 4000. Conductivity measuring range 0.1 to 300 µS/cm (automatic switchover at 9.99). For the online measurement of pure and ultrapure water downstream of ion exchanger cartridges and for monitoring closed-loop systems. For wall mounting.

- Large two-colour backlit graphic display for digitally displaying the conductivity in µS/cm or in MΩ x cm and the temperature in °C
- Continuous adjustment of the limit values for temperature (from 10 to 40 °C) and conductivity (from 0.1 to 30 µS/cm)
- Signals for exceeded limits for temperature and conductivity: LED display green/red + buzzer (both limit values can be deactivated)
- Signals for fault message: display switch-over green/red
- Automatic comparison before each measurement using an integrated reference resistor and temperature measurement using platinum temperature sensor
- Automatic voltage switching for international use

Technical specifications:

Art. No.	KCH1.1
Type	DC 400
Conductivity measuring range from	0.1 µS/cm
Conductivity measuring range up to	300 µS/cm
Temperature measuring range from	0.1 °C
Temperature measuring range up to	99.9 °C
Temp. compensation	Automatic
Width	73 mm
Depth	32 mm
Height	141 mm
Connection	¾″
Protection class	IP 54
Mains connection	110/230 V, 50/60 Hz

Delivery incl. connecting cable, plug-in power supply, measuring cell and tube set consisting of 2 x 1.5 m tubes with R ¾″-connections and wall mount.

Type	Art. No.	Pack Qty.	€
DC 400	**KCH1.1**	1 unit(s)	645,00

Wasser purification

Ultrapure water system OmniaPure series

stakpure.

For the production of 20-100 litres ultrapure water ASTM Type I per day. Flexible dispenser with digital control for water withdrawal at the touch of a button.

- OptiFill dispenser as standard
- Space-saving mounting on a laboratory bench or optionally on a wall
- Simple and cost-effective filter replacement
- Integrated pre-treatment unit
- RS 232 port
- Leak sensor as standard
- Integrated pressure reducer as standard
- Ready to use, ready to connect, incl. filter cartridges
- Model type "TOC" with TOC monitoring

Technical specifications:

Art. No.	KCC7.1	KCC8.1	KCE0.1	KCC9.1	KCE1.1
Type	OmniaPure	OmniaPure UV	OmniaPure UV-TOC	OmniaPure UV/UF	OmniaPure UV-TOC/UF
Conductivity of high-purity water, type I	0.055 µS/cm				
Resistance of high-purity water, type I	18.2 MΩ*cm				
Withdrawal capacity of high-purity water, type I	2 l/min			1.6 l/min	
Bacteria content of high-purity water, type I	< 0,1 KbE/ml				
Endotoxin content of high-purity water, type I				0.001 EU/ml	
TOC value of high-purity water, type 1	5-10 ppb	1-5 ppb			
DNase content of high-purity water, type I				4 ng/ml	
RNase content of high-purity water, type I				0.01 ng/ml	
Particle content of high-purity water, type I	< 1/ml				
Width	390 mm				
Depth	525 mm				
Height	720 mm				
Weight	19 kg	20 kg			
Min. operating pressure	0.5 bar				
Max. operating pressure	6 bar				
Ambient temperature	2-35 °C				
Connection	R ¾″				
Mains connection	100–240 V, 50/60 Hz				

Feed water requirements: Water treated through ion exchange, reverse osmosis, deionisation or distillation	
Feed water temperature (°C)	+2–35
Feed water pressure (bar)	0.5–6
Inlet conductivity (µS/cm)	<100
TOC value (ppb)	<50

Note: endotoxin concentration, RNase, DNase content and TOC value depend on the quality of the feed water. The 0.2 µm sterile filter capsule is needed to meet the requirements for particle and bacteria contents.

Typical applications: AAS, IC, ICP, buffer and media preparation.

Delivery incl. OmniaPure pure water system, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, PE hose Ø 8 mm, L 2.5 m, one PE hose Ø 8 mm, L 2.5 m incl. input protection filter and water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaPure	**KCC7.1**	1 unit(s)	5.805,00

Wasser purification

Typical applications: Ultratrace analysis, ICP-MS, HPLC, TOC analysis.

Delivery incl. OmniaPure pure water system, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, PE hose Ø 8 mm, L 2.5 m, one PE hose Ø 8 mm, L 2.5 m incl. input protection filter and water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaPure UV	**KCC8.1**	1 unit(s)	6.718,75
OmniaPure UV-TOC	**KCE0.1**	1 unit(s)	7.342,25

Typical applications: cell culture media, molecular and microbiology.

Delivery incl. OmniaPure pure water system, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, PE hose Ø 8 mm, L 2.5 m, one PE hose Ø 8 mm, L 2.5 m incl. input protection filter and water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaPure UV/UF	**KCC9.1**	1 unit(s)	7.342,25
OmniaPure UV-TOC/UF	**KCE1.1**	1 unit(s)	7.976,50

Accessories for OmniaTap and OmiaPure and ultrapure water systems

stakpure.

Type	Art. No.	Pack Qty.	€
Replacement pretreatment cartridge (RO cartridge) for OmniaTap 6 l/h	**KCA7.1**	1 unit(s)	290,25
Replacement pretreatment cartridge (RO cartridge) for OmniaTap 12 l/h	**KCA8.1**	1 unit(s)	419,25
Replacement ultrapure water cartridge for Omnia Tap and OmniaPure	**KCA9.1**	1 unit(s)	419,25
Replacement UV lamp, 185/254 nm	**KCC0.1**	1 unit(s)	319,30
Replacement UF ultrafiltration module	**KCC1.1**	1 unit(s)	844,95
Replacement sterile filter capsule (0.2 µm)	**KCC2.1**	1 unit(s)	165,55
Replacement tank breather filter	**KCC3.1**	1 unit(s)	101,05
Optional OmniaTap/Lab10" treatment unit - incl. connection hose. For pretreating the feed water if it does not meet the feed requirements.	**KCC4.1**	1 unit(s)	290,25
Optional pump station for OmniaTap	**KCC5.1**	1 unit(s)	913,75
Optional wall mount incl. fixing material	**KCC6.1**	1 unit(s)	182,75

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Pure and ultrapure water system OmniaTap series

stakpure.

Preparation system for producing both pure and ultrapure water. **Directly connectable to the mains water supply.** The flexible dispenser is used to draw ASTM Type I ultrapure water. The water is drawn at the touch of a button using the dispenser's digital control system. An integrated 10-litre tank with recirculation keeps the quality constantly at ASTM Type II. An optionally available pump station can be used to supply downstream devices with pure water (ASTM Type II) from the pure water tank.

- Space-saving mounting on a laboratory bench or optionally on a wall
- OptiFill dispenser as standard
- TapWater set – direct connection to drinking water
- 10 l tank with recirculation system
- Tank volume display in percent
- Simple and cost-effective filter replacement
- RS 232 port
- Leak sensor as standard
- Ready to use, ready to connect, incl. filter cartridges
- Can be operated using just one hand

Technical specifications:

Art. No.	KCA1.1	KCA2.1	KCA3.1	KCA4.1	KCA5.1	KCA6.1
Type	OmniaTap 6 l/h	OmniaTap 12 l/h	OmniaTap UV 6 l/h	OmniaTap UV 12 l/h	OmniaTap UV/UF 6 l/h	OmniaTap UV/UF 12 l/h
Conductivity of high-purity water, type I	0.055 µS/cm					
Conductivity of pure water, type II	0.067-0.1 µS/cm					
Resistance of high-purity water, type I	18.2 MΩ*cm					
Resistance of pure water, type II	10-15 MΩ*cm					
Withdrawal capacity of high-purity water, type I	2 l/min				1.6 l/min	
Withdrawal capacity of pure water, type II	6 l/h	12 l/h	6 l/h	12 l/h	6 l/h	12 l/h
Bacteria content of high-purity water, type I	< 0,1 KbE/ml					
Endotoxin content of high-purity water, type I					0.001 EU/ml	
TOC value of high-purity water, type 1	5-10 ppb		1-5 ppb			
Particle content of high-purity water, type I	< 1 particle per ml (particle size > 0.2 µm)					
Width	390 mm					
Depth	615 mm					
Height	725 mm					
Weight	20 kg		21 kg			
Min. operating pressure	2 bar					
Max. operating pressure	6 bar					
Ambient temperature	2-35 °C					
Connection	R $^{3}/_{4}$″					
Mains connection	100–240 V, 50/60 Hz					

Feed water requirements: drinking water acc. to DIN 2000	
Feed water temperature (°C)	+2–35
Feed water pressure (bar)	0.5–6
Manganese, aluminium and iron content (ppm)	<0.05
Free chlorine (ppm)	<4
Silt density index (SDI)	Max. 3
pH range	4–11

Note: endotoxin concentration and TOC value depend on the quality of the feed water. The 0.2 µm sterile filter capsule is needed to meet the requirements for particle and bacteria contents.

Wasser purification

Typical applications: AAS, IC, ICP, buffer and media preparation.

Delivery incl. OmniaTap ultrapure water system with integrated 10-l tank, sterile tank overflow and venting filter, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, 3 x PE hoses Ø 8 mm, L 2.5 m, water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaTap 6 l/h	**KCA1.1**	1 unit(s)	4.966,50
OmniaTap 12 l/h	**KCA2.1**	1 unit(s)	6.439,25

Typical applications: Ultratrace analysis, ICP-MS, HPLC, TOC.

Delivery incl. OmniaTap ultrapure water system with integrated 10-l tank, sterile tank overflow and venting filter, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, 3 x PE hoses Ø 8 mm, L 2.5 m, water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaTap UV 6 l/h	**KCA3.1**	1 unit(s)	5.762,00
OmniaTap UV 12 l/h	**KCA4.1**	1 unit(s)	7.213,25

Typical applications: cell culture media, molecular and microbiology.

Delivery incl. OmniaTap ultrapure water system with integrated 10-l tank, sterile tank overflow and venting filter, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, 3 x PE hoses Ø 8 mm, L 2.5 m, water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaTap UV/UF 6 l/h	**KCA5.1**	1 unit(s)	6.546,75
OmniaTap UV/UF 12 l/h	**KCA6.1**	1 unit(s)	7.879,75

The complete ROTH product range in the ROTH webshop

Over 30,000 items orderable around the clock!

Discover everything at **www.carlroth.com**

- Latest NEW products
- Continuous range extensions
- Detailed product information
- Additional information about the products
- Regular special offers
- ... and much more. Stay curious!

Pure and ultrapure water system Smart2Pure series

Thermo.

Compact system for the production of contamination-free water from mains water. The device is **connected directly to the mains water** supply.
Simultaneous provision of ultrapure and pure water qualities:

- **ASTM Type I** (resistance of 18.2 MΩ x cm)
- **ASTM Type II** (resistance of 10-15 MΩ x cm)

Easy to use, space-saving design and low follow-up costs. The pre-treatment cartridge is separate from the ultrapure water cartridge. Only the used cartridge need be replaced, when necessary.

Applications:
Analytical chemistry:
HPLC, GC, GC-MS, ICP-MS, AA, TOC measurements, IC
Molecular biology and microbiology:
Cell/tissue culture, PCR, DNA sequencing, electrophoresis
Routine tasks in the laboratory
Preparation and dilution of buffers and reagents, rinsing of laboratory glass instruments, supply of autoclaves, analysers and other laboratory instruments

Features:

- Combined cartridge (reverse osmosis membrane/activated charcoal) for pre-treatment of feed water
- Direct tapping of type I ultrapure water through a sterile end filter (0.2 µm)
- Integrated 6-litre tank for storing type II pure water
- Guaranteed pure water quality: the recirculation pump and sterile air filter protect from microbial contamination
- Additional pressure outlet on ultrapure water tank for supplying downstream devices
- Simple and economical change of expendables as treatment cartridges can be replaced separately
- Space-saving mounting on laboratory bench or on the wall

Technical specifications:

Art. No.	**HE81.1**	**HE82.1**	**HE83.1**	**HE84.1**
Type	Smart2Pure UV 3 l/h	Smart2Pure UV 6 l/h	Smart2Pure UV/UF 3 l/h	Smart2Pure UV/UF 6 l/h
Conductivity of high-purity water, type I	0.055 µS/cm			
Conductivity of pure water, type II	0,067-0,1 µS/cm			
Resistance of high-purity water, type I	18.2 MΩ*cm			
Resistance of pure water, type II	10-15 MΩ*cm			
Withdrawal capacity of high-purity water, type I	1 l/min		0.6 l/min	
Withdrawal capacity of pure water, type II	3 l/h	6 l/h	3 l/h	6 l/h
Bacteria content of high-purity water, type I	< 1 KbE/ml			
Endotoxin content of high-purity water, type I			0.001 EU/ml	
TOC value of high-purity water, type 1	1-5 ppb			
Particle content of high-purity water, type I	< 1 particle per ml (particle size < 0.2 µm)			
Width	305 mm			
Depth	400 mm			
Height	545 mm			
Weight	22 kg			
Connection	**Feedwater:** hose (length 1.5 m) with Ø outside 8 mm and ¾″, **Waste water:** ¼″ or Ø outside 8 mm, hose (length 2 m), pressure-free discharge			
Mains connection	100–240 V, 50/60 Hz			

Drinking water requirements:	
Drinking water to DIN 2000	Manganese and iron content: <0.05 mg/l
	Chlorine concentration: <0.1 mg/l
	Colloid index: <3
	Feed water temperature: 2–35 °C
	Feed water pressure: 1–6 bar

Delivery incl. Smart2Pure unit with integral 6-litre tank, sterile tank ventilation filter, combined cartridge (reverse osmosis membrane/activated charcoal), ultrapure water cartridge, 0.2 µm end filter, pressure retaining valve, device socket (length 1.8 m) UV lamp and/or ultra-filter (depending on model).

Wasser purification

With UV lamp (wave length 254 and 185 nm), which inactivates bacteria, oxidises organic compounds and enables germ-free ultrapure water quality with a TOC concentration < 5 ppb.

Typical applications: Anorganic and organic trace analysis, HPLC, ICP-MS, IC, TOC analysis.

Type	Art. No.	Pack Qty.	€
Smart2Pure UV 3 l/h	**HE81.1**	1 unit(s)	5.768,45
Smart2Pure UV 6 l/h	**HE82.1**	1 unit(s)	7.078,90

With UV lamp and UF module. The UF ultra-filtration module guarantees almost complete elimination of macro-molecular contamination such as micro-organisms, pyrogens (bacterial endotoxins), nucleases and particles; the combination of UV oxidation (254 and 185 nm) and ultra-filtration produces analytically pure water with a specific resistance of up to 18.2 MΩ cm, TOC values of < 5 ppb, pyrogene levels of < 0.001 EU/ml and RNase, DNase and DNA concentrations below the detection limit.

Typical applications: molecular biology, PCR, DNA, monoclonal antibodies, cell culture media.

Type	Art. No.	Pack Qty.	€
Smart2Pure UV/UF 3 l/h	**HE83.1**	1 unit(s)	6.491,95
Smart2Pure UV/UF 6 l/h	**HE84.1**	1 unit(s)	7.802,35

Benchtop water filter Brita®

Brita.

For optimal drinking water quality. Reduces limescale, lead, copper and chlorine content using a combination of ion exchange and activated charcoal.

- Electronic cartridge exchange indicator
- With MAXTRA Flow Control for steady flow and optimal filtration capacity

Technical specifications:

Art. No.	XC11.1	XC12.1
Type	MARELLA	FLOW
Filling capacity	2.4 l	8.5 l
Width	109 mm	350 mm
Depth	267 mm	217 mm
Height	277 mm	224 mm

Delivery incl. Li button cells and 1 filter cartridge MAXTRA.

MARELLA

With wide filling opening.

Type	Art. No.	Pack Qty.	€
MARELLA	**XC11.1**	1 unit(s)	n. a.

FLOW

Easy removal via stop cock.

Type	Art. No.	Pack Qty.	€
FLOW	**XC12.1**	1 unit(s)	n. a.

Chromatography accessories

Capillary tube

Hirschmann. Material: Soda-lime glass.
Open at both ends.

Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Packa-ging type	Pack.	Art. No.	Pack Qty.	€
1.0	0.80	80	Can	10 x 100	**EAC7.1**	1,000 unit(s)	74,20
1.0	0.80	90	Can	10 x 100	**EAE0.1**	1,000 unit(s)	74,70
1.0	0.80	100	Can	10 x 100	**EAE1.1**	1,000 unit(s)	84,85
1.0	0.80	120	Can	4 x 250	**EAE4.1**	1,000 unit(s)	86,70
1.0	0.80	150	Can	4 x 250	**EAE6.1**	1,000 unit(s)	94,00
1.35	0.95	80	Can	10 x 100	**EAC8.1**	1,000 unit(s)	51,75
1.35	0.95	100	Can	10 x 100	**EAE2.1**	1,000 unit(s)	60,15
1.35	0.95	120	Can	4 x 250	**EAE5.1**	1,000 unit(s)	71,15
1.55	1.15	80	Can	10 x 100	**EAC9.1**	1,000 unit(s)	54,00
1.55	1.15	100	Can	10 x 100	**EAE3.1**	1,000 unit(s)	55,30

A 121 °C

Battery jars ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
Cylindrical glass beaker with ground rim.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	120	**AYL9.1**	10 unit(s)	135,15
100	100	**AYN0.1**	6 unit(s)	93,05
100	150	**AYN1.1**	6 unit(s)	99,45
100	200	**AYN2.1**	6 unit(s)	112,80
125	125	**AYN3.1**	6 unit(s)	121,05
125	250	**AYN4.1**	6 unit(s)	131,45
150	150	**AYN5.1**	4 unit(s)	107,15
150	200	**AYN6.1**	1 unit(s)	28,00
150	250	**AYN7.1**	1 unit(s)	28,50
160	320	**AYN8.1**	1 unit(s)	46,50
200	200	**AYN9.1**	1 unit(s)	54,10
200	250	**AYP0.1**	1 unit(s)	57,70
200	300	**AYP1.1**	1 unit(s)	62,30
200	400	**AYP2.1**	1 unit(s)	66,10
240	480	**AYP3.1**	1 unit(s)	138,70

A 121 °C

TLC atomiser with test tube

Lenz. Material: DURAN® glass. Autoclavable: Yes.
Autoclavable without rubber hose.

Delivery incl. clamp for ground joint and rubber ball.

Vol. (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
6	14/23	**TK61.1**	1 unit(s)	53,15
12	19/26	**TK62.1**	1 unit(s)	54,20

A 121 °C

TLC atomiser with Erlenmeyer flask

Lenz. Material: DURAN® glass. Autoclavable: Yes.
NS 19/26, volume 100 ml. Total height 160 mm.
Autoclavable without rubber hose.

Delivery incl. erlenmeyer flask, clamp for ground joint and rubber ball with 20 cm rubber hose.

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	160	19/26	**0707.1**	1 unit(s)	70,85

Spray unit

Haubold.

Versatile spray unit with gas cartridge for spraying reagents and other aqueous liquids. Constant spray pressure approx. 4.4 bar. Eco-friendly propellant mixture of dimethyl ether, propane and isobutane. Sufficient for approx. 500 ml liquid.
Easy to clean: Unscrew the cartridge, immerse the riser in a container with cleaning liquid and spray until the spray jet contains no residue.
Propellants: Dimethyl ether, isobutane, propane.

Danger H222-H229
Delivery incl. propellant cartridge (55 g or 94 ml), glass reservoir bottle 170 ml, suction tube and screw cap.

Vol. (ml)	Art. No.	Pack Qty.	€
170	**YC44.1**	1 unit(s)	15,30

Spray bottle with atomiser

Rixius. Material: Glass brown, sprayer with cover cap and riser made of PE.

Spray volume approx. 0.05 ml per pump operation.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
20	29	98	GL 18	**N145.1**	3 unit(s)	9,35

A 121 °C

TLC separation chamber

Material: Borosilicate glass 3.3. Autoclavable: Yes.

For immersing pre-treated TLC ready-to-use foils (size 8 x 4 cm) in the solvent. Cylindrical glass beaker with loose-fitting glass lid. Inner height 100 mm, Ø 60 mm.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	100	**0823.1**	1 unit(s)	41,85

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

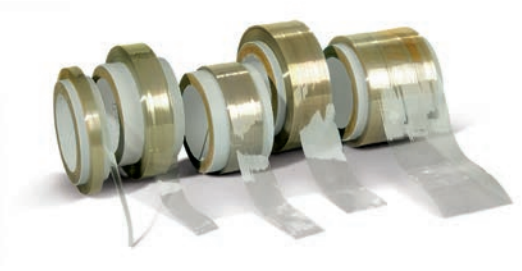
Dialysis tubular membranes

Dialysis membrane Membra-Cel™

Viskase. Material: Cellulose, regenerated. Autoclavable: Yes.

Colourless, transparent to slightly opaque, semi-permeable and seamless. Application area: Dialysis and ultrafiltration in the laboratory.

- **Exclusion limit (MWCO) 14,000**
- Dry packaged on rolls, treated with glycerine
- Stable in the pH range from 5 to 9
- No unspecific protein binding, protein adsorption < 1 ng/g
- Autoclavable up to +120 °C (max. 15 min, immersed in distilled water)



A 121 °C

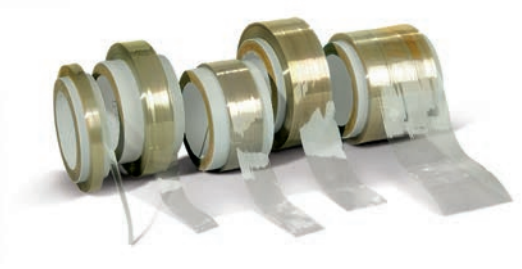
Not a medical device / Not an IVD product

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
14000	10	6	51	Roll	30 m	**1780.1**	1 unit(s)	201,05
14000	10	6	51	Roll	152 m	**1781.1**	1 unit(s)	621,35
14000	25	16	20	Roll	152 m	**0653.1**	1 unit(s)	231,15
14000	34	22	23	Roll	152 m	**0654.1**	1 unit(s)	258,00
14000	34	22	23	Roll	30 m	**1784.1**	1 unit(s)	86,95
14000	44	28	20	Roll	152 m	**0655.1**	1 unit(s)	312,85
14000	44	28	20	Roll	30 m	**1785.1**	1 unit(s)	102,35
14000	77	49	41	Roll	30 m	**5358.1**	1 unit(s)	246,20

Dialysis membrane Nadir®

Material: Cellulose, regenerated.

Suitable for laboratory experiments. MWCO approx. 10,000–20,000 daltons. **Packaged dry** on roles, glycerine content approx. 21%.



Not a medical device / Not an IVD product

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
~ 10 000 - 20 000	62.8	40	Roll	25 m	**5101.1**	1 unit(s)	59,05
~ 10 000 - 20 000	62.8	40	Roll	100 m	**5101.2**	1 unit(s)	199,95
~ 10 000 - 20 000	66.0	42	Roll	25 m	**5102.1**	1 unit(s)	59,05
~ 10 000 - 20 000	66.0	42	Roll	100 m	**5102.2**	1 unit(s)	199,95
~ 10 000 - 20 000	78.5	50	Roll	25 m	**5104.1**	1 unit(s)	59,05
~ 10 000 - 20 000	78.5	50	Roll	100 m	**5104.2**	1 unit(s)	199,95

Dialysis tubular membranes

Dialysis membrane Spectra/Por® 1 to 4

Repligen. Material: Cellulose, regenerated.

- High-quality membranes on rolls, **packaged dry**
- Max. application temperature +60 °C
- Good resistance to chemicals
- Treated with glycerine to protect against embrittlement
- Contain low quantities of contaminations such as sulphides and heavy metals
- **Metal traces:** Cadmium < 0.02 ppm, lead 2–6 ppm, chromium 0.1–0.2 ppm, magnesium 0.1–0.3 ppm, copper 0.8–1.2 ppm, nickel 1.3–1.7 ppm, iron 20–60 ppm, zinc 1.5–5 ppm

Not a medical device / Not an IVD product

Spectra/Por® 1 - MWCO 6000 to 8000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
6000–8000	10	6.4	30-50	Roll	15 m	**1954.1**	1 unit(s)	283,80
6000–8000	23	14.6	30-50	Roll	30 m	**1955.1**	1 unit(s)	292,40
6000–8000	32	20.4	30-50	Roll	30 m	**1956.1**	1 unit(s)	292,40
6000–8000	40	25.5	30-50	Roll	30 m	**2710.1**	1 unit(s)	313,90
6000–8000	50	31.8	30-50	Roll	30 m	**2711.1**	1 unit(s)	366,60
6000–8000	100	63.7	70	Roll	15 m	**2712.1**	1 unit(s)	442,90
6000–8000	120	76.4	70	Roll	15 m	**2713.1**	1 unit(s)	459,05

Spectra/Por® 2 - MWCO 12,000 to 14,000

Highly porous membranes for high dialysis rates.

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
12000–14000	10	6.4	20-50	Roll	15 m	**1958.1**	1 unit(s)	387,00
12000–14000	25	15.9	20-50	Roll	15 m	**1964.1**	1 unit(s)	387,00
12000–14000	45	28.6	20-50	Roll	15 m	**2714.1**	1 unit(s)	387,00
12000–14000	105	63.7	135-155	Roll	15 m	**2715.1**	1 unit(s)	856,80
12000–14000	120	76.4	135-155	Roll	15 m	**2716.1**	1 unit(s)	856,80

Spectra/Por® 3 - MWCO 3500

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3500	18	11.5	25–30	Roll	15 m	**0978.1**	1 unit(s)	344,00
3500	45	28.6	25–30	Roll	15 m	**0959.1**	1 unit(s)	344,00
3500	54	34.0	25–30	Roll	15 m	**0983.1**	1 unit(s)	367,65

Spectra/Por® 4 - MWCO 12,000 to 14,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
12000–14000	10	6.4	20–50	Roll	30 m	**2717.1**	1 unit(s)	430,00
12000–14000	25	15.9	20–50	Roll	30 m	**2718.1**	1 unit(s)	238,65
12000–14000	32	20.4	20–50	Roll	30 m	**2719.1**	1 unit(s)	256,95
12000–14000	45	28.6	20–50	Roll	30 m	**2720.1**	1 unit(s)	298,85
12000–14000	75	47.7	20–50	Roll	15 m	**2721.1**	1 unit(s)	316,05

Dialysis tubular membranes

Trial kit Spectra/Por® 1-3

Repligen. Material: Cellulose, regenerated.

Hose membrane pieces on rolls, packaged dry. Particularly suitable for small-scale dialysis and for testing membranes for special applications.

Delivery incl. 1 pair of Spectra/Por® locking clips made of PP (1x with weight, 1x without).

Not a medical device / Not an IVD product

Spectra/Por® 1 – MWCO 6000–8000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
6000–8000	32	20.4	Roll	5 m	**4570.1**	1 unit(s)	135,45
6000–8000	50	32.0	Roll	5 m	**4572.1**	1 unit(s)	147,30

Spectra/Por® 2 - MWCO 12,000–14,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
12000–14000	25	16.0	Roll	5 m	**4574.1**	1 unit(s)	135,45
12000–14000	45	29.0	Roll	5 m	**4577.1**	1 unit(s)	147,30

Spectra/Por® 3 - MWCO 3500

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3500	18	11.5	Roll	5 m	**4578.1**	1 unit(s)	135,45
3500	54	34.0	Roll	5 m	**4579.1**	1 unit(s)	147,30

Dialysis membrane Spectra/Por® 6

Repligen. Material: Cellulose, regenerated.

- **Packaged moist** in 0.05% sodium azide solution, on rolls
- Contain low quantities of contaminations such as sulphides and heavy metals
- Recommended storage temperature +4 °C
- Max. application temperature +60 °C
- **Metal traces:** Cadmium < 0.02 ppm, lead 2–6 ppm, chromium 0.1–0.2 ppm, magnesium 0.1–0.3 ppm, copper 0.8–1.2 ppm, nickel 1.3–1.7 ppm, iron 20–60 ppm, zinc 1.5–5 ppm

Not a medical device / Not an IVD product

MWCO 1000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000	18	11.5	60–65	Roll	10 m	**1966.1**	1 unit(s)	418,20
1000	38	24.0	60–65	Roll	10 m	**1967.1**	1 unit(s)	418,20
1000	45	29.0	60–65	Roll	10 m	**1968.1**	1 unit(s)	418,20

MWCO 2000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2000	18	11.5	60–65	Roll	10 m	**1973.1**	1 unit(s)	418,20
2000	38	24.0	60–65	Roll	10 m	**1974.1**	1 unit(s)	418,20
2000	45	29.0	60–65	Roll	10 m	**1975.1**	1 unit(s)	418,20

MWCO 3500

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3500	18	11.5	60–65	Roll	10 m	**1976.1**	1 unit(s)	418,20
3500	45	29.0	60–65	Roll	10 m	**1977.1**	1 unit(s)	418,20
3500	54	34.0	60–65	Roll	10 m	**1978.1**	1 unit(s)	418,20

Dialysis tubular membranes

MWCO 8000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8000	12	7.5	60–65	Roll	10 m	**1924.1**	1 unit(s)	418,20
8000	24	15.0	60–65	Roll	10 m	**1926.1**	1 unit(s)	418,20
8000	40	25.5	60–65	Roll	10 m	**1934.1**	1 unit(s)	418,20
8000	50	32.0	60–65	Roll	10 m	**1935.1**	1 unit(s)	418,20

MWCO 10,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
10000	12	7.5	60–65	Roll	10 m	**1990.1**	1 unit(s)	418,20
10000	24	15.0	60–65	Roll	10 m	**1991.1**	1 unit(s)	418,20
10000	32	20.4	60–65	Roll	10 m	**1992.1**	1 unit(s)	418,20
10000	45	29.0	60–65	Roll	10 m	**1996.1**	1 unit(s)	418,20

MWCO 15,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15000	12	7.5	60–65	Roll	10 m	**1881.1**	1 unit(s)	418,20
15000	24	15.0	60–65	Roll	10 m	**1883.1**	1 unit(s)	418,20
15000	32	20.4	60–65	Roll	10 m	**1887.1**	1 unit(s)	418,20
15000	45	29.0	60–65	Roll	10 m	**1888.1**	1 unit(s)	418,20

MWCO 25,000 (opaque)

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
25000	12	7.5	60–65	Roll	10 m	**1979.1**	1 unit(s)	418,20
25000	28	18.0	60–65	Roll	10 m	**1981.1**	1 unit(s)	418,20
25000	34	22.0	60–65	Roll	10 m	**1982.1**	1 unit(s)	418,20

MWCO 50,000 (opaque)

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50000	12	7.5	60–65	Roll	10 m	**1891.1**	1 unit(s)	418,20
50000	28	18.0	60–65	Roll	10 m	**1892.1**	1 unit(s)	418,20
50000	34	22.0	60–65	Roll	10 m	**1893.1**	1 unit(s)	418,20

Dialysis membrane Spectra/Por® 7

Repligen. Material: Cellulose, regenerated.

- **Packaged moist** in 0.05% sodium azide solution, on rolls
- **Highly pure membranes without trace elements** such as heavy metals, sulphides, glycerine
- Can be used without the need for complex cleaning processes
- Recommended storage temperature +4 °C
- Max. application temperature +60 °C

Not a medical device / Not an IVD product

MWCO 1000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000	18	11.5	60–65	Roll	5 m	**E853.1**	1 unit(s)	354,75
1000	38	24.0	60–65	Roll	5 m	**E854.1**	1 unit(s)	354,75
1000	45	29.0	60–65	Roll	5 m	**E855.1**	1 unit(s)	354,75

MWCO 2000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2000	18	11.5	60–65	Roll	5 m	**E856.1**	1 unit(s)	354,75
2000	38	24.0	60–65	Roll	5 m	**E857.1**	1 unit(s)	354,75
2000	45	29.0	60–65	Roll	5 m	**E858.1**	1 unit(s)	354,75

MWCO 3500

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3500	18	11.54	60–65	Roll	5 m	**E859.1**	1 unit(s)	354,75
3500	45	29.0	60–65	Roll	5 m	**E860.1**	1 unit(s)	354,75
3500	54	34.0	60–65	Roll	5 m	**E861.1**	1 unit(s)	354,75

Dialysis tubular membranes

MWCO 8000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8000	12	7.5	60–65	Roll	5 m	**E862.1**	1 unit(s)	354,75
8000	18	11.5	60–65	Roll	5 m	**E863.1**	1 unit(s)	354,75
8000	24	15.0	60–65	Roll	5 m	**E864.1**	1 unit(s)	354,75
8000	32	20.4	60–65	Roll	5 m	**E865.1**	1 unit(s)	354,75
8000	40	25.5	60–65	Roll	5 m	**E866.1**	1 unit(s)	354,75
8000	50	32.0	60–65	Roll	5 m	**E867.1**	1 unit(s)	354,75

MWCO 10,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
10000	12	7.5	60–65	Roll	5 m	**E868.1**	1 unit(s)	354,75
10000	18	11.5	60–65	Roll	5 m	**E869.1**	1 unit(s)	354,75
10000	24	15.0	60–65	Roll	5 m	**E870.1**	1 unit(s)	354,75
10000	32	20.4	60–65	Roll	5 m	**E871.1**	1 unit(s)	354,75
10000	45	29.0	60–65	Roll	5 m	**E872.1**	1 unit(s)	354,75

MWCO 15,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15000	12	7.5	60–65	Roll	5 m	**E873.1**	1 unit(s)	354,75
15000	24	15.0	60–65	Roll	5 m	**E875.1**	1 unit(s)	354,75
15000	32	20.4	60–65	Roll	5 m	**E876.1**	1 unit(s)	354,75
15000	45	29.0	60–65	Roll	5 m	**E877.1**	1 unit(s)	354,75

MWCO 25,000 (opaque)

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
25000	12	7.5	60–65	Roll	5 m	**E878.1**	1 unit(s)	354,75
25000	18	11.5	60–65	Roll	5 m	**E879.1**	1 unit(s)	354,75
25000	28	18.0	60–65	Roll	5 m	**E881.1**	1 unit(s)	354,75
25000	34	22.0	60–65	Roll	5 m	**E882.1**	1 unit(s)	354,75

MWCO 50,000 (opaque)

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50000	12	7.5	60–65	Roll	5 m	**E883.1**	1 unit(s)	354,75
50000	28	18.0	60–65	Roll	5 m	**E884.1**	1 unit(s)	354,75
50000	34	22.0	60–65	Roll	5 m	**E885.1**	1 unit(s)	354,75

Dialysis membrane Spectra/Por® Biotech CE

Repligen. Material: CE.

- **Very high purity**, contain no trace elements, heavy metals, sulphides or glycerine
- Low reactivity of the membrane, therefore hardly any adsorption of proteins and liposomes
- No time-consuming cleaning processes necessary
- Max. application temperature +37 °C
- **Packaged moist** in 0.05% sodium azide solution
- Recommended storage temperature +4 °C

Not a medical device / Not an IVD product

MWCO 100–500

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
100–500	10	6.4	75–85	Roll	10 m	**2702.1**	1 unit(s)	450,45
100–500	16	10.2	75–85	Roll	10 m	**4594.1**	1 unit(s)	517,10

MWCO 500–1000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
500–1000	10	6.4	75–85	Roll	10 m	**2704.1**	1 unit(s)	450,45
500–1000	16	10.2	75–85	Roll	10 m	**4596.1**	1 unit(s)	517,10

Dialysis tubular membranes

MWCO 3500–5000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3500–5000	10	6.4	75–85	Roll	10 m	**2708.1**	1 unit(s)	450,45
3500–5000	16	10.2	75–85	Roll	10 m	**4616.1**	1 unit(s)	517,10

MWCO 8000–10,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8000–10000	10	6.4	75–85	Roll	10 m	**4633.1**	1 unit(s)	450,45
8000–10000	16	10.2	75–85	Roll	10 m	**4635.1**	1 unit(s)	517,10

MWCO 20,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
20000	10	6.4	75–85	Roll	10 m	**4643.1**	1 unit(s)	450,45
20000	16	10.2	75–85	Roll	10 m	**4646.1**	1 unit(s)	517,10

MWCO 50,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50000	10	6.4	75–85	Roll	10 m	**8957.1**	1 unit(s)	450,45
50000	16	10.2	75–85	Roll	10 m	**8959.1**	1 unit(s)	517,10

MWCO 100,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
100000	10	6.4	100–125	Roll	10 m	**8960.1**	1 unit(s)	450,45
100000	16	10.2	100–125	Roll	10 m	**8967.1**	1 unit(s)	517,10
100000	24	15.2	100–125	Roll	10 m	**8968.1**	1 unit(s)	573,00

MWCO 300,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
300000	16	10.2	100–125	Roll	10 m	**8977.1**	1 unit(s)	517,10

MWCO 1,000,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000000	16	10.2	100–125	Roll	10 m	**2786.1**	1 unit(s)	517,10

Trial kit Spectra/Por® Biotech CE

Repligen. Material: CE.

Hose membrane pieces on rolls, packaged moist in 0.05% sodium azide solution. Particularly suitable for dialysis where only a small amount of tubing is required (test runs, small-scale applications, etc.).

Delivery incl. 1 pair of Spectra/Por® universal locking clips (red, seal length 50 mm).

Not a medical device / Not an IVD product

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 - 500	16	10	Roll	1 m	**4556.1**	1 unit(s)	160,20
500 - 1000	16	10	Roll	1 m	**4558.1**	1 unit(s)	160,20
3500 - 5000	16	10	Roll	1 m	**4567.1**	1 unit(s)	160,20
8000 - 10000	16	10	Roll	1 m	**4583.1**	1 unit(s)	160,20
20000	16	10	Roll	1 m	**4584.1**	1 unit(s)	160,20
50000	16	10	Roll	1 m	**4585.1**	1 unit(s)	160,20
100000	16	10	Roll	1 m	**4586.1**	1 unit(s)	160,20
300000	16	10	Roll	1 m	**4587.1**	1 unit(s)	160,20
1000000	16	10	Roll	1 m	**4588.1**	1 unit(s)	160,20

Dialysis systems Spectra/Por® Float-A-Lyzer® G2

Repligen. Material: CE, Caps made of PC.

Highly efficient, *ready-to-use* dialysis system, easy to use and **with an extremely high sample recovery of 95–98%.**
Hose membrane made of cellulose ester with caps made of polycarbonate. **Packaged dry**, with low quantities of glycerine to protect against embrittlement. The glycerine must be removed with distilled water in a rinsing step prior to use (duration: 15-30 min).

- For 1–10 ml samples
- Screw cap (Ø 23 mm) enables easy handling; checks can also be carried out during dialysis
- Dialysis tube made of highly pure cellulose ester, contains no contamination such as trace elements or sulphides, therefore no complex pretreatment required
- Low reactivity of the membrane, hardly any adsorption of proteins and liposomes, suitable for direct use with biological sample material
- Floating ring made of PE (Ø 38 mm) improves floatability and vertical alignment
- Various MWCOs available, lid colour-coded accordingly
- Several Float-A-Lyzers can be used at the same time in a single vessel

Not a medical device / Not an IVD product

Filling volume 1 ml

MWCO (dalton(s))	Colour coding	Ø Membrane (mm)	Height (mm)	Art. No.	Pack Qty.	€
100–500	green	10	50	**P560.1**	12 unit(s)	156,95
500–1000	orange	10	50	**4549.1**	12 unit(s)	156,95
3500–5000	black	10	50	**P564.1**	12 unit(s)	156,95
8000–10000	yellow	10	50	**P566.1**	12 unit(s)	156,95
20000	red	10	50	**P568.1**	12 unit(s)	156,95
50000	violet	10	50	**P569.1**	12 unit(s)	156,95
100000	blue	10	50	**P570.1**	12 unit(s)	156,95
300000	amber	10	50	**4550.1**	12 unit(s)	156,95
1000000	pink	10	50	**4608.1**	12 unit(s)	156,95

Filling volume 5 ml

MWCO (dalton(s))	Colour coding	Ø Membrane (mm)	Height (mm)	Art. No.	Pack Qty.	€
100–500	green	10	100	**P586.1**	12 unit(s)	170,95
500–1000	orange	10	100	**4617.1**	12 unit(s)	170,95
3500–5000	black	10	100	**P590.1**	12 unit(s)	170,95
8000–10000	yellow	10	100	**P592.1**	12 unit(s)	170,95
20000	red	10	100	**P594.1**	12 unit(s)	170,95
50000	violet	10	100	**P595.1**	12 unit(s)	170,95
100000	blue	10	100	**P596.1**	12 unit(s)	170,95
300000	amber	10	100	**4624.1**	12 unit(s)	170,95
1000000	pink	10	100	**4653.1**	12 unit(s)	170,95

Filling volume 10 ml

MWCO (dalton(s))	Colour coding	Ø Membrane (mm)	Height (mm)	Art. No.	Pack Qty.	€
100–500	green	10	160	**P599.1**	12 unit(s)	174,15
500–1000	orange	10	160	**4657.1**	12 unit(s)	174,15
3500–5000	black	10	160	**P603.1**	12 unit(s)	174,15
8000–10000	yellow	10	160	**P605.1**	12 unit(s)	174,15
20000	red	10	160	**P607.1**	12 unit(s)	174,15
50000	violet	10	160	**P608.1**	12 unit(s)	174,15
100000	blue	10	160	**P609.1**	12 unit(s)	174,15
300000	amber	10	160	**4660.1**	12 unit(s)	174,15
1000000	pink	10	160	**4663.1**	12 unit(s)	174,15

Mini Dialyzer ZelluTrans/ROTH MD 300

ROTH SELECTION. Material: Cellulose, regenerated.

Ready-to-use dialysis system for samples of between 50 and 300 µl.
The Mini Dialyzer consists of a U-shaped polypropylene capillary with 75 µl graduations and membranes on both sides. The filled sample forms a thin layer over a large surface area, ensuring very short dialysis times.

- Available as an **individual dialyzer** packaged in a 5 ml test tube or as a **dialyzer strip** with 8 interconnected individual dialyzers (can be separated)
- Membranes are made of high-quality regenerated cellulose with different pore sizes (MWCO), **dry packaged**
- Easy to use: Can be filled with the sample and emptied using any standard pipette (100–1000 µl)
- Short dialysis times (30–480 min)
- Flexible: Uses ranging from low-volume dialysis (in test tube, 96-deepwell plates, 2.5 ml) to high-volume dialysis (using a suitable flotation aid, 4768.1)

The Mini Dialyzers are ready for use straight away – no pretreatment required.
For sensitive applications, soak in water or buffer for 15 min beforehand to remove any traces of glycerine.

Not a medical device / Not an IVD product

MWCO (dalton(s))	Version	Art. No.	Pack Qty.	€
3500	Individual dialyzer in 5 ml test tube	**NH91.1**	12 unit(s)	66,80
3500	Dialyzer strip (8 connected individual dialyzers)	**NH92.1**	1 unit(s)	43,95
6000–8000	Individual dialyzer in 5 ml test tube	**NH94.1**	12 unit(s)	66,80
6000–8000	Dialyzer strip (8 connected individual dialyzers)	**NH95.1**	1 unit(s)	43,95
12000–14000	Individual dialyzer in 5 ml test tube	**NH97.1**	12 unit(s)	66,80
12000–14000	Dialyzer strip (8 connected individual dialyzers)	**NH98.1**	1 unit(s)	43,95

Mini Dialyzer ZelluTrans/ROTH MD 100

ROTH SELECTION. Material: Cellulose, regenerated.

Ready-to-use dialysis system for samples of between 10 and 100 µl.
The Mini Dialyzer consists of a U-shaped polypropylene capillary with 25 µl graduations and membranes on both sides. The filled sample forms a thin layer over a large surface area, ensuring very short dialysis times.

- Available as an **individual dialyzer** packaged in a 2 ml reaction vial or as a **dialyzer strip** with 8 interconnected individual dialyzers (can be separated)
- Membranes are made of high-quality regenerated cellulose with different pore sizes (MWCO), **dry packaged**
- Easy to use: Can be filled with the sample and emptied using any standard pipette (2–200 µl)
- Flexible: Uses ranging from low-volume dialysis (in reaction vial or micro-titration plate) to high-volume dialysis (using a suitable flotation aid, as described below)
- Compatible with **96-deepwell plates (2.5 ml)**, 8-channel multichannel pipettes and standard automation systems; allows simultaneous processing of up to 96 samples.

The Mini Dialyzers are ready for use straight away – no pretreatment required. For sensitive applications, soak in water or buffer for 15 min beforehand to remove any traces of glycerine.

Not a medical device / Not an IVD product

MWCO (dalton(s))	Version	Art. No.	Pack Qty.	€
3500	Individual dialyzer in 2 ml reaction vial	**4766.1**	12 unit(s)	65,00
6000–8000	Individual dialyzer in 2 ml reaction vial	**4770.1**	12 unit(s)	65,00
6000–8000	Dialyzer strip (8 connected individual dialyzers)	**4771.1**	1 unit(s)	42,60
12000–14000	Individual dialyzer in 2 ml reaction vial	**4775.1**	12 unit(s)	65,00
12000–14000	Dialyzer strip (8 connected individual dialyzers)	**4776.1**	1 unit(s)	42,60

Accessories for MD 100 and MD 300 Mini Dialyzers

ROTH SELECTION.

Not a medical device / Not an IVD product

(1) For MD 100 and MD 300 Mini Dialyzer Flotation aid
Material: PE. Made of PE foam, for using the Mini Dialyzers in larger dialysis vessels. Reusable.

Version	Art. No.	Pack Qty.	€
Flotation aid	**4768.1**	1 unit(s)	6,50

(2) For MD 100 and MD 300 Mini Dialyzer Cover film
Material: PP. To protect against contamination and evaporation or for storage. Self-adhesive.

Version	Art. No.	Pack Qty.	€
Cover film (for 12 dialyzer strips)	**4781.1**	1 unit(s)	5,60

A 121 °C

Closure clips

Material: PA. Autoclavable: Yes.

Made of polyamide. For sealing plastic bags, freezer bags and dialysis tubes made of regenerated cellulose.
Usage temperature -30 to +80 °C. Colour: White.

Not a medical device / Not an IVD product

Seal length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
45	65	**H277.1**	10 unit(s)	8,45
65	90	**H278.1**	10 unit(s)	12,40
110	130	**P901.1**	10 unit(s)	21,00
150	170	**P902.1**	10 unit(s)	33,25

A 121 °C

Closure Clips Spectra/Por® Universal

Repligen. Material: PA. Autoclavable: Yes.

Made of **PA**. For liquid-tight sealing of tube membranes. Non floating. **Suitable for all membrane types, especially recommended for membranes made of cellulose ester.** Autoclavable, usage temperature 0 to 90 °C.

Not a medical device / Not an IVD product

Seal length (mm)	Colour	Art. No.	Pack Qty.	€
50	yellow	**0685.1**	10 unit(s)	104,30
70	yellow	**0686.1**	10 unit(s)	121,50
110	yellow	**0687.1**	10 unit(s)	134,40
150	yellow	**0688.1**	10 unit(s)	138,70

Dialysis accessories

A 121 °C

Closure clips Spectra/Por®

Repligen. Material: PP. Autoclavable: Yes.

Temperature stable from 0 to 121 °C.
Note: Suitable for membranes made of regenerated cellulose; for membranes made of cellulose ester, please use universal locking clips (Art. No. 0685.1 ff).

Not a medical device / Not an IVD product

Standard caps

Floating.

Seal length (mm)	Colour	Art. No.	Pack Qty.	€
12	orange	**0985.1**	10 unit(s)	108,60
23	orange	**2768.1**	10 unit(s)	117,20
35	orange	**0988.1**	10 unit(s)	121,50
55	orange	**2770.1**	10 unit(s)	124,70
75	orange	**2771.1**	10 unit(s)	126,85

With weights

Caps with weights, enable upright dialysis position.

Seal length (mm)	Colour	Art. No.	Pack Qty.	€
12	white	**2773.1**	10 unit(s)	119,35
23	white	**2774.1**	10 unit(s)	130,10
35	white	**2775.1**	10 unit(s)	135,45
55	white	**2776.1**	10 unit(s)	137,60
75	white	**2777.1**	10 unit(s)	144,05

Combi packaging

Contains 10 clips with and 10 clips without weights.

Seal length (mm)	Colour	Art. No.	Pack Qty.	€
12	white, orange	**2779.1**	20 unit(s)	194,60
23	white, orange	**2780.1**	20 unit(s)	212,85
35	white, orange	**2781.1**	20 unit(s)	233,30
55	white, orange	**2782.1**	20 unit(s)	240,80
75	white, orange	**2783.1**	20 unit(s)	250,50

Closure clips Spectra/Por® with magnetic weight

Repligen. Material: PP.

With embedded magnetic weight for use with magnetic stirrers.

- The dialysis bag is completely immersed in the buffer
- Continuous rotation for optimum material exchange
- No additional magnetic stirrer rod is required

Note: Suitable for membranes made of regenerated cellulose; for membranes made of cellulose ester, please use universal closure clips (Art. No. 0685.1 ff).

Not a medical device / Not an IVD product

Seal length (mm)	Colour	Art. No.	Pack Qty.	€
23	red	**4647.1**	2 unit(s)	83,85
35	red	**4648.1**	2 unit(s)	87,10
55	red	**4650.1**	2 unit(s)	90,30
75	red	**4652.1**	2 unit(s)	100,00

A 121 °C

Dialysis tube holder ZelluTrans/ROTH

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With labelling area. Robust design. For mounting filled dialysis tubes in large containers.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
Dialysis tube holder	**E704.1**	6 unit(s)	34,40

A 121 °C

Filling funnel ZelluTrans/ROTH

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For easy filling and draining of dialysis tubes. The open end of the dialysis tube is pushed onto the funnel nozzle and held in place by a silicone strap. The holder on the funnel allows the funnel to be mounted in different containers. With snap-lock mechanism.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Mini	hoses with 10-19 mm flat width	**E709.1**	10 unit(s)	101,60
Maxi	hoses with 23-45 mm flat width	**E710.1**	10 unit(s)	107,00

Occupational Safety and Personal Protection

Absorbers 982
Aprons 934
Body safety showers 800
Chemical protective gloves 898
Cold resistant gloves 916
Cut resistant gloves 908
Disposable gloves 884
Disposable protective clothing 928
Ear protection 856
Eye showers and eye wash bottles 800
Face safety shields 836
Fire protection 953
First aid 945
Foot protection 940
Full view goggles 811
Gloves 884
Hazard identification signs and labels 968
Heat resistant gloves 919
Head and face protection 837
Lab coats 923
Marker and warning tapes 963
Marking, labels and signs 963
Overalls 929
Over glasses 816
Protective clothing 928
Protective mouth masks 840
Radiation protection 959
Respiratory protection accessories 842
Safety cabinets 955
Safety glasses and accessories 832
Safety shields 959
Skin protection, -care, -cleansing, -disinfection . . . 862
Skin protection accessories 876
Tapes 963
Towel dispensers and accessories 878
UV-safety spectacles 820
Waste collectors 1002
Waste disposal 982
Working gloves 914
Workwear 923

Body/eye showers

Emergency body shower

B-Safety.

DVGW-tested and approved. Acc. to DIN EN 15154-1:2006, DIN 12899-3:2009 and ANSI Z 358.1-2009.

- Application through wall flange, surface-mounted supply line
- Stable design due to robust brass body
- Chemical-resistant powder coating
- Large maintenance-free ball valve for high flow rates (60 l/min at 1.5 bar)
- Application range from 1 to 10 bar water pressure
- Triggered through non-self-closing pull-rod valve
- Large, easy-to-operate pull rod
- Self-emptying high-performance shower head (prevents build-up of bacteria and calcification)
- Adhesive information label for body shower, 150 x 150 mm

(1) Wall-mounted

- Water connection ¾″ internal thread
- Overhang 625 mm
- Pull rod length 700 mm

Type	Art. No.	Pack Qty.	€
Wall-mounted emergency body shower	**EP70.1**	1 unit(s)	304,25

(2) Over-door-mounted

Can be mounted either to left or right of door.

- Water connection ¾″ internal thread
- Overhang 565 mm
- Distance between rod valve and shower arm 500 mm
- Pull rod length 700 mm

Type	Art. No.	Pack Qty.	€
Emergency body shower mounted over the door	**EP72.1**	1 unit(s)	430,00

Emergency shower test trolley

B-Safety.

Mobile collection tank on 4 castors with two recessed handles.

- Can be dismantled into three pieces for easy storage
- Retention capacity: 30 litres
- Drain screw is attached to the container at the top
- For emptying via floor drain, the container must be tipped
- Total/catch height 2.1 m, W 440 x D 440 mm
- Aluminium tube Ø 47 mm, connectable, not extendible
- Funnel Ø 440 mm, height 160 mm
- Overall weight 7 kg

Type	Art. No.	Pack Qty.	€
Emergency shower test trolley	**YP27.1**	1 unit(s)	279,50

Combined emergency shower

B-Safety.

DVGW-tested and approved. Acc. to DIN EN 15154-1:2006, DIN 12899-3:2009 and ANSI Z 358.1-2009.

- Application through wall flange, surface-mounted supply line
- Stable design due to robust brass body
- Chemical-resistant powder coating
- Water connection ¾″ internal thread
- Overhang 625 mm
- Pull rod made of steel, powder-coated, length 700 mm
- Integrated automatic flow regulator 50 l/min for a standard spray pattern at a specified working range of 1.5 to 3 bar flow pressure
- Valves not self-closing
- Adhesive information label for body and eye shower, 150 x 150 mm

(1) Body shower and hand-held eye shower

Hand-held eye shower with a spray head angled at 45° with rubber protection and tightly closing dust cover with folding mechanism. For wall mounting. Integrated automatic flow regulator 7 l/min. Stainless steel-sheathed hose, length 1.5 m. Connection ½″ union nut.

Type	Art. No.	Pack Qty.	€
Emergency shower and hand-held eye shower	**YP32.1**	1 unit(s)	791,20

(2) Body shower and eye shower, 2 shower heads

Safety eye shower with two wide-spraying high-performance spray heads angled at 45°, with rubber protection and tightly closing dust cover with folding mechanism. Integrated automatic flow regulator 14 l/min.

Type	Art. No.	Pack Qty.	€
Body shower and eye shower, two shower heads	**YP33.1**	1 unit(s)	799,80

Emergency shower tester SEKUROKA®

ROTH SELECTION.

For easily carrying out regular checks of body showers. Consisting of: Synthetic hose with sewn-in opening ring, top Ø 28 cm, bottom Ø 12 cm, length 180 cm.
Plastic bucket, 20 litres. Metal clamp rod, 80 cm long.

Type	Art. No.	Pack Qty.	€
Emergency shower tester	**T348.1**	1 set	226,85

Eye showers

Hand-held eye shower straight

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
Universal use, for wall or table mounting. With non-self-closing valve; the release lever locks by itself and the water is switched off again by simply unlocking this. Made of plastic, media-carrying parts made of brass. Silicone tube sheathed in stainless steel, length 1.5 m. Flow rate 7 l/min per shower head at a minimum operating pressure of 1 bar. Water connection ½″ internal thread, union nut.

- With rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

With one spray head

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
7	Wall and table	**KT00.1**	1 unit(s)	196,75

Hand-held eye shower Premium

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
The hand-held eye showers made of stainless steel are particularly suitable for use in industry and in cleanrooms. High-performance shower heads ensure water distribution over a particularly large area at a flow rate of 7 l/min per shower head and at a minimum pressure of 1 bar.

- For table or wall mounting
- Automatic flow regulator
- Integrated backflow preventer
- Stainless steel sheathed potable water tube DN 10, length 1.5 m
- Water connection ½″ internal thread

With one spray head

- Attachment height: 77 cm (±20 cm)
- Height of shower: 21 cm

Pic.	Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
(1)	7	Table	**YP23.1**	1 unit(s)	277,35
(2)	7	wall	**YP24.1**	1 unit(s)	278,45

With two spray heads

- Attachment height: 68 cm (±20 cm)
- Height of shower: 26 cm

Pic.	Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
(3)	14	Table	**YP25.1**	1 unit(s)	368,75
(4)	14	Wall	**YP26.1**	1 unit(s)	368,75

Hand-held eye shower angled at 45°

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
Universal use, for wall or table mounting. With non-self-closing valve; the release lever locks by itself and the water is switched off again by simply unlocking this. Made of plastic, media-carrying parts made of brass. Silicone tube sheathed in stainless steel, length 1.5 m. Flow rate 7 l/min per shower head at a minimum operating pressure of 1 bar. Water connection ½″ internal thread, union nut.

- With rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

With a spray head

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
7	Wall and table	**KT01.1**	1 unit(s)	245,10

With two spray heads

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14	Wall and table	**KT02.1**	1 unit(s)	284,90

Eye showers

Eye shower for table mounting

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
Two shower heads angled at 45° and distributor fork made of brass, with chemical-resistant green powder coating. With a large release lever of 130 mm in length, with a large signal “PUSH”, photoluminescent as per DIN 67510. Maintenance-free ball valve, 90° operation, made of stainless steel, not self-closing. Flow rate 14–16 l/min at a minimum operating pressure of 1 bar. Water connection ½″ external thread, incl. mounting kit. Dimensions: W (incl. lever) 240 x H 180 mm.

- With rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14–16	Table	**LP23.1**	1 unit(s)	208,55

Eye shower for surface-type wall mounting

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
Two shower heads angled at 45°, distributor fork and wall flange (water connection ¾″ internal thread) made of brass with chemical-resistant green powder coating. With a large release lever of 130 mm in length, with a large signal „PUSH“, photoluminescent as per DIN 67510. Maintenance-free ball valve, 90° operation, made of stainless steel, not self-closing.
Flow rate 14–16 l/min at a minimum operating pressure of 1 bar.
Dimensions: W (incl. lever) 330 x D 330 mm.

- With rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14–16	Wall	**LP25.1**	1 unit(s)	268,75

Eye showers

Eye wash for flush-type wall mounting

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
For flush-type wall mounting or replacing the cold water tap. Made of brass, with chemical-resistant powder coating. Plastic spray plate. Two wide-spraying shower heads angled by 45°. Release lever with 90° actuation. Valve not self-closing. Water connection ½″ external thread.

- With rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14–16	Wall	**KX21.1**	1 unit(s)	230,05

Eye wash with collection basin for surface-type wall mounting

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2009.
Two shower heads, distributor fork and wall flange (water connection ¾″ internal thread) made of brass, with chemical-resistant green powder coating.
Collection basin made of stainless steel, diameter 275 mm, drain connection 1¼″ internal thread. With a large release lever 240 mm long, with a large signal „PUSH“, photoluminescent as per DIN 67510. Maintenance-free ball valve, 90° operation, made of stainless steel, not self-closing.
Flow rate 14–16 l/min at a minimum operating pressure of 1 bar.
Dimensions: W (incl. lever) 425 x D 385 mm.

- Shower heads with rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14–16	Wall	**LP26.1**	1 unit(s)	393,45

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Eye wash Kleen Eyes® II

Gateway Safety.

For connection to water taps with external thread M 22 x 1. Can be started up with a simple press of a button when its use is required. Provides continuous flow of fresh water. Leaves both hands free. US patent. **Switches back** to normal tap usage **automatically** once the flow of water is shut off. The eye wash nozzles are adjustable and can be adjusted to the required angle. The eye wash itself can continue to be rotated even after it is affixed to the tap. Consequently, the eye wash can also be affixed to less easily accessible water taps and positioned as needed.

Please note

The Kleen Eyes® II eye wash does not comply with DIN EN 15154-2. The eye wash must only be used as an addition to the eye emergency safety showers as per DIN EN 15154-2.

Mounting	Art. No.	Pack Qty.	€
Tap	**E348.1**	1 unit(s)	136,10

Adapter for eye wash Kleen Eyes®

Gateway Safety.

M 22 x 1 external, 1/2″ internal. For connecting Kleen Eyes® to taps with 1/2″ external thread.

Mounting	Art. No.	Pack Qty.	€
Tap	**E711.1**	1 unit(s)	5,95

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

S

Eye wash bottle

Plum. **Sterile**.

Acc. to DIN EN 15154-4. Disposable eye wash bottles with 0.9% sodium chloride solution for rinsing out foreign particles, such as dust, dirt and fragments. This easy-to-use product is designed to allow fast rinsing of eyes in an emergency. Patented eye support keeps the eyelids open during rinsing. For single use only. There is a risk of infection if reused.

- Quick and easy use
- User-friendly design since the bottles are quick and easy in a single turn
- Directions for use on the bottle
- No cleaning or maintenance needed
- Shelf life of 3 years (if unopened)

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may be used in addition to existing eye shower units acc. to DIN EN 15154-2. Furthermore, it may be used if no running potable water or water of equivalent quality is available.

Medical device class I MDD

(1) Bottle for one eye

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0,9 %	200	**Y829.1**	1 unit(s)	12,70
NaCl 0,9 %	500	**Y828.1**	1 unit(s)	19,70
NaCl 0,9 %	1,000	**LH95.1**	1 unit(s)	22,60

(2) DUO bottle

The special DUO eye support allows both eyes to be rinsed simultaneously.

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0,9 %	500	**ALA8.1**	1 unit(s)	17,45
NaCl 0,9 %	1,000	**LY44.1**	1 unit(s)	30,10

Eye wash bottles

S

Eye wash station

Plum. **Sterile**.

Wall mounting with pictogram, including one eye wash bottle. For eye wash use at any time in the workplace.
Pictogram dimensions: H 300 x W 90 x D 3 mm.

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Delivery incl. mounting material.

(1) Wall mount with bottle for one eye
Equipped with 1 x 500 ml sterile NaCl eye wash solution (Y828.1)

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0,9 %	500	**Y830.1**	1 unit(s)	37,65

(2) DUO Wall mount with DUO bottle
Equipped with 1 x 1000 ml sterile NaCl eye wash solution (LY44.1). For rinsing both eyes simultaneously.

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0,9 %	1,000	**LY50.1**	1 unit(s)	44,95

S

Wall-mounted eye wash box

Plum. **Sterile**.

Wall box with two eye wash bottles filled with 500 ml sterile NaCl eye wash solution (Y828.1). With marking indicating eye wash direction and mirror.

- Ideal for use in workplaces where dust and dirt accumulate (e.g. workshops)
- Easy to open for quick access in an emergency

Dimensions: H 270 x W 227 x D 110 mm

Delivery incl. mounting material.

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0,9 %	**Y831.1**	1 unit(s)	66,15

S

Eye wash bottle pH neutral

Plum. **Sterile**.

Acc. to DIN EN 15154-4. Disposable eye wash bottles with sterile phosphate buffer (4.9%). For fast and effective neutralisation of acids and a wide range of alkaline substances. This easy-to-use product is designed to allow fast rinsing of eyes in an emergency. Patented eye support keeps the eyelids open during rinsing.

- pH neutral (pH value 7.4)
- Quick and easy use
- Directions for use on the bottle
- No cleaning or maintenance needed
- Shelf life of 3 years (if unopened)

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Medical device class I MDD

(1) Bottle for one eye

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
Phosphate buffer 4.9 %	200	**AA81.1**	1 unit(s)	15,00

(2) pH Neutral DUO bottle
DUO design allows both eyes to be rinsed simultaneously.

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
Phosphate buffer 4.9 %	500	**LY45.1**	1 unit(s)	27,85

Eye wash bottles

S

Eye wash station DUO

Plum. **Sterile**.

Wall mount with pictogram and mirror, including DUO eye wash bottles:

- 1 x 1000 ml sterile NaCL eye wash solution (LY44.1)
- 1 x 500 ml sterile pH neutral phosphate buffer eye wash solution (LY45.1)

Ideal for use in workplaces where acids, bases and foreign bodies can get into the eyes.
Duo bottles come with an eye support which allows both eyes to be rinsed simultaneously. After rinsing with the phosphate buffer solution, it is recommended to continue rinsing with the sodium chloride solution until medical treatment is provided.
Pictogram dimensions: H 300 x W 90 x D 3 mm

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Delivery incl. mounting material and mirror.

Wall mount with 2 DUO bottles

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9 % and phosphate buffer 4.9 %	**LY51.1**	1 unit(s)	69,80

Eye wash first aid box QuickSafe

Plum.

- First aid ready to hand in one place
- Flexible and clearly organised system
- Includes the most important products for cases of emergency
- High hygiene standard through dust-proof housing
- Robust and stable box made of impact-resistant plastic
- Low space requirements thanks to small dimensions: H 430 x W 253 x D 92 mm

Delivery incl. mounting material.

(1) QuickSafe Complete
For eye rinsing, wound care, small cuts and burns.
Content:

- 2 x 500 ml sterile NaCl eye wash solution 0.9% (Y828.1)
- 1 x 200 ml sterile pH Neutral eye wash solution (AA81.1)
- 5 x 20 ml sterile QuickRinse eye wash ampoules (ALC3.1)
- 18 x QuickCool burn gel (ALC2.1)
- 1 x QuickStop wound dressing set with 1 x 17 x 17 cm and 2 x 7.5 x 12 cm (ANE4.1)
- 20 x QuickClean wound cleansing wipes (ALC1.1)
- 1 x QuickFix elastic plaster refill set with 45 plasters (LH94.1)

Version	Art. No.	Pack Qty.	€
Complete	**ALA9.1**	1 unit(s)	138,70

(2) QuickSafe Chemical industry
For eye rinsing in accidents involving acids and alkalis.
Content:

- 1 x 500 ml NaCl eye wash solution 0.9%, Duo bottle (ALA8.1)
- 1 x 500 ml sterile pH Neutral eye wash solution, Duo bottle (LY45.1)
- 1 x 200 ml sterile pH Neutral eye wash solution (AA81.1)
- 5 x 20 ml sterile QuickRinse eye wash ampoules (ALC3.1)
- 1 x QuickFix Elastic plaster refill set with 45 plasters (LH94.1)

Version	Art. No.	Pack Qty.	€
Chemical industry	**ALC0.1**	1 unit(s)	127,95

Refill packaging for QuickSafe first aid box

Plum.

Eye wash ampoules QuickRinse
Ampoules with 20 ml 0.9% sterile sodium chloride solution. For rinsing small contaminations of dust and dirt.

Version	Art. No.	Pack Qty.	€
QuickRinse eye wash ampoules	**ALC3.1**	5 unit(s)	11,10

Burn gel QuickCool
Sachets with pain-relief gel for first aid for smaller burns and scalds. Cools and relieves pain. Contains tea tree oil.

Version	Art. No.	Pack Qty.	€
QuickCool burn gel	**ALC2.1**	18 unit(s)	18,10

Eye wash bottles

Wound cleansing wipes QuickClean
Wound cleansing wipes for cleaning smaller wounds and cuts. Contains sterile water.

Version	Art. No.	Pack Qty.	€
QuickClean wound cleansing wipes	**ALC1.1**	20 unit(s)	10,45

Wound dressing set QuickStop
Sterile wound dressings with integrated compress. Elastic, non-adhesive and skin-friendly. Can be applied universally as a compression, covering or support dressing. In cases of heavy bleeding, the smaller wound dressings can also be used as an additional compress.
Set consists of: 1 wound dressing 3 m x 8 cm with compress 17 x 17 cm and 2 wound dressings 2 m x 7 cm with compresses 7.5 x 12 cm.

Version	Art. No.	Pack Qty.	€
QuickStop wound dressing set	**ANE4.1**	1 unit(s)	12,30

① ②

S

Eye wash station

Plum. **Sterile**.

- Ensures quick and effective eye rinsing
- Visible and easily accessible
- Can be simply and quickly mounted on the wall, close to the workstation
- Suitable for hanging in places where instant rinsing may be required
- Equipped with label for eye rinsing and mirror

Emergency stations, each with:

- 1 x 500 ml sterile NaCl eye wash solution (Y828.1)
- 1 x 200 ml sterile pH Neutral eye wash solution (AA81.1)

Delivery incl. mounting material.

(1) Wall mount with 2 bottles
For workplaces without dust or dirt.
Dimensions: H 290 x W 230 x D 80 mm

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9 % and phosphate buffer 4.9 %	**CK43.1**	1 unit(s)	58,05

(2) Wall box with 2 bottles
Dust-proof wall box made of polystyrene. Suitable for production areas with large amounts of dust and dirt. Quick and easy to open in case of emergency.
Dimensions: H 270 x W 227 x D 110 mm

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9 % and phosphate buffer 4.9 %	**CK44.1**	1 unit(s)	69,35

Eye wash bottle station

ROTH SELECTION.

Made of impact-resistant plastic. For dust-proof and splash-proof storage of standard eye wash bottles. Protective covers locked in opened position. With mirror for inspection and immediate use on site.

Suitable for storage of no more than:

- 6 x BARIKOS To-Go (K128.1) eye wash bottles or
- 3 x 500 ml disposable eye wash bottles (Y828.1/1K11.1) or
- 6 x 200 ml disposable eye wash bottles (Y829.1/ AA81.1/1K10.1/1K0Y.1)

Delivery incl. mounting material (screws and wall plugs) and labels for customisation on the opening handle, without content.

W x D x H (mm)	Art. No.	Pack Qty.	€
225 x 125 x 236	**Y832.1**	1 unit(s)	54,60

NEW/+

Eye wash bottle BARIKOS KS

BartelsRieger Atemschutztechnik.

Acc. to EN 15154-4. Filled with 620 ml eye wash fluid (water with no chemical additives). Usable for 2 years.

- **Refillable:** The eye wash bottle can be filled with drinking water any number of times after the first complete rinse to allow continuous rinsing until medical care is provided
- **Patented tilt valve:** Allows the eye wash bottle to be drained both upwards and downwards, e.g. in a bent-forward posture or in a reclining body position

Medical device class I

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
Water	620	**1LN5.1**	1 unit(s)	26,85

Wall mount for eye wash bottle

BartelsRieger Atemschutztechnik. Material: Steel Plastic coated wire.

Suitable for	Art. No.	Pack Qty.	€
Eye wash bottle 620 ml	**5546.1**	1 unit(s)	6,40

Eye wash bottles

Wall box SEKUROKA®

ROTH SELECTION.

Made of solid ABS. Lid made of transparent PETG. For wall mounting. For storing eye wash bottles 620 ml.

Delivery without mounting material and content.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
1 eye wash bottle	180 x 80 x 320	**8120.1**	1 unit(s)	49,40
2 eye wash bottles	280 x 80 x 320	**2005.1**	1 unit(s)	51,95

S

Wound and eye spray

Plum. **Sterile**.

Isotonic saline solution, quick and effective rinsing for small superficial wounds such as scratches and cuts on skin or dust and dirt in eyes.

- Easy to carry with you and ready for immediate use when needed
- Easy operation with one hand, spraying possible from all directions
- Suitable for multiple use, stays sterile after opening
- Contains non-flammable aerosol
- Rinsing solution and propellant are separate, the propellant remains in the can when spraying (bag-on-valve system)
- Total spraying time of a can approx. 15 minutes
- Shelf life of 3 years after production

Applications: Industry, production, laboratories, hazardous goods transport, work in the open, rescue services and emergency aid, wherever no clean water is available immediately.

Medical device class IIa

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl solution 0,9 %	250	**HLY6.1**	1 unit(s)	24,10

Eye wash bottle BARIKOS To-Go

BartelsRieger Atemschutztechnik.

Acc. to DIN EN 15154-4. Filled with 175 ml eye wash fluid (water with no chemical additives). When working at different workstations, this flat eye wash bottle can easily be carried in the pocket of a coat or overalls so it is always close at hand.

- With patented tilt valve
- Ergonomically shaped eye cup
- Can be refilled with potable water
- Shelf life of 2 years when sealed

Dimensions: H 185 x W 90 x D 37 mm

Medical device class I

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
Water	175	**K128.1**	1 unit(s)	21,40

NEW / +

S

Eye wash bottle Actiomedic® Sodium chloride solution

GRAMM medical healthcare. **Sterile**.

Acc. to EN 15154-4. Eye wash bottle, with 0.9% sterile sodium chloride solution, for washing foreign particles, e.g. wood and metal splinters, dust, dirt.

- Ready-to-use
- Eye wash bottle with ergonomically designed spray head and dust cap
- For mobile use and for refilling eye wash stations and first-aid cases

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Medical device class I MDD

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0.9%	250	**1K10.1**	1 unit(s)	12,45
NaCl 0.9%	500	**1K11.1**	1 unit(s)	14,00

Eye wash bottles

NEW / +

S

Eye wash bottle Actiomedic® BioPhos®74 solution

GRAMM medical healthcare. **Sterile**.

Acc. to EN 15154-4. Eye wash bottle with sterile phosphate-buffered 4.9% rinsing solution in the event of chemical burns to eyes or skin.

- Ready-to-use
- High buffer capacity leads to fast neutralisation
- Especially gentle due to lack of artificial components and preservatives
- Eye wash bottle with ergonomically designed spray head and dust cap
- For mobile use and for refilling eye wash stations and first-aid cases

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Medical device class I MDD

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
Phosphate buffer 4.9%	250	**1K0Y.1**	1 unit(s)	13,95

NEW / +

Eye wash station Actiomedic® Single

GRAMM medical healthcare.

- For wall installation at easily visible and easily reachable places
- Fast and easy to handle
- With mirror and pictograms

Contents: One eye wash bottle, ready-to-use and sterile with ergonomic spray head.

- 1 x 500 ml sodium chloride solution for washing foreign particles (1K11.1)

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Delivery incl. eye emergency plan, holder and mounting material.

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0.9%	500	**1K14.1**	1 unit(s)	37,55

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Eye wash bottles

NEW / +

Eye wash station Actiomedic® Wall box

GRAMM medical healthcare.

- Space-saving and simple eye wash station
- Translucent cover allows a good overview
- Protects the contents from dust and splashes of water
- With mirror and pictograms

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Delivery incl. eye emergency plan and mounting material.

Medidrop I
Contents: Two eye wash bottles, ready-to-use and sterile with ergonomic spray head.

- 2 x 500 ml sodium chloride solution for washing foreign particles (1K11.1)

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9%	**1K12.1**	1 unit(s)	81,60

Medidrop II
Contents: Two eye wash bottles, ready-to-use and sterile with ergonomic spray head.

- 1 x 500 ml sodium chloride solution for washing foreign particles (1K11.1)
- 1 x 250 ml buffer solution BioPhos®74 for chemical burns (1K0Y.1)

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9% and phosphate buffer 4.9%	**1K13.1**	1 unit(s)	89,20

NEW / +

Eye wash station Actiomedic® Medi2Protect I

GRAMM medical healthcare.

- Space-saving, quickly accessible and easy to operate
- Signal colour for fast location in an emergency
- Protects the contents from dust and splashes of water
- With integrated mirror
- Extra large grip for easy operation
- Good overview thanks to translucent front panel
- Can be used for wall installation or as a mobile emergency kit

Contents: Three eye wash bottles, ready-to-use and sterile with ergonomic spray head.

- 2 x 500 ml sodium chloride solution for washing foreign particles (1K11.1)
- 1 x 250 ml buffer solution BioPhos®74 for chemical burns (1K0Y.1)

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Delivery incl. eye emergency plan, installation guide and mounting material.

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9% and phosphate buffer 4.9%	**1K15.1**	1 unit(s)	96,80

Full view goggles

Wide-vision safety spectacles BLAST

Bollé.

Acc. to **EN 166** and **EN 170.** Also suitable for work with UV light. Special features: Combined with attachable visor (please order separately), it has the same degree of protection as a face visor and improved eye protection.
Weight: Safety spectacles 113 g, visor 65 g.

- Very comfortable to wear, flexible application options
- Anti-scratch, anti-fog and antistatic PC lens
- Protection against dust, droplets, gases and splashes of molten metal
- Can be worn over spectacles
- Adjustable head strap
- Rotatable articulated hinge
- Outer channel for fluid transport
- Permits wearing of a respiratory half-mask
- 2 versions: Indirect venting or gas-tight

Version	Lens design	Art. No.	Pack Qty.	€
Indirect venting	clear, UV protection, anti-scratch, anti-fog, anti-static	**KP07.1**	1 unit(s)	17,50
Gas-tight	clear, UV protection, anti-scratch, anti-fog, anti-static	**KP08.1**	1 unit(s)	17,50

Visor for BLAST full-vision safety spectacles

Designation	Art. No.	Pack Qty.	€
Face visor	**KP09.1**	1 unit(s)	10,00

Wide-vision safety spectacles ultrasonic

UVEX.

Acc. to **EN 166, EN 170**. **Also suitable for work with UV light.** Polycarbonate lens. Flexible soft component for pressure-free goggles with panoramic vision. Also suitable for spectacle wearers. Wide, infinitely adjustable headband.

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
grey, black	clear, UV protection, anti-scratch, anti-fog	9302-285	**X407.1**	1 unit(s)	22,25
orange, grey	clear, UV protection, anti-scratch, anti-fog	9302-245	**X406.1**	1 unit(s)	22,25

Wide-vision safety spectacles ultravision gas-tight

UVEX.

Acc. to **EN 166, EN 170**. Clear UV protective lens made of PC. Anti-fog on the inside, scratch-resistant and resistant to chemicals on the outside. Unrestricted side view. Also suitable as over-goggles.

Frame colour	Lens design	Art. No.	Pack Qty.	€
yellow	UV protection, anti-fog, anti-scratch, chemical-resistant	**HHX4.1**	1 unit(s)	24,10

Full view goggles

A 121 °C

Autoclavable safety spectacles COVERALL CLAVE

Bollé. Autoclavable: Yes.

Acc. to **EN 166**. Suitable for working in the **clean room**. Lens with high-quality anti-fog and anti-scratch coating. With indirect ventilation.

- Can be worn over prescription spectacles
- Adjustable head strap
- High wearing comfort

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog, anti-scratch	**PK52.1**	1 unit(s)	21,55

Wide-vision safety spectacles uvex 9405 for respiratory protection masks

UVEX.

Acc. to **EN 166**.

- Large, full-vision spectacles with all-round ventilation system
- Protective lenses made of cellulose acetate
- Upper section of spectacle body frosted to suppress light reflections
- Can be worn over prescription glasses
- Shape at bottom has been specially flattened, making it ideal to be combined with respiratory protection masks
- Headband can be easily adjusted

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog	**EEK7.1**	1 unit(s)	17,95

Wide-vision safety spectacles 9305

UVEX.

Acc. to **EN 166**. Close, pressure-free fit. Ventilation slots. Lens made of cellulose acetate. Headband made of solid rubber. Suitable for the clean room.

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog	**P822.1**	1 unit(s)	18,05

Wide-vision safety spectacles ultravision

UVEX.

Acc. to **EN 166**. Panoramic lens with 180° vision. Ventilation system. Lens made of cellulose acetate. Wide, infinitely adjustable headband.

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog	**X368.1**	1 unit(s)	20,40

Wide-vision safety spectacles 6X3

Univet.

Acc. to **EN 166**.
Large panoramic lens, can be worn over prescription glasses and is compatible with half masks. Clear glass lenses made of PC with innovative double-layer anti-scratch/anti-fog coating.

- Adjustable head strap
- Indirect ventilation system ensures protection against liquid droplets and splashes
- Optional attachable face shield
- Weight of safety spectacles: 75 g

Lens design	Art. No.	Pack Qty.	€
clear, anti-scratch, anti-fog	**ATP4.1**	1 unit(s)	29,70

Visor for 6X3 full-vision safety spectacles

Designation	Art. No.	Pack Qty.	€
Face visor	**ATP5.1**	1 unit(s)	12,80

Full view goggles

Wide-vision safety spectacles 2890

3M.

Acc. to **EN 166, EN 170**. Also suitable for work with UV light. Polycarbonate lens, indirect ventilation. Can be worn over most prescription glasses. Wide adjustable headband, with adjustable joints for optimum fit. Good compatibility with 3M half masks. Weight 41 g.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**PT44.1**	1 unit(s)	20,10

Wide-vision safety spectacles 601

Univet.

Acc. to **EN 166**. Lenses made of clear acetate with anti-fog coating. Excellent resistance to chemicals and solvents. Soft and elastic, allows perfect adaptation to the face, with anatomically shaped bridge for optimum wear comfort.

- Wide and undistorted field of view
- Soft fitting, pressure-free rubber frame
- Wide, adjustable elastic head strap
- Can be worn over corrective spectacles
- Adaptor available for corrective lenses
- Weight 118 g

With indirect ventilation

Frame colour	Lens design	Art. No.	Pack Qty.	€
blue	clear, anti-fog	**ATP1.1**	1 unit(s)	23,90

Without ventilation, gas-tight

Frame colour	Lens design	Art. No.	Pack Qty.	€
white	clear, anti-fog	**ATP2.1**	1 unit(s)	24,10

Safety spectacle accessories

Adaptor for corrective lenses for full-vision safety spectacles 601 and 611

Designation	Art. No.	Pack Qty.	€
Adaptor for corrective lenses	**ATP3.1**	1 unit(s)	14,90

Safety spectacles Fahrenheit™

3M.

Acc. to **EN 166**. PC lenses, clear, with anti-scratch and anti-fog coating. Light blue frame. Indirect ventilation, adjustable nylon head band. Suitable for use with prescription glasses and half mask respirators.

Delivery incl. microfibre pouch.

Lens design	Art. No.	Pack Qty.	€
clear, anti-scratch, anti-fog	**AKX2.1**	1 unit(s)	15,80

Wide-vision safety spectacles 6X1

Univet.

Acc. to **EN 166**. The perfect combination. Clear lenses made of PC with anti-scratch/anti-fog coating. The adjustable SoftPad™ arms can be replaced by an elastic head strap and therefore offer absolute flexibility.

- Wide lens for distortion-free field of view
- Indirect ventilation system
- Soft fitting, pressure-free rubber frame
- Adaptor available for corrective lenses
- Angle and length of arms can be adjusted

Delivery incl. head strap.

Lens design	Art. No.	Pack Qty.	€
clear, anti-scratch, anti-fog	**APY5.1**	1 unit(s)	31,80

Full view goggles

Wide-vision safety spectacles X90

Bollé.

Acc. to **EN 166**. Small, compact wide-vision spectacles.

- Lens made of PC
- Wide, adjustable head strap
- Rotatable articulated hinge
- Indirect venting
- Weight 62 g

Lens design	Art. No.	Pack Qty.	€
clear, anti-scratch, anti-fog, anti-static	**KP06.1**	1 unit(s)	17,00

Wide-vision safety spectacles carbonvision

UVEX.

Acc. to **EN 166 and EN 170**. Also suitable for work with UV light. Polycarbonate lens. Excellent mechanical stability with high-grade, long-life headband. Very light full-vision goggles combinable with respiratory protection and safety cap. Weight 46 g.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**PP31.1**	1 unit(s)	22,40

Safety spectacles SP1000™

Honeywell Safety.

Acc. to **EN 166 and EN 170**. Offers protection against liquid splashes, impacts, wind, dust and flying particles. With black frame and clear PC lens. Weight 50 g.

- With Dura-streme™ coating: Anti-fog inside, anti-scratch outside
- With indirect ventilation at the top and bottom
- First-class comfort and sealing properties thanks to excellent contact with the face
- Soft and flexible nose pads for easy fitting to a variety of face shapes
- Padded ear-piece tips for all-day wear comfort
- Flexible design: Can be used with arms or adjustable headband.

Delivery incl. arm and headband.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**PT41.1**	1 unit(s)	27,70

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Full view goggles

Wide-vision safety spectacles 611 Fire service

Univet.

Acc. to **EN 166, EN 170**. Developed for the requirements of professionals who need maximum protection when working under extreme conditions with high-tech equipment.
Application: Protection against liquids, coarse and fine dust, gas, molten metal and hot solids.

- Clear UV-protection double lens made of polycarbonate. With anti-scratch and anti-fog plus coating
- Double lens protects against heat, fog and impact
- Frame, safety lens and elastic band made of fireproof material
- Gas-tight protective frame offers protection against irritating gases and fine dust
- Version with quick-release closure for use with different helmet types
- Wide elastic band ensures additional stability

Version	Frame colour	Lens design	Art. No.	Pack Qty.	€
gas-tight	red	clear, UV protection, anti-scratch, anti-fog	**EYY6.1**	1 unit(s)	46,90
gas-tight with quick-release closure	red	clear, UV protection, anti-scratch, anti-fog	**EYY7.1**	1 unit(s)	52,90

Wide-vision safety spectacles u-sonic

UVEX.

Acc. to **EN 166, EN 170**.
Small, compact full-vision spectacles with perfect fit. Clear UV protective lens made of polycarbonate, outside scratch-proof and chemical-resistant, anti-fog inside.

- Adapts perfectly to any face - ergonomic design with flexible soft components
- High-comfort fit - through light weight and low pressure
- Keeps the eyes comfortable - due to innovative ventilation system
- Ideally combinable with hard hat - due to compact geometry
- Weight: Without attachable lens 69 g

Without attachable lens

Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	grey/lime	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9308-245	**EEK3.1**	1 unit(s)	23,95
(2)	black/red	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9308-247	**EEK4.1**	1 unit(s)	22,40

With attachable lens

Easy, fast application of the attachable lens through integrated magnet technology.

Attachable lens in grey, also offers protection against glare (sun protection).

Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(3)	black/orange	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9308-248	**EEK5.1**	1 unit(s)	29,75

Over glasses

Over-spectacles 5X7

Univet.

Acc. to **EN 166, EN 170, EN 172** (grey lens only).
Innovative frame design prevents the arms from overlapping and offers absolute wearer comfort. UV protective lenses made of polycarbonate. Orange lenses: Protection against UV light and blue light up to 525 nm.

- 3x length adjustable arms
- SoftPad™ arms allow optimum adaptation to the face shape of the wearer
- Weight: 37 g

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	colourless	gunmetal, orange	clear, UV protection, anti-scratch	5X7.01.00.00	**HAA6.1**	1 unit(s)	15,95
(2)	colourless	gunmetal, green	clear, UV protection, anti-scratch, anti-fog	5X7.03.11.00	**APY1.1**	1 unit(s)	21,10
(3)	colourless	white, blue	clear, UV protection, anti-scratch, anti-fog	5X7.03.22.00	**APY2.1**	1 unit(s)	21,10
(4)	grey	gunmetal, green	tinted, UV protection, anti-scratch	5X7.01.11.02	**APY3.1**	1 unit(s)	17,10
(5)	orange	black, orange	tinted, UV protection, anti-scratch, anti-fog	5X7.03.00.04	**APY4.1**	1 unit(s)	22,60

Over-spectacles super OTG

UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (only Art. No. KX41.1). Can be worn as over-spectacles over most prescription glasses.

- PC lens, highly scratch-resistant on both sides
- Hingeless arms
- Flexible, soft ear pieces
- Weight 57 g

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	blue	clear, UV protection, anti-scratch	**KX39.1**	1 unit(s)	22,00
colourless	black	clear, UV protection, anti-scratch	**KX40.1**	1 unit(s)	20,20
grey	black	tinted, UV protection, anti-scratch	**KX41.1**	1 unit(s)	20,65

Over glasses

Over-spectacles super f OTG

UVEX.

Acc. to **EN 166**, **EN 170** and **EN 172** (grey and brown lenses). Lightweight over-spectacles with excellent coverage of the eye area.

- Anti-scratch and chemical-resistant polycarbonate lens
- Can be worn over most prescription glasses
- Hingeless arms
- Flexible, soft ear pieces

NEW / +

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	colourless	black, white	clear, UV protection, anti-scratch, chemical-resistant	9169585	**1E1N.1**	1 unit(s)	21,00
(2)	yellow	black, white	tinted, UV protection, anti-scratch, chemical-resistant	9169580	**1E1P.1**	1 unit(s)	23,30
(3)	grey	black, white	tinted, UV protection, anti-scratch, chemical-resistant	9169586	**1E1T.1**	1 unit(s)	22,10

CBR65

The tint on the CBR65 (contrast blue relax 65) version enhances the contrast, reduces blue light and eliminates strain on the eyes. Light transmission 65 %.

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(4)	brown	black, white	tinted, UV protection, anti-scratch, chemical-resistant, anti-fog	9169164	**1E1L.1**	1 unit(s)	24,95

Over-spectacles 2800

3M.

Acc. to **EN 166 and EN 170**. Lenses made of PC with UV protection, anti-scratch coating. Dark-blue frame. Can be worn as over-goggles over most types of corrective spectacle.

- 4x adjustable arm length
- Adjustable lens angle for perfect fit
- Soft tip ear pieces for wearing comfort
- Yellow lenses filter UV radiation and blue light up to 480 nm and increase contrast even in weak light conditions.
- Weight 38 g

Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
colourless	dark blue	clear, UV protection, anti-scratch	2800	**KA80.1**	1 unit(s)	12,90
yellow	dark blue	tinted, UV protection, anti-scratch	2802	**AKT8.1**	1 unit(s)	13,40

Over-spectacles OX 3000

3M.

Acc. to **EN 160, EN 170**. Also suitable for work with UV light. Comfortable over-spectacles for glasses wearers; fit over any kind of prescription glasses.

- Clear polycarbonate lens, coating protects against fogging, scratches, static charge and chemical influences
- Straight arms, adjustable to 4 settings, ideal for use in combination with ear defenders
- Anti-slip, rubber coated earpieces for optimum comfort
- No metal parts; also suitable for electricians
- Weight 46 g

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**KA31.1**	1 unit(s)	14,65

Over glasses

Over-spectacles ARMAMAX AX5

Honeywell Safety.

Acc. to **EN 166**. Clear, uncoated polycarbonate lens. Large over-spectacles that fit over most prescription glasses. Side sections and top edge in a frosted glass design reduce glare and reflections. Curved side arms and raised bridge for optimum fit. Weight 46 g.

Lens design	Art. No.	Pack Qty.	€
clear	**1726.1**	1 unit(s)	10,55

Over-spectacles SQUALE

Bollé.

Acc. to. **EN 166** and **170**. Can be worn over corrective spectacles.

- Length-adjustable arms
- Additional top and bottom protection
- Weight 43 g

Delivery incl. thin spectacle cord.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**KP05.1**	1 unit(s)	9,10

Over-spectacles uvex 9161

UVEX.

Acc. to **EN 166, EN 170**. **Also suitable for work with UV light.** Fit over any prescription glasses. Unrestricted side view thanks to Super Panorama lens with 180° field of vision.

(1) Model 9161-014
Uncoated polycarbonate lens. With standard arms, length not adjustable.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection	**1554.1**	1 unit(s)	8,20

(2) Model 9161-005
Polycarbonate lens, extremely scratch-resistant on both sides and highly resistant to chemicals.

Special arms, adjustable to 4 lengths, with cushioned arms for a pressure-free fit.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, chemical-resistant	**N163.1**	1 unit(s)	13,15

Over-spectacles safety spectacles for visitors

Univet.

Acc. to **EN 166**. Rugged over-spectacle with uncoated PC lens. Ventilated side protectors. Can be worn over prescription glasses.

Lens design	Art. No.	Pack Qty.	€
clear	**CNH1.1**	1 unit(s)	6,50

Safety spectacles futura

UVEX.

Acc. to **EN 166, EN 170**. Excellent fit. Clear panes made of polycarbonate, extremely scratch-resistant and with a near unrestricted field of view. Arms with maximum wearing comfort, 4-stage individual adjustment, anti-slip, infinitely adjustable arm angle. Weight 46 g. Lenses can be replaced.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch	**C522.1**	1 unit(s)	18,05

Over glasses

Safety spectacles Max A1

HHW.

Acc. to **EN 166**. Polycarbonate lens. Integrated side protection. Arms are flexible and length can be adjusted; softpads reduce the pressure. Lens inclination to fit individual face shapes. Weight 34 g.

Lens design	Art. No.	Pack Qty.	€
clear, anti-scratch, anti-fog	**Y254.1**	1 unit(s)	12,75

Safety spectacles XC

Honeywell Safety.

Acc. to **EN 166, EN 170**. Anti-fog polycarbonate lens. Individually adjustable lens tilt, adjustable arm length. Can also be worn by people wearing prescription glasses by using the corrective lens insert (CK91.1).

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-fog	**CK90.1**	1 unit(s)	22,65

Safety spectacles 511

Univet.

Acc. to **EN 166**. Clear lenses made of PC. Narrow type is suitable for narrow faces and school pupils.

- Angle and length of arms can be adjusted
- Integrated side protection
- Weight 34 g

Version	Frame colour	Lens design	Art. No.	Pack Qty.	€
Narrow type	blue	clear, anti-scratch	**APY8.1**	1 unit(s)	7,85
Normal type	blue	clear, anti-scratch	**APY7.1**	1 unit(s)	7,85
Normal type	black	clear, anti-fog	**CNH0.1**	1 unit(s)	9,95

Adapter for corrective lenses for the XC safety spectacles

Honeywell Safety.

To be combined with the XC (CK90.1) UV safety spectacles. The insert must be fitted with customised lenses by your optician, according to your prescription.

- Can be inserted easily and securely behind the safety spectacle lens
- The lenses from your optician are protected by the lenses of the safety spectacles
- More comfortable to wear than over-spectacles or clip on spectacles

Version	Art. No.	Pack Qty.	€
Adapter for corrective lenses	**CK91.1**	1 unit(s)	40,80

UV-safety spectacles

Safety spectacles i-5

UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).

- Polycarbonate lenses – anti-fog on the inside, anti-scratch on the outside, resistant to chemicals
- Soft and flexible nose pad for maximum comfort and slip-resistant grip
- Improved lens design for greater side protection and protection against flying particles, dust and dirt.
- Three-stage inclination and adjustable arm length allow easy adaptation to every head shape

Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
colourless	anthracite, blue	clear, UV protection, anti-scratch, chemical-resistant, anti-fog	9183265	**1CY4.1**	1 unit(s)	21,00
grey	anthracite, lime	tinted, UV protection, anti-scratch, chemical-resistant, anti-fog	9183281	**1CY5.1**	1 unit(s)	22,70

Safety spectacles x-fit

UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).

- Anti-scratch and chemical-resistant polycarbonate lens
- Classic safety spectacles with perfect fit
- Innovative arm-hinge concept
- X-Design for stability
- Low weight, 23 g
- Non-metallic

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	colourless	grey	clear, UV protection, anti-scratch, chemical-resistant	9199085	**1CTP.1**	1 unit(s)	10,90
(2)	colourless	blue	clear, UV protection, anti-scratch, chemical-resistant, anti-fog	9199265	**1CTT.1**	1 unit(s)	12,20
(3)	colourless	pink	clear, UV protection, anti-scratch, chemical-resistant, anti-fog	9199123	**1CTX.1**	1 unit(s)	12,20
(4)	yellow	grey	tinted, UV protection, anti-scratch, chemical-resistant, anti-fog	9199286	**1CTY.1**	1 unit(s)	14,80
(5)	grey	grey	tinted, UV protection, anti-scratch, chemical-resistant, anti-fog	9199280	**1CX0.1**	1 unit(s)	13,75

Safety spectacles x-fit pro

UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).

- Anti-scratch and chemical-resistant polycarbonate lens
- Innovative arm-hinge concept
- Soft nose pad in X-Design for maximum wearing comfort
- Elastic arms for a pressure-free fit
- Arm angle can be adjusted with the Comfort slider and adapted to every head shape
- Non-metallic

Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
colourless	white, anthracite	clear, UV protection, anti-scratch, chemical-resistant	9199005	**1CP6.1**	1 unit(s)	17,35
colourless	blue, anthracite	clear, UV protection, anti-scratch, chemical-resistant, anti-fog	9199245	**1CP7.1**	1 unit(s)	19,25
grey	anthracite, light grey	tinted, UV protection, anti-scratch, chemical-resistant, anti-fog	9199276	**1CP8.1**	1 unit(s)	20,40

UV-safety spectacles

Safety spectacles SILEX+

Bollé.

Acc. to **EN 166, EN 170, EN 172** (dark lens).
UV protective lenses made of polycarbonate with the Bollé platinum coating inside and outside. Arms made of polycarbonate/TPR.

- Wraparound frame for a comfortable fit
- Extremely flexible arms 160°
- Panoramic field of vision, no annoying edges
- Without metal parts
- Ideal for long periods of wear
- Weight 30 g

NEW / +

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	dark green/green	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**1HP2.1**	1 unit(s)	10,00
grey	black/green	tinted glass, slightly dark, UV protection, anti-scratch, anti-fog, chemical-resistant	**1HP3.1**	1 unit(s)	11,15

CSP

The additional CSP coating is suitable for all activities where light alternates between strong and weak.

Frame colour	Lens design	Art. No.	Pack Qty.	€
grey/black	UV protection, anti-scratch, anti-fog, chemical-resistant	**1HP1.1**	1 unit(s)	11,15

Safety spectacles skylite

UVEX.

Acc. to **EN 166, EN 170**. Clear lenses made of polycarbonate, scratch-resistant on the inside and outside. Angle of arms can be adjusted. Integrated side protectors with a matt finish. Ultra-lightweight spectacles, approx. 26 g.

Pic.	Frame colour	Lens design	Art. No.	Pack Qty.	€
(1)	metallic red	clear, UV protection, anti-scratch	**CH18.1**	1 unit(s)	10,80
(2)	blue	clear, UV protection, anti-scratch	**NP29.1**	1 unit(s)	11,45

Safety spectacles B272

Bollé.

Acc. to **EN 166** and **EN 170**.

- Anti-scratch and anti-fog PC lens
- Length-adjustable arms
- Adjustable lens inclination
- Additional top and bottom protection
- Weight 31 g

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**KP00.1**	1 unit(s)	15,45

UV-safety spectacles

Safety spectacles astrospec 2.0

UVEX.

Acc. to **EN 166, EN 170**. Clear panorama lens made of polycarbonate with UV filter and integrated side protection.

- Flexible duo component arms and adjustable lens inclination for perfect fit
- Soft ear pieces ensure a secure fit without pressure points
- Maximum wearing comfort for all face shapes
- Also suitable for extended wear
- Extremely flat-folding and space-saving
- Weight: 37 g

Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	anthracite/blue	clear, UV protection, anti-scratch, long-lasting anti-fog	9164-275	**CYN0.1**	1 unit(s)	24,85
(2)	black/lime	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9164-285	**CYN2.1**	1 unit(s)	20,70
(3)	blue/light blue	clear, UV protection, anti-scratch, chemical-resistant	9164-065	**EEK6.1**	1 unit(s)	18,60
(4)	black/grey	anti-fog, anti-scratch, anti-static, clear, UV protection	9164-187	**HYX5.1**	1 unit(s)	20,65

Safety spectacles super g

UVEX.

Acc. to **EN 166, EN 170**. **Extremely lightweight safety spectacles.**

- Very thin, shatterproof lens made of PC
- Completely metal-free
- Easy to wear and a secure fit, thanks to a barely perceptible, extremely flexible frame design
- Unique nose pad can be easily combined with a respiratory mask
- XST technology in the arms (earpieces with soft components) ensures a comfortable, pressure-free fit
- Weight 18 g

Pic.	Frame colour	Lens design	Art. No.	Pack Qty.	€
(1)	crystal	clear, UV protection, anti-scratch, long-lasting anti-fog, anti-static	**HH50.1**	1 unit(s)	18,05
(2)	blue	clear, UV protection, anti-scratch, long-lasting anti-fog	**HH51.1**	1 unit(s)	18,95

Safety spectacles SILIUM

Bollé.

Acc. to **EN 166, EN 170** and **EN 172** (dark lens).

- Non-slip TIPGRIP arms and non-slip adjustable nose bridge plates
- Anti-scratch, anti-fog and antistatic PC lens
- Bendy, Flex arm 160%
- Brass frame
- Weight 34 g

Lens colour	Lens design	Art. No.	Pack Qty.	€
colourless	clear, UV protection, anti-scratch, anti-fog, anti-static	**KN95.1**	1 unit(s)	14,15
grey	tinted glass, slightly dark, UV protection, anti-scratch, anti-fog, anti-static	**KN96.1**	1 unit(s)	16,00

UV-safety spectacles

Safety spectacles SILIUM+

Bollé.

Acc. to **EN 166, EN 170**.

- UV lens and frame made of PC. With Bollé platinum coating
- Comfortable fit thanks to straight, ergonomic and extremely flexible arms
- Slip-resistant and adjustable bridge
- Light as a feather, suitable for long periods of wear
- Weight 21 g

Pic.	Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
(1)	colourless	black	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**HYL4.1**	1 unit(s)	14,80
(2)	grey	black	tinted glass, slightly dark, UV protection, anti-scratch, anti-fog, chemical-resistant	**HYL5.1**	1 unit(s)	14,80

CSP

The additional CSP coating is suitable for all activities where light alternates between strong and weak.

Pic.	Frame colour	Lens design	Art. No.	Pack Qty.	€
(3)	black	UV protection, anti-scratch, anti-fog, chemical-resistant	**HYL6.1**	1 unit(s)	14,80

Safety spectacles 506U

Univet.

Acc. to **EN 166, EN 170.** Clear UV protective lenses made of PC with anti-scratch/anti-fog coating.

- Angle and length adjustable arms
- Soft ear pieces avoid pressure points
- Optimal wearing comfort and adaptation through soft, adjustable bridge
- Weight 25 g

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
white/pink	clear, UV protection, anti-scratch, anti-fog	506U.03.02.00	**CNE8.1**	1 unit(s)	14,90
black/green	clear, UV protection, anti-scratch, anti-fog	506U.06.01.00	**CNE9.1**	1 unit(s)	13,60

Safety spectacles Tora CCS

3M.

Acc. to **EN 166, EN 170.** Lens made of PC. Ear protection attaches directly to the spectacles, ensuring that eye and ear protection are always joined and ready for use, without tangling. The ear protection cord doubles as a spectacle cord. Very lightweight, weight 22 g.

Delivery without ear protection and cord. Please order separately (ULTRAFIT TE80.1 ear plugs).

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**TE79.1**	1 unit(s)	12,45

UV-safety spectacles

Safety spectacles MAX Z8

HHW.

Acc. to **EN 166, EN 170**. Clear, anti-fog polycarbonate lens, also protects the eyebrow area. Metal arm. Earpieces are covered with a new, anti-slip soft PVC. Optimum fit and good all-round visibility. Weight 33 g.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-fog	**CY76.1**	1 unit(s)	13,15

Safety spectacles i-works

UVEX.

Acc. to **EN 166, EN 170.**

- UV protective lens made of PC. Anti-fog on the inside, scratch-resistant and resistant to chemicals on the outside
- Non-metallic
- Large field of view due to panoramic lens
- Soft arms, flat arm with opening for fastening the spectacle cord

Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
colourless	anthracite/blue	clear, UV protection, anti-fog, anti-scratch, chemical-resistant	9194-171	**HHX0.1**	1 unit(s)	16,30
colourless	anthracite/green	clear, UV protection, anti-fog, anti-scratch, chemical-resistant	9194-175	**HHX1.1**	1 unit(s)	16,25
grey	black/grey	tinted, UV protection, anti-fog, anti-scratch, chemical-resistant	9194-885	**HHX2.1**	1 unit(s)	31,45
yellow	black/yellow	tinted, UV protection, anti-fog, anti-scratch, chemical-resistant	9194-365	**HHX3.1**	1 unit(s)	20,60

Safety spectacles i-3

UVEX.

Acc. to **EN 166, EN 170, EN 172** (grey lenses).

- PC lenses – anti-fog on the inside, anti-scratch on the outside, resistant to chemicals
- Perfect vision downwards
- Adapts perfectly to any face shape, excellent wearer comfort
- Soft nose pads ensure perfect anti-slip fitting
- Metal-free construction for low weight and long life

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	anthracite, blue	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**NP27.1**	1 unit(s)	21,40

UV-safety spectacles

Safety spectacles PRISM

Bollé.

Acc. to **EN 166, 170** and **EN 172** (dark lens).

- 100% polycarbonate goggles
- Anti-scratch and anti-fog visor
- Straight arm
- Very lightweight spectacles
- Weight 23 g

Delivery incl. spectacle cord.

Lens colour	Lens design	Art. No.	Pack Qty.	€
grey	tinted glass, slightly dark, UV protection, anti-scratch, anti-fog	**KP04.1**	1 unit(s)	9,10
colourless	clear, UV protection, anti-scratch, anti-fog	**KP03.1**	1 unit(s)	9,10

Safety spectacles VIPER

Bollé.

Acc. to **EN 166** and **EN 170**.

- Very good adaptation thanks to shape and ultra-light design
- Lens made of PC
- Length-adjustable arms
- Additionally integrated protection at upper edge of goggles
- Weight 25 g

Delivery incl. adjustable glasses strap.

Lens colour	Lens design	Art. No.	Pack Qty.	€
yellow	tinted, UV protection, anti-scratch, anti-fog	**KP02.1**	1 unit(s)	12,90
colourless	clear, UV protection, anti-scratch	**KP01.1**	1 unit(s)	10,75

Safety spectacles TRYON

Bollé.

Acc. to **EN 166, EN 170**.

- UV lens made of PC. With Bollé platinum coating.
- Wrap-around frame in a sporty design
- Comfortable and secure fit thanks to flexible wrap-around 160° arms and anti-slip adjustable bridge
- Weight 26 g

Frame colour	Lens design	Art. No.	Pack Qty.	€
light blue, black	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**HYL9.1**	1 unit(s)	14,05

UV-safety spectacles

Safety spectacles pheos

UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).

- Wide, undistorted field of vision
- Inner lenses permanently non-fogging, outer lenses highly scratch- and chemical-resistant
- Duo-spherical lenses provide optimal eye coverage at the sides
- The tips of the arms are fitted with anti-slip components for extra comfort and slip resistance
- Excellent ventilation
- Metal-free arm mechanism with an easy action
- Compatible with ear muffs, hard hats and bump caps

Lenses made of PC.

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	colourless	light grey, green	clear, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-215	**XC85.1**	1 unit(s)	17,70
(2)	colourless	black, green	clear, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-225	**EHT6.1**	1 unit(s)	19,35
(3)	grey	black, grey	tinted, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-285	**XC86.1**	1 unit(s)	19,05

Pheos blue

Eco friendly safety spectacles “Green Design“ based on natural raw materials. Made of bioplastic, which is a plastic based on organic raw materials. Fully functional safety spectacles which meet all requirements for safety and wearing comfort.

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(4)	colourless	sand, blue	clear, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-765	**XC87.1**	1 unit(s)	20,00

Safety spectacles pheos s

UVEX.

Acc. to **EN 166, EN 170.** Smaller version of the pheos safety spectacles for smaller faces.

- Wide, borderless, undistorted field of vision
- Inner lenses permanently non-fogging, outer lenses highly scratch- and chemical-resistant
- Duo-spherical lenses provide optimal eye coverage at the sides
- The tips of the arms are fitted with anti-slip components for extra comfort and slip resistance
- Excellent ventilation
- Metal-free arm mechanism with an easy action
- Compatible with ear muffs, hard hats and bump caps

Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	white, green	clear, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-725	**EHT7.1**	1 unit(s)	19,35
(2)	anthracite, grey	clear, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-785	**EHT8.1**	1 unit(s)	19,35

UV-safety spectacles

Safety spectacles pheos cx2

UVEX.

Acc. to **EN 166, EN 170.**

- Lens made of PC, anti-fog on the inside, anti-scratch and chemical resistant on the outside
- Wide, undistorted field of vision
- Comfortable protection with directly moulded forehead piece and bridge
- Excellent ventilation for healthy eyes
- Combinable with ear defenders, helmet and bump caps

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
red, grey	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9198-258	**HHT9.1**	1 unit(s)	17,35
blue, grey	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9198-257	**HHT8.1**	1 unit(s)	17,35
black, light blue	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9198-256	**HHT7.1**	1 unit(s)	17,35

Safety spectacles RUSH+

Bollé.

Acc. to **EN 166, EN 170**.

- PC lens with Bollé platinum coating.
- More comfortable fit thanks to very soft arms and slip-resistant adjustable bridge
- Weight 28 g

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
red, black	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	RUSHPPSI	**HYL7.1**	1 unit(s)	11,10

Safety spectacles RUSH+ SMALL

Bollé.

Acc. to **EN 166, EN 170**.

- UV lens made of PC with Bollé platinum coating.
- Comfortable fit thanks to very soft arms and anti-slip adjustable bridge
- Extremely sporty design, ideal for narrower faces, young adults and children.
- Weight: 26 g

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
white/light blue	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	RUSHPSPSI	**HYN0.1**	1 unit(s)	11,10

UV-safety spectacles

Safety spectacles uvex sportstyle

UVEX.

Acc. to **EN 166, EN 170**

- Polycarbonate lenses, inside permanently anti-fogging, outside highly scratch-resistant
- Soft, adjustable nose pads
- Soft, anti-slip earpieces
- UVEX lens geometry from optimum view and perfect protection
- Extremely lightweight, sporty design for excellent wearer comfort

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	black/petrol	clear, UV protection, anti-scratch, long-lasting anti-fog	**EHN2.1**	1 unit(s)	16,50

Safety spectacles 5X1

Univet.

Acc. to **EN 166, EN 170.** Designed for optimum protection and individual adjustment. UV protective lenses made of polycarbonate.

- Distinctive „wrap-around“ lens with extra protection in the side eye area
- SoftPad™ arms, length and tilt-adjustable arms
- Soft, height-adjustable bridge, reduces pressure
- Suitable for long periods of wear

Pic.	Lens design	Art. No.	Pack Qty.	€
(1)	clear, UV protection, anti-scratch, anti-fog	**HAA7.1**	1 unit(s)	22,75

In/Out

In/Out lens with multi-layer, reflective coating on the outside, offers protection against glare and allows good visibility when switching between dark and bright environments

Pic.	Lens design	Art. No.	Pack Qty.	€
(2)	UV protection, anti-scratch	**HAA8.1**	1 unit(s)	20,80

Safety spectacles i-vo

UVEX.

Acc. to **EN 166, EN 170 and/or EN 172** (CH15.1). Polycarbonate lens. The nanotechnology coating enhances the anti-adhesion properties, allowing aqueous and oily staining to be removed effortlessly from the lens.

- Safety spectacles for maximum wear comfort
- Pressure-free and comfortable fit due to soft components at sensitive zone, such as nose, forehead and ears
- Length-adjustable side arms, 5-stage inclination

Pic.	Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
(1)	colourless	blue, orange	clear, UV protection, anti-scratch, chemical-resistant	**Y406.1**	1 unit(s)	21,55
(2)	colourless	black/grey	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**EHT5.1**	1 unit(s)	25,80
(3)	brown	blue, orange	tinted, UV protection, anti-scratch, chemical-resistant	**CH15.1**	1 unit(s)	21,75

UV-safety spectacles

Safety spectacles 5X3

Univet.

Acc. to **EN 166, EN 170**.
Highly-developed frame to minimise pressure points on the face, ideally fits any face without adjustment.

- SoftPad™ arms and an adjustable bridge for improved wearer comfort
- Distinctive „wrap-around“ PC lenses
- Ventilation system
- Orange lens offers protection against UV light and blue light up to 525 nm
- Weight 31 g

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	black, green	clear, UV protection, anti-scratch	**APX7.1**	1 unit(s)	13,30
colourless	black, orange	clear, UV protection, anti-scratch, anti-fog	**APX8.1**	1 unit(s)	20,50
orange	black, orange	tinted, UV protection, anti-scratch, anti-fog	**CNH4.1**	1 unit(s)	20,70

Safety spectacles 5X6

Univet.

Acc. to **EN 166, EN 170**.
Clear UV protective lenses made of PC with anti-scratch/anti-fog coating. Light and comfortable model, ideal for long-duration wear. Sporty „wrap-around“ design, the lens is flexibly attached to the frame.

- Length-adjustable SoftPad™ arms
- Soft and anatomically shaped nose bridge
- Weight 26 g

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
gunmetal, green	clear, UV protection, anti-scratch, anti-fog	5X6.03.11.00	**APX9.1**	1 unit(s)	18,55
white, blue	clear, UV protection, anti-scratch, anti-fog	5X6.03.22.00	**APY0.1**	1 unit(s)	18,50

Safety spectacles x-one

UVEX.

Acc. to **EN 166, EN 170, EN 172** (grey lenses). Sporty and lightweight, wide field of vision, unrestricted side vision, good coverage of the eyebrows and cheeks. Weight 27 g.

Pic.	Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
(1)	colourless	colourless	clear, UV protection	**NP24.1**	1 unit(s)	7,55
(2)	colourless	azure blue	clear, UV protection	**NP25.1**	1 unit(s)	7,55
(3)	grey	black	tinted, UV protection	**NP26.1**	1 unit(s)	10,80

Safety spectacles SecureFit 400

3M.

Acc. to **EN 166, EN 170, EN 172** (grey lenses).
Polycarbonate UV protective lenses with anti-scratch and anti-fog properties.

- Flexible frame, adapts easily to all head sizes and shapes
- Soft, adjustable bridge for a perfect and secure fit
- Padded ear pieces reduce pressure points and thus enhance wearing comfort
- Optimal compatibility with ear muffs and fine dust masks
- Extremely lightweight, 19 g

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	black, green	clear, UV protection, anti-scratch, anti-fog	**CNE6.1**	1 unit(s)	13,30
grey	black, green	tinted, UV protection, anti-scratch, anti-fog	**CNE7.1**	1 unit(s)	13,30

UV-safety spectacles

Safety spectacles Virtua™

3M.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).
100% polycarbonate spectacles, anti-scratch. Very good fit.
Weight 25 g.

Lens colour	Lens design	Art. No.	Pack Qty.	€
colourless	clear, UV protection, anti-scratch	**CY78.1**	1 unit(s)	7,55
grey	tinted, UV protection, anti-scratch	**CY80.1**	1 unit(s)	8,40

Safety spectacles Virtua™ Slim

3M.

Acc. to **EN 166, EN 170**. For small head sizes, children or adults with a small pupillary distance/narrow face. Polycarbonate spectacles, clear, anti-scratch lens.

Lens colour	Lens design	Art. No.	Pack Qty.	€
colourless	clear, UV protection, anti-scratch, anti-fog	**KA62.1**	1 unit(s)	8,25

Safety spectacles Millennia®

Honeywell Safety.

Acc. to **EN 166, EN 170** and **EN 172** (P763.1).

- Anti-scratch polycarbonate lens
- Ergonomic frame, adjusted to head shape
- Straight arms – no need to adjust arm length or angle, no pressure behind the ears
- Optimal lens curve – distortion-free vision
- Weight 34 g

Delivery incl. adjustable, flexible spectacle cord.

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	blue	clear, UV protection, anti-scratch	**P758.1**	1 unit(s)	12,75
colourless	silver	clear, UV protection, anti-scratch	**P760.1**	1 unit(s)	13,20
yellow	black	tinted, UV protection, anti-scratch	**P761.1**	1 unit(s)	15,55
grey	black	tinted, UV protection, anti-scratch	**P763.1**	1 unit(s)	15,75

Safety spectacles Millennia® sport

Honeywell Safety.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).

- Anti-scratch polycarbonate lens
- Ergonomic frame, adjusted to head shape
- Straight arms – no need to adjust arm length or angle, no pressure behind the ears
- Optimal lens curve – distortion-free vision
- Weight 34 g

Delivery incl. adjustable, flexible spectacle cord.

Frame colour	Lens design	Art. No.	Pack Qty.	€
blue	clear, UV protection, anti-scratch	**CA36.1**	1 unit(s)	11,90
black	tinted, UV protection, anti-scratch	**CA35.1**	1 unit(s)	10,75

UV-safety spectacles

Safety spectacles cybric

UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (AA34.1). Sporty, modern, double lens with integrated side protectors.

- Anti-scratch and anti-fog polycarbonate lens
- Angle and length of side arms can be adjusted individually
- Comfortable, pressure-free fit, thanks to elastic earpieces
- Weight 29 g

Lens colour	Lens design	Art. No.	Pack Qty.	€
colourless	clear, UV protection, anti-scratch, anti-fog	**AA33.1**	1 unit(s)	18,40
grey	tinted, UV protection, anti-scratch, anti-fog	**AA34.1**	1 unit(s)	19,15

Safety spectacles 546

Univet.

Acc. to **EN 166, EN 170.** Very lightweight, modern safety spectacles with a sporty line. Clear UV protective lenses made of PC with anti-scratch/anti-fog coating.

- „Wrap-around" polycarbonate lens with integrated side protection
- Arms guarantee excellent fit and wear comfort
- Non-slip soft bridge
- Ideal for long periods of wear
- Orange lens: Protection against UV and light up to 525 nm

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	black, green	clear, UV protection, anti-scratch, anti-fog	**CNH2.1**	1 unit(s)	14,75
orange	black, orange	tinted, UV protection, anti-scratch, anti-fog	**CNH3.1**	1 unit(s)	18,85

Safety spectacles 2840

3M.

Acc. to **EN 166, EN 170** and **EN 172** (KA83.1).

- Arm length adjustable to three settings
- Adjustable lens tilt for individual adjustment
- Strong polycarbonate lenses with anti-scratch and anti-fog coating
- Integrated eyebrow protection for increased protection
- Soft inner side of arms offers increased wearer comfort
- **KA83.1** safety spectacles, with grey lens for working outdoors, where additional protection is required against sunlight
- **NN25.1** safety spectacles with orange lens filters UV radiation and blue light up to 530 nm. Increases contrast and clarity of vision in weak lighting
- Weight 26 g

Pic.	Lens colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	colourless	clear, UV protection, anti-scratch, anti-fog	2840	**KA82.1**	1 unit(s)	16,35
(2)	grey	tinted, UV protection, anti-scratch, anti-fog	2841	**KA83.1**	1 unit(s)	16,80
(3)	orange	tinted, UV protection, anti-scratch, anti-fog	2846	**NN25.1**	1 unit(s)	20,25

Special safety goggles

Autoclavable safety spectacles

UVEX. Autoclavable: Yes.

Acc. to **EN 166, EN 170**.
Clear lenses made of PC with UV protection, anti-fog inside, anti-scratch outside. Autoclavable for at least 10 cycles (20 min at 121 °C). Suitable as clean room spectacles or for critical areas.

A 121 °C

Ultrasonic CR full-vision spectacles

Exceptional wearer comfort even for wearers of prescription glasses. No pressure issues from continuous wear thanks to the combination of hard and soft components. Sporty design, wide panoramic field of vision and extensive side protection. Indirect ventilation, adjustable silicone headband. Replaceable lens.

Pic.	Lens design	Art. No.	Pack Qty.	€
(1)	clear, UV protection, anti-scratch, anti-fog	**ANL3.1**	1 unit(s)	37,00

Super OTG CR over-spectacles

Fits over prescription glasses. Perfect wear properties, unrestricted side vision. New arm-hinge concept with soft arms.

Pic.	Lens design	Art. No.	Pack Qty.	€
(2)	clear, UV protection, anti-scratch, anti-fog	**ANL4.1**	1 unit(s)	30,95

Super fit CR

Ultra-lightweight arm spectacles in a sporty design. Extremely thin lens made of clear PC offers excellent visual clarity. Optimum protection against mechanical risks, perfect fit without slipping.

Pic.	Lens design	Art. No.	Pack Qty.	€
(3)	clear, UV protection, anti-scratch, anti-fog	**ANL5.1**	1 unit(s)	29,05

Welding safety goggles 5X7

Univet.

Acc. to **EN 166, EN 170**. Protection against UV and IR radiation and glare, as often occurs during welding processes. Stage: 5.
Application: Soldering, gas welding.

- Innovative frame design prevents overlapping of the arms and offers absolute wear comfort
- PC lenses with anti-scratch and anti-fog coating, shatterproof
- 3x length adjustable arms
- SoftPad™ arms allow optimum adaptation to the face shape of the wearer
- Weight: 37 g

Lens design	Art. No.	Pack Qty.	€
UV protection, anti-scratch, anti-fog	**EYY9.1**	1 unit(s)	23,25

Special safety goggles

Safety spectacles 5X9

Univet.

Acc. to **EN 166, EN 170**. The two-lens structure enables a wide selection of lens materials and filters and can thus be used in many applications. The integrated flip-up system and the lens form a unique modular system for maximum flexibility.
Application: In chemistry labs and in environments with grinding dust

- Integrated side protection with ventilation system
- Weight: 52 g (glass), 35 g (polycarbonate)
- Can be combined with flip-ups with protective filters for specific requirements

With arms

Arm length and tilt can be adjusted, with SoftPad™ arms.
Version with glass lenses offers good protection against chemicals and scratches.

Pic.	Version	Lens design	Art. No.	Pack Qty.	€
(1)	Lens made of PC	clear, UV protection, anti-scratch	**HAA0.1**	1 unit(s)	19,00
(2)	Lens made of glass	clear	**HAA1.1**	1 unit(s)	37,25

With headband

Equipped with elastic headband and tight-fitting additional frame.

Pic.	Version	Lens design	Art. No.	Pack Qty.	€
(3)	Lens made of PC	clear, UV protection, anti-scratch, anti-fog	**HAA2.1**	1 unit(s)	22,25

Accessories for 5X9 safety spectacles Flip-up

Univet.

For use with 5X9 safety spectacles
Can be easily fitted onto the glasses frame, removed again and replaced with another filter. Can be flipped up.

PC, IR 3

Protection against UV and IR radiation and glare, as often occurs during welding processes.

Application: For use in areas where welding work is taking place and when soldering. Use only for preparatory welding work. Not for welding work or flame cutting.

Pic.	Lens colour	Art. No.	Pack Qty.	€
(4)	green	**HAA3.1**	1 unit(s)	24,95

PC, IR 5

Optimum protection against IR radiation, high VLT for good vision in dark environments, good colour recognition (TSR), sun protection.

Application: Glass work, quality control, foundries, artificial optical radiation (AOR).

Pic.	Lens colour	Art. No.	Pack Qty.	€
(5)	green	**HAA4.1**	1 unit(s)	24,95

Glass, IR 4–5

Protection against IR radiation. Absorbs yellow-orange radiation. Reduces distracting reflections caused by molten glass or metal.

Application: Glass work, metallurgy, foundries.

Pic.	Lens colour	Art. No.	Pack Qty.	€
(6)	blue	**HAA5.1**	1 unit(s)	37,70

Safety glasses accessories

Spectacle pouch

UVEX. Material: Nylon.

Made of Nylon. Suitable for all temple spectacles and full-vision spectacles.

Colour	Suitable for	Art. No.	Pack Qty.	€
black	Temple spectacles and full-vision spectacles	**T708.1**	1 unit(s)	6,95

Spectacle case with Velcro-type fastening

UVEX. Material: Nylon.

Flexible case made of robust nylon material. Individually adjustable Velcro-type fastening. With belt.

(1) For temple spectacles
Extendable using the zip attached on the side. Suitable for UVEX temple spectacles.

Pic.	Colour	Suitable for	Art. No.	Pack Qty.	€
(1)	black	Temple spectacles	**EHL7.1**	1 unit(s)	11,05

(2) For small full-vision spectacles
Suitable for small, full-vision spectacles such as u-sonic (Art. No. EEK3.1ff) and carbovision (Art. No.: PP31.1).

Pic.	Colour	Suitable for	Art. No.	Pack Qty.	€
(2)	black	small wide-vision safety spectacles	**EHL8.1**	1 unit(s)	12,10

Spectacle case hard shell

UVEX.

Innovative, fashionable design, specially adapted for models with pronounced curve (like the i-vo). With zip, buckle and practical snap hook.

Colour	Art. No.	Pack Qty.	€
black	**EHN0.1**	1 unit(s)	12,10

Spectacle case

UVEX.

Very robust case with reinforced zip and separate pocket for cleaning tissues or spare lens. With Velcro-type fastenings for belt.

(1) For temple spectacles
Suitable for all UVEX temple spectacles except for Super OTG.

Pic.	Colour	Suitable for	Art. No.	Pack Qty.	€
(1)	black	Temple spectacles	**AA00.1**	1 unit(s)	11,05

(2) For full-vision spectacles
Suitable for all temple and full-vision safety spectacles by UVEX.

Pic.	Colour	Suitable for	Art. No.	Pack Qty.	€
(2)	black	Wide-vision safety spectacles	**EHL9.1**	1 unit(s)	15,30

Spectacle cord

3M.

Suitable for most temple spectacles. Braided, with silicone rubber loops. Length approx. 45 cm.

Colour	Suitable for	Art. No.	Pack Qty.	€
black	most temple spectacles	**5844.1**	1 unit(s)	5,40

Safety glasses accessories

Spectacles box SEKUROKA®

ROTH SELECTION. Material: ABS.

- Made of impact-resistant plastic (ABS) with rounded corners, blue or transparent
- For safe storage of safety spectacles directly in the workplace
- Protects PPE against scratching, dust and moisture
- Can be mounted using screws or adhesive

For 1 pair of safety spectacles
Suitable for all standard safety spectacles.

Delivery incl. fixing material for wall mounting. Delivery excludes safety spectacles and mandatory sign (Art. No. NK21.1, please order separately).

Colour	W x D x H, external (mm)	Art. No.	Pack Qty.	€
blue	236 x 120 x 120	**N426.1**	1 unit(s)	15,60
colourless	236 x 120 x 120	**N427.1**	1 unit(s)	18,90

For 4 safety spectacles
Suitable for standard arm spectacles. Not suitable for very curved spectacles (e.g. Uvex i-vo).
Inner compartment dimensions: W 42 x D 64 x H 175 mm

Delivery incl. fixing material for wall mounting and „Wear eye protection" mandatory sign without safety spectacles.

Colour	W x D x H, external (mm)	Art. No.	Pack Qty.	€
blue	236 x 125 x 225	**TY59.1**	1 unit(s)	69,45
colourless	236 x 125 x 225	**TY60.1**	1 unit(s)	77,85

For 12 pairs of safety spectacles
Ideal for storing safety spectacles for visitors. Insert is removable, e.g. for cleaning.
inner dimensions: W 230 x D 192 x H 299 mm
Inner compartment: W 63 x D 174 x H 75 mm.

Delivery incl. fixing material for wall mounting and „Wear eye protection" mandatory sign without safety spectacles.

Colour	W x D x H, external (mm)	Art. No.	Pack Qty.	€
blue	236 x 200 x 315	**X465.1**	1 unit(s)	129,45
colourless	236 x 200 x 315	**CHL0.1**	1 unit(s)	134,75

Safety spectacles dispenser

Material: PMMA.

Store spectacles in a clean and safe place, ideal for visitor's spectacles. Made of acrylic glass. Either separate or attached to the wall. Spectacles can also be removed individually. Top with cover.
Withdrawal opening: W 17 x H 5.9 cm.

Delivery incl. fixing material for wall mounting, without safety spectacles.

Colour	W x D x H, external (mm)	Art. No.	Pack Qty.	€
colourless	170 x 75 x 390	**KN10.1**	1 unit(s)	112,90

Spectacles box Mobile

GEBRA. Material: ABS.

Made of sturdy plastic (ABS), blue. Portable spectacle box for the safe storage of safety spectacles on the go, e.g. when working away on a job, on industrial facilities, on construction sites. Protects against scratching, dust and moisture. Suitable for all standard safety spectacles.

Delivery without safety spectacles.

Colour	Suitable for	Art. No.	Pack Qty.	€
blue	Temple spectacles	**TY61.1**	1 unit(s)	13,45

Safety glasses accessories

Spectacle cleaning cloths SEKUROKA®

Carl ROTH.

for wet cleaning optical lenses, with active grease remover and alcohol. Cleans perfectly – anti-fog, anti-static and gentle – without needing to wipe dry. Individually packaged.

Danger H228-H319

Pack.	Art. No.	Pack Qty.	€
Individually packaged	**1678.1**	100 unit(s)	18,25

Microfibre cleaning cloth SEKUROKA®

ROTH SELECTION.

For streak-free cleaning of spectacles and optical devices. Washable and reusable. Dimensions: 150 x 150 mm.

Colour	Art. No.	Pack Qty.	€
white	**E172.1**	5 unit(s)	12,70

Glass lens cleaner Anti-fog

Univet.

Solution for cleaning spectacles and visors, prevents fogging. Contents: 17 ml.

Version	Art. No.	Pack Qty.	€
Anti-fog spectacle cleaner	**CNH5.1**	1 unit(s)	15,45

Face shield 699 with chin guard

Univet.

Acc. to **EN 166**.

- 1 mm polycarbonate visor with 90° hinge mechanism
- Height-adjustable head frame
- Adjustable head size using elastic headband
- Exchangeable foam headband
- Can be worn with safety spectacles and respirator

Lens design	Art. No.	Pack Qty.	€
clear	**ATP6.1**	1 unit(s)	21,95

Face shield 710

Univet.

Acc. to **EN 166**. Lightweight face protection against liquid droplets and splashes.

- Clear anti-fog visor made of acetate
- Interchangeable skin-friendly terry towel lining on forehead
- Adjustable elastic head strap
- Can be worn over corrective spectacles
- Weight 97 g

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog	**APY9.1**	1 unit(s)	41,40

Face shield TUFFMASTER

3M.

Acc. to **EN 166**. Protects against medium-energy flying particles and fluid and liquid metal splashes. Pane made of 2 mm strong PC (230 x 370 mm), height-adjustable and can be locked. Continuously adjustable. Soft headband made of vinyl.

Lens design	Art. No.	Pack Qty.	€
clear	**T668.1**	1 unit(s)	39,70

Face visor Polysoft

Op-D-Op.

Ultra-lightweight, made of ABS. Flexible, anti-fog, can also be worn over respiratory masks and spectacles. With forehead padding and fastening cord. Headpiece adapts to the wearer using body heat. Smallest head circumference approx. 440 mm.

Delivery incl. headgear with cord, 3 face visors and 1 mini visor.

Colour	Lens design	Art. No.	Pack Qty.	€
white	clear	**C346.1**	1 unit(s)	64,00
blue	clear	**C347.1**	1 unit(s)	64,00
neon yellow	clear	**C348.1**	1 unit(s)	64,00
neon pink	clear	**C349.1**	1 unit(s)	64,00

Face shield SPHERE

Bollé.

Acc. to **EN 166, EN 170**. Also suitable for work with UV light.

- Lens made of PC (2.0 mm thick), frame made of PP
- Wide field of vision of 180°
- Adjustable headgear and headband
- Protection against chemical splashes
- Protection against medium-energy particles (120 m/s), tested at extremely high temperatures
- Protection against hot solids and molten metals

Weight 355 g. Visor size: H 205 x W 394 mm.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection	**PT74.1**	1 unit(s)	27,90

Face shield

UVEX.

Acc. to EN 166 and EN 170. Robust headpiece made of PA with integrated forehead protection. Comfortable adjustment to individual head size via twist fastener. Continuously adjustable folding up mechanism. Visor made of cellulose acetate, 1 mm thickness. To protect against low-energy particles.
Dimensions: H 195 x W 540 mm. 227 g weight.

(1) 9705

Lens design	Art. No.	Pack Qty.	€
clear, UV protection	**EX08.1**	1 unit(s)	34,65

(2) 9706

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-fog	**HLN4.1**	1 unit(s)	42,90

Face shield RELRSI

Bollé.

Acc. to **EN 166, EN 170.** Also suitable for work with UV light.

- Ultra-light, flip-up visor
- Anti-fog acetate protective visor, thickness 1.5 mm
- Protection against chemical splashes, electrical arcs and short circuits
- Protection against flying particles, medium energy (120 m/s)
- Adjustable head strap
- Frame and headpiece made of polypropylene

200 g weight. Visor size: (H x W) 190 x 290 mm.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-fog	**KP10.1**	1 unit(s)	38,60

Face shield Clearways

Honeywell Safety.

Acc. to **EN 166**. Very lightweight headgear. Replaceable visor made of PC, can be bended using the metal frame. Width of the padded headgear can be individually adjusted by a rotating ratchet mechanism. For protection against fluid splashes and low-energy flying particles. Visor dimensions: H 250 x W 205 mm. Height incl. 265 mm headpiece.

Lens design	Art. No.	Pack Qty.	€
clear	**E227.1**	1 unit(s)	34,55

Face shield Bionic

Honeywell Safety.

Acc. to **EN 166, EN 170**.

- Large visor allows for good visibility
- Polycarbonate visor for UV-protection and good colour recognition
- Anti-scratch and anti-fog
- Protection against chemical splashes
- Protection against medium-energy flying particles (120 m/s), tested at extremely high temperatures
- Visors are very easy to replace

- Can be set individually for a good fit
- Ratchet headpiece
- Frame made of robust ABS plastic
- All parts that come into contact with the head have soft padding
- Skin-friendly sweatband that can be replaced and washed
- Added protection for upper head and chin
- Can be combined with respirator or safety spectacles
- Very lightweight, weight 407 g
- Dimensions: H 31 x W 24 cm

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**CA34.1**	1 unit(s)	78,60

Combined face and ear protection G500

3M.

Acc. to **EN 166, EN 352**. The combination consists of yellow headgear, a clear, anti-fog PC visor and Optime™ I earmuffs (insulation value 26 dB(A)). The headpiece can be set for head sizes of 54–62 cm. The visor protects against particles flying at a medium speed of 120 m/s.

- A practical and comfortable solution for all who need both face and ear protection
- Face shield and wide field of view
- Multiple combinations with safety spectacles and clear or mesh visors
- Stable construction, long service life and excellent wear comfort

Delivery incl. headpiece, PC visor, Optime™ I ear defenders.

Lens design	Art. No.	Pack Qty.	€
clear	**YT38.1**	1 unit(s)	68,00

Wall hook SEKUROKA®

ROTH SELECTION.

With information label made of rigid plastic, W 195 x L 215 mm, hook length 40 mm.

Version	Art. No.	Pack Qty.	€
for aprons	**1092.1**	1 unit(s)	14,25
for gas masks	**1091.1**	1 unit(s)	13,45
for face shields	**E174.1**	1 unit(s)	13,45

Face shield accessories 3M™

3M.

Can be combined with hard hats (NH14.1f). Visor mount (NH18.1) and helmet adapter (AKT9.1) are required to secure the visors. If ear defenders are attached, no helmet adapter is required.

(1) Polycarbonate visor
Material: PC. Clear and anti-fog. Includes replacement screen that can be used with G500 (YT38.1) combined face and ear protection.

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog	**NH16.1**	1 unit(s)	18,85

(2) Stainless steel mesh visor
Light reduction: 24%, 54 g, suitable for use in agriculture, forestry and gardening.

Version	Art. No.	Pack Qty.	€
Stainless steel mesh visor	**NH17.1**	1 unit(s)	17,50

(3) Visor mount
For securing visors to NH14.1 f hard hats.

Version	Art. No.	Pack Qty.	€
Visor mount	**NH18.1**	1 unit(s)	13,65

Helmet adapter
Connector for helmets with 30 mm slot (NH14.1 f) for attaching the visor mount without ear defenders.

Version	Art. No.	Pack Qty.	€
Helmet adapter	**AKT9.1**	1 pair	6,45

Ear defenders Peltor™ OPTIME™

3M.

Acc. to EN 352-1. With safety attachment for all hard hats with 30 mm slot system and face/ear protection G500 (YT38.1). High wear comfort and low pressure inside ear even after extended wear

- Lightweight design, optimal ear protection
- Constant pressure, liquid-filled sealing ring
- 2-point mounting

Delivery without ear defenders (NH14.1, NH15.1) please order separately.

OPTIME™ I
Flat design.
Applications: Outdoor work, building trade, engineering, woodworking, metalworking, automobile industry, farming, chemical treatment.

SNR value (db)	Art. No.	Pack Qty.	€
26	**NH12.1**	1 pair	24,15

OPTIME™ II
For high-noise environments, provides excellent sound insulation even at extremely low frequencies.
Applications: Outdoor work, building trade, airports.

SNR value (db)	Art. No.	Pack Qty.	€
30	**NH13.1**	1 pair	30,95

Hard hat Uvicator™ sensor

3M. Material: ABS UV-stabilised.

Acc. to EN 397. Made of ABS, ventilated, with sweatband. Designed for use in harsh environments with high safety requirements.

- Compatible with other auxiliary safety gear, such as ear defenders, visors or safety spectacles.
- The Peltor™ Uvicator™ sensor indicates when the helmet requires replacing.
- Short face shield allows for excellent visibility
- Ratchet system for easy adjustment to head size
- Slender, rounded shape reduces the danger of getting caught on objects such as tree branches or similar obstacles
- Multiple ventilation slots make for excellent ventilation

Colour	Art. No.	Pack Qty.	€
white	**NH14.1**	1 unit(s)	27,10
yellow	**NH15.1**	1 unit(s)	27,10

Protective face masks

Disposable mouth and nose mask with activated carbon

ROTH SELECTION.

Includes an activated carbon fleece which binds unpleasant odours. Free of glass fibres and skin-friendly. With adjustable aluminium nose bridge and elastic bands. Comfortable to wear, with low breathing resistance.
Dimensions: L 175 x W 98 mm.

The mask is not a piece of personal protective equipment (PPE) or a medical product.

Pack.	Art. No.	Pack Qty.	€
individual	**8401.1**	10 unit(s)	26,90
individual	**8401.2**	50 unit(s)	108,90

Medical face masks SUAVEL® Antifluid with visor

Meditrade.

Acc. to EN 14683 type II R, (EU) 2017/745 Class 1.

- Filtration capacity: >99% BFE (bacteria filtration efficiency)
- Mouth and nose protection for highly contagious situations
- Splash and fluid protection for mouth, nose and eyes
- 4-layer skin friendly material with antifluid layer
- With reinforced, long nose bridge
- Extra long straps for tying together
- Latex-free, lint-free, non-sterile
- Colour: Blue
- For single use

Technical specifications:

Art. No.	CAL8.1
Standards	DIN EN 14683
Performance level	Type IIR
Bacteria filtration efficiency (BFE)	>98 %
Colour	blue

Medical device class I MDD

Colour	Art. No.	Pack Qty.	€
blue	**CAL8.1**	50 unit(s)	60,75

Medical face masks SUAVEL® Protec

Meditrade.

Acc. to EN 14683 type II, (EU) 2017/745 Class 1.

- Three-layer mouth and nose protection for single use
- With elasticated ear loops
- Good skin tolerance due to high-quality materials
- Ultrasonic sealing: no uncomfortable seams or threads coming loose
- Aluminium nose bridge, coated with PP, enables optimum adaptation to facial contours

Technical specifications:

Art. No.	1AN8.1
Standards	DIN EN 14683
Performance level	Type II
Bacteria filtration efficiency (BFE)	>98 %
Colour	blue

Medical device class I MDD

Colour	Art. No.	Pack Qty.	€
blue	**1AN8.1**	50 unit(s)	4,55

Dispensers for masks

Material: Stainless steel.

Made of high-quality stainless steel, polished appearance. Can be disinfected with surface disinfectant.
Suitable for wall mounting.

Delivery incl. mounting material.

W x D x H (mm)	Art. No.	Pack Qty.	€
260 x 135 x 110	**1CHX.1**	1 unit(s)	39,70

Protective face masks

NEW/+

Medical face masks SUAVEL® Protec Plus

Meditrade.

Acc. to EN 14683 type II, (EU) 2017/745 Class 1.

- Three-layer disposable surgical mask
- Highly effective and extremely comfortable
- Premium-quality materials ensure the masks are well tolerated by the skin
- With elasticated ear loops
- Ultrasonic sealing: No uncomfortable seams or threads coming loose
- Reinforced nose bridge enables optimum adaptation to facial contours
- Free of glass fibre and latex
- Extra-soft padded ear loops make the mask comfortable for extended periods of wear

Technical specifications:

Art. No.	**1H9A.1**
Standards	DIN EN 14683
Performance level	Type II
Bacteria filtration efficiency (BFE)	≥98 %
Colour	green

Medical device class I MDD

Colour	Art. No.	Pack Qty.	€
green	**1H9A.1**	50 unit(s)	9,70

Medical face masks type IIR

Franz Mensch.

Acc. to EN 14683 type II R, (EU) 2017/745 Class 1.

- 3-layer disposable mouth and nose protection made of polypropylene fleece
- Higher resistance to liquids and aerosols
- Lint-free and skin-friendly
- Integrated nose bridge, anatomically adjustable

Technical specifications:

Art. No.	**1C2Y.1**
Standards	DIN EN 14683
Performance level	Type IIR
Bacteria filtration efficiency (BFE)	>98 %
Colour	blue

Medical device class I

Colour	Art. No.	Pack Qty.	€
blue	**1C2Y.1**	50 unit(s)	7,55

Dispensers for masks and covers

Material: Stainless steel.

Made of high-quality stainless steel, polished appearance. Can be disinfected with surface disinfectant.
Combi dispenser made of two individual compartments, welded.
Mask dispenser dimensions: W 260 x D 135 x H 110 mm
Hairnet dispenser dimensions: W 260 x D 135 x H 268 mm
Suitable for wall mounting.

Delivery incl. mounting material.

W x D x H (mm)	Art. No.	Pack Qty.	€
260 x 135 x 378	**1CHT.1**	1 unit(s)	86,70

Particulate filter masks

Cat. III

Particulate filter mask Air

Moldex.

Acc. to EN 149:2001 + A1:2009.

Protection against dust, aerosols and fumes:

- Anatomically preformed masks - adaptable to fit different face sizes
- DuraMesh®: Sturdy mask mesh keeps the mask in shape
- ActivForm®: No nose bridge required

- **Fluted filter technology: 260% more filtration area**, very low breathing resistance, high absorption capacity, long life
- All-round strap with adjustable clip for easy application, removal and adjustment
- Also available in **size S** (for small or narrow faces)

With Klimaventil®

For easy exhalation, the Klimaventil® opens at the lightest exhalation pressure and reduces heat and moisture under the mask.

Protection level	Size	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	S	3155	individual	**XA32.1**	10 unit(s)	40,35
FFP2 NR D	M/L	3105	individual	**XA33.1**	10 unit(s)	40,35
FFP3 NR D	S	3255	individual	**XA34.1**	10 unit(s)	72,90
FFP3 NR D	M/L	3205	individual	**XA35.1**	10 unit(s)	72,90

Without Klimaventil®

Protection level	Size	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	S	3150	individual	**XA28.1**	10 unit(s)	28,50
FFP2 NR D	M/L	3100	individual	**XA29.1**	10 unit(s)	28,50
FFP3 NR D	S	3250	individual	**XA30.1**	10 unit(s)	61,85
FFP3 NR D	M/L	3200	individual	**XA31.1**	10 unit(s)	61,85

Particulate filter mask Air Plus

Moldex.

Acc. to EN 149:2001+A1:2009.

Protection against dust, aerosols and fumes:

- Anatomically preformed masks - adaptable to fit different face sizes
- DuraMesh®: Sturdy mask mesh keeps the mask in shape
- ActivForm®: No nose bridge required
- Klimaventil®: Reduces heat and moisture build-up under the mask
- Special tight fit thanks to soft all-round sealing lip made of a skin-friendly, washable TPE material

- **Fluted filter technology: 260% more filtration area**, very low breathing resistance, high absorption capacity, long life
- All-round strap with adjustable clip for easy application, removal and adjustment
- With Klimaventil® for easy exhalation. The valve opens at the lightest exhalation pressure. Heat and moisture build-up under the mask are reduced.

Protection level	Size	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 R D	M/L	3305	**T761.1**	5 unit(s)	48,30
FFP3 R D	M/L	3405	**T763.1**	5 unit(s)	51,85

Particulate filter mask smart

Moldex.

Acc. to EN 149:2001 + A1:2009.

Protection against dust, aerosols and fumes:

- Anatomically preformed masks – adaptable to fit different face sizes
- DuraMesh®: Sturdy mask mesh keeps the mask in shape
- ActivForm®: No nose bridge required
- Klimaventil®: Reduces heat and moisture build-up under the mask

- With soft sealing lip
- All-round strap with clip for easy application, removal and adjustment
- Colour-coded straps: FFP1 blue, FFP2 white, FFP3 yellow

Without Klimaventil®

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	2380	**EE30.1**	20 unit(s)	32,20
FFP2 NR D	2480	**EE31.1**	20 unit(s)	60,75

With Klimaventil®

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	2385	**T758.1**	20 unit(s)	n. a.
FFP2 NR D	2485	**T759.1**	20 unit(s)	82,25
FFP3 NR D	2505	**T760.2**	10 unit(s)	76,90

Particulate filter masks

Particulate filter mask SoloBand®

Moldex.

Acc. to EN 149:2001 + A1:2009.

Protection against dust, aerosols and fumes:

- Anatomically preformed masks – adaptable to fit different face sizes
- DuraMesh®: Sturdy mask mesh keeps the mask in shape
- ActivForm®: No nose bridge required
- Klimaventil®: Reduces heat and moisture build-up under the mask

- FFP mask with special headband
- Easy and quick application and removal, even wearing gloves
- Soft sealing lip
- With Klimaventil®

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	2395	**CT75.1**	20 unit(s)	64,00
FFP2 NR D	2495	**CT77.1**	20 unit(s)	81,70

Particulate filter mask Smart Pocket

Moldex.

Acc. to EN 149:2001+ A1:2009.

Protection against dust, aerosols and fumes:

- **Ready to wear**
- Soft sealing lip
- DuraMesh®: Sturdy mask mesh keeps the mask in shape
- ActivForm®: Without nose bridge
- Loop strap with clip for simple on, off and adjustment
- **With Klimaventil®**

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	2475	individually	**YP17.1**	10 unit(s)	40,00
FFP3 NR D	2575	individually	**YP18.1**	10 unit(s)	65,50

Particulate filter mask Mandil FFP2/V

EKASTU Safety.

Acc. to EN 149:2001+ A1:2009.

- Stable preformed mask body with high level of wear comfort
- A flexible, foam-lined nose bridge allows skin-friendly and comfortable sealing
- With colour-coded nose bridge and exhalation valve for instant identification of the protection class
- Cool Down exhalation valve makes exhaling easier and prevents build-up of heat under the mask

Technical specifications:

Art. No.	1EXT.1
Protection level	FFP2 NR
For protection against	Low-toxic or harmful particles up to ten times the limit
Standards	EN 149:2001+A1:2009

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR	411281	**1EXT.1**	12 unit(s)	78,95

Particulate filter mask cobra foldy FFP2/V

EKASTU Safety.

Acc. to EN 149:2001+ A1:2009.

- Foldable mask, with special 3D design and high level of wear comfort
- With colour-coded nose bridge and exhalation valve for instant identification of the protection class
- A flexible, foam-lined nose bridge allows skin-friendly and comfortable sealing
- Infinitely adjustable band with comfortable clip fastener
- Cool Down exhalation valve makes exhaling easier and prevents build-up of heat under the mask
- Very compatible with safety spectacles
- Hygienic handling, as masks are individually packed

Technical specifications:

Art. No.	1EXP.1
Protection level	FFP2 NR D
For protection against	Low-toxic or harmful particles up to ten times the limit
Exhalation valve	Yes
Standards	EN 149:2001+A1:2009

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	419281	**1EXP.1**	12 unit(s)	78,95

Particulate filter masks

Particulate filter mask silv-Air e

UVEX.

Acc. to EN 149:2001 + A1:2009.

- Exhalation valve reduces respiratory resistance and heat and moisture under the mask
- Integrated nose clip
- All-round comfortable lip seal
- Four-point headband attachment on PP32.1 for comfortable and secure fit

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	7212	**XC91.1**	15 unit(s)	40,30
FFP3 R D	7312	**PP32.1**	5 unit(s)	29,90

Particulate filter mask silv-Air e

UVEX.

Acc. to EN 149:2001 + A1:2009.

- Shape-optimised design
- Four-point strap for a comfortable and secure fit
- Flexible, easily adjustable nose bridge
- Two additional filters with inhalation valves for lower breathing resistance
- Can be used for longer due to larger filter surface
- Dolomite dust test (D) passed
- Soft, all-round lip seal
- Temperature control via two suction valves and one exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 R D	7232	**XC92.1**	3 unit(s)	26,05
FFP3 R D	7330	**KX42.1**	3 unit(s)	32,25

Fold-flat particulate filter mask silv-Air classic

UVEX.

Acc. to EN 149:2001+A1:2009.

- Particulate-filtering fold-flat mask
- All-round headband and flexible-fit nose clip
- Comfortable sealing lip on the nose for reliable sealing
- NR: not reusable (use for one shift only)

(1) With exhalation valve

- Exhalation valve for reducing exhalation resistance and heat and moisture under the mask

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	3210	individual	**1C98.1**	15 unit(s)	39,10

(2) With exhalation valve and activated carbon

- Exhalation valve for reducing exhalation resistance and heat and moisture under the mask
- Filter material contains additional activated carbon coating to keep unpleasant odours below the limit value

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	3220	individual	**1C97.1**	15 unit(s)	49,30

(3) Without exhalation valve

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	3200	individual	**1E5K.1**	30 unit(s)	72,95

Fold-flat particulate filter mask silv-Air lite

UVEX.

Acc. to EN 149:2001+A1:2009.

- Particulate-filtering fold-flat mask without exhalation valve
- Soft material edges for improved wearer comfort
- Rubber headband for comfortable and secure mask fit
- Integrated, flexible-fit nose clip for excellent wearer comfort and reliable sealing
- Highly compatible with safety spectacles
- Enlarged filter surface for low breathing resistance
- Large space inside the mask and optimised folded form prevents the mask from collapsing when breathing in

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	4200	**1E72.1**	30 unit(s)	34,80

Particulate filter masks

Particulate filter mask silv-Air classic

UVEX.

Acc. to EN 149:2001+ A1:2009.

- Form-fitting particulate-filtering mask
- Flexibly adjustable nose clip for comfortable and secure mask fit
- FFP1 and FFP2 masks have an all-round headband and a comfortable sealing lip on the nose for reliable sealing
- FFP3 masks feature a four-point headband attachment and a soft, all-round sealing lip for optimum comfort and especially secure and reliable sealing
- NR: not reusable (use for one shift only)

With exhalation valve and activated carbon

- Exhalation valve for reducing exhalation resistance and heat and moisture under the mask
- Filter material contains additional activated carbon coating to keep unpleasant odours below the limit value

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	2220	**1C91.1**	15 unit(s)	46,10

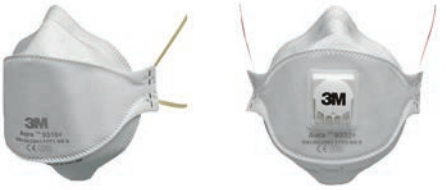
With exhalation valve

- Exhalation valve for reducing exhalation resistance and heat and moisture under the mask

Protection level	Size	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	L	2110	**1C93.1**	15 unit(s)	37,10
FFP2 NR D	L	2210	**1C94.1**	15 unit(s)	37,85
FFP3 NR D	L	2310	**1C95.1**	15 unit(s)	129,30
FFP3 NR D	S/M	2312	**1C96.1**	15 unit(s)	129,30

Without exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	2200	**1C92.1**	20 unit(s)	42,95



Particulate filter mask Aura™ 9300+

3M.

Acc. to EN 149:2001 + A1:2009.

- Comfortable to wear thanks to soft material, low weight and flat design; does not impede speech
- Integrated nose bridge with perspiration absorbent padding
- Can be folded flat for easy carrying, individually packed
- Compatible with spectacles and eye protection
- Cool-Flow exhalation valves reduce breathing resistance and prevent build-up of heat under the mask
- Without natural rubber components
- **Colour-coded straps:** FFP1 yellow, FFP2 blue, FFP3 red

Without Cool-Flow exhalation valve

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP1 NR D	9310+	individual	**N186.1**	20 unit(s)	31,70
FFP2 NR D	9320+	individual	**N187.1**	20 unit(s)	59,30
FFP3 NR D	9330+	individual	**TY71.1**	20 unit(s)	159,10

With Cool-Flow exhalation valve

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP1 NR D	9312+	individual	**N188.1**	10 unit(s)	28,10
FFP2 NR D	9322+	individual	**N189.1**	10 unit(s)	41,40
FFP3 NR D	9332+	individual	**N190.1**	10 unit(s)	78,95

Particulate filter masks

Particulate filter mask Aura™ 9400+

3M.

Acc. to EN 149:2001+ A1:2009.

Specially developed for food production and- processing requirements.

- Comfortable to wear thanks to soft material, low weight and flat design; does not impede speech
- Integrated nose bridge with perspiration absorbent padding

No small parts which can become detached:

- Clip-free: Minimises the risk of contamination
- Inner adjustable nose bridge: Securely integrated into the mask
- Can be folded flat for easy carrying, individually packed
- Compatible with spectacles and eye protection
- Cool-Flow exhalation valve reduces breathing resistance and prevents build-up of heat under the mask
- Without natural rubber components

Highly recognisable:

- Metal detector: Integrated metallic nose bridge
- Visual monitoring: Blue contrast colour stands out clearly from foodstuff colours

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	9422+	individual	**YP12.1**	10 unit(s)	43,50

Medical particulate filter mask Aura™ 1800+

3M.

Acc. to EN 149:2001 + A1:2009, type IIR, acc. to EN 14683:2005 (surgical masks) type IIR, acc. to 93/42/EEC, class 1.

- **Protects the user and the environment**
- Protects against particulates and aerosols
- Protects against ingress of chemical splashes, e.g. body fluid
- Suitable for lab technicians (e.g. **handling of cytostatic agents**), the pharmaceutical industry (manufacture of medicines), doctors, operating room-nurses, emergency room staff

- Three-piece design, mask adapts to many different face shapes and sizes
- Compatible with safety spectacles
- Folded flat and individually, hygienically packed for easy portability
- Integrated nose bridge with perspiration absorbent padding

Medical device class I MDD

Without exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	1862+	**CNE4.1**	20 unit(s)	64,20
FFP3 NR D	1863+	**CNE5.1**	20 unit(s)	169,85

With exhalation valve

Specially developed, covered Cool-Flow exhalation valve reduces heat build-up in the mask and breathing resistance while protecting surroundings from exhaled aerosols.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP3 NR D	1883+	**HT23.1**	8 unit(s)	72,25

Particulate filter mask Classic, 8000 series

3M.

Acc. to EN 149:2001 + A1:2009.

- For protection against fine dust and liquid particles
- Shape-retaining mask body with flexible nose bridge
- **Cool-Flow exhalation valve** reduces breathing resistance and prevents build-up of heat under the mask

Without exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	8710E	**0265.1**	20 unit(s)	28,10
FFP2 NR D	8810	**L159.1**	20 unit(s)	47,95

With exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	8812	**C810.1**	10 unit(s)	24,05
FFP2 NR D	8822	**C811.1**	10 unit(s)	36,45

Particulate filter masks

Particulate filter mask Comfort, 8300 series

3M.

Acc. to EN 149:2001 + A1:2009.

- For protection against fine dust and liquid particles
- Shape-retaining mask body with flexible nose bridge
- Soft padded fleece lining for wear comfort
- Secure tight fit even without foam insert
- **Cool-Flow exhalation valve** reduces breathing resistance and prevents build-up of heat under the mask

Without exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	8320	**CNE1.1**	10 unit(s)	26,00

With exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	8322	**CNE3.1**	10 unit(s)	36,15

With exhalation valve and all-round lip seal

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP3 R D	8833	**EH61.1**	10 unit(s)	70,70

Particulate filter mask Premium

3M.

Acc. to EN 149:2001 + A1:2009; for filtering out fine dust and non-volatile liquid particles.

- 3M™ Advanced Electret Media (AEM) is a high-performance filter material to facilitate breathing
- Consistently high filtering power
- Masks have passed the **Dolomite dust test (D)** and have an all-round lip seal, allowing them to be worn for more than one shift
- **Cool-Flow exhalation valve** prevents heat from building up in the mask and makes breathing easier
- Reduces fogging of eye protection
- 3D preformed seal around the face makes the masks exceptionally comfortable to wear and extremely safe
- Flexible material with built-in nose profile allows the mask to adapt to any face shape
- Masks do not contain components made of latex, PVC or metal
- Held securely in place by a four-part fabric strap, which is adjustable and extra-wide
- Colour-coded according to protection factor (FFP = blue, FFP3 = red)

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 R D	8825+	**0266.1**	5 unit(s)	46,25
FFP3 R D	8835+	**8123.1**	5 unit(s)	54,45

Special particulate filter mask

3M.

Acc. to EN 149:2001 + A1:2009.

(1) FFP1 NR D odour-resistant mask without exhalation valve
For protecting against fine dust up to four times the limit and **unpleasant organic odours** below the limit.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	9913	**0936.1**	20 unit(s)	111,80

(2) FFP1 NR D odour-resistant mask with exhalation valve
For protecting against fine dust up to four times the limit and **organic odours** below the limit.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	9914	**EH58.1**	10 unit(s)	61,95

(4) FFP2 NR D special mask with exhalation valve
For protecting against fine dust up to ten times the limit and **against organic odours, HF gas and sulphur dioxide** below the limit.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	9926	**EH59.1**	10 unit(s)	84,80

(5) FFP2 R D ozone mask with exhalation valve
For protecting **against harmful fine dust, metal fumes and ozone** up to ten times the limit. Ideal for welding.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 R D	9928	**P842.1**	10 unit(s)	110,60

(6) FFP3 R D special mask with exhalation valve
For protecting against fine dust up to 30 times the limit and **against acidic gases, HF gas and sulphur dioxide** below the limit.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP3 R D	9936	**EH60.1**	10 unit(s)	103,15

Full face/half masks

Respiratory filter with standard thread

BartelsRieger Atemschutztechnik.

Acc. to EN 14387 (gas and combined filters) and EN 143 (particulate filters). With EN 148-1 standard thread. Filter casing made of aluminium. Can be combined with respiratory half masks and full-face masks with standard thread connection.
Max. storage life of unopened gas and combined filters is six years after production.
AX and NO-filters are only intended for single use.

Protection level	Colour code	Weight (g)	Art. No.	Pack Qty.	€
A2	brown	180	**1270.1**	1 unit(s)	11,80
B2	grey	200	**1271.1**	1 unit(s)	13,45
E2	yellow	250	**1277.1**	1 unit(s)	12,65
K2	green	225	**1275.1**	1 unit(s)	13,05
P3 R D	white	50	**1225.1**	1 unit(s)	8,55
AX	brown	265	**1550.1**	1 unit(s)	18,60
A2-P3 R D	brown, white	260	**A249.1**	1 unit(s)	19,30
B2-P3 R D	grey, white	270	**0029.1**	1 unit(s)	22,65
AX-P3	brown	290	**KP19.1**	1 unit(s)	21,15
HgP3 R D	red, white	265	**1274.1**	1 unit(s)	22,60
NO-P3	blue, white	370	**1224.1**	1 unit(s)	78,40
A2B2-P3 R D	brown, grey, white	295	**1E20.1**	1 unit(s)	21,05
A2B2E2K1	brown, grey, yellow, green	250	**1E22.1**	1 unit(s)	17,10
A2B2E2K1-P3 R D	brown, grey, yellow, green, white	295	**1E21.1**	1 unit(s)	21,45
A2B2E2K2-P3 R D	brown, grey, yellow, green, white	360	**0635.1**	1 unit(s)	23,55
A2B2E2K2Hg-P3 R D	brown, grey, yellow, green, white, red	360	**KP20.1**	1 unit(s)	24,65

Respiratory filter Pro2000

3M Scott.

Acc. to EN 14387 (gas and combined filters) and EN 143 (particulate filters). With EN 148-1 standard thread. Suitable for respiratory half masks and full-face masks with standard thread connection.
Half masks are only suitable for filters weighing up to 300 g.

- Low breathing resistance
- High capacity, long life

Technical specifications:

Art. No.	XK35.1	XK37.1	XK44.1	XK36.1	XK40.1	XK38.1	XK45.1	XK46.1	XK42.1
Protection level	A2	AX	P3 R	A2-P3	B2-P3	AX-P3	A2B2E2K2-P3 R D	A2B2E2K-2Hg-P3 R D	Reaktor-HgP3
For protection against	organic vapours and gases with a boiling point of over 65 °C up to a concentration of 5000 ppm	organic vapours/gases with a boiling point of under 65 °C	Particles from toxic substances	organic vapours and gases with a boiling point of over 65 °C up to a concentration of 5000 ppm and particles	Inorganic gases and vapours together with particles from toxic substances	organic vapours/ gases with a boiling point of below 65 °C and particles from toxic and highly toxic substances	Inorganic gases, sulphur dioxide and ammonia and organic gases and vapours with a boiling point of over 65 °C, as well as particles from toxic substances	Organic and inorganic gases and vapours, sulphur dioxide, ammonia and mercury vapours together with particles from toxic and highly toxic substances	Mercury vapours and compounds, radioactive iodine and its organic compounds, such as methyl iodide, harmful solid and liquid particles
Colour code	brown		white	brown, white	grey, white	brown, white	brown, grey, yellow, green, white	brown, grey, yellow, green, pink, white	red, white
Weight	190 g	268 g	90 g	230 g	265 g	310 g	370 g		307 g
Standards	EN 14387, EN 148-1		EN 143, EN 148-1	EN 14387, EN 148-1					

Protection level	Colour code	Weight (g)	Art. No.	Pack Qty.	€
A2	brown	190	**XK35.1**	1 unit(s)	17,35
P3 R	white	90	**XK44.1**	1 unit(s)	13,05
AX	brown	268	**XK37.1**	1 unit(s)	26,10
A2-P3	brown, white	230	**XK36.1**	1 unit(s)	24,40
B2-P3	grey, white	265	**XK40.1**	1 unit(s)	30,45
AX-P3	brown, white	310	**XK38.1**	1 unit(s)	31,65
A2B2E2K2-P3 R D	brown, grey, yellow, green, white	370	**XK45.1**	1 unit(s)	33,80
A2B2E2K2Hg-P3 R D	brown, grey, yellow, green, pink, white	370	**XK46.1**	1 unit(s)	33,95
Reaktor-HgP3	red, white	307	**XK42.1**	1 unit(s)	37,85

Full face/half masks

Half mask respirator 620

BartelsRieger Atemschutztechnik.

Acc. to EN 140. With EN 148-1 standard thread. **Two exhalation valves** guarantee lower exhalation resistance which is optimal for physical work. Exchangeable components. Pull strap.

Delivery without filters, suitable respiratory filters with standard round thread acc. to EN 148-1 and 1270.1 ff, XK35.1 ff, please order separately.

Pic.	Version	Material	Art. No.	Pack Qty.	€
(1)	620N	Natural rubber	**1939.1**	1 unit(s)	69,70
(2)	620S	Silicone	**9799.1**	1 unit(s)	90,65

Half mask respirator AVIVA 40

3M Scott.

Acc. to EN 140. Single-filter half masks, can be combined with respiratory filters with standard thread acc. to EN148-1. Skin-friendly thermoplastic elastomer.

- Perfect fit due to flexible inner Hybrid Reflex Seal
- User-friendly leak test function
- Easily combinable with eye protection and other PPE
- Downwards-facing respiratory filter prevents fogging of the eye protection
- Improved intelligibility due to integrated voice channel
- Comfortable and robust head harness provides better grip and is ideal for use under headgear
- Simple rear fastening makes them easy to put on and take off

Delivery without filter, suitable filters: 1270.1ff, XK35.1ff, please order separately.

Size	Art. No.	Pack Qty.	€
S	**HHN8.1**	1 unit(s)	42,15
M	**HHN9.1**	1 unit(s)	42,15
L	**HHP0.1**	1 unit(s)	42,15

Full-face mask respirator Promask

3M Scott.

Acc. to EN 136. With EN 148-1 standard thread.

- Lightweight and anatomically shaped
- Special lip seal provides a comfortable and tight fit
- Clear inner mask
- Unrestricted field of vision thanks to large visor and left side fitting filter port
- With speech diaphragm
- Outstanding wear comfort
- Easy to use

Delivery without filter, suitable filters: 1270.1ff, XK35.1ff, please order separately.

Black
Material: Butyl rubber. Made of halobutyl rubber. High resistance to chemicals ensures long service life.
Suitable for applications with CBRN (chemical, biological, radiological or nuclear) contamination.

Material	Art. No.	Pack Qty.	€
Butyl rubber	**XK47.1**	1 unit(s)	205,45

SIL
Material: Silicone. Made of skin-friendly, soft yellow silicone.

Material	Art. No.	Pack Qty.	€
Silicone	**XK48.1**	1 unit(s)	209,95

Full-face mask respirator BRK 820

BartelsRieger Atemschutztechnik. Material: Rubber, Plastic, PC.

Acc. to EN 136 class 3. With EN 148-1 standard thread. Made of rubber and plastic, with speech diaphragm, replaceable front panel made of polycarbonate and **two exhalation valves**.
Two exhalation valves guarantee lower exhalation resistance which is optimal for physical work.
5-part strap with clamping buckles and carrying strap.
Weight approx. 610 g.

Delivery without filters, suitable respiratory filters with standard round thread acc. to EN 148-1 and 1270.1 ff, XK35.1 ff, please order separately.

Weight (g)	Material	Art. No.	Pack Qty.	€
610	Rubber, Plastic, PC	**1262.1**	1 unit(s)	149,45

Full face/half masks

Full-face mask respirator Vision 2

3M Scott. Material: Silicone, PC.

Acc. to EN 136.

- Full face mask made of soft silicone rubber
- Wide field of view (98% field of vision)
- Speech diaphragm
- Five-point head strap with snap buckle and head padding
- Adjustable neck strap
- Full-face polycarbonate visor mask is shock-resistant and anti-scratch, as well as resistant to solvents, flames and heat

Delivery without filters, suitable respiratory filters with screw thread acc. to EN 148-1 (1270.1ff, XK35.1ff), please order separately.

Weight (g)	Material	Art. No.	Pack Qty.	€
630	Silicone, PC	**X541.1**	1 unit(s)	299,95

Combined filter 3M™

3M.

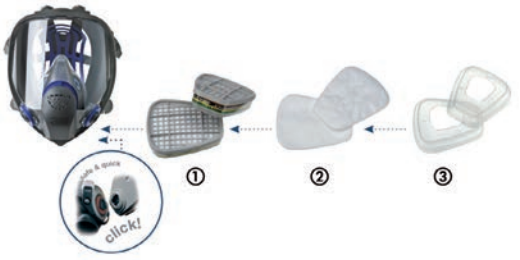
Acc. to EN 14387 (gas and combined filters). The filters are attached directly to the mask body. The filters' innovative design ensures good weight distribution and offers an excellent field of vision.

For 3M half masks and full-face masks
Fits 3M respiratory protection masks: L167.1ff/N168.1ff/PT45.1f/N182.1, HLL0.1 ff.

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
A1P3 R	6091	2 x 2	**HHY2.1**	4 unit(s)	58,80
A2P3 R	6095	2 x 2	**HHY4.1**	4 unit(s)	63,45
ABEK1P3 R +Formaldehyde	6092	2 x 2	**HHY3.1**	4 unit(s)	66,55

For 3M full-face masks
Fits the following 3M full-face masks: N168.1ff and N182.1.

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
AXP3 NR	6098	2 x 2	**N173.1**	4 unit(s)	99,10
ABEK2-HgP3 R+Form-aldehyde	6099	2 x 2	**N172.1**	4 unit(s)	87,45
AE1HgP3 R	6096	2 x 2	**P845.1**	4 unit(s)	105,15



Respiratory filter 3M™

3M.

(1) Gas filter
Acc. to EN 14387 (gas and combined filters). The filters are attached directly to the body of the mask using bayonet catches. The new design distributes the weight evenly on your face and offers an excellent field of view. Suitable for 3M respiratory protection masks: L167.1ff/N168.1ff/PT45.1f/N182.1, HLL0.1 ff.

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
A1	6051	4 x 2	**L170.1**	8 unit(s)	53,65
A2	6055	4 x 2	**L172.1**	8 unit(s)	63,70
A1+Form-aldehyde	6075	4 x 2	**L174.1**	8 unit(s)	62,85
K1	6054	4 x 2	**L171.1**	8 unit(s)	63,50
ABE1	6057	4 x 2	**L173.1**	8 unit(s)	62,30
ABEK1	6059	4 x 2	**N171.1**	8 unit(s)	66,35

(2) Particulate pre-filter
Acc. to EN 143 (particulate filters). Can only be used in combination with an L 170.1 ff gas filter and a L181.1 filter holder. Cannot be directly attached to masks.

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
P1	5911	15 x 2	**L175.1**	30 unit(s)	48,15
P2	5925	10 x 2	**L176.1**	20 unit(s)	78,75
P3	5935	10 x 2	**N174.1**	20 unit(s)	99,40

(3) Filter holder
For combining gas and particulate pre-filters.

Manufacturer no.	Art. No.	Pack Qty.	€
501	**L181.1**	2 unit(s)	6,15

Particulate filter in plastic case

3M.

Acc. to EN 143. Protects against solid and liquid particles in a robust plastic case. Suitable for demanding applications. P3 R with activated carbon provides additional protection against organic and acidic gases and vapours.
Suitable for the following 3M respiratory protection masks: L167.1ff, N168.1ff, N182.1ff, PT45.1ff and HLL0.1ff.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
P3 R	6035	**TE83.1**	20 unit(s)	117,25
P3 R with activated carbon	6038	**TE84.1**	8 unit(s)	71,95

Full face/half masks

Particulate filter 3M™

3M.

Acc. to EN 143 (particulate filters). The round shape makes assembly easier because the filters can be inserted into any position using the bayonet catches. The breathing resistance has been reduced by up to 30%, making it possible to work for longer without tiring.
Suitable for respiratory protection masks made by 3M: L167.1ff/N168.1ff/PT45.1f/N182.1/HLL0.1ff.

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
P2 R	2125	10 x 2	**L177.1**	20 unit(s)	91,00
P2 R with activated carbon	2128	10 x 2	**L178.1**	20 unit(s)	105,15
P3 R	2135	10 x 2	**L179.1**	20 unit(s)	108,05
P3 R with activated carbon	2138	10 x 2	**L180.1**	20 unit(s)	124,35

Half mask respirator

3M.

Acc. to EN 140. Lightweight, robust and comfortable. Strong, stable mask body with a robust but soft face seal.

- Face seal made of elastic silicone offers an optimum and comfortable fit
- Robust and adjustable headband ensures an optimum fit and high wear comfort
- 3M™ Cool Flow™ exhalation valve reduces breathing resistance, making it easy to breathe
- The flat and compact design allows a wide field of vision and makes for easy cleaning of the smooth surface
- The design of the respiratory valve passes heat and moisture downwards and reduces fogging of the safety spectacles
- Bayonet click system, compatible with 3M respiratory filter for numerous applications
- The straps and exhalation valve are available as spare parts

Delivery without filters, suitable filters: L170.1ff, L177.1, HLK8.1, HHY2.1ff and TE83.1ff, please order separately.

6500QL series
„Quick release“ mechanism allows the mask to be removed quickly and easily when taking short breaks from work.

Size	Manufacturer no.	Art. No.	Pack Qty.	€
S	6501QL	**HLL3.1**	1 unit(s)	38,10
M	6502QL	**HLL4.1**	1 unit(s)	38,10
L	6503QL	**HLL5.1**	1 unit(s)	38,10

Respiratory protection mask 4000 Plus series

3M.

Acc. to EN 405:2001 + A1:2009. Ready-to-use half masks, maintenance-free, comfortable and high quality. Integrated filters enable long service life. With exhalation valve, wide field of vision and special headband for optimal weight distribution. Can be combined with safety spectacles and ear protection. Delivered in an airtight, resealable bag.

FFA1P2 RD
Protects against organic gases and vapours (boiling point >65 °C) up to 1000 ppm and against solid and liquid particles up to 10 times the limit.

Filter type	Manufacturer no.	Art. No.	Pack Qty.	€
FFA1P2 RD	4251	**9750.1**	1 unit(s)	30,80

FFA2P3 RD
Protects against organic gases and vapours (boiling point >65 °C) up to 5000 ppm and against solid and liquid particles of harmful substances up to 30 times the limit.

Filter type	Manufacturer no.	Art. No.	Pack Qty.	€
FFA2P3 RD	4255	**E347.1**	1 unit(s)	37,00

FFABE1P3 RD
Protects against organic and inorganic gases and vapours, as well as SO_2/HCl up to 1000 ppm and against solid and liquid particles of harmful substances up to 30 times the occupational exposure limit.

Filter type	Manufacturer no.	Art. No.	Pack Qty.	€
FFABE1 - P3 RD	4277	**C272.1**	1 unit(s)	40,15

FFABEK1P3 RD
Protects against organic and inorganic gases and vapours, as well as SO_2/HCl and ammonia up to 1000 ppm and against solid and liquid particles of harmful substances up to 30 times the limit.

Filter type	Manufacturer no.	Art. No.	Pack Qty.	€
FFABEK1 - P3	4279	**L162.1**	1 unit(s)	45,30

Particle prefilter for 4000 series masks

3M.

Protects against coarse particles and extends the useful life of the mask.

Manufacturer no.	Art. No.	Pack Qty.	€
400+	**AKX1.1**	10 unit(s)	17,85

Full face/half masks

Half mask respirator 6000 series

3M.

Acc. to EN 140:1998.

- Made of elastomer material
- Easy to handle and robust
- Extremely light (82 g) for fatigue-free working
- Low maintenance (exhalation/inhalation valves are non-inter-changeable)
- Reduced breathing resistance thanks to double filter system
- Good weight distribution
- Easy filter assembly using bayonet connection
- Weight 82 g

Delivery without filters, suitable respiratory filters: L170.1ff, L177.1ff, HHY2.1ff, HLK8.1ff, TE83.1ff, please order separately.

Size	Manufacturer no.	Art. No.	Pack Qty.	€
S	6100	**L167.1**	1 unit(s)	24,70
M	6200	**L168.1**	1 unit(s)	24,70
L	6300	**L169.1**	1 unit(s)	24,70

Half mask respirator 7500 series

3M. Material: Silicone.

Acc. to EN 140:2001.

- Made of skin-friendly silicone
- Robust and extremely comfortable
- With drop-down strap for quick up and down adjustment and for wearing the mask around the neck during breaks
- Reduced breathing resistance thanks to Cool-Flow™ exhalation valve and double filter system
- Good weight distribution
- Easy filter assembly using bayonet connection
- Exchangeable components

Delivery without filters, suitable respiratory filters: Art. No. L170.1 ff/ L177.1 ff/L175.1 ff/HHY2.1 ff/HLK8.1 ff/TE83.1 ff.

Size	Material	Manufacturer no.	Art. No.	Pack Qty.	€
S	Silicone	7501	**PT45.1**	1 unit(s)	43,90
M	Silicone	7502	**Y393.1**	1 unit(s)	43,40
L	Silicone	7503	**Y394.1**	1 unit(s)	43,40

Full-face mask respirator 3M™ 6000 series

3M. Material: Silicone.

Acc. to EN 136. Class I: Full-face masks for applications with low demands.

- Mask body made of skin-friendly silicone
- Anti-scratch, large visor
- Compact design and extremely lightweight (400 g)
- Reduced breathing resistance thanks to double filter system
- Easy to use
- Filter assembly using bayonet- connection

Delivery without filters, suitable respiratory filters: Art. No. L170.1 ff/ L177.1 ff/HHY2.1 ff/HLK8.1 ff/TE83.1 ff.

Size	Weight (g)	Material	Manufac-turer no.	Art. No.	Pack Qty.	€
L	400	Silicone	6900L	**N170.1**	1 unit(s)	146,35
M	400	Silicone	6800M	**N169.1**	1 unit(s)	146,35
S	400	Silicone	6700S	**N168.1**	1 unit(s)	146,35

Full-face mask respirator 7907S

3M. Material: Silicone.

Acc. to EN 136. Class II: Full-face masks for normal applications.

- Mask body made of skin-friendly silicone
- Wide field of vision
- Scratch and impact resistant lens
- Lip seal ensures excellent fit
- With speech diaphragm
- Exchangeable components
- Reduced breathing resistance thanks to double filter system
- Easy filter assembly using bayonet connection

Delivery without filters, suitable respiratory filters: L170.1 ff/L177.1 ff/ L175.1 ff/HHY2.1 ff/HLK8.1 ff/TE83.1 ff.

Material	Manufacturer no.	Art. No.	Pack Qty.	€
Silicone	7907S	**N182.1**	1 unit(s)	310,70

Lightweight hood for Jupiter™ blower unit 3M™

3M.

Comfortable textile universal material. Protects the face and eyes in accordance with EN 166 (protection against droplets or splashes and minor impact).

(1) S133 disposable lightweight hood
Covers the head and face.

Size	Manufacturer no.	Art. No.	Pack Qty.	€
S	S133S	**KCK2.1**	1 unit(s)	62,55

(2) S333G disposable lightweight hood
Robust and very soft. Anti-static and low-lint. Covers the head and face.

Size	Manufacturer no.	Art. No.	Pack Qty.	€
S	S333SG	**KCK3.1**	1 unit(s)	114,20
L	S333LG	**KCK4.1**	1 unit(s)	114,20

(3) Premium S655 reusable lightweight hood
With flexible head support. Covers the head, face, neck and shoulders. One size fits all.

Manufacturer no.	Art. No.	Pack Qty.	€
S655	**KCK5.1**	1 unit(s)	114,80

Respiratory filter for blower unit 3M™ Jupiter™

3M.

Particulate and combination filter with filter cover, without prefilter.

Filter type	Manufacturer no.	Art. No.	Pack Qty.	€
P3	4500025P	**KCH7.1**	24 unit(s)	542,90
A2 - P	4530025P	**KCH8.1**	12 unit(s)	473,00
ABE-P	4561825P	**KCH9.1**	12 unit(s)	590,20
ABEK-P3	4530925P	**KCK0.1**	12 unit(s)	708,45
Prefilter	4610002P	**KCK1.1**	24 unit(s)	24,50

Escape hood

Dräger.

Acc. to EN403:2004 (fire escape hoods).
Protects eyes and airways.

- High-performance respiratory filter
- Easy to put on and safe to wear, enables a quick escape
- Wide field of vision for better orientation when escaping from a fire
- Also suitable for spectacle wearers and people with beards.
- Replacing the filter extends the shelf life by a further 8 years

Delivery incl. hard case packaging, box (IP 54) protected from dust and water spray by its protective seal.

Dräger PARAT® 5530 fire escape hood
Protects the wearer from toxic combustion gases, vapours and particles for at least 15 minutes while escaping. The filter is also approved for use against H2S (2500 ppm) according to DIN 58647-7.

Filter type	Weight (g)	Art. No.	Pack Qty.	€
CO-P2	720	**CHK3.1**	1 unit(s)	276,55

Dräger PARAT® 7530 fire and industry escape hood
Protects the wearer from toxic industrial gases, vapours, particles and fire gases for at least 15 minutes while escaping. The filter is also approved for use with gas and combined filters according to DIN 58647-7 and EN 14387:2004.

Filter type	Weight (g)	Art. No.	Pack Qty.	€
ABEK-CO-P3	830	**CHK6.1**	1 unit(s)	294,60

Wall mount for Dräger PARAT® hard Case escape hoods

Dräger.

Version	Art. No.	Pack Qty.	€
Wall mount for Dräger PARAT® Hard Case	**CHK5.1**	1 unit(s)	32,25

Respiratory protection accessories

Safety box SEKUROKA®

ROTH SELECTION. Material: ABS.

- Made of impact resistant plastic (ABS) with rounded corners, blue or transparent
- For safely storing personal protective equipment (PPE) directly at the workstation
- Protects PPE against scratches, dust and moisture
- PPE can be taken out quickly in an emergency
- Can be attached using glue or screws

Delivery incl. mounting parts (screws and dowels) and five small labelling cards. Please order warning signs (NK21.1 ff) separately.

Midi
Suitable for ear protection, face masks, FFP masks

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
blue	236 x 125 x 225	**N428.1**	1 unit(s)	34,80
colourless	236 x 125 x 225	**N429.1**	1 unit(s)	40,80

Maxi
Suitable for protecting the head, face and breathing

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
blue	236 x 200 x 315	**N430.1**	1 unit(s)	45,55
colourless	236 x 200 x 315	**CHL1.1**	1 unit(s)	52,35

Storage box for half masks

3M. Material: PE.

With lid and area for labelling. For storing 3M half masks.

Manufacturer no.	Art. No.	Pack Qty.	€
7400	**P846.1**	1 unit(s)	8,65

Mask cabinet mobile

ROTH SELECTION. Material: Plastic.

Made of impact-resistant plastic. With transparent door and two shelves.

- For storing respiratory protection masks hygienically and dust-free
- Specially designed for lightweight respiratory protective equipment to be used at different sites
- The robust, easy to install wall holder allows the cabinet to be removed from the wall for transportation quickly and easily
- Ideal for one vision mask and two filters or two half masks and four filters
- Weight: approx. 1.6 kg

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
green	270 x 140 x 410	**H994.1**	1 unit(s)	77,85

Wall container SEKUROKA®

ROTH SELECTION. Material: Plastic.

Made of plastic, with transparent, removable clip-on lid. For storing gas masks and filters or other personal protective equipment.
Weight 1.2 kg.

W x D x H (mm)	Art. No.	Pack Qty.	€
340 x 150 x 430	**2953.1**	1 unit(s)	96,05

Respiratory protection accessories

Storage and carry case SecuCase

GEBRA. Material: PP.

Made of PP. For individual personal protective equipment. Useful if changing workstations or carrying out assembly work.

- Clean and safe storage of equipment
- Protective apparatus can be removed quickly and easily
- Including four safety symbol labels (wear eye protection, ear protection, mask and gloves)

Delivery without capacity.

Version	W x D x H (mm)	Art. No.	Pack Qty.	€
Midi	340 x 84 x 280	**ALA7.1**	1 unit(s)	27,05
Mini	260 x 74 x 210	**ALA6.1**	1 unit(s)	18,40

Bag for full-face masks

3M.

Bag for carrying and storing full face masks.

Manufacturer no.	W x D x H (mm)	Art. No.	Pack Qty.	€
107	320 x 190 x 280	**AKX0.1**	1 unit(s)	58,90

Cleaning wipes for respiratory protection masks

3M.

For quick and easy cleaning of respiratory masks. Soaked with cleaning solution, individually packed.
Dimensions of wipes: L 198 x W 92 mm.

EUH210

Manufacturer no.	Art. No.	Pack Qty.	€
105	**TK43.1**	40 unit(s)	43,75

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Earplugs

Disposable ear plugs E.A.R.® Classic II

3M.

Acc. to EN 352-2. Comfortable fit, highly sound proof.

SNR value (db)	Art. No.	Pack Qty.	€
28	**0245.1**	5 pair	4,00

Disposable ear plugs Max®

Honeywell Safety.

Acc. to EN 352–2. Made of polyurethane.

- Bell-shaped for very comfortable fit and high protection
- Optimised shape for simple insertion and to prevent slipping out
- Soft, soil-resisting outer shell prevents dirt deposits and guarantees improved hygiene
- Packed in pairs
- High insulation values

Version	SNR value (db)	Art. No.	Pack Qty.	€
with safety strap	37	**KN22.1**	100 pair	56,75
without safety strap	37	**KN21.1**	200 pair	47,85

Disposable ear plugs xact-fit

UVEX.

Acc. to EN 352-2. These innovative plugs adapt perfectly to the ears. The design for the left and right ears is modelled on the anatomy of the ear canal. This noticeably reduces the pressure in the ear canal, even after long periods of wear.

- Convenient and easy to use
- Oval shape ensures optimal wear comfort
- Foam plugs are interchangeable for maximum economy and hygiene
- PVC-free

SNR value (db)	Art. No.	Pack Qty.	€
26	**XC88.1**	50 pair	108,10

Disposable ear plugs Bilsom 303L

Howard Leight by Honeywell.

Acc. to EN 352–2. Made of highly insulating, dermatologically tested PU–foamed material (PVC–free). Conical shape for optimum fit in ear canal. Nominal size: 5–12 mm. Weight approx. 0.5 g.

(1) Hand dispensers

SNR value (db)	Art. No.	Pack Qty.	€
33	**X556.1**	100 pair	27,55

(3) Refill pack for wall-mounted dispenser

SNR value (db)	Art. No.	Pack Qty.	€
33	**Y868.1**	200 pair	43,60

Disposable ear plugs Bilsom 304L with safety strap

Howard Leight by Honeywell.

Acc. to EN 352–2. Made of highly insulating, dermatologically tested PU–foamed material (PVC–free). Conical shape for optimum fit in ear canal. Nominal size: 5–12 mm. Weight approx. 0.5 g.

SNR value (db)	Art. No.	Pack Qty.	€
33	**C493.1**	20 pair	14,50

Disposable ear plugs No-Touch

3M.

Acc. to EN 352-2. Made of slowly expanding foam. Pre-shaped, soft plugs can be used immediately.

- No need to roll up the ear plugs.
- Comes with headband, practical and hygienic
- Can be combined with other personal protective equipment

SNR value (db)	Pack.	Art. No.	Pack Qty.	€
35	individual	**KA60.1**	100 pair	102,60

Earplugs

Disposable ear plugs LASER LITE®

Honeywell Safety.

Acc. to EN 352-2. Two-tone plugs made of PU. Made of very soft foam. Adapts to the ear canal itself.

Box
Packed in pairs in a practical box (not to be used to fill the Y862.1 ear plug dispenser)

SNR value (db)	Art. No.	Pack Qty.	€
35	**Y861.1**	200 pair	46,50

Refill pack for dispenser
Suitable for refilling the Y862.1 dispenser

SNR value (db)	Art. No.	Pack Qty.	€
35	**Y861.2**	500 pair	92,95

Dispenser for ear plugs LASER LITE®

Honeywell Safety.

Made of hard-wearing, anodised aluminium. Very robust, suitable for repeated strain. Plugs can be easily removed by turning the crank. Can be filled with Y861.2 (500 pairs) and Y868.1 (200 pairs) ear plugs.

Delivery incl. mounting material, no ear plugs.

Version	Art. No.	Pack Qty.	€
Ear plug dispenser	**Y862.1**	1 unit(s)	237,60

Detectable ear plugs LASER-TRAK

Honeywell Safety.

Acc. to EN 352-2. Sound-absorbing, **able to detect**. Adapt to the ear canal and do not cause any irritation or allergies. Also suitable for use in the food industry.

SNR value (db)	Art. No.	Pack Qty.	€
35	**P907.1**	100 pair	93,55

Single-use ear plugs

UVEX.

Acc. to EN 352-2. Ergonomically shaped **disposable ear plugs** for long-term, mobile ear protection. Made of allergy-free PU foam with a proportion of synthetic elastomer.

- Pleasantly soft
- X-emboss allows for a comfortable fit and a decrease in pressure in the ear canal
- Closed surface prevents foreign matter from entering

(1) X-fit

- For larger ear canals
- For high continuous noise exposure
- Very high sound absorption levels

SNR value (db)	Pack.	Art. No.	Pack Qty.	€
37	Mini box	**1E13.1**	15 pair	8,60
37	loose in the refill box	**HE98.2**	300 pair	58,40

(2) Com4–fit

- For smaller ear canals
- For lower noise exposure

SNR value (db)	Pack.	Art. No.	Pack Qty.	€
33	Mini box	**1E14.1**	15 pair	8,60
33	loose in the refill box	**HH00.2**	300 pair	58,40

Dispenser for ear plugs X-fit and Com4-fit

UVEX.

Robust, easy-to-use dispenser.

- Automatic dispenser guarantees plugs can be economically removed, with the plugs dropping out individually upon rotation
- Lightweight and can be refilled hygienically
- Max. quantity for filling: 600 pairs
- Suitable to be filled with X-fit, Com4-fit and standard ear plugs
- Suitable for wall mounting

Delivery incl. mounting material, no ear plugs.

Version	Art. No.	Pack Qty.	€
Ear plug dispenser	**HH01.1**	1 unit(s)	45,20

Disposable ear plugs

Moldex.

Acc. to EN 352-2. Comfortable PU foam ear plugs for work that requires continual ear protection. Soft to wear, easy to insert. Ear plugs, wall mount and packaging are completely PVC-free. Bright colours make using the plugs more appealing. Hygienic dispenser system, the station is replaced for refilling.

Delivery incl. 250 pairs in the disposable dispenser station to be suspended in the wall mount (please order separately).

(1) Spark Plugs

- Anatomically pre-shaped

Manufacturer no.	SNR value (db)	Pack.	Art. No.	Pack Qty.	€
7825	35	in pairs	**KP16.1**	500 unit(s)	57,95

(2) MelLows

- Provides improved awareness of surroundings and allows for improved communication
- Particularly suitable for use in low noise exposure

Manufacturer no.	SNR value (db)	Pack.	Art. No.	Pack Qty.	€
7625	22	in pairs	**KP17.1**	500 unit(s)	57,95

Wall mount for disposable ear plugs

Moldex.

Delivery incl. mounting material.

Manufacturer no.	Art. No.	Pack Qty.	€
7060	**KP18.1**	1 unit(s)	8,00

Detectable ear plugs Spark-Plug® Detect

Moldex.

Acc. to EN 352-2. **Detectable** disposable ear plugs made of soft PU foam. Ear plugs contain metal and are therefore fully detectable. Suitable for use in foodstuffs production. Available in hygienic dispenser station to be suspended in KP18.1 wall mount.

Delivery without wall mount, please order separately.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
7859	32	**XA38.2**	1,000 unit(s)	134,40

Detectable ear plugs whisper+detec

UVEX.

Acc. to EN 352-2. Soft, **detectable, reusable ear plugs** with an excellent fit in the ear canal. Particularly suitable for dirty working conditions. The smooth surface prevents the accumulation of dirt particles which can cause injury.

- For the medium noise range
- Plugs are blue for better visibility in the production line

SNR value (db)	Art. No.	Pack Qty.	€
27	**HE94.1**	50 pair	112,75

Reusable ear plugs ULTRAFIT

3M.

Acc. to EN 352-2. Pre-moulded ear plugs made of thermoplastic. Thanks to their flat design, they are a perfect fit for any ear canal. Easy to wash the ear plugs using warm soapy water. **Reusable**. Suitable for sensitive working areas in the foodstuffs and chemicals industries.

Pic.	Version	Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
(1)	with safety cord	UF01000	32	**TE80.1**	50 pair	132,00
(2)	with storage box	UF01020	32	**TE81.1**	50 pair	134,55

Reusable ear plugs ClearE.A.R. 20

3M.

Acc. to EN 352-2. Pre-moulded ear plugs. Made of soft polymer, transparent. Almost invisible when worn. Ideal fit thanks to flat shape. Short stem for easy insertion and removal. Washable and **reusable**. SNR value: 20 dB.

Delivery incl. storage box.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
UF01021	20	**TE82.1**	12 pair	64,95

Earplugs

Reusable ear plugs E.A.R. Express™

3M.

Acc. to EN 352-2. Very comfortable and provide the best fit. The foam material slowly expands and forms a complete seal – without excessive pressure. The patented grip allows the plugs to be inserted and removed in a quick and hygienic manner. The **reusable plugs** are easy to clean. The bright colours make using the plugs more appealing. Come in useful packaging that can be resealed.

SNR value (db)	Art. No.	Pack Qty.	€
28	**K130.1**	20 pair	19,55

Reusable ear plugs 3M™

3M.

Acc. to EN 352-2. Lamella design for improved fit in the ear canal and improved wear comfort. Soft material (monoprene) provides additional comfort and special recessed grips. Storage box with belt clip for clean and safe storage during breaks in and after completion of work.

Version	Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
with safety band	1271	25	**EH65.1**	50 pair	103,10
without safety band	1261	25	**EH64.1**	50 pair	96,35

Banded ear plugs E-A-R Caps™

3M.

Acc. to EN 352-2. With soft polyurethane plugs. Ideal for people working in varying levels of noise and for visitors. Comfortable to wear with very simple adjustment, can also be worn behind the neck. Weight approx. 7.6 g.

SNR value (db)	Art. No.	Pack Qty.	€
23	**A344.1**	1 unit(s)	9,05

Banded ear plugs WaveBand® 2K

Moldex.

Acc. to EN 352-2.

- Banded earplugs with anatomically adapted contour
- Freedom of movement without contact noise
- Two-component design with grip points
- Comfortable, low contact pressure (only 1.2 N)
- Feather light: Only 12 g

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
6800	27	**XA36.1**	1 unit(s)	8,85

Banded ear plugs

UVEX.

Acc. to EN 352-2. PU ear plugs. Lightweight alternative to ear protectors. Particularly suitable as ear protection for visitors or when on the move

- For temporary noise protection
- Specially designed earpiece, excellent shape retention
- Readily available, convenient and easy to use
- Comfortable fit, easy communication
- Very light, approx. 8 g
- Colour: Grey or blue

X-cap

SNR value (db)	Art. No.	Pack Qty.	€
24	**HE95.1**	1 unit(s)	8,35

X-fold

Can be folded, making it practical for when on the move.

SNR value (db)	Art. No.	Pack Qty.	€
23	**XC97.1**	1 unit(s)	8,05

Earmuffs

Earmuffs Clarity C2

Howard Leight by Honeywell.

Acc. to EN 352-1. The Sound Management Technology provides uniform sound insulation while allowing voices and signals to be heard with minimal distortion. Three-position universal headband offers the following positions for wearing: Over the head, behind the neck or under the chin. Can therefore be combined with further protective equipment. Dielectric design. Two-part headband with well-ventilated interior. Weight 208 g. Pressing force 11.6 N.

SNR value (db)	Art. No.	Pack Qty.	€
30	**CT24.1**	1 unit(s)	30,65

Earmuffs M1

Moldex.

Acc. to EN 352-1.

- High-quality earmuffs
- Soft coat material in metallic colour
- Six adjustments for perfect fit
- Soft padded metal headpiece for long wear comfort
- Collapsible: Space-saving and hygienic

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
6100	31	**NH61.1**	1 unit(s)	42,90

Earmuffs Clarity C1

Howard Leight by Honeywell.

Acc. to EN 352-1. Blocks out noise while allowing voices, signals and alarms to be heard with minimal distortion. No electronic components. Two-part headband with well-ventilated interior, soft sealing pads. Weight 194 g. Pressing force 10 N.

SNR value (db)	Art. No.	Pack Qty.	€
25	**CT07.1**	1 unit(s)	27,80

Earmuffs Clarity C1F, fold-able

Howard Leight by Honeywell.

Acc. to EN 352-1. The Sound Management Technology provides uniform sound insulation while allowing voices and signals to be heard with minimal distortion. Can be folded together to protect the earpieces from dust and moisture. The headband can be quickly adapted to the shape of the head using the quick-click adjustment feature. Dielectric design. Two-part headband with well-ventilated interior, soft sealing pads. Weight 194 g. Pressing force 11 N.

SNR value (db)	Art. No.	Pack Qty.	€
26	**CT25.1**	1 unit(s)	30,65

Earmuffs 3M™ OPTIME™

3M.

Acc. to EN 352-1. High wear comfort and low pressure inside ear even after long periods of wear.

- Lightweight design, optimal ear protection
- Constant pressure, liquid-filled sealing ring
- 2-point mounting

Peltor™ OPTIME™ I
Flat design. **Applications:** Outdoor work, building trade, engineering, woodworking, metalworking, automobile industry, farming, chemical treatment.

SNR value (db)	Art. No.	Pack Qty.	€
27	**NH19.1**	1 unit(s)	23,95

Peltor™ OPTIME™ II
For high-noise environments, provides excellent sound insulation even at extremely low frequencies. **Applications:** Outdoor work, building trade, airports

SNR value (db)	Art. No.	Pack Qty.	€
31	**NH20.1**	1 unit(s)	29,35

Earmuffs

Earmuffs 3M™

3M.

Acc. to EN 352-1.

- Modern and attractive slim design
- Double band design for better balance and greater comfort
- Low weight
- Soft, wide sealing rings reduce the pressure on the ears and enhance wear comfort
- Innovative new attenuating pads and intermediate rings ensure improved attenuation
- New, patented foam in the sealing rings for effective protection
- The cups offer abundant space inside to minimize heat and moisture
- The sealing rings and inserts are easy to replace, for easy cleaning of the cups
- The headband of the earmuffs is dielectric (electrically insulated). The metal parts of the headband are coated with a conductive material, which means that the hearing protection an also be used with a low electrical voltage (less than 440 V AC)

Peltor™ X1
For protection against low noise levels in industry, when lawn mowing, drilling, etc.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
X1A	27	**HLN6.1**	1 unit(s)	30,95

Peltor™ X2
For protection against moderate to high sounds levels in industry, when carrying out roadworks or construction work, etc.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
X2A	31	**HLN7.1**	1 unit(s)	37,50

Peltor™ X3
For protection against noise levels in the forestry industry, heavy industry, at airports, etc.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
X3A	33	**HLN8.1**	1 unit(s)	42,65

Peltor™ X4
With narrow cups. For use against high noise levels in a wide range of industries.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
X4A	33	**HLN9.1**	1 unit(s)	49,45

Ear defenders Peltor™ OPTIME™

3M.

Acc. to EN 352-1. With safety attachment for all hard hats with 30 mm slot system and face/ear protection G500 (YT38.1). High wear comfort and low pressure inside ear even after extended wear

- Lightweight design, optimal ear protection
- Constant pressure, liquid-filled sealing ring
- 2-point mounting

Delivery without ear defenders (NH14.1, NH15.1) please order separately.

OPTIME™ I
Flat design.
Applications: Outdoor work, building trade, engineering, woodworking, metalworking, automobile industry, farming, chemical treatment.

SNR value (db)	Art. No.	Pack Qty.	€
26	**NH12.1**	1 pair	24,15

OPTIME™ II
For high-noise environments, provides excellent sound insulation even at extremely low frequencies.
Applications: Outdoor work, building trade, airports.

SNR value (db)	Art. No.	Pack Qty.	€
30	**NH13.1**	1 pair	30,95

Hygiene kit for earmuffs 3M™

3M.

Hygiene kits allow hygienic and economic use of the earmuffs, since it is not necessary to replace the entire earmuff in the event of contamination. Quick and easy to assemble.
A kit contains two foam pads and two sealing rings.

Peltor™ X-series

Suitable for	Manufacturer no.	Art. No.	Pack Qty.	€
3M™ Peltor™ X1	HYX1	**HLP0.1**	1 unit(s)	13,65
3M™ Peltor™ X2	HYX2	**HLP1.1**	1 unit(s)	13,65
3M™ Peltor™ X3	HYX3	**HLP2.1**	1 unit(s)	13,65
3M™ Peltor™ X4	HYX4	**HLP3.1**	1 unit(s)	16,85

Peltor™ OPTIME™

Suitable for	Art. No.	Pack Qty.	€
OPTIME™ I earmuffs + ear defenders	**NH21.1**	1 unit(s)	12,80
OPTIME™ II earmuffs + ear defenders	**NH22.1**	1 unit(s)	13,60

Skin protection

Skin protection ROTIPROTECT® cream

Petrasch.

Simultaneously protects and cares for the skin. Creates a water-repellant protective film. Promotes the regeneration of skin cells and preserves the natural acidic mantle of the skin. Contains silicone, essential fatty acids, allantoin and dextrorotatory lactic acid (dLA), pH 4.

Pack.	Art. No.	Pack Qty.	€
55 g dispenser	**0543.2**	1 unit(s)	9,05

Skin protection Sineprint® cream

Physioderm.

Skin protection cream made from natural active substances. Protects the hands, does not leave fingerprints and improves finger grip. Non-greasy, silicone-free, paraben-free.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**2987.1**	1 unit(s)	6,75

Skin protection Dualin® cream

Physioderm.

Protects against **non-water soluble** and **water soluble** substances and is therefore ideal for workplaces with different working materials. Absorbs into the skin quickly, is slightly perfumed, very hypoallergenic. Free of paraffin, silicone and paraben.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**P332.1**	1 unit(s)	8,10

Skin protection HERWESAN ALL-IN-ONE cream

HERWE.

No marks left behind when handling changing work materials in metal-working, as well as in areas such as plastics engineering, precision engineering and electrical engineering.

- Easy to spread, quickly absorbed O/W skin protection emulsion
- With a new film formation system against water-soluble and hydrophobic working materials
- Non-greasing and therefore a particularly good, comfortable grip following absorption
- Cost-effective dosing system
- Silicone-free

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KN04.1**	1 unit(s)	7,75

Skin protection HERWEDERM PROTECT SENSITIVE Gel

HERWE.

For imprint-free working and frequently changing work materials; also suitable for sensitive skin types. Universally applicable, for hands and face, recommended for extremely sensitive skin types.
Application in the food industry, hospitals, nursing and retirement homes and electrical engineering. Protection against colours, grease, damp/wet, resins, adhesives, paints, oil, tar-like substances, changing applications.
Easy to apply, absorbed quickly. pH-neutral, non-greasy, free from preservatives, parabens, silicone and dyes, unscented.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**YT47.1**	1 unit(s)	8,30

Skin protection

Skin protection HERWESAN ACQUA cream

HERWE.

Hydrophobic cream, emulsion type W/O. For handling aqueous substances such as water-based coolants, drilling emulsions, diluted bases, detergent solutions, alkali and acidic cleaners, cement, lime and mortar.

- Excellent protective effect
- High adhesive strength
- High oil content
- Slightly perfumed, silicone-free

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAL5.1**	1 unit(s)	5,60

Skin protection and skin care LINDESA® cream

Physioderm.

Oil-in-water emulsion containing natural beeswax and allantoin for care of the skin. For use in applications involving low stress on the skin or daily work in high humidity environments. Protects against skin damage and soothes irritated skin areas while smoothing and conditioning the skin. Suitable as an after work skin care cream or for conditioning stressed skin. Fast-absorbing, low-greasing, silicone-free, beeswax-scented or unscented.

Pack.	Art. No.	Pack Qty.	€
50 ml tube	**YY19.1**	1 unit(s)	4,50
100 ml tube	**YY19.2**	1 unit(s)	5,70

Skin protection and skin care LINDESA® PURE PROFESSIONAL cream

Physioderm.

Oil-in-water emulsion containing natural beeswax and allantoin for skin care. Suitable for everyday skincare. Protects against skin damage and soothes irritated skin areas while smoothing and conditioning the skin. Suitable as an after work skin care cream or for conditioning stressed skin. Contains paraben-free preservatives. Quickly absorbed by the skin, slightly oily, silicone and fragrance-free.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAX9.1**	1 unit(s)	5,65

Skin protection LINDESA® F PROFESSIONAL cream

Physioderm.

Oily skin protection cream, W/O emulsion with natural beeswax. Prevents skin damage when working with water and when handling diluted surfactant solutions and diluted alkalis, e.g. washing and cleaning solutions. Also suitable for skin care after working when skin is highly degreased and for protecting against cold and frost. Perfumed, silicone-free.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAL1.1**	1 unit(s)	6,80

Skin protection

Skin protection LINDESA® K with chamomile cream

Physioderm.

Oil-in-water emulsion that contains natural beeswax and chamomile. Particularly suitable for working environments where leaving grease marks on surfaces must be avoided, e.g. when painting, in electrical manufacturing or the final inspection. Also suitable for caring for stressed skin. Strengthens the skin's defensive function and prevents skin damage caused by external stresses. Has a normalising effect on irritated skin.
Non-greasy, fast-absorbing, scented, silicone-free.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**EEE5.1**	1 unit(s)	5,90

Skin protection physio UV 30 sun cream

Physioderm.

Skin protection cream for protection against exposure to UV-A, UV-B and UV-C radiation, with balanced protection factor UV-B 30/UVA 10.
Area of use: For protection against intensive natural UV radiation or artificial UV radiation sources.

- White, medium-moisturising W/O emulsion
- Waterproof, contains no fragrances, preservatives or petroleum
- With reflective titanium oxide UV filters (silicone coated)
- Vitamin E acetate combats ageing of the skin

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**P346.1**	1 unit(s)	9,15

Skin protection Saniwip® cream

Physioderm.

Skin protection cream that protects against skin damage caused by handling **water-soluble** working materials such as acids, bases, aqueous solvents and alcohols. Prevents the skin from becoming cracked. Suitable for use in foodstuffs processing. Also suitable for the care of highly stressed skin. Contains no fragrances or silicone.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**C785.1**	1 unit(s)	7,15

Skin protection Physioderm® PROGLOVE Gel

Physioderm.

Protects the skin against the effects of skin softening when wearing gloves and other occlusive protective clothing. Transparent fragrance- and grease-free gel containing alcohol. Hamamelis and chitin protect the upper layer of the skin while bisabolol and glycerine moisturise and soothe the skin. HACCP-compliant, perfume- and fragrance-free. Silicone- and grease-free.
Matching dispenser for AH81.2: YY16.1.

Pic.	Pack.	Art. No.	Pack Qty.	€
(1)	100 ml tube	**AH81.1**	1 unit(s)	12,35
(2)	1000 ml dispenser bottle	**AH81.2**	1 unit(s)	38,60

Skin protection

Skin protection PROTEXSAN cream

Physioderm.

Protection against water-soluble and water-miscible substances (e.g. water-mixed oils and cooling lubricants, diluted acids and alkalis, alcohol, washing-up liquids and detergents, disinfectants, salts, and cement) and against free radicals.

- Contains luteolin, co-enzyme Q10 and vitamin E, as well as skin-related lipids
- Does not contain any aluminium salts, preservatives or emulsifiers
- Free from mineral oils, silicone-free, unscented
- Fast-absorbing
- ECARF-certified

Pack.	Art. No.	Pack Qty.	€
50 ml tube	**EEE6.1**	1 unit(s)	11,75

Skin protection HERWESAN UV emulsion

HERWE.

Sun protection factor 30 (International SPF Test Method, Colipa).
Area of use: For protection against strong UV radiation or exposure to artificial radiation sources.

- White, slightly greasing, weak-fragrance O/W emulsion
- Waterproof and easy to spread on the skin, easily absorbed
- Silicone-free
- Contains inorganic UV protective pigments and special sunscreens, thus protecting the skin against harmful UV-A, -B, -C radiation
- Skin care properties through cosmetic oils and shea butter

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KN20.1**	1 unit(s)	10,95

Skin protection HERWESAN DRY EMULSION

HERWE.

Protects against skin softening caused by wearing airtight clothing and mechanical stress on the skin, e.g. when wearing gloves.
Applications: For microelectronic work and when handling cardboard boxes.

- Non-greasing O/W emulsion
- Hardens corneal layers
- Non-greasing cream
- Reduces perspiration and protects against softening of the skin
- Increases wearing comfort of protective clothing
- Slightly perfumed, silicone-free

Pack.	Art. No.	Pack Qty.	€
250 ml bottle	**KN05.1**	1 unit(s)	11,30

Skin protection Baktolan® protect+ pure emulsion

BODE Chemie.

Water-in-oil-in-water emulsion, protects against aqueous solutions and revitalises cracked, hard-working skin. Protects the skin when performing tasks involving aqueous solutions. Can be used under gloves to counteract skin irritation due to occlusion. Suitable for use several times a day. Free of perfume, silicone and colourants.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**TE58.1**	1 unit(s)	10,30

Skin protection

Skin protection Marly Skin® foam

Marly Products.

Microfine foam penetrates the skin rapidly and forms a protective barrier against harmful and irritant substances. Protection for 4-6 hours. Suitable for use on the entire body, non-greasy, unnoticeable, economical in use. Ideal for use under gloves. Clinically tested.
Please note: The prescribed protective measures, e.g. wearing gloves, should still be taken.

Warning H229

Pack.	Art. No.	Pack Qty.	€
50 ml spray bottle	**2938.3**	1 unit(s)	12,85
100 ml spray bottle	**2938.1**	1 unit(s)	22,40

Skin protection Sansibon® cream

Physioderm.

White, slightly oily, fast absorbing cream, suspension with skin protection pigments. Water-soluble skin protection cream, which protects against strongly adherent dirt and facilitates gentle skin cleaning using special emulsifiers. Protects the skin against intensive dirt or strongly adherent working materials (e.g. used oil, adhesives, resins, varnishes and paints).

- Perfumed, silicone-free
- pH-neutral
- No mineral oil or parabens

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAL3.1**	1 unit(s)	6,70

Skin protection SANSIBAL® cream

Physioderm.

White, slightly greasing, fast-absorbing cream; emulsion type: O/W. Water-soluble skin protection cream, the solid substances of which form a separating and protective film after application. Offers protection when working with hydrophobic substances (e.g. oils, certain organic solvents, non-aqueous coolants).
Scented, silicone-free, pH-neutral.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAL2.1**	1 unit(s)	7,60

Skin protection HERWESAN UV 50 SPRAY

HERWE.

Highly effective UV protection spray for OUTDOOR use.

- Waterproof, transparent, non-greasy
- High UVB sun protection factor 50, balanced UVA protection
- Protection against UV-A and UV-B radiation (SPF 50)
- Extremely light, fast absorbing formulation, therefore ideally suited to use on large areas and parts of the body covered in hair
- Supplies the skin with Panthenol and Vitamin E
- Handy pump spray to allow it to be used all over the body (e.g. including the back and legs)
- Slightly perfumed, silicone-free

Pack.	Art. No.	Pack Qty.	€
200 ml spray bottle	**KAL7.1**	1 unit(s)	25,60

Tube holder Tubenboy®

Hausmann-Vertrieb. Material: ABS, SAN.

Highly robust. For complete emptying of all plastic and metal tubes. The tube can be stored upright. The current tube contents can be seen at any time. For tube widths up to 66 mm.

Type	Art. No.	Pack Qty.	€
Tubenboy®	**AK63.1**	1 unit(s)	3,80

Skin care

Skin care Cura Soft cream

Physioderm.

Fast-absorbing and low-grease skin care cream. 7% fat content. Suitable for regenerating and caring for skin subject to work-related stress. Water-in-oil emulsion. Slightly perfumed, silicone-free and paraben-free. Dermatologically tested.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**Y866.1**	1 unit(s)	6,75

Skin care cUrea soft cream

Physioderm.

Fast-absorbing skin care cream with naturally moisture-retaining urea. Cares for sensitive skin and skin subject to work-related stress. Can consistently encourage the skin to regenerate if afflicted by attrition dermatitis or eczema. Also suitable for nail care

- Contains urea, horsetail plant extract and high-quality bisabolol
- Smooths very dry, extremely stressed hands
- Slightly greasing cream, emulsion type O/W
- pH-neutral and scented
- Free of silicone, mineral oil and paraben

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**LP24.1**	1 unit(s)	7,50

Skin care ROTIDERM® cream

Petrasch.

Hand care cream for highly stressed and sensitive skin. Contains essential fatty acids, sorbitol, waxy high fatty acids and dextrorotatory lactic acid. Helps to regenerate cracked skin and rebuild its natural acidic mantle. pH 4, unscented.
Application: spread on clean, dry skin after your hands have been subjected to great stress. Absorbs completely without leaving a greasy film.

Pack.	Art. No.	Pack Qty.	€
55 g dispenser	**5535.2**	1 unit(s)	9,05

Skin care HERWE CURA cream

HERWE.

Easily absorbed skin care cream. Every time after washing hands and face; also during work in the company or office.

- Slightly greasing cream, emulsion type O/W
- Contains natural oils and beeswax
- Easily absorbed, ensures pleasant feeling on the skin
- For hands and face
- Regenerates the skin
- Slightly perfumed, silicone-free
- Suitable for all skin types

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KN06.1**	1 unit(s)	5,05

Skin care HERWE MIELOSAN cream

HERWE.

High-quality hand and foot care cream for dry and stressed skin. To care for skin after intensive hand washing and other activities that particularly dehydrate the skin. Supports the skin's natural moisture retention capacity. Easy to apply, very little required. With honey, urea, glycerine and allantoin, silicon-free.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**YT49.1**	1 unit(s)	6,65

Skin care HERWE QUREA CARE cream-gel

HERWE.

With highly active moisturising complex and intensive care effect.

- Fast absorbing cream-gel for work-related stressed skin
- With urea, lactic acid and hyaluronic acid
- Valuable cosmetic lipids as care components
- Coenzyme Q10 and vitamin E for antioxidant protection
- Silicone-free

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAL6.1**	1 unit(s)	6,30

Skin care Baktolan® lotion emulsion

BODE Chemie.

Moisturising care for normal skin, with plant-based oils and panthenol. Oil-in-water emulsion. Suitable for daily use on both the hands and the body. Simple and easy to apply, absorbs quickly without leaving a greasy film. Slightly perfumed, silicone-free. Ideal for desk work, laboratory use, etc.

Pack.	Art. No.	Pack Qty.	€
350 ml bottle	**L297.1**	1 unit(s)	8,60

Skin care Baktolan® lotion pure emulsion

BODE Chemie.

Fragrance-free O/W emulsion that cares for normal skin.
Areas of application: Can be used on the hands and body. This mild O/W emulsion has been adapted to the skin's physiological characteristics and is especially suited to daily use, as well as applications in which fragrance-free skincare is particularly sought-after.

- High skin tolerability
- Absorbs quickly without leaving a greasy film
- Significantly increases the skin's moisture

Pack.	Art. No.	Pack Qty.	€
350 ml bottle	**EKH7.1**	1 unit(s)	7,90

Skin care Baktolan® balm pure emulsion

BODE Chemie.

Fragrance-free W/O emulsion for dry, highly stressed and sensitive skin. Contains the skin care substances allantoin, vitamin E and panthenol. Soothes and moisturises the skin, stabilises the acidic mantle, pH 5.5. Easy to apply, can be used sparingly, absorbs quickly, does not form a greasy film.

Pack.	Art. No.	Pack Qty.	€
350 ml bottle	**ANY7.1**	1 unit(s)	12,10

Skin care Physioderm® cream

Physioderm.

Refatting skin care cream, improves the skin's water-binding capacity, helps restore the skin's hydrolipidic film, improves skin smoothness and can help to regenerate the skin in case of attrition dermatitis or eczema. Water-in-oil emulsion with high lipid content, scented, silicone-free.
Areas of application: Cares for skin that is subject to extreme work-related stress, particularly brittle and dry skin.

Pic.	Pack.	Art. No.	Pack Qty.	€
(1)	100 ml tube	**4671.1**	1 unit(s)	6,75
(2)	1000 ml dispenser bottle	**4671.2**	1 unit(s)	35,65

Skin care CARE PURE cream

Physioderm.

Intensive care cream with natural oils and sea buckthorn extract for extremely strained and dry skin. O/W emulsion, containing a balanced combination of natural oils that compensate for lipid loss in highly stressed skin. Reduces skin redness, smooths and cares for irritated skin. Equalises the water balance of the upper layer of skin, keeps the skin elastic and improves its mechanical resistance.

- Contains no synthetic perfumes, colourings or preservatives
- Silicone- and mineral oil-free
- Suitable for working in the food sector
- ECARF-certified

Pack.	Art. No.	Pack Qty.	€
50 ml tube	**KAL4.1**	1 unit(s)	5,50

Skin cream and washing lotion dispenser

Physioderm.

Suitable for Art. No. AH81.2 and 4671.2, all Physioderm Vario 1000 or 2000 ml bottles.

- Robust design
- Easy to operate and fill
- Optimal dispensing

Delivery incl. mounting material.

(1) VARIOMAT ECO
Made of impact-resistant plastic, with optimal dispensing and efficient emptying.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Physioderm Vario 1000 or 2000 ml bottles	126 x 130 x 351	**YY16.1**	1 unit(s)	60,25

(2) VARIOMAT M STAINLESS STEEL
Brushed stainless steel housing. Absolutely hygienic system since the product does not come into contact with the dispenser.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Physioderm Vario 1000 or 2000 ml bottles	134 x 128 x 316	**EEE7.1**	1 unit(s)	106,10

Hand cleansing, wet wipes plum wipes

Plum.

Gently and effectively remove all types of stains during everyday work. The PP wet wipes absorb and retain the dirt. They can be used multiple times, including for cleaning work materials or tools. Slightly scented and moisturising, due to the addition of glycerine.

(1) All-purpose
All-purpose wipes with a wide range of applications, for removing slight to medium stains.

Pack.	Art. No.	Pack Qty.	€
Dispenser with 100 wipes	**CK45.2**	1 unit(s)	16,25

(2) Heavy-duty
With extra exfoliating power for removing stubborn, heavy stains, such as oils, grease and lubricants.

Pack.	Art. No.	Pack Qty.	€
Dispenser with 75 wipes	**CK46.2**	1 unit(s)	19,90

Skin cleansing AZUDERM EXTRA MILD Gel

HERWE.

Soap-free cleaning gel for sensitive and highly stressed skin.

- Mild, colourless cleaning liquid
- No preservatives
- **Unscented**
- With skin-friendly sugar tensides
- For gentle cleansing of the hands and the whole body
- Corresponds to the pH-value of the skin

Pic.	Pack.	Art. No.	Pack Qty.	€
(1)	250 ml bottle	**PA94.1**	1 unit(s)	5,70
(2)	2000 ml pouch bottle	**PA95.1**	1 unit(s)	22,45

Skin cream and washing lotion dispenser HERWEMAT

HERWE.

Housing and wall mount made of impact-resistant plastic. Operating level made of stainless steel.
With adjusting screw to regulate pump volume. Suitable for Art. No. PA95.1 and YT48.2.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
1000 ml and 2000 ml bottle bags	120 x 125 x 120	**PA96.1**	1 unit(s)	54,05

Hand cleansing Lotion soap cleansing lotion

JM-Metzger.

Mild lotion soap with pleasant scent. Skin-friendly substances guarantee no skin irritation even when used frequently. Economical in use. Colour: Pink.

Danger H318

Pic.	Pack.	Art. No.	Pack Qty.	€
(1)	950 ml bottle	**EYY3.1**	1 unit(s)	n. a.
(2)	10 l canister	**EYY4.1**	1 unit(s)	n. a.

Hand cleansing Baktolin® pure cleansing lotion

BODE Chemie.

Cleansing lotion for gentle cleaning.
Areas of application: Due to the lack of fragrance and colourants, Baktolin® pure is particularly suitable for sensitive skin. The pH value of 5.5 conserves the skin's natural acid-protection layer. At the same time, this makes the product ideal for use in food-processing fields, in which detrimental effects on the goods to be processed are to be avoided.

- Fragrance-free and colourant-free
- Free of alkali and soap
- Skin-neutral pH value of 5.5

Pack.	Art. No.	Pack Qty.	€
500 ml bottle	**EKH6.1**	1 unit(s)	3,45
1000 ml bottle	**EKH6.2**	1 unit(s)	5,65

Skin cleansing Gentle Med® with chamomile extract cleansing lotion

Meditrade.

For hands and body. Moisturises and protects against dry skin, anti-irritant and soothing effect. Economical in use. pH skin neutral, free of alkalis and soap, fresh fragrance.
Suitable for TE54.1 dispensers.

Pack.	Art. No.	Pack Qty.	€
1000 ml bottle	**NK81.1**	1 unit(s)	6,95

Skin cleansing Majola® ceansing lotion

Lysoform.

For hands and skin, free of alkalis. Strengthens and regenerates the skin's natural acidic mantle. Antibacterial and deodorising effect. Suitable for diseased, damaged and highly stressed skin, and skin that is sensitive to soap. Helps with treating acne.

Pack.	Art. No.	Pack Qty.	€
500 ml bottle	**1548.1**	1 unit(s)	10,75

Skin cleansing Baktolin® sensitive cleansing lotion

BODE Chemie.

For stressed skin. Conditioning and moisturising cleansing lotion for gentle cleansing of hands and skin. Contains the skin care substances allantoin and wheat protein. Regenerates and soothes the skin. Soap, alkali and colorant free, skin-neutral pH of 5.5, subtly scented.

Pack.	Art. No.	Pack Qty.	€
500 ml bottle	**X589.1**	1 unit(s)	5,70
1000 ml bottle	**X589.2**	1 unit(s)	8,80

Skin cleansing Stellisept® med antiseptic cleansing lotion

BODE Chemie.

Acc. to EN 1499, EN 13727. Antiseptic cleansing lotion with antibacterial effect for hands and body. Bactericidal and effective against MRSA. Skin and mucous membrane compatible, suitable for all skin types. Free of alcohol and colourants.

Pack.	Art. No.	Pack Qty.	€
500 ml bottle	**X668.1**	1 unit(s)	n. a.
1000 ml bottle	**X668.2**	1 unit(s)	n. a.

Skin cleansing

Skin cleansing HERWE FRESH shower gel

HERWE.

Skin-friendly and pleasantly mild cleaning gel for face, body and hair. Even suitable for extremely stressed and very sensitive skin, as well as frequent hand-washing.
Free from exfoliants, soap and parabens, pH-neutral, contains preservatives, discreetly scented.

Pack.	Art. No.	Pack Qty.	€
250 ml bottle	**YT48.1**	1 unit(s)	5,70
Dispenser bottle 2000 ml	**YT48.2**	1 unit(s)	22,25

Hand cleansing HERCULAN INTENSO GEL

HERWE.

Smooth hand cleaner gel with **corcbits®** natural exfoliating bodies for heavy industrial stains.

- With biodegradable, extremely soft ground cork **corcbits®**
- Intensive cleaning strength thanks to high content of detergent substances, with sugar surfactants
- Very gentle on the skin due to soft exfoliating bodies, with panthenol and green tea extract
- Non-greasy, solvent-free, with a natural fragrance

Pack.	Art. No.	Pack Qty.	€
250 ml bottle	**KAL8.1**	1 unit(s)	5,75
2000 ml dispenser bottle	**KAL9.1**	1 unit(s)	25,05

Hand cleansing Topscrub® NATURE with natural exfoliant

Physioderm.

Hand cleaner with natural exfoliant made of olive stone flour for tough dirt such as oils, soot, grease, graphite and metal dust. Dermatologically tested. Smooth paste containing no solvents or soaps. Skin-neutral pH value, scented. Tough on dirt, gentle on skin. A little goes a long way – highly economical.

Pack.	Art. No.	Pack Qty.	€
200 ml tube	**AH82.1**	1 unit(s)	5,45

Foam soap dispenser COSMOS

JM-Metzger. Material: ABS.

Colour: White. Lockable.
Removable wall bracket for flexible handling.
Can be used with EYX5.1 foam soap cartridge.

Delivery incl. Mounting material

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
(1)	EYX5.1 foam soap cartridge	105 x 120 x 240	**EYX4.1**	1 unit(s)	46,00

Hand cleansing Foam soap cartridges

JM-Metzger.

Foam soap with grapefruit scent.

Pic.	Pack.	Art. No.	Pack Qty.	€
	1000 ml cartridge	**1H3T.1**	1 unit(s)	n. a.
(2)	1000 ml cartridge	**EYX5.1**	1 unit(s)	9,95

Skin disinfection

Hand sanitiser Sterillium®

BODE Chemie.

Propanol-based rub-in hand disinfectant. No need for a wash basin or water. For all hygiene-sensitive clinical and industrial applications. Protects against infection in public buildings and during travel.
Efficacy range: bactericidal, tuberculocidal, limited virucidal efficacy (HBV, HIV, HCV), effective against herpes simplex, influenza A, SARS coronavirus, adeno-associated viruses, polyoma viruses and rotavirus.
Listing: BfArM Approval No. 603.00.01. RKI list area A, VAH, IHO list for virucidal products.

Sterillium: Active substances: propan-2-ol, propan-1-ol, mecetronium ethyl sulphate. Ingredients: 100 g of solution contains: Active substances: propan-2-ol 45.0 g, propan-1-ol 30.0 g, mecetronium ethyl sulphate 0.2 g. Other Ingredients: glycerol 85 %, tetradecan-1-ol, fragrances, blue patent V 85 %, purified water. **Areas of application:** for hygienic and surgical hand disinfection. For skin disinfection prior to injections and punctures. **Contraindications:** unsuitable for the disinfection of mucus membranes. Do not use in close proximity to the eyes or open wounds. Hypersensitivity (allergy) to one of the ingredients. **Side effects:** slight dryness or irritation of the skin can occur occasionally. In such cases, more intensive general skin care is recommended. Allergic reactions are rare. **Warnings:** Sterillium should not be used on newly or prematurely born infants. Wait until dry before using electrical devices. Do not expose to naked flame. Do not use in the vicinity of ignition sources. Flash point: 23 °C, flammable. There are no fire or explosion hazards associated with the proper use of this product. After spillage of the disinfectant, the following steps should be taken: soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Refrain from smoking. In the event of fire, extinguish with water, extinguishing powder, foam or CO_2. Refilling may only be performed under aseptic (clean bench) conditions.

Warning H226-H319-H336

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**L276.3**	1 unit(s)	n. a.
500 ml bottle	**L276.1**	1 unit(s)	n. a.
1000 ml bottle	**L276.2**	1 unit(s)	n. a.
5 l canister	**L276.4**	1 unit(s)	n. a.

Hand sanitiser Sterillium® classic pure

BODE Chemie.

Hygienic and surgical rub-in hand disinfectant. Ideal for users with sensitive skin (colorant and fragrance free). For all hygiene-sensitive clinical and industrial applications.
Efficacy range: bactericidal, tuberculocidal, limited virucidal efficacy (incl. HBV, HIV, HCV). Effective against herpes simplex, influenza A, SARS coronavirus, adeno-associated viruses, polyoma virus and rotavirus.
Listing: BfArM Approval No. 25918.00.00, RKI list area A, VAH certification, IHO list for virucidal products. Actual product not shown (similar).

Sterillium classic pure: Active substances : propan-2-ol, propan-1-ol, mecetronium ethyl sulphate. Composition: 100 g solution contains: Active substances: 45.0 g propane-2-ol, 30.0 g propane-1-ol, 0.2 g mecetronium ethyl sulphate. **Other ingredients:** 85 % glycerol, tetradecane-1-ol, purified water. **Areas of application:** for hygienic and surgical hand disinfection. For skin disinfection prior to injections and punctures. **Contraindications:** unsuitable for the disinfection of mucus membranes. Do not use in close proximity to the eyes or open wounds. Do not use in case of hypersensitivity (allergic reaction) to one of the active substances or other ingredients. **Side effects:** slight dryness or irritation of the skin may occasionally occur. In such cases, more intensive general skin care is recommended. Allergic reactions are rare. **Warnings:** hand disinfection helps prevent the transmission of infection, e.g. in nursing and health care. Sterillium classic pure should not be used on newly or prematurely born infants. Always consult a doctor prior to use on infants and small children. It is important to ensure that the solution does not come into contact with the eyes. After contact with the eyes, rinse the eyes under running water for several minutes holding the eyelids open. Avoid transferring the solution from one container into another in order to prevent contamination. If this is unavoidable, the solution should be transferred under aseptic conditions (e.g. using sterile containers under a laminar air flow hood). Wait until dry before using electrical devices. Do not expose to naked flame. Do not use in the vicinity of ignition sources. Flash point: 23 °C, flammable. There are no fire or explosion hazards associated with the proper use of this product. After spillage of the disinfectant, the following steps should be taken: soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Refrain from smoking. In the event of fire, extinguish with water, extinguishing powder, foam or CO_2.

Warning H226-H319-H336

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**EH72.1**	1 unit(s)	n. a.
500 ml bottle	**EH72.2**	1 unit(s)	n. a.
1000 ml bottle	**EH72.3**	1 unit(s)	n. a.
5 l canister	**EH72.4**	1 unit(s)	n. a.

Skin disinfection

Hand sanitiser Sterillium® Virugard

BODE Chemie.

Ethanol-based rub-in hand disinfectant. Especially useful for all working areas with an increased infection hazard, such as clinics, laboratories, hospitals etc.
Efficacy range: bactericidal, fungicidal, tuberculocidal, limited virucidal efficacy (including HBV, HIV, HCV), virucidal. Effective against herpes simplex, adeno-associated viruses, polyoma viruses, polio and rotavirus.
Listing: BfArM Approval No. 13814.00.00. RKI list area A/B, VAH, IHO list for virucidal products.

Sterillium Virugard: Active substance: ethanol. **Ingredients:** 100 g solution contain: Active substance: ethanol 99 % 95.0 g. **Other ingredients:** butan-2-on, glycerol, tetradecan-1-ol, petroleum. **Areas of application:** hygienic and surgical hand disinfection. **Contraindications:** Do not apply to mucus membranes. Hypersensitivity to ingredients. **Side effects:** slight, diffuse reddening of the skin may occur rarely. In such cases, more intensive general skin care is recommended. **Warning:** do not expose to naked flame. Do not use in the vicinity of ignition sources. Close bottle after use. Flash point according to DIN 51755: 0 °C. Highly flammable. After spillage of the disinfectant, the following steps should be taken: soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Refrain from smoking. Refilling may only be performed under aseptic (clean bench) conditions.

Danger H225-H319-H412

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**L313.3**	1 unit(s)	n. a.
500 ml bottle	**L313.1**	1 unit(s)	n. a.
1000 ml bottle	**L313.2**	1 unit(s)	n. a.

Metering pump - disposable

Hartmann. Material: Plastic.

Metering pump with long outlet. For hygienic removal of product from BODE original bottles, Sterillium®, Sterillium® classic pure and Sterillium® Virugard, as well as wash lotion and creams.

Not a medical device / Not an IVD product

Suitable for	Pack.	Art. No.	Pack Qty.	€
300/500 ml Bode bottles	5 x 1	**KKK4.2**	5 unit(s)	5,50
1000 ml Bode bottles	5 x 1	**KKK5.2**	5 unit(s)	6,50

Skin disinfectants Cutasept® F

BODE Chemie.

For skin disinfection, e.g. in the event of accident or minor injuries. Fast acting and comprehensive. Excellent skin tolerance. Ready-to use, colourless solution.
Spectrum of activity: Bactericidal (incl. MRSA), fungicidal, tuberculocidal, limited virucidal efficacy (incl. HBV, HIV, HCV), rotavirus. **Listing:** BfArM Approval No. 6281157.00.00, VAH.
Cutasept F active ingredient: Propane-2-ol. **Composition of** 100 g solution: **Active ingredient** 63.0 g propane-2-ol, corresponding to 72% vol. **Other ingredients:** Benzalkonium chloride, purified water. **Areas of application:** Skin disinfection before punctures, injections and surgical operations. Surgical and hygienic hand disinfection. **Where not to use:** Do not apply in the immediate proximity of the eyes. Intolerance to ingredients. If applied properly, Cutasept F can be used when pregnant or breastfeeding. **Side effects:** Slight, scattered skin irritations are common. May produce an allergic reaction. **Warning:** Has not been sufficiently tested as a treatment for infants and small children. In these cases, this product may only be applied after stringent diagnosis and under medical supervision. Benzalkonium chloride may cause skin irritation. Do not apply to the skin beneath exsanguination cuffs. Do not apply surgical film until dry. Wait until dry before using electrical devices. Avoid accumulation on patient beds/seats. Do not expose to naked flame. Keep clear of ignition sources. There are no fire or explosion hazards associated with the proper use of this product. If the solution comes into contact with eyes, hold the eyes open and rinse with running water for several minutes. After spillage of the disinfectant, the following steps should be taken: Soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Flash point according to DIN 51755: 21 °C. Flammable. Refilling may only be performed under aseptic (clean bench) conditions.

Danger H225-H319-H336
Delivery incl. overhead sprayer for 50, 250 and 500 ml bottles. Please order the hand-held spray head for the 1000 ml bottle separately.

Pack.	Art. No.	Pack Qty.	€
50 ml spray bottle	**AK64.1**	1 unit(s)	n. a.
250 ml spray bottle	**AK64.2**	1 unit(s)	n. a.
1000 ml bottle	**AK64.4**	1 unit(s)	n. a.

Hand sanitiser Softa-Man®

B. Braun.

Ready-to-use, alcohol-based hand sanitiser.
Efficacy: effective against bacteria (including MRSA, TbB) and fungi. Limited virucidal efficacy (including HBV, HCV, HIV), effective against rota, influenza, adeno and noro viruses (surrogate virus MNV).
Listing: DGHM/VAH, RKI listed (efficacy range A) and in the IHO List of Virucidal Products.

- For rapid and long lasting skin disinfection
- Contains Panthenol (Provitamin B5), Bisabolol and Allantoin for hand care
- Dye-free, low-allergen fragrance
- Dermatologically tested
- Hygienic hand disinfection 30 sec, surgical hand disinfection 60 sec

Composition: 100 ml of solution contain: Active substances: ethanol (100 %) 45 g, 1-propanol (Ph. Eur.) 18 g. Other constituents: purified water, diisopropyl adipate, macrogol-6-glycerolcaprylocaprate (Ph.Eur.), dexpanthenol, (+/-)alpha-bisabolol, fragrances (contain lemons and linalool), allantoin.
Applications: hygienic and surgical hand disinfection. **Contraindications:** hypersensitivity (allergy) to ethanol or 1-propanol or one of the other constituents. **Side effects:** contact allergy. Skin irritations such as inflammation and redness and burning, particularly if used frequently.
Warnings: flammable. Keep container tightly closed. Keep clear of ignition sources. - Refrain from smoking! Avoid contact with the eyes. Do not apply to injured skin or mucus membranes. For external use only. 21-22 °C flash point according to DIN 51 755.

Danger H225-H318-H336

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**XP54.1**	1 unit(s)	n. a.
500 ml bottle	**XP54.2**	1 unit(s)	n. a.
1000 ml bottle	**XP54.3**	1 unit(s)	n. a.
5 l canister	**XP54.4**	1 unit(s)	n. a.

Hand sanitiser Softa-Man® ViscoRub

B. Braun.

Ready-to-use, gel-like, alcohol-based hand disinfectant.
Efficacy: effective against bacteria (including MRSA, TbB) and fungi. Limited virucidal efficacy (including HBV, HCV, HIV), effective against rota, influenza and noro viruses (surrogate virus MNV).
Listing: DGHM/VAH listed and included in the IHO List of Virucidal Products.

- Gel-like structure allows drip free dispensing
- Colorant and fragrance free, i.e. reduced allergenic potential
- Excellent skin compatibility - dermatologically tested
- Especially gentle to the skin
- Hygienic hand disinfection 30 sec, surgical hand disinfection 90 sec

Composition: 100 ml of solution contain: Active substances: ethanol (100 %) 45 g, 1-propanol (Ph. Eur.) 18 g. Other ingredients: purified water, butane-2-on, glycerol, isopropyl myristate (Ph. Eur.), (hexadecyl, octadecyl) [(RS)-2-ethyl hexanoate], (+/-)alpha-bisabolol. **Applications:** hygienic and surgical hand disinfection. **Contraindications:** hypersensitivity (allergy) to ethanol or 1-propanol or one of the other ingredients of Softa-Man® ViscoRub. **Side effects:** contact allergy. Skin irritations such as inflammation and redness and burning, particularly if used frequently. **Warnings:** flammable. Keep container tightly closed. Keep clear of ignition sources. - Refrain from smoking! Avoid contact with the eyes. Do not apply to injured skin or mucus membranes. For external use only. 52.3 % ethanol by weight, 20.9 % 1-propanol by weight. 21 °C flash point according to DIN 51 755.

Danger H225-H318-H336

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**XP55.1**	1 unit(s)	n. a.
500 ml bottle	**XP55.2**	1 unit(s)	n. a.
1000 ml bottle	**XP55.3**	1 unit(s)	n. a.
5 l canister	**XP55.4**	1 unit(s)	n. a.

Dosing pump for B. Braun bottles

B. Braun. Material: PP, PE.

For hygienic dispensing. Integrated non-return valve prevents leakage of contents, e.g. when tilting the bottle. 2 ml per stroke. Suitable for B. Braun bottles.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
500 ml bottles	**NK88.1**	1 unit(s)	6,70
1000 ml bottles	**NK89.1**	1 unit(s)	6,70

Skin disinfection

Hand sanitiser Sterillium-Tissue®

BODE Chemie.

For hand and skin disinfection. Based on propan-2-ol, propan-1-ol and mecetronium ethyl sulphate. **Efficacy range:** bactericidal, yeasticidal, tuberculocidal, mycobactericidal, limited virucidal efficacy (including HBV, HIV, HCV). Effective against herpes simplex and rotavirus. **Listing:** BfArM Approval No. 603.00.00.VAH.

Sterillium® Tissue: Active substances: 2-propanol (Ph. Eur.), 1-propanol (Ph. Eur.), mecetronium ethyl sulphate. **Composition:** 1 fleece wet wipe contains: **Active substances:** 1.341 mg propan-2-ol , 894 mg propan-1-ol and 5.96 mg mecetronium ethyl sulphate. Other constituents: tetradecane-1-ol, glycerol 85 %, fragrances, purified water. **Applications:** for hygienic hand disinfection, for skin disinfection after injections and punctures in low-sebaceous areas of skin. **Contraindications:** Sterillium® Tissue must not be used in persons with an allergic hypersensitivity to 2-propanol (Ph. Eur.), 1-propanol (Ph. Eur.), mecetronium ethyl sulphate or any of the other constituents, in immediate proximity to the eyes or open wounds, in premature and new-born infants, and for disinfection of mucus membranes. **Side effects:** slight dryness or irritation of the skin may occasionally occur. In such cases, more intensive general skin care is recommended. Allergic reactions are rare. **Warnings:** always consult a doctor prior to use on infants and small children. Avoid contact with the eyes. In case of contact with the eyes, rinse immediately with flowing water for several minutes with the eyelid open. Do not use electrical equipment until the substance has dried.
Keep away from naked flame. Do not use in the vicinity of ignition sources. Flash point: 23.5 °C, flammable. In the event of fire, extinguish with water, fire extinguisher or CO_2.

Warning H226-H319

Pack.	Art. No.	Pack Qty.	€
10 wipes	**T037.1**	10 unit(s)	n. a.

NEW / +

Disinfectant dispenser RX5 Touchless

BODE Chemie.

- Non-contact dispenser made of sturdy plastic
- Slim and modern design with rounded surfaces
- Replaceable and durable plastic pump
- Reliable sensor-controlled dosing of 1.5 ml per stroke
- Adjustable stroke rate (1-3)
- Multifunctional: As a wall-mounted dispenser or for desktops
- Easy installation even in difficult space conditions
- Suitable for all commercially available 500 ml Euro bottles
- Removable front for easy bottle and pump replacement
- Drip pan can be clicked on (please order separately)

Delivery incl. batteries and mounting material, without drip pan or bottle (please order separately).

Not a medical device / Not an IVD product

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
500 ml Euro bottles	102 x 142 x 269	**1H49.1**	1 unit(s)	169,85

NEW / +

Drip pan for the RX5 touchless disinfectant dispenser

BODE Chemie. Material: Plastic.

Suitable for	Art. No.	Pack Qty.	€
RX5 Touchless	**1H4A.1**	1 unit(s)	16,80

Dosing dispensers for soaps, disinfectants

Column for hand sanitiser dispenser Hygiene tower

BODE Chemie. Material: Stainless steel.

Stable, powder-coated stainless steel column with base plate. Pre-installed holes for mounting BODE dispensers. Mobile, appealing solution for installing dispensers at locations where they cannot be mounted on a wall.

- Versatile use anywhere
- Solid and tilt-resistant design
- Appealing stainless steel finish
- Hygienic, easy-to-clean surface structure
- Cost-effective solution for changing applications
- Can be combined with BODE 1 plus and Touchless Eurodispensers

Delivery incl. mounting accessories for installing the back of the dispenser. Without dispenser or hand sanitiser, please order separately.

W x D x H (mm)	Art. No.	Pack Qty.	€
455 x 455 x 1400	**1EPE.1**	1 unit(s)	476,25

NEW / +

Accessories for disinfection column Hygiene Tower

BODE Chemie.

Flyer holder
Material: Stainless steel Acrylic glass viewing window. Made of matt powdered steel, with aluminium clip frame and acrylic glass viewing window.

Version	W x D x H (mm)	Art. No.	Pack Qty.	€
Flyer holder	245 x 40 x 365	**1EPC.1**	1 unit(s)	41,10

Tente castors
Material: Stainless steel Plastic castors. The set contains four castors, two of which have a braking system.

Version	Art. No.	Pack Qty.	€
Tente castors	**1EPH.1**	1 set	77,00

Column for sanitiser dispenser

Material: Stainless steel.

Column made of polished stainless steel with black powder-coated base plate, 4 mm thick.
Virtually all dispensers can be mounted on the column. Open at the back for easy dispenser mounting.

- Versatile use, anywhere where it is not possible to mount a dispenser on a wall
- Hygienic because it is easy to clean

Delivery incl. mounting instructions, without dispenser or hand sanitiser, please order separately.

W x D x H (mm)	Art. No.	Pack Qty.	€
450 x 450 x 1500	**1EP7.1**	1 unit(s)	215,00

NEW / +

Soap and disinfectant dispenser SARAYA ADS 500/1000 with sensor

SARAYA.

Contactless dispenser with sensor for hygienic drawing of hand sanitisers and liquid soap.
Due to the difference in viscosity between liquid soap and sanitiser, two different pumps are included:
1x spray pump for sanitiser and 1x drop pump for liquid soap and lotions. This makes it possible to convert the dispenser as required.

- Can be used free-standing or mounted on a wall
- Battery operation enables flexible use
- Suitable for 500 ml and 1000 ml standard bottles (Euro bottles)
- Quick and easy wall mounting via a mounting plate

Delivery incl. drip tray, shelf for 500 ml bottles, wall mounting plate, mounting material, without batteries (4 LR20) and bottle (please order separately).

Not a medical device / Not an IVD product

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
500/1000 ml Euro bottles	104 x 190 x 312	**1H26.1**	1 unit(s)	148,10

Dosing dispensers for soaps, disinfectants

Soap and disinfectant dispenser

B. Braun.

For hygienic and precise dispensing of washing lotions, disinfectants and skincare lotions. Lever-operated, aluminium housing, plastic pump. Adjustable dispensing volume of 0.7 to 1.5 ml per stroke.

Not a medical device / Not an IVD product

Type	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
ELS plus	500 ml bottles	82 x 215 x 295	**NK86.1**	1 unit(s)	105,35
TLS plus	1000 ml bottles	92 x 225 x 340	**NK87.1**	1 unit(s)	105,35

Disinfectant dispenser plus Touchless

BODE Chemie.

Touchless dispenser for hand sanitiser

- Removable front for easy pump replacement
- Reliable and robust metal dispenser
- Easy installation even in difficult space conditions
- Easy and quick bottle replacement
- Easy to operate and clean
- Dispensing quantities are adjustable to approx. 0.75 to 1.5 ml per stroke

Delivery incl. batteries and mounting material, without bottle (please order separately).

Not a medical device / Not an IVD product

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml bottles	92 x 210 x 290	**CTC0.1**	1 unit(s)	244,05
1000 ml bottles	92 x 210 x 290	**CTC1.1**	1 unit(s)	260,15

Soap and disinfectant dispenser plus

BODE Chemie.

For application of hand sanitisers, washing and care lotions.

- Removable front for easy pump replacement
- Reliable and robust metal dispenser
- All removable parts are fully autoclavable
- Easy installation even in difficult space conditions
- Fits all commercially available bottles
- Easy and quick bottle replacement
- Easy to operate and clean
- Dispensing quantities are adjustable to approx. 0.75 ml to 1.5 ml per stroke

Delivery incl. mounting material, without bottle (please order separately).

Not a medical device / Not an IVD product

With long arm lever

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml bottles	82 x 215 x 295	**TE53.1**	1 unit(s)	101,65
1000 ml bottles	92 x 225 x 340	**TE54.1**	1 unit(s)	110,90

With short arm lever

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml bottles	82 x 160 x 315	**CTA8.1**	1 unit(s)	89,95
1000 ml bottles	92 x 160 x 360	**CTA9.1**	1 unit(s)	97,90

Drip pan with handle for soap and disinfectant dispenser

BODE Chemie.

Suitable for soap and disinfectant dispenser plus. The drip pans protect floors and other surfaces against products which can drip during dispensing.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml bottles	150 x 260 x 360	**TE55.1**	1 unit(s)	76,40
1000 ml bottles	150 x 260 x 410	**TE56.1**	1 unit(s)	77,65

Soap dispensers SEKUROKA®

JM-Metzger. Material: Plastic, transparent.

For liquid hand wash, lotions, shampoos, shower gel and detergents. 500 ml capacity. Housing made of transparent plastic. Suitable as stand-alone or wall-mounted dispenser.

Delivery incl. mounting material.

W x D x H (mm)	Art. No.	Pack Qty.	€
80 x 65 x 180	**T054.1**	1 unit(s)	24,05

Dosing dispensers for soaps, disinfectants

Dispensers Universal

JM-Metzger. Material: ABS, Operating lever made of stainless steel.

Suitable for liquid soap and disinfectant, optimally designed for the hygiene needs of a wide range of industries. With wall bracket, lockable closing plate and replaceable pump.

- 500 ml or 1000 ml capacity in one dispenser
- Suitable for all conventional bottle models
- Flexible stroke adjustments
- Convenient installation
- Removable drip tray and wall bracket
- Easy folding of the pump head for replacement of the pump
- Locking plate and key guarantee no unauthorised removal

Delivery incl. mounting material, empty 1000 ml bottle and adapter for 500 ml bottle. Drip tray optional, please order separately.

Not a medical device / Not an IVD product

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
500/1000 ml Euro bottles	105 x 222 x 350	**EYX7.1**	1 unit(s)	50,55

Accessories for universal dispenser

JM-Metzger.

Drip tray: Made of ABS, white.
Dimensions: W 185 x H 20 x D 105 mm.
Replacement pump: Made of plastic.

Type	Art. No.	Pack Qty.	€
Drip tray	**EYX8.1**	1 unit(s)	12,05
Replacement pump	**EYX9.1**	1 unit(s)	10,55

Dispensers for liquid soap

JM-Metzger. Material: ABS, Operating lever made of stainless steel.

Universal soap and disinfectant dispenser. Easily filled from canisters. Suitable for 1000 ml disposable Euro bottles. Lever length 70 mm.

Delivery incl. dispenser bottle and lockable cover plate.

Not a medical device / Not an IVD product

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
1000 ml Euro bottles	100 x 180 x 280	**EYX6.1**	1 unit(s)	48,40

Folded hand towel dispenser SEKUROKA®

ROTH SELECTION. Material: Steel (sheet metal).

With viewing window for fill level. Suitable for all standard folded hand towels.

W x D x H (mm)	Art. No.	Pack Qty.	€
275 x 125 x 350	**CY02.1**	1 unit(s)	41,05

Folded hand towel dispenser made of ABS

JM-Metzger. Material: ABS.

Colour white with blue viewing window.

Delivery incl. mounting material.

W x D x H (mm)	Art. No.	Pack Qty.	€
277 x 130 x 270	**EYT2.1**	1 unit(s)	31,35

Folded hand towel dispenser Midi

JM-Metzger. Material: ABS.

With viewing window. Suitable for all folded hand towels, lockable.

Delivery incl. mounting material and dispenser plate for using interfold paper.

W x D x H (mm)	Art. No.	Pack Qty.	€
255 x 120 x 250	**EYY1.1**	1 unit(s)	29,60

Dispensers for disposable towels

Disposable wipes TAD-quality

JM-Metzger.

Made of cellulose, TAD quality, 2-ply, interfold. Highly absorbent, soft and tear-proof when wet.
Suitable for dispensers: EYY1.1, CY02.1, EYT2.1.

Length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
320	203	20 x 100 sheets	**EYY0.1**	2,000 sheet	53,70

Disposable wipes SEKUROKA®

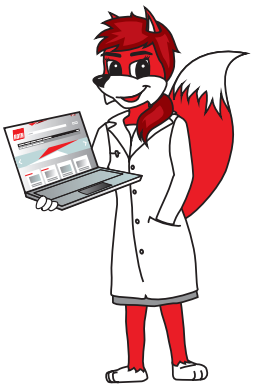
ROTH SELECTION. Material: Paper.

Made of 100% recycled paper, highly absorbent and tough.
Suitable for CY02.1, EYT2.1 and EYY1.1 folded hand towel dispensers.

Type	Colour	Length (cm)	Width (cm)	Pack.	Art. No.	Pack Qty.	€
2-ply, tissue, zigzag folding	natural	23.5	23	20 x 160 sheets	**CY03.1**	3,200 sheet	32,80
2-ply, tissue, zigzag folding	green	23.5	23	20 x 160 sheets	**CY04.1**	3,200 sheet	35,10
1-ply, crepe, layer folding	natural	25	31	24 x 152 sheets	**CY05.3**	3,648 sheet	37,40

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Dispensers for disposable towels

Folded hand towel dispenser AQUARIUS

Kimberly-Clark. Material: Plastic, impact-resistant.

White, with viewing window. For hygienic removal of single paper hand towels.
Suitable for disposable hand towels: KLEENEX® Art. No. X251.2, ECX6.1, ECX7.1 and SCOTT® Performance Art. No. X254.2.

Manufacturer no.	W x D x H (mm)	Art. No.	Pack Qty.	€
6945	265 x 136 x 399	**X252.1**	1 unit(s)	113,55

Disposable towels

NEW / +

Kimberly-Clark.

Disposable folded hand towels made of Airflex paper, interfold, white. Suitable for AQUARIUS hand towel dispensers and other folded hand towel dispensers.

SCOTT® Performance 1-ply

Manufacturer no.	Length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
6663	315	215	15 x 212 sheets	**X254.2**	3,180 sheet	96,50

KLEENEX® ULTRA 2-ply

Outstanding quality, highly absorbent and tear-proof.

Manufacturer no.	Length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
6789	215	215	15 x 186 sheets	**1H53.1**	2,790 sheet	82,35
6778	315	215	15 x 124 sheets	**ECX6.2**	1,860 sheet	86,55

KLEENEX® ULTRA 3-ply

Very soft, very gentle on the skin and absorbent.

Manufacturer no.	Length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
6710	315	215	15 x 96 sheets	**ECX7.2**	1,440 sheet	70,95

Dispensers for disposable towels

Hand towel roll dispenser COSMOS

JM-Metzger. Material: ABS Plastic.
Colour: white. Lockable and secure. Cover opens upwards and remains open for convenient refilling. Removable wall bracket for flexible handling. Automatic remnant roll function.

(1) With lever
Push lever with slip clutch.

Delivery incl. mounting material.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Hand towel rolls with width max. 290 mm	320 x 210 x 430	**EYX0.1**	1 unit(s)	117,35

(2) With sensor
With length regulator. Setting options: Sensor or Auto mode as well as battery or mains operation.

Delivery incl. mounting material and 4 (Duracell D) 1.5 V batteries.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Hand towel rolls with width max. 290 mm	320 x 210 x 430	**EYX1.1**	1 unit(s)	168,80

JM-Metzger.

Type	Art. No.	Pack Qty.	€
Power suply	**EYX2.1**	1 unit(s)	39,95

Roll of disposable hand towels with external unrolling

JM-Metzger. Material: Cellulose.
2-ply. Suitable for COSMOS hand towel roll dispenser, for example.

Length (m)	Width (mm)	Art. No.	Pack Qty.	€
140	290	**EYX3.1**	6 roll(s)	46,05

Hand towel roll dispenser Maxi with pull-out unit

JM-Metzger. Material: ABS.
Colour white with blue viewing window. Lockable.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Roll Ø max. 190 mm	207 x 220 x 321	**EYY2.1**	1 unit(s)	44,05

Roll of disposable hand towels with pull-out unit

ZVG. Material: Cellulose.
Premium quality, tearproof, 1-ply, unperforated, white.
Pull out the core, unroll the wipes from the inside.

Length (m)	Width (mm)	Suitable for	Art. No.	Pack Qty.	€
120	200	Dispenser with W x D max. 140 x 140 mm	**E184.1**	3 roll(s)	16,05
300	203	EYY2.1	**E185.1**	2 roll(s)	21,45

Disposable glove dispensers

Wall-mounted dispensers ROTILABO®

ROTH SELECTION. Material: Stainless steel.

Suitable for all ROTIPROTECT® glove packs and ROTIZELL® tissue dispensers. Other dispensers up to 7.5 cm wide can also be clamped in by gently pressing the two metal brackets together. With two eyelets for wall mounting.

Delivery incl. wall plugs and screws.

Type	W x D x H (mm)	Art. No.	Pack Qty.	€
for 3 boxes	245 x 100 x 477	**AC07.1**	1 unit(s)	38,35
for 1 box	180 x 85 x 135	**Y383.1**	1 unit(s)	28,80

Wall mount Dracula

ROTH SELECTION. Material: PS.

Colour: White. Adaptable wall mount for dispenser boxes in various sizes, ideal for disposable gloves, face masks, tissues or wipes. For doctor's surgeries, laboratories and hospitals.

- Spring-loaded clamp with teeth
- For boxes with a width of 100 to max. 130 mm, weight up to approx. 1 kg
- Can be attached with double-sided adhesive tape or screws

Delivery incl. double-sided adhesive tape for securing.

W x D x H (mm)	Art. No.	Pack Qty.	€
100 x 20 x 210	**CAL7.1**	1 unit(s)	8,15

Glove dispenser SEKUROKA® Solo

ROTH SELECTION. Material: Stainless steel, matt-brushed.

Can be disinfected with surface disinfectant.
Flexible wall mounting options: Can be mounted vertically or horizontally thanks to the shelf support fitted on one side.
Highly adaptable: On the back of the dispenser is a tab that users can fold over in order to insert boxes of different sizes (between 60 and 90 mm) and secure them firmly in place. Flat boxes will not slip backwards.

Delivery incl. mounting material.

L x W x H (mm)	Suitable dispenser boxes	Art. No.	Pack Qty.	€
250 x 135 x 95	max. L x W x H: 250 x 132 x 90 mm	**EHC9.1**	1 unit(s)	46,15

Glove dispenser SEKUROKA® Multismart

ROTH SELECTION. Material: Stainless steel, high-quality.

Polished appearance. Triple dispenser, inner height and width can be variably adjusted. Clear vertical arrangement. To be filled from above.
Can be disinfected with surface disinfectant.
Suitable for wall mounting.
Variable inner dimensions: Width 200–260 mm, depth 40–95 mm.

Delivery incl. mounting material.

Type	Art. No.	Pack Qty.	€
for 3 boxes	**KCT3.1**	1 unit(s)	77,90

Disposable glove dispensers

Glove dispenser SEKUROKA®

ROTH SELECTION. Material: Stainless steel, matt-brushed.

Can be disinfected with surface disinfectant.

(1) Flex
Variable height and placement, can be placed on a level surface or screwed to the wall. Suitable for dispensers with central dispensing opening. Also suitable for dispensing cosmetic wipes and cleaning wipes.

Delivery incl. four non-slip, self-adhesive mounting pads to protect the mounting surfaces and mounting material.

W x D x H (mm)	Suitable dispenser boxes	Art. No.	Pack Qty.	€
262 x 152 x 90	max. L x W x H: 259 x 136 x 60–90 mm	**NK95.1**	1 unit(s)	83,25

(2) Fixed
Keyhole system for fast installation, so it is quick and easy to remove from the wall without the need for tools.

Delivery incl. mounting material.

W x D x H (mm)	Suitable dispenser boxes	Art. No.	Pack Qty.	€
250 x 135 x 80	max. L x W x H: 250 x 132 x 75 mm	**NK96.1**	1 unit(s)	46,25

(3) Trio
Triple dispenser with clear vertical arrangement. Size label on the side: S, M or L. To be filled from above. Can be removed from the wall without tools.

Delivery incl. mounting material.

W x D x H (mm)	Suitable dispenser boxes	Art. No.	Pack Qty.	€
258 x 96 x 392	max. L x W x H: 250 x 132 x 90 mm	**NK97.1**	1 unit(s)	72,05

Wall mount for glove boxes made of acrylic

Meditrade. Material: PMMA, transparent.

Made of transparent acrylic. For boxes containing gloves or cleaning wipes. Can be wall-mounted.

Delivery without mounting material.

L x W x H (mm)	Art. No.	Pack Qty.	€
250 x 140 x 70	**EHX1.1**	1 unit(s)	15,95
250 x 145 x 100	**EHX2.1**	1 unit(s)	17,75

Finger stalls

WIROS. Material: Natural rubber. Non-sterile.

With rolled edge, **non-powdered**, natural colours. For single use. Wall thickness 0.1 mm.

Medical device class I MDD

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
68	3 (M)	natural	**X152.1**	500 unit(s)	13,55
68	4 (L)	natural	**X153.1**	500 unit(s)	13,55
68	5 (XL)	natural	**X154.1**	500 unit(s)	13,55

PE disposable gloves

Intermedica. Material: PE. Non-sterile.

Made of polyethylene, simple consumption quality.

Version	Pack.	Art. No.	Pack Qty.	€
Men's size	10 x 100	**1969.1**	1,000 unit(s)	18,90
Women size	10 x 100	**H706.1**	1,000 unit(s)	18,90

PE disposable gloves stretchy

GFL Punx. Material: PE. Non-sterile.

Made of strong polyethylene film in powdered stretchy material. Skin-friendly and abrasion-resistant, also suitable for precision work. In practical dispenser box with eyelet for hanging up.

Version	Art. No.	Pack Qty.	€
Men's size (9)	**1230.1**	100 unit(s)	12,70
Women's size (6–7)	**1517.1**	100 unit(s)	12,70

Disposable gloves

Cat. I

PE disposable gloves Softline

Franz Mensch. Material: LDPE. Non-sterile.

Very stretchy, waterproof. For single use. Ideal for short-term work. Extra-long for greater protection. Can be worn on either hand. Wall thickness 30 µm.

Length (mm)	Colour	Art. No.	Pack Qty.	€
380	blue	**AN63.1**	100 unit(s)	7,75

Cat. I

PE disposable gloves Softline extra-long

Franz Mensch. Material: LDPE. Non-sterile.

Very stretchy, waterproof. For single use. Ideal for short-term work. Extra-long for greater protection. Can be worn on either hand. Suitable for contact with foodstuffs.

Length (mm)	Colour	Art. No.	Pack Qty.	€
900	orange	**AN64.1**	50 unit(s)	9,15

Cat. III

Disposable gloves Semperclean MC

Semperit. Material: Natural rubber. Non-sterile.

Acc. to 93/42/EEC: medical product class I.
Acc. to EN 420, EN 374, EN 455. AQL 1.5.

- **Anatomic form**, ideal fit for fatigue-free work
- Highest wearing comfort and especially easy to put on due to special inner coating
- Excellent secure grip through micro-roughened surfaces
- Especially skin-friendly, since cleaned/washed intensively in the production process
- Thin rolled edge
- Colour: natural white
- Length: min. 270 mm
- Wall thickness: approx. 0.42 mm (measured double)
- 50 pairs in a dispenser carton

Medical device class I

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
270	S	natural	**HHN4.1**	50 pair	66,05
280	M	natural	**HHN5.1**	50 pair	66,05
285	L	natural	**HHN6.1**	50 pair	66,05

Cat. I

Undergloves without fingertips

Sänger. Material: Nylon 100 %.

Thin white fine knit. Fingertip-free fine knit undergloves for protection against sweaty hands. High wear comfort, good tactile sensitivity and can be worn on either hand. Machine-washable up to 30 °C, suitable for multiple use.

Version	Colour	Art. No.	Pack Qty.	€
One size fits all	white	**NK52.1**	10 pair	17,15

Disposable gloves

S Cat. III

Examination gloves Sempercare® Edition IC sterile

Semperit. Material: Natural rubber. **Sterile**.

Disposable gloves, non-powdered
Acc. to 93/42 EEC medical product class Is, EN 420, EN ISO 374-1 type C (KP), EN ISO 374-5 (virus), EN 455, ASTM-F 1671-97, AQL 1,5.
Acc. to EC Directive 1935/2004 – suitable for contact with foodstuffs.
Gamma-sterilised acc. to EN 552, EN 556

- Protection against infection for user and patient
- Fully textured for a safe grip
- High tensile strength (7 N) gives superior protection for use in critical environments
- Synthetic inner coating makes the gloves easy to put on
- Rolled edge
- Can be used on either side
- Colour: natural white
- Double wall thickness: 0.20 mm (palm), 0.24 mm (fingertips)
- Available in pairs, sterile, in a practical peel pouch in pocket format

Applications: Healthcare, medical and dental areas, simple laboratory applications, food sectors.

Medical device class I MDD

Length (mm)	Size	Art. No.	Pack Qty.	€
≥240	S (6–7)	**1H02.1**	40 pair	47,85
≥240	M (7–8)	**1H03.1**	40 pair	47,85
≥240	L (8–9)	**1H04.1**	40 pair	47,85

Cat. III

Disposable gloves ROTIPROTECT® Latex comfort

Carl ROTH. Material: Natural rubber. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type C, EN ISO 374-5 (virus), ASTM-F 1671-97. AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs.

- **Textured surface for secure grip**
- **Synthetic inner coating makes the gloves easy to put on**
- Optimal wear comfort and optimum perspiration absorption
- Intensive washing processes ensure gloves contain low levels of protein and irritants
- Non-powdered
- Can be worn on either hand
- Rolled edge
- Colour: Natural (light)
- Double wall thickness: min. 0.22 mm
- Thiuram-free
- 100 or 90 per dispenser box

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	natural, light	**L949.1**	100 unit(s)	21,45
≥240	M (7–8)	natural, light	**L950.1**	100 unit(s)	21,45
≥240	L (8–9)	natural, light	**L951.1**	100 unit(s)	21,45
≥240	XL (9–10)	natural, light	**HE61.1**	90 unit(s)	21,45

ROTIPROTECT® nitrile disposable gloves

Recommendation for chemical resistance

The disposable protective gloves listed below have been tested in compliance with standard EN 374-3:2003 "Determination of resistance to permeation by chemicals" and EN 16523-1 "Determination of material resistance to permeation by chemicals".

Chemical	ROTIPROTECT®-Nitrile evo CPX6.1ff	ROTIPROTECT®-Nitrile eco TC12.1ff	ROTIPROTECT®-Nitrile light EYK7.1ff	ROTIPROTECT®-Nitrile green HXK1.1ff
Acetic acid (10%)	n.t.	5	3	3
Acetone (2-propanone, ketone propane)	n.r.	n.r.	n.r.	n.r.
Acetonitrile (methyl cyanide, ethane nitrile)	n.r.	n.r.	n.r.	n.r.
Acrylamide (40%)	6	6	6	6
Ammonia (25%)	1	1	A	n.t.
Benzine (heavy, bp 160-190 °C)	n.r.	n.r.	n.r.	n.r.
Chlorhexidine gluconate (0.5%)	n.t.	n.t.	6	n.t.
Chloroform (trichloromethane)	n.r.	n.r.	n.r.	n.r.
Dichloromethane (methylene dichloride, Freon 30)	n.r.	n.r.	n.r.	n.r.
Cyclohexanol (hexalin at 23 °C)	n.t.	n.t.	n.t.	3
Diethyl amine (DEA)	n.r.	n.r.	n.r.	n.r.
Diethyl ether (diethyl oxide, ethoxyethane)	n.r.	n.r.	n.r.	n.r.
Dimethyl sulphoxide DMSO	n.r.	n.r.	n.r.	n.r.
Ethanol (20%)	6	6	1	1
Ethanol (70%)	3	A	n.r.	n.t.
Ethidium bromide (1%)	6	6	6	6
Ethyl acetate	n.t.	n.r.	n.r.	n.t.
Formaldehyde (37%)	6	6	6	6
Formaldehyde (37%) in methanol (10%)	5	6	6	6
Glutaraldehyde (5%)	6	6	6	6
n-heptane	A	n.r.	n.r.	n.t.
n-hexane	A	A	n.r.	n.t.
Hydrochloric acid (10%)	6	n.t.	6	6
Hydrochloric acid (36%)	6	n.t.	A	n.t.
Hydrofluoric acid (40%) (hydrogen fluoride)	A	A	n.t.	n.t.
Hydrogen peroxide	6	6	6	6
Isopropyl alcohol (40%)	n.t.	n.t.	n.t.	1
Isopropyl alcohol (70%)	6	3	A	1
Methanol (5%)	n.t.	6	n.t.	n.t.
Methanol (99%)	n.r.	n.r.	n.r.	n.t.
Methyl methacrylate (MMA)	n.t.	n.t.	n.t.	n.t.
Ninhydrin (0.2%)	6	n.t.	n.t.	n.t.
Nitric acid (10%)	6	6	6	6
Nitric acid (36%)	n.t.	3	n.t.	n.t.
Phenol (10%)	2	n.t.	1	n.t.
Phenol (80%)	n.t.	n.t.	n.t.	n.t.
Phosphoric acid (10%)	n.t.	n.t.	n.t.	n.t.
Phosphoric acid (30%)	n.t.	n.t.	n.t.	n.t.
Potassium hydroxide (30%) (caustic potash)	n.t.	n.t.	n.t.	n.t.
Potassium hydroxide (50%) (caustic potash)	n.t.	n.t.	6	n.t.
Sodium hydroxide (40%) (caustic soda)	6	6	6	6
Sodium hypochlorite (10%)	n.t.	n.t.	n.t.	n.t.
Sulphuric acid (96%)	A	A	A	A
Toluene	n.r.	n.r.	n.r.	n.r.
Trichlorethane	n.r.	n.r.	n.r.	n.r.
Xylene	n.r.	n.r.	n.r.	n.r.

	Level/Permeation time	
A – recommended for splash protection only	Level 1 >10 min	Level 4 >120 min
n.r. = not recommended (ruptures immediately)	Level 2 >30 min	Level 5 >240 min
n.t. = not tested	Level 3 >60 min	Level 6 >480 min

Disposable gloves

Cat. III

Disposable gloves ROTIPROTECT® -Nitril evo

Carl ROTH. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (KPT) and EN ISO 374-5 (virus), ASTM-F 1671-97. AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs

- **Textured fingers for secure grip**
- Higher durability thanks to special formulation
- High elasticity and good tactile sensitivity
- Non-powdered
- Free from phthalates/plasticisers and allergenic latex proteins
- Can be worn on both hands
- Beaded cuff
- Colour: blue
- Thickness: approx. 0.12 mm
- Length: min. 240 mm
- 100 or 90 per dispenser box

Ideal for general laboratory use, good resistance to many chemicals, greases and oils.

10% discount on orders of 10 boxes per size!

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	blue	**CPX6.1**	100 unit(s)	26,45
≥240	M (7–8)	blue	**CPX7.1**	100 unit(s)	26,45
≥240	L (8–9)	blue	**CPX8.1**	100 unit(s)	26,45
≥240	XL (9–10)	blue	**CPX9.1**	90 unit(s)	26,45

Cat. III

Disposable gloves ROTIPROTECT® -Nitril eco

Carl ROTH. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (KPT) and EN ISO 374-5 (virus), ASTM-F 1671-97. AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs

- **Textured fingers for secure grip**
- Extra thin and soft for maximum wearing comfort
- High tactile sensitivity
- Non-powdered
- Free from phthalates/plasticisers and allergenic latex proteins
- Can be worn on both hands
- Beaded cuff
- Colour: blue
- Thickness: approx. 0.10 mm
- Length: min. 240 mm
- 100 or 90 per dispenser box

The perfect disposable solution for splash protection against many chemicals and for handling greasy foodstuffs. The blue signal is suitable for areas which are subject to HACCP standards.

10% discount on orders of 10 boxes per size!

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	blue	**TC12.1**	100 unit(s)	22,85
≥240	M (7–8)	blue	**TC13.1**	100 unit(s)	22,85
≥240	L (8–9)	blue	**TC14.1**	100 unit(s)	22,85
≥240	XL (9–10)	blue	**TC15.1**	90 unit(s)	22,85

Disposable gloves

Cat. III

ISO 374-1:2016 Type B
KPT

ISO 374-5:2016
virus

Disposable gloves ROTIPROTECT® -Nitril light

Carl ROTH. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (KPT) and EN ISO 374-5 (virus), ASTM-F 1671-97. AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs

- **Textured fingers for secure grip**
- Extra thin and elastic for maximum wearing comfort
- High tactile sensitivity
- Non-powdered
- Can be worn on both hands
- Free from phthalates/plasticisers and allergenic latex proteins
- Beaded cuff
- Colour: blue
- Thickness: approx. 0.07 mm
- Length: min. 240 mm
- 200 or 180 per dispenser box

The perfect alternative to latex gloves. An extremely thin nitrile glove with outstanding elasticity and maximum wearing comfort thanks to a specially developed formulation and innovative production technology.

10% discount on orders of 10 boxes per size!

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	XS (5–6)	blue	**EYK7.1**	200 unit(s)	40,60
≥240	S (6–7)	blue	**AYA6.1**	200 unit(s)	40,60
≥240	M (7–8)	blue	**AYA7.1**	200 unit(s)	40,60
≥240	L (8–9)	blue	**AYA8.1**	200 unit(s)	40,60
≥240	XL (9–10)	blue	**AYA9.1**	180 unit(s)	40,60

Cat. III

ISO 374-1:2016 Type B
KPT

ISO 374-5:2016
virus

Disposable gloves ROTIPROTECT® -Nitril green

Carl ROTH. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (KPT) and EN ISO 374-5 (virus), ASTM-F 1671-97. AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs

- **Textured finger tips for better grip during wet or dry use**
- Easy to put on thanks to special inner coating
- Non-powdered
- Accelerator-free, reduced risk of allergic skin reactions
- Can be worn on either hand
- Rolled edge
- Wall thickness: approx. 0.06 mm
- Colour: mint green
- 200 or 180 per dispenser box

The perfect alternative to latex gloves. An extremely thin nitrile glove with outstanding elasticity and maximum wearing comfort thanks to specially developed formulation and innovative production technology.
Skin-friendly formula: Free from latex proteins, manufactured without vulcanisation accelerators or chlorine.
Environmentally friendly manufacturing: Water- and energy saving, reduced CO_2 emissions.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	mint green	**HXK1.1**	200 unit(s)	40,85
≥240	M (7–8)	mint green	**HXK2.1**	200 unit(s)	40,85
≥240	L (8–9)	mint green	**HXK3.1**	200 unit(s)	40,85
≥240	XL (9–10)	mint green	**HXK4.1**	180 unit(s)	40,85

Disposable gloves

Cat. III

Disposable gloves Semperguard® Nitrile Xenon

Semperit. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN 455, EN ISO 374-1/type B (KPT), EN ISO 374-5 (virus) ASTM F1671-97. AQL 1.5.
Acc. to 93/42/EEC Class I.
Acc. to EC Directive 1935/2004 – suitable for contact with foodstuffs.

- **Smooth exterior, textured fingers**
- Very soft, very thin with latex-like wear comfort and excellent tactile sensitivity
- Non-powdered
- Can be worn on either hand
- Thin rolled edge
- Kind to the skin: Free of phthalates and allergenic latex proteins
- Colour: white
- Wall thickness: approx. 0.05 mm
- 200 or 180 per dispenser, resulting in less packaging material

Applications: Foodstuffs production, catering, healthcare, examination gloves, medical areas, simple industrial applications.

10% discount on orders of 10 boxes per size.

Medical device class I

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
240	S (6–7)	white	**XP94.1**	200 unit(s)	28,80
240	M (7–8)	white	**XP95.1**	200 unit(s)	28,80
240	L (8–9)	white	**XP96.1**	200 unit(s)	28,80
240	XL (9–10)	white	**XP97.1**	180 unit(s)	28,80

S

Examination gloves Nitril® sterile

Meditrade. Material: Nitrile. **Sterile**.

Acc. to EN 420, EN 455, AQL 1.5
Acc. to 93/42/EEC medical product class Is.
Thin and soft material, fits the hand like a second skin after just a short time and therefore guarantees fatigue-free work.

- **Disposable gloves, non-powdered**
- Micro-rough surface
- With polymer inner coating making them easy to put on
- Can be worn on either hand
- Free from allergenic latex proteins
- With rolled edge
- Colour: white
- Wall thickness: approx. 0.06 mm
- In pairs in a peel pack

Applications: For all areas with sterile requirements and in sterile environments, in laboratories, in the pharmaceutical industry, cleaning industry, food industry, etc.

Medical device class I MDD

Length (mm)	Size	Art. No.	Pack Qty.	€
≥240	S (6–7)	**EYL4.1**	50 pair	31,75
≥240	M (7–8)	**EYL5.1**	50 pair	32,25
≥240	L (8–9)	**EYL6.1**	50 pair	32,05
≥240	XL (9–10)	**EYT3.1**	50 pair	31,75

Disposable gloves

Cat. III

Examination gloves Nitril® Magenta

Meditrade. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN 455, EN 374, AQL 1.5.
Acc. to 93/42/EEC medical product class I.
Acc. to 1935/2004 – suitable for contact with foodstuffs.

- **Disposable gloves, non-powdered**
- Micro-rough surface
- Patented inner coating, silk-sericin coating, gentle on the hands and ensures the gloves can be put on easily
- Excellent tactile sensitivity and flexibility
- Ideal for particularly dry and stressed skin
- Non-powdered
- Free from allergenic latex proteins
- Can be worn on either hand
- With rolled edge
- Colour: pink
- Wall thickness: approx. 0.07 mm

Applications: Use in laboratories, in the pharmaceutical industry, for patient care and for handling cleaning agents.

10% discount on orders of 10 boxes per size.

Medical device class I MDD

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S	pink	**EYL1.1**	100 unit(s)	13,45
≥240	M	pink	**EYL2.1**	100 unit(s)	13,45
≥240	L	pink	**EYL3.1**	100 unit(s)	11,30

Cat. III

ISO 374-1:2016 Type B KPT
ISO 374-5:2016 virus

Disposable gloves MICROFLEX® 93-833

Ansell. Material: Nitrile.

Acc. to EN 420, EN 455, EN ISO 374-1/type B (KPT), EN ISO 374-5 (virus), AQL 0.65.
Acc. to 93/42/EEC medical product class I.
Antistatic acc. to EN 1149
Acc. to EC 1935/2004 and 2023/2006 – suitable for contact with foodstuffs.

- Examination gloves with ergonomics certificate. The low muscle force required and the resulting low hand fatigue minimise the risk factors for illnesses at the workplace caused by ergonomics (carpal tunnel syndrome)
- Protection against type-I allergy, irritation and dehydration of the skin, since powder-free and latex-free
- Non-powdered
- Can be worn on either hand
- Thin rolled edge
- Wall thickness: approx. 0.07 mm
- Length 240 mm

Applications: Laboratory analyses, food processing, manufacture and preparation of pharmaceuticals, assembly and inspection, storage work, maintenance and cleaning of devices and instruments, examination of patients.

10% discount on orders of 10 boxes per size.

Medical device class I MDD

Length (mm)	Size	Art. No.	Pack Qty.	€
240	XS (5,5–6)	**HLT3.1**	250 unit(s)	45,75
240	S (6,5–7)	**HLT4.1**	250 unit(s)	45,75
240	M (7,5–8)	**HLT5.1**	250 unit(s)	45,75
240	L (8,5–9)	**HLT6.1**	250 unit(s)	45,75
240	XL (9,5–10)	**HLT7.1**	230 unit(s)	45,75

Disposable gloves

Cat. III

Disposable gloves MICROFLEX® 93-856

Ansell. Material: Nitrile.

Acc. to EN 420, EN 455, EN ISO 374-1/type B (JKT), EN ISO 374-5 (virus), AQL 1.5.
Antistatic acc. to EN 1149

- High visibility of the hands at greater distances and therefore higher safety in the different work areas due to bright orange colour, also when lighting is poor
- Resistant to a wide range of industrial chemicals over a longer period than other disposable gloves made of nitrile
- Additional protection thanks to extended cuff
- Secure grip thanks to textured fingers
- Powder-free and latex-free for protection against type-I allergy
- Can be worn on either hand
- Thin rolled edge
- Length 270 mm
- Wall thickness: approx. 0.13 mm

Applications: Laboratory analyses, assembly and inspection, storage work, maintenance and cleaning of devices ad instruments, examination of patients.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
270	S (6,5–7)	orange	**HLP8.1**	100 unit(s)	37,15
270	M (7,5–8)	orange	**HLP9.1**	100 unit(s)	37,15
270	L (8,5–9)	orange	**HLT0.1**	100 unit(s)	37,15
270	XL (9,5–10)	orange	**HLT1.1**	100 unit(s)	37,15
270	XXL (10,5–11)	orange	**HLT2.1**	100 unit(s)	37,15

Cat. III

Disposable gloves MICROFLEX® 93-260

Ansell. Material: Neoprene, Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016 type A (JKLOPST), EN ISO 374-5:2016 (virus), EN 388:2016 (2000x). AQL 0.65.
Antistatic acc. to EN 1149.

- Coating material neoprene and nitrile
- Excellent protection against chemicals, including acids, solvents and bases
- Thin-walled, therefore high tactile sensitivity and finger mobility
- Extra-soft material and anatomic fit, very good wear comfort, high flexibility
- Textured fingertips
- Silicone-free material formulation and processing
- Non-powdered
- Colour: Green outside, blue inside
- Rolled edge
- Length 300 mm
- Wall thickness 0.198 mm
- 50 pieces per dispenser box

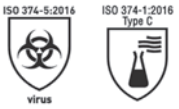
Applications: Sampling and laboratory processing, handling of unexpected leaks, transport of liquids and solids, spillages or other releases, petrochemicals, paint and varnishing work, handling of spray guns and robots.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	XS (5,5–6)	green, blue	**HNT5.1**	50 unit(s)	32,55
300	S (6,5–7)	green, blue	**HNT6.1**	50 unit(s)	32,55
300	M (7,5–8)	green, blue	**HNT7.1**	50 unit(s)	32,55
300	L (8,5–9)	green, blue	**HNT8.1**	50 unit(s)	32,55
300	XL (9,5–10)	green, blue	**HNT9.1**	50 unit(s)	32,55
300	XXL (10,5–11)	green, blue	**HNX0.1**	50 unit(s)	32,55

Disposable gloves

Cat. III



Disposable gloves SHOWA C9905PF

SHOWA. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016/type C (K), EN ISO 374-5:2016 (virus). AQL 1.5.

- **Certified and suitable for use in clean room** class 100 (ISO 5)
- Rinsed with filtered and deionised water and packed in a clean room environment
- Wear comfort like a second skin, more pleasant texture and easy to put on
- Low-modulus formulation to improve fit and reduce fatigue
- Textured surface on finger tips for enhanced grip
- Protection against many chemicals and chemical splashes
- Can be worn on either hand
- Thin rolled edge
- Colour: white
- Length 300 mm
- Wall thickness approx. 0.12 mm
- 100 pieces in bag

Applications: Pharmaceutical manufacturing, biotechnology and biosciences, optics, microelectronics and semiconductor production, quality assurance.

10% discount on orders of 10 bags per size.

Length (mm)	Size	Art. No.	Pack Qty.	€
300	XS	**1A8L.1**	100 unit(s)	121,50
300	S	**1A8N.1**	100 unit(s)	121,50
300	M	**1A8P.1**	100 unit(s)	121,50
300	L	**1A8T.1**	100 unit(s)	121,50
300	XL	**1A8X.1**	100 unit(s)	121,50

Cat. III

Disposable gloves SHOWA 7502PF EBT

SHOWA. Material: Nitrile biodegradable. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016/type C (KT), EN ISO 374-5:2016 (virus). AQL 1.5.
Acc. to 1935/2004 suitable for contact with foodstuffs.

- **Accelerator-free formula**, suitable for particularly sensitive skin – reduces the risk of allergic skin reactions
- Low-modulus formulation to improve fit and reduce fatigue
- Wearing comfort like a second skin
- Easy to put on and take off
- Textured finger tips for better grip
- Short-term chemical-protection against a variety of hazardous substances
- 100% nitrile, free of allergenic latex proteins
- Non-powdered
- Manufactured without silicone
- Can be worn on either hand
- With rolled edge
- Colour: blue
- Wall thickness approx. 0.06 mm
- 200 gloves per dispenser box, 180 gloves in XXL size

Biodegradable: A specially developed formula and the innovative Eco Best Technology (EBT) have enabled the manufacture of an innovative disposable glove. EBT nitrile is biodegraded at biologically active (bacteria) landfills within one to five years. The biological degradation only starts after disposal. All the protective properties of a nitrile disposable glove are retained during use.
Applications: Laboratories, pharmaceutical and food companies, non-complex assembly work, hygiene applications, restaurants and farms.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	XS	blue	**1AT9.1**	200 unit(s)	70,45
≥240	S	blue	**1ATA.1**	200 unit(s)	70,45
≥240	M	blue	**1ATC.1**	200 unit(s)	70,45
≥240	L	blue	**1ATE.1**	200 unit(s)	70,45
≥240	XL	blue	**1ATH.1**	200 unit(s)	70,45
≥240	XXL	blue	**1ATK.1**	180 unit(s)	70,45

Disposable gloves

Cat. III

Disposable gloves SHOWA 7500PF EBT

SHOWA. Material: Nitrile biodegradable. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016/type B (JKPT), EN ISO 374-5:2016 (virus). AQL 1.0.
Acc. to 1935/2004 – suitable for contact with foodstuffs.

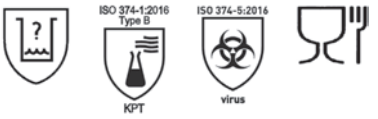
- Low-modulus formulation to improve fit and reduce fatigue
- Wearing comfort like a second skin
- Textured finger tips for better grip
- Short-term chemical protection against a variety of hazardous substances
- 100% nitrile, free of allergenic latex proteins
- Non-powdered
- Manufactured without silicone
- Can be worn on either hand
- With rolled edge
- Colour: blue
- Wall thickness approx. 0.10 mm
- 100 gloves per dispenser box, 90 gloves in XXL size

Biodegradable: A specially developed formula and the innovative Eco Best Technology (EBT) have enabled the manufacture of an innovative disposable glove. EBT nitrile is biodegraded at biologically active (bacteria) landfills within one to five years. The biological degradation only starts after disposal. All the protective properties of a nitrile disposable glove are retained during use.
Applications: Laboratories, pharmaceutical and food companies, non-complex assembly work, hygiene applications, restaurants and farms.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	XS	blue	**1A89.1**	100 unit(s)	41,95
≥240	S	blue	**1A8A.1**	100 unit(s)	41,95
≥240	M	blue	**1A8C.1**	100 unit(s)	41,95
≥240	L	blue	**1A8E.1**	100 unit(s)	41,95
≥240	XL	blue	**1A8H.1**	100 unit(s)	41,95
≥240	XXL	blue	**1A8K.1**	90 unit(s)	41,95

Cat. III



Disposable gloves SHOWA 6110PF EBT

SHOWA. Material: Nitrile biodegradable. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016/type B (KPT), EN ISO 374-5:2016 (virus). AQL 1.5.
Acc. to 1935/2004 suitable for contact with foodstuffs.

- Non-powdered
- Low-modulus formula for better fit and less fatigue
- Textured finger tips for better grip
- Free from allergenic latex proteins
- Manufactured without silicone
- Can be worn on either hand
- With rolled edge
- Colour: green
- Wall thickness approx. 0.10 mm
- 100 pieces per dispenser box

The world's first biodegradable disposable glove made of nitrile.
A specially developed formula and the innovative Eco Best Technology (EBT) have enabled the manufacture of an innovative disposable glove. EBT nitrile is only designed for biologically active (bacteria) landfills. The biological degradation only starts after disposal. All the protective properties of a nitrile disposable glove are retained during use.
Applications: Laboratories with limited chemical exposure, pharmaceutical and food companies, light assembly work, hygiene applications, restaurants and farms.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	green	**KCY9.1**	100 unit(s)	44,10
≥240	M (7–8)	green	**KEA0.1**	100 unit(s)	44,10
≥240	L (8–9)	green	**KEA1.1**	100 unit(s)	44,10
≥240	XL (9–10)	green	**KEA2.1**	100 unit(s)	44,10
≥240	XXL (10–11)	green	**KEA3.1**	90 unit(s)	45,70

Cat. III

Disposable gloves SHOWA 6112PF EBT

SHOWA. Material: Nitrile biodegradable. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016/type B (KPT), EN ISO 374-5:2016 (virus). AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs.

- Antistatic effect: Surface resistance between 10^9 and 10^{10} Ω
- Low-modulus formulation to improve fit and reduce fatigue
- Wearing comfort like a second skin
- Easy to put on and take off
- Textured finger tips for better grip
- Short-term chemical-protection against a variety of hazardous substances
- 100% nitrile, free of allergenic latex proteins
- Non-powdered
- Manufactured without silicone
- Can be worn on either hand
- With rolled edge
- Colour: black
- Wall thickness approx. 0.10 mm
- 100 pieces per dispenser box

Biodegradable: A specially developed formula and the innovative Eco Best Technology (EBT) have enabled the manufacture of an innovative disposable glove. EBT nitrile is biodegraded at biologically active (bacteria) landfills within one to five years. The biological degradation only starts after disposal. All the protective properties of a nitrile disposable glove are retained during use.
Applications: Laboratories, pharmaceutical and food companies, non-complex assembly work, hygiene applications, restaurants and farms.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	XS	black	**1APY.1**	100 unit(s)	53,75
≥240	S	black	**1AT0.1**	100 unit(s)	53,75
≥240	M	black	**1AT1.1**	100 unit(s)	53,75
≥240	L	black	**1AT2.1**	100 unit(s)	53,75
≥240	XL	black	**1AT3.1**	100 unit(s)	53,75
≥240	XXL	black	**1AT4.1**	90 unit(s)	53,75

Cat. III

Disposable gloves Dermatril® P 743

KCL by Honeywell. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016 type A (JKLOPT), EN ISO 374-5:2016 (virus), EN 388:2016 (200xx). AQL 0.65.
RAL approved for use with foodstuffs.

- Snug fitting, very high tactile sensitivity
- Good chemical resistance
- Increased tear resistance
- Long cuff, rolled edge, textured fingertips
- Non-powdered
- Latex free, free of allergenic thiurames and rosin
- Colour: blue
- Non-powdered
- Wall thickness: 0.2 mm
- Length: 280 mm

Applications: Laboratory and research, chemical industry, food industry, electronics and computer industry, cleaning and maintenance work, product protection.

10% discount on orders of 10 boxes per size.

Medical device class I MDD

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
280	6	blue	**TX41.1**	50 unit(s)	51,15
280	7	blue	**TX42.1**	50 unit(s)	51,15
280	8	blue	**TX43.1**	50 unit(s)	51,15
280	9	blue	**TX44.1**	50 unit(s)	51,15
280	10	blue	**TX45.1**	50 unit(s)	51,15
280	11	blue	**TX46.1**	50 unit(s)	51,15

Disposable gloves

Cat. III

Disposable gloves Touch N Tuff®

Ansell. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (JKT) and EN ISO 374-5 (virus). AQL 1.5.
Acc. to 1935/2004/EC – suitable for contact with foodstuffs.

- Non-powdered
- Textured fingertips
- With rolled edge
- Colour: light blue
- Wall thickness approx. 0.1 mm
- 100 per dispenser box

Offers optimal protection against splashes from chemicals.

10% discount on orders of 10 boxes per size.

92-670 Length 240 mm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6,5–7)	light blue	**P438.1**	100 unit(s)	26,15
≥240	M (7,5–8)	light blue	**P439.1**	100 unit(s)	26,15
≥240	L (8,5–9)	light blue	**P440.1**	100 unit(s)	26,15
≥240	XL (9,5–10)	light blue	**P441.1**	100 unit(s)	26,15

92-665 Length 300 mm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	S (6,5–7)	light blue	**KE73.1**	100 unit(s)	34,75
300	M (7,5–8)	light blue	**KE74.1**	100 unit(s)	34,75
300	L (8,5–9)	light blue	**KE75.1**	100 unit(s)	34,75
300	XL (9,5–10)	light blue	**KE76.1**	100 unit(s)	34,75

Cat. III

Disposable gloves Touch N Tuff®

Ansell. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (JKPT) and EN ISO 374-5 (virus). AQL 1.5. Antistatic acc. to EN 1149-5.
Acc. to EC 1935/2004 – suitable for contact with foodstuffs.

- Silicone-free
- Can be worn on either hand
- With rolled edge
- Colour: green
- Wall thickness: 0.12 mm
- 100 gloves per dispenser

Offers optimal protection against chemical splashes.

10% discount on orders of 10 boxes per size.

92-500 lightly powdered, length 240 mm

Textured fingertips.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	6,5–7	green	**K416.1**	100 unit(s)	29,75
≥240	M (7,5–8)	green	**K417.1**	100 unit(s)	29,75
≥240	L (8,5–9)	green	**K418.1**	100 unit(s)	29,75
≥240	XL (9,5–10)	green	**K419.1**	100 unit(s)	29,75

92-600 non-powdered, length 240 mm

Smooth surface, suitable for foodstuffs.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6,5–7)	green	**K966.1**	100 unit(s)	32,70
≥240	M (7,5–8)	green	**K967.1**	100 unit(s)	32,70
≥240	L (8,5–9)	green	**K968.1**	100 unit(s)	32,70
≥240	XL (9,5–10)	green	**K969.1**	100 unit(s)	32,70

92-605 non-powdered, length 300 mm

Acc. to EN 421. Textured fingertips, suitable for foodstuffs.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	S (6,5–7)	green	**PA90.1**	100 unit(s)	36,20
300	M (7,5–8)	green	**PA91.1**	100 unit(s)	36,20
300	L (8,5–9)	green	**PA92.1**	100 unit(s)	36,20
300	XL (9,5–10)	green	**PA93.1**	100 unit(s)	36,20

Disposable gloves

Cat. III

ISO 374-1:2016 Type B
KPT

ISO 374-5:2016
virus

Disposable gloves MICROFLEX® NeoTouch

Ansell. Material: Neoprene. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (KPT) and EN ISO 374-5 (Virus). AQL 1.5.

- Non-powdered
- Protect against Type I allergies
- The inner polyurethane coating enables gloves to be slipped on easily
- With structured fingertips for safer grip when dry or wet
- Turn-up cuff offers safe and firm hold
- Excellent stretching ability enables greater freedom of movement
- Good protection against chemical splashes but not suitable as complete protection against chemicals
- Thickness: 0.13 mm
- 100 gloves per dispenser box

Ideal for applications in the pharmaceutical and chemical industry; for laboratory work and analyses which require short-term protection against chemicals.

10 % discount on orders of 10 boxes per size!

25-101, length 240 mm

Length (mm)	Size	Art. No.	Pack Qty.	€
≥240	S (6,5–7)	**EN44.1**	100 unit(s)	31,15
≥240	M (7,5–8)	**EN45.1**	100 unit(s)	31,15
≥240	L (8,5–9)	**EN46.1**	100 unit(s)	31,15
≥240	XL (9,5–10)	**EN47.1**	100 unit(s)	31,15

25-201, length 285 mm
Acc. to EN 421.

Length (mm)	Size	Art. No.	Pack Qty.	€
285	S (6,5–7)	**LT51.1**	100 unit(s)	41,60
285	M (7,5–8)	**LT52.1**	100 unit(s)	41,60
285	L (8,5–9)	**LT53.1**	100 unit(s)	41,60
285	XL (9,5–10)	**LT54.1**	100 unit(s)	41,60

Disposable gloves DermaShield®

Ansell. Material: Neoprene.

Acc. to EN 420, EN ISO 374-1/type A (KLMNPT), EN 421. AQL 0.,65.

- Non-powdered, green
- High tech disposable gloves, available in **sterile** or non-sterile, suitable for use in controlled environments or **cleanrooms**
- Free of latex proteins and vulcanisation accelerants
- High wearing comfort and high flexibility
- Anti-slip rolled edge for increased protection
- Optimal product and user protection
- Fingertips with bisque finish for enhanced tactile sensitivity
- Length 310 mm, wall thickness 0,175 mm

Applications: drug production under aseptic conditions, biotechnology, production of medical equipment, handling cytostatic agents.

- Optimal contamination protection is provided by triple packaging
- PE bag printed with cleanroom-compatible IPA printing ink
- Easy-to-open PE packaging

73-711
Sterile. Acc. to EN ISO 374-5 (virus). For critical applications acc. to ISO 5 (class 100 and GMP AB).

- In pairs, 10 pairs in sealed PE master bag
- 5 PE master bags in separate PE protective cover
- 4 PE master bags per large bag, outer box

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
310	6	green	**XE44.1**	200 pair	674,05
310	7	green	**XE45.1**	200 pair	674,05
310	7,5	green	**XE46.1**	200 pair	707,75
310	8	green	**XE47.1**	200 pair	674,05
310	9	green	**XE48.1**	200 pair	674,05

73-721
Non-sterile. Acc. to EN ISO 374-5. For controlled working environments.

- 20 left-hand/right-hand gloves in separate chambers of a vacuum-sealed PE bag
- 2 PE bags in vacuum-sealed PE master bag
- 5 PE master bags per large bag, outer box

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
310	6	green	**XE49.1**	200 pair	595,55
310	7	green	**XE50.1**	200 pair	595,55
310	7,5	green	**XE51.1**	200 pair	595,55
310	8	green	**XE52.1**	200 pair	595,55
310	9	green	**XE53.1**	200 pair	595,55

Disposable gloves

Cat. I

Disposable gloves Semperguard® Vinyl non-powdered

Semperit. Material: PVC. Non-sterile.

Acc. to EN 420, AQL 1.5.
Acc. to 1935/2004 – suitable for contact with **non-greasy** foodstuffs.

- Excellent tactile sensitivity and wear comfort
- High-grade vinyl formula for exceptional quality
- Especially skin-friendly, free from latex proteins and accelerants
- DOP-free (DEHP/diethylhexyl phthalate)
- Colour: transparent
- Can be worn on either hand
- With rolled edge
- Wall thickness: approx. 0.065 mm
- Length: min. 240 mm

10% discount on orders of 10 boxes per size.

Size	Art. No.	Pack Qty.	€
S (6–7)	**KLH1.1**	100 unit(s)	13,45
M (7–8)	**KLH2.1**	100 unit(s)	13,45
L (8–9)	**KLH3.1**	100 unit(s)	13,45
XL (9–10)	**KLH4.1**	90 unit(s)	13,45

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Cat. III

ISO 374-5:2016
ISO 374-1:2016 Type B

Chemical protection gloves AlphaTec® 87-137 (formerly Marigold Featherweight)

Ansell. Material: Natural rubber.

Acc. to EN 420, EN ISO 374-1/type B (KLT), EN ISO 374-5, EN 388 (X010A), EN 421. AQL 0.65.
Made of natural rubber with rolled edge. Textured palms and fingers, smooth on inside. High flexibility, excellent finger mobility, high tactile sensitivity, highly tear resistant.
Length approx. 320 mm, wall thickness approx. 0.35 mm.

Length (mm)	Size	Art. No.	Pack Qty.	€
320	6,5	**YX54.1**	12 pair	32,10
320	7,5	**YX55.1**	12 pair	32,10
320	8,5	**YX56.1**	12 pair	32,10
320	9,5	**YX57.1**	12 pair	32,10

Cat. III

ISO 374-5:2016
virus
ISO 374-1:2016 Type A

Chemical protection gloves AlphaTec® 87-900 (formerly Bi-Colour™)

Ansell. Material: Natural rubber, Neoprene.

Acc. to EN 420, EN ISO 374-1/type A (AKLNPT), EN ISO 374-5 (virus), EN 388 (2120A), EN 421. AQL 0.65.
Outside: Latex/neoprene double coating, inside: High-quality velour made of pure cotton. With protective cuff. Diamond-pattern grip profile for outstanding wet and dry grip. High resistance to salts and cleaning agents. Reliable protection against a wide range of chemicals.
Colour: green/yellow. Wall thickness 0.68 mm.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
320	7,5–8	green, yellow	**YA60.1**	12 pair	46,00
320	8,5–9	green, yellow	**YA61.1**	12 pair	46,00
320	9,5–10	green, yellow	**YA62.1**	12 pair	46,00
320	10,5–11	green, yellow	**YA63.1**	12 pair	46,00

Chemical protection gloves

Cat. III

Chemical protection gloves NitoPren® 717

KCL by Honeywell. Material: Chloroprene, Nitrile.

Acc. to EN 420, EN 388 (2001) and EN 374-3 (AJL). Made of two material layers, **chloroprene** top layer, **nitrile** inner, with slight velour. Anatomic fit. Very high resistance to a number of chemicals and many aggressive gases. Highly flexible, also enables intricate work. Secure grip of wet and oily objects. Excellent mechanical resistance. Free of natural latex. Length approx. 300–320 mm, wall thickness approx. 0.65 mm.

Suitable for the chemical and pharmaceutical industries, galvanic work.

Size	Art. No.	Pack Qty.	€
7	**ET40.1**	2 pair	13,45
8	**ET41.1**	2 pair	13,45
9	**ET42.1**	2 pair	13,45
10	**ET43.1**	2 pair	13,45
11	**ET44.1**	2 pair	13,45

Cat. III

Chemical protection gloves Lapren® 706

KCL by Honeywell. Material: Natural rubber, Chloroprene.

Acc. to EN 420, EN ISO 374-1/type A (KLMPST), EN ISO 374-5 (virus), EN 388 (1020X). AQL 0.65. Made of natural latex with a low chloroprene content. Profiled palms for secure grip even in wet areas. Cotton flock lining. Sleeve with elastic cuff. Anatomically shaped, elastic and flexible. Length approx. 300–320 mm, thickness 0.6 mm.

Size	Art. No.	Pack Qty.	€
7	**C940.1**	10 pair	42,50
8	**C941.1**	10 pair	42,50
9	**C942.1**	10 pair	42,50
10	**C943.1**	10 pair	42,50

Cat. III

Chemical protection gloves Camapren® 720

KCL by Honeywell. Material: Polychloroprene.

Acc. to EN 420, EN 388 (1111X), EN ISO 374-1/Typ A (AKLMOT), EN ISO 374-5. AQL 0.65. Made of polychloroprene with natural latex layer. Profiled palms for secure grip even when handling wet, greasy and oily parts. Cotton flock lining. Sleeve with elastic cuff. Highly elastic and flexible, even at low temperatures.
Resistant to diluted and semi-concentrated acids, diluted to concentrated bases, saturated saline solutions, glycol and glycerol, long-chained alcohols, vegetable and animal fats and oils.
Length 290-310 mm, total layer thickness approx. 0.65 mm.

Size	Art. No.	Pack Qty.	€
7	**K347.1**	2 pair	13,05
8	**K348.1**	2 pair	13,05
9	**K349.1**	2 pair	13,05
10	**K350.1**	2 pair	13,05
11	**K351.1**	2 pair	13,05

Chemical protection gloves

Cat. III

Chemical protection gloves Tricopren® 723

KCL by Honeywell. Material: Polychloroprene.

Acc. to EN 420, EN 388 (2121X), EN ISO 374-1/Typ A (AJKLMS), EN ISO 374-5 (Virus). AQL 0.65. Made of polychloroprene, with cotton lining, free from natural latex. High resistance to mechanical hazards, and a number of chemical hazards. Anatomic fit. Palm area with profiling for secure grip.
Suitable for diluted and semi-concentrated acids and diluted and concentrated bases, glycol and glycerol, long-chained alcohols, hydrogen peroxide, aliphatic and alicyclic hydrocarbons.
Length approx. 300 mm, total layer thickness approx. 1.3 mm.

Length (mm)	Size	Art. No.	Pack Qty.	€
300	8	**AA08.1**	1 pair	35,60
300	9	**AA09.1**	1 pair	35,60
300	10	**AA10.1**	1 pair	35,60
300	11	**AA11.1**	1 pair	35,60

Cat. III

Chemical protection gloves Tricotril® 736

J. Roetzmeier. Material: Nitrile.

Acc. to EN 420, EN 388 (3121X), EN ISO 374-1/Typ A (AJKLOPT), EN ISO 374-5 (Virus). AQL 0.65. Anatomic fit, profiling on the palm. Free of natural latex, approved for food processing and handling. Inside with cotton jersey. Length approx. 300 mm. Total layer thickness approx. 1.0 mm.

Suitable for diluted and semi-concentrated acids and bases, glycol and glycerol, long-chained alcohols, aliphatic and alicyclic hydrocarbons.

Length (mm)	Size	Art. No.	Pack Qty.	€
300	8	**CH44.1**	1 pair	27,20
300	9	**CH45.1**	1 pair	27,20
300	10	**CH46.1**	1 pair	27,20
300	11	**CH47.1**	1 pair	27,20

Cat. III

Chemical protection gloves AlphaTec® 09-924 (formerly Scorpio®)

Ansell. Material: Neoprene, Cotton.

Acc. to EN 420, EN ISO 374-1/type A (AKLMPT), EN ISO 374-5, EN 388 (3121B), EN 407 (X1XXXX). AQL 1.5. Black, neoprene-coated protective gloves with cotton jersey liner. For protection against a wide range of bases, acids, alcohols and diluted aqueous solvents. Good abrasion and cutting resistance. Smooth grip profile.

Applications: Handling chemicals and petrochemicals, for degreasing and coating, etc.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
350	10	black	**XY14.1**	1 pair	26,20

Cat. III

Chemical protection gloves AlphaTec® 09-022 (formerly Scorpio®)

Ansell. Material: Neoprene, Cotton.

Acc. to EN 420, EN ISO 374-1/type A (AJKLPT), EN ISO 374-5, EN 388 (3232C), EN 407 (32XXXX) and EN 511 (111). AQL 1.5.
Black, neoprene-coated protective gloves **with foam insulation**. For protection against a wide range of bases, acids, alcohols and diluted aqueous solvents.
Also suitable for working in hot and cold conditions. Suitable for short-time contact with liquids at temperatures from max. 180 °C to min. -25 °C. Not suitable for temperatures above 200 °C. Good abrasion-resistance and cut-resistance. Smooth grip profile.

Applications: Handling chemicals and petrochemicals, for degreasing and coating, etc.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
350	10	black	**XY15.1**	1 pair	50,10

Chemical protection gloves

Cat. III

Chemical protection gloves AlphaTec® (formerly Scorpio®)

Ansell. Material: Neoprene.

Acc. to EN 420, EN ISO 374-1/type A (AKLMPT), EN ISO 374-5:2016, EN 388 (3122B), EN 407 (32XX4X), EN 511 (121). AQL 1.0. Antistatic according to EN 1149. Black, neoprene-coated protective gloves with **foam insulation**.

- For protection against a wide range of bases, acids, alcohols and diluted aqueous solvents
- Also suitable for working in hot and cold conditions. Suitable for short-time contact with liquids at temperatures from max. 180 °C to min. -25 °C. Good abrasion resistance and cut resistance.
- Textured handle profile for enhanced grip

Please note: Gloves are not suitable for working above 200 °C. Do not use when working with or near to open flames.

Applications: Steam-jet and maintenance work, anodising. Working with water baths. Handling objects in hot or cold chemicals.

19-024

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
450	8	black	**HLP4.1**	1 pair	78,50
450	10	black	**HLP5.1**	1 pair	78,50

19-026

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
660	8	black	**HLP6.1**	1 pair	90,90
660	10	black	**HLP7.1**	1 pair	90,90

Cat. III

Chemical protection gloves AlphaTec® 79-700 (formerly Virtex™)

Ansell. Material: Nitrile Aquadri.

Acc. to EN 420, EN ISO 374-1/type B (JKT), EN ISO 374-5 (Virus), EN 388 (1001A), EN 421. Antistatic acc. to EN 1149.
Inside with new, extremely thin polymer composite coating – Aquadri™. Releases fewer particles, more moisture is absorbed. Outside not chlorinated and with diamond finish for secure grip. Good wear comfort and particular flexibility.
Thickness 0.225 mm, length approx. 310 mm.

Suitable for light assembly work and handling parts that require good dry, wet and oil grip: Light assembly in contact with chemicals, automotive industry, painting and spray painting, working with oil- and hydrocarbon-based solutions.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
310	7	blue	**HH73.1**	5 pair	13,80
310	8	blue	**HH74.1**	5 pair	13,80
310	9	blue	**HH75.1**	5 pair	13,80
310	10	blue	**HH76.1**	5 pair	15,50
310	11	blue	**HH77.1**	5 pair	n. a.

Chemical protection gloves

Cat. III

Chemical protection gloves SHOWA 708

SHOWA. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1:2016/type B (JKOPT), EN ISO 374-5:2016 (virus) AQL 1.5.
Acc. to 1935/2004 suitable for contact with foodstuffs.

- Lightweight glove made of 100% nitrile
- Non-powdered, without natural latex
- Can be worn on either hand
- Excellent dexterity and tactile feel
- Secure grip thanks to the embossed fish scale pattern on the palm and back of the hand
- Long-lasting secure handling in a damp and oily environments
- Excellent chemical resistance
- Thickness: 0.23 mm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	7 (S)	blue	**1ETT.1**	24 pair	64,40
300	8 (M)	blue	**1ETX.1**	24 pair	64,40
300	9 (L)	blue	**1ETY.1**	24 pair	64,40
300	10 (XL)	blue	**1EX0.1**	24 pair	64,40
300	11 (XXL)	blue	**1EX1.1**	24 pair	64,40

Cat. III

Chemical protection gloves SHOWA 707FL

SHOWA. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1:2016/type A (JKLOPT), EN ISO 374-5:2016. AQL 1.0.
Acc. to 1935/2004 suitable for contact with foodstuffs.

- Thin and lightweight glove which feels like a second skin
- Anatomic form and design offer greater freedom of movement and extra comfort when worn for extended periods
- Non-powdered, slip-on design so that the gloves are easy to put on and take off, without flock fibres or dust
- Rolled cuffs prevent dirt from penetrating the glove
- Tractor tread surface on palm provides good long-lasting grip on wet substances
- Long shaft offers good protection for the wrist
- Protects against oils, hydrocarbons, grease and abrasion
- Thickness 0.28 mm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
305	6 (XS)	blue	**1ETE.1**	12 pair	47,85
305	7 (S)	blue	**1ETH.1**	12 pair	47,85
305	8 (M)	blue	**1ETK.1**	12 pair	47,85
305	9 (L)	blue	**1ETL.1**	12 pair	47,85
305	10 (XL)	blue	**1ETN.1**	12 pair	47,85
305	11 (XXL)	blue	**1ETP.1**	12 pair	47,85

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Chemical protection gloves

Cat. III

Chemical protection gloves Solvex® 37-900

Ansell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (AJKLOPT), EN ISO 374-5 (virus), EN 388 (4101X). AQL 0.065.

- Excellent protection against abrasion and piercing
- Each glove is tested using compressed air
- Inner lining: With velour
- Outside: Textured palm
- Wall thickness 0.425 mm

Applications

Laboratory analyses, chemical applications, e.g. chemical processing, handling corrosive chemicals and chemical mixtures.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
380	7	red	**PA83.1**	2 pair	16,00
380	8	red	**PA84.1**	2 pair	16,00
380	9	red	**PA85.1**	2 pair	16,00
380	10	red	**PA86.1**	2 pair	16,00
380	11	red	**PA87.1**	2 pair	16,00

Cat. III

Chemical protection gloves Solvex® 37-675

Ansell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (JKLOPT), EN ISO 374-5 (virus), EN 388 (4101X). AQL 0.65.

- High abrasion resistance and excellent wear comfort
- Textured palm gives increased grip
- Lining with velour for greater wear comfort
- Wall thickness 0.38 mm

Applications

Chemical processes, refining oil and petroleum, metalworking, agrochemicals and printing industry. Ideal for dry and wet work environments where chemical protection and high abrasion resistance are crucial.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
330	7	green	**AXY9.1**	12 pair	58,80
330	8	green	**AXX0.1**	12 pair	58,80
330	9	green	**AXX1.1**	12 pair	58,80
330	10	green	**AXX2.1**	12 pair	58,80
330	11	green	**AXX3.1**	12 pair	58,80

Cat. III

Chemical protection gloves Solvex® 37-185

Ansell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (AGJKLPT), EN ISO 374-5, EN 388 (4102X). AQL 0.65.

- High abrasion resistance and excellent wear comfort
- Textured palm gives increased grip
- No flock lining – no contamination by flock fibres
- Wall thickness: 0.5 mm

Applications

Chemical processes, refining oil and petroleum, metalworking, agrochemicals and printing industry. Ideal for dry and wet work environments where chemical protection and high abrasion resistance are crucial.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
455	7	green	**XX07.1**	1 pair	11,40
455	8	green	**XX08.1**	1 pair	11,40
455	9	green	**XX09.1**	1 pair	11,40
455	10	green	**XX10.1**	1 pair	11,40
455	11	green	**XX11.1**	1 pair	11,40

Chemical protection gloves

Cat. III

Chemical protection gloves Camatril® 730

KCL by Honeywell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (JKLOPT), EN ISO 374-5, EN 388 (3001X). AQL 0.65. Acc. to EU 1935/2004 approved for food processing.

- High chemical resistance, in particular to oils, fats, solvents and fuels
- Good flexibility, anatomical form and optimal fit guarantee high dexterity
- Cotton flock lining for optimal wear comfort
- Napped surface
- Thickness approx. 0.4 mm
- Length 300-320 mm

Size	Art. No.	Pack Qty.	€
7	**Y452.1**	2 pair	12,30
8	**Y453.1**	2 pair	12,30
9	**Y454.1**	2 pair	12,30
10	**Y455.1**	2 pair	12,30
11	**Y456.1**	2 pair	12,30

Cat. III

Chemical protection gloves Camatril® 732

KCL by Honeywell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (AJKLOT), EN ISO 374-5, EN 388 (3000X). AQL 0.65. Acc. to EU 1935/2004 approved for food processing.

- High chemical resistance, in particular to oils, fats, solvents and fuels
- Good flexibility, anatomical form and optimal fit guarantee high dexterity
- Cotton flock lining for optimal wear comfort
- Napped surface
- Thickness approx. 0.4 mm
- Length 390-410 mm

Size	Art. No.	Pack Qty.	€
7	**T923.1**	2 pair	20,10
8	**A909.1**	2 pair	19,70
9	**A910.1**	2 pair	19,70
10	**A911.1**	2 pair	19,70
11	**T924.1**	2 pair	20,10

Cat. III

Chemical protection gloves Camatril® 733

KCL by Honeywell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (AJKLMO), EN ISO 374-5, EN 388 (3102X). AQL 0.65.

- High chemical resistance, in particular to oils, fats, solvents and fuels
- The long cuffs provide chemical protection beyond the forearm.
- Good flexibility, anatomical form and optimal fit guarantee high dexterity
- Cotton flock lining for optimal wear comfort
- Napped surface
- Thickness approx. 0.5 mm
- Length 575-625 mm

Size	Art. No.	Pack Qty.	€
8	**8197.1**	1 pair	39,15
9	**8198.1**	1 pair	39,15
10	**8199.1**	1 pair	39,15
11	**8200.1**	1 pair	39,25

Cat. III

Chemical protection gloves PROTECTOR CHEMICAL

J. Roetzmeier.

Acc. to EN 420, EN ISO 374-1/type A (JKNOPT) and EN 388 (4X44C). Made of cotton/polyethylene (HPPE)/glass with double full nitrile rubber coating

- Multi-layer technology provides optimal protection against chemicals and cuts
- Comfortable, anatomically shaped glove
- Coarse surface for secure grip

Suitable for chemical industry, machine and tool making, work involving cutting hazards and protection against chemicals.

NK2725B, 270 mm

Length (mm)	Size	Art. No.	Pack Qty.	€
270	9	**PT65.1**	1 pair	57,25
270	10	**PT66.1**	1 pair	57,25

NK4025B, 400 mm

Length (mm)	Size	Art. No.	Pack Qty.	€
400	9	**PT67.1**	1 pair	71,00
400	10	**PT68.1**	1 pair	71,00

Chemical protection gloves

Cat. III

Chemical protection gloves AlphaTec® 15-554 (formerly PVA™)

Ansell. Material: Polyvinyl alcohol.

Acc. to EN 420, EN ISO 374-1/type A (BCDFIJ), EN ISO 374-5, EN 388 (3121A). AQL 1.0. Antistatic acc. to EN 1149. With red polyvinyl alcohol coating and cotton lining. Resistant to aromatic (xylene), chlorinated (tri, per) and other organic solvents. Sensitive to high temperatures. **Dissolve in water and fluids containing water.**
Length 355 mm. Wall thickness 1.1 mm.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
355	9	red	**1681.1**	1 pair	42,50
355	10	red	**NH46.1**	1 pair	42,90

Cat. III

Chemical protection gloves AlphaTec® 02-100 (formerly Barrier®)

Ansell. Material: HDPE.

Acc. to EN 420, EN ISO 374-1/type A (ABCEFGHIMS), EN ISO 374-5 (Virus). AQL 0.065. Made of five-layer HPPE laminate. Anatomically fitting chemical-resistant PE gloves. For protection against a wide range of hazardous chemicals. Each glove is individually tested with compressed air. Film thickness approx. 0.062 mm. Length 380–410 mm.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
380	7	white	**P157.1**	1 pair	23,90
385	8	white	**LY64.1**	1 pair	23,90
390	9	white	**N964.1**	1 pair	23,90
395	10	white	**N965.1**	1 pair	23,90
410	11	white	**P158.1**	1 pair	23,90

Cat. III

Chemical protection gloves SHOWA NSK 26

SHOWA. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (JKLOPT), EN ISO 374-5, EN 388 (4112X). Acc. to 1935/2004 – suitable for contact with foodstuffs. Cotton/polyester jersey lining with full nitrile outer coating.

- Anatomically shaped hand allows for greater freedom of movement and fatigue-free work
- Extended bonded sleeve, stitched with elasticated border means that it stays correctly adjusted
- Rough finish over entire surface for an effective and durable grip
- Flexible glove with excellent wear resistance
- Absorbs perspiration and can be worn for an extended period with no reduction in comfort
- Protects against oils, hydrocarbons and fats
- Impermeable; for working in a damp or oily environment

Areas of application: Food production, petrochemical and refinery, working with oils and fats.

Length (mm)	Size	Art. No.	Pack Qty.	€
620	8 (S)	**ECY4.1**	1 pair	18,25
630	9 (M)	**ECY5.1**	1 pair	18,25
640	10 (L)	**ECY6.1**	1 pair	18,25
650	11 (XL)	**ECY7.1**	1 pair	18,25

Chemical protection gloves

Cat. III

Chemical protection gloves SHOWA 772

SHOWA. Material: Nitrile.

Acc. to EN 420, EN ISO 371-1/type B (JKL), EN ISO 374-5, EN 388 (4111X). Cotton/polyester jersey lining with nitrile outer coating.
The additional coating over the entire hand offers improved protection against chemicals.

- Anatomically shaped hand
- Extended bonded sleeve, stitched with elasticated edging, means that it stays correctly adjusted
- Rough finish over entire surface for improved sense of touch and better grip
- Flexible, robust and abrasion-resistant
- Absorbs perspiration; comfortable even when worn for extended periods
- Protects against oils, hydrocarbons, fats and abrasion; offers effective, lasting grip
- Eyelet for airing and hanging up
- Colour: Yellow; wall thickness: approx. 0.8 mm

Applications: for working in damp or oily environments; for securely taking hold of objects. Petrochemical and refinery, etc.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
650	8 (M)	yellow	**ECY8.1**	1 pair	20,10
650	9 (L)	yellow	**ECY9.1**	1 pair	20,10
650	10 (XL)	yellow	**EEA0.1**	1 pair	20,10

Cat. III

Chemical protection gloves SHOWA 874R

SHOWA. Material: Butyl rubber.

Acc. to EN 420, EN 388 (0010X), EN ISO 374-1/Typ B (BIK), EN ISO 374-5 (Virus). Thin chemical protection glove with rough surface in the hand area to increase grip of smooth and wet parts. Good finger mobility and tactile sensitivity. Long cuff with rolled edge. Unlined. Wall thickness 0.35 mm.

Length (mm)	Size	Art. No.	Pack Qty.	€
350	7	**CE42.1**	1 pair	40,75
350	8	**CE43.1**	1 pair	40,75
350	9	**CE44.1**	1 pair	40,75
350	10	**CE45.1**	1 pair	40,75
350	11	**CE46.1**	1 pair	40,75

Cat. III

Chemical protection gloves Butoject® 897+

KCL by Honeywell. Material: Butyl rubber.

Acc. to EN 420, EN 388 (2000X) and EN ISO 374-1/type A (ABCIKL), EN ISO 374-5 (virus). AQL 0.65.
A highly flexible, extremely protective chemical-resistant glove suitable for work with esters and ketones, among other chemicals. Ideal for laboratory use. With rolled edge, powdered inside.
Wall thickness 0.3 mm.

- With special surface texturing for increased grip when handling wet objects
- Designed for a tight fit, and therefore also suitable for precision work or as undergloves
- Excellent mechanical resistance and gas-tightness
- Exceptional flexibility at low temperatures and good ozone resistance

Length (mm)	Size	Art. No.	Pack Qty.	€
350	7	**AXN0.1**	1 pair	59,35
350	8	**AXN1.1**	1 pair	59,35
350	9	**AXN2.1**	1 pair	59,35
350	10	**AXN3.1**	1 pair	59,35
350	11	**AXN4.1**	1 pair	59,35

Chemical protection gloves

Cat. III

Chemical protection gloves Butoject® 898

KCL by Honeywell. Material: Butyl rubber.

Acc. to EN 420, EN 421, EN 388 (2111X) and EN ISO 374-1/Typ A (BCIKLM), EN ISO 374-5 (Virus). AQL 0.65. For use in the chemical industry, in paint, varnish, adhesive and plastics manufacturing, and in the manufacture and use of pesticides. Suitable for short-chain esters, ketones and aldehydes, diluted to concentrated acids and bases, organic acids, saturated saline solutions, alcohols, plasticizers, etc. With rolled edge. Length approx. 350 mm, thickness approx. 0.7 mm.

Length (mm)	Size	Art. No.	Pack Qty.	€
350	9	**A621.1**	1 pair	33,25
350	10	**A622.1**	1 pair	33,25
350	11	**A623.1**	1 pair	33,25
350	8	**K626.1**	1 pair	33,25

Cat. III

Chemical protection gloves Vitoject® 890

KCL by Honeywell. Material: Fluorinated rubber.

Made of 100% fluorinated rubber (Viton®). Acc. to EN 420, EN 388 (3101X) and EN ISO 374-1/Typ A (DFGKLM), EN ISO 374-5 (Virus). AQL 0.65. Gas-tight. Fully anatomical shape, with rolled edge, smooth, powdered on the inside. Wide fit, enables use of undergloves. Thickness 0.7 mm.

For use when working with particularly aggressive chemicals, such as aliphatic, aromatic and chlorinated hydrocarbons, diluted to concentrated acids, saturated saline solutions, long-chained alcohols, glycol and glycerol, anilines, benzines, etc. **Observe resistant chart.** Not resistant to esters and ketones.

Length (mm)	Size	Art. No.	Pack Qty.	€
350	8	**LH87.1**	1 pair	168,80
350	9	**A398.1**	1 pair	168,80
350	10	**A399.1**	1 pair	168,80
350	11	**A400.1**	1 pair	168,80

Cat. III

Chemical protection gloves SHOWA 892

SHOWA. Material: Fluorinated rubber, Butyl rubber.

Acc. to EN 420, EN 388 (1010X), EN ISO 374-1/Typ B (DFL), EN ISO 374-5 (Virus). Thin chemical protection glove made with a Viton® top layer and butyl bottom layer, unlined. Very high flexibility and good tactile sensitivity. Anatomically formed, cuffs with rolled edge. Smooth surface, thickness 0.3 mm.

Suitable for handling aromatic, aliphatic and chlorinated hydrocarbons, organics and inorganic acids, bases, animal fats and oils.

Length (mm)	Size	Art. No.	Pack Qty.	€
300	7	**CY66.1**	1 pair	119,35
300	8	**CY67.1**	1 pair	119,35
300	9	**CY68.1**	1 pair	119,35
300	10	**CY69.1**	1 pair	119,35
300	11	**CY70.1**	1 pair	119,35

Chemical protection gloves

Cat. III

Glovebox protective gloves AlphaTec® 55-100

Ansell. Material: Natural rubber.

Acc. to EN 420, EN ISO 374-1/type A (KLNOPT), EN ISO 374-5 (virus), EN 388 (2020X), AQL 0.65.

- Made of natural rubber, without carrier material
- Enhanced finger mobility for improved handling of objects
- With rolled edge
- Smooth surface, natural colour
- Wall thickness 0.51 mm
- Port (shaft size) 150 mm (6 inches)

Applications: Biotechnology, chemical and pharmaceutical research, chemical processing, laboratory work and analyses, particularly when acid resistance is required, processing of chemical and biological products, product protection work.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
711	9	natural	**HLT8.1**	1 pair	141,65

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Cat. II

Multi-purpose gloves HyFlex® 48-105 (formerly SensiLite®)

Ansell. Material: Nylon.

Acc. to EN 420, EN 388 (003XA). Lightweight multi-purpose glove for work that sometimes requires abrasion resistance and grip.

- Made of seamless nylon, with knitted cuff and PU-coated fingertips
- Only the fingertips are coated, ensuring maximum breathability and good wear comfort
- Outstanding fit and good mobility allow precise handling of small objects
- For protection against skin abrasion
- Length 210–265 mm

Size	Art. No.	Pack Qty.	€
7	**LY23.1**	12 pair	32,95
8	**LY24.1**	12 pair	32,95
9	**LY25.1**	12 pair	32,95
10	**LY26.1**	12 pair	32,95

Cat. II

Cut-resistant gloves PolyTRIX® 911

KCL by Honeywell. Material: Polyamide, Cotton.

Acc. to EN 420, EN 388 (2140). Lightweight protective gloves made of 70% polyamide and 30% cotton, white. Can be worn on either hand. Breathable, seamless knit, adjusts to the skin. With elastic knitted cuff. Length: 230–270 mm. Washable.

Applications: Laboratory work, precision work, light assembly work.

Size	Colour	Art. No.	Pack Qty.	€
7	white	**CC05.1**	5 pair	22,00
8	white	**CC06.1**	5 pair	22,00
9	white	**CC07.1**	5 pair	22,00
10	white	**CC08.1**	5 pair	22,00

Cut resistant gloves

Cat. II

Multi-purpose gloves EDGE® 76-200 (formerly Stringknits™)

Ansell. Material: Nylon.

Acc. to EN 420, EN 388 (2140). Seamless knitted gloves made of lightweight nylon (soft, comfortable, flexible and low-fluff).
With knitted cuff. Breathable. Can be worn on either hand.
Colour: White. Length 190-235 mm. Washable up to max. 40 °C.

Applications: General work, precision work, precision assembly of dry components and packing work. Also suitable as undergloves

Size	Colour	Art. No.	Pack Qty.	€
7	white	**XY00.1**	12 pair	26,40
8	white	**XY01.1**	12 pair	26,40
9	white	**XY02.1**	12 pair	26,40
10	white	**XY03.1**	12 pair	26,40

Cat. II

Cut-resistant gloves with dimples

Fitzner Arbeitsschutz. Material: Polyamide, Cotton.

Acc. to EN 420 and EN 388 (224XX).
Double-layer finely knitted gloves, cotton inside, polyamide outside.
Seamless circular knit with knitted cuff. Palms with vinyl dimples.

- Skin-friendly and pleasant to wear
- Excellent fit and flexible
- Secure grip
- Excellent wear resistance for long service life
- Colour white/dimples green

Size	Colour	Art. No.	Pack Qty.	€
7	white, green	**HNC2.1**	6 pair	13,30
8	white, green	**HNC3.1**	6 pair	13,30
9	white, green	**HNC4.1**	6 pair	13,30
10	white, green	**HNC5.1**	6 pair	13,30

Cat. II

Multi-purpose gloves Pro-Fit 39122

Fitzner Arbeitsschutz. Material: Polyamide, PU.

Acc. to EN 420 and EN 388 (3131X). Seamless circular knit with elasticated knitted cuff. Palms and fingertips with polyurethane coating.
Colour: White.

- Breathable, comfortable to wear
- Excellent fit
- Secure grip with excellent dexterity
- High resistance to wear for a long service life

For protection against minor cuts and piercing injuries

Size	Colour	Art. No.	Pack Qty.	€
6	white	**HEN1.1**	12 pair	19,10
7	white	**HEN2.1**	12 pair	19,10
8	white	**HEN3.1**	12 pair	19,10
9	white	**HEN4.1**	12 pair	19,10
10	white	**HEN5.1**	12 pair	19,10

Cat. II

Multi-purpose gloves Pro-Fit S541

Fitzner Arbeitsschutz. Material: Polyamide, PU.

Acc. to EN 420 and EN 388 (4131X). Seamless circular knit with elasticated knitted cuff. Palms and fingertips with polyurethane coating.
Colour: grey/grey.

- Breathable, comfortable to wear
- Excellent fit
- Secure grip with excellent dexterity
- High resistance to wear for a long service life

For protection against minor cuts and piercing injuries.

Size	Art. No.	Pack Qty.	€
7	**HNA3.1**	12 pair	16,25
8	**HNA4.1**	12 pair	16,25
9	**HNA5.1**	12 pair	16,25
10	**HNA6.1**	12 pair	17,70

Cut resistant gloves

Cat. II

Multi-purpose gloves HyFlex® 48-101 (formerly SensiLite®)

Ansell. Material: Nylon.

Acc. to EN 420, EN 388 (4131A). Robust finely knitted gloves made of nylon, with kitted cuff and polyurethane-coated palm. Colour: black. Length 210–265 mm. For protection against skin abrasion.
Good mobility for handling small parts. Length 210–265 mm.

Applications: general work, assembly, inspection and packing of small components.

Size	Colour	Art. No.	Pack Qty.	€
6	black	**XY83.1**	12 pair	37,75
7	black	**XY84.1**	12 pair	37,75
8	black	**XY85.1**	12 pair	37,75
9	black	**XY86.1**	12 pair	37,75
10	black	**XY87.1**	12 pair	37,75
11	black	**XY88.1**	12 pair	37,75

Cat. II

Multi-purpose gloves Ninja Maxim NFT®

Fitzner Arbeitsschutz. Material: Polyamide.

Acc. to EN 420 and EN 388 (4141).
Finely knitted gloves made of polyamide/elastane, seamless circular knit with knitted cuff. Palms and fingertips with foamed NFT® nitrile coating.

- Excellent fit and flexible, therefore comfortable to wear
- Excellent tactile sensitivity, especially breathable
- Secure grip in dry, oily and moist environments
- Excellent wear resistance for long service life
- Colour grey/black

Size	Colour	Art. No.	Pack Qty.	€
7	grey, black	**HNA7.1**	2 pair	10,05
8	grey, black	**HNA8.1**	2 pair	10,05
9	grey, black	**HNA9.1**	2 pair	10,05
10	grey, black	**HNC0.1**	2 pair	10,05
11	grey, black	**HNC1.1**	2 pair	10,05

Cat. II

Multi-purpose gloves SHOWA 310 Grip Green

SHOWA. Material: Polyester, Cotton.

Acc. to EN 420, EN 388 (2142X).
Seamless polyester/cotton knitted fabric with latex-coated palm and elasticated cuff. A flexible and robust glove offering excellent dexterity and good resistance to tearing.

- Breathable back for reduced moisture
- Suitable for use in wet and moist environments
- Surface is specially treated for a more tactile feel and better grip
- Anatomically shaped for greater freedom of movement and extra comfort during extended periods of wear
- Length 220–270 mm

Applications: farming, gardening, construction, outdoor work.

Size	Art. No.	Pack Qty.	€
7	**CAN2.1**	10 pair	41,60
8	**CAN3.1**	10 pair	41,60
9	**CAN4.1**	10 pair	41,60
10	**CAN5.1**	10 pair	41,60
11	**CAN6.1**	10 pair	41,60

Cut resistant gloves

Cat. II

Cut-resistant gloves Camapur® Comfort 625+

KCL by Honeywell. Material: Polyamide.

Acc. to EN 420, EN 388 (3131), meets the requirements of EN 16350:2004 for protective gloves against electrostatic hazards. Resistance <1x10^8 Ohm; test atmosphere: Air temperature (23 ± 1)°C, relative humidity (25 ± 5)%.
Made of seamless polyamide jersey with a copper thread. With knitted cuff and polyurethane coating on the palm and fingers. Can be washed without affecting the antistatic properties.

- High breathability
- Excellent fit and extremely high touch sensitivity
- Secure grip on oil-covered parts thanks to roughened PU coating
- Length: 220–260 mm

Can be used for precision and assembly tasks in the electrical industry, chip handling/processing and microelectronics.

Size	Art. No.	Pack Qty.	€
7	**HH29.1**	5 pair	45,40
8	**HH30.1**	5 pair	45,40
9	**HH31.1**	5 pair	45,40
10	**HH32.1**	5 pair	45,40

Cat. II

Cut-resistant gloves NevoCut® 923

KCL by Honeywell. Material: Polyamide, PE.

Acc. to EN 420, EN 388 (3540). Made of seamless jersey (polyamide and high-strength polyethylene HPPE fibre) with knitted cuff. **Very high level of protection against cutting (Level 5)**, without limiting mobility. Excellent tactile sensitivity and high wear comfort. Can be worn on both hands, washable. Length 230–270 mm.

Applications: Work which involves a high risk of cutting, e.g. work with scalpels or doctor blades. Suitable for contact with foodstuffs.

Size	Art. No.	Pack Qty.	€
7	**CYC0.1**	1 pair	25,75
8	**CYC1.1**	1 pair	25,75
9	**CYC2.1**	1 pair	25,75
10	**CYC3.1**	1 pair	25,75

Cat. II

Multi-purpose gloves HyFlex® 11-800

Ansell. Material: Nylon, Nitrile.

Acc. to EN 420, EN 388 (3131A). Seamless knit all-purpose protective gloves made of elastic nylon. Palm area coated with breathable nitrile foam.

- Excellent freedom of movement for fatigue-free work
- Secure grip
- For handling dry or slightly oiled components
- Light protection when working with mechanical parts
- High abrasion resistance
- Length: 220–265 mm

Applications: Light assembly work in the automotive, plastics, textile and consumer goods industries, warehouse and logistics operations.

Size	Art. No.	Pack Qty.	€
7	**EP06.1**	2 pair	13,15
8	**EP07.1**	2 pair	12,50
9	**EP08.1**	2 pair	12,50
10	**EP09.1**	2 pair	12,50

Cut resistant gloves

Cat. II

Cut-resistant gloves phynomic wet

UVEX.

Acc. to EN 420, EN 388 (3131X). Made of polyamide/elastane, palm and fingertips with aqua polymer foam coating. With knitted cuff.

- Absolute cleanliness – **uvex pure standard**, very gentle to skin
- Perfect fit, outstanding natural feel
- Maximum flexibility
- Outstanding dry and wet grip
- Oil/emulsions roll off, oil is absorbed
- High breathability ensures optimum wear comfort
- Length 210–250 mm

Suitable for precision work, assembly work, maintenance work, dry areas and moist/oily working conditions.

Size	Art. No.	Pack Qty.	€
7	**XC93.1**	2 pair	14,70
8	**XC94.1**	2 pair	14,70
9	**XC95.1**	2 pair	14,70
10	**XC96.1**	2 pair	14,70

Cat. II

Cut-resistant gloves Camapur® Cut 627

KCL by Honeywell.

Acc. to EN 420, EN 388 (4341). Seamless grey-flecked jersey made of HPPE fibres (polyethylene) with knitted cuff and black polyurethane coating on the palm and fingers

- High tactile sensitivity, mechanical resistance and wearing comfort
- Very good cut protection values
- Good grip, even of wet and slippery objects
- Layer thickness approx. 1.2 mm, length 220–260 mm

Applications: Assembly work with a medium risk of cutting, processing of metal and plastic profiles

Size	Art. No.	Pack Qty.	€
7	**KL18.1**	2 pair	38,50
8	**KL19.1**	2 pair	38,50
9	**KL20.1**	2 pair	38,50
10	**KL21.1**	2 pair	38,50

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Cut resistant gloves

Cat. II

Cut-resistant gloves K-TEX® 930

KCL by Honeywell. Material: Para-aramid, Natural latex.

Acc. to EN 420 and EN 388 (3444). Para-aramid jersey with knitted cuff and natural latex coating with wrinkle finish on the palm and fingers.

- The uncoated backs provide good breathability
- The anatomic fit enable enables fatigue-free work over long periods
- Excellent flexibility and grip
- Heavy-duty, but still gives high touch sensitivity
- Length 230–270 mm

Applications: Metalworking, glass industry, plastics industry, etc. Heavy-duty.

Size	Art. No.	Pack Qty.	€
7	**K961.1**	1 pair	28,70
8	**K962.1**	1 pair	28,70
9	**K963.1**	1 pair	28,70
10	**K964.1**	1 pair	28,70

Cat. II

Cut-resistant gloves SHOWA 8110

SHOWA.

Acc. to EN 420, EN 388 (2X43E). Acc. to 1935/2004 – suitable for contact with foodstuffs. Seamless knitted fabric made of high-performance polyethylene (HPPE, Spectra fibres). Uncoated, untreated. With elasticated cuff. Can be worn on either hand.

- Effective protection against cutting and a long service life
- Excellent dexterity and tactile feel
- Minimum allergy risk
- No skin irritation caused by stitching
- High freedom of movement for the wrist
- Length 240–320 mm

Applications: Work requiring a high level of protection against cutting and dexterity. Food processing.

Size	Art. No.	Pack Qty.	€
6	**ECT2.1**	1 pair	30,25
7	**ECT3.1**	1 pair	30,25
8	**ECT4.1**	1 pair	30,25
9	**ECT5.1**	1 pair	30,25
10	**ECT6.1**	1 pair	30,25

Cat. II

Cut-resistant gloves SHOWA 542X

SHOWA. Material: HPPE.

Acc. to EN 420 and EN 388 (2240A). Seamless knitted gloves made of polyethylene (HPPE). Without coating, thin and flexible, good protection against cutting. Washable at max. 40 °C with neutral detergent. (The performance level according to standard EN 388 is no longer guaranteed after washing). Length: 205–220 mm.

Ideal for precision work.

Size	Art. No.	Pack Qty.	€
7	**CA01.1**	1 pair	14,55
8	**CA02.1**	1 pair	14,55
9	**CA03.1**	1 pair	14,55

Cut resistant gloves

Cat. III

Cut-resistant gloves ActivArmr® 80-658 (formerly Powerflex®)

Ansell. Material: Steel, Nylon, Glass fibre, Cotton.

Acc. to EN 388 (XX43E), EN 407 (X2XXXX). Made of steel, nylon, glass fibre, cotton and Kevlar®, with ¾ coating made of natural rubber with wrinkle finish, water-repellent.

- Extremely high cut, abrasion and penetration resistance
- Rough coating provides secure grip
- Great protection against contact heat for secure handling of warm objects
- Extended knitted cuff for ideal forearm protection
- Length 260–295 mm

Size	Art. No.	Pack Qty.	€
6	**PA77.1**	1 pair	24,05
7	**PA78.1**	1 pair	24,05
8	**PA79.1**	1 pair	25,30
9	**PA80.1**	1 pair	24,05
10	**PA81.1**	1 pair	24,05
11	**PA82.1**	1 pair	24,05

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Pierce-resistant glove niroflex 2000

Friedrich Muensch. Material: Stainless steel.

Metal mesh gloves, tested according to DIN EN 1082-1/ISO 13999-1. Protects the hands against cutting and piercing injuries.

- High wear comfort and fatigue-free work
- Patented locking hook for simple, continuously adjustable locking
- Easy to use without spare parts such as press studs, clasps and spare straps
- Metal mesh end strap
- Exceptional fit thanks to ergonomic design without excess metal mesh at the fingertips
- Colour-coded cuff to quickly identify the size
- Flexible cuff makes the glove extremely comfortable to wear and prevents slipping
- Can be worn on the right or left hand
- Easy to clean without leaving residue
- Ring outer Ø 4.2 mm, wire thickness 0.55 mm

Without cuff

Size	Art. No.	Pack Qty.	€
S	**K173.1**	1 unit(s)	107,45
M	**K174.1**	1 unit(s)	107,45
L	**K175.1**	1 unit(s)	107,45

With cuff 190 mm

Size	Art. No.	Pack Qty.	€
S	**KAY7.1**	1 unit(s)	184,90
M	**KAY8.1**	1 unit(s)	184,90
L	**KAY9.1**	1 unit(s)	184,90

Accessories for gloves glove tensioner for pierce-resistant gloves

Friedrich Muensch.

Fixes the pierce-resistant gloves for an optimal, secure fit.

Colour	Art. No.	Pack Qty.	€
blue	**KCA0.1**	100 unit(s)	26,90

Cat. II

Safety gloves Power type

Köninger. Material: Leather.

Acc. to EN 420, EN 388 (2132). Made of grey split cowhide, not elasticated. Cuff and back made of drill.

Length (mm)	Size	Art. No.	Pack Qty.	€
260	10,5	**0024.1**	5 pair	18,45

Cat. II

Safety gloves RewoMech® 640

KCL by Honeywell. Material: Polyester, Polyamide, PU.

Acc. to EN 420, EN 388 (2121). An alternative to leather gloves.

- Breathable backing fabric made of 97% polyester with 3% elastane
- Palm reinforced with resistant synthetic leather (60% polyamide/40% polyurethane)
- Thumb back with cotton wool Terry cloth for sweat absorption
- Cuff with Velcro fastening system for secure fit
- Secure grip even of wet parts
- Good fit enables fatigue-free work over long periods
- Sensitive for working with delicate objects
- Ventilation holes between the fingers
- Flexible at low temperatures to approx. -20 °C max.
- Temperature stable up to max. 130 °C
- Colour: grey/black
- Length approx. 230–280 mm, layer thickness approx. 0.70 mm

Size	Colour	Art. No.	Pack Qty.	€
7	grey, black	**HE68.1**	2 pair	38,50
8	grey, black	**HE69.1**	2 pair	38,50
9	grey, black	**HE70.1**	2 pair	38,50
10	grey, black	**HE71.1**	2 pair	38,50
11	grey, black	**HE72.1**	2 pair	38,50

Cat. II

Safety gloves Sahara® 100

KCL by Honeywell. Material: Cotton, Nitrile.

Acc. to EN 420 and EN 388 (3111). The **high-quality nitrile coating** guarantees excellent physical properties. The lightweight, flexible and robust glove provides safe, comfortable protection against mechanical stress. For example, it protects against cuts and piercing wounds. First-class cotton jersey and coating-free back give the glove excellent dexterity and high wear comfort.

Size	Art. No.	Pack Qty.	€
7	**K290.1**	2 pair	15,05
8	**K291.1**	2 pair	15,05
9	**K292.1**	2 pair	15,05
10	**K293.1**	2 pair	15,05

Cat. II

Safety gloves made of Nappa leather

JAH. Material: Leather.

Acc. to EN 420, EN 388 (2111). Protection against moderate mechanical hazards. Soft, specially selected Nappa leather (goat or sheep). Good wear comfort, with leather finger walls.

Size	Art. No.	Pack Qty.	€
8	**1744.1**	2 pair	15,10
9	**1747.1**	2 pair	15,20
10	**1748.1**	2 pair	15,20

Work gloves

Cat. I

Cotton gloves

ROTH SELECTION. Material: Cotton 100%.

Jersey gloves with finger walls, anatomic thumb, lined. White, bleached. Öko Tex Standard 100. Suitable for foodstuffs. Breathable, wearing comfort, precise fit, excellent tactile sensitivity.

Application: Product protection or as underglove

Medium-duty length approx. 24 cm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
240	7	natural	**ENC3.1**	12 pair	26,90
240	8	natural	**ENC4.1**	12 pair	26,90
240	9	natural	**ENC5.1**	12 pair	26,90
240	10	natural	**ENC6.1**	12 pair	29,70
240	11	natural	**ENC7.1**	12 pair	29,70

Heavy-duty length approx. 24 cm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
240	7	natural	**0514.2**	12 pair	33,50
240	11	natural	**0557.2**	12 pair	36,35

Medium-duty extra-long approx. 35 cm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
350	8	natural	**ENC8.1**	6 pair	23,35
350	10	natural	**ENC9.1**	6 pair	23,35

Cat. I

Undergloves of cotton

ROTH SELECTION. Material: Cotton 100 %.

Tricot gloves, ambidexterous, lined. Natural white, unbleached. Öko Tex standard 100. Breathable, wearing comfort, excellent tactile sensitivity.

Application: Product protection or as underglove.

Size	Colour	Art. No.	Pack Qty.	€
7	natural	**ENE0.1**	12 pair	27,55
8	natural	**ENE1.1**	12 pair	27,55
10	natural	**0068.2**	12 pair	16,65

Cat. I

Undergloves JACKSON SAFETY G35

Kimberly-Clark. Material: Nylon 100%.

Designed for working in segments with a high level of product and process protection.

- Seamless design – minimises skin irritation and offers improved breathability as well as wear comfort
- Can be worn on either hand
- Colour: White
- Colour-coded cuffs for the various sizes
- Silicone-free
- Packaged in a polybag

Applications: for general use, ideal for the automotive and aviation industries and for lint-free and silicone-free tasks in particular to avoid reworking.

Size	Colour	Art. No.	Pack Qty.	€
XS	white	**KAA9.1**	12 pair	19,10
S	white	**KAC0.1**	12 pair	19,10
M	white	**KAC1.1**	12 pair	19,10
L	white	**KAC2.1**	12 pair	19,10
XL	white	**KAC3.1**	12 pair	19,10

Cold resistant gloves

Cat. II

Cold protection gloves ActivArmr® 78-110 (formerly proFood®)

Ansell.

Acc. to EN 420, EN 388 (214XA), EN 511 (010) and EN 407 (X1XXXX). Seamless knit. With knitted cuff, contains natural latex.

- Special hollow fibres provide cold and heat protection
- Direct moisture away from the skin, form a heat insulation barrier between the skin and ambient air
- Lightweight and stretchy, can be worn on either hand
- Seamless design prevents chafing or skin irritation
- Made from materials for the food industry
- Machine-washable up to 40 °C
- Protection against contact heat up to 100 °C: 15 sec

Applications:

- As a stand-alone glove in cold and frosty conditions, e.g. non-sterile handling of dry foods
- As an inner glove when processing meat and fish

Size	Art. No.	Pack Qty.	€
7	**EA80.1**	2 pair	14,25
9	**EA81.1**	2 pair	14,25

NEW / +

Cat. II

Cold protection gloves Ice-Grip® 691

KCL by Honeywell. Material: Nylon, PVC.

Acc. to EN 420, EN 388 (2121), EN 511 (120). Acc. to EU 1935/2004 suitable for handling and processing foodstuffs.
The breathable, lightweight and well-insulated Thinsulate® material is used as lining. Palm with PVC coating, plus well sealed, insulating knitted cuff. Length 280–330 mm.

- High cold protection combined with touch sensitivity
- The lightweight materials and fit provide high wear comfort
- Secure grip even of wet parts
- Breathable without leaving moisture on the hands
- Resistant to cold down to -50 °C

Size	Colour	Art. No.	Pack Qty.	€
7	dark blue, grey	**CC00.1**	1 pair	17,80
8	dark blue, grey	**CC01.1**	1 pair	17,80
9	dark blue, grey	**CC02.1**	1 pair	17,80
10	dark blue, grey	**CC03.1**	1 pair	17,80

Cat. II

Cold protection gloves Cama Iso® 690+

KCL by Honeywell. Material: PVC, Cotton.

Acc. to EN 420, EN 388 (3221), EN 511 (121). Made of PVC, specially designed for working in cold environments. Excellent wear comfort, abrasion-resistant and highly flexible. With seamless warming cotton lining. Impervious to fluids. Textured surface for secure grip when handling wet parts. Length 290–310 mm, total layer thickness approx. 3.5 mm. Cold protection down to approx. -20 °C.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	9	brown	**K970.1**	1 pair	34,60
300	10	brown	**K971.1**	1 pair	34,60

Cold resistant gloves

NEW / +

Cat. III

Cold protection gloves Cryo-Gloves® water-repellent

Tempshield. Material: Nylon, Polyolefin, Polyester, Cotton.

Acc. to EN 420, EN 388 (1323) and EN 511 (32X).
Semi-permeable outer skin made of stitched nylon fabric. Seamless, laminated interior. Lightweight polyolefin/polyester lining in knitted cotton inner glove.

- Filling and decanting of large tank systems in cryogenic storage dewars
- Shock freezing and deep-freeze warehouses
- Filling of cold traps and measuring equipment
- Cryobanks, blood banks
- Deep-freeze preservation

Protection in the lowest temperature range down to -160 °C. Suitable for handling dry ice (-79 °C), operations in the gas phase of cryogenic liquefied media, such as **liquid nitrogen in the gas phase**.

Attention: Do not submerge in cryogenic liquids.

With knitted cuff, wrist length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
290	S (8)	blue	**0922.1**	1 pair	192,45
290	S (8)	pink	**1H7X.1**	1 pair	192,45
320	M (9)	blue	**0923.1**	1 pair	192,45
320	M (9)	pink	**1H89.1**	1 pair	192,45
320	L (10)	blue	**0924.1**	1 pair	192,45
320	L (10)	pink	**1H88.1**	1 pair	192,45

With cuff, forearm length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
345	S (8)	blue	**0926.1**	1 pair	197,30
345	S (8)	pink	**1H83.1**	1 pair	197,30
345	M (9)	blue	**0927.1**	1 pair	197,30
345	M (9)	pink	**1H87.1**	1 pair	197,30
390	L (10)	blue	**0928.1**	1 pair	197,30
390	L (10)	pink	**1H80.1**	1 pair	197,30
390	XL (11)	blue	**0929.1**	1 pair	207,50
390	XL (11)	pink	**1H7Y.1**	1 pair	207,50

With cuff, elbow length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
440	S (8)	blue	**1H85.1**	1 pair	257,50
440	S (8)	pink	**1H84.1**	1 pair	257,50
440	M (9)	blue	**5462.1**	1 pair	257,50
440	M (9)	pink	**1H86.1**	1 pair	257,50
485	L (10)	blue	**5468.1**	1 pair	257,50
485	L (10)	pink	**1H82.1**	1 pair	257,50
485	XL (11)	blue	**5483.1**	1 pair	261,25
485	XL (11)	pink	**1H81.1**	1 pair	261,25

With cuff, shoulder length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
625	M (9)	blue	**5506.1**	1 pair	299,95
685	L (10)	blue	**5508.1**	1 pair	299,95
685	XL (11)	blue	**5511.1**	1 pair	308,55

NEW / +

Cat. III

Cold protection gloves Cryo-Grip® Gloves, waterproof

Tempshield. Material: Nylon, Polyolefin, Polyester, Cotton.

Acc. to EN 420, EN 388 (2223X) and EN 511 (221). Semi-permeable outer skin made of stitched nylon fabric. Seamless, laminated interior. Lightweight polyolefin/polyester lining in knitted cotton inner glove. Increased grip on the palm for improved dexterity when handling smaller objects.
100 % waterproof design, with an additional seamless inner glove.

Protection in the lowest temperature range down to -160 °C. Suitable for handling dry ice (-79 °C), operations in the gas phase of cryogenic liquefied media, such as **liquid nitrogen in the gas phase**.
For long-term work in the gas phase and where there is a risk of wetting with liquids, or with **infectious** or **toxic** substances, for example. Penetration through the seams on the fingers is prevented.

Attention: Do not submerge in cryogenic liquids.

With knitted cuff, wrist length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
290	S (8)	blue	**1H6P.1**	1 pair	252,10
290	S (8)	pink	**1H6T.1**	1 pair	252,10
320	M (9)	blue	**1H6X.1**	1 pair	252,10
320	M (9)	pink	**1H6Y.1**	1 pair	252,10
320	L (10)	blue	**1H70.1**	1 pair	252,10
320	L (10)	pink	**1H71.1**	1 pair	252,10
320	XL (11)	blue	**1H72.1**	1 pair	255,35
320	XL (11)	pink	**1H73.1**	1 pair	255,35
320	XXL (12)	blue	**1H74.1**	1 pair	268,25

With cuff, forearm length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
345	S (8)	blue	**1H68.1**	1 pair	257,50
345	S (8)	pink	**1H69.1**	1 pair	257,50
345	M (9)	blue	**1H6A.1**	1 pair	257,50
345	M (9)	pink	**1H6C.1**	1 pair	257,50
390	L (10)	blue	**1H6E.1**	1 pair	257,50
390	L (10)	pink	**1H6H.1**	1 pair	257,50
390	XL (11)	blue	**1H6K.1**	1 pair	263,95
390	XL (11)	pink	**1H6L.1**	1 pair	263,95
390	XXL (12)	blue	**1H6N.1**	1 pair	278,45

Cold resistant gloves

With cuff, elbow length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
440	S (8)	blue	**1H7A.1**	1 pair	315,55
440	S (8)	pink	**1H7C.1**	1 pair	315,55
440	M (9)	blue	**1H7E.1**	1 pair	315,55
440	M (9)	pink	**1H7H.1**	1 pair	315,55
485	L (10)	blue	**1H7K.1**	1 pair	315,55
485	L (10)	pink	**1H7L.1**	1 pair	315,55
485	XL (11)	blue	**1H7N.1**	1 pair	319,85
485	XL (11)	pink	**1H7P.1**	1 pair	319,85
485	XXL (12)	blue	**1H7T.1**	1 pair	337,05

With cuff, shoulder length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
625	S (8)	blue	**1H75.1**	1 pair	385,95
625	M (9)	blue	**1H76.1**	1 pair	385,95
685	L (10)	blue	**1H77.1**	1 pair	385,95
685	XL (11)	blue	**1H78.1**	1 pair	392,40
685	XXL (12)	blue	**1H79.1**	1 pair	413,90

Cat. II

Heat-resistant gloves Jersey five-finger gloves

Fischer & CO. Material: Polyamide Nomex®.

Acc. to EN 420, EN 388 (1X1X) and EN 407 (X1XXXX). Made of Nomex polyamide fibre® from DuPont. Long service life, good dimensional stability, high wearing comfort, largely flame- and heat-resistant. The finely knitted jersey material is also suitable for more intricate work. Washable up to max. +95 °C.

Protection against contact heat up to:

- 100 °C: max. 33 sec
- 250 °C: max. 9 sec

Length (mm)	Size	Art. No.	Pack Qty.	€
260	6,5	**ALA1.1**	1 pair	38,85
260	7,5	**0138.1**	1 pair	38,85
260	8	**0141.1**	1 pair	38,85
260	8,5	**0143.1**	1 pair	38,85
260	9	**ALA2.1**	1 pair	38,85
350	6,5	**ALA3.1**	1 pair	49,85
350	7,5	**0145.1**	1 pair	50,10
350	8	**0147.1**	1 pair	50,10
350	8,5	**0148.1**	1 pair	50,20
350	9	**ALA4.1**	1 pair	49,85

Cat. II

Heat-resistant gloves 5-finger felt

Fischer & CO. Material: Polyamide Nomex®.

Acc. to EN 420, EN 388 (1x1x) and EN 407 (x2xxxx), made of 100% aramid felt (Nomex® from DuPont). Largely resistant to flames and heat.

Protection against contact heat up to:

- 100 °C: max 84 sec
- 250 °C: max 19 sec

Length (mm)	Size	Art. No.	Pack Qty.	€
270	10,5	**6584.1**	1 pair	50,35
350	10,5	**6599.1**	1 pair	55,35
400	10,5	**6604.1**	1 pair	60,00

Cat. II

Heat-resistant gloves Clavies™

Bel-Art Products. Material: Cotton.

Acc. to EN 420, EN 388 (2241) and EN 407 (X242XX). Made of 100% terry cotton. Anatomically shaped. Heat-resistant up to 232 °C. Ideal for handling dry autoclave material, for example. Machine-washable. Can be tumble-dried up to 70 °C. One size.

Length (mm)	Art. No.	Pack Qty.	€
330	**Y351.1**	1 pair	47,85
470	**Y352.1**	1 pair	66,15

Heat resistant gloves

Cat. III

Heat-resistant gloves KarboTECT®

KCL by Honeywell. Material: Para-aramid, Carbon, Cotton.

Acc. to EN 420, EN 388 (1340), EN 407 (4242XX), EU 1935/2004 suitable for handling foodstuffs. Heavy-duty seamless circular knit.

- Good thermal insulation
- High cutting resistance
- Good and tight fit for exact and precise handling
- Good wear comfort thanks to cotton inner glove
- Reduced static charging

Applications: Laboratories, heating and drying ovens, metal production and metalworking, commercial bakeries, retooling hot machines, refineries, all dry contact heat environments.

950 with knitted cuff
Good heat protection up to 250 °C. Washable up to 30 °C.
Length 240–260 mm.

Size	Art. No.	Pack Qty.	€
7	**Y431.1**	1 pair	47,45
9	**Y432.1**	1 pair	47,45
10	**Y433.1**	1 pair	47,45

L954 with leather cuffs
This combination enables work to be carried out at temperatures of up to 250 °C and protects large areas of the lower arm.
Length 380–400 mm.

Size	Art. No.	Pack Qty.	€
7	**TT84.1**	1 pair	70,15
9	**TT85.1**	1 pair	70,15
10	**TT86.1**	1 pair	70,15

Cat. II

Heat- and cut-resistant gloves SHOWA 240

SHOWA. Material: Glass fibre, Kevlar®, Modacryl, Neoprene.

Acc. to EN 420, EN 388 (3X31C), EN 407 (42212X). Seamless fine knit made of aramid (Kevlar®), modacrylic, glass fibre with foam neoprene coating on the palm.

- Flame-resistant materials
- Kevlar backing fabric provides high cut resistance
- Flat-dipped neoprene coating ensures extra-secure grip
- The ergonomic design matches the natural shape of the hand and therefore reduces user fatigue and improves fit and wearing comfort
- Protection against arcing: Arcing protection class 2
- Length 233–290 mm

Applications: Work requiring a high level of protection against cutting and heat. Building trade, metallurgy, oily working conditions.

Size	Art. No.	Pack Qty.	€
7 (S)	**ECP7.1**	1 pair	23,35
8 (M)	**ECP8.1**	1 pair	23,35
9 (L)	**ECP9.1**	1 pair	23,35
10 (XL)	**ECT0.1**	1 pair	23,35
11 (XXL)	**ECT1.1**	1 pair	23,35

Heat resistant gloves

Cat. II

Heat-resistant gloves SHOWA 8814 (formerly Charguard)

SHOWA. Material: Cotton, Polyester, Neoprene.

Acc. to EN 420, EN 388 (2242X), EN 407 (X2XXXX), (EC)1935/2004 suitable for contact with foodstuffs.

- Special heat insulation lining made of cotton and polyester with heat-resistant neoprene spray coating
- Textured surface
- Slip-on design so that the gloves are easy to put on and take off
- Heat resistant up to 260 °C
- Washable at max. 40 °C with neutral detergent

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
355	S	black	**LY89.1**	1 pair	26,35
355	M	black	**LY90.1**	1 pair	26,35
355	L	black	**LY91.1**	1 pair	26,35
355	XL	black	**LY92.1**	1 pair	26,35

Hand/finger heat protection

Funakoshi Co. Material: Silicone.

For touching hot or frozen objects. Temperature-stable from -60 to +230 °C. Slip-proof due to dimples. With hanger eyelet.
No personal protective equipment (PPE).

Finger version

Version	Art. No.	Pack Qty.	€
137 x 30 mm	**4694.1**	1 unit(s)	15,50

Hand version

Version	Art. No.	Pack Qty.	€
170 x 86 mm	**4693.1**	1 unit(s)	25,60

Cat. III

Heat-resistant gloves leather-aluminium

JUTEC. Material: Preox aramide, Leather, Aluminium.

Acc. to EN 420, EN 388 (4X4X), EN 407 (413444). Outer hand and cuff of flexible aluminium-coated preox-aramid fabric, palm made of heat-resistant Sebatan leather. Very soft and flexible.

- Protection against:
- Contact heat up to 100 °C for at least 15 sec.
- Contact heat (spatter) up to 250 °C for a limited time
- Radiated heat up to 1000 °C

Applications: Minor welding work, foundries, metalworking, ceramic furnaces.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Mitten	380	10	**TT82.1**	1 pair	76,80

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Heat resistant gloves

Cat. III

Heat-resistant gloves up to 500 °C

JUTEC. Material: Para-aramid.

Acc. to EN 420, EN 388 (1541), EN 407 (43434X).
Made of aramid fabric. Cut-resistant, abrasion-resistant, double-insulated.
Good mechanical strength even at high temperatures.
Usable on both sides.

Protection against contact heat up to:

- 350 °C: max. 20 sec
- 500 °C: max. 12 sec

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Mitten	300	10	**TX89.1**	1 pair	46,10
Five-finger glove	300	10	**HE73.1**	1 pair	55,65

Cat. III

Heat-resistant gloves Aramid aluminium

JUTEC. Material: Aramid, Aluminium.

Acc. to EN 388 (1542), EN 407 (413444). Aluminised preox-aramid fabric outer hand and cuff, aramid palm. Cut- and abrasion-resistant with insulation.
Protection against:

- Contact heat up to 100 °C for at least 15 sec.
- Spatter up to 250 °C for a limited time
- Radiated heat up to 1000 °C

Applications: Foundries, welding shops, furnace construction, metalworking, container construction.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Five-finger glove	380	9	**APX6.1**	1 pair	92,40
Five-finger glove	380	10	**TT81.1**	1 pair	92,40

Heat-resistant gloves Isotemp® R

Heinrich Vorndamme. Material: Leather.

Asbestos-free, acc. to EN 407, EN 420, palm area made of suede. Back and 15 cm long cuffs made of ISOTEMP®. Thick wool fur lining. Reliable protection of hands and forearms, excellent adhesiveness on smooth surfaces. Largely resistant to liquids and contact heat up to approx. +300 °C, radiation heat up to approx. +600 °C. Total length 35 cm.

Length (mm)	Art. No.	Pack Qty.	€
350	**0745.1**	1 pair	63,50

Cat. III

Heat-resistant gloves Preox-aramid aluminium

JUTEC. Material: Aluminium.

Acc. to EN 388 (3443), EN 407 (423444). Five-finger gloves. Outer shell and cuff made of preox-aramid fabric with aluminium, palm made of preox-aramid, carbon fibre reinforced. Cut- and abrasion-resistant with insulation. Soft aluminium coating, good handling. Universal size 10, length 380 mm.
Protection against:

- Radiated heat up to 1000 °C
- Min. 15 sec resistance to contact heat at 250 °C, short-term spatter resistance up to 600 °C

Applications: Foundries, furnace construction, glass processing, metalworking, etc.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Five-finger glove	380	10	**CNH6.1**	1 pair	104,05

Heat resistant gloves

Cat. III

Heat-resistant gloves Preox-aramid

JUTEC. Material: Preox aramide.

Acc. to EN 420, EN 388 (3542), EN 407 (43434). Made of preox-aramid fabric, double-insulated. Able to withstand mechanical stress, high cut protection. Can be worn on both sides as a cost-saving factor.

Protection against contact heat up to:

- 350 °C, for max. 19 sec
- 500 °C, for max. 11 sec

Applications: Transportation of hot cast parts, glass industry operations, pressing facilities, hardening plants, etc. Ideal for working with hot parts that must not exceed a short-term temperature of 350 °C.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Five-finger glove	300	10	**HE74.1**	1 pair	74,30
Five-finger glove	400	10	**HTH1.1**	1 pair	82,30
Five-finger glove	600	10	**HTH2.1**	1 pair	110,15

Cat. III

Heat-resistant gloves up to 900 °C

JUTEC.

Acc. to EN 420, EN 388 (23XX), EN 407 (44X224). Fabric mitten with special high-temperature coating, able to withstand mechanical stress, cut-resistant. Thumb at side, can be used on either hand.

Protection against contact heat up to:

- 500 °C: max. 16 sec
- 900 °C: max. thermal resistance of the material

Plus protection against small metal splashes and liquid iron and aluminium.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Mitten	300	10	**HE75.1**	1 pair	89,35

Cat. III

Heat-resistant gloves up to 1100 °C

JUTEC.

Acc. to EN 388, EN 407, EN 420. Silicate fabric mitten, triple-layer special insulation. Able to withstand slight mechanical stress, highly flexible even at high temperatures, soft surface, does not stick to hot glass.

Protection against contact heat up to:

- 500 °C: max. 24 sec
- 1100 °C: max. thermal resistance of the material

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Mitten	400	10	**HE76.1**	1 pair	191,35

Cat. III

Heat- and cut-resistant gloves ActivArmr® 43-216 (formerly WorkGuard™)

Ansell.

Acc. to EN 420, EN 388 (3243B), EN 407 (413X4X). Robust leather glove with jersey lining, sewn seam made of Kevlar®. With protective cuff. Special-purpose glove for heavy-duty work with excellent protection against molten metal spatter. Also suitable for general thermal protection. Outstanding durability and excellent protection against cutting. Reinforced palm for even higher abrasion resistance.

For thermal protection in many types of work, e.g. welding work, machine operation and work in environments where there is a danger of molten metal spatter. Not suitable for heavy-duty cutting work.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Five-finger glove	410	10	**XE56.1**	1 pair	17,85

Lab coat SEKUROKA®

ROTH SELECTION.

Made of mixed fabric (65% polyester, 35% cotton).

- **Concealed press stud buttons** – can be opened quickly if needed
- **Pocket for pens** – ensures that pens or scoops remain in the pocket when bending down
- **Sleeve ends can be adjusted in three different ways** – tighter cuffs make it easier to put on gloves. They also prevent the sleeves becoming caught on corners or objects
- 2 side pockets – right **double pocket, including one with a zip**
- Back seam with a practical slit, no back strap

Properties:

- Crease-resistant
- Comfortable to wear
- Easy care
- Can be washed at temperatures up to 60 °C, dry cleaning possible
- Fabric weight approx. 215 g/m²

For women length 114 cm

Women's size	Art. No.	Pack Qty.	€
36	**T410.1**	1 unit(s)	50,80
38	**T411.1**	1 unit(s)	50,80
40	**T412.1**	1 unit(s)	50,80
42	**T413.1**	1 unit(s)	50,80
44	**T414.1**	1 unit(s)	50,80
46	**T415.1**	1 unit(s)	50,80
48	**T416.1**	1 unit(s)	50,80

For men length 120 cm

Men's size	Art. No.	Pack Qty.	€
46	**T417.1**	1 unit(s)	54,00
48	**T418.1**	1 unit(s)	54,00
50	**T419.1**	1 unit(s)	54,00
52	**T420.1**	1 unit(s)	54,00
54	**T421.1**	1 unit(s)	54,00
56	**T422.1**	1 unit(s)	54,00
58	**T423.1**	1 unit(s)	54,00

Unisex lab coat with lapel

Bierbaum-Proenen.

Concealed buttons, long sleeve, 1 breast pocket, 2 side pockets, with a slit at the back. Length 103 cm. Öko-Tex Standard 100.

100% cotton
Fabric weight approx. 205 g/m². Easy-care, boil-proof, dry cleaning possible.

Size	Women's size	Men's size	Art. No.	Pack Qty.	€
XXS	–	38	**ELY1.1**	1 unit(s)	38,85
XS	32/34	40/42	**KT03.1**	1 unit(s)	44,05
S	36/38	44/46	**KT04.1**	1 unit(s)	44,05
M	40/42	48/50	**KT05.1**	1 unit(s)	44,05
L	44/46	52/54	**KT06.1**	1 unit(s)	44,05
XL	48/50	56/58	**KT07.1**	1 unit(s)	44,05
XXL	52/54	64/66	**KT08.1**	1 unit(s)	44,05
XXXL	56/58	64/66	**ELY2.1**	1 unit(s)	38,85

Made of mixed fabric of 65% polyester, 35% cotton
Fabric weight approx. 215 g/m². Robust, suitable for industrial washing, washable up to 95 °C.

Size	Women's size	Men's size	Art. No.	Pack Qty.	€
XS	32/34	40/42	**ELY3.1**	1 unit(s)	39,00
S	36/38	44/46	**ELY4.1**	1 unit(s)	39,00
M	40/42	48/50	**ELY5.1**	1 unit(s)	39,00
L	44/46	52/54	**ELY6.1**	1 unit(s)	39,00
XL	48/50	56/58	**ELY7.1**	1 unit(s)	39,00
XXL	52/54	60/62	**ELY8.1**	1 unit(s)	39,00

Unisex lab coat with stand-up collar

Bierbaum-Proenen.

Concealed buttons, long sleeve, 1 breast pocket, 2 side pockets, with a slit at the back. Length 103 cm. Öko-Tex Standard 100.

100% cotton
Fabric weight approx. 205 g/m². Easy-care, boil-proof, dry cleaning possible.

Size	Women's size	Men's size	Art. No.	Pack Qty.	€
XXS	–	38	**ELY9.1**	1 unit(s)	38,85
XS	32/34	40/42	**ENA0.1**	1 unit(s)	38,85
S	36/38	44/46	**ENA1.1**	1 unit(s)	38,85
M	40/42	48/50	**ENA2.1**	1 unit(s)	38,85
L	44/46	52/54	**ENA3.1**	1 unit(s)	38,85
XL	48/50	56/58	**ENA4.1**	1 unit(s)	38,85
XXL	52/54	60/62	**ENA5.1**	1 unit(s)	38,85
XXXL	56/58	64/66	**ENA6.1**	1 unit(s)	38,85

Made of mixed fabric of 65% polyester, 35% cotton
Fabric weight approx. 215 g/m². Robust, suitable for industrial washing, washable up to 95 °C.

Size	Women's size	Men's size	Art. No.	Pack Qty.	€
XS	32/34	40/42	**ENA7.1**	1 unit(s)	35,50
S	36/38	44/46	**ENA8.1**	1 unit(s)	35,50
M	40/42	48/50	**ENA9.1**	1 unit(s)	35,50
L	44/46	52/54	**ENC0.1**	1 unit(s)	35,50
XL	48/50	56/58	**ENC1.1**	1 unit(s)	35,50
XXL	52/54	60/62	**ENC2.1**	1 unit(s)	35,50

Work coat

UVEX.

Long sleeves, with lapel. Öko Tex Standard 100. Colour: cornflower blue.

(1) For women 100% cotton
Slightly fitted waist. Concealed metal stud fastenings. 2 sewn-on side pockets, left external breast pocket. Cuff width can be adjusted.

- Fabric weight approx. 210 g/m²
- Length approx. 105 cm
- Washable up to 60 °C

Women's size	Art. No.	Pack Qty.	€
36	**NN99.1**	1 unit(s)	49,70
38	**NP00.1**	1 unit(s)	49,70
40	**NP01.1**	1 unit(s)	49,70
42	**NP02.1**	1 unit(s)	49,70
44	**NP03.1**	1 unit(s)	49,70
46	**NP04.1**	1 unit(s)	49,70
48	**NP05.1**	1 unit(s)	56,85
50	**NP06.1**	1 unit(s)	56,85
52	**NP07.1**	1 unit(s)	56,85
54	**NP08.1**	1 unit(s)	56,85

(2) For men 65% polyester, 35% cotton
With short side vents. Concealed metal stud fastenings. 2 side pockets, 1 left external breast pocket, 1 right breast pocket. Cuff width can be adjusted.

- Fabric weight approx. 245 g/m²
- Length approx. 96 cm
- Washable up to 95 °C

Men's size	Art. No.	Pack Qty.	€
40/42	**NP09.1**	1 unit(s)	42,40
44/46	**NP10.1**	1 unit(s)	42,40
48/50	**NP11.1**	1 unit(s)	42,40
52/54	**NP12.1**	1 unit(s)	42,40
56/58	**NP13.1**	1 unit(s)	44,95
60/62	**NP14.1**	1 unit(s)	44,95
64/66	**NP15.1**	1 unit(s)	44,95

HACCP Unisex lab coat

Bierbaum-Proenen.

Acc. to DIN 10524:2004 (workwear according to HACCP for the food industry), risk class 1-3.
With inside pockets. Concealed press stud buttons, one inside breast pocket, two inside side pockets. The pockets can be sealed. Long sleeve, sleeve width can be adjusted using press studs.
Turn-down collar. Suitable for industrial washing acc. to ISO 15797 up to 60 °C.
Length 103 cm. Colour: white.

1673-500
Made from hard-wearing mixed fabric of 65% polyester, 35% cotton, fabric weight approx. 210 g/m².

Size	Women's size	Men's size	Art. No.	Pack Qty.	€
XS	32/34	40/42	**1AEH.1**	1 unit(s)	35,25
S	36/38	44/46	**1AEK.1**	1 unit(s)	35,25
M	40/42	48/50	**1AEL.1**	1 unit(s)	35,25
L	44/46	52/54	**1AEN.1**	1 unit(s)	35,25
XL	48/50	56/58	**1AEP.1**	1 unit(s)	35,25
XXL	52/54	60/62	**1AET.1**	1 unit(s)	35,25

Women's lab coat 4866

Bierbaum-Proenen.

- Stand-up collar with V-neck
- Body-fitting
- Hidden snap fasteners with one visible fastener
- 2 side pockets and 1 buzzer pocket
- Length 90 cm
- 100% cotton, Öko-Tex Standard 100
- Fabric weight approx. 205 g/m²
- **Suitable for industrial washing**, boil-washable and easy care

Women's size	Art. No.	Pack Qty.	€
36	**PE25.1**	1 unit(s)	49,25
38	**PE26.1**	1 unit(s)	49,25
40	**PE27.1**	1 unit(s)	49,25
42	**PE28.1**	1 unit(s)	49,25
44	**PE29.1**	1 unit(s)	49,25
46	**PE30.1**	1 unit(s)	49,25
48	**PE31.1**	1 unit(s)	49,25
50	**PE32.1**	1 unit(s)	49,25
52	**PE33.1**	1 unit(s)	49,25

Women’s lab coat 1699

Bierbaum-Proenen.

Regular fit. With lapel.

- Concealed stud fastenings
- One breast pocket, two side pockets
- Back with belt and slit
- Colour: White
- Length 105 cm

100% cotton
Very lightweight and breathable. Fabric weight 205 g/m². Washable at 95 °C.

Women's size	Art. No.	Pack Qty.	€
34	**1AEY.1**	1 unit(s)	35,25
36	**1AH0.1**	1 unit(s)	35,25
38	**1AH1.1**	1 unit(s)	35,25
40	**1AH2.1**	1 unit(s)	35,25
42	**1AH3.1**	1 unit(s)	35,25
44	**1AH4.1**	1 unit(s)	35,25
46	**1AH5.1**	1 unit(s)	35,25
48	**1AH6.1**	1 unit(s)	35,25
50	**1AH7.1**	1 unit(s)	35,25
52	**1AH8.1**	1 unit(s)	35,25

Mixed fabric
Made of 50% cotton, 50% polyester. Fabric weight: Approx. 215 g/m². **Suitable for industrial washing**, boil-washable and easy care.

Women's size	Art. No.	Pack Qty.	€
32	**PT46.1**	1 unit(s)	49,15
34	**PT47.1**	1 unit(s)	49,15
36	**PT48.1**	1 unit(s)	49,15
38	**PT49.1**	1 unit(s)	49,15
40	**PT50.1**	1 unit(s)	49,15
42	**PT51.1**	1 unit(s)	49,15
44	**PT52.1**	1 unit(s)	49,15
46	**PT53.1**	1 unit(s)	49,15
48	**PT54.1**	1 unit(s)	49,15
50	**PT55.1**	1 unit(s)	49,15
52	**PT56.1**	1 unit(s)	49,15
54	**PT57.1**	1 unit(s)	49,15

Women’s lab coat 1614

Bierbaum-Proenen.

With stand-up collar. Classic, professional, practical and functional. Standard fit. Öko-Tex Standard 100. Washable at 95 °C, suitable for industrial washing according to ISO 15797.

- Long sleeve
- Concealed stud fastenings
- One breast pocket, two side pockets
- Back with belt and slit

100% cotton
Very lightweight and breathable. Tissue weight: 205 g/m², Length: 108 cm.

Women's size	Art. No.	Pack Qty.	€
32	**1AAT.1**	1 unit(s)	35,25
34	**1AAX.1**	1 unit(s)	35,25
36	**1AAY.1**	1 unit(s)	35,25
38	**1AC0.1**	1 unit(s)	35,25
40	**1AC1.1**	1 unit(s)	35,25
42	**1AC2.1**	1 unit(s)	35,25
44	**1AC3.1**	1 unit(s)	35,25
46	**1AC4.1**	1 unit(s)	35,25
48	**1AC5.1**	1 unit(s)	35,25
50	**1AC6.1**	1 unit(s)	35,25
52	**1AC7.1**	1 unit(s)	35,25
54	**1AC8.1**	1 unit(s)	35,25

Mixed fabric, 50% cotton, 50% polyester
Cotton-soft on the inside, smooth on the outside and resistant. Tissue weight: 215 g/m², Length: 105 cm.

Women's size	Art. No.	Pack Qty.	€
32	**1AC9.1**	1 unit(s)	40,05
34	**1ACA.1**	1 unit(s)	40,05
36	**1ACC.1**	1 unit(s)	40,05
38	**1ACE.1**	1 unit(s)	40,05
40	**1ACH.1**	1 unit(s)	40,05
42	**1ACK.1**	1 unit(s)	40,05
44	**1ACL.1**	1 unit(s)	40,05
46	**1ACN.1**	1 unit(s)	40,05
48	**1ACP.1**	1 unit(s)	40,05
50	**1ACT.1**	1 unit(s)	40,05
52	**1ACX.1**	1 unit(s)	40,05

Women’s lab coat 1752

Bierbaum-Proenen.

Slim fit. With stand-up collar. Made of a light cotton fabric for pleasant wear comfort. 100% cotton, fabric weight 205 g/m².

- Long sleeve
- Concealed stud fastenings
- One breast pocket, two side pockets
- Silver inner collar for protection against discolouration
- Arm lift system for greater freedom of movement
- Back with slit
- Length 90 cm
- Washable at 95 °C

Women's size	Art. No.	Pack Qty.	€
34	**1AK1.1**	1 unit(s)	33,65
36	**1AK2.1**	1 unit(s)	33,65
38	**1AK3.1**	1 unit(s)	33,65
40	**1AK4.1**	1 unit(s)	33,65
42	**1AK5.1**	1 unit(s)	33,65
44	**1AK6.1**	1 unit(s)	33,65
46	**1AK7.1**	1 unit(s)	33,65
48	**1AK8.1**	1 unit(s)	33,65
50	**1AK9.1**	1 unit(s)	33,65
52	**1AKA.1**	1 unit(s)	33,65

Women’s lab coat 1754

Bierbaum-Proenen.

Slim fit. With lapel. Made of a light cotton fabric for pleasant wear comfort. 100% cotton, fabric weight 205 g/m².

- Long sleeve
- Concealed stud fastenings
- One breast pocket, two side pockets
- Silver inner collar for protection against discolouration
- Arm lift system for greater freedom of movement
- Back with slit
- Length 100 cm
- Washable at 95 °C

Women's size	Art. No.	Pack Qty.	€
34	**1AKC.1**	1 unit(s)	35,25
36	**1AKE.1**	1 unit(s)	35,25
38	**1AKH.1**	1 unit(s)	35,25
40	**1AKK.1**	1 unit(s)	35,25
42	**1AKL.1**	1 unit(s)	35,25
44	**1AKN.1**	1 unit(s)	35,25
46	**1AKP.1**	1 unit(s)	35,25
48	**1AKT.1**	1 unit(s)	35,25
50	**1AKX.1**	1 unit(s)	35,25
52	**1AKY.1**	1 unit(s)	35,25

Women’s lab coat 4874

Bierbaum-Proenen.

With lapel, body-fitting. High-quality, easy-care mixed fabric with stretch content and internal cotton for pleasant wear comfort. Made of 49 % cotton, 49 % polyester, 2 % elastolefin. Fabric weight 200 g/m².

- Long sleeve
- Concealed stud fastenings
- One breast pocket, two side pockets
- Discreet embroidery in metallic silver
- Back with slit
- Length 90 cm
- Washable at 95 °C

Women's size	Art. No.	Pack Qty.	€
36	**1AL3.1**	1 unit(s)	70,65
38	**1AL4.1**	1 unit(s)	70,65
40	**1AL5.1**	1 unit(s)	70,65
42	**1AL6.1**	1 unit(s)	70,65
44	**1AL7.1**	1 unit(s)	72,60
46	**1AL8.1**	1 unit(s)	72,60
48	**1AL9.1**	1 unit(s)	72,60

NEW / +

Men’s lab coat 1619

Bierbaum-Proenen.

Regular fit, classic, long and straight cut. The loose and comfortable fit gives wearers particularly high freedom of movement. Öko-Tex Standard 100.

- **With lapel**
- Long sleeve
- Concealed buttons
- One breast pocket, two side pockets
- Back with back strap and slit
- Length 110 cm

100% cotton
Very lightweight and breathable. Fabric weight 205 g/m².
Washable at 95 °C.

Men's size	Art. No.	Pack Qty.	€
46	**1H2A.1**	1 unit(s)	35,30
48	**1H2C.1**	1 unit(s)	35,30
50	**1H2E.1**	1 unit(s)	35,30
52	**1H2H.1**	1 unit(s)	35,30
54	**1H2K.1**	1 unit(s)	35,30
56	**1H2L.1**	1 unit(s)	35,30
58	**1H2N.1**	1 unit(s)	35,30
60	**1H2P.1**	1 unit(s)	35,30
62	**1H2T.1**	1 unit(s)	35,30
64	**1H2X.1**	1 unit(s)	35,30

Mixed fabric, 50% cotton, 50% polyester
Internal cotton for pleasant wear comfort, smooth on the outside and resistant. Fabric weight 215 g/m².
Washable at 95 °C and suitable for industrial washing according to ISO 15797.

Men's size	Art. No.	Pack Qty.	€
46	**1H2Y.1**	1 unit(s)	41,15
48	**1H30.1**	1 unit(s)	41,15
50	**1H31.1**	1 unit(s)	41,15
52	**1H32.1**	1 unit(s)	41,15
54	**1H33.1**	1 unit(s)	41,15
56	**1H34.1**	1 unit(s)	41,15
58	**1H35.1**	1 unit(s)	41,15
60	**1H36.1**	1 unit(s)	41,15
62	**1H37.1**	1 unit(s)	41,15
64	**1H38.1**	1 unit(s)	41,15

Men’s lab coat 1310

Bierbaum-Proenen.

Made of **100% cotton** Öko-Tex Standard 100. With concealed buttons, 1 breast pocket, 1 inner pocket and 2 side pockets (including a multi-purpose pocket). Length 96 cm. Fabric weight approx. 230 g/m².

Men’s lab coats

Pic.	Men's size	Art. No.	Pack Qty.	€
(2)	48/50	**PT58.1**	1 unit(s)	50,15
(2)	52/54	**PT59.1**	1 unit(s)	50,15
(2)	56/58	**PT60.1**	1 unit(s)	50,15
(2)	60/62	**PT61.1**	1 unit(s)	50,15

Men’s lab coat 1753

Bierbaum-Proenen.

Slim fit. 100% cotton. Light cotton fabric for pleasant wear comfort. Tissue weight: 205 g/m². Öko-Tex Standard 100.

- With lapel
- Long sleeve
- Concealed stud fastenings
- One breast pocket, two side pockets
- Silver inner collar for protection against discolouration
- Arm lift system for greater freedom of movement
- Back with slit
- Length 100 cm
- Washable at 95 °C

Men's size	Art. No.	Pack Qty.	€
44	**1AA6.1**	1 unit(s)	33,55
46	**1AA7.1**	1 unit(s)	33,55
48	**1AA8.1**	1 unit(s)	33,55
50	**1AA9.1**	1 unit(s)	33,55
52	**1AAA.1**	1 unit(s)	33,55
54	**1AAC.1**	1 unit(s)	33,55
56	**1AAE.1**	1 unit(s)	33,55
58	**1AAH.1**	1 unit(s)	33,55
60	**1AAK.1**	1 unit(s)	33,55
62	**1AAL.1**	1 unit(s)	33,55
64	**1AAN.1**	1 unit(s)	33,55

Ladies’ apron

Bierbaum-Proenen.

½ arm. With V-neck, without collar or back support. With snap fasteners. 1 breast pocket and 2 side pockets. Length 75 cm.
Made of **65% polyester, 35% cotton**, Öko-Tex Standard 100. Fabric weight approx. 215 g/m². Suitable for industrial washing, boil-washable and easy care.

Women's size	Art. No.	Pack Qty.	€
34	**PE14.1**	1 unit(s)	29,35
36	**PE15.1**	1 unit(s)	29,35
38	**PE16.1**	1 unit(s)	29,35
40	**PE17.1**	1 unit(s)	29,35
42	**PE18.1**	1 unit(s)	29,35
44	**PE19.1**	1 unit(s)	29,35
46	**PE20.1**	1 unit(s)	29,35
48	**PE21.1**	1 unit(s)	29,35
50	**PE22.1**	1 unit(s)	29,35
52	**PE23.1**	1 unit(s)	29,35
54	**PE24.1**	1 unit(s)	29,35

Men’s and women’s trousers

Bierbaum-Proenen.

Comfortable fit: Elasticised waistband with integrated drawstring and 2 side pockets. Inside length 82 cm.
Hard-wearing mixed fabric: 50% cotton, 50% polyester. Soft on the inside, smooth on the outside and resistant. Fabric weight approx. 215 g/m². **Suitable for industrial washing** at up to 95 °C.

Size	Art. No.	Pack Qty.	€
XS	**EE24.1**	1 unit(s)	31,55
S	**EE25.1**	1 unit(s)	31,55
M	**EE26.1**	1 unit(s)	31,55
L	**EE27.1**	1 unit(s)	31,55
XL	**EE28.1**	1 unit(s)	31,55
XXL	**EE29.1**	1 unit(s)	31,55

Protective suits, gowns, aprons

Disposable protective gown for visitors BeeSana®

Meditrade. Material: PP Non-woven.

Protects both personnel and visitors against germs.

Medical device class I MDD

- Gown with back closure
- With ties at the back of the neck and waist
- Elasticated cuffs
- Lightweight, breathable and moisture-repellent
- One size fits all

Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
white	140	23	**CAN0.1**	10 unit(s)	10,25
green	140	23	**CAN1.1**	10 unit(s)	17,00

Disposable protective gown for visitors MaiMed Coat Protect

MaiMed. Material: PP Non-woven.

Acc. to (EU)2017/745.

Protection against germs and dirt. Suitable for personnel and visitors.

Medical device class I

- Gown with back closure
- With ties at the neck and waist
- Elasticated cuffs (latex-free)
- Lightweight and breathable
- Moisture repellent
- One size (120 x 140 cm)

Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
green	140	21	**1CYX.1**	10 unit(s)	11,65

NEW / +

Cat. III

Overalls TYCHEM® 6000 F

DuPont Personal Protection. Material: TYCHEM® 6000 F (PE spun-bond), film-laminated.

Type 3, 4, 5 and 6 according to the European standards for chemical protection clothing.

- 100% particle-tight
- Lint-free, wear- and tear-resistant
- Antistatic acc. to EN 1149-1
- With hood and elastic at face, arms, legs and waist
- Taped double zip cover
- With special chin flap for optimal sealing of respiratory protection masks
- 100% tight seams

Protection against many organic chemicals and concentrated inorganic acids, bases and saline solutions. Fabric weight 120 g/m². Material thickness 206 µm.

Applications:

- Handling hazardous solid, liquid or gaseous substances
- Decontamination work
- Disposal of hazardous chemicals
- Working with pressurised hazardous substances
- Inspection and securing of accident sites in the event of leakages of unknown substances

Grey

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
S	162-170	grey	**1HEX.1**	1 unit(s)	45,80
M	168–176	grey	**1HEY.1**	1 unit(s)	45,80
L	174–182	grey	**1HH0.1**	1 unit(s)	45,80
XL	180–188	grey	**1HH1.1**	1 unit(s)	45,80
XXL	186–194	grey	**1HH2.1**	1 unit(s)	45,80
XXXL	186-194	grey	**1HH3.1**	1 unit(s)	45,80

Orange

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
M	168–176	orange	**AK33.1**	1 unit(s)	56,05
L	174–182	orange	**AK34.1**	1 unit(s)	56,05
XL	180–188	orange	**AK35.1**	1 unit(s)	56,05
XXL	186–194	orange	**AK36.1**	1 unit(s)	56,05

Protective suits, gowns, aprons

NEW / +

Cat. III

Overalls TYCHEM® 2000 C

DuPont Personal Protection. Material: TYCHEM® 2000 C (PE spunbond), Coated.

Type 3, 4, 5 and 6 according to the European standards for chemical protection clothing.

- 100% particle-tight
- Lint-free, wear- and tear-resistant
- Antistatic acc. to EN 1149-1
- With hood and elastic at face, arms, legs and waist
- Taped double zip cover
- With special chin flap for optimal sealing of respiratory protection masks
- 100% tight seams

Protection against many concentrated inorganic acids and bases, and saline solutions. Fabric weight 83.2 g/m². Material thickness 183 µm.

Applications:

- Handling powdery hazardous substances
- Working with inorganic acids and bases
- Protection against radioactive particles
- Handling blood (with blood-borne viruses such as hepatitis and HIV)
- Handling grains and plants by spraying pressurised agrochemicals

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
M	168–176	yellow	**AK28.1**	1 unit(s)	39,00
L	174–182	yellow	**AK29.1**	1 unit(s)	39,00
XL	180–188	yellow	**AK30.1**	1 unit(s)	39,00
XXL	186–194	yellow	**AK31.1**	1 unit(s)	39,00
XXXL	186-194	yellow	**1HH9.1**	1 unit(s)	39,75

NEW / +

Cat. III

Overalls TYVEK® 500 Xpert

DuPont Personal Protection. Material: TYVEK® 500 (PE spunbond).

Type 5 and 6 acc. to the European standards for chemical protection clothing. Special PE spunbond with excellent wearing comfort. Overalls with hood, and elastic at face, arm, leg and waist, zip cover.

- Lint-free, suitable for clean-room classes ISO 7/8 (C/D acc. to GMP)
- Wear- and tear-resistant
- Lightweight and flexible
- Excellent protection against chemical splashes, aerosols and particles (>1 µm)
- Weight approx. 41 g/m², thickness 130 µm
- Antistatic acc. to EN 1149-1

Applications:

- Handling solid hazardous substances
- Laboratory work
- Food industry
- Pharmaceutical industry
- Agriculture
- Police investigations
- Decontamination work
- Pest and weed control
- Agrochemicals
- Clean-room
- Nuclear power plants

Size	Body size (cm)	Colour	Thickness (µm)	Art. No.	Pack Qty.	€
S	162–170	white	130	**AK17.1**	1 unit(s)	15,00
M	168–176	white	130	**AK18.1**	1 unit(s)	15,00
L	174–182	white	130	**AK19.1**	1 unit(s)	15,00
XL	180–188	white	130	**AK20.1**	1 unit(s)	15,00
XXL	186–194	white	130	**AK21.1**	1 unit(s)	15,00
XXXL	186–194	white	130	**1HHA.1**	1 unit(s)	12,40

EcoPack

Size	Body size (cm)	Colour	Thickness (µm)	Art. No.	Pack Qty.	€
M	168–176	white	130	**1HHC.1**	25 unit(s)	277,35
L	174–182	white	130	**1HHE.1**	25 unit(s)	277,35
XL	180–188	white	130	**1HHH.1**	25 unit(s)	277,35
XXL	186–194	white	130	**1HHK.1**	25 unit(s)	277,35

Protective suits, gowns, aprons

Cat. III

Overalls TYVEK® 600 Plus

DuPont Personal Protection. Material: TYVEK® 600 (PE spunbond).

Type 4, 5 and 6 according to the European standards for chemical protection clothing. With additional adhesive closure on the zip cover. With special chin flap for optimal sealing of respiratory protection masks. 100 % tight seams.

- Lint-free, suitable for clean-room classes ISO 7/8 (C/D acc. to GMP)
- Wear- and tear-resistant
- Lightweight and flexible
- Excellent protection against chemical splashes, aerosols and particles (>1 µm)
- Weight approx. 41 g/m², thickness 130 µm
- Antistatic acc. to EN 1149-1

For all applications that require increased protection from tight seams.

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
M	168–170	white	**AK23.1**	1 unit(s)	15,05
L	174–182	white	**AK24.1**	1 unit(s)	15,05
XL	180–188	white	**AK25.1**	1 unit(s)	15,05
XXL	186–194	white	**AK26.1**	1 unit(s)	19,20

Cat. III

Protective overall Decontex® CONCEPT

Kind Arbeitssicherheit. Material: PVC Special.

Type 4. Acc. to EN 14605 (chemical-resistant). Antistatic acc. to EN 1149-1. Flame-retardant acc. to EN ISO 14116 (Index 1). Made of elastomerised special PVC. Lightweight, flexible, comfortable. Washable at 40 °C. Seams bonded to make it waterproof. Integrated hood, front zip with Velcro cover and protective bib, sleeve ends with inner safety fasteners, leg ends with Velcro straps.

Size	Art. No.	Pack Qty.	€
M (50/52)	**P787.1**	1 unit(s)	175,25
L (54/56)	**P788.1**	1 unit(s)	175,25
XL (58/60)	**P789.1**	1 unit(s)	183,85
XXL (62/64)	**P790.1**	1 unit(s)	191,35

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Protective suits, gowns, aprons

Cat. III

Overalls 3M™

3M.

Type 5/6, protection against non-hazardous dusts and limited spray-tightness. Made of soft spunbond polypropylene and a polyethylene film laminate.

- Antistatic on both sides acc. to EN 1149
- Elasticated at hips and ankles for comfort fit and improved mobility
- Two-way zip with taped flap
- Low-lint
- Colour: white

Series 4545
Knitted cuffs on the arms for improved comfort. Three-part hood for improved fit. Reinforced crotch.
Applications: Insulating work, cement production, grinding/sanding and polishing, light industrial cleaning, machine maintenance, work in the pharmaceutical industry.

Size	Manufacturer no.	Colour	Art. No.	Pack Qty.	€
XXXL	45453XL	white	**HAN1.1**	1 unit(s)	16,80
M	4545M	white	**HAL7.1**	1 unit(s)	15,05
L	4545L	white	**HAL8.1**	1 unit(s)	15,05
XL	4545XL	white	**HAL9.1**	1 unit(s)	15,05
XXL	45452XL	white	**HAN0.1**	1 unit(s)	15,05

Series 4510
Elasticated inserts at hips, arms and wrists, 2-ply hood.
Applications: Simple activities in industrial firms and craft enterprises, simple industrial cleaning, machine maintenance and inspection work.

Size	Manufacturer no.	Colour	Art. No.	Pack Qty.	€
S	4510S	white	**HAL0.1**	1 unit(s)	10,15
M	4510M	white	**HAL1.1**	1 unit(s)	10,15
L	4510L	white	**HAL2.1**	1 unit(s)	10,15
XL	4510XL	white	**HAL3.1**	1 unit(s)	10,15
XXL	45102XL	white	**HAL4.1**	1 unit(s)	10,15
XXXL	45103XL	white	**HAL5.1**	1 unit(s)	11,60

Cat. III

Overall

UVEX.

- Hood is highly compatible with protective face masks
- Middle finger loops prevent the sleeves from riding up, e.g. during overhead work
- Silicone-free
- Antistatic acc. to EN 1149-1
- **Suitable for clean rooms**
- For single use

(1) Uvex 9877 type 5/6, white/lime
Breathable PE laminate with air-permeable SMS back for excellent moisture management and breathability. With bound seams for effective protection against chemical splashes and particles.

Applications:
- Working with powdery chemicals
- Painting and lacquering
- Glass fibre production and processing
- General maintenance work

Size	Colour	Art. No.	Pack Qty.	€
M	white, lime	**PP20.1**	1 unit(s)	13,50
L	white, lime	**PP21.1**	1 unit(s)	13,50
XL	white, lime	**PP22.1**	1 unit(s)	13,50
XXL	white, lime	**PP23.1**	1 unit(s)	13,50

(2) Uvex 8959 type 4B, 5, 6, white/orange
Acc. to EN 14126 protection against infectious agents.
Made of breathable, lightweight and flexible material for wear comfort. Self-adhesive zip cover and bound seams provide protection against penetration of liquid aerosols and particles. Tested for **protection against pesticides** according to DIN 32781.

Applications:
- Handling of low-toxic inorganic chemicals
- Industrial cleaning work using low pressures (spray)
- Shipbuilding and automobile manufacturing
- Handling of paints and lacquers
- Agriculture and horticulture
- Electronics

Size	Colour	Art. No.	Pack Qty.	€
S	white, orange	**PP25.1**	1 unit(s)	14,05
M	white, orange	**PP26.1**	1 unit(s)	14,05
L	white, orange	**PP27.1**	1 unit(s)	14,05
XL	white, orange	**PP28.1**	1 unit(s)	14,05
XXL	white, orange	**PP29.1**	1 unit(s)	14,05
XXXL	white, orange	**PP30.1**	1 unit(s)	14,05

Protective suits, gowns, aprons

Cat. III

Overalls Kleenguard® A50

Kimberly-Clark.

Type 5 and 6. Protection against chemical splashes and particles.

- Low-lint with internal seams to protect against contamination from fibres
- Silicone-free, ideal for paint spraying operations
- Two-way zip for easier access to the clothing underneath
- Breathable material for reduced thermal load
- Special hood for use as a mask and good freedom of movement
- Robust triple overlock seams with high tear resistance
- Antistatic acc. to EN 1149-1

Applications: Chemical, pharmaceutical and processing industry, treatment and disposal, electronics, agriculture and paint spraying operations.

Size	Art. No.	Pack Qty.	€
M (46–50)	**0455.1**	1 unit(s)	25,75
L (50–54)	**0497.1**	1 unit(s)	25,75
XL (54–58)	**0498.1**	1 unit(s)	25,75

Protective gowns KIMTECH® SCIENCE® A7 Lab Coat

Kimberly-Clark.

Acc. to EN 13034 type PB [6], part-body protective clothing with limited splash protection. Antistatic acc. to EN 1149-1.
Made from breathable, textile-like SMS material. Triple-stitched seams. With attached pockets and press studs. Durable and tear-resistant, comfortable to wear. Silicone free.

Size	Art. No.	Pack Qty.	€
S	**2144.1**	5 unit(s)	94,55
M	**2145.1**	5 unit(s)	94,55
L	**2146.1**	5 unit(s)	94,55
XL	**2147.1**	5 unit(s)	94,55

Protective gown MaiMed Coat ViruGuard

MaiMed. Material: PP, PE Non-woven fabric.

Acc. to (EU)2017/745.
Gown with back closure made of non-woven polypropylene with polyethylene coating in the front and arm area. For single use. Suitable for personnel in fields of applications with high safety requirements to protect against germs.

- With ties at the neck and waist
- Small cotton cuffs (latex-free)
- Highly liquid and particle repellent
- Breathable back area
- One size (140 x 140 cm)

Medical device class I

Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
yellow	140	30	**1CYT.1**	10 unit(s)	13,90

Disposable gowns made of PP

GM Equipement. Material: PP Non-woven.

40 g/m². With snap fasteners. Individually packed.

With pockets
Two pockets, straight cuffs

Size	Colour	Art. No.	Pack Qty.	€
L	white	**KE77.1**	10 unit(s)	20,70
XL	white	**KE78.1**	10 unit(s)	20,70
XXL	white	**KE79.1**	10 unit(s)	20,70

Without pockets
Elasticated cuffs

Size	Colour	Art. No.	Pack Qty.	€
L	white	**KE80.1**	10 unit(s)	20,90
XL	white	**KE81.1**	10 unit(s)	20,90
XXL	white	**KE82.1**	10 unit(s)	20,90

Protective suits, gowns, aprons

Disposable gowns made of non-woven PP Light

Franz Mensch. Material: PP Non-woven.

- With press studs and stand-up collar
- Without pockets, straight cuffs
- Lightweight, breathable and durable
- Very comfortable to wear
- Ideally suited for visitors

Cat. I

25 g/m², in ten-pack

Size	Colour	Length (cm)	Scope	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
L	white	105	125 cm	25	**1E06.1**	10 unit(s)	18,85
XL	white	110	130 cm	25	**1E07.1**	10 unit(s)	18,85
XXL	white	110	140 cm	25	**1E08.1**	10 unit(s)	18,85

30 g/m², individually packed

Size	Colour	Length (cm)	Scope	Tissue weight (g/m²)	Pack.	Art. No.	Pack Qty.	€
L	white	105	125 cm	30	1	**1E09.2**	1 unit(s)	2,70
L	white	105	125 cm	30	10 x 1	**1E09.1**	10 unit(s)	21,00
XL	white	110	130 cm	30	1	**1E0A.2**	1 unit(s)	2,70
XL	white	110	130 cm	30	10 x 1	**1E0A.1**	10 unit(s)	21,00
XXL	white	110	140 cm	30	1	**1E0C.2**	1 unit(s)	2,70
XXL	white	110	140 cm	30	10 x 1	**1E0C.1**	10 unit(s)	21,00

Protective gown BeeSana® PP/PE, 26 g

Meditrade. Material: PP, PE.

Acc. to 93/42/EEC, medical product class I. Tested according to DIN EN ISO 14126 as protective clothing against infectious agents.

- Waterproof gown with back closure for single use
- Non-woven PP with partial PE lamination in the front and arm area
- With ties at the neck and waist
- Cotton jersey cuffs on the sleeves
- One size (136 x 136 cm)

NEW / +

Suitable for personnel in fields of applications with high safety requirements to protect against germs.

Medical device class I MDD

Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
yellow	136	26	**1EPT.1**	10 unit(s)	21,50

Protective gowns BeeSana®

Meditrade. Material: PP - SMS (spunbond meltblown spunbond).

Acc. to 93/42/EEC, medical product class I. Disposable protective gown made of three-layer PP SMS (spunbond meltblown spunbond), 40 g/m². With jersey cuffs on the sleeves, ties at the back of the neck and waist. Colour blue, length 150 cm, size XL/XXL. Non-sterile.
For protection against liquids and particles. Breathable and comfortable, low-lint, tear- and pierce-resistant. Ideal for use in industry, laboratories, electronics and pharmaceuticals.

Medical device class I MDD

Size	Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
XL/XXL	blue	150	40	**CAL9.1**	10 unit(s)	32,40

Protective suits, gowns, aprons

NEW / +

Cat. III

Lab coat TYVEK® 500

DuPont Personal Protection. Material: TYVEK® 500 PE spunbond.

Partial body protection, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides. The TYVEK® material is permeable to air and water vapour and repellent to water-based liquids and spray mists. It provides an excellent barrier to particles and fibres with a size of >1 µm. Completely lint-free, without the addition of silicone.
With stand-up collar and internal seams.
Applications: Laboratory, handling objects in pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

PL30 model with press studs and pockets
With five press studs and three pockets, straight sleeve ends.

Size	Colour	Art. No.	Pack Qty.	€
M	white	**2142.2**	10 unit(s)	71,40
L	white	**NK08.1**	10 unit(s)	71,40
XL	white	**2143.2**	10 unit(s)	73,45
XXL	white	**NK09.1**	10 unit(s)	73,45

PL30NP model with press studs without pockets
With five press studs, straight sleeve ends.

Size	Colour	Art. No.	Pack Qty.	€
M	white	**1HXX.1**	50 unit(s)	299,95
L	white	**1HXY.1**	50 unit(s)	299,95
XL	white	**1HY0.1**	50 unit(s)	299,95
XXL	white	**1HY1.1**	50 unit(s)	299,95

PL309 model with zip and pockets
With zip, two pockets and elasticated cuffs at the sleeve ends.

Size	Colour	Art. No.	Pack Qty.	€
S	white	**NK10.1**	10 unit(s)	76,85
M	white	**NK11.1**	10 unit(s)	76,85
L	white	**NK12.1**	10 unit(s)	76,85
XL	white	**NK13.1**	10 unit(s)	76,85
XXL	white	**NK14.1**	10 unit(s)	76,85

PL309NP model with zip without pockets
With zip, elasticated cuffs at the sleeve ends.

Size	Colour	Art. No.	Pack Qty.	€
S	white	**1HY2.1**	50 unit(s)	317,15
M	white	**1HY3.1**	50 unit(s)	317,15
L	white	**1HY4.1**	50 unit(s)	317,15
XL	white	**1HY5.1**	50 unit(s)	317,15
XXL	white	**1HY6.1**	50 unit(s)	317,15

Disposable apron secutex® pro

ZVG. Material: PP with PE coating.

Water-repellent, limited spray-tightness. Antistatic, lint-free, tear-proof. Skin-friendly.

Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
98	96.5	**A246.1**	10 unit(s)	23,95

Cat. III

Disposable apron TYVEK® 500 PA30L0 model

DuPont Personal Protection. Material: TYVEK® 500 PE spunbond.

Partial body protection, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides. Lint-free. Temperature stable up to max. 134 °C.

One size, colour white.

Applications: Handling pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

Colour	Length (cm)	Art. No.	Pack Qty.	€
white	108	**HY31.1**	25 unit(s)	90,55

Disposable apron made of PE in the dispenser box

BodyProducts.

Liquid-tight apron made of polyethylene (PE), surface hammered. With head strap for wearing around the neck and two straps for binding.

Colour	Thickness (µm)	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
white	16	80	125	**1CYP.1**	100 unit(s)	13,45

Protective suits, gowns, aprons

Laboratory and work apron made of PU

WIROS. Material: PU.

Apron and straps made of polyurethane.

- Durable and reusable
- Water-repellent
- Smooth, washable surface
- Metal lugs at connection points
- Strap length individually adjustable
- Adjustable click lock at straps
- Material thickness approx. 0.30 mm

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
blue	90	110	**HNE2.1**	1 unit(s)	19,35
white	90	130	**HNE3.1**	1 unit(s)	19,35
blue	90	130	**HNE4.1**	1 unit(s)	19,35

Hygiene work apron

WIROS. Material: Polyester, Cotton with PU coating.

Pinafore made of polyester/cotton blended fabric with polyurethane coating.

- Durable and reusable
- Water-resistant and liquid-resistant
- Smooth, washable surface
- Neck straps and ties in the waist made of PU
- Hygienic because washable up to 90 °C
- Fabric weight approx. 260 g/m²

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
red/white	75	110	**HNC9.1**	1 unit(s)	24,80
dark blue/white	75	110	**HNE0.1**	1 unit(s)	24,80

Laboratory and work apron made of PVC

Ansell. Material: PVC, flexible and resistant.

Acc. to EN 340 and EN 14605:2005. With neck and waist ties. Made of flexible and resistant PVC. Very resistant to a number of chemicals, fats and oils. High abrasion resistance. Welded-in PVC eyelets extend the usable life. Only made of FDA-approved materials and therefore suitable for use in the food industry. Waterproof.

Colour	Thickness (µm)	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
green	508	84	112	**L073.1**	3 unit(s)	31,20

Cat. III

Chemical protection apron

DuPont Personal Protection.

Partial body protection, type PB [3-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on the inside.

With neck and waist ties.
One size, width 70 cm, length 108 cm.

TYCHEM® 2000 C
Material: TYCHEM® 2000 C (PE spunbond), coated. Protection against many inorganic acids, bases and saline solutions.

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
yellow	70	108	**NK15.1**	5 unit(s)	33,95

TYCHEM® 6000 F
Material: TYCHEM® 6000 F (PE spunbond), film-laminated. Protection against many organic chemicals and many inorganic acids, bases and saline solutions.

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
grey	70	108	**NK16.1**	5 unit(s)	44,65

Protective suits, gowns, aprons

NEW / +

Cat. III

Chemical protection apron with sleeves

DuPont Personal Protection.

Partial body protection, type PB [3-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on the inside.

Gown with closure at the back. Protection of the front of the body and arms. Knitted cuffs with double sleeve system, stand-up collar. Tight, overtaped seams. Calf-length.

Protection against: dust and powdery hazardous substances, inorganic acids and bases, splashes of numerous organic chemicals, aerosols and spray mists of many mixtures, blood, or viruses transmitted through blood.

TYCHEM® 2000 C
Material: TYCHEM® 2000 C (PE spunbond), Coated.

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
S/M	162–176	yellow	**K179.2**	4 unit(s)	88,65
L/XXL	176–194	yellow	**HY32.1**	4 unit(s)	88,65

TYCHEM® 6000 F
Material: TYCHEM® 6000 F (PE spunbond), Film-laminated.

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
S/M	162–176	grey	**1HY8.1**	1 unit(s)	33,90
L/XXL	176–194	grey	**1HY9.1**	1 unit(s)	33,90

X-ray protective apron

Dr. Goos Suprema.

Acc. to DIN 6813 and the RöV (German X-Ray Ordinance). Lead value 0.5 mm Pb. Very lightweight apron with Velcro fastener and elastic. Fastens crosswise on the hip. The vinyl–exterior can be cleaned with a mild detergent at max 30 °C. Colour: royal blue.

Size	Colour	Length (cm)	Art. No.	Pack Qty.	€
S	royal blue	90	**X423.1**	1 unit(s)	503,45
M	royal blue	100	**X424.1**	1 unit(s)	556,50

Heat protection apron

JUTEC.

Acc. to DIN EN ISO 11612 (clothing for protection against heat and flames). Made of aluminised aramid fabric. For simple protection against radiated heat. Protection up to 1000 °C radiated heat.
Applications: extreme radiant heat, welding work, glass industry, etc.

- Flexible, lightweight, soft
- With adjustable neckband
- Dimensions: approx. L 1000 x W 800 mm

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
silver	80	100	**APX5.1**	1 unit(s)	147,30

Cold protection apron Cryogenic apron

Tempshield. Material: Nylon, Polyolefin/polyester lining.

Acc. to EN 340, for work in deep-freeze areas and **with liquid nitrogen in the gas phase** – also in clean rooms.
Can be worn on both sides, made of water-repellent nylon fabric with polyolefin/polyester lining. Temperature stable from -160 to +150 °C. Largely chemical-resistant. With adjustable straps for the waist and neck. Antistatic and washable.

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
blue	61	89	**0525.1**	1 unit(s)	236,00
blue	61	107	**0526.1**	1 unit(s)	247,25

Apron for protection against piercing niroflex

Friedrich Muensch. Material: Stainless steel, 100% rust-free.

Metal mesh apron, according to DIN ISO 13998:2003 (performance level 2).

- The perfect combination of safety and functionality
- Wide TPU-X straps ensure ideal weight distribution
- Best fit and extremely comfortable to wear thanks to the wide straps
- Easy to clean without leaving residue
- Metal mesh types with ring outer Ø of 4.2 or 7.0 mm
- Type 4.2 is recommended when extremely sharp knives are used.
- Aprons in metal mesh type 7.0 can be detected

Version	Width (cm)	Length (cm)	Weight (g)	Art. No.	Pack Qty.	€
Metal mesh 4.2 x 0.6 mm	45	75	1200	**KCH5.1**	1 unit(s)	223,60
Metal mesh 7.0 x 0.7 mm	45	75	830	**KCH3.1**	1 unit(s)	141,90
Metal mesh 7.0 x 0.7 mm	55	80	1000	**KCH4.1**	1 unit(s)	170,95

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

NEW/+

Cat. III

Hood TYVEK® 500 PH30 model

DuPont Personal Protection. Material: TYVEK® 500 PE spunbond.

Partial body protection, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides.

Internal seams. Elasticated at the neck and around the face opening. Large, extended collar. One size, colour white. Lint-free. Barrier to >1 µm particles and fibres.

Applications: Handling pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

Colour	Art. No.	Pack Qty.	€
white	**1HXK.1**	25 unit(s)	42,55

Surgeon hood made of non-woven PP

Franz Mensch. Material: PP Non-woven fabric.

Disposable cover with two latex-free elastic bands for securing behind the neck. One size.
Applications: hospitals and clinics, laboratories and the food industry.

Colour	Art. No.	Pack Qty.	€
white	**XL13.1**	100 unit(s)	28,50

Protective covers, sleeves

Disposable cover

Franz Mensch. Material: PP Non-woven fabric.

Applications: Hospitals and clinics, laboratories and the food industry.

(1) Detectable clip-on cover
Acc. to 2002/72/EC. Made of non-woven PP with integral metal strips. With latex-free elastic band. Size Ø 50 cm.

Ø (cm)	Colour	Art. No.	Pack Qty.	€
50	white	**XL10.1**	100 unit(s)	13,45
50	blue	**XL11.1**	100 unit(s)	14,55

(2) With screen
Made of non-woven PP, lightweight, breathable. With latex-free elastic band. Size Ø 48 mm.

Ø (cm)	Colour	Art. No.	Pack Qty.	€
48	white	**XL12.1**	100 unit(s)	13,90

Hairnet SUAVEL® Astrid

Meditrade. Material: PP Non-woven fabric.

Disposable covers made of extra-soft breathable non-woven polypropylene. With latex stretch band all the way round. Comfortable to wear and skin-friendly.

Medical device class I MDD

Ø (cm)	Colour	Art. No.	Pack Qty.	€
53	white	**EHY2.1**	100 unit(s)	9,70
53	blue	**EHY3.1**	100 unit(s)	9,70
53	green	**EHY4.1**	100 unit(s)	11,00
60	white	**EHY5.1**	100 unit(s)	11,80
60	green	**EHY6.1**	100 unit(s)	11,80

Cat. I

Disposable cover

Franz Mensch. Material: PP Non-woven fabric.

Lightweight. Protect the hair against dirt and dust, but also the product against contamination.
Applications: food industry, pharmaceuticals, electrical industry, etc.

(1) Clip-on cover non-woven PP
Acc. to HACCP. Lightweight and breathable. Latex-free elastic bands. Size Ø 50 cm.

Ø (cm)	Colour	Art. No.	Pack Qty.	€
50	white	**2089.1**	100 unit(s)	10,25

(2) Hairnet non-woven PP
Very lightweight. Latex-free all-round elastic. Size Ø 53 cm.

Ø (cm)	Colour	Art. No.	Pack Qty.	€
53	white	**L092.1**	100 unit(s)	13,90

Cat. I

Beard cover

Franz Mensch. Material: PP Non-woven fabric.

Made of polypropylene non-woven material, highly breathable and lightweight. With elastic band, latex-free. For single use.
Areas of application: food production, hospitals, biochemistry and in sensitive production environments.

Colour	Art. No.	Pack Qty.	€
white	**EHP3.1**	100 unit(s)	10,95

Protective covers, sleeves

Cat. I

Sleeves made of polyethylene

Franz Mensch. Material: PE.

Thickness 20 µm, length 40 cm. Elasticated ends. Impermeable to moisture, durable. Safe for use with foodstuffs.

Colour	Thickness (µm)	Length (cm)	Pack.	Art. No.	Pack Qty.	€
white, translucent	20	40	5 x 100	**KP24.1**	500 unit(s)	37,10

Sleeves made of secutex®

ZVG. Material: PP with PE coating.

Elasticated. Antistatic, lint-free, tear-proof, water-repellent. For protection against heavy contamination.

Version	Colour	Length (cm)	Art. No.	Pack Qty.	€
Elbow-length	white	38	**8193.1**	10 pair	15,00
Shoulder Long	white	58	**8202.2**	10 pair	19,90

NEW / +

Cat. III

Sleeves TYVEK® 500 PS32LA model

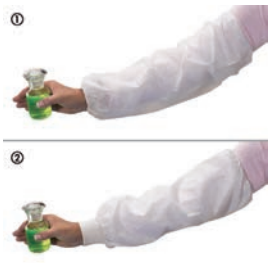
DuPont Personal Protection. Material: TYVEK® 500.

Partial body protection, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides.

Internal seams. Upper arm seam in blue for better identification. Adjustable on the upper arm. One size, length 50 cm, colour white. Lint-free. Barrier to >1 µm particles and fibres.

Applications: Handling pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

Version	Colour	Length (cm)	Art. No.	Pack Qty.	€
One size	white	50	**1HXE.1**	20 unit(s)	21,40



Cat. I

Sleeves breathable

Franz Mensch.

For the food industry. Colour: White. Length 45 cm.

(1) Made of non-woven PP
Made of non-woven polypropylene, 25 g/m². Elastic on both ends. Breathable and moisture-repellent.

Colour	Length (cm)	Pack.	Art. No.	Pack Qty.	€
white	45	5x100	**LH96.1**	500 unit(s)	86,00

(2) Made of non-woven SMS
Non-woven polypropylene, inside coated with polyethylene, 55 g/m². Elastic at upper end, soft knitted cuff at lower end. Breathable and impermeable to moisture.

Colour	Length (cm)	Art. No.	Pack Qty.	€
white	45	**LH97.1**	100 unit(s)	47,85

Protective covers, sleeves

Cat. III

Sleeves TYCHEM®

DuPont Personal Protection.

Partial body protection, type PB [3-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on the inside.

Wide elasticated wrist band and upper arm for comfortable and secure fitting. Tight, overtaped seams. Length 50 cm.

2000 C
Material: TYCHEM® 2000 C (PE spunbond), Coated. Protection against many organic chemicals and inorganic acids, bases and saline solutions.

Colour	Length (cm)	Art. No.	Pack Qty.	€
yellow	50	**NK18.1**	10 unit(s)	25,25

6000 F
Material: TYCHEM® 6000 F (PE spunbond), Film-laminated. Protection against many organic chemicals and many inorganic acids, bases and saline solutions.

Colour	Length (cm)	Art. No.	Pack Qty.	€
grey	50	**NK19.1**	10 unit(s)	37,60

Cat. II

Protective sleeves ArMEX 961

KCL by Honeywell. Material: Para-aramid.

Acc. to EN 388 (1340). With thumb hole for good fit. Protects the forearm **against cuts** and **temperatures up to 100 °C**. Washable.

Length (mm)	Art. No.	Pack Qty.	€
360	**T084.1**	2 unit(s)	30,25
420	**TT10.1**	2 unit(s)	30,80

NEW / +

Cat. III

Overboots

DuPont Personal Protection.

Partial body protection, type PB [3-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on the inside.

High resistance to many concentrated chemicals. Knee-length overboots with anti-slip sole, fixing ties and elastic. Tight, overtaped seams. Double layer sole, partially stitched, splash proof but not completely impervious to fluids.
One size, height 48 cm, fits up to shoe size 45 (UK size 11).

TYCHEM® 2000 C
Material: TYCHEM® 2000 C (PE spunbond), Coated.

Colour	Length (cm)	Art. No.	Pack Qty.	€
yellow	42	**NK17.1**	10 unit(s)	45,10

TYCHEM® 6000 F
Material: TYCHEM® 6000 F (PE spunbond), Film-laminated.

Colour	Length (cm)	Art. No.	Pack Qty.	€
grey	42	**1HYA.1**	10 unit(s)	73,35

Cat. I

Overboots made of PE

Franz Mensch. Material: PE foil, transparent.

Very robust and impermeable to moisture. An integrated elastic ensures a good fit. Suitable for use in the meat and foodstuffs industry and for working in wet conditions. For single use.
Height: 47 cm.

Length (cm)	Art. No.	Pack Qty.	€
38	**NP38.1**	100 unit(s)	29,60

Foot protection

NEW / +

Cat. III

Overboots TYVEK® 500

DuPont Personal Protection. Material: TYVEK® 500 Spunbond.

Partial body protection, category III, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides.

Internal seams. With elastic and fastening straps. Water-repellant, lint-free, antistatic. One size, height 48 cm, colour white.

Applications: handling pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

POBO model

Version	Colour	Length (cm)	Art. No.	Pack Qty.	€
One size	white	42	**2084.2**	20 unit(s)	43,70

POBA model with anti-slip sole

Version	Colour	Length (cm)	Art. No.	Pack Qty.	€
One size	white	42	**1HXT.1**	20 unit(s)	47,20

Overshoes made of secutex®

ZVG. Material: PP with PE coating.

Water-repellent, limited spray-tightness. Specially antistatic, tear-proof, no linting. Skin-friendly.

Colour	Length (cm)	Pack.	Art. No.	Pack Qty.	€
white	39	25 pairs	**A248.1**	1 pack(s)	31,10
white	39	100 pairs	**A248.3**	1 pack(s)	88,80

NEW / +

Cat. III

Overshoes TYVEK® 500

DuPont Personal Protection. Material: TYVEK® 500.

Partial body protection, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides.

Internal seams. With elastic and fastening straps. Water-repellant, lint-free, antistatic. One size, colour white.

Applications: Handling pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

POSO model

Version	Colour	Art. No.	Pack Qty.	€
One size	white	**1HXL.1**	400 unit(s)	284,90

POSA model with anti-slip sole

Version	Colour	Art. No.	Pack Qty.	€
Size 36-42	white	**1HXN.1**	200 unit(s)	240,80
Size 42-46	white	**1HXP.1**	200 unit(s)	240,80

Overshoes made of PE film

Material: PE Foil , textured.

Can be worn on either hand. For single use.

Version	Colour	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
Regular	blue	150	360	**1258.1**	100 unit(s)	10,95
Large	blue	150	410	**PK96.1**	100 unit(s)	7,30

Overshoes non-woven PP with CPE sole

Franz Mensch. Material: PP Non-woven fabric, Outsole made of CPE (chlorinated polyethylene).

The CPE sole is very sturdy, tear-proof and **slip-resistant.** It is impermeable to moisture and therefore provides protection against liquids. Suitable for use in catering and medical environments.

Medical device class I MDD

Colour	Length (cm)	Art. No.	Pack Qty.	€
white, blue	41	**EHE4.1**	50 unit(s)	16,00

Cat. I

Overshoes snti-slip CPE with TPE coating

Franz Mensch. Material: CPE (chlorinated polyethylene).

Firmly welded and extremely hard-wearing TPE coating which makes the overshoes **extremely slip-resistant** and therefore gives the wearer secure footing even on smooth or slippery flooring. Suitable for wearing for extended periods, e.g. in catering or pharmaceutical environments, clinics and large kitchens.

Medical device class I

Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
white	50	41	**EHE5.1**	50 unit(s)	15,75

Cat. I

Overshoes CPE

Franz Mensch. Material: CPE.

For single use. Hygienic prevention of dust and dirt entering sensitive production and work areas. Protection against humidity and wetness. Suitable for personnel and visitors.

Eco

Clipped welding on both sides. Suitable for wearing for short periods and under low stress.

Pic.	Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
(1)	blue	25	41	**1CXH.1**	100 unit(s)	5,20
(2)	green	25	41	**1CXK.1**	100 unit(s)	5,50

Light

Light but nevertheless durable, for light to medium stress. Ideal for visitors.

Pic.	Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
(3)	blue	25	41	**1CXE.1**	100 unit(s)	5,30

Standard

Very strong and durable, waterproof. Also withstands longer periods of wear.

Medical device class I

Pic.	Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
(4)	blue	40	41	**1CXL.1**	100 unit(s)	6,10
(5)	white	40	41	**1CXN.1**	100 unit(s)	8,10

Extra

Extra strong and durable, waterproof. Suitable for wearing over work shoes.

Medical device class I

Pic.	Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
(6)	blue	75	44	**1CXP.1**	50 unit(s)	10,25

Overshoes for Hygomat dispensers

Franz Mensch.

Suitable for use with Hygomat overshoe dispensers.

(1) CPE
Material: CPE. Hard-wearing and impermeable to moisture.

Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
blue	60	47	**XA12.1**	110 unit(s)	27,45

(2) Non-woven PP with CPE sole
Upper made of non-woven fabric, bottom reinforced CPE sole. Robust and tear-resistant. Provides protection against liquids, breathable. Anti-slip, suitable for smooth floors.

Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
white, blue	60	44	**XA13.1**	70 unit(s)	29,60

(3) Non-woven PP with CPE coating
Inside made of non-woven fabric, outside with CPE coating. Anti-slip, suitable for smooth surfaces.

Colour	Length (cm)	Art. No.	Pack Qty.	€
white	44	**XA14.1**	80 unit(s)	32,15

(4) Non-woven PP with slip-resistant sole
Material: PP. Hard wearing and extra slip-resistant.

Colour	Length (cm)	Art. No.	Pack Qty.	€
light blue	46	**XA15.1**	100 unit(s)	30,65

(5) Non-woven PP with antistatic strap
Material: PP Non-woven fabric, Antistatic. Dissipative due to black contact strap, which requires skin contact to earth the body.

Colour	Length (cm)	Art. No.	Pack Qty.	€
blue	46	**XA16.1**	100 unit(s)	96,65

(6) PE-eco
Material: PE Foil. Suitable for wearing for short periods and under low stress.

Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
blue	20	41	**EHE6.1**	110 unit(s)	20,45

Overshoe dispenser Hygomat

Franz Mensch.

- Improves hygiene and cleanliness, reduces germs and infections
- Low-noise mechanical action – no electrical power required
- With different filling capacities and fill level viewing windows
- Reliable and robust
- Easy to operate and refill
- Overshoes adapt automatically to shoes

Applications: for employees of and visitors to laboratories, restaurants and canteens, hospitals, dairies, showrooms, production facilities, clean rooms and protected zones.
Note: The overshoe dispensers can only be fitted with suitable overshoes (Art. No. XA12.1 to XA16.1 and EHE6.1).

(1) Classic

- For product, factory and personal hygiene
- For mobile use
- Capacity: 110 overshoes

W x D x H (mm)	Art. No.	Pack Qty.	€
320 x 700 x 280	**XA09.1**	1 unit(s)	335,40

(2) Comfort

- With greater capacity for large numbers of employees and visitors
- With handle – for even more convenient fitting
- Capacity: 220 overshoes

W x D x H (mm)	Art. No.	Pack Qty.	€
320 x 740 x 900	**XA10.1**	1 unit(s)	540,75

(2) Clean room

- Specially designed for use in clean rooms and the pharmaceutical industry
- With handle – for even more convenient fitting
- Stainless steel rear and side panels for optimal hygiene
- Easy to clean and disinfect
- Two rollers on the back – allow fast and easy moving
- Capacity: Max. 220 overshoes

W x D x H (mm)	Art. No.	Pack Qty.	€
320 x 740 x 900	**XA11.1**	1 unit(s)	647,15

Foot protection

Adhesive mats for fine dust Nomad™

3M.

Multi-layered adhesive mat. White vinyl backing, adhesive surface layers of clear PE. Captures the finest dirt and dust particles on its self-adhesive surface.
1.99 mm thickness. Forty layers per mat.

- Excellent absorption of dirt and fine dust from soles of shoes and wheels
- All layers are numbered and the number of remaining layers is visible
- The mat is suitable for driving over as it frameless and flat. Can also be placed under doors

Suitable for use at cleanroom entrances, in the computer, semiconductor and electronics industry, in laboratories, hospitals and in the pharmaceuticals industry.

L x W (mm)	Art. No.	Pack Qty.	€
900 x 450	**PY75.2**	6 unit(s)	533,20
1150 x 450	**PY76.2**	6 unit(s)	650,40
1150 x 600	**PY77.2**	6 unit(s)	936,35
1150 x 900	**PY78.2**	6 unit(s)	1.394,30

Adhesive mats for fine dust SEKUROKA®

ROTH SELECTION.

Multi-layered, blue tacky mats for cleaning the soles of shoes before entering cleanroom areas in the fields of medicine, industry, food processing, electronics, etc.
Self-adhesive backing holds the mat securely in place. Used films can be removed hygienically and quickly. Mat comprises 30 self-adhesive, removable, numbered films.

L x W (cm)	Art. No.	Pack Qty.	€
90 x 45	**NK53.1**	10 unit(s)	125,80
90 x 60	**NK54.1**	10 unit(s)	138,70
114 x 66	**NK55.1**	10 unit(s)	167,70

Dispensers for single-use protective clothing

Suitable for loose gloves, covers, protective sleeves and overshoes. The top cover can be opened for refilling. Wall mounting possible.

(1) Stainless steel multi-dispensers
Made of stainless steel, front panel made of transparent acrylic glass and features a dispensing opening.

W x D x H (mm)	Art. No.	Pack Qty.	€
300 x 200 x 430	**EHE0.1**	1 unit(s)	184,90

(2) Acrylic glass multi-dispensers
Container and top cover made of acrylic glass. Features a dispensing opening.

W x D x H (mm)	Art. No.	Pack Qty.	€
155 x 210 x 395	**EHE1.1**	1 unit(s)	85,90

Dispensers for protective clothing large parts

Material: Stainless steel, rust-free.

Can be cleaned with disinfectant. Its depth makes it particularly well suited to storing large items.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Visitor smocks, lab coats and overalls	280 x 300 x 400	**EHE2.1**	1 unit(s)	207,50

Dispensers for protective covers

Material: Stainless steel, rust-free.

Can be cleaned with disinfectant. With wide rubber-clad removal slot. For storing all types of standard covers, caps, hairnets or disposable protectors.

W x D x H (mm)	Art. No.	Pack Qty.	€
300 x 160 x 312	**EHE3.1**	1 unit(s)	198,90

First aid

First-aid cabinet with contents

Söhngen. Material: Steel (sheet metal).

Stove-enamelled. Security lock with 2 keys. With contents acc. to **DIN 13157 or 13169**. With adjustable shelves and foldable storage tray.

Version	W x D x H (mm)	Colour	Art. No.	Pack Qty.	€
acc. to DIN 13157	302 x 140 x 362	white	**K931.1**	1 unit(s)	92,25
acc. to DIN 13169	402 x 112 x 462	white	**K932.1**	1 unit(s)	129,90

First-aid box

Söhngen.

(1) Small acc. to DIN 13157
Material: Plastic highly impact resistant. With contents acc. to DIN 13157.

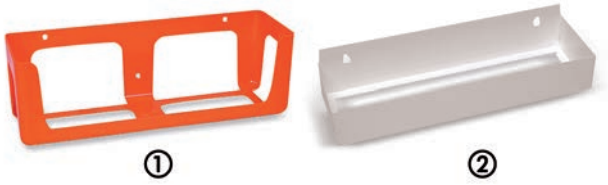
With hinge and closing latches.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
260 x 160 x 80	orange	**T295.1**	1 unit(s)	31,10

(2) Large acc. to DIN 13169
Material: Steel (sheet metal). With contents acc. to DIN 13169.

Rounded edges, profile seal. With clamp lock.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
260 x 250 x 80	white	**K934.1**	1 unit(s)	115,25



Wall mount for first-aid kit

Söhngen.

Pic.	Designation	Colour	Art. No.	Pack Qty.	€
(1)	Small wall mount for first-aid kit	orange	**T296.1**	1 unit(s)	4,35
(2)	Large wall mount for first-aid kit	white	**T297.1**	1 unit(s)	16,75

Refill pack

Söhngen.

First-aid equipment acc. to DIN 13157 for mobile first-aid kit

Designation	Art. No.	Pack Qty.	€
Refill set acc. to DIN 13157	**NH88.1**	1 unit(s)	46,50

First-aid equipment acc. to DIN 13157 for first-aid box and first-aid cabinet

Designation	Art. No.	Pack Qty.	€
Refill set acc. to DIN 13157	**K166.1**	1 unit(s)	28,90

First-aid equipment acc. to DIN 13169 for mobile first-aid kit

Designation	Art. No.	Pack Qty.	€
Refill set acc. to DIN 13169	**NH89.1**	1 unit(s)	93,10

First-aid equipment acc. to DIN 13169 for first-aid box and first-aid cabinet

Designation	Art. No.	Pack Qty.	€
Refill set acc. to DIN 13169	**K165.1**	1 unit(s)	64,30

First-aid equipment acc. to DIN 13157 extended for laboratory and chemical industries

Designation	Art. No.	Pack Qty.	€
Refill set for Art. No. X292.1	**X298.1**	1 unit(s)	114,30

Specially put together first-aid equipment for chemical and general burns

Designation	Art. No.	Pack Qty.	€
Refill set for Art. No. 0515.1	**P098.1**	1 unit(s)	128,20

First-aid equipment acc. to DIN 13157 extended for science and research

Danger H222-H229

Designation	Art. No.	Pack Qty.	€
Refill set for Art. No. X293.1	**X299.1**	1 unit(s)	125,75

First-aid cabinet without contents

GRAMM medical healthcare.

Delivery without first-aid contents. Please order first-aid equipment separately.

(1) Made of plastic

- For first-aid kits & supplies acc. to DIN 13157
- Impact resistant, antistatic
- Subdivided into 10 compartments, with 4 removable compartments
- Security lock with key
- Weight approx. 2.2 kg

W x D x H (mm)	Colour	Art. No.	Pack Qty.	€
330 x 160 x 450	white	**XE80.1**	1 unit(s)	73,25

(2) Made of sheet steel

- **With poison compartment;** extra lock with 2 keys
- For first-aid kits & supplies acc. to DIN 13169
- With solid base, stove-enamelled
- Security lock with 2 keys
- Weight approx. 9.8 kg

W x D x H (mm)	Colour	Art. No.	Pack Qty.	€
455 x 175 x 550	white	**XE81.1**	1 unit(s)	129,75

Refill pack first aid

GRAMM medical healthcare.

Quality first-aid refill packs are in accordance with the latest accident prevention guidelines. All first-aid refill packs come illustrated and labelled in multiple languages for easy use.

Complete first-aid refill pack
Contains complete basic contents acc. to DIN.

Version	Art. No.	Pack Qty.	€
acc. to DIN 13157	**XH21.1**	1 set	22,20
acc. to DIN 13169	**XH22.1**	1 set	39,75

Sterile dressings replacement kit
Sterile. The kit allows all the sterile dressings in a DIN first-aid refill pack to be replaced easily.

Version	Art. No.	Pack Qty.	€
acc. to DIN 13157	**XH23.1**	1 set	9,30
acc. to DIN 13169	**XH24.1**	1 set	13,85
acc. to DIN 13164	**XH25.1**	1 set	8,15

First-aid kit MEZZO FOX®

Erich Voss.

Incl. contents acc. to DIN 13157. Arrangement of the internal compartments can be changed, with wall mount, carry handle.

- Translucent casing provides a good overview
- Robust and durable
- Easy to use: Can be used on the wall or can be removed from the mount for on-site aid
- Can be firmly attached, providing protection against theft
- Highest-quality first-aid equipment, printed in four languages
- Interior compartments can be moved and altered

Version	Art. No.	Pack Qty.	€
First-aid kit	**HA37.1**	1 unit(s)	51,50

First-aid kit mobile

Söhngen. Material: ABS Plastic.

All-round rubber seal protects against dust and splash water. Cases can be sealed. Wall mount with 90° stop lock allows the case to be opened and the contents to be removed when it is mounted on the wall.

Version	L x W x H (mm)	Art. No.	Pack Qty.	€
Contents acc. to DIN 13157	260 x 110 x 170	**0598.1**	1 unit(s)	89,70
Contents acc. to DIN 13169	400 x 150 x 300	**1721.1**	1 unit(s)	203,20

First aid

Emergency first-aid bag

Söhngen.

Your own personal first-aid kit for immediate first and self aid. Small and compact and can be taken everywhere – on excursions, on trips, to work or to sports activities. Bag with zip.
Contains: Compress, ready-to-use dressing, bandage, range of plasters, SIRIUS® rescue blanket.

W x L (mm)	Art. No.	Pack Qty.	€
140 x 210	**N531.1**	1 unit(s)	19,40

First-aid kit Special

Söhngen. Material: ABS.

Delivery incl. wall mount with 90° stop lock allows the case to be opened and its contents to be removed when it is mounted on the wall.

Laboratory and chemistry

Basic contents acc. to DIN 13157, extended to the risk assessment for the chemical industry and medical, technical and chemical laboratories.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
400 x 150 x 300	orange	**X292.1**	1 unit(s)	199,95

Science and research

Basic contents acc. to DIN 13157, extended to the risk assessment for research further education colleges and universities, research institutes and laboratories.

Danger H222-H229

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
400 x 150 x 300	orange	**X293.1**	1 unit(s)	205,35

Chemical and general burns

Specially put together for the chemical and galvanic branches of industry. For chemical and general burns caused by acids, alkalis, vapours and liquids.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
400 x 150 x 300	orange	**0515.1**	1 unit(s)	217,15

First-aid box motor vehicle

Söhngen. Material: Plastic, highly impact resistant.

Contents are compliant with DIN 13164 requirements. Box made of highly impact-resistant plastic, colour: Black. With hinge and closing latches. Interior with extra tray for a better view of the contents.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
260 x 160 x 80	black	**KL96.1**	1 unit(s)	22,40

Safety vest

Material: Polyester 100%.

Acc. to EN ISO 20471:2013, class 2 (size S acc. to EN 1150).
With double Velcro fasteners for variable size fitting.
Use: For improved recognition of persons in traffic and handling zones, or as equipment for company vehicles.

Two reflective strips

Size	Colour	Art. No.	Pack Qty.	€
M–XL	orange	**TP39.1**	5 unit(s)	25,60
M–XL	yellow	**TP40.1**	5 unit(s)	25,60
S	yellow	**TP38.1**	5 unit(s)	25,50
XXL	orange	**TP41.1**	5 unit(s)	20,65
XXL	yellow	**TP42.1**	5 unit(s)	20,65

Two reflective strips and strips over the shoulders

Size	Colour	Art. No.	Pack Qty.	€
M–XL	orange	**EHP4.1**	1 unit(s)	7,20
M–XL	yellow	**EHP5.1**	1 unit(s)	7,20

Safety vest bag

100% polyester, with Velcro fastener.

Colour	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
orange	220	180	**TP44.1**	5 unit(s)	11,20
yellow	220	180	**TP43.1**	5 unit(s)	11,20

First-aid kit Traveller

Söhngen.

„Softbag“ with first-aid supplies for use when travelling. Made of synthetic fibre. Two carrying straps, parallel zipper, flap with button, insertable straps.
Contains: rescue blanket, compresses, ready-to-use dressings, plasters for dressing wounds and fingers, silk adhesive plaster strips, wound disinfectant, bandages, scissors, tweezers, protective gloves.

L x W x H (mm)	Art. No.	Pack Qty.	€
230 x 115 x 55	**TL60.1**	1 unit(s)	34,60

First-aid kit Mini

Söhngen.

Bag made of coated nylon fabric with zip. Contains all most commonly required items: Plaster strips, dressings, compress, elastic bandage.

W x L (mm)	Art. No.	Pack Qty.	€
90 x 135	**T299.1**	1 unit(s)	4,60

Rescue blanket

Söhngen. Material: PE Foil, aluminised.

Reflects up to 85% of body heat, can prevent radiant heat loss and loss of body heat and hypothermia. Can also be used as a heat shield.

Medical device class I

W x L (cm)	Colour	Art. No.	Pack Qty.	€
160 x 210	silver, gold	**1846.1**	1 unit(s)	4,30

Ready-to-use cold compress

Söhngen.

Quick "ice bag" without the need to pre-cool. Activated when compressed, immediately producing a continuous intense cold temperature. For quick cooling of acute injuries, such as pulled muscles, sprains or acute inflammations. For single use only.

W x L (mm)	Art. No.	Pack Qty.	€
150 x 250	**AP17.1**	5 unit(s)	10,30
150 x 210	**KKH2.1**	4 unit(s)	8,00

Cold/warm compress

Söhngen.

Reusable compresses for local pain relief for bruises, pulled muscles, sprains, acute inflammation, insect bites, etc. Remains flexible and malleable at temperatures as low as -30 °C. Can also be used as a heat pad. Can be pre-cooled in a freezer compartment or pre-heated in a water bath (up to +60 °C). Contains environmentally friendly, non-toxic gel.

W x L (mm)	Art. No.	Pack Qty.	€
130 x 80	**AP13.1**	5 unit(s)	7,90
130 x 140	**AP14.1**	5 unit(s)	10,25
150 x 280	**AP15.1**	5 unit(s)	18,20

First aid - wound care, accessories

Quick dressing Actiomedic® AQUATIC

GRAMM medical healthcare.

Water-repellent, elastic first-aid dressing. Supple and easy to tear off, suitable for all minor finger injuries, even in awkward places.

- Sticks to itself and not to the wound, skin or hair
- Easy to remove
- Water-repellent and elastic
- Enables maximum mobility
- Keeps grease, water and oil away from the wound

Medical device class I MDD

Roll size: 3 cm x 7 m

Colour	Art. No.	Pack Qty.	€
blue	**XH08.1**	4 unit(s)	17,45
beige	**XH09.1**	4 unit(s)	17,45
white	**XH07.1**	4 unit(s)	17,45

Roll size: 5 cm x 7 m

Colour	Art. No.	Pack Qty.	€
blue	**XH11.1**	2 unit(s)	10,70
beige	**XH12.1**	2 unit(s)	10,70

Surgical tape Leukosilk®

BSN medical. Non-sterile.

Made of white cellulose acetate, very skin-friendly, easy to remove, tension-resistant, hypoallergenic, can be removed without causing pain, can be written on easily. Free of natural latex.

Medical device class I

W x L	Colour	Art. No.	Pack Qty.	€
25 mm x 5 m	white	**0631.1**	3 roll(s)	30,55

Surgical tape Leukoplast®

BSN medical. Non-sterile.

Particularly adhesive, air-permeable, water-repellent, tension-resistant, easy to tear off. Contains natural latex.

Medical device class I

W x L	Colour	Art. No.	Pack Qty.	€
12.5 mm x 5 m	beige	**N532.1**	3 roll(s)	13,40
25.0 mm x 5 m	beige	**N533.1**	3 roll(s)	22,35

Plaster Hansaplast®

Beiersdorf.

Sets of plasters contain strips of four different sizes.
Breathable and skin-friendly material, wound dressing does not stick and protects and pads the wound. The plasters adhere reliably and do not slip. Suitable for all types of small wounds and injuries.

Universal
Water-repellent

8 strips 19 x 72 mm

6 strips 30 x 72 mm

2 strips Ø 50 x 72 mm

4 strips 23 mm

Version	Art. No.	Pack Qty.	€
water-repellent, 20 strips	**0630.2**	1 pack(s)	6,90

Sensitive
Hypoallergenic for sensitive skin

20 strips 19 x 72 mm

10 strips 30 x 72 mm

2 strips Ø 50 x 72 mm

8 strips 23 mm

Version	Art. No.	Pack Qty.	€
hypoallergenic, 40 strips	**ENH9.1**	1 pack(s)	9,80

Plaster dispenser Salvequick®

Cederroth.

Dispenser box with special key for opening and refilling the dispenser. Filled with elastic and waterproof plaster strips. The plasters are easy to apply without requiring further assistance. When it is pulled out, half of the plaster is adhesive, ready to be applied.
Dispenser contains:

- 1 Salvequick fabric plaster refill set (X288.1). 40 elastic, skin-friendly plasters for immediate use: 24 strips 72 x 19 mm and 16 strips 72 x 25 mm;
- 1 Salvequick plastic plaster refill set (X289.1). 45 waterproof plasters for immediate use: 27 strips 72 x 19 mm and 18 strips 72 x 25 mm.

L x W x H (mm)	Art. No.	Pack Qty.	€
220 x 52 x 115	**X287.1**	1 set	41,50

Refill pack Salvequick® plaster

Cederroth.

Medical device class I

Textile, elastic 6444
40 elastic and skin-friendly plasters for immediate use.

Designation	Pack.	Art. No.	Pack Qty.	€
Refill Salvequick Textile, elastic 6444	24 strips 72x19 mm; 16 strips 72x25 mm	**X288.1**	1 set	11,90

Plastic, waterproof 6036
45 waterproof plasters for immediate use.

Designation	Pack.	Art. No.	Pack Qty.	€
Refill Salvequick Plastic, waterresistant 6036	27 strips 72x19 mm; 18 strips 72x25 mm	**X289.1**	1 set	10,20

Cellulose swabs

Meditrade. Material: Cellulose, bleached light. Non-sterile.

Acc. to DAB. Highly absorbent, non-fibrous. For skin cleansing or for use as an absorbent pad for minor injuries.

W x L (mm)	Pack.	Art. No.	Pack Qty.	€
50 x 40	Two rolls of 500	**NK84.1**	1,000 unit(s)	6,00

Dispensers for cellulose swabs

Meditrade.

For hygienic storage and removal of cellulose swabs. Suitable for 1 roll of 500.

Version	Art. No.	Pack Qty.	€
Cellulose swab dispenser	**NK85.1**	1 unit(s)	24,70

Plaster dispenser aluderm® -aluplast

Söhngen. Material: ABS.

Base section with three compartments for strips, fingertip and knuckle dressings, transparent lid with compartment for finger dressings. Can be mounted on walls.
Contents:

- 25 fingertip dressings
- 30 strips 72 x 25 mm
- 30 strips 72 x 19 mm
- 20 finger dressings 120 x 20 mm
- 10 knuckle dressings

All plaster dressings for wounds have been individually and hygienically sealed.
The aluminised wound pad does not stick to the wound. Breathable, water-repellent, hypoallergenic, skin-friendly and also suitable for use on sensitive skin or those with allergies to plasters.

L x W x H (mm)	Art. No.	Pack Qty.	€
122 x 57 x 160	**AH56.1**	1 unit(s)	26,40

Refill pack aluderm® plaster

Söhngen.

All plaster dressings for wounds have been individually and hygienically sealed.
The aluminised wound pad does not stick to the wound. Breathable, water-repellent, hypoallergenic, skin-friendly and also suitable for use on sensitive skin or those with allergies to plasters.

Medical device class I

Version	Designation	Art. No.	Pack Qty.	€
72 x 25 mm strip	72 x 25 mm strips refill pack	**AH58.1**	30 unit(s)	4,60
72 x 19 mm strip	72 x 19 mm strips refill pack	**AH59.1**	30 unit(s)	4,60
120 x 20 mm finger dressing	120 x 20 mm finger dressing refill pack	**AH60.1**	20 unit(s)	4,60
Knuckle dressing	Knuckle dressing refill pack	**TP45.1**	10 unit(s)	4,35
Fingertip dressing	Fingertip dressing refill pack	**AH57.1**	25 unit(s)	7,60

Plaster dispenser QuickFix

Plum.

- Plasters can be removed from the bottom of the dispenser housing, whereby one side of the adhesive is left uncovered. **The advantage** of this is that the plaster strip can be immediately applied to the wound using only one hand.
- Additional removable compartments for storing first-aid material in the dispenser
- System can be locked to protect against theft
- 90 individually packaged plaster strips 72 x 25 mm

Delivery incl. two refill packs, mounting material and key for protection against theft.

Detectable
Contains detectable blue plaster strips with integrated metal strips for detection by metal detectors in industries with sensitive hygienic requirements (e.g. **the food industry**).

W x D x H (mm)	Art. No.	Pack Qty.	€
232.5 x 33 x 133.4	**HC44.1**	1 unit(s)	42,50

Elastic
Contains plasters, made of elastic, perforated and air-permeable textile fabric. Very skin-friendly and breathable.

W x D x H (mm)	Art. No.	Pack Qty.	€
232.5 x 33 x 133.4	**LK67.1**	1 unit(s)	34,65

Water resistant
Contains waterproof, very skin-friendly plasters made of perforated, air-permeable, water-repellent textile fabric.

W x D x H (mm)	Art. No.	Pack Qty.	€
232.5 x 33 x 133.4	**HC43.1**	1 unit(s)	31,10

Refill pack

Plum.

Plaster QuickFix detectable
Detectable blue plaster strips with integrated metal strips.
Set with 45 plasters.

Medical device class I

Pack.	Art. No.	Pack Qty.	€
2 x 45	**HC46.1**	2 kit	25,05

Plaster QuickFix elastic
Elastic, breathable and skin-friendly plaster strips measuring 72 x 25 mm. Set with 45 plasters.

Medical device class I

Pack.	Art. No.	Pack Qty.	€
2 x 45 pieces	**LH94.1**	2 set	16,90

Plaster QuickFix water resistant
Water resistant, air-permeable and very skin-friendly.
Plaster size: 72 x 25 mm. Set with 45 plasters.

Medical device class I

Pack.	Art. No.	Pack Qty.	€
2 x 45	**HC45.1**	2 set	15,70

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Plaster Actiomedic® detectable

GRAMM medical healthcare.

Elastic, hypoallergenic and detectable plasters, individually sealed.

Medical device class I MDD

Elastic

Version	W x L (mm)	Art. No.	Pack Qty.	€
Plaster strips	19 x 72	**XH14.1**	100 unit(s)	8,55
Knuckle dressings	38 x 75	**XH15.1**	50 unit(s)	9,15
Finger dressings	120 x 20	**XH16.1**	100 unit(s)	10,70

Water-repellent

Version	W x L (mm)	Art. No.	Pack Qty.	€
Plaster strips	19 x 72	**XH17.1**	100 unit(s)	7,00
Finger dressings	120 x 20	**XH18.1**	100 unit(s)	8,55
Fingertip dressings	43 x 68	**XH19.1**	50 unit(s)	6,40

A 121 °C

Gauze swabs

Meditrade. Material: Cotton 100%. Autoclavable: Yes.

In acc. with EN 14079, type 20. Made of medical gauze. For absorbing blood and secretion, external wound care and hand disinfection. Highly absorptive. Swab size 20 x 20 cm, round, plum-sized, in PE bag.

Medical device class I

Version	Art. No.	Pack Qty.	€
Gauze swabs	**NK83.1**	250 unit(s)	13,95

Pocket mask for respiration

Radecker Notfallmedizin.

To be used by amateur first aiders. Air is simultaneously supplied through the mouth and nose without coming into contact with air exhaled by the patient. Transparent masks allow any excretions to be monitored visually.
Suitable for adults and children. Extendible semi-soft plastic dome with mouthpiece. Air-filled press-on rim made of soft plastic.
Easy to clean, can be reused. In a case with instructions.
Length 120 mm.

Version	Art. No.	Pack Qty.	€
Pocket mask for respiration	**4799.1**	1 unit(s)	23,25

Ampoule case

Söhngen. Material: Nylon fabric, coated.

For 55 ampoules in various standard sizes, can be individually configured. With all-round zip.

Delivery without ampoules.

Version	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
for 55 ampoules	310 x 320 x 30	red	**NH87.1**	1 unit(s)	40,10

Medical table SÖHNGEN®

Söhngen. Material: Stainless steel, Artificial leather.

Frame made of square profiled steel tubing, white powder-coated, sturdy and load bearing. Upholstery covering made of fabric reinforced synthetic leather, hard wearing, easy care, dirt repellent.

- Multi-position adjustable
- Sanitary paper reel holder integrated into frame

Medical device class I

Pic.	Version	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	Headrest can be adjusted, footrest is fixed	2000 x 700 x 500	**NH47.1**	1 unit(s)	413,90
(2)	Headrest and footrest can be adjusted	2000 x 700 x 500	**NH48.1**	1 unit(s)	466,55

Examination couch rolls

Meditrade. Material: Cellulose, Two-layers, recycled.

Tissue paper on a roll, absorbent, tear-resistant.

W x L	Colour	Art. No.	Pack Qty.	€
59 cm x 50 m	white	**NK82.1**	1 roll(s)	8,55

Fire blanket FLAME STOP

Mentrex.

Acc. to EN 1869: 1997, TÜV-certified. Made of impregnated glass fibre cloth (300 g/m²). Heat-resistant up to 1250 °C. Fast opening is enabled by two pull straps and a special fold configuration. Self-inflating.
For single use. For extinguishing small fires, for protection against fire. Does not release toxic fumes.

L x W (cm)	Art. No.	Pack Qty.	€
100 x 100	**AH78.1**	1 unit(s)	34,95
180 x 125	**AH79.1**	1 unit(s)	50,45

Fire blanket

Heinrich Vorndamme.

Made of Isotemp® glass fibre cloth, tested by BAM (German Federal Institute for Materials Research and Testing). Free of asbestos, highly heat-resistant, high extinguishing capability, can be used multiple times. With gripping loops.
In ready-to-use pack with wall mount.
Ready-to-use pack dimensions W 255 x D 130 x H 275 mm.

L x W (cm)	Art. No.	Pack Qty.	€
200 x 160	**0084.1**	1 unit(s)	108,85

Fire extinguisher Bavaria Colt P6

Acc. to DIN EN 3. To be used for **ABC fire classes** and **electrical equipment up to 1000 V.** High-quality extinguishing powder provides an increased extinguishing effect. All-purpose use in industry, commerce, public buildings and private homes. Contains: Ten extinguishing units acc. to BGR 133. Operating range -30 to +60 °C. With wall mount.

Warning H280

L x W x H (mm)	Art. No.	Pack Qty.	€
300 x 155 x 535	**T321.1**	1 unit(s)	129,00

Fire extinguisher - CO_2

For use on **class B fires**. Ideal for areas with sensitive electronic and electric equipment. Content 2 kg. With wall mount.

Warning H280

Ø x H (mm)	Art. No.	Pack Qty.	€
110 x 555	**1028.1**	1 unit(s)	167,70

Fire protection tub SEKUROKA®

JM-Metzger.

Tub and mesh made of chrome-nickel steel.

- Liquids are collected immediately and fire-safe in the mesh
- If the liquid ignites, the flame extinguishes autonomously due to lack of oxygen
- Resists heat and corrosion
- Liquids collected can be transferred for disposal or reuse
- The mesh can be removed and is easy to clean and reuse
- No glass or steel wool mats needed, so there is no material to dispose of
- Weight 12 kg

Note. The meshes may only be filled to 2/3 with flammable liquid. Maximum collection volume approx. 13 litres.

L x W x H	Art. No.	Pack Qty.	€
450 x 450 x 120	**1658.1**	1 unit(s)	1.279,25

Safety cabinet Q-CLASSIC-90

Asecos.

For the storage of flammable liquids.
Acc. to DIN EN 14470-1, 90 min fire resistance (FWF 90). Ceric-compliant, GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Highly rugged design**, scratchproof textured paint finish
- The panel doors lock in any position for easy storage and removal from storage
- **Automatic locking of doors in the event of fire** thanks to integrated thermal release system
- Forklift-accessible base – easy transport, high flexibility, lockable with optional plinth panel
- **Easy alignment** – adjusting aids to compensate for uneven floor
- **Quick commissioning** – air ducts ready for connection (NW 75) to a technical exhaust system

Version:
Anthracite grey body (similar to RAL 7016), light grey doors (RAL 7035), with panel doors.

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Delivery without ventilation unit, recirculating air filter system and plinth panel. Optional, please order separately.

2-door 3 shelves

Inner fittings: 3 shelves, perforated plate insert and bottom tray (33 l)

Door stop	W x D x H (mm)	Art. No.	Pack Qty.	€
left, right	1193 x 615 x 1953	**CCA0.1**	1 unit(s)	3.501,30

2-door 4 full-extension drawers

Inner fittings: 4 full-extension drawers (sheet steel, powder coated)

W x D x H (mm)	Art. No.	Pack Qty.	€
1193 x 615 x 1953	**CCA1.1**	1 unit(s)	4.146,30

2-door, 6 full-extension drawers

Inner fittings: 6 full extension drawers (sheet steel, powder coated)

Type	W x D x H (mm)	Art. No.	Pack Qty.	€
6 Full-extension drawers	1193 x 615 x 1953	**CCA2.1**	1 unit(s)	4.590,25

1-door, 3 shelves

Inner fittings: 3 shelves, perforated plate insert and bottom tray (22 l)

Door stop	W x D x H (mm)	Art. No.	Pack Qty.	€
left	599 x 615 x 1953	**CCA3.1**	1 unit(s)	2.731,60
right	599 x 615 x 1953	**CCA4.1**	1 unit(s)	2.731,60

1-door, 6 full-extension drawers

Inner fittings: 6 full extension drawers (sheet steel, powder coated)

Door stop	W x D x H (mm)	Art. No.	Pack Qty.	€
left	599 x 615 x 1953	**CCA5.1**	1 unit(s)	3.373,35
right	599 x 615 x 1953	**CCA6.1**	1 unit(s)	3.373,35

Accessories plinth panel for Q-CLASSIC-90 safety cabinet

Asecos.

1200 2-door

Designation	Art. No.	Pack Qty.	€
Plinth panel for 2-door cabinets	**CCA7.1**	1 unit(s)	32,75

600 1-door

Designation	Art. No.	Pack Qty.	€
Plinth panel for 1-door cabinets	**CCA8.1**	1 unit(s)	23,55

Accessories for safety cabinet

Asecos.

(1) Ventilation unit without exhaust monitor
Safe detection of vapour and gas emissions at the outlet or source. Housing made of powder-coated high-grade sheet steel.

- Plug ready – fast and easy assembly
- Extra low noise, ideal for use directly in the workspace
- NW 75 hose connection
- ATEX-compliant: Ceric II 3/-G Ex c IIC T4

Delivery incl. Connecting cable and mains plug.

W x D x H (mm)	Art. No.	Pack Qty.	€
200 x 400 x 200	**CCA9.1**	1 unit(s)	711,65

(2) Recirculating air filter system
Vents safety cabinets safely and economically without exhaust lines. Recirculating air filter housing made of powder-coated high-grade sheet steel.

- Installation without wall breakthroughs and exhaust lines
- Flexible selection of installation location
- Safe detection of hazardous vapours with retention in the filtration system
- Silent – only approx. 39 dB (A)
- ATEX-compliant: CE II 3/-G Ex ic nA IIB T4Gc"

Delivery incl. Multi-stage filter system, connection cable and mains plug, VDE-tested electronic monitoring system for monitoring exhaust air and filter, visual and audible alarm incl. potential-free alarm contact.

W x D x H (mm)	Art. No.	Pack Qty.	€
305 x 555 x 210	**CCC0.1**	1 unit(s)	1.642,60

Combi safety cabinet K-PHOENIX-90

Asecos.

Two in one – storage of flammable and aggressive hazardous substances in one cabinet.
Acc. to DIN EN 14470-1, 90 min fire resistance (FWF 90). Ceric-compliant, GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Rugged and durable** – safety elements assembled outside the storage compartment for increased protection against corrosion
- **Safely isolated** – storage chambers hermetically separated by central partition
- **Comfortable and safe** – doors lock in the standard stop position, safe storage and removal from storage of drums, all doors can be operated and locked separately
- **Easy alignment** – adjusting aids to compensate for uneven floor
- **Quick commissioning** – integrated air ducts ready for connection (NW 75) to a technical exhaust system

Version: Outer body made of epoxy resin coated high-grade sheet steel. Inner body made of highly resistant melamine resin coated special panels. Colour: Light grey (RAL 7035).

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Delivery without ventilation unit (Art. no. CCA9.1). Optional, please order separately.

(1) Inner fittings 3 shelves/4 pull-out shelves
Left side of cabinet, compartment for flammable liquids: with folding door, **3** shelves (75 kg load capacity), perforated sheet insert and 22 l bottom tray (powder-coated sheet steel).
Right side of cabinet, compartment for acids and bases: with panel doors, **4** pull-out shelves (25 kg load capacity) incl. removable plastic tray.

W x D x H (mm)	Art. No.	Pack Qty.	€
1200 x 615 x 1968	**CCC1.1**	1 unit(s)	4.029,10

(2) Inner fittings 6 full extension drawers/6 pull-out shelves
Left side of cabinet, compartment for flammable liquids: With folding door, **6** full extension drawers (powder-coated sheet steel).
Right side of cabinet, compartment for acids and bases: With panel doors, **6** pull-out shelves (25 kg load capacity) incl. removable plastic tray.

W x D x H (mm)	Art. No.	Pack Qty.	€
1200 x 615 x 1968	**CCC2.1**	1 unit(s)	4.899,85

Acids and bases cabinet SL-Classic

Asecos.

Safe and correct storage of aggressive, non-flammable hazardous substances in work zones. GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Rugged and durable** – epoxy resin coated high-grade sheet steel, locking mechanism is located outside the store room for increased protection against corrosion
- **Safely isolated** – two hermetically separated storage chambers
- **No unauthorised use** – doors are fitted with profile cylinder locks (master-key system compatible)
- **Easy alignment** – integrated adjusting aids to compensate for uneven floor
- **Quick commissioning** – air ducts ready for connection (NW 75) to a technical exhaust system
- **Clean ventilation** – corrosion-resistant, metal-free air ducts, separate ventilation of storage chambers, only one air vent in roof area

Equipment: pull-out shelves – high-quality, sturdy construction with liquid-tight, removable plastic tray (18 l), 25 kg load capacity. With panel doors, colour: Light grey (RAL 7035).

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Delivery without ventilation unit (Art. no. CCA9.1). Optional, please order separately.

(1) Width 1200
With vertical centre partition: Separate storage of acids and bases. Inner fittings: 12 pull-out shelves incl. plastic collecting tray

Door stop	W x D x H (mm)	Art. No.	Pack Qty.	€
left, right	1197 x 603 x 1965	**CCC8.1**	1 unit(s)	3.771,10

(2) Width 600
With horizontal centre partition: separate storage of acids and bases. Inner fittings: 6 pull-out shelves incl. plastic collecting tray

Door stop	W x D x H (mm)	Art. No.	Pack Qty.	€
left	597 x 603 x 1965	**CCC9.1**	1 unit(s)	2.431,65
right	597 x 603 x 1965	**CCE0.1**	1 unit(s)	2.431,65

Compressed gas cylinder cabinet G90

Asecos.

For safe indoor storage of pressurised gas cylinders (decentralised). Type-tested acc. to DIN EN 14470-2, 90 min fire resistance (FWF 90). Ceric-compliant, GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Easy assembly of fittings and pipework** – large inner height (1858 mm), 24 leadthroughs in the cabinet ceiling
- **No unauthorised use** – door is fitted with profile cylinder locks (master-key system compatible)
- **Easy alignment –** adjusting aids to compensate for uneven floor
- **Quick commissioning** – integrated air ducts ready for connection (NW 75) to a technical exhaust system, complete and even floor-to-ceiling ventilation inside cabinet

Version: With panel door, hinge on the left. Body and door light grey (RAL 7035)

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Delivery incl. standard inner fittings (mounting rails, roll-in flap, cylinder holder and suitable tensioning straps).

(1) For 2x50 litre gas cylinders

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
(1)	2 x 50 l/3 x 10 l	598 x 616 x 2050	**CCC3.1**	1 unit(s)	3.695,85

(2) For 1x50 litre gas cylinder

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
(2)	1 x 50 l/2 x 10 l	598 x 616 x 2050	**CCC4.1**	1 unit(s)	3.196,00

(3) For 10 litre gas cylinders

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
(3)	2 x 10 l	598 x 616 x 1450	**CCC5.1**	1 unit(s)	3.196,00

Accessories for G90 compressed gas cylinder cabinet

Asecos.

Cylinder holder set
2 cylinder holders with 2 tensioning straps for the additional securing of small 10 l compressed gas cylinders.

Designation	Art. No.	Pack Qty.	€
Cylinder holder set	**CCC6.1**	1 set	62,00

Gas cylinder trolley
For 1 x 50 l gas cylinder.

Designation	Art. No.	Pack Qty.	€
Gas cylinder trolley for 1 x 50 l gas cylinder	**CCC7.1**	1 unit(s)	321,45

Wall cupboard SEKUROKA®

ROTH SELECTION.

Made of sheet steel. Colour: Light grey (RAL 7035).

- With two fixed shelves (distance from top: 160 and 470 mm)
- Smooth surface with no ventilation slots
- Reinforced door, hinge on the right
- DOM cylinder cam lock with 2 keys

Delivery without warning symbols.

W x D x H (mm)	Art. No.	Pack Qty.	€
400 x 200 x 800	**5226.1**	1 unit(s)	385,95

Jumbo filter trolley

ULT Umwelt-Lufttechnik. Material: ABS, PC.

For absorbing and filtering gases and vapours directly where they arise.
Applications:
For glueing, lacquering, laminating and absorbing solvent vapours and undertaking cleaning work.

- With wheels to enable flexible operation at different workstations
- Extremely quiet
- Three articulated arms provide flexibility
- Range of the suction arm: 750 mm
- Low energy consumption
- Ultra-filter effect results in clean air
- The filtered air is filtered back into the working area
- Filter can be easily removed for changing
- Dimensions: Cover L 296 x W 248 mm,
  Trolley L 450 x W 340 x H 530 mm

Technical specifications:

Art. No.	Y928.1
Sound level	49 db
Power consumption	150 W
Weight	18 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Filter trolley Jumbo complete	**Y928.1**	1 unit(s)	2.996,05

Glove bag SEKUROKA®

ROTH SELECTION. Material: PE.

With integrated gloves. For carrying out work in environments free of air or moisture.
Handling: Glove bags are fed through the opening with the working utensils, closed using a clip and filled with inert gas through the gas connector. Plastic coupling for gas connector, closing clips and inner gloves are also included.

With one opening for filling
With one hose connection for 1936.1 and K352.1, two hose connections for K353.1

L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
420 x 420 x 280	275	**1936.1**	1 unit(s)	60,75
690 x 690 x 380	565	**K352.1**	1 unit(s)	99,75
940 x 940 x 640	860	**K353.1**	1 unit(s)	115,15

With two openings for filling
Incl. two tube connections.

L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
490 x 490 x 290	2 x 300	**1937.1**	1 unit(s)	74,40

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Pharmacy workstation (pharmacy fume cupboards)

Asecos.

Hazardous material workstations according to DIN 12924-4: 2012 (Fume cupboards for pharmacies) – Does not replace a fume cupboard according to DIN EN 14175 (Fume cupboards).
Not suitable for working with high acid loads or for openly breaking down chemicals at high temperatures.

- Safe handling of chemicals, protection against harmful vapours and explosive atmospheres
- Easy to mount on bench top
- Sturdy design with made of fine steel sheets coated in plastic
- Each unit is tested with regards to ventilation by a recognised testing agency

Standard equipment:

- Monitoring electronics
- Two IP 54 safety plug sockets
- Work station energy-saving light bulb with on/off switch
- Continuously height-adjustable acrylic glass sliding window
- Supply air and exhaust fans
- Recommended exhaust air rate of 330 m^3/h
- Pressure drop of 315 hPa
- Unit is fuse-protected to 4 A

Technical specifications:

Art. No.	CEH3.1	CEH4.1
Exhaust air connection	100 mm	
Sockets in the working area	2 unit(s)	
Media supply	Optional: drainage outlet, natural gas, water	
Wastewater connection	1.5	
W x D x H, total	750 x 600 x 1460 mm	900 x 600 x 1460 mm
W x D x H, interior	740 x 440 x 924 mm	890 x 440 x 924 mm
Weight	55 kg	65 kg
Mains connection	230 V, 50 Hz	

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Delivery without media (natural gas, waste water, cold water) and ventilation sets are not included, please order separately.

APA.145.075
Effective working area: W 745 x D 440 mm

Type	Art. No.	Pack Qty.	€
APA.145.075	**CEH3.1**	1 unit(s)	2.256,45

APA.145.090
Effective working area: W 895 x D 440 mm

Type	Art. No.	Pack Qty.	€
APA.145.090	**CEH4.1**	1 unit(s)	2.300,50

Accessories for pharmacy work stations

Asecos.

Ventilation set 1

- 1 m flexible hose DN100
- 2 hose clamps
- 1 wall duct

Suitable for	Art. No.	Pack Qty.	€
APA.145.075/APA.145.090	**CEK0.1**	1 unit(s)	179,55

Ventilation set 2

- 7.5 m flexible hose DN125
- 2 hose clamps
- 1 wall duct
- 1 reducer DN100/125

Suitable for	Art. No.	Pack Qty.	€
APA.145.075/APA.145.090	**CEK1.1**	1 unit(s)	304,25

Ventilation set 3

- 1 duct fan DN150
- 2 reducers DN150/125
- 7.5 m flexible hose DN125
- 2 hose clamps
- 6 drilling screws 4.2 x 16 mm

Suitable for	Art. No.	Pack Qty.	€
APA.145.075/APA.145.090	**CEK2.1**	1 unit(s)	678,35

Media supply Natural gas

Suitable for	Art. No.	Pack Qty.	€
APA.145.075/APA.145.090	**CEH9.1**	1 unit(s)	242,95

Media supply Natural gas/water for APA.145.075

Suitable for	Art. No.	Pack Qty.	€
APA.145.075	**CEH6.1**	1 unit(s)	427,85

Media supply Natural gas/water for APA.145.090

Suitable for	Art. No.	Pack Qty.	€
APA.145.090	**CEH8.1**	1 unit(s)	427,85

Media supply Water for APA.145.075

Suitable for	Art. No.	Pack Qty.	€
APA.145.075	**CEH5.1**	1 unit(s)	231,15

Media supply Water for APA.145.090

Suitable for	Art. No.	Pack Qty.	€
APA.145.090	**CEH7.1**	1 unit(s)	231,15

NEW/+

UV PCR chamber

Cleaver Scientific.

- This chamber offers a practical area for making PCR preparations in a decontaminated environment which is free from nucleic acid
- The powerful UV light denatures nucleic acid in 5-30 min.
- Efficient decontamination of the entire working area
- The duration of UV radiation can be set via a timer
- The white light ensures outstanding visibility while working
- Safety functions prevent users from being exposed to the UV light
- Safety switches on the doors automatically switch off the UV light when the chamber is opened
- Lighting: 4 x 15 W UV light tubes and 1 x 15 W white light lamp
- The chamber walls are impermeable to UV light and protect against ß radiation, meaning that it is also suitable for work with ^{32}P and other ß rays
- Can be used with protection trays and a protection tray insert (680 x 540 mm)

Technical specifications:

Art. No.	1H29.1	1H28.1	1H27.1
W x D x H, total	580 x 350 x 450 mm	580 x 420 x 620 mm	580 x 420 x 770 mm
W x D x H, interior	530 x 320 x 270 mm	530 x 390 x 425 mm	530 x 390 x 600 mm
Weight	12 kg	14,6 kg	19 kg
Mains connection	230 V		

Version	Art. No.	Pack Qty.	€
Mini	**1H29.1**	1 unit(s)	2.261,80
Midi	**1H28.1**	1 unit(s)	2.346,75
Maxi	**1H27.1**	1 unit(s)	2.563,90

Protective screen SEKUROKA® with side panels

ROTH SELECTION. Material: PMMA, transparent.

Folding, made of 8 mm thick colourless acrylic glass, for shielding against splinters and splashes. Three-part, can be spread to 120°.

Type 450

Main panel W 450 x H 450 mm, 2 side panels each measuring W 200 x H 450 mm.

Weight (kg)	Art. No.	Pack Qty.	€
3,7	**2967.1**	1 unit(s)	263,40

Type 750

Main panel W 450 x H 750 mm, 2 side panels each measuring W 200 x H 750 mm.

Weight (kg)	Art. No.	Pack Qty.	€
6,0	**2968.1**	1 unit(s)	349,40

Table mount SEKUROKA®

ROTH SELECTION. Material: PMMA.

Consisting of acrylic glass support and screw clamp with eye bolt. For stable attachment of the industrial safety markings to work tables up to a thickness of 38 mm.

Version	Art. No.	Pack Qty.	€
Table mount	**5099.1**	1 unit(s)	80,90

Shields/radiation protection

Radiation protection shield SEKUROKA®

ROTH SELECTION. Material: PMMA, transparent.

For protection during work with radioactive samples or solutions which emit beta radiation (^{32}P) or gamma radiation (^{125}J). Made of transparent acrylic glass for protection against beta radiation or of leaded acrylic glass for protection against gamma radiation. Inclination angle of 15° to reduce light reflections.
Screens with a bent base are suitable for use with protection trays.

With flat base

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	300 x 300 x 450	10	**E041.1**	1 unit(s)	215,00
γ radiation	300 x 300 x 450	12	**EXN7.1**	1 unit(s)	2.548,85

With bent base

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	300 x 150 x 450	10	**EXN8.1**	1 unit(s)	646,10
γ radiation	300 x 150 x 450	12	**E042.1**	1 unit(s)	1.857,60

Duo

Made of two layers, acrylic and leaded acrylic. 15° inclination angle. With bent base.

For protection against	W x D x H, total (mm)	Art. No.	Pack Qty.	€
β and γ radiation	300 x 150 x 450	**EXN9.1**	1 unit(s)	3.647,50

Radiation protection shield SEKUROKA® adjustable

ROTH SELECTION. Material: PMMA, transparent.

Made of transparent acrylic glass or acrylic glass containing lead. Protects against beta radiation or gamma radiation depending on the design. The tilt of the screen can be adjusted by up to 15°.

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	350 x 240 x 540	10	**E008.1**	1 unit(s)	234,35
γ radiation	350 x 240 x 540	12	**E009.1**	1 unit(s)	2.371,45

Radiation protection shield SEKUROKA® angled

ROTH SELECTION. Material: PMMA, transparent or containing lead.

For protection when working with radio-isotope solutions, available for protection against either beta (^{32}P) or gamma (^{125}J) radiation. Front section angled at 45°. With a curved base for use with protection trays.

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	300 x 150 x 450	10	**K562.1**	1 unit(s)	222,55
γ radiation	300 x 150 x 450	12	**K564.1**	1 unit(s)	2.204,85

Radiation protection shield SEKUROKA® bent

ROTH SELECTION. Material: PMMA, transparent.

Made of transparent acrylic glass, for working with radio isotopic solutions that emit beta–radiation, e.g. ^{32}P, ^{14}C or ^{35}S. With chamfered front section and rounded-off edges. Stability ensured by four rubber studs on the base plate. Bent from a single piece.

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	350 x 300 x 500	10	**9764.1**	1 unit(s)	164,50

Shields/radiation protection

Radiation protection shield SEKUROKA® hourglass shape

ROTH SELECTION. Material: PMMA, transparent or containing lead.

For protection against beta or gamma radiation.
Inclination angle of 15° to reduce light reflections.
For protection during work with radioactive samples and solutions which emit beta radiation (^{32}P) or gamma radiation (^{125}J).
Screens with a bent base are suitable for use with protection trays.
The bent shape with cut-outs at the sides allows for greater freedom of movement in order to eliminate fatigue when working.

With flat base

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	300 x 300 x 450	10	**EYN3.1**	1 unit(s)	640,70
γ radiation	300 x 300 x 450	12	**EYN4.1**	1 unit(s)	1.729,70

With bent base

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	300 x 150 x 450	10	**EYN5.1**	1 unit(s)	640,70
γ radiation	300 x 150 x 450	12	**EYN6.1**	1 unit(s)	1.907,05

Radiation protection box SEKUROKA®

ROTH SELECTION. Material: PMMA, transparent or containing lead.

For protection against beta or gamma radiation.
For storage and transportation of radioactive samples and solutions.
Each box has a hinged lid and slip-resistant feet.

Beta radiation protection

Type	L x W x H, external (mm)	L x W x H, interior (mm)	Art. No.	Pack Qty.	€
Mini	109 x 109 x 79	85 x 85 x 55	**EXT0.1**	1 unit(s)	849,25
Midi	185 x 105 x 80	165 x 85 x 60	**K565.1**	1 unit(s)	342,95
Maxi	300 x 185 x 160	280 x 165 x 140	**L424.1**	1 unit(s)	861,10

Gamma radiation protection

Type	L x W x H, external (mm)	L x W x H, interior (mm)	Art. No.	Pack Qty.	€
Mini	109 x 109 x 79	85 x 85 x 55	**EXT1.1**	1 unit(s)	2.024,25
Midi	189 x 109 x 84	165 x 85 x 60	**K566.1**	1 unit(s)	2.030,70
Maxi	304 x 189 x 164	280 x 165 x 140	**L425.1**	1 unit(s)	5.931,85

Reaction vial stands SEKUROKA®

ROTH SELECTION. Material: PMMA.
Maxi boxes can accommodate up to three midi stands.

For mini radiation protection box

Suitable for	No. of slots	Art. No.	Pack Qty.	€
0.5 ml reaction vials	20	**EXT2.1**	1 unit(s)	47,85
1.5 ml reaction vials	16	**EXT3.1**	1 unit(s)	47,85

For midi radiation protection box

Suitable for	No. of slots	Art. No.	Pack Qty.	€
0.5 ml reaction vials	40	**EXT4.1**	1 unit(s)	47,85
2 ml cryogenic vials	32	**EXT5.1**	1 unit(s)	47,85
1.5 ml reaction vials	32	**K568.1**	1 unit(s)	48,30

For maxi radiation protection box

Suitable for	No. of slots	Art. No.	Pack Qty.	€
5 ml scintillation vials	15	**EXT6.1**	1 unit(s)	47,85
20 ml scintillation vials	8	**EXT7.1**	1 unit(s)	47,85

Radiation protection waste container SEKUROKA®

ROTH SELECTION. Material: PMMA, Containing lead.

For protection against beta radiation. For collecting contaminated pipette tips, cannulae, reaction vials, etc.
Opening Ø 25 mm in lid. Additional hinged lid for closing this opening.
With four rubber studs on the base plate to prevent slipping.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
150 x 150 x 150	**E267.1**	1 unit(s)	855,70

Waste bags SEKUROKA® for source containers

ROTH SELECTION. Material: PE, extra strong.

For E267.1 waste container. With double welded seams for increased leak protection and double drawstring closure for secure storage of the radioactive waste in the bag during disposal. The radioactive hazard symbol and a max. fill level line are printed on the container.

L x W x H (mm)	Art. No.	Pack Qty.	€
120 x 130 x 140	**K178.1**	25 unit(s)	184,00

Radiation protection waste containers SEKUROKA®

ROTH SELECTION. Material: PMMA, transparent.

For storage and transportation of radioactive samples and solutions. Made of transparent acrylic glass for protection against beta radiation or of leaded acrylic glass for protection against gamma radiation.
The 47 l container is equipped with rollers – for easy transportation.

Beta radiation protection

Vol. (l)	L x W x H, interior (mm)	Art. No.	Pack Qty.	€
1	100 x 80 x 130	**EYN7.1**	1 unit(s)	860,00
3.3	150 x 150 x 150	**C975.1**	1 unit(s)	884,75
10	200 x 200 x 250	**C976.1**	1 unit(s)	864,30
20	215 x 235 x 380	**EYN8.1**	1 unit(s)	860,00
47	285 x 270 x 580	**EYN9.1**	1 unit(s)	809,50
53	490 x 270 x 400	**C977.1**	1 unit(s)	898,70

Gamma radiation protection

Vol. (l)	L x W x H, interior (mm)	Art. No.	Pack Qty.	€
1	100 x 80 x 130	**EYP0.1**	1 unit(s)	1.665,20
3.3	150 x 150 x 150	**EYP1.1**	1 unit(s)	2.443,50

Protection tray SEKUROKA®

ROTH SELECTION.

To protect the desk or laboratory bench against contamination from radioactive substances or spilt reagents. Easy to clean.
With stable edging. The trays should be used together with the anti-static inserts made of transparent PET.

Yellow

Material: PVC in signal colour. For work with radioactive substances.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
460 x 260 x 20	**EXL3.1**	1 unit(s)	88,20
540 x 340 x 20	**EXL4.1**	1 unit(s)	97,75
570 x 540 x 20	**LN79.1**	1 unit(s)	134,55
680 x 540 x 20	**EXL5.1**	1 unit(s)	159,10
700 x 460 x 20	**EXL6.1**	1 unit(s)	159,10
1130 x 540 x 20	**LN78.1**	1 unit(s)	189,20

White

Material: PVC in signal colour. For general work.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
460 x 260 x 20	**EXL7.1**	1 unit(s)	72,70
540 x 340 x 20	**EXL8.1**	1 unit(s)	78,85
570 x 540 x 20	**EXL9.1**	1 unit(s)	107,90
680 x 540 x 20	**EXN0.1**	1 unit(s)	134,90
700 x 460 x 20	**EXN1.1**	1 unit(s)	132,20
1130 x 540 x 20	**EXN2.1**	1 unit(s)	150,35

Protection tray inserts

Material: PET transparent.

The flexible anti-static inserts fit exactly into the trays provided and can be disposed of or reused as required.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
460 x 260 x 20	**EXN3.1**	25 unit(s)	91,60
540 x 340 x 20	**EXN4.1**	25 unit(s)	124,15
570 x 540 x 20	**LN81.1**	25 unit(s)	141,45
680 x 540 x 20	**EXN5.1**	25 unit(s)	192,45
700 x 460 x 20	**EXN6.1**	25 unit(s)	192,45
1130 x 540 x 20	**LN80.1**	25 unit(s)	266,60

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

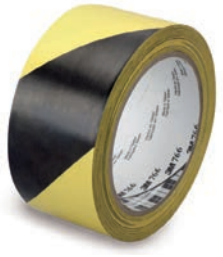
Marking tapes, signs

Warning sign danger of slipping

Contacto Bander. Material: PE.

Acc. to ASR A1.3/BGV A8/DIN 4844.
Warning sign „Danger of slipping“, in two languages – German and English. Coloured yellow, printed on both sides. Easy to fold and transport. Dimensions when folded up: W 31 mm x H 60 mm

Symbol	Art. No.	Pack Qty.	€
Warning, danger of slipping	**HLL6.1**	1 unit(s)	22,50



Signal tape

3M. Material: PVC Film.

Self-adhesive, abrasion resistant adhesive hazard warning tape for indoor use. Extremely stretchy and very supple, even on uneven surfaces. Ideal for marking hazards, bundling, holding and sealing.

Colour	W x L	Art. No.	Pack Qty.	€
red/white	50 mm x 33 m	**0744.2**	1 roll(s)	24,40
yellow/black	50 mm x 33 m	**NK94.1**	1 roll(s)	24,25

Signal barrier tape SEKUROKA®

ROTH SELECTION. Material: PE, Film, tearproof.

Red/white striped, simply printed, non-adhesive. For indicating, marking and warning against obstacles and hazards.

Colour	W x L	Art. No.	Pack Qty.	€
red/white	75 mm x 500 m	**NH42.1**	1 roll(s)	25,95

Magnetic sign SEKUROKA®

ROTH SELECTION. Material: Plastic, with white PVC coating.

On tape roll with magnetic finish, can be marked with pencil, ballpoint pen, typewriter, etc.

W x L	Art. No.	Pack Qty.	€
30 mm x 5 m	**0182.1**	1 roll(s)	28,50
50 mm x 5 m	**0181.1**	1 roll(s)	47,85

A 121 °C ❄❄❄

Adhesive tape temperature stable

Autoclavable: Yes.

Self-adhesive tape, ideal for use in extreme temperatures. For use in the cryo sector, in incubators, autoclaves, sterilisers, etc. The textile surface can be marked.
Temperature stability from -196 to +287 °C.

W x L	Art. No.	Pack Qty.	€
12.7 mm x 7.6 m	**L034.1**	1 roll(s)	40,10
19.0 mm x 7.6 m	**L035.1**	1 roll(s)	45,15
25.4 mm x 7.6 m	**L036.1**	1 roll(s)	69,55

Marking tapes, signs

Marking tape Labeltape original

Diversified Biotech. Material: Paper coated. Autoclavable: Yes.

Self-adhesive coloured marking tape. Long-lasting, abrasion-resistant and does not fade. Resistant to oils, dilute acids and water. Excellent adhesion to most surfaces such as glass, plastic and metal. Can be removed without leaving a residue.
Ideal for general identification and colour coding. Suitable for labelling with a ball-point pen, pencil, felt-tipped pen or permanent marker.
Temperature stability from -23 to +121 °C.

A 121 °C

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
white	19 mm x 12.7 m	25.4	**KCL0.1**	1 roll(s)	14,85
yellow	19 mm x 12.7 m	25.4	**KCL1.1**	1 roll(s)	14,85
green	19 mm x 12.7 m	25.4	**KCL2.1**	1 roll(s)	14,85
blue	19 mm x 12.7 m	25.4	**KCL3.1**	1 roll(s)	14,85
red	19 mm x 12.7 m	25.4	**KCL4.1**	1 roll(s)	14,85

Duct tape SEKUROKA® Standard

ROTH SELECTION. Fabric tape, 80 mesh (threads/inch²), PE coated, with natural rubber adhesive.

High tear strength, good adhesive power, also adheres to rough surfaces. Hand tearable. Waterproof, highly UV and oil resistant. Wide variety of uses indoors and outdoors. Writable.
Temperature stability from -35 to +80 °C

Colour	W x L	Thickness (mm)	ØCore (mm)	Art. No.	Pack Qty.	€
white	19 mm x 50 m	0.30	76.1	**YX05.1**	1 roll(s)	17,95
yellow	19 mm x 50 m	0.30	76.1	**YX06.1**	1 roll(s)	17,95
red	19 mm x 50 m	0.30	76.1	**YX07.1**	1 roll(s)	17,95
blue	19 mm x 50 m	0.30	76.1	**YX08.1**	1 roll(s)	17,95
green	19 mm x 50 m	0.30	76.1	**YX09.1**	1 roll(s)	17,95
silver	19 mm x 50 m	0.30	76.1	**YX10.1**	1 roll(s)	17,95

Duct tape tesa® Premium

tesa. Fabric tape, 145 mesh (threads/inch²), Acrylic coated with natural rubber adhesive. Autoclavable: Yes.

Abrasion resistant, very high tear strength. Hand tearable. Waterproof, UV and oil resistant. Wide variety of uses indoors and outdoors. Writable. Temperature stability from -40 to +130 °C.

A 121 °C

Colour	W x L	Thickness (mm)	ØCore (mm)	Art. No.	Pack Qty.	€
white	19 mm x 50 m	0.31	76.1	**YX11.1**	1 roll(s)	29,70
yellow	19 mm x 50 m	0.31	76.1	**YX12.1**	1 roll(s)	29,70
red	19 mm x 50 m	0.31	76.1	**YX13.1**	1 roll(s)	29,70
blue	19 mm x 50 m	0.31	76.1	**YX14.1**	1 roll(s)	29,70
green	19 mm x 50 m	0.31	76.1	**YX15.1**	1 roll(s)	29,70
black	19 mm x 50 m	0.31	76.1	**YX18.1**	1 roll(s)	29,70

Marking tapes, signs

Marking tape ROTI®Tape

ROTH SELECTION. Autoclavable: Yes.

Self-adhesive, coloured marking tapes. Wide range of applications, e.g. labelling samples, laboratory glass and laboratory dishes.

- Can be marked with pencil, ballpoint pen, felt-tipped pen, permanent marker, ink, etc.
- Can be removed without leaving any residue
- Resistant to oil, water and acids
- Temperature stability from: -23 °C to +121 °C

A 121 °C

Core Ø 25.4 mm, width 13,00 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	13 mm x 12.7 m	25.4	**7982.1**	1 roll(s)	10,20
blue	13 mm x 12.7 m	25.4	**7983.1**	1 roll(s)	10,20
grey	13 mm x 12.7 m	25.4	**AL52.1**	1 roll(s)	10,20
pink	13 mm x 12.7 m	25.4	**AL31.1**	1 roll(s)	10,20
pink	13 mm x 12.7 m	25.4	**AL43.1**	1 roll(s)	10,20
beige	13 mm x 12.7 m	25.4	**AL34.1**	1 roll(s)	10,20
black	13 mm x 12.7 m	25.4	**AL55.1**	1 roll(s)	10,20
green	13 mm x 12.7 m	25.4	**7985.1**	1 roll(s)	10,20
white	13 mm x 12.7 m	25.4	**7981.1**	1 roll(s)	10,20
copper	13 mm x 12.7 m	25.4	**AL40.1**	1 roll(s)	10,20
orange	13 mm x 12.7 m	25.4	**7988.1**	1 roll(s)	10,20
salmon	13 mm x 12.7 m	25.4	**AL37.1**	1 roll(s)	10,20
violet	13 mm x 12.7 m	25.4	**AL46.1**	1 roll(s)	10,20
yellow	13 mm x 12.7 m	25.4	**7987.1**	1 roll(s)	10,20
lavender	13 mm x 12.7 m	25.4	**AL49.1**	1 roll(s)	10,20

Core Ø 25.4 mm, width 19,1 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	19.1 mm x 12.7 m	25.4	**8000.1**	1 roll(s)	11,45
blue	19.1 mm x 12.7 m	25.4	**8002.1**	1 roll(s)	11,45
grey	19.1 mm x 12.7 m	25.4	**AL53.1**	1 roll(s)	11,45
pink	19.1 mm x 12.7 m	25.4	**AL32.1**	1 roll(s)	11,45
pink	19.1 mm x 12.7 m	25.4	**AL44.1**	1 roll(s)	11,45
beige	19.1 mm x 12.7 m	25.4	**AL35.1**	1 roll(s)	11,45
black	19.1 mm x 12.7 m	25.4	**AL56.1**	1 roll(s)	11,45
green	19.1 mm x 12.7 m	25.4	**8003.1**	1 roll(s)	11,45
white	19.1 mm x 12.7 m	25.4	**7999.1**	1 roll(s)	11,45
copper	19.1 mm x 12.7 m	25.4	**AL41.1**	1 roll(s)	11,45
orange	19.1 mm x 12.7 m	25.4	**8014.1**	1 roll(s)	11,45
salmon	19.1 mm x 12.7 m	25.4	**AL38.1**	1 roll(s)	11,45
violet	19.1 mm x 12.7 m	25.4	**AL47.1**	1 roll(s)	11,45
yellow	19.1 mm x 12.7 m	25.4	**8008.1**	1 roll(s)	11,45
lavender	19.1 mm x 12.7 m	25.4	**AL50.1**	1 roll(s)	11,45

Core Ø 25.4 mm, width 25,4 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	25.4 mm x 12.7 m	25.4	**8037.1**	1 roll(s)	16,20
blue	25.4 mm x 12.7 m	25.4	**8041.1**	1 roll(s)	16,20
grey	25.4 mm x 12.7 m	25.4	**AL54.1**	1 roll(s)	16,20
pink	25.4 mm x 12.7 m	25.4	**AL33.1**	1 roll(s)	16,20
pink	25.4 mm x 12.7 m	25.4	**AL45.1**	1 roll(s)	16,20
beige	25.4 mm x 12.7 m	25.4	**AL36.1**	1 roll(s)	16,20
black	25.4 mm x 12.7 m	25.4	**AL57.1**	1 roll(s)	16,20
green	25.4 mm x 12.7 m	25.4	**8042.1**	1 roll(s)	16,20
white	25.4 mm x 12.7 m	25.4	**8036.1**	1 roll(s)	16,20
copper	25.4 mm x 12.7 m	25.4	**AL42.1**	1 roll(s)	16,20
orange	25.4 mm x 12.7 m	25.4	**8057.1**	1 roll(s)	16,20
salmon	25.4 mm x 12.7 m	25.4	**AL39.1**	1 roll(s)	16,20
violet	25.4 mm x 12.7 m	25.4	**AL48.1**	1 roll(s)	16,20
yellow	25.4 mm x 12.7 m	25.4	**8055.1**	1 roll(s)	16,20
lavender	25.4 mm x 12.7 m	25.4	**AL51.1**	1 roll(s)	16,20

Marking tapes, signs

Core Ø 76.2 mm, width 13,0 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	13 mm x 55 m	76.2	**7991.1**	1 roll(s)	21,70
blue	13 mm x 55 m	76.2	**7993.1**	1 roll(s)	21,70
grey	13 mm x 55 m	76.2	**AL79.1**	1 roll(s)	21,70
pink	13 mm x 55 m	76.2	**AL58.1**	1 roll(s)	21,70
pink	13 mm x 55 m	76.2	**AL70.1**	1 roll(s)	21,70
green	13 mm x 55 m	76.2	**7994.1**	1 roll(s)	21,70
white	13 mm x 55 m	76.2	**7990.1**	1 roll(s)	21,70
copper	13 mm x 55 m	76.2	**AL67.1**	1 roll(s)	21,70
orange	13 mm x 55 m	76.2	**7997.1**	1 roll(s)	21,70
salmon	13 mm x 55 m	76.2	**AL64.1**	1 roll(s)	21,70
violet	13 mm x 55 m	76.2	**AL73.1**	1 roll(s)	21,70
yellow	13 mm x 55 m	76.2	**7996.1**	1 roll(s)	21,70
lavender	13 mm x 55 m	76.2	**AL76.1**	1 roll(s)	21,70

Core Ø 76.2 mm, width 19,1 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	19.1 mm x 55 m	76.2	**8026.1**	1 roll(s)	28,30
blue	19.1 mm x 55 m	76.2	**8027.1**	1 roll(s)	28,30
grey	19.1 mm x 55 m	76.2	**AL80.1**	1 roll(s)	28,20
pink	19.1 mm x 55 m	76.2	**AL59.1**	1 roll(s)	28,30
pink	19.1 mm x 55 m	76.2	**AL71.1**	1 roll(s)	28,30
beige	19.1 mm x 55 m	76.2	**AL62.1**	1 roll(s)	28,30
black	19.1 mm x 55 m	76.2	**AL83.1**	1 roll(s)	28,30
green	19.1 mm x 55 m	76.2	**8033.1**	1 roll(s)	28,30
white	19.1 mm x 55 m	76.2	**8024.1**	1 roll(s)	28,30
copper	19.1 mm x 55 m	76.2	**AL68.1**	1 roll(s)	28,30
orange	19.1 mm x 55 m	76.2	**8035.1**	1 roll(s)	28,30
salmon	19.1 mm x 55 m	76.2	**AL65.1**	1 roll(s)	28,30
violet	19.1 mm x 55 m	76.2	**AL74.1**	1 roll(s)	28,30
yellow	19.1 mm x 55 m	76.2	**8034.1**	1 roll(s)	28,30
lavender	19.1 mm x 55 m	76.2	**AL77.1**	1 roll(s)	28,30

Core Ø 76.2 mm, width 25,4 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	25.4 mm x 55 m	76.2	**8061.1**	1 roll(s)	32,10
blue	25.4 mm x 55 m	76.2	**8062.1**	1 roll(s)	32,10
grey	25.4 mm x 55 m	76.2	**AL81.1**	1 roll(s)	32,10
pink	25.4 mm x 55 m	76.2	**AL60.1**	1 roll(s)	32,10
pink	25.4 mm x 55 m	76.2	**AL72.1**	1 roll(s)	32,10
green	25.4 mm x 55 m	76.2	**8064.1**	1 roll(s)	32,10
white	25.4 mm x 55 m	76.2	**8058.1**	1 roll(s)	32,10
orange	25.4 mm x 55 m	76.2	**8069.1**	1 roll(s)	32,10
salmon	25.4 mm x 55 m	76.2	**AL66.1**	1 roll(s)	32,10
violet	25.4 mm x 55 m	76.2	**AL75.1**	1 roll(s)	32,10
yellow	25.4 mm x 55 m	76.2	**8065.1**	1 roll(s)	32,10
lavender	25.4 mm x 55 m	76.2	**AL78.1**	1 roll(s)	32,10

Marking tapes, signs

A 121 °C

Marking tape ROTI®Tape set

ROTH SELECTION. Autoclavable: Yes.

Self-adhesive, coloured marking tapes. Wide range of applications, e.g. labelling samples, laboratory glass and laboratory dishes.

- Can be marked with pencil, ballpoint pen, felt-tipped pen, permanent marker, ink, etc.
- Can be removed without leaving any residue
- Resistant to oil, water and acids
- Temperature stable in the range -23 to +121 °C

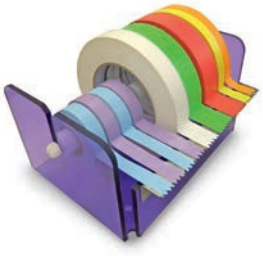
Set contains five rolls, colours: white, red, blue, green and yellow.

Core Ø 25.4 mm

W x L	ØCore (mm)	Art. No.	Pack Qty.	€
13.0 mm x 12.7 m	25.4	**AK65.1**	1 set	55,45
19.1 mm x 12.7 m	25.4	**AK66.1**	1 set	59,40
25.4 mm x 12.7 m	25.4	**AK67.1**	1 set	80,15

Core Ø 76.2 mm

W x L	ØCore (mm)	Art. No.	Pack Qty.	€
13.0 mm x 55 m	76.2	**E287.1**	1 set	97,00
19.1 mm x 55 m	76.2	**E288.1**	1 set	117,25
25.4 mm x 55 m	76.2	**K325.1**	1 set	168,80



NEW / +

Desktop marking tape dispenser

Cleaver Scientific. Material: PMMA (Acrylic glass).

Practical desktop dispenser made of acrylic glass. For simultaneous use of tapes with a core Ø of 25.4 mm and 76.2 mm. The small rolls can be used directly on the spindle. Use the adapter supplied for the large tapes.
There is a sharp, serrated tear bar made of metal.

Usable internal width: 198 mm.

Delivery incl. five roll adapter for a core Ø of 76.2 mm, does not include marking tapes, please order separately.

L x W x H (mm)	Art. No.	Pack Qty.	€
168 x 208 x 118	**1H4K.1**	1 unit(s)	160,40

NEW / +

Accessories for desktop marking tape dispenser

Cleaver Scientific.

Type	Art. No.	Pack Qty.	€
Roll adapter for a core Ø of 76.2 mm	**1H4L.1**	5 unit(s)	26,70

Marking tape dispenser

ROTH SELECTION.

For Roti®Tape and other marking tapes and adhesive tapes. Portable or benchtop. Benchtop dispensers are equipped with a hinged lid and suction cups for secure positioning.

Delivery without marking tapes.

Hand-held dispenser

Material: Plastic. Usable internal width: 34 mm. Suitable for 1 to 2 rolls with a 25.4 mm core.

L x W x H (mm)	Art. No.	Pack Qty.	€
117 x 47 x 90	**CT05.1**	1 unit(s)	12,85

Desktop dispenser for rolls with a 25.4 mm core

Material: PMMA (Acrylic glass). Usable internal width: 220 mm.

L x W x H (mm)	Art. No.	Pack Qty.	€
125 x 251 x 92	**AL87.1**	1 unit(s)	116,80

Desktop dispenser for rolls with a 76.2 mm core

Material: PMMA. Usable internal width: 240 mm.

L x W x H (mm)	Art. No.	Pack Qty.	€
191 x 248 x 162	**AL88.1**	1 unit(s)	148,75

Hazard markings, labels

Labels on a roll

Diversified Biotech. Material: Polyester.

For manual labelling, can be marked with almost any pen. For 0.2/0.5/0.65 and 1.5/2 ml tubes and other containers. Adhere to any plastic without drying out and falling off. Depending on the temperature resistance, e.g. for steam sterilisation, in boiling water baths, in refrigerators, in stirrers and shakers, centrifuges, etc. Extremely close-fitting and do not hinder the removal or loading of tubes in stands or centrifuges, etc. Tearproof.
1000 pieces per roll (Art. No. K436.1 1500 pieces).

Tough Spots™ round

Temperature stability from: -196 °C to +80 °C.

Suitable for	Colour	LabelØ (mm)	Art. No.	Pack Qty.	€
0.5 ml vessels	white	9.5	**K164.1**	1 roll(s)	42,80
0.5 ml vessels	blue	9.5	**X612.1**	1 roll(s)	38,15
0.5 ml vessels	green	9.5	**X613.1**	1 roll(s)	38,15
0.5 ml vessels	red	9.5	**X614.1**	1 roll(s)	38,15
0.5 ml vessels	yellow	9.5	**X615.1**	1 roll(s)	38,15
1.5 ml vessels	white	11	**KCK7.1**	1 roll(s)	38,85
15 ml vessels	white	19	**KCK8.1**	1 roll(s)	46,25
50 ml vessels	white	25	**KCK9.1**	1 roll(s)	46,25
1,5/2 ml vessels	white	12.7	**N120.1**	1 roll(s)	38,85
1,5/2 ml vessels	red	12.7	**N121.1**	1 roll(s)	38,85
1,5/2 ml vessels	green	12.7	**N122.1**	1 roll(s)	38,85
1,5/2 ml vessels	yellow	12.7	**N123.1**	1 roll(s)	38,85
1,5/2 ml vessels	blue	12.7	**N124.1**	1 roll(s)	38,85

Tough Tags™ square

Autoclavable: Yes. Temperature stability from: -40 °C to +121 °C.

Suitable for	Colour	L x W (mm)	Art. No.	Pack Qty.	€
0.2 ml vessels	white	20.5 x 6.5	**K436.1**	1 roll(s)	45,75
0.5 ml vessels	blue	23 x 13	**K440.1**	1 roll(s)	45,75
0.5 ml vessels	yellow	23 x 13	**K441.1**	1 roll(s)	45,75
0.5 ml vessels	red	23 x 13	**K442.1**	1 roll(s)	45,75
0.5 ml vessels	colourless	23 x 13	**K443.1**	1 roll(s)	45,75
0.5 ml vessels	white	23 x 13	**K556.1**	1 roll(s)	38,85
0.5 ml vessels	green	23 x 13	**L666.1**	1 roll(s)	44,60
1,5/2 ml vessels	blue	32 x 13	**K444.1**	1 roll(s)	53,45
1,5/2 ml vessels	yellow	32 x 13	**K445.1**	1 roll(s)	53,45
1,5/2 ml vessels	red	32 x 13	**K446.1**	1 roll(s)	53,45
1,5/2 ml vessels	colourless	32 x 13	**K447.1**	1 roll(s)	53,45
1,5/2 ml vessels	white	32 x 13	**K557.1**	1 roll(s)	38,85
1,5/2 ml vessels	green	32 x 13	**L667.1**	1 roll(s)	51,85
test tubes	white	38 x 19	**L676.1**	1 roll(s)	70,45

Hazard markings, labels

Labels for laser printers

Diversified Biotech. Material: Polyester.

For 0.2/0.5/0.65 and 1.5/2 ml tubes and other containers. Adhere to any plastic without drying out and falling off. Depending on the temperature resistance, e.g. for steam sterilisation, in boiling water baths, in refrigerators, in stirrers and shakers, centrifuges, etc. Extremely close-fitting and do not hinder the removal or loading of tubes in stands or centrifuges, etc. Tearproof.
Sheet format US-Letter, 21,6 x 27,9 cm.

Tough Spots™ round

Temperature stability from: -196 °C to +100 °C.

Assorted colours: 4 sheets each of blue, green, orange, red and yellow.

Suitable for	Colour	LabelØ (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
1.5-2 ml vessels	white	11	234	**KP64.1**	20 sheet	76,40
1.5-2 ml vessels	white	13	192	**KP65.1**	20 sheet	76,40
1.5-2 ml vessels	assorted colours	13	192	**KP71.1**	20 sheet	76,40
0.5-0.65 ml vessels	white	9.5	192	**KP57.1**	20 sheet	76,40
0.5-0.65 ml vessels	assorted colours	9.5	192	**KP63.1**	20 sheet	76,40

Tough Tags™ square

Autoclavable: Yes. Temperature stability from: -40 °C to +121 °C.

Assorted colours: 5 sheets each of blue, green, orange, red and yellow.

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	white	24 x 13	119	**TH53.1**	25 sheet	95,65
0.5 ml vessels	assorted colours	24 x 13	119	**TH54.1**	25 sheet	95,65
1.5/2 ml vessels	white	33 x 13	85	**TH55.1**	25 sheet	95,65
1.5/2 ml vessels	assorted colours	33 x 13	85	**TH56.1**	25 sheet	95,65
Test tubes	white	38 x 19	60	**TH57.1**	25 sheet	95,65
Test tubes	assorted colours	38 x 19	60	**TH58.1**	25 sheet	95,65
Microscope slides	white	22 x 22	96	**TH59.1**	25 sheet	95,65

Cryogenic labels

Diversified Biotech.

Acrylate-based. Adhere to plastic, glass and metal without drying out or flaking off. Care must be taken to ensure that glass and metallic surfaces are absolutely free of oil and grease. Can even be used in boiling water baths, refrigerators, and under cryo conditions (liquid nitrogen). Can be removed without leaving any residue.
Sheet formatUS-Letter, 21,6 x 27,9 cm, sheet can be laser-printed.
Temperature stability from: -196 °C to +79 °C.

❄❄❄

On a sheet white

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	white	24 x 13	119	**X547.1**	20 sheet	84,30
1.5-2 ml vessels	white	33 x 13	85	**X548.1**	20 sheet	84,30
0.5-2 ml vessels	white	64 x 13	60	**EL07.1**	20 sheet	80,75
2 ml cryogenic vials	white	38 x 19	60	**X549.1**	20 sheet	84,30
2 ml cryogenic vials	white	43 x 19	52	**EL08.1**	20 sheet	80,75
Centrifuge tubes	white	29 x 44	42	**EL09.1**	20 sheet	80,75
Racks, boxes	white	67 x 25	30	**X550.1**	20 sheet	84,30
Bottles, glass beakers	white	76 x 51	12	**X551.1**	20 sheet	84,30
Microtiter plates	white	38 x 6	156	**X545.1**	20 sheet	84,30
Microscope slides	white	25 x 25	80	**EL06.1**	20 sheet	80,75

On a sheet blue

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	blue	24 x 13	119	**HX32.1**	20 sheet	80,75
1.5-2 ml vessels	blue	33 x 13	85	**HX33.1**	20 sheet	80,75
2 ml cryogenic vials	blue	38 x 19	60	**HX34.1**	20 sheet	80,75
Racks, boxes	blue	67 x 25	30	**HX35.1**	20 sheet	80,75

Hazard markings, labels

On a sheet yellow

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	yellow	24 x 13	119	**HX48.1**	20 sheet	80,75
1.5-2 ml vessels	yellow	33 x 13	85	**HX49.1**	20 sheet	80,75
2 ml cryogenic vials	yellow	38 x 19	60	**HX50.1**	20 sheet	80,75
Racks, boxes	yellow	67 x 25	30	**HX51.1**	20 sheet	80,75

On a sheet green

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	green	24 x 13	119	**HX36.1**	20 sheet	80,75
1.5-2 ml vessels	green	33 x 13	85	**HX37.1**	20 sheet	80,75
2 ml cryogenic vials	green	38 x 19	60	**HX38.1**	20 sheet	80,75
Racks, boxes	green	67 x 25	30	**HX39.1**	20 sheet	80,75

On a sheet orange

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	orange	24 x 13	119	**HX40.1**	20 sheet	80,75
1.5-2 ml vessels	orange	33 x 13	85	**HX41.1**	20 sheet	80,75
2 ml cryogenic vials	orange	38 x 19	60	**HX42.1**	20 sheet	80,75
Racks, boxes	orange	67 x 25	30	**HX43.1**	20 sheet	80,75

On a sheet red

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	red	24 x 13	119	**HX44.1**	20 sheet	80,75
1.5-2 ml vessels	red	33 x 13	85	**HX45.1**	20 sheet	80,75
2 ml cryogenic vials	red	38 x 19	60	**HX46.1**	20 sheet	80,75
Racks, boxes	red	67 x 25	30	**HX47.1**	20 sheet	80,75

On a sheet assorted colours

4 sheets of each: blue, green, orange, red, yellow

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	assorted colours	24 x 13	119	**HX52.1**	20 sheet	80,75
1.5-2 ml vessels	assorted colours	33 x 13	85	**HX53.1**	20 sheet	80,75
2 ml cryogenic vials	assorted colours	38 x 19	60	**HX54.1**	20 sheet	80,75
Racks, boxes	assorted colours	67 x 25	30	**HX55.1**	20 sheet	80,75

On a roll white

For manual labelling.

Suitable for	Colour	L x W (mm)	Art. No.	Pack Qty.	€
0.5 ml vessels	white	24 x 13	**HX56.1**	1 roll(s)	43,55
1.5-2 ml vessels	white	33 x 13	**L672.1**	1 roll(s)	44,00
2 ml cryogenic vial	white	38 x 19	**L673.1**	1 roll(s)	44,00

Hazard markings, labels

Cryogenic labels Cryo-Clear™

Diversified Biotech. Material: Vinyl, with acrylic adhesive.

Transparent labels. Surface of the label is specially coated for laser jet printing. Good chemical resistance compared with most organic solutions.
Sheet format US-Letter, 21,6 x 27,9 cm.
Temperature stability from: -196 °C to +70 °C.

❄❄❄

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	translucent	24 x 13	119	**HT44.1**	20 sheet	82,70
1.5-2 ml vessels	translucent	33 x 13	85	**HT45.1**	20 sheet	82,70

Labels WetGrip™

Diversified Biotech. Material: Polyester, chemically inert.

Suitable for laser printers. Adhere to moist and frozen surfaces made of glass, plastic, metal and cardboard. Ensure that surfaces are free of grease and silicone.
Sheet format US-Letter, 21,6 x 27,9 cm.
Temperature stability from: -80 °C to +100 °C.

❄❄

Suitable for	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	24 x 13	119	**KP74.1**	20 sheet	88,70
1.5-2 ml vessels	33 x 13	85	**KP75.1**	20 sheet	88,70
Test tubes	38 x 19	60	**KP76.1**	20 sheet	88,70
Microscope slide	22 x 22	96	**KP77.1**	20 sheet	88,70

Thermal transfer labels

Diversified Biotech.

White, angular cornered labels with acrylate-based adhesive backing. Excellent adhesion to plastic, glass or metal at low temperatures without drying out or peeling off. Care must be taken to ensure that glass and metallic surfaces are absolutely free of oil and grease. Resistant to abrasion, chemicals and moisture.
Can be used for refrigerators and freezers and in cryo conditions (liquid nitrogen) (for Cryo Tags®).
Can be removed without leaving any residue. Coated for use with a resin ribbon. Designed for high resolution and very precise labelling, e.g. for barcode. Suitable for most thermal transfer printers.
Wound externally, 25.4 mm (1 inch) roll core, **2000 labels per roll**.

Cryo-Tags®
Temperature stability from: -196 °C to +80 °C.

Suitable for	L x W (mm)	ØCore (mm)	Art. No.	Pack Qty.	€
0.2 ml vessels	20.6 x 7	25.4	**NL05.1**	1 roll(s)	92,15
0.5 ml vessels	24 x 13	25.4	**NL06.1**	1 roll(s)	94,80
0.5 ml vessels	27 x 13	25.4	**NL07.1**	1 roll(s)	92,05
0.5-2 ml vessels	35 x 16	25.4	**NL09.1**	1 roll(s)	101,10
0.5-2 ml vessels	38 x 13	25.4	**NL10.1**	1 roll(s)	127,60
1.5-2 ml vessels	32 x 13	25.4	**NL08.1**	1 roll(s)	113,55
Racks, containers	38 x 19	25.4	**NL11.1**	1 roll(s)	157,85
Microtitration plates	51 x 6	25.4	**NL12.1**	1 roll(s)	87,15

Tough Tags™
Autoclavable: Yes. Temperature stability from: -40 °C to +150 °C.

Suitable for	L x W	ØCore (mm)	Art. No.	Pack Qty.	€
0.5 ml vessels	24 cm x 13 mm	25.4	**NL13.1**	1 roll(s)	87,35
0.5-2 ml vessels	35 x 16	25.4	**NL15.1**	1 roll(s)	90,10
1.5-2 ml vessels	32 x 13	25.4	**NL14.1**	1 roll(s)	90,10
Racks, containers	38 x 19	25.4	**NL16.1**	1 roll(s)	161,20
Microtitration plates	51 x 6	25.4	**NL17.1**	1 roll(s)	90,55

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Hazard markings, labels

121 °C

Thermal transfer labels xylol resistant

Diversified Biotech. Material: Polyester. Autoclavable: Yes.

Excellent solvent resistance, specifically against xylene. Versatile – also suitable for use in boiling water baths. Surface coated for use with resin ribbon. Designed for high resolution and very precise labelling, e.g. for barcode. Suitable for most thermal transfer printers. Good adhesion to PP tubes; not for use on siliconised surfaces.
Wound externally, 25.4 mm (1 inch) roll core, **2000 labels per roll**.
Temperature stability from: -40 °C to +121 °C.

Suitable for	L x W (mm)	ØCore (mm)	Art. No.	Pack Qty.	€
Microscope slides	22 x 22	25.4	**ECH8.1**	1 roll(s)	92,35

121 °C

Labels Bake Tags™ for high temperatures

Diversified Biotech. Autoclavable: Yes.

Acrylate-based, for manual labelling. For permanent labelling of plastic, glass and metal containers. Can be used in applications such as hot air sterilisation (180 °C) and for deactivating RNase, DNase and other enzymes. Ideal for use during sterilisation, autoclaving, in boiling water baths, in refrigerators and for storage in freezers (liquid nitrogen). Resistant to most organic solvents, acids and bases.
Thickness 0.008 mm.
Temperature stability from: -196 °C to +180 °C.
250 labels per roll.

Colour	L x W (mm)	Art. No.	Pack Qty.	€
white	38 x 19	**L675.1**	1 roll(s)	108,85

Labels Wash-off labels™

Diversified Biotech.

Washable labels **on sheets**. Labels and adhesive are completely removable within 30 seconds at any water temperature and without leaving any traces of adhesive. 100% biodegradable.
Temperature stability from: 0 °C to +21 °C.
Sheet format US-Letter, 21,6 x 27,9 cm.

Colour	L x W (mm)	Art. No.	Pack Qty.	€
white	67 x 25.4	**NL21.1**	750 unit(s)	130,10
white	102 x 25.4	**NL22.1**	500 unit(s)	130,10

Labels Tough Tags™ Removable

Diversified Biotech.

Easily removable, without leaving any residue. With rounded corners. For manual labelling.
Ideal for labelling reusable containers, laboratory equipment, racks and pipettes. Resistant to most solvents, including (for short periods) acetone and xylol.
1000 labels per roll.

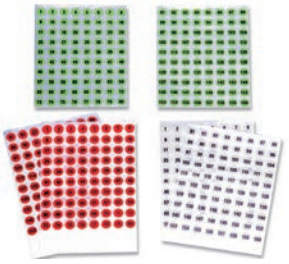
Colour	L x W (mm)	Art. No.	Pack Qty.	€
white	32.5 x 12.7	**NL19.1**	1 roll(s)	38,20
white	38 x 19	**NL20.1**	1 roll(s)	37,05

Hazard symbols SEKUROKA® Biohazard

ROTH SELECTION.

Self-adhesive. Adhere to any plastic without drying out and falling off, e.g. when freezing or in a boiling water bath. Chemically resistant against most organic solvents and corrosive substances.
1 roll of 1000 pieces.

Suitable for	LabelØ (mm)	Art. No.	Pack Qty.	€
0.5–2 ml tubes as well as other containers	9.5	**KL45.1**	1 roll(s)	38,85



Labels SEKUROKA® numbered

ROTH SELECTION. Material: Paper.

Numbered from 1–160 in red, green and blue. Self-adhesive, made of paper. Ø 8 mm. For marking reaction vessels, screw-cap containers, test tubes, etc. For use with numerical racks, to prevent any mix-up. Clear positioning of vessels even when handling large volumes of samples.

LabelØ (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
8	80	**N376.1**	6 sheet	4,25

A 121 °C ❄❄❄

Label protection film Write-Protect™

Diversified Biotech. Autoclavable: Yes.

Self-adhesive, perforated. Fits Cryo labels for 0.5, 1.5 and 2.0 ml tubes or other vessels. Protects the label against organic solvents and corrosive chemicals. Holds labels in place, and prevents labels from becoming detached or falling off. Adheres to most surfaces, plastics, glass and metals.
Temperature stability from: -196 °C to 150 °C. 1000 labels per roll.

Delivery incl. dispenser.

L x W (mm)	Art. No.	Pack Qty.	€
31.75 x 12.7	**ECH6.1**	1 roll(s)	44,55
40.65 x 16.0	**ECH7.1**	1 roll(s)	44,55

Label dispenser Tough-Tag Station

Diversified Biotech.

For the clear, convenient storage and unwinding of up to 6 rolls of Tough-Tags™, Tough-Spots®, Cryo-Tags® or Bake-Tags™ (not suitable for round labels Ø 25 mm). With ledge for writing labels, cutting edge and no-skid rubber feet.

Delivery without Labels, please order separately.

Suitable for	Art. No.	Pack Qty.	€
up to 6 Tough-Tags or Tough-Spots boxes	**NL18.1**	1 unit(s)	92,70

Labels SEKUROKA® blanc

ROTH SELECTION. Material: Paper, satin-finished, 80 g/m².

Multipurpose with permanent adhesive. For manual labelling or printing.
Sheet format A5.

Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
white	50 x 19	24	**5823.1**	200 sheet	42,95
white	50 x 100	4	**5831.1**	200 sheet	42,95

Hazard markings, labels

Fire safety symbol acc. to ISO 7010

Film, self-adhesive.

Acc. to ASR A1.3, DIN EN ISO 7010.
Suitable for indoor use. Adhere permanently to clean, grease-free and smooth surfaces. Resistant to many chemicals. Material thickness: 0.08 to 0.55 mm. Temperature stability from -40 °C to +80 °C. Minimum bonding temperature: +10 °C.

Adhesive film

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(1)	Fire alarm	F005	200 x 200	**YX24.1**	1 unit(s)	5,30
(2)	Fire emergency telephone	F006	200 x 200	**YX25.1**	1 unit(s)	5,30
(3)	Fire ladder	F003	200 x 200	**YX22.1**	1 unit(s)	5,30
(4)	Fire extinguisher	F001	148 x 148	**YX19.1**	1 unit(s)	3,85
(4)	Fire extinguisher	F001	200 x 200	**YX20.1**	1 unit(s)	4,95
(5)	Fire hose	F002	200 x 200	**YX21.1**	1 unit(s)	4,95
(6)	Firefighting media and apparatus	F004	200 x 200	**YX23.1**	1 unit(s)	4,95

Adhesive film, long-lasting luminescence

Exceeding DIN 67510 by 175%. Ideal during power outages or in darkness.

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(1)	Fire alarm	F005	200 x 200	**YX30.1**	1 unit(s)	9,85
(2)	Fire emergency telephone	F006	200 x 200	**YX31.1**	1 unit(s)	9,85
(3)	Fire ladder	F003	200 x 200	**YX28.1**	1 unit(s)	9,85
(4)	Fire extinguisher	F001	200 x 200	**YX26.1**	1 unit(s)	9,60
(5)	Fire hose	F002	200 x 200	**YX27.1**	1 unit(s)	9,60
(6)	Firefighting media and apparatus	F004	200 x 200	**YX29.1**	1 unit(s)	9,60

First aid and rescue signs acc. to ISO 7010

Acc. to ASR A1.3 and DIN EN ISO 7010.

Adhesive film

Material: PE Film, self-adhesive. Non-fading print. Resistant to water, oil and alkalis. Temperature stability from -40 °C to +80 °C.

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(1)	Doctor	E009	200 x 200	**NP70.1**	1 unit(s)	5,50
(2)	Eyewash unit	E011	200 x 200	**H497.1**	1 unit(s)	5,35
(3)	Defibrillator	E010	200 x 200	**NP72.1**	1 unit(s)	5,35
(4)	First aid	E003	200 x 200	**0232.1**	1 unit(s)	6,85
(4)	First aid	E003	100 x 100	**NP68.1**	1 unit(s)	3,80
(5)	Body safety shower	E012	200 x 200	**NP67.1**	1 unit(s)	5,45
(6)	Stretcher	E013	200 x 200	**NP71.1**	1 unit(s)	5,35
(7)	Emergency exit system	E008	100 x 100	**NP73.1**	1 unit(s)	4,25
(9)	Emergency call centre	E004	200 x 200	**NP69.1**	1 unit(s)	5,35
(10)	Emergency exit, left	E001 and left arrow	200 x 400	**NP74.1**	1 unit(s)	8,95
(11)	Emergency exit, right	E002 and right arrow	200 x 400	**NP75.1**	1 unit(s)	8,25

Adhesive film, long-lasting luminescence

Material: Film, self-adhesive. Long-lasting luminescence exceeding DIN 67510 by 175 %. Ideal during power outages or in darkness.

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(2)	Eyewash unit	E011	200 x 200	**H493.1**	1 unit(s)	11,70
(4)	First aid	E003	200 x 200	**H492.1**	1 unit(s)	11,70
(5)	Body safety shower	E012	200 x 200	**NP76.1**	1 unit(s)	9,85
(7)	Emergency exit system	E008	100 x 100	**NP77.1**	1 unit(s)	6,05
(8)	Emergency exit with escape ladder	E016	200 x 200	**NP78.1**	1 unit(s)	9,85
(10)	Emergency exit, left	E001 and left arrow	200 x 400	**NP79.1**	1 unit(s)	18,30
(11)	Emergency exit, right	E002 and right arrow	200 x 400	**NP80.1**	1 unit(s)	18,30

Hazard markings, labels

Plastic sign
Material: Plastic. For indoor and outdoor use. Resistant to moisture and weak acids, flame retardant. Temperature stability from -30 °C to +50 °C.

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(12)	Collection point	E007	400 x 400	**NP81.1**	1 unit(s)	23,55

Safety symbols acc. to ISO 7010

Material: PE Film, self-adhesive.
Acc. to ASR A1.3 and DIN EN ISO 7010.
Non-fading print. Resistant to water, oil and alkalis.
Temperature stability from -40 °C to +80 °C.

Pic.	Symbol	Code	SymbolØ (mm)	Art. No.	Pack Qty.	€
(1)	Follow instructions	M002	100	**NK47.1**	1 unit(s)	3,20
(2)	Wear respiratory protection	M017	100	**NK23.1**	1 unit(s)	3,20
(2)	Wear respiratory protection	M017	200	**NK24.1**	1 unit(s)	4,85
(3)	Wear eye protection	M004	100	**NK21.1**	1 unit(s)	3,20
(3)	Wear eye protection	M004	200	**NK22.1**	1 unit(s)	4,95
(4)	Use footpath	M024	200	**NK48.1**	1 unit(s)	4,85
(5)	Wear protective footwear	M008	100	**NK33.1**	1 unit(s)	3,20
(5)	Wear protective footwear	M008	200	**NK34.1**	1 unit(s)	4,95
(6)	Wear ear protection	M003	100	**NK26.1**	1 unit(s)	3,20
(6)	Wear ear protection	M003	200	**NK27.1**	1 unit(s)	5,40
(7)	Wear face shield	M013	100	**NK41.1**	1 unit(s)	3,20
(7)	Wear face shield	M013	200	**NK42.1**	1 unit(s)	4,85
(8)	Wash hands	M011	100	**NK39.1**	1 unit(s)	3,20
(8)	Wash hands	M011	200	**NK40.1**	1 unit(s)	4,85
(9)	Apply skin protection cream	M022	100	**NK46.1**	1 unit(s)	3,20
(10)	Wear protective headgear	M014	100	**NK28.1**	1 unit(s)	3,20
(10)	Wear protective headgear	M014	200	**NK29.1**	1 unit(s)	4,85
(11)	Wear mask	M016	100	**NK35.1**	1 unit(s)	3,20
(11)	Wear mask	M016	200	**NK36.1**	1 unit(s)	4,85
(12)	Wear protective gloves	M009	50	**NK30.1**	1 unit(s)	2,10
(12)	Wear protective gloves	M009	100	**NK31.1**	1 unit(s)	3,20
(12)	Wear protective gloves	M009	200	**NK32.1**	1 unit(s)	5,50
(13)	Wear protective clothing	M010	100	**NK37.1**	1 unit(s)	3,20
(13)	Wear protective clothing	M010	200	**NK38.1**	1 unit(s)	4,85
(14)	Wear protective apron	M026	100	**NK43.1**	1 unit(s)	3,20
(15)	Wear safety vest	M015	100	**NK45.1**	1 unit(s)	3,20

Safety symbols tried and tested in practice

Material: PVC Film, self-adhesive.
Tried and tested prohibition sign. With permanent adhesive, non-fading print. Material thickness: 0.1 mm.

Symbol	SymbolØ (mm)	Art. No.	Pack Qty.	€
Use the protective cover	200	**L252.1**	1 unit(s)	5,95
Use the protective cover	100	**N419.1**	1 unit(s)	3,50

Hazard markings, labels

Prohibition symbols tried and tested in practice

Material: PVC Film, self-adhesive.

Tried and tested safety markings. With permanent adhesive, non-fading print. Material thickness: 0.1 mm.

Pic.	Symbol	SymbolØ (mm)	Art. No.	Pack Qty.	€
(1)	No eating or drinking	200	**H486.1**	1 unit(s)	6,35
(2)	Unauthorized access is strictly prohibited	200	**H483.1**	1 unit(s)	5,35

Prohibition symbols acc. to ISO 7010

Film, self-adhesive.

Acc. to ASR A1.3, DIN EN ISO 7010.
Suitable for indoor use. Adheres permanently to clean, grease-free and smooth surfaces. Resistant to many chemicals. Minimum bonding temperature +10 °C. Material thickness: 0.08 to 0.55 mm. Temperature stability from -40 °C to +80 °C.

Adhesive film

Pic.	Symbol	Code	SymbolØ (mm)	Art. No.	Pack Qty.	€
(1)	No storage permitted	P023	200	**YX37.1**	1 unit(s)	5,30
(2)	Do not enter	P024	200	**YX39.1**	1 unit(s)	5,30
(3)	No mobile phones	P013	200	**X450.1**	1 unit(s)	5,35
(4)	No eating or drinking	P022	200	**YX35.1**	1 unit(s)	5,30
(5)	Fire, naked flame and smoking prohibited	P003	200	**0204.1**	1 unit(s)	5,35
(5)	Fire, naked flame and smoking prohibited	P003	400	**0205.1**	1 unit(s)	12,85
(6)	No photography	P029	200	**YX41.1**	1 unit(s)	5,30
(7)	No pedestrian access	P004	200	**YX36.1**	1 unit(s)	5,30
(8)	Do not touch	P015	200	**YX38.1**	1 unit(s)	5,30
(9)	Not drinking water	P005	100	**YX34.1**	1 unit(s)	3,20
(10)	No access for persons with pacemakers or implanted defibrillators	P007	200	**YX40.1**	1 unit(s)	5,30
(11)	No smoking	P002	100	**YX32.1**	1 unit(s)	3,20
(11)	No smoking	P002	200	**YX33.1**	1 unit(s)	5,30

Double-sided

For glass doors.

Pic.	Symbol	Code	SymbolØ (mm)	Art. No.	Pack Qty.	€
(3)	No mobile phones	P013	100	**YX42.1**	1 unit(s)	13,15
(11)	No smoking	P002	100	**YX43.1**	1 unit(s)	12,85

Warning symbols tried and tested in practice Single label

Material: PVC Film, self-adhesive.

Suitable for indoor use. Non-fading print. Permanent. Resistant to water, oil and alkalis. Temperature stability from -40 °C to +80 °C.

Pic.	Symbol	Version	Art. No.	Pack Qty.	€
(1)	explosive atmosphere	Side length 100 mm	**EYK5.1**	1 unit(s)	4,55
(1)	explosive atmosphere	Side length 200 mm	**XL27.1**	1 unit(s)	5,35
(2)	harmful substances or irritants	Side length 200 mm	**H490.1**	1 unit(s)	5,35
(3)	UV radiation	Side length 100 mm	**EYK6.1**	1 unit(s)	4,55

Hazard markings, labels

Warning symbols acc. to ISO 7010

Material: PE Film, self-adhesive.

Selection in accordance with ISO 7010, in accordance with ASR A1.3, or established through use in the industry.
Suitable for indoor use. Labels printed with non-fading ink. Permanently adhesive, resistant to water, oil and alkalis. Temperature stability from -40 °C to +80 °C.

Single label

Pic.	Symbol	Code	Version	Art. No.	Pack Qty.	€
(1)	Corrosive substances	W023	Side length 100 mm	**EYH2.1**	1 unit(s)	3,80
(1)	Corrosive substances	W023	Side length 200 mm	**EYH3.1**	1 unit(s)	5,35
(2)	Biohazard	W009	Side length 200 mm	**H489.1**	1 unit(s)	5,35
(2)	Biohazard	W009	Side length 100 mm	**XL29.1**	1 unit(s)	3,80
(3)	Oxidising substances	W028	Side length 200 mm	**EYH5.1**	1 unit(s)	5,35
(3)	Oxidising substances	W028	Side length 100 mm	**XL28.1**	1 unit(s)	3,80
(4)	Hazardous area	W001	Side length 100 mm	**XL23.1**	1 unit(s)	3,80
(4)	Hazardous area	W001	Side length 200 mm	**XL24.1**	1 unit(s)	5,35
(5)	Explosive substances	W002	Side length 200 mm	**XL16.1**	1 unit(s)	5,35
(6)	Flammable substances	W021	Side length 200 mm	**TA07.1**	1 unit(s)	6,05
(6)	Flammable substances	W021	Side length 100 mm	**XL15.1**	1 unit(s)	4,20
(7)	Gas cylinder	W029	Side length 100 mm	**EYH6.1**	1 unit(s)	3,80
(7)	Gas cylinder	W029	Side length 200 mm	**EYH7.1**	1 unit(s)	5,35
(8)	Battery hazard	W026	Side length 100 mm	**XL34.1**	1 unit(s)	3,80
(9)	Dangerous electrical voltage	W012	Side length 100 mm	**XL25.1**	1 unit(s)	3,80
(9)	Dangerous electrical voltage	W012	Side length 200 mm	**XL26.1**	1 unit(s)	5,35
(10)	Toxic substances	W016	Side length 200 mm	**EYH4.1**	1 unit(s)	5,35
(10)	Toxic substances	W016	Side length 100 mm	**XL19.1**	1 unit(s)	3,80
(11)	Hot surface	W017	Side length 200 mm	**K214.1**	1 unit(s)	6,10
(11)	Hot surface	W017	Side length 100 mm	**XL33.1**	1 unit(s)	3,80
(12)	Laser beam	W004	Side length 100 mm	**EYH8.1**	1 unit(s)	3,80
(12)	Laser beam	W004	Side length 200 mm	**XL31.1**	1 unit(s)	6,05
(13)	Magnetic field	W006	Side length 100 mm	**EYK2.1**	1 unit(s)	4,55
(13)	Magnetic field	W006	Side length 200 mm	**XL37.1**	1 unit(s)	5,35
(14)	Non-ionising radiation	W005	Side length 100 mm	**EYK1.1**	1 unit(s)	4,55
(14)	Non-ionising radiation	W005	Side length 200 mm	**XL36.1**	1 unit(s)	5,35
(15)	Low temperature/frost	W010	Side length 100 mm	**EYH9.1**	1 unit(s)	3,80
(15)	Low temperature/frost	W010	Side length 200 mm	**EYK0.1**	1 unit(s)	5,95
(16)	Optical radiation	W027	Side length 100 mm	**XL35.1**	1 unit(s)	3,80
(17)	Radioactive substances or ionising rays	W003	Side length 100 mm	**XL21.1**	1 unit(s)	3,80
(17)	Radioactive substances or ionising rays	W003	Side length 200 mm	**XL22.1**	1 unit(s)	5,35
(18)	Sudden onset of loud noise	W038	Side length 100 mm	**EYK3.1**	1 unit(s)	4,55

On a roll

500 pieces/roll.

Pic.	Symbol	Code	Version	Art. No.	Pack Qty.	€
(11)	Hot surface	W017	Side length 25 mm	**XL52.1**	1 roll(s)	57,00
(11)	Hot surface	W017	Side length 50 mm	**XL53.1**	1 roll(s)	77,40
(12)	Laser beam	W004	Side length 25 mm	**XL50.1**	1 roll(s)	57,00

On a sheet

Pic.	Symbol	Code	Version	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
(1)	Corrosive substances	W023	Side length 50mm	10	**XL40.1**	1 sheet	9,95
(4)	Hazardous area	W001	Side length 25 mm	10	**XL44.1**	1 sheet	8,75
(9)	Dangerous electrical voltage	W012	Side length 25 mm	10	**XL45.1**	1 sheet	7,20
(9)	Dangerous electrical voltage	W012	Side length 50 mm	10	**XL46.1**	1 sheet	8,50
(11)	Hot surface	W017	Side length 50 mm	10	**XL48.1**	1 sheet	8,50
(12)	Laser beam	W004	Side length 25 mm	10	**XL47.1**	1 sheet	8,50
(14)	Non-ionising radiation	W005	Side length 50 mm	10	**XL49.1**	1 sheet	8,75
(17)	Radioactive substances or ionising rays	W003	Side length 25 mm	10	**XL42.1**	1 sheet	7,55
(17)	Radioactive substances or ionising rays	W003	Side length 25 mm	10	**XL43.1**	1 sheet	8,75

Hazard markings, labels

Hazard symbols SEKUROKA® Radioactive

Carl ROTH.

Self-adhesive. For marking reaction vessels, screw-cap containers, test tubes, etc. from the dispenser box.
Rolls of 1000 pieces.

LabelØ (mm)	Art. No.	Pack Qty.	€
6	**E289.1**	1 roll(s)	59,45

GHS hazardous substance label

Carl ROTH. Material: PE Film, High-gloss.

Tried and tested safety markings. Non-fading print. Permanent adhesion, waterproof. Signal words in three languages: German, English, French. Material thickness: 0.1 mm.
Temperature stability from -20 °C to +80 °C.
250 pieces/roll in a practical dispenser box.

L 30 x W 22

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(1)	Exploding bomb/Caution	GHS01	30 x 22	**LN47.1**	1 roll(s)	11,95
(2)	Exploding bomb/Hazard	GHS01	30 x 22	**LN48.1**	1 roll(s)	11,95
(3)	Flame/Caution	GHS02	30 x 22	**LN49.1**	1 roll(s)	11,95
(4)	Flame/Hazard	GHS02	30 x 22	**LN50.1**	1 roll(s)	11,95
(5)	Flame over circle/Caution	GHS03	30 x 22	**LN51.1**	1 roll(s)	11,95
(6)	Flame over circle/Hazard	GHS03	30 x 22	**LN52.1**	1 roll(s)	11,95
(7)	Gas cylinder/Caution	GHS04	30 x 22	**LN53.1**	1 roll(s)	11,95
(8)	Burns/Caution	GHS05	30 x 22	**LN54.1**	1 roll(s)	11,95
(9)	Burns/Hazard	GHS05	30 x 22	**LN55.1**	1 roll(s)	11,95
(10)	Skull/Hazard	GHS06	30 x 22	**LN56.1**	1 roll(s)	11,95
(11)	Exclamation mark/Caution	GHS07	30 x 22	**LN57.1**	1 roll(s)	11,95
(12)	Health hazard/Caution	GHS08	30 x 22	**LN58.1**	1 roll(s)	11,95
(13)	Health hazard/Hazard	GHS08	30 x 22	**LN59.1**	1 roll(s)	11,95
(14)	Environment/Caution	GHS09	30 x 22	**LN60.1**	1 roll(s)	11,95

L 40 x W 27 mm

Pic.	Symbol	Code	L x W	Art. No.	Pack Qty.	€
(1)	Exploding bomb/Caution	GHS01	40 mm x 27 cm	**LN61.1**	1 roll(s)	16,70
(2)	Exploding bomb/Hazard	GHS01	40 mm x 27 cm	**LN62.1**	1 roll(s)	16,70
(3)	Flame/Caution	GHS02	40 mm x 27 cm	**LN63.1**	1 roll(s)	16,70
(4)	Flame/Hazard	GHS02	40 mm x 27 cm	**LN64.1**	1 roll(s)	16,70
(5)	Flame over circle/Caution	GHS03	40 mm x 27 cm	**LN65.1**	1 roll(s)	16,70
(6)	Flame over circle/Hazard	GHS03	40 mm x 27 cm	**LN66.1**	1 roll(s)	16,70
(7)	Gas cylinder/Caution	GHS04	40 mm x 27 cm	**LN67.1**	1 roll(s)	16,70
(8)	Burns/Caution	GHS05	40 mm x 27 cm	**LN68.1**	1 roll(s)	16,70
(9)	Burns/Hazard	GHS05	40 mm x 27 cm	**LN69.1**	1 roll(s)	16,70
(10)	Skull/Hazard	GHS06	40 mm x 27 cm	**LN70.1**	1 roll(s)	16,70
(11)	Exclamation mark/Caution	GHS07	40 mm x 27 cm	**LN71.1**	1 roll(s)	16,70
(12)	Health hazard/Caution	GHS08	40 mm x 27 cm	**LN72.1**	1 roll(s)	16,70
(13)	Health hazard/Hazard	GHS08	40 mm x 27 cm	**LN73.1**	1 roll(s)	16,70
(14)	Environment/Caution	GHS09	40 mm x 27 cm	**LN74.1**	1 roll(s)	16,70

Hazard markings, labels

GHS hazardous substances labels to combine

Carl ROTH. Material: PE Film, High-gloss.

Permanent adhesion, waterproof. Material thickness: 0.1 mm.
Temperature stability from -20 °C to +80 °C.
250 pieces/roll in a practical dispenser box.

Pictogram

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(1)	Exploding bomb	GHS01	22 x 22	**NP43.1**	250 unit(s)	13,05
(2)	Flame	GHS02	22 x 22	**NP44.1**	250 unit(s)	13,05
(3)	Flame over circle	GHS03	22 x 22	**NP45.1**	250 unit(s)	13,05
(4)	Gas bottle	GHS04	22 x 22	**NP46.1**	250 unit(s)	13,05
(5)	Burns	GHS05	22 x 22	**NP47.1**	250 unit(s)	13,05
(6)	Skull	GHS06	22 x 22	**NP48.1**	250 unit(s)	13,05
(7)	Exclamation mark	GHS07	22 x 22	**NP49.1**	250 unit(s)	13,05
(8)	Health hazard	GHS08	22 x 22	**NP50.1**	250 unit(s)	13,05
(9)	Environment	GHS09	22 x 22	**NP51.1**	250 unit(s)	13,05

Signal word

In three languages: German, English and French.

Pic.	Symbol	L x W (mm)	Art. No.	Pack Qty.	€
(10)	Warning	15 x 27	**NP52.1**	250 unit(s)	14,25
(11)	Danger	15 x 27	**NP53.1**	250 unit(s)	14,25

GHS hazardous substances labels product range

Carl ROTH. Material: PE Film, Self-adhesive, high gloss.

Permanent adhesion, waterproof. Material thickness: 0.1 mm.
Temperature stability from -20 °C to +80 °C
20 labels per sheet, sorted by frequency of use.

Symbol	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
GHS01–GHS09 Hazardous substances labels	22 x 22	20	**ATY6.1**	25 sheet	68,00
Signal words for caution/hazard	15 x 27	20	**ATY7.1**	25 sheet	105,70

The complete ROTH product range in the ROTH webshop

Over 30,000 items orderable around the clock!

Discover everything at **www.carlroth.com**

- Latest NEW products
- Continuous range extensions
- Detailed product information
- Additional information about the products
- Regular special offers
- ... and much more. Stay curious!

Hazard markings, labels

Chemical label SEKUROKA®

Carl ROTH. Material: PVC.

For spray bottles and reagent bottles for ordinary laboratory use.
With substance name and hazard symbols.
In three languages: German, English and French.

Version	L x W (mm)	Art. No.	Pack Qty.	€
Acetone	105 x 75	**8416.1**	10 unit(s)	12,40
Ethanol	105 x 75	**8419.1**	10 unit(s)	12,40
Isopropyl	105 x 75	**8430.1**	10 unit(s)	11,85
Distilled water	105 x 75	**8420.1**	10 unit(s)	12,40

Labels on DIN A4 sheets

Flexicom.

Rectangular labels, white, matt.

Paper labels
Material: Paper. With permanent adhesive. Suitable for laser, colour and inkjet printers, as well as copiers.

Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
white	50.8 x 70	15	**HY36.1**	100 sheet	23,20
white	74 x 105	8	**HY37.1**	100 sheet	23,20
white	148 x 105	4	**HY38.1**	100 sheet	23,20

Impregnated paper
Material: Paper wood-free. With high strength, rubber-based adhesive. Latex-impregnated surface is water repellent. Suitable for laser printers and copiers. Temperature stable from -5 to +80 °C.

Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
white	50.8 x 70	15	**NK99.1**	30 sheet	32,05
white	74 x 105	8	**NL00.1**	30 sheet	32,05
white	148 x 105	4	**NL01.1**	30 sheet	32,05

PET, chemical resistant
Material: PET. With permanent acrylic adhesive. Suitable for laser printers, copiers and inkjet printers (with solvent based inks only). Weather resistant and suitable for outdoor use. Saltwater resistant and resistant to many solvents, diluted acids and alkalis. Temperature stable from -20 to +100 °C.

Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
white	50.8 x 70	15	**NL02.1**	30 sheet	31,85
white	74 x 105	8	**NL03.1**	30 sheet	31,85
white	148 x 105	4	**NL04.1**	30 sheet	31,85

Document boxes

JUSTRITE. Material: HDPE.

Stable and weatherproof. Safe storage of safety datasheets, directives, manuals, and other documents at hand at the work place.

- Protection against moisture and dust
- With front flap
- Field for writing labels on the lid
- High visibility due to bright red colour
- Large box suitable for a narrow A4 folder
- Can be secured with a padlock (feed-through opening Ø 10 mm)
- Wall fastening through screws or adhesive tape

Delivery incl. double-sided adhesive tape for easy assembly.

Type	W x D x H (mm)	W x D x H, interior (mm)	Art. No.	Pack Qty.	€
Medium	279 x 54 x 368	219 x 25 x 311	**HNN3.1**	1 unit(s)	145,15
Large	333 x 90 x 400	273 x 57 x 337	**HNN4.1**	1 unit(s)	170,95

Neutralisation agent PYRACIDOSORB-ROTH®

Carl ROTH.

For neutralising acids. With colour indicator.
1 kg absorbs approx. 0.3 l conc. sulphuric acid, 0.6 l conc. nitric acid and 1 l conc. hydrochloric acid.

Warning H319

Pack.	Art. No.	Pack Qty.	€
square HDPE container	**0411.1**	5 kg	53,65

Neutralisation agent BASOSORB

Carl ROTH.

For neutralising alkali solutions. With colour indicator.
1 kg neutralises approx. 1 l ammonia solution (25%), 1 l potassium hydroxide solution (50%) or ¾ l sodium hydroxide solution (50%).

Warning H319

Pack.	Art. No.	Pack Qty.	€
square HDPE container	**3287.1**	5 kg	78,40

Universal absorber ROTISORB®

Carl ROTH.

For absorbing flammable, oily and aggressive liquids, such as organic and inorganic acids and alkalis, alcohols, aldehydes, amines, esters, aromatic, chlorinated and aliphatic hydrocarbons, substance compounds such as paints, heating and lubricating oils, fuels.

Pack.	Art. No.	Pack Qty.	€
PE flat bag	**1710.2**	25 kg	101,60
square HDPE container	**1710.1**	800 g	27,85

ROTH-absorber safety station SEKUROKA®

Carl ROTH. Material: Steel (sheet metal), galvanised.

Wall shelf equipped with three special absorbers for acids, alkalis and solvents. Colour: Yellow-orange (RAL 2000).
Dimensions: W x D x H: 530 x 220 x 300 mm.

Warning H319
Delivery incl. 5 kg Pyracidosorb-ROTH®, 5 kg Basosorb, 800 g Rotisorb®, plastic bags, dustpan and hand brush.

Version	Art. No.	Pack Qty.	€
Safety station	**1288.1**	1 unit(s)	310,45

Binding and neutralisation agent ENTSORGER-SET-ROTH®

Carl ROTH.

For absorbing and disposing of spilled chemicals.

Delivery incl. absorbent or neutraliser, safety spectacles, dustpan and brush, sponge, disposal bags with clips and labels.

Disposal mix

Included in the set: 1 kg Pyracidosorb-ROTH®, 1 kg Basosorb and 400 g Rotisorb®

Warning H319

Version	Art. No.	Pack Qty.	€
Disposal mix	**0055.1**	1 set	95,15

Organic solvent

Included in the set: 2 x 800 g Rotisorb® universal absorbers

Version	Art. No.	Pack Qty.	€
Organic solvent	**1803.1**	1 set	92,90

Acids and alkalis

Included in the set: 5 kg Pyracidosorb-ROTH®, 5 kg Basosorb

Warning H319

Version	Art. No.	Pack Qty.	€
Acids and alkalis	**1808.1**	1 set	129,50

Binding and neutralisation agent FLUOROSORB-ROTH®

Carl ROTH.

Two-component system for neutralising spilled hydrofluoric acid.

Set

Included in the set: Raw material to produce 1.5 l FLUOROSORB-ROTH® Component A as well as 1 l FLUOROSORB-ROTH® Component B with indicator, 800 g Rotisorb® universal absorber

Component A (Art. No. H066.1): WGK 1

Delivery incl. safety spectacles, dustpan and brush, sponge, disposal bags with clips and labels

Version	Art. No.	Pack Qty.	€
FLUOROSORB-ROTH® set	**1804.1**	1 set	120,35

Component A Refill pack

Raw material to produce 1.5 l FLUOROSORB-ROTH® Component A. WGK 1.

Version	Art. No.	Pack Qty.	€
FLUOROSORB-ROTH®, component A	**H066.1**	1 unit(s)	31,75

Component B Refill pack

1 l FLUOROSORB-ROTH® Component B with indicator.

Version	Art. No.	Pack Qty.	€
FLUOROSORB-ROTH®, component B	**H067.1**	1 unit(s)	38,20

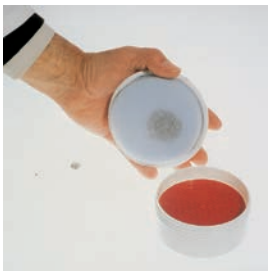
MERCURISORB-ROTH®

Carl ROTH.

Contains silver nitrate. For quickly and easily absorbing mercury. Does not emit any vapours after absorption. Absorption capacity 1:1. Contained in set: 100 g Roth Mercurisorb®, scooper, Pasteur pipettes, empty collection container.

Danger H290-H314-H410

Pack.	Art. No.	Pack Qty.	€
Emergency set in a plastic case	**9461.1**	1 set	103,75
Emergency box set	**9461.4**	1 set	81,60
Refill pack, small	**9461.2**	250 g	134,95
Refill pack, large	**9461.3**	1 kg	521,40



Mercury collector

Bürkle.

Mercury is absorbed by a special foam insert secured by adhesive. When the cap is screwed on, the globules detach and fall through the perforated cutting disc into the container and can be reused.

Version	Art. No.	Pack Qty.	€
Mercury collector	**P941.1**	1 unit(s)	27,95

Spare foam insert

Version	Art. No.	Pack Qty.	€
Spare foamed insert	**P942.1**	1 unit(s)	5,30

Chemical and oil binder UNI-SAFE

Öko-Tec Umweltschutzsysteme.

All-in-one binder!

Polymer-based all-purpose chemical and oil binding agent. Suitable for absorbing and containing liquids such as acids, alkalis, oils, fuels, brake fluid, etc., as well as battery acid, coolant, oil-water mixtures, paints and lacquers. Also safe to use with strongly oxidising media, such as fuming nitric acid and peroxides.

- High absorption capacity
- No hazardous reactions
- Dam-forming

Absorption capacity of aqueous media of up to 1:75
Oil binder type III/R (suitable for road surfaces), 1 kg binds 0.56 l of fuel oil.

Applications

Laboratories, chemical and commercial businesses, transportation of hazardous goods, emergency vehicles, etc.

Pack.	Art. No.	Pack Qty.	€
Buckets	**EAA8.2**	5 kg	157,15

UNI-SAFE Plus

Fine granulate with reduced dust formation

Pack.	Art. No.	Pack Qty.	€
Buckets	**EYY5.2**	5 kg	168,80

Oil sorbent

3M.

Ideal for absorbing and stopping the spread of oil and organic liquids. Also oleophilic (hydrophobic) and water-repellent. Ideal for absorbing oil both on water and on land. Made of synthetic fibres (polypropylene and polyester) for use indoors and outdoors.

Mini tube T4

Manufacturer no.	Ø x L (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
T 4	7.5 x 120	3.8	**E186.1**	1 unit(s)	23,40

Wipes HP 255

Manufacturer no.	L x W (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
HP 255	47 x 43	2.0	**A377.1**	10 unit(s)	39,90

Oil sorbent Öcu-Sorb T-33 wipes

For quick and dust-free absorption of **oil and organic, non-aggressive liquids**. Water-repellent and can float, therefore also suitable for use in water.

L x W (cm)	Intake capacity (ml)	Art. No.	Pack Qty.	€
30 x 30	260	**5128.2**	50 unit(s)	42,10

Chemical sorbent pads laboratory emergency kit

3M.

For quickly and effectively containing and absorbing almost all liquids containing harmful substances.

Delivery incl. 10 chemical sorbent pads, one industrial sorbent pad, one disposal bag.

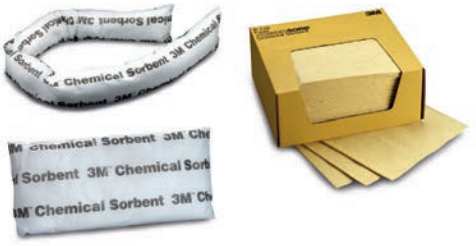
Manufacturer no.	Intake capacity (l)	Art. No.	Pack Qty.	€
SK 5	5	**AKX3.1**	1 unit(s)	71,45

Industrial sorbent wipes MF2001

3M.

For absorbing or containing **non-aggressive** liquids, such as oil, coolants/lubricants and emulsions. Highly absorbent. Readily disposable. It is possible to recover the absorbed liquid. When fully rolled up, the wipes act as a tube. When unfolded once, they act as a pad and when unfolded again, they can be used as a wipe. In a dispensing box, perforated every 40 cm.

Manufacturer no.	L x W (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
MF2001	1520 x 12	40	**E391.1**	1 unit(s)	89,05



Chemicals absorbant fleece

3M.

For absorbing or containing **aggressive** liquids, such as acids, alkalis, ketones, alcohols, aromatic products, glycols, hydrocarbons. **High absorption capacity** (the information in the ordering table relates to each unit).

Mini tube P200

Manufacturer no.	L x W (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
P200	120 x 7.5	3.75	**2930.1**	1 unit(s)	13,65

Wipes P110

Manufacturer no.	L x W (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
P110	33.0 x 33	0.25	**2920.1**	50 unit(s)	79,80

Pad P300

Manufacturer no.	L x W (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
P300	38.0 x 38	2.0	**2888.1**	4 unit(s)	80,50

Binder container Go-Box

Cemo. Material: PE, chemical-resistant.

100 % recyclable. For grit, sand, binders, etc.

- For inside and outside use and storage
- Good impact strength down to -40 °C
- Sturdy rubber wheels
- Angled lid for water drainage
- Easy-to-use, ergonomic handle
- Side handles for pushing and central handle for pulling
- Can be filled/emptied when the lid is locked in the vertical position
- Easy to use and easy to clean
- Rubber seal and locking mechanism for optimal weather resistance
- Lockable with a padlock (not supplied)

Vol. (l)	L x W x H (cm)	Weight (kg)	Art. No.	Pack Qty.	€
70	59 x 39 x 107	11	**1EPP.1**	1 unit(s)	277,35

Disposal containers, stations, accessories

Waste containers Benchtop

Heathrow Scientific.

Practical and space-saving. Ergonomic design with large opening for easy disposal of items.

- Slip-resistant rubber feet for secure positioning on the laboratory bench
- Lid can be secured in open position
- Extra-large lid rim for easy opening
- The divider can be removed from the green waste container as required
- Suitable for wall mounting

Delivery incl. assembly materials.

Number of compart-ments	Vol. (l)	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
1	4	155 x 155 x 170	blue	**AXL3.1**	1 unit(s)	87,25
2	5	180 x 180 x 165	green	**AXL4.1**	1 unit(s)	87,05

Needle collector KONTAMED-chen

Söhngen. Material: PP.

Acc. to BGR 250/TRBA 250: Biological Agents in Healthcare and Welfare Facilities. With sealing lid and removal slot for needles/syringes. For use off-site, fits in all doctor's bags, emergency kits or coat pockets. Reinforced base prevents needles from piercing.

Vol. (ml)	Ø x H (mm)	Colour	Art. No.	Pack Qty.	€
180	50 x 115	yellow	**HA52.1**	10 unit(s)	17,35

Waste disposal containers Sharpsafe®

Msh/Hospidex. Material: PP.

Acc. to DIN EN ISO 23907, TRBA 250, AFNOR NX30-500, BS 7320. Impact- and perforation-resistant. Ideal for safe collection and disposal of sharp, dangerous or infected waste such as needles, Petri dishes, syringes, scalpels, etc.

- Waterproof when vertical
- Carrying handle for safe transportation
- Large opening with transparent inner chamber and automatic closure which prevents vapours from leaking into the ambient air
- Two closure positions: Temporary or permanent locking
- Distinct maximum fill level mark
- Label is permanently stamped onto the container

1 l container

Extractor for: Insulin pens, Luer Lock and Luer Slip needles.

Label in German/French/Italian/Spanish/English.

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
1	108 x 90 x 180	55 x 35	**YK90.1**	10 unit(s)	28,70

2 to 7 l containers

Extractors for: All needle types, insulin pens, scalpel blades.

Label in German/French/Italian/Spanish/English.

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
2	195 x 120 x 180	55 x 50	**PA88.1**	5 unit(s)	16,60
4	175 x 175 x 245	55 x 50	**E812.1**	5 unit(s)	20,25
4	175 x 175 x 245	55 x 50	**E812.2**	50 unit(s)	199,95
7	175 x 175 x 380	55 x 50	**E813.1**	5 unit(s)	27,40
7	175 x 175 x 380	55 x 50	**E813.2**	50 unit(s)	269,85

9 to 13 l containers

Extractor for: All needle types, scalpel blades. Wide opening for large quantities of waste, e.g. Petri dishes with Ø 60 or 90 mm.

Label in French/Dutch.

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
9	292 x 195 x 291	210 x 60	**HT25.1**	5 unit(s)	39,55
9	292 x 195 x 291	210 x 60	**HT25.2**	20 unit(s)	155,50
13	292 x 195 x 353	210 x 60	**HT26.1**	5 unit(s)	51,95
13	292 x 195 x 353	210 x 60	**HT26.2**	20 unit(s)	205,35

9 l container, tall form

Tall container ideal for pipettes and long instruments.

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
9	175 x 175 x 498	55 x 50	**YK91.1**	5 unit(s)	39,20

Disposal containers, stations, accessories

Large volume
With scalpel and universal extractor and wide non-return flap for the disposal of bulky waste.

Label in English.

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
24	450 x 230 x 335	365 x 95	**YK92.1**	1 unit(s)	20,25
24	450 x 230 x 335	365 x 95	**YK92.2**	15 unit(s)	198,90
30	450 x 230 x 415	365 x 95	**YK93.1**	1 unit(s)	24,60
30	450 x 230 x 415	365 x 95	**YK93.2**	15 unit(s)	240,80

Accessories for Sharpsafe® waste disposal containers

Msh/Hospidex.

Foot
Material: PP. Self-adhesive. For safe mounting of the waste disposal containers on a level surface.

Suitable for	Art. No.	Pack Qty.	€
1 l container	**YK94.1**	1 unit(s)	8,45

Laminar flow stand
Material: Stainless steel. Stand for use of the waste disposal containers under laminar flow.

Suitable for	Art. No.	Pack Qty.	€
4 l, 7 l and 9 l containers	**YK98.1**	1 unit(s)	23,20

Tray
Material: PP. With compartments(s).
Suitable for 1- and 2-litre containers.

Version	L x W x H (mm)	Art. No.	Pack Qty.	€
with 1 storage comp.	280 x 260 x 45	**YK95.1**	1 unit(s)	10,40
with 2 storage comp.	355 x 290 x 45	**YK96.1**	1 unit(s)	8,45

A 121 °C

Waste disposal containers Biohazard

Nalgene. Material: PP. Autoclavable: Yes.

To collect and store biohazardous waste. Enables convenient sterilisation in one step. The autoclavable bag does not need to be taken out. The opening in the lid enables safe disposal. The wall and base of the container are **leak-proof**.

Vol. (l)	Ø x H (mm)	Art. No.	Pack Qty.	€
5.5	198 x 277	**APL8.1**	1 unit(s)	190,30
19	323 x 432	**APL9.1**	1 unit(s)	307,45
67	399 x 744	**APN0.1**	1 unit(s)	370,90

NEW / +

Waste disposal containers Multi-Safe twin

Sarstedt. Material: PP.

Complies with the requirements of: TRBA 250, DIN EN ISO 23907.
With UN approval number.

- Universal extractor for the disposal of needles, scalpels, disposable syringes, tubing, etc.
- All-round sealing rim and double lid
- Lid can always be reopened by closing the lid as far as the first locking position
- A secure final seal is obtained by pushing the lid through to the second locking position
- Filling capacity: Max. 85 %

(1) Without label

- The size of the opening can be gradually enlarged by breaking out the flaps
- Oval 55 x 106 mm opening

Vol. (l)	Ø Outer lower (mm)	Ø x H (mm)	Art. No.	Pack Qty.	€
1.8	112	143 x 162	**E330.1**	20 unit(s)	37,45
2.1	112	143 x 186	**E331.1**	10 unit(s)	25,20
3.0	112	143 x 259	**T709.1**	5 unit(s)	17,15

(2) Plus 500

- With a label in German and English
- Integrated piston in the lid for easy disconnection of insulin pens
- Clear marking for the maximum fill level
- QR code enables online access to operating instructions
- Oval 45 x 25 mm opening

Vol. (l)	Ø Outer lower (mm)	Ø x H (mm)	Art. No.	Pack Qty.	€
0.5	57	89 x 162	**1LTN.1**	21 unit(s)	24,70

Disposal containers, stations, accessories

Waste disposal containers Multi-Safe

Sarstedt. Material: PP.

Complies with the requirements of:
TRBA 250, AFNOR, DIN EN ISO 23907. With UN approval number.
For the disposal of sharp and pointed objects (needles, scalpels, broken glass, etc.).

- With self-opening automatic lid
- With extractors, e.g. for scalpels
- Single-handed operation: Lid opens automatically at the push of a button and can be opened and closed repeatedly. Only after final sealing is the opening permanently sealed tight. A holding ring then moves up automatically and becomes a carrying handle.
- Oval-shaped opening 110 x 60 mm
- Standing area: 132 x 132 mm
- Filling capacity: Max. 85%

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
3.0	173 x 173 x 185	110 x 60	**EL18.1**	5 unit(s)	25,70
4.0	173 x 173 x 245	110 x 60	**EL19.1**	5 unit(s)	26,05
6.0	173 x 173 x 330	110 x 60	**EL20.1**	5 unit(s)	31,85
7.0	173 x 173 x 390	110 x 60	**EL21.1**	5 unit(s)	34,55

Safety waste system

Nalgene. Material: HDPE, 4 l HDPE container, 10 l FLPE container, HDPE funnel and lid; break-proof.

For temporary interim storage of chemical, biological and solvent waste. Consists of waste container and removable safety funnel with lid.

- Reduces emissions of volatile substances in the laboratory
- Easy-snap safety lock on lid minimises spillages if the system is accidentally knocked over
- Integrated ventilation valve with PTFE syringe filter on cover adapter accelerates the flow of chemicals and prevents overflow
- Funnel with large diameter for easy filling (top funnel Ø (EL99.1/ EN00.1): 140/254 mm)
- Funnel pipe length: 254 mm
- Removable sieve insert (PP) at base of funnel to catch particles

Vol. (l)	Art. No.	Pack Qty.	€
4	**EL99.1**	1 unit(s)	98,60
10	**EN00.1**	1 unit(s)	146,15

Waste disposal containers for broken glass

Bel-Art Products. Material: Cardboard.

For safe collection and disposal of broken glass items.

- Made of extra-strength cardboard, with a 50 µm thick PE insert bag to prevent residual fluid from escaping
- Large flap in lid for simple filling
- Seal safety lid for disposal when box is full
- Printed in four languages (German, English, French and Spanish)
- Folded flat for space-saving storage
- Small container suitable for the laboratory bench

Version	L x W x H (mm)	Art. No.	Pack Qty.	€
small	200 x 200 x 250	**KN69.1**	6 unit(s)	71,50
large	300 x 300 x 690	**KN70.1**	6 unit(s)	117,20

Disposal containers, stations, accessories

Waste disposal containers Medibox®

B. Braun. Material: PP.

Acc. to TRBA 250. Certified acc. to ADR 2015, 2008/68/EC and ISO 23907. Waste container for the disposal of needles and sharp objects in medical environments and laboratories.

- Break-proof, impermeable and sturdy when used as intended
- Maximum fill level indicated on the lid or directly on the box
- Temporarily or permanently closed
- Polypropylene container and lid
- Autoclavable at 134 °C for up to 18 minutes

Vol. (l)	Filling capacity (l)	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
0.8	0.67	98 x 98 x 180	yellow	**1EN5.1**	18 unit(s)	71,95
2.4	2.0	151 x 151 x 200	yellow	**1EN6.1**	27 unit(s)	101,60
4.7	3.9	190 x 190 x 205	yellow	**1EN7.1**	25 unit(s)	134,30
5.7	4.8	190 x 190 x 257	yellow	**1EN8.1**	25 unit(s)	158,60
6.8	5.7	167 x 167 x 500	yellow	**1EN9.1**	22 unit(s)	187,05
9.1	7.7	215 x 215 x 325	yellow	**1ENA.1**	13 unit(s)	138,60

Wide-neck barrel

CurTec. Material: HDPE with rubber seal.

UN approval (X approval) for storage and transportation of solid materials and pastes. Suitable for foodstuffs and chemical and pharmaceutical products. Resistant to air, water and steam. Maximum filling temperature 70 °C. Sealable.

Without handles

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
3.6	198	136	171	1H2/X12/S	**K280.1**	1 unit(s)	17,05
6	198	136	263	1H2/X20/S	**0788.1**	1 unit(s)	20,65
10	274	203	238	1H2/X22/S	**L958.1**	1 unit(s)	32,30
15	274	203	327	1H2/X22/S	**0789.1**	1 unit(s)	36,40
20	274	203	417	1H2/X27/S	**L959.1**	1 unit(s)	41,25
26	316	203	425	1H2/X33/S	**0790.1**	1 unit(s)	46,70

With handles

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
42	410	282	418	1H2/X51/S	**CY90.1**	1 unit(s)	66,90
55	410	282	520	1H2/X66/S	**CY91.1**	1 unit(s)	71,60
68	410	282	634	1H2/X81/S	**5459.1**	1 unit(s)	76,00

Safety funnel

Nalgene. Material: HDPE.

With lid.

- Funnel with large diameter for easy filling
- Easy-Snap safety lock on the lid minimises spillage in case the canister accidentally tips
- Integrated ventilation valve with PTFE syringe filter on the lock adapter accelerates the flow of the chemicals and prevents overflow
- Removable sieve insert (PP) at the bottom of the funnel serves as a particle trap
- Locking adapter can be removed for cleaning

Please order suitable bottles separately:
4 l bottle (Art. No. C475.1) suitable for the small funnel
10 l bottle (Art. No. C476.1) suitable for the large funnel.

Ø Upper (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
140	254	4-l narrow necked bottle Art. No. C475.1	**EN01.1**	1 unit(s)	70,85
254	254	10-l carboy Art No. C476.1	**EN02.1**	1 unit(s)	74,80

Safety can SEKUROKA®

ROTH SELECTION.

For storing and transporting aggressive waste in the laboratory.

- High stability
- Insert made of borosilicate 3.3 glass, resistant to almost all chemicals. Acc. to DIN 12111, 12116, 52322, the glass meets the requirements of hydrological class 1, acid class 1 and caustic class 2
- With screw closure, overpressure protection and carrying handle
- Red-coated casing
- Hazardous goods label
- Neck inner Ø: 87 mm

Vol. (l)	Ø x H (mm)	Art. No.	Pack Qty.	€
4	230 x 360	**1397.1**	1 unit(s)	516,00
8	265 x 420	**1398.1**	1 unit(s)	549,35

Safety collecting can Safety Can

JUSTRITE. Material: HDPE, Stainless steel lid, handle and flame protection.

For safe collection and storage of flammable liquids.

- Extra-strong walls make this container extremely robust
- Lid with spring, vents at overpressure (between 0.2 and 0.35 bar)
- Snap-in system holds the cover flap in the open position when filling
- The large opening makes filling easy
- **Carbon Insert** – a patented system connects the flame protection on the inside with the earth connection on the outside
- Can be earthed using an earthing cable
- Secure stand through round compact form
- Shape: Round

Vol. (l)	Ø x H (mm)	Colour	Art. No.	Pack Qty.	€
7.5	305 x 375	red	**HNP3.1**	1 unit(s)	353,70
19	305 x 508	red	**HNP4.1**	1 unit(s)	385,95

Safety collection containers for flammable liquids

Rötzmeier. Material: Stainless steel 1.4571 (V4a), unpolished.

For safe collection of flammable liquids.

- Wall thickness: 0.8 mm
- High stability
- Closure size: IG2″ fine pitch thread, with PTFE seal, without flame protection
- Suitable for use with SEKUROKA® stainless steel funnel K345.1
- With fill level indicator for ATA3.1

Delivery without accessories, please order separately.

Pic.	Version	Vol. (l)	Ø x H (mm)	Art. No.	Pack Qty.	€
(1)	without fill level indicator	10	260 x 330	**ATA2.1**	1 unit(s)	267,70
(2)	with fill level indicator	10	260 x 330	**ATA3.1**	1 unit(s)	480,55

Accessories for 10 l safety collection container

Rötzmeier. Material: Stainless steel 1.4301 (V2a).

For safe filling and draining of containers. Fits 10 l safety collection container, Rotitainer® and other drums with cap with 2″-fine pitch thread.

- Pouring spout: H 180 mm, tube Ø: 40 mm
- Flame protection: Length 150 mm

Version	Art. No.	Pack Qty.	€
Pouring spouts 2″	**ATA5.1**	1 unit(s)	53,75
Replacement flame protection	**ATA4.1**	1 unit(s)	67,20

Safety can Poly Can

JUSTRITE. Material: HDPE, Stainless steel lid and flame protection.

- Safe storage and distribution of flammable fluids
- Extra-strong walls make this container extremely robust
- Self-closing lid
- Operation via lever on handle
- Automatic pressure compensation
- **Carbon Insert** – a patented system connects the flame protection on the inside with the earth connection on the outside
- Can be earthed using an earthing cable
- Space-saving, oval shape

Vol. (l)	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
2	194 x 117 x 241	red	**HNP1.1**	1 unit(s)	138,70
4	194 x 117 x 324	red	**HNP2.1**	1 unit(s)	149,45

Disposal containers, stations, accessories

Safety funnels for barrels

Rötzmeier. Material: Stainless steel, Sealing ring made of PE.

Screw-on safety funnels for safe filling of all containers with a 2-inch female fine thread. With lid, overfill protection, flame arrester and earth connection.

- The flame arrester, which reaches far into the container (approx. 150 mm long), prevents the ingress of sparks and can be unscrewed for cleaning or replacement.
- For conductive containers, earthing is realised by the thread (direct contact); an additional earth connection is provided for other containers.
- The flap lid reduces the emission of volatile, harmful vapours and needs to be closed manually.

Tall form
Height above thread: 125 mm

Ø Outer upper (mm)	Suitable for	Art. No.	Pack Qty.	€
140	2″ Trisure® inner thread	**K345.1**	1 unit(s)	189,20

Flat form
Height above thread: 70 mm

Ø Outer upper (mm)	Suitable for	Art. No.	Pack Qty.	€
190	2″ Trisure® inner thread	**1C8K.1**	1 unit(s)	280,60

Safety funnels for combi-barrels

Rötzmeier. Material: Stainless steel, Sealing ring made of PE.

Screw onto combi-barrels with a 2″ coarse thread (female buttress thread S56 x 4). With lid, overfill protection, flame arrester and earth connection.

- The flame arrester, which reaches far into the container (approx. 150 mm long), prevents the ingress of sparks and can be unscrewed for cleaning or replacement.
- For conductive containers, earthing is realised by the thread (direct contact); an additional earth connection is provided for other containers.
- The flap lid reduces the emission of volatile, harmful vapours and needs to be closed manually.

High form
Height above thread: 125 mm

Ø Outer upper (mm)	Suitable for	Art. No.	Pack Qty.	€
140	2″ coarse thread	**1CCH.1**	1 unit(s)	190,30

Flat form
Height above thread: 70 mm

Ø Outer upper (mm)	Suitable for	Art. No.	Pack Qty.	€
190	2″ coarse thread	**1C8L.1**	1 unit(s)	281,65

Safety funnels for a plastic canister

Rötzmeier. Material: Stainless steel, unpolished. Seal made of Alveocel (polyolefin foam).

Can be screwed onto plastic canisters. With lid, overfill protection, flame arrester and earth connection.

- The flame arrester, which reaches far into the container (approx. 150 mm long), prevents the ingress of sparks and can be unscrewed for cleaning or replacement.
- For conductive containers, earthing is realised by the thread (direct contact); an additional earth connection is provided for other containers.
- The flap lid reduces the emission of volatile, harmful vapours and needs to be closed manually.

Delivery without sieve insert, please order separately.

Flat form
Height above thread: 70 mm

Thread	Ø Outer upper (mm)	Art. No.	Pack Qty.	€
DIN 50	190	**1C8C.1**	1 unit(s)	295,65
DIN 51	190	**1C8E.1**	1 unit(s)	295,65
DIN 61	190	**1C8H.1**	1 unit(s)	278,45

High form
Height above thread: 125 mm

Thread	Ø Outer upper (mm)	Art. No.	Pack Qty.	€
DIN 50	140	**ATA6.1**	1 unit(s)	187,05
DIN 51	140	**1CCK.1**	1 unit(s)	187,05
DIN 61	140	**ATA7.1**	1 unit(s)	187,05

Sieve insert

ROTH SELECTION.

Suitable for safety funnels: K345.1, 1CCH.1, ATA6.1, 1CCK.1, ATA7.1 as well as for insertable funnels PC04.1 and PC13.1.

Suitable for	Art. No.	Pack Qty.	€
for safety funnel and plug-in funnel	**ATA8.1**	1 unit(s)	11,50

Disposal containers, stations, accessories

Waste disposal station SEKUROKA®

ROTH SELECTION. Material: HDPE (Canister), PP collecting tray.

For collecting chemical waste. Different-coloured canisters for easy differentiation of waste. The funnels have a sieve inside to catch solids and a level indicator. (Specification of dimensions with lids open.)

1-station
One canister (10 l) incl. filling funnel (Ø 120 mm) and collecting tray.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
240 x 370 x 610	natural	**5084.1**	1 unit(s)	268,75
240 x 370 x 610	yellow	**5087.1**	1 unit(s)	268,75
240 x 370 x 610	green	**5090.1**	1 unit(s)	268,75
240 x 370 x 610	blue	**5096.1**	1 unit(s)	268,75

4-station
Four canisters (10 l) incl. four filling funnels (Ø 120 mm) and collecting tray.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
870 x 370 x 610	assorted colours	**5074.1**	1 unit(s)	589,10

Canister waste disposal station SEKUROKA®

ROTH SELECTION. Material: HDPE.

With carrying handle and additional ventilation screw. Neck diameter 42 mm.

Vol. (l)	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
10	280 x 180 x 325	natural	**A251.1**	1 unit(s)	32,50
10	280 x 180 x 325	yellow	**A252.1**	1 unit(s)	32,50
10	280 x 180 x 325	green	**A253.1**	1 unit(s)	31,05
10	280 x 180 x 325	blue	**A254.1**	1 unit(s)	31,05

Collecting tray for waste disposal station SEKUROKA®

ROTH SELECTION.

Version	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
1-place	240 x 370 x 165	grey	**P318.1**	1 unit(s)	207,50
4-places	870 x 370 x 165	grey	**P319.1**	1 unit(s)	248,35

Funnel for the disposal station SEKUROKA®

ROTH SELECTION.

Material: PP. With integrated screw connection, collecting sieve, level indicator and self-closing lid. Diameter 120 mm.

Ø (mm)	Art. No.	Pack Qty.	€
120	**5083.1**	1 unit(s)	124,70

Accessory adapter for filler funnel

ROTH SELECTION.

With 2″ fine thread, therefore suitable for Roth-Rotitainer® canisters. For filler funnel 5083.1.

Suitable for	Art. No.	Pack Qty.	€
2″ Trisure® inner thread, fine	**9070.1**	1 unit(s)	129,00

Disposal canisters electrically conductive

Bürkle. Material: HDPE, electrically conductive.

Surface resistance <10^9 Ohm.

- With carrying handle and screw cap
- Stackable
- With UN approval
- Closure size DIN 61

Vol. (l)	L x W x H (mm)	UN approval	Art. No.	Pack Qty.	€
10	300 x 200 x 258	3H1/Y1.5/200	**HNC6.1**	1 unit(s)	38,35
20	300 x 200 x 495	3H1/Y1.5/150	**HNC7.1**	1 unit(s)	49,80
30	364 x 240 x 455	3H1/Y1.5/150	**HNC8.1**	1 unit(s)	59,35

Waste disposal unit electrically conductive

Semadeni. Material: HDPE, electrically conductive/dissipative.

Specifically for the disposal of highly flammable liquids. All components electrically conductive/dissipative, cannot become electrically charged.

- 10 l canister, with tight screw closure and carrying handle. UN approval (Y) for the transport of hazardous substances.
- With screw-on funnel with patented self-closing ball float valve. This prevents vapours or odours from escaping from the waste disposal container. Additional overfill protection and splash guard.
- Robust collecting tray, can hold 100% of the canister contents in case of emergency

Delivery incl. disposal funnel, 10 l canister with metal ring (to connect the earthing cable), collecting tray and three earthing cables.

Version	Art. No.	Pack Qty.	€
Station	**HE62.1**	1 unit(s)	485,90

Spare part for waste disposal unit

Semadeni.

Version	Art. No.	Pack Qty.	€
Canister 10 l, electro-conductive	**HE64.1**	1 unit(s)	93,60
Grounding cable	**HE67.1**	1 unit(s)	67,05
Funnel, electro-conductive	**HE63.1**	1 unit(s)	148,65
Grounding tension clip, Cr-Ni-Steel	**HE66.1**	1 unit(s)	98,10
Spillage tubs, electro-conductive	**HE65.1**	1 unit(s)	221,45

Drip pan SEKUROKA®

Cemo. Material: PE, acid-resistant.

Acid-, chemical-, oil- and petrol-resistant. Four-chamber system for safe transport and emptying via the four pouring edges with raised lip to prevent spillage of contents.

Vol. (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
20	690 x 440 x 105	**NH64.1**	1 unit(s)	139,35

Folding tray 30 l

Cemo.

Made of PVC and with built-in reinforcement plates, the folding collecting tray can be transported in any vehicle thanks to its flat design. Absolutely impervious to liquid; leaking chemicals or oils are collected safely.

- Requires little space, only 2.5 cm high when folded
- Quick assembly with Velcro fasteners
- Resistant to many chemicals and oils
- It is ideally suited for transporting hazardous materials and for use on construction, agricultural and forestry machines

Vol. (l)	L x W x H (cm)	Weight (kg)	Art. No.	Pack Qty.	€
30	60 x 40 x 25	1,2	**KAN0.1**	1 unit(s)	120,25

Collecting tray SEKUROKA® for chemicals

Cemo. Material: PE (Collecting tray), Grate made of galvanised steel.

Suitable for small drums. Can also be used for storage shelves and chemical storage cabinets. Can be lined with non-woven fabric for absorbing chemicals. Load-bearing capacity of tray with grate: 50 kg.

Version	Vol. (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
without grate	30	980 x 600 x 85	4	**NH66.1**	1 unit(s)	166,65
with grate	30	980 x 600 x 85	10	**NH67.1**	1 unit(s)	242,95

Disposal containers, stations, accessories

Laboratory collecting tray

Cemo. Material: PE recyclable.

Z-40.22-548 and Z-40.22-549 technical approval.

- Grate made of PE with anti-slip plate surface
- Can be stacked, minimising storage and transport space
- Designed for Euro pallets
- Trays can be connected to protect surfaces
- Suitable for small containers such as bottles and canisters

Vol. (l)	L x W x H (cm)	Weight (kg)	Load capacity (kg)	Art. No.	Pack Qty.	€
25	60 x 40 x 18	3,7	125	**KAN4.1**	1 unit(s)	145,80
35	80 x 40 x 18	4,8	160	**KAN5.1**	1 unit(s)	184,90
60	80 x 60 x 18	6,8	250	**KAN6.1**	1 unit(s)	208,55
120	120 x 80 x 18	12,8	500	**KAN7.1**	1 unit(s)	274,15

Collecting tray GRP 65 l

Cemo. Material: Plastic (GRP), glass-fibre reinforced, Grate made of galvanised steel.

Z-40.12-227 technical approval.
GRP combines the properties of steel and plastic and is therefore a material that can be used universally for storing hazardous materials correctly. The collecting trays demonstrate good fire behaviour and high chemical resistance. Due to their absolute corrosion resistance, GRP collecting tray can be placed directly on the ground. The low installation height facilitates easy handling in factories. Long-lasting, UV-resistant, recyclable. Suitable for small containers such as bottles and canisters. 65 l retention capacity. Carrying capacity of tray with grate: 40 kg.

Version	L x W x H (cm)	Weight (kg)	Art. No.	Pack Qty.	€
without grate	82 x 41 x 23	4	**KAN2.1**	1 unit(s)	169,85
with grate	82 x 42 x 24	9,5	**KAN3.1**	1 unit(s)	262,30

Collecting tray SEKUROKA®

Cemo. Material: Plastic, glass fibre reinforced.

With general construction inspection approval Z-40.12-227 granted by DIBt Berlin. For the proper storage of extremely water-polluting substances. High chemical resistance, corrosion-resistant, durable, UV-resistant, recyclable. Suitable for drums, plastic carboys, small containers, canisters, etc.

With galvanised steel grate
Max. 800 kg surface load.

Vol. (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
220	1280 x 850 x 270	33	**X426.1**	1 unit(s)	402,05

Without grate, with locking cams
Locking cams on the bottom of the tray to secure onto 800 x 1200 mm Euro pallets (only stable in combination with pallet).

Vol. (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
150	1200 x 800 x 165	9	**2915.1**	1 unit(s)	328,95

Without grate, without locking cams
Can be placed directly on the floor.

Vol. (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
150	1200 x 800 x 165	9	**N530.1**	1 unit(s)	267,70

Solvent collecting vessel SEKUROKA®

ROTH SELECTION. Material: Steel, Plastic (painted sheet metal).

Lined with Lupolen®. Suitable for interim storage of liquid waste – mainly used solvents. 60 mm filler neck, with plastic screw plug. Stackable.

Delivery incl. pouring aid, 2″ coarse thread.

6 l container
Carrying handle at the top.

Ø x H (mm)	Weight (kg)	UN approval	Art. No.	Pack Qty.	€
235 x 200	1,3	6HA1/X2.0/300/	**CHK8.1**	1 unit(s)	41,05

12 l container
One carrying handle at the top.

Ø x H (mm)	Weight (kg)	UN approval	Art. No.	Pack Qty.	€
235 x 350	1,8	6HA1/X2.0/300/	**0750.1**	1 unit(s)	46,85

30 l container
Two carrying handles at the side.

Ø x H (mm)	Weight (kg)	UN approval	Art. No.	Pack Qty.	€
270 x 570	3,5	6HA1/X1.6/300/	**0751.1**	1 unit(s)	53,45

Funnel SEKUROKA®

ROTH SELECTION. Material: PP.

Suitable for Sekuroka® solvent collector.
With integrated screw connection, collecting sieve for retaining solids, floating indicator to show fill level and lid. Incl. adapter suitable for 2″ coarse thread.

Ø Upper (mm)	Suitable for	Art. No.	Pack Qty.	€
120	2″ Trisure® inner thread, coarse	**9081.1**	1 unit(s)	256,95

Waste disposal containers SEKUROKA® Combined

ROTH SELECTION. Material: Steel, Plastic (painted sheet metal), 0.5 mm.

For collecting used solvents. With lid, galvanised clamping ring and rubber seal. With one drop handle on the side.
Adjustable narrow mouth container made of Lupolen®, with 2″-coarse thread closure. Inner Ø 230 mm.
Use: Primarily as collection container. Once full, the container is taken to a disposal centre. Here, the filled Lupolen® insert is tipped out.
The sheet metal container is then reused with a new Lupolen® insert.

Delivery incl. with Lupolen® insert.

Vol. (l)	Ø x H (mm)	UN approval	Art. No.	Pack Qty.	€
12	310 x 384	6HA1/X1.6/250	**1393.1**	1 unit(s)	48,90

Accessories for SEKUROKA® combi waste disposal bins

ROTH SELECTION.

Lupolen® insert

Version	Art. No.	Pack Qty.	€
Lupolen®-insert	**1394.1**	1 unit(s)	25,00

Waste disposal containers WIVA Container

Material: PP, Rubber seals.

For collecting non-liquid waste from laboratories and clinics. Tapered container with a carrying handle on each side and a yellow click lid in the same material with rubber seal. The lid cannot be taken off again after the final close. The container and lid are both completely metal-free and can therefore be incinerated with no residue.

Vol. (l)	L x W x H (mm)	Weight (kg)	UN approval	Art. No.	Pack Qty.	€
30	404 x 334 x 315	1.05	1H2/Y15/S	**A854.1**	1 unit(s)	17,75
60	404 x 335 x 646	1.65	1H2/Y15/S	**1066.1**	1 unit(s)	22,50

Collection containers for corrosive waste

JUSTRITE. Material: HDPE.

Safe collection and disposal of corrosive, non-solvent-based waste. Use directly at the workplace. Reduces leakage of vapours. Self-closing lid. Safe opening using foot pedal.

Vol. (l)	L x W x H (mm)	Colour	Weight (kg)	Art. No.	Pack Qty.	€
23	419 x 343 x 406	red	4.1	**CEH0.1**	1 unit(s)	138,70
38	559 x 457 x 457	red	6.4	**CEH1.1**	1 unit(s)	160,20
53	559 x 457 x 533	red	7.3	**CEH2.1**	1 unit(s)	170,95

Collection containers for cleaning cloths

JUSTRITE. Material: Steel (sheet metal), galvanised.

Rags and cloths soaked with solvent, thinner, linseed oil, flammable adhesives and other flammable liquids represent a serious fire hazard if they are not disposed of correctly.

- With robust, chemically highly resistant powder coating
- The opening angle of the lid does not exceed 60°
- The lid is self-closing when not in use
- Protects contents against sparks, heat sources and spontaneous combustion
- With foot pedal

Vol. (l)	Ø x H (mm)	Colour	Art. No.	Pack Qty.	€
20	302 x 403	red	**CAX1.1**	1 unit(s)	112,90
34	354 x 464	red	**CAX2.1**	1 unit(s)	127,95
52	408 x 514	red	**CAX3.1**	1 unit(s)	138,70

Disposal bags SEKUROKA®

ROTH SELECTION.

For collecting laboratory waste, such as used pipette tips, test tubes, sample bottles.

Made of PP, 40 µm

Material: PP. Autoclavable: Yes. Leave the bag open during autoclaving. 100 pieces in the dispenser.

W x L (mm)	Pack.	Art. No.	Pack Qty.	€
200 x 300	1 x 100 pieces	**E706.1**	100 unit(s)	11,45

Made of PE, 30 µm

Material: PE. Autoclavable: No. 100 pieces, tear-off perforated, on a roll.

W x L (mm)	Pack.	Art. No.	Pack Qty.	€
200 x 300	5 x 100 pieces	**H736.1**	500 unit(s)	30,65

A 121 °C

Table stand SEKUROKA® for refuse bags

ROTH SELECTION. Autoclavable: Yes.

Wire frame with white powder coating and anti-slip rubber feet. Ideal for every laboratory bench.

25 cm height

Version	Suitable for	Art. No.	Pack Qty.	€
Table stand	Disposal bags, 200 x 300 mm	**H508.1**	1 unit(s)	16,15
Table Stand incl. 100 PP bags (E706.1)	Disposal bags, 200 x 300 mm	**E705.1**	1 unit(s)	23,25

35 cm height

Version	Suitable for	Art. No.	Pack Qty.	€
Table stand	Disposal bags, 300 x 500 mm	**1CEA.1**	1 unit(s)	22,25

Disposal bags, accessories

A 121 °C

Disposal bags SEKUROKA® Biohazard

ROTH SELECTION. Material: PE. Autoclavable: Yes.

For the collection and disposal of contaminated waste such as pipette tips, reaction vessels and sample bottles at the workstation.
Red colour for easy recognition and identification.
With BIOHAZARD label and indicator patch; colour change indicates completed autoclaving process. Leave the bag open during autoclaving.
Safety imprint in German, English, French and Spanish.
Suitable for SEKKUROKA® H508.1 table stand.

Colour	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
red	210 x 290	20	**EPY0.1**	1,000 unit(s)	152,45

A 121 °C

Disposal bags SEKUROKA®

ROTH SELECTION. Material: PP, crystal clear transparent.
Autoclavable: Yes.

For steam sterilisation at up to +134 °C. With **„Biohazard“ imprint**.
Suitable for the safe disposal of laboratory waste such as used Petri dishes, test tubes, sample containers. Leave the bag open during autoclaving.

W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
305 x 660	38	**A195.1**	100 unit(s)	47,95
420 x 600	38	**A194.1**	100 unit(s)	49,35
600 x 780	38	**A192.1**	100 unit(s)	86,75

A 121 °C

Disposal bags Biohazard Bench-Top

Bel-Art Products. Material: HDPE. Autoclavable: Yes.

- Material acc. to ASTMD 1922 (propagation tear resistance) and ASTMD 1709 (puncture resistance)
- With printed „Biohazard“ warning symbol
- **With sterilisation indicator patch**

Colour	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
red	220 x 280	18	**YA55.1**	100 unit(s)	33,00

Accessories for disposal bags

Bel-Art Products.

Suitable for disposal bags in sizes W 200 x L 300 and W 220 x L 280 mm. For laboratory benches, fume cupboards and examination rooms.

Table stand

Material: Stainless steel, Epoxid. Autoclavable: Yes.
Epoxy-coated stainless steel wire frame.

L x W x H (mm)	Art. No.	Pack Qty.	€
127 x 85 x 216	**YA56.1**	1 unit(s)	46,15

Table stand lid

Material: PP. Can be cleaned by hand or in the dishwasher.

L x W x H (mm)	Art. No.	Pack Qty.	€
127 x 89 x 16	**YA57.1**	1 unit(s)	20,45

Sealing tape SEKUROKA®

ROTH SELECTION. Material: Metal.

Made of plastic coated wire. To close all kinds of bag. Length 300 mm.

Version	Art. No.	Pack Qty.	€
Sealing tape	**C790.1**	1,000 unit(s)	32,80

Disposal bags, accessories

Disposal bags SEKUROKA®

ROTH SELECTION. Autoclavable: Yes.

Designed for hygienic disposal of contaminated laboratory articles.
Seal bag loosely during sterilisation!

A 121 °C

(1) PP, 50 µm
Material: PP. For steam sterilisation at up to +134 °C.

Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
8	6	300 x 500	50	**0384.1**	500 unit(s)	89,25
38	22	400 x 780	50	**L371.1**	500 unit(s)	155,25
60	32	600 x 800	50	**0385.1**	500 unit(s)	188,15
60	32	600 x 800	50	**0385.2**	100 unit(s)	54,80
110	72	700 x 1100	50	**L372.1**	350 unit(s)	208,55
110	72	700 x 1100	50	**L372.2**	75 unit(s)	56,45

(1) PP, extra strong 100 µm
Material: PP. For steam sterilisation at up to +134 °C.

Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
60	32	600 x 800	100	**XP67.1**	125 unit(s)	169,85
110	72	700 x 1100	100	**XP68.1**	75 unit(s)	146,80

(1) PA, 50 µm
Material: PA. For hot air sterilisation at temperatures up to +160 °C.

Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
10	6	300 x 500	50	**L373.1**	500 unit(s)	308,55
30	22	400 x 780	50	**L374.1**	500 unit(s)	596,65
65	32	600 x 780	50	**L375.1**	300 unit(s)	465,50

(2) Biohazard PP, 50 µm
Material: PP. For steam sterilisation at up to +134 °C.

With printed **Biohazard symbol** and adhesive sterilisation indicator patch. Safety imprint in German, English and French. With extra strong bottom seam.

Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
8	6	300 x 500	50	**ATY2.1**	100 unit(s)	44,70
38	22	400 x 780	50	**ATY3.1**	100 unit(s)	72,55
60	32	600 x 800	50	**ATY4.1**	100 unit(s)	89,55
110	72	700 x 1100	50	**ATY5.1**	100 unit(s)	154,00

Disposal bags BIOHAZARD yellow

ROTH SELECTION. Material: HDPE. Autoclavable: Yes.

Autoclavable single-use waste bags made of extremely strong polyethylene film with a wide bottom seam for disposing of contaminated material.

- White indication area shows that autoclaving has been carried out by dark colouration
- With BIOHAZARD symbol and safety information in German, English and French
- Marking for maximum fill, except 110 l bags
- Autoclavable at 121 °C, 20 mins
- The bag must not be fully closed for autoclaving

A 121 °C

Colour	Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
yellow	8	6	300 x 500	50	**KAA4.1**	500 unit(s)	189,20
yellow	38	22	400 x 780	50	**1CE9.1**	500 unit(s)	246,20
yellow	60	32	600 x 800	50	**KAA5.1**	500 unit(s)	335,40
yellow	110	72	700 x 1100	50	**1CHK.1**	350 unit(s)	312,85

Disposal bags, accessories

Disposal bags BIOHAZARD Red

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Autoclavable single-use waste disposal bags for disposing of contaminated material. In striking red for easy identification.

- White indication area shows that autoclaving has been carried out by dark colouration
- With BIOHAZARD symbol and safety information in German, English and French
- Marking for maximum fill, except 110 l bags
- Autoclavable at 134 °C, 20 mins
- The bag must not be fully closed for autoclaving

A 121 °C

Colour	Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
red	8	6	300 x 500	50	**1CE5.1**	500 unit(s)	218,25
red	38	22	400 x 780	50	**1CE6.1**	500 unit(s)	278,45
red	60	32	600 x 800	50	**1CE7.1**	500 unit(s)	336,50
red	110	72	700 x 1100	50	**1CE8.1**	350 unit(s)	380,55

Disposal bags BIOHAZARD with indicator patch

Material: PP. Autoclavable: Yes.

- For steam sterilisation at 135 °C
- Material acc. to ASTMD 1922 (propagation tear resistance) and ASTMD 1709 (puncture resistance)
- **With sterilisation indicator patch, turns dark when autoclaved**
- With printed “Biohazard” warning symbol
- Labelled in German, English, French and Spanish
- Compatible with disposal bag stand KN74.1.1ff

A 121 °C

Total volume (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
11.5	300 x 610	38	**KN71.1**	100 unit(s)	97,85
45.4	610 x 760	38	**KN72.1**	100 unit(s)	238,65
75.7	610 x 910	38	**KN73.1**	100 unit(s)	258,00

Disposal bags BIOHAZARD with indicator patch, extra strong

Bel-Art Products. Material: HDPE. Autoclavable: Yes.

- For steam sterilisation at 135 °C
- **With sterility indicator field, turns dark colour after autoclaving**
- With printed „Biohazard“ warning symbol
- Labelled in German, English, French and Spanish
- Red colour

A 121 °C

Colour	Total volume (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
red	15.1	360 x 480	50	**KN77.1**	200 unit(s)	299,95
red	34.1	480 x 580	50	**KN78.1**	200 unit(s)	418,20
red	45.4	640 x 890	50	**KN79.1**	200 unit(s)	839,60
red	113.6	790 x 960	50	**KN80.1**	200 unit(s)	940,65
red	189.3	940 x 1220	50	**KN81.1**	100 unit(s)	719,20

Disposal bags, accessories

A 121 °C

Disposal bag stand

Bel-Art Products. Material: Stainless steel, PP. Autoclavable: Yes.

Suitable for disposal bags with sterilisation indicator KN71.1ff. Stainless steel frame, keeps the bag permanently open. Bottom made of PP, serves as a receptacle for leaking bags. Small stand, ideal for laboratory benches.
Lid for stand sizes M and L is optional; please order separately.

Type	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
Small	KN71.1	356 x 185 x 470	**KN74.1**	1 unit(s)	74,15
Medium	KN72.1	356 x 356 x 546	**KN75.1**	1 unit(s)	107,25
Large	KN73.1	356 x 356 x 696	**KN76.1**	1 unit(s)	112,90

A 121 °C

Accessories lid for disposal bag stand

Bel-Art Products. Material: PP. Autoclavable: Yes.

Made of PP, with labelling space.
Suitable for KN75.1 and KN76.1 disposal bag stands.
Dishwasher-safe.

Type	Art. No.	Pack Qty.	€
Lid	**YA64.1**	1 unit(s)	48,05

A 121 °C

Disposal bags with adhesive strip

Bel-Art Products. Material: PE HMHD (High Molecular Weight High Density). Autoclavable: Yes.

Material acc. to ASTM D1922 (propagation tear resistance) and ASTM D1709 (puncture resistance). For disposal of laboratory waste at the workplace, e.g. lab bench. Space-saving. Load capacity max. 1.36 kg.

W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
305 x 406	25,4	**YA65.1**	50 unit(s)	55,90

Waste bags eco

ROTH SELECTION. Material: LDPE.

Colour grey. Thickness 50 µm. 25 pieces on a roll.

Colour	Total volume (l)	W x L (mm)	Art. No.	Pack Qty.	€
grey	60	600 x 800	**HYX9.1**	250 unit(s)	32,20

Waste bags

ROTH SELECTION. Material: HDPE.

Strong quality. Thickness 30 µm. 50 pieces on the roll.

Colour	Total volume (l)	W x L (mm)	Art. No.	Pack Qty.	€
blue	70	575 x 1000	**HYY6.1**	50 unit(s)	8,55
red	70	575 x 1000	**HYY7.1**	50 unit(s)	8,55
yellow	70	575 x 1000	**HYY8.1**	50 unit(s)	8,55
grey	70	575 x 1000	**HYY9.1**	50 unit(s)	8,55
blue	120	700 x 1100	**KAA0.1**	50 unit(s)	10,70
red	120	700 x 1100	**KAA1.1**	50 unit(s)	10,70
yellow	120	700 x 1100	**KAA2.1**	50 unit(s)	10,70
grey	120	700 x 1100	**KAA3.1**	50 unit(s)	10,70

Waste bags extra strong

ROTH SELECTION. Material: LDPE.

Especially tearproof and tensile. Thickness 60 µm.
25 pieces per roll.

Colour	Total volume (l)	W x L (mm)	Art. No.	Pack Qty.	€
red	120	700 x 1100	**HYX4.1**	25 unit(s)	10,25
yellow	120	700 x 1100	**HYX6.1**	25 unit(s)	10,25
green	120	700 x 1100	**HYX7.1**	25 unit(s)	10,25
black	120	700 x 1100	**HYX8.1**	25 unit(s)	9,30

Disposal bags, accessories

Waste bags

ROTH SELECTION.

For 12 l bin
Material: LDPE. Dimensions: 450 x 520 mm.
50 bags on a roll.

Colour	Total volume (l)	Pack.	Art. No.	Pack Qty.	€
white	16	5 x 50 pieces	**P388.1**	250 unit(s)	6,15

For 18 l bin
Material: LDPE. Dimensions: 540 x 550 mm.
50 bags on a roll.

Colour	Total volume (l)	Pack.	Art. No.	Pack Qty.	€
natural	24	10 x 50 pcs	**P389.2**	500 unit(s)	13,45

For 20–40 l bin
Material: PE. Super strong quality.
Dimensions: 550 x 650 mm.
50 bags on a roll.

Colour	Total volume (l)	Wall thickness (µm)	Pack.	Art. No.	Pack Qty.	€
blue	40	30	4 x 50 pcs	**Y386.1**	200 unit(s)	19,25

For 30–60 l bin
Material: PE. Dimensions: 370/260 x 850 mm.
40 bags on a roll.

Colour	Total volume (l)	Wall thickness (µm)	Pack.	Art. No.	Pack Qty.	€
natural	60	30	5 x 40 pcs	**Y405.1**	200 unit(s)	24,70

Waste bags Paper

ROTH SELECTION. Material: Paper.

2 x 70 g. Neutral, no imprint.

- **HYY4.1:** Width 550 + 230 mm, length 850 mm
- **HYY5.1:** Width 700 + 250 mm, length 950 mm

Colour	Total volume (l)	Art. No.	Pack Qty.	€
brown	70	**HYY4.1**	25 unit(s)	21,45
brown	120	**HYY5.1**	25 unit(s)	25,80

Waste bags BIO compostable

ROTH SELECTION. Material: Maize starch, 100%.

Acc. to EN 13432 (biodegradable materials).
Based on renewable raw materials.

- Practical and hygienic, odour blocking
- Fit any container due to their softness
- Biodegradable
- Last for years if stored properly (kept out of UV light and stored at room temperature)
- Waterproof
- Easy to handle as the bags are on a roll

Colour	Total volume (l)	W x L (mm)	Art. No.	Pack Qty.	€
white	10	420 x 450	**HYY0.1**	26 unit(s)	7,35
white	35	500 x 600	**HYY1.1**	20 unit(s)	9,65
white	80	810 x 1100	**HYY2.1**	10 unit(s)	13,95

Waste bags SEKUROKA® with adhesive strip

ROTH SELECTION. Material: PE with adhesive strip.

To attach to all smooth, clean surfaces such as walls, tables, trolleys, etc. Can be removed without leaving residue. If required, bags can be closed using the adhesive strip.

W x L (mm)	Art. No.	Pack Qty.	€
200 x 300	**Y104.1**	100 unit(s)	12,85
300 x 300	**Y105.1**	100 unit(s)	15,45
300 x 450	**Y106.1**	100 unit(s)	12,00

A 121 °C

Sealing clips

Bel-Art Products. Material: PP. Autoclavable: Yes.

For keeping disposal bags sealed during transportation and sterilisation. Can be opened and closed with one hand. For single use. Suitable for bags in sizes W 300 x L 610 and W 480 x L 580 mm.

Version	Art. No.	Pack Qty.	€
Sealing clips	**YA58.1**	100 unit(s)	27,95

Disposal bags, accessories

Laundry bags water soluble

Franz Mensch.

Based on polyvinyl alcohol (PVA). With sealing strip.

- Safe collection and handling of soiled, contaminated, infectious laundry
- Prevents personnel from coming into direct contact with the bag's contents and therefore avoids cross-contamination of germs
- Can be added directly to a washing machine without having to be emptied
- Soluble in water from 60 °C, wash at 60-90 °C for at least 30 min
- The bag and sealing strip automatically dissolve in a water bath without leaving any residue
- The material is non-toxic and fully biodegradable

Colour	Total volume (l)	W x L (mm)	Art. No.	Pack Qty.	€
red	60	660 x 840	**KCT1.1**	25 unit(s)	26,50
red	100	710 x 990	**KCT2.1**	25 unit(s)	31,10

Waste collector Clappy

Regalit. Material: Stainless steel, Base made of plastic (ABS), wheels made of solid rubber.

The clamping ring for the waste disposal bag also forms the seal. Can be opened by pressing on the pedal. Integrated braking system stops it from rolling away.

Vol. (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
40	585 x 490 x 825	6,5	**X441.1**	1 unit(s)	385,95
70	585 x 490 x 975	7,5	**X442.1**	1 unit(s)	407,45

Waste collector ProfiLine WS 120

Hailo. Material: Aluminium -Tubular frame, Lid frame and base made of plastic (ABS).

- Holder for 120 l waste disposal bags
- With holder for disposal bags
- Hinged lid
- Integrated frame with rubber ring for easy attachment of bags
- Includes a set of labels for separating waste

Version	W x D x H (mm)	Art. No.	Pack Qty.	€
with rollers	430 x 450 x 1030	**KL40.1**	1 unit(s)	98,70
without rollers	430 x 450 x 970	**KL39.1**	1 unit(s)	99,25

Waste bags

ROTH SELECTION. Material: PE.

For 70 l bin
Extremely tear-resistant and flexible.
Dimensions: 575 x 1000 mm. 25 bags on one roll.

Colour	Total volume (l)	Wall thickness (µm)	Pack.	Art. No.	Pack Qty.	€
light blue	70	60	4 x 25 pieces	**Y387.1**	100 unit(s)	21,40

For 120 l bin
Especially tearproof and tensile.

Dimensions: 700 x 1100 mm. 25 bags on a roll.

Colour	Total volume (l)	Wall thickness (µm)	Pack.	Art. No.	Pack Qty.	€
blue	120	40	1 x 25 pieces	**5382.2**	25 unit(s)	7,50

Waste disposal bin with swinging lid

Curver Luxembourg. Material: PP.

Swinging lid clicks into place when pushed backwards.

Vol. (l)	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
25	silver, anthracite	330 x 270 x 510	**K522.1**	1 unit(s)	24,20
50	silver, anthracite	406 x 340 x 668	**K524.1**	1 unit(s)	38,20

Pedal bin with pedal NewIcon

Brabantia. Material: Stainless steel (sheet metal).

Made of sheet steel with polyethylene insert or with fire-resistant zinc insert. Silent closing lid, odour-proof.

With polyethylene insert

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
12	chrome	250 x 400	**N434.1**	1 unit(s)	52,60

With fire-resistant zinc insert

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
12	chrome	250 x 400	**N435.1**	1 unit(s)	68,75
12	white	250 x 400	**N436.1**	1 unit(s)	61,25
20	chrome	290 x 460	**N437.1**	1 unit(s)	89,20
20	white	290 x 460	**1873.1**	1 unit(s)	77,40
30	chrome	300 x 675	**N438.1**	1 unit(s)	115,05
30	white	300 x 675	**N439.1**	1 unit(s)	101,05

Waste disposal bin Push bin

Brabantia. Material: Stainless steel, Base made of plastic.

Functional design. Detachable lid with extra wide 210 x 210 mm opening.

Vol. (l)	Ø x H (mm)	Art. No.	Pack Qty.	€
60	400 x 820	**Y404.1**	1 unit(s)	192,45

Pedal bin Bo

Brabantia. Material: Steel.

- Two compartments - ideal for waste separation
- Gentle closing lid and ultra-lightweight pedal operation
- Lid can be locked - for replacing waste disposal bags
- Large opening for easy disposal of waste - without spilling
- Easy cleaning - removable plastic inner inserts
- Space-saving - thanks to flat design
- Slip-resistant base underside - protects the floor and ensures high stability
- Easy repositioning - side recessed grips

Two compartments: 11 + 23 L

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
black	540 x 365 x 440	**1E77.1**	1 unit(s)	170,95
white	540 x 365 x 440	**1E76.1**	1 unit(s)	170,95

Two compartments: 2 x 30 L

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
black	540 x 365 x 652	**1E75.1**	1 unit(s)	220,40
white	540 x 365 x 652	**1E74.1**	1 unit(s)	220,40

Pedal bin FlatBack+

Brabantia. Material: Steel.

- Space-saving thanks to flat back
- Quietly closing lid and simple pedal operation
- Lid remains open when manually opened by hand
- Open lid does not touch the wall
- Easy to clean - removable plastic insert with grips
- Easy to move the bin - soft strap handle at the back
- Slip-resistant floor edging protects the floor
- Height with lid open 920 mm

Vol. (l)	Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
40	white	430 x 335 x 660	**1E78.1**	1 unit(s)	213,95
40	chrome	430 x 335 x 660	**1E79.1**	1 unit(s)	213,95

Waste collectors

Waste disposal bin "Sort & Go"

Brabantia. Material: Plastic.

- Compact and space-saving
- Ideal for separate collection of waste
- Can be mounted on the wall or positioned free-standing
- Easy to mount
- The small 6-l container is ideal for the disposal of waste directly from the worktop
- The lid is not self-closing, ideal for longer work
- Stable handle and recessed grip on the base for emptying

Delivery incl. wall mount, mounting material and instructions.

Vol. (l)	Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
6	white	200 x 249 x 181	**HLX8.1**	1 unit(s)	27,90
6	grey	200 x 249 x 181	**HLX9.1**	1 unit(s)	27,90
12	white	200 x 249 x 351	**HLY1.1**	1 unit(s)	34,35
12	grey	200 x 249 x 351	**HLY2.1**	1 unit(s)	34,35
16	white	220 x 279 x 401	**HLY4.1**	1 unit(s)	42,95
16	grey	220 x 279 x 401	**HLY5.1**	1 unit(s)	42,95

Waste container SEKUROKA® wire mesh

ROTH SELECTION. Material: Metal, robust with plastic coating.

Suitable for use as a waste basket, e.g. for paper towels or towels.

L x W x H (mm)	Art. No.	Pack Qty.	€
360 x 260 x 610	**AC06.1**	1 unit(s)	48,70

Waste paper bin Flame Guard self-extinguishing

Brabantia. Material: Stainless steel, chrome-plated.

With removable fire-resistant zinc insert. TÜV certified. The ring of the waste paper bin is shaped such a way that the oxygen supply is stopped by the rising smoke and the fire will therefore go out.
Insertion opening Ø 100 mm.

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
30	chrome	295 x 685	**KAY5.1**	1 unit(s)	117,20

Waste paper bin

Brabantia. Material: Steel (sheet metal), galvanised, rustproof.

Upper edge is folded back outwards.

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
15	black	251 x 320	**L909.1**	1 unit(s)	32,20

Waste collector for used batteries

ROTH SELECTION. Material: Plastic, recycled.

One opening each for normal batteries and button cells.

Vol. (l)	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
9	grey	300 x 200 x 230	**P345.1**	1 unit(s)	46,90

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Laboratory Equipment, Transport & Tools

Ampoule opener 1033
Assortment boxes 1026
Cases 1020
Caliper gauges / Measuring rulers 1036
Chairs / Stools 1006
Clambing aids 1010
Clips 1040
Container & boxes 1020
Cutting tools 1031
Drawer trays 1028
Glass cutters / Engravers 1033
Knives 1031
Lab marker 1043
Laboratory mats 1029
Ladders 1010
Non-slip mats 1029
Office organisation 1041
Opener 1039
Pens 1042
Platform trolleys 1013
Scissors 1033
Storage container 1026
Transport containers 1019
Transport trolleys 1012
Trolleys 1018
Tools 1036

Chairs, stools and standing aids

Office chair standard model

ROTH SELECTION.

According to DIN 68877.

- Backrest adjustment and continuously variable seat height adjustment
- Seat depth adjustment
- Safety gas spring with depth spring
- All dual castors are braked depending on load and are suitable for hard and soft bases
- Max. load: 120 kg

PU foam
Material: PU (Seat and backrest), Plastic base.

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	400 to 600	**Y708.1**	1 unit(s)	173,10
Rollers	black	420 to 620	**Y709.1**	1 unit(s)	188,15

Beech
Material: Wood (Seat and backrest), Plastic base.

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	natural	400 to 600	**Y710.1**	1 unit(s)	149,45
Rollers	natural	420 to 620	**Y711.1**	1 unit(s)	166,65

Office chair

ROTH SELECTION. Material: PU (Seat and backrest), Plastic base.

According to DIN 68877.

- Continuously variable seat and backrest adjustment
- 12° seat inclination adjustment
- Base with concealed safety gas spring
- Large, non-slip floor glides or load-responsive braked double castors
- Max. load: 120 kg

Pic.	Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
(1)	Glides	black	440 to 630	**ALC5.1**	1 unit(s)	226,85
(2)	Rollers	black	460 to 650	**ALC6.1**	1 unit(s)	235,45

With ring base
Height of the ring base can be adjusted independently of the height of the seat.

Pic.	Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
(3)	Glides	black	510 to 700	**ALC7.1**	1 unit(s)	263,40

Office chair high

ROTH SELECTION.

According to DIN 68877.

- Tilting backrest can be adjusted in height and inclination
- Continuously variable seat height adjustment
- Extremely stable tubular steel feet
- Three integrated footrests at different heights
- Safety gas spring
- Max. load: 120 kg

PU foam
Material: PU (Seat and backrest), Tubular steel base.

Pic.	Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
(1)	Glides	black	480 to 880	**Y712.1**	1 unit(s)	276,30

PU foam, adjustable seat inclination
Material: PU (Seat and backrest), Tubular steel base.
Seat inclination adjustable by 12°.

Pic.	Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
(2)	Glides	black	480 to 880	**ALC8.1**	1 unit(s)	306,40

Beech
Material: Wood (Seat and backrest), Tubular steel base.

Pic.	Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
(1)	Glides	natural	480 to 880	**Y713.1**	1 unit(s)	246,20

Office chair XXL

ROTH SELECTION. Material: Artificial leather (Cover).

- Especially large, comfortable seat and backrest width
- Continuously adjustable seat inclination
- Reinforced synchronized mechanics with hand wheel to adjust the weight
- Height adjustment via gas spring
- Large, non-slip floor glides or load-responsive braked double castors
- Max. load: 160 kg

Version	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	480 to 660	**HKT1.1**	1 unit(s)	579,45
Rollers	425 to 555	**HKT2.1**	1 unit(s)	600,95

Laboratory chair Labster

bimos. Material: Artificial leather (Seat and backrest).

GMP-compatible and suitable for use in clean rooms, ideal for laboratories with safety classes S1 to S3.

- High level of seating comfort through Skai artificial leather and soft upholstery
- Fully washable and can be disinfected
- Seamless design concept
- Mechanics and soft-cover lining with control panel
- Excellent ergonomics, height-adjustable backrest
- Auto-motion technology adapts the inclination of the seat and backrest automatically to the working posture
- Compact design, small space requirement
- Space-saving star base
- Load-dependent limited dual casters for hard floor surfaces
- Max. load: 120 kg

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Rollers	black	400 to 510	**HHA2.1**	1 unit(s)	519,25
Rollers	grey	400 to 510	**HHA3.1**	1 unit(s)	519,25
Rollers	red	400 to 510	**HHA4.1**	1 unit(s)	519,25
Rollers	mint green	400 to 510	**HHA5.1**	1 unit(s)	519,25
Rollers	black	450 to 650	**HHA6.1**	1 unit(s)	549,70
Rollers	grey	450 to 650	**HHA7.1**	1 unit(s)	549,70
Rollers	red	450 to 650	**HHA8.1**	1 unit(s)	549,70
Rollers	mint green	450 to 650	**HHA9.1**	1 unit(s)	549,70

With ring base

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	550 to 800	**HHC0.1**	1 unit(s)	642,30
Glides	grey	550 to 800	**HHC1.1**	1 unit(s)	642,30
Glides	red	550 to 800	**HHC2.1**	1 unit(s)	642,30
Glides	mint green	550 to 800	**HHC3.1**	1 unit(s)	642,30

Stools stainless steel

ROTH SELECTION. Material: PU (Seat), with stainless steel insert, Stainless steel base and safety gas spring.

- Easy to clean
- Rust-free
- Available to order separately: Footrest, can be folded upwards flexibly
- Max. load: 120 kg

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	440 to 630	**ALE1.1**	1 unit(s)	342,95
Rollers	black	500 to 690	**ALE2.1**	1 unit(s)	379,50

Laboratory stools Labster

bimos. Material: Artificial leather (Seat).

GMP-compatible and suitable for use in clean rooms, ideal for laboratories with safety classes S1 to S3.

- High level of seating comfort through Skai artificial leather and soft upholstery
- Fully washable and can be disinfected
- Seamless design concept
- Mechanics and soft-cover lining with control panel
- Adjustable seat height with ring-release gas elevation
- Extra-large seat surface with Ø 380 mm
- Compact design, small space requirement
- Load-dependent limited dual casters for hard floor surfaces
- Max. load: 120 kg

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Rollers	black	450 to 650	380	**HHC5.1**	1 unit(s)	299,15
Rollers	grey	450 to 650	380	**HHC6.1**	1 unit(s)	299,15
Rollers	red	450 to 650	380	**HHC7.1**	1 unit(s)	299,15
Rollers	mint green	450 to 650	380	**HHC8.1**	1 unit(s)	299,15

Stools comfort model

ROTH SELECTION.

- Continuously variable seat height adjustment
- Safety gas spring for quick seat height adjustment
- LGA approved
- Max. load: 120 kg

PU foam, standard
Material: PU (Seat), Plastic base.

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	440 to 630	**Y706.1**	1 unit(s)	117,20

Beech, release ring
Material: Wood (Seat), Plastic base.

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	natural	440 to 630	**Y707.1**	1 unit(s)	117,20

Chairs, stools and standing aids

Stools

ROTH SELECTION.

- Continuously variable seat height adjustment
- Safety gas spring for quick seat height adjustment
- LGA approved
- Max. load: 120 kg

PU foam
Material: PU (Seat), Plastic base.

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Glides	black	400 to 600	350	**Y702.1**	1 unit(s)	117,20
Rollers	black	420 to 620	350	**Y703.1**	1 unit(s)	127,95

PU foam release ring
Material: PU (Seat), Plastic base.

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Glides	black	400 to 590	350	**CXA5.1**	1 unit(s)	123,65
Rollers	black	430 to 620	350	**CXA6.1**	1 unit(s)	134,40

PU foam release ring, with ring base
Material: PU (Seat), Plastic base.

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Glides	black	540 to 800	350	**CXA7.1**	1 unit(s)	160,20

Beech
Material: Wood (Seat), Plastic base.

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Glides	natural	400 to 600	350	**Y704.1**	1 unit(s)	117,20
Rollers	natural	420 to 620	350	**Y705.1**	1 unit(s)	124,70

Stools with all-round footrest

ROTH SELECTION. Material: PU (Seat), Steel base.

- Safety gas spring
- All-round footrest for excellent support
- Max. load: 120 kg

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	540 to 740	**ALH5.1**	1 unit(s)	160,20

Stools padded

ROTH SELECTION. Material: Artificial leather (Seat), Plastic base.

- Seat thickness 90 mm, padded
- Release ring
- Base Ø 630 mm
- Load-responsive braked double castors
- Safety gas spring for quick seat height adjustment
- Max. load: 120 kg

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Castors	red	480 to 680	360	**ALH2.1**	1 unit(s)	149,45
Castors	blue	480 to 680	360	**ALH3.1**	1 unit(s)	149,45
Castors	black	480 to 680	360	**ALH4.1**	1 unit(s)	149,45

Stools XL

ROTH SELECTION.

- Continuously variable seat height adjustment
- Safety gas spring
- Base Ø 610 mm
- Load-responsive braked double castors
- Max. load: 150 kg

Padded
Material: Arti icial leather (Seat), Aluminium base.

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Castors	black	560 to 740	360	**HKP9.1**	1 unit(s)	231,15
Rollers	black	560 to 740	400	**HKP7.1**	1 unit(s)	268,75

Beech
Material: Wood (Seat), Aluminium base.

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Rollers	natural	560 to 740	400	**HKP8.1**	1 unit(s)	226,85
Rollers	natural	560 to 740	360	**HKT0.1**	1 unit(s)	186,00

Stackable stool stainless steel

ROTH SELECTION. Material: PU (Seat), Stainless steel tubular base frame.

- Easy to clean
- Rust-free
- Max. load: 120 kg

Colour	Seat height (mm)	Art. No.	Pack Qty.	€
blue	500 to 500	**ALE3.1**	1 unit(s)	209,65
blue	580 to 580	**ALE4.1**	1 unit(s)	218,25
black	500 to 500	**ALE5.1**	1 unit(s)	192,45
black	580 to 580	**ALE6.1**	1 unit(s)	203,20

Stackable stool

ROTH SELECTION.

- Seat Ø 350 mm
- Ready to hand and can be stacked to save space
- Max. load: 120 kg

PU foam
Material: PU (Seat), Tubular steel frame.

Colour	Frame colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
black	black	500 to 500	350	**CXA8.1**	1 unit(s)	85,90
black	light grey	500 to 500	350	**CXA9.1**	1 unit(s)	85,90
black	black	580 to 580	350	**CXC1.1**	1 unit(s)	84,95
black	light grey	580 to 580	350	**CXC2.1**	1 unit(s)	84,95

Beech
Material: Wood (Seat), Tubular steel frame.

Colour	Frame colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
natural	light grey	500 to 500	350	**CXC0.1**	1 unit(s)	69,90
natural	light grey	580 to 580	350	**CXC3.1**	1 unit(s)	74,20

Stools

ROTH SELECTION.

- Continuously variable seat height adjustment by means of gas spring
- Large seat area, width 370 mm
- Front/back seat angle adjustment: 7.5°
- High backrest for upright seating
- Max. load: 120 kg

PP
Material: PP (Seat), Plastic base.

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	490 to 680	**CXA1.1**	1 unit(s)	177,40
Rollers	black	520 to 710	**CXA2.1**	1 unit(s)	188,15

PU foam
Material: PU (Seat), Plastic base.

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	blue	490 to 680	**CTY9.1**	1 unit(s)	216,10
Rollers	blue	520 to 710	**CXA0.1**	1 unit(s)	224,70

Stools/standing supports with ring base

ROTH SELECTION.

Flexible use as a standing support or stool possible: Tilt the seat forwards to stand, set it straight to sit on it.

- Continuously variable seat height adjustment by means of gas spring
- Large seat area, width 370 mm
- Front/back seat angle adjustment: 7.5°
- High backrest for upright seating
- With ring base
- Max. load: 120 kg

PP
Material: PP (Seat), Plastic base.

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	600 to 860	**CXA4.1**	1 unit(s)	226,85

PU foam
Material: PU (Seat), Plastic base.

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	blue	600 to 860	**CXA3.1**	1 unit(s)	263,40

Chairs, stools and standing aids

Standing support with comfort seat

ROTH SELECTION.

- Seat width: 420 mm
- Seat surface with distinct air-conditioning ducts
- Handle on rear of the seat for easy change of location
- Foot rest with transport castors
- Non-rotative gas-pressure spring
- Optionally available with foldable foot rest (please order separately)

Seat height (mm)	Art. No.	Pack Qty.	€
650 to 850	**HTA2.1**	1 unit(s)	315,00

Footrest for standing support with comfort seat

ROTH SELECTION.

Designation	Art. No.	Pack Qty.	€
Footrest, foldable	**HTA3.1**	1 unit(s)	85,80

Standing support

ROTH SELECTION. Material: PU (Seat), Tubular steel frame.

To take the load off users when standing. Seat and foot stand can be folded in.

Colour	Seat height (mm)	Art. No.	Pack Qty.	€
red	650 to 850	**AH92.1**	1 unit(s)	188,15
black	650 to 850	**AH91.1**	1 unit(s)	188,15

Standing support

ROTH SELECTION. Material: Artificial leather padded (seat and backrest), Steel frame, plastic-coated.

Foldable. To take the load off the feet and spine when working standing up. Height is continuously adjustable.

Colour	Seat height (mm)	Art. No.	Pack Qty.	€
red	550 to 900	**9042.1**	1 unit(s)	238,65
black	550 to 900	**9045.1**	1 unit(s)	238,65
silver	550 to 900	**9050.1**	1 unit(s)	238,65

Roller stools

ROTH SELECTION.

According to DIN 4569. TÜV- and BG-tested. Can be moved thanks to three spring-mounted castors (insertable). With thick plastic ring base. Unshakably secure hold with a load of 5 kg and above.

Technical specifications:

Art. No.	X429.1	X430.1	X431.1	X432.1
Ø Upper	290 mm			
Ø Lower	435 mm		445 mm	
Load capacity	150 kg			
Weight	4.9 kg		2.8 kg	

Plastic
Material: PP break-proof.

Colour	Height (mm)	Art. No.	Pack Qty.	€
white	425	**X431.1**	1 unit(s)	53,60
light grey	425	**X432.1**	1 unit(s)	53,60

Metal
Material: Metal powder-coated. Steps with slip-resistant rubber covering.

Colour	Height (mm)	Art. No.	Pack Qty.	€
blue	430	**X429.1**	1 unit(s)	90,75
light grey	430	**X430.1**	1 unit(s)	90,75

Stepladder

ROTH SELECTION. Material: PP.

Sturdy, with two levels, foldable. Anti-slip feet and steps. Easy to clean.

Technical specifications:

Art. No.	T224.1
Load capacity	150 kg

Colour	Total height (mm)	Platform height (mm)	Width (mm)	Art. No.	Pack Qty.	€
anthracite, red	630	430	486	**T224.1**	1 unit(s)	64,40

Climbing aids and ladders

Stepladder mobile

ROTH SELECTION. Material: Aluminium.

According to DIN 4569. TÜV- and BG-tested. Freely movable thanks to spring-mounted castors. Two anti-slip steps. Unshakably secure hold when loaded. Dimensions when folded up: 440 x 230 mm, height 485 mm.

Technical specifications:

Art. No.	Y645.1
Load capacity	150 kg
Weight	2.2 kg

Height (mm)	Width (mm)	Art. No.	Pack Qty.	€
445	440	**Y645.1**	1 unit(s)	74,10

Stepladder with handle

Hailo. Material: Steel, Aluminium safety handrail.

With soft-grip base for optimal stability on various floor surfaces. Arched safety handrail for holding on to and leaning on, with storage tray. Extra-large, slip-resistant steps for optimal comfort while standing up.

Technical specifications:

Art. No.	ACP5.1	ACP6.1
Load capacity	150 kg	
Weight	4.9 kg	6.6 kg

Steps	Total height (mm)	Platform height (mm)	Width (mm)	Art. No.	Pack Qty.	€
2	1,200	490	520	**ACP5.1**	1 unit(s)	117,70
3	1,440	740	550	**ACP6.1**	1 unit(s)	142,30

Safety ladder

Hailo. Material: Aluminium.

With anti-slip surface. Secure, high-tech riveted step and rail connection and slip-resistant feet.

Technical specifications:

Art. No.	LT12.1	LT09.1
Load capacity	150 kg	
Weight	4.6 kg	3.9 kg

(1) Steel platform
Height of platform: 840 mm.

Steps	Height (mm)	Width (mm)	Art. No.	Pack Qty.	€
4	1,580	450	**LT09.1**	1 unit(s)	102,05

(2) Aluminium platform
Height of platform: 1060 mm.

Steps	Height (mm)	Width (mm)	Art. No.	Pack Qty.	€
5	1,820	480	**LT12.1**	1 unit(s)	115,75

Gas bottle rack

ROTH SELECTION. Material: Steel, galvanised.

For wall mounting of a gas bottle.

Delivery incl. safety chain.

Suitable for	Art. No.	Pack Qty.	€
Bottle Ø 140 mm	**CTC5.1**	1 unit(s)	61,55
Bottle Ø 230 mm	**CTC6.1**	1 unit(s)	61,55
Bottle Ø 320 mm	**CTC7.1**	1 unit(s)	64,50

Storage/transport of gas cylinders

Gas bottle rack

Usbeck. Material: Aluminium powder-coated.

Bottle rack for compressed gas bottles, for fixing to tables. For benchtops up to 65 mm thick. Wall mounting possible by means of cross holes (Ø 6.5 mm). Flexible fastening belt with snap buckle.

Delivery incl. belt.

Suitable for	Art. No.	Pack Qty.	€
Ø 230 mm bottles	**1A0A.1**	1 unit(s)	51,45

Gas cylinder trolley

ROTH SELECTION. Material: PE.

For safely transporting a single gas cylinder, Ø max. 320 mm.

- With handle
- Large surface area provides excellent stability
- Solid rubber tyres, wheel Ø 200 mm

Technical specifications:

Art. No.	CTC3.1	CTC4.1
Load capacity	80 kg	

Delivery incl. lashing strap for securing the cylinder.

Version	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
With support wheel	495	800	1,110	**CTC4.1**	1 unit(s)	325,75
Without support wheel	495	630	1,110	**CTC3.1**	1 unit(s)	288,10

Transport trolley foldable

ROTH SELECTION.

- Extremely space-saving when folded
- Quickly ready to use
- Low net weight - high load-bearing capacity
- With Spannfix system for securing loads

Technical specifications:

Art. No.	9305.1	1C3H.1	1C3K.1
Scoop width	490 mm		495 mm
Scoop depth	250 mm	410 mm	420 mm
Load capacity	125 kg		100 kg

Aluminium

Material: Aluminium, Steel, Plastic. Polymer wheels (Ø 185 x W 40 mm), plastic rims, roller bearings.

Dimensions when folded up: W 490 x H 685 mm.

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
490	1,030	**9305.1**	1 unit(s)	163,40

Stainless steel

Material: Stainless steel, Plastic. Polymer wheels (Ø 185 x W 40 mm), plastic rims, roller bearings.

Dimensions when folded up: W 490 x H 735 mm.

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
490	1,130	**1C3H.1**	1 unit(s)	262,30

Cross

Material: Steel (pipe, chrome-plated), Plastic. Extra wide polymer wheels (Ø 180 x W 95 mm), plastic rims, ball bearings.

Dimensions when folded up: W 495 x H 740 mm.

- Special tyres for uneven terrain

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
495	1,120	**1C3K.1**	1 unit(s)	244,05

Transport trolley

ROTH SELECTION. Material: Steel.

Colour: Black/silver. Pneumatic/lugged tyres. Wheels with roller bearings.

Technical specifications:

Art. No.	X828.1
Scoop width	260 mm
Scoop depth	280 mm
Load capacity	250 kg

Height (mm)	Art. No.	Pack Qty.	€
1,100	**X828.1**	1 unit(s)	298,85

Transport trolleys

Drum-tipping cradle

Material: Steel (plastic-coated), Polyamide rollers.

Support rollers: Ø 50 mm, steering and fixed wheels: Ø 125 mm.

- With removable lever handle

For drum size 50-60 litres

Version	Length (mm)	Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Standard	720	1,710	510	625	**1C48.1**	1 unit(s)	371,95
With drip tray	720	1,710	510	625	**1C45.1**	1 unit(s)	449,35

For drum size 200 litres

Version	Length (mm)	Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Standard	1,010	2,005	555	625	**1C49.1**	1 unit(s)	389,15
With drip tray	1,010	2,005	555	625	**1C46.1**	1 unit(s)	467,65

Drum trolley with stabiliser wheel

ROTH SELECTION. Material: Steel (plastic-coated).

With adjustable drum gripper (drum rest with claws).
Stabiliser wheel: Swivel roller, Ø 200 mm, made of solid rubber.

Technical specifications:

Art. No.	1C47.1	1C44.1
Load capacity	250 kg	

Solid rubber tyres

Wheel Ø 250 mm, width 60 mm.

Width (mm)	Total height (mm)	Height (mm)	Art. No.	Pack Qty.	€
600	1,600	700	**1C47.1**	1 unit(s)	350,45

Pneumatic tyres

Wheel Ø 260 mm, width 85 mm.

Width (mm)	Total height (mm)	Height (mm)	Art. No.	Pack Qty.	€
600	1,600	700	**1C44.1**	1 unit(s)	350,45

Platform trolley with handle

ROTH SELECTION. Material: Steel welded, powder-coated.

TPE tyres, two swivel castors and two fixed castors, lockable swivel castors.

Technical specifications:

Art. No.	HTX7.1	HTX6.1
Length	890 mm	
Width	500 mm	
Height	860 mm	
Platform height	195 mm	
Roller Ø	125 mm	
Load capacity	250 kg	
Weight	14 kg	12 kg

Wood

Material: Wooden platform, surface in beech finish.

Number of bases	Platform (mm)	Colour	Art. No.	Pack Qty.	€
1	600 x 500	blue, natural	**HTX6.1**	1 unit(s)	204,25

Steel sheet

Material: Steel sheet platform, powder-coated.

Number of bases	Platform (mm)	Colour	Art. No.	Pack Qty.	€
1	600 x 500	blue	**HTX7.1**	1 unit(s)	226,85

Platform trolleys

Platform trolley

ROTH SELECTION.

With handlebar, folds onto platform.
Two swivel castors and two fixed castors, lockable swivel castors.

Technical specifications:

Art. No.	HTX8.1	HTY0.1	HTX9.1	HTY1.1
Length	815 mm		995 mm	
Width	470 mm		620 mm	
Height	930 mm		965 mm	
Roller Ø	125 mm		160 mm	
Load capacity	250 kg	200 kg	250 kg	200 kg
Weight	16 kg	11 kg	25 kg	18 kg

Wood
Material: Steel powder-coated, Wooden platform material, surface in beech finish.

Number of bases	Platform (mm)	Colour	Art. No.	Pack Qty.	€
1	720 x 450	blue, natural	**HTX8.1**	1 unit(s)	226,85
1	900 x 600	blue, natural	**HTX9.1**	1 unit(s)	279,50

Aluminium
Material: Aluminium.

Number of bases	Platform (mm)	Colour	Art. No.	Pack Qty.	€
1	720 x 450	silver	**HTY0.1**	1 unit(s)	359,05
1	900 x 600	silver	**HTY1.1**	1 unit(s)	459,05

Platform trolley

ROTH SELECTION. Material: Steel powder-coated, Wooden platform, surface in beech finish.

- Removable push handle
- Two swivel castors and two fixed castors, lockable steering wheels

Technical specifications:

Art. No.	HTY2.1	HTY3.1	HTY4.1	HTY5.1
Length	970 mm	1,120 mm		1,325 mm
Width	509 mm	609 mm	709 mm	809 mm
Height	948 mm	990 mm		
Roller Ø	160 mm	200 mm		
Load capacity	500 kg	600 kg		
Weight	23 kg	27 kg	30 kg	35 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
1	850 x 500	**HTY2.1**	1 unit(s)	236,50
1	1000 x 600	**HTY3.1**	1 unit(s)	255,85
1	1000 x 700	**HTY4.1**	1 unit(s)	255,85
1	1200 x 800	**HTY5.1**	1 unit(s)	280,60

Platform trolley ROTILABO®

ROTH SELECTION. Material: Steel powder-coated, Panels made of beech plywood, surface-treated, castors made of solid rubber.

Two swivel castors and two fixed castors.

Technical specifications:

Art. No.	N176.1	N177.1
Total height	975 mm	980 mm
Platform height	270 mm	
Roller Ø	200 mm	
Load capacity	500 kg	

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
1	850 x 500	**N176.1**	1 unit(s)	437,55
1	1200 x 700	**N177.1**	1 unit(s)	539,65

Platform trolley ROTILABO® stainless steel

ROTH SELECTION. Material: Stainless steel.

- Smooth platform underlaid with sound-insulating material, 80 mm folded edges, with safety crimping on the inside
- Curved push handle consisting of square tubes, Ø 25 mm, securely welded on
- Four swivel castors with rubber tyres; two of these castors are lockable
- Two solid bumpers protect against damage

Technical specifications:

Art. No.	N136.1	N137.1
Length	740 mm	1,000 mm
Width	600 mm	
Height	1,020 mm	
Platform height	243 mm	
Roller Ø	125 mm	
Load capacity	120 kg	
Weight	16 kg	20 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
1	545 x 545	**N136.1**	1 unit(s)	682,65
1	820 x 545	**N137.1**	1 unit(s)	719,20

Platform trolleys

Platform trolley ROTILABO® stainless steel

ROTH SELECTION. Material: Stainless steel.

- Welded frame structure consisting of round tubes, Ø 25 mm
- With welded-on tray 1.5 mm thick
- Curved push handle, height 450 mm, with grid design
- Four securely welded-on mounting plates for fastening the castors with rubber tyres
- With two fixed castors and two lockable swivel castors

Technical specifications:

Art. No.	N138.1	N139.1
Length	970 mm	1,120 mm
Width	500 mm	700 mm
Height	940 mm	
Platform height	270 mm	
Roller Ø	200 mm	
Load capacity	500 kg	
Weight	27 kg	34 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
1	850 x 500	**N138.1**	1 unit(s)	1.167,45
1	1000 x 700	**N139.1**	1 unit(s)	1.350,20

Platform trolley with mesh panels

ROTH SELECTION. Material: Steel powder-coated, Wooden platform, surface in beech finish.

Front and side panels made of wire mesh 50 x 50 x 4 mm, panel height 500 mm, one side panel is removable. Two swivel castors and two fixed castors, lockable swivel castors.

Technical specifications:

Art. No.	HTY6.1	HTY7.1	HTY8.1	HTY9.1
Length	1,030 mm	1,180 mm		1,380 mm
Width	509 mm	609 mm	709 mm	809 mm
Height	958 mm	990 mm		
Roller Ø	160 mm	200 mm		
Load capacity	500 kg	600 kg		
Weight	38 kg	47 kg	51 kg	59 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
1	850 x 500	**HTY6.1**	1 unit(s)	423,55
1	1000 x 600	**HTY7.1**	1 unit(s)	447,20
1	1000 x 700	**HTY8.1**	1 unit(s)	451,50
1	1200 x 800	**HTY9.1**	1 unit(s)	482,70

Shelf trolley wood

ROTH SELECTION. Material: Metal, powder-coated, panels made of multi-ply beech plywood.

Two steering wheels and two fixed wheels, solid rubber smooth-running wheels with ball bearings.

Technical specifications:

Art. No.	5390.1
Length	1,040 mm
Width	620 mm
Height	810 mm
Total height	900 mm
Floor clearance	520 mm
Roller Ø	125 mm
Load capacity	200 kg
Weight	33 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	1000 x 600	**5390.1**	1 unit(s)	643,95

Shelf trolley plastic

ROTH SELECTION. Material: PE (Shelves).

- Shelves with folded edge all the way round
- On trolleys with three shelves, the height of the middle shelf can be adjusted by 25 mm
- Load-bearing capacity per shelf 30 kg

Technical specifications:

Art. No.	K492.1	K493.1	K494.1	K495.1
Length	535 mm		686 mm	
Width	857 mm		1,003 mm	
Height	890 mm			
Total height	940 mm			
Floor clearance	550 mm	250 mm	550 mm	250 mm
Load capacity	60 kg	90 kg	60 kg	90 kg

Delivery incl. four swivel castors with rubber tyres, not assembled.

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	475 x 735	**K492.1**	1 unit(s)	473,00
2	620 x 880	**K494.1**	1 unit(s)	530,00
3	475 x 735	**K493.1**	1 unit(s)	570,85
3	620 x 880	**K495.1**	1 unit(s)	636,40

Platform trolleys

Shelf trolley plastic with tray shelves

ROTH SELECTION. Material: PE (Tray shelves).

- Shelves in the form of trays
- Tray depth 70 mm
- On trolleys with three shelves, the height of the middle shelf can be adjusted by 25 mm
- Load-bearing capacity per shelf 65 kg

Technical specifications:

Art. No.	X446.1	X447.1	X448.1	X449.1
Length	540 mm		690 mm	
Width	840 mm		995 mm	
Height	1,060 mm			
Floor clearance	610 mm	280 mm	610 mm	280 mm
Load capacity	130 kg	195 kg	130 kg	195 kg

Delivery incl. four swivel castors with rubber tyres, not assembled.

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	480 x 730	**X446.1**	1 unit(s)	566,55
2	625 x 885	**X448.1**	1 unit(s)	559,00
3	480 x 730	**X447.1**	1 unit(s)	613,85
3	625 x 885	**X449.1**	1 unit(s)	638,55

Shelf trolley ESD

ROTH SELECTION. Material: Steel powder-coated, Shelves made of wooden composite board, wheels with TPE-ESD tyres (thermoplastic elastomer).

- Electrically conductive design
- Two swivel castors and two fixed castors, lockable steering wheels
- Load-bearing capacity of top loading surface 80 kg

Technical specifications:

Art. No.	HXA0.1	HXA2.1	HXA1.1	HXA3.1
Length	980 mm		1,130 mm	
Width	509 mm		609 mm	
Height	1,020 mm			
Floor clearance	620 mm	310 mm	620 mm	310 mm
Roller Ø	125 mm			
Load capacity	250 kg			
Weight	30 kg	39 kg		54 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	850 x 500	**HXA0.1**	1 unit(s)	496,65
2	1000 x 600	**HXA1.1**	1 unit(s)	539,65
3	850 x 500	**HXA2.1**	1 unit(s)	636,40
3	1000 x 600	**HXA3.1**	1 unit(s)	737,45

Shelf trolley CLAX®

ROTH SELECTION. Material: Aluminium, Plastic.

Foldable. Stable hard rubber, also with footbrake for safe loading and unloading. Folding box on top transport floor can be fixed using securing straps. Top floor folds up easily to accommodate bulky objects. Can be built up and dismantled in a matter of seconds simply by pressing one button.
Dimensions when folded up: L 670 x W 470 x H 170 mm.
Load-bearing capacity of top shelf 20 kg, bottom shelf 40 kg.

Technical specifications:

Art. No.	HNX7.1
Length	890 mm
Width	550 mm
Height	1,030 mm
Load capacity	60 kg
Weight	8,5 kg

Delivery incl. one CLAX® transport box.

Number of bases	Colour	Art. No.	Pack Qty.	€
2	grey	**HNX7.1**	1 unit(s)	217,15

Shelf trolley with wire baskets

ROTH SELECTION. Material: Steel, Baskets covered with soft plastic.

With two baskets, volume of 65 and 24 litres, load-bearing capacity per basket 30 kg. Castors rotate all the way round.

Technical specifications:

Art. No.	1927.1
Length	730 mm
Width	410 mm
Height	850 mm
Total height	970 mm
Roller Ø	100 mm
Load capacity	60 kg
Weight	13.5 kg

Number of bases	Art. No.	Pack Qty.	€
2	**1927.1**	1 unit(s)	585,90

Platform trolleys

Shelf trolley

ROTH SELECTION. Material: Stainless steel 18/10.

Price plus transport costs of €35.00 within Germany.

With welded-in shelves, load-bearing capacity per shelf 40 kg. Four castors with wall deflectors, including two with wheel brakes. No protruding edges or screws, thereby largely preventing accidents and making it easy to clean. Anti-static tyres.

Technical specifications:

Art. No.	0033.1	A206.1	Y497.1
Length	895 mm		
Width	595 mm		
Height	949 mm		1,264 mm
Floor clearance	591 mm	278 mm	
Roller Ø	125 mm		
Load capacity	80 kg	120 kg	150 kg
Weight	15,63 kg	19,1 kg	23,62 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	800 x 500	**0033.1**	1 unit(s)	404,20
3	800 x 500	**A206.1**	1 unit(s)	449,35
4	800 x 500	**Y497.1**	1 unit(s)	589,10

Shelf trolley ROTILABO® for self-assembly

ROTH SELECTION. Material: Stainless steel 18/10.

- Stable support surfaces, thickness 0.8 mm
- Load-bearing capacity of each shelf 40 kg
- Bases are coated with sound-insulating material

Technical specifications:

Art. No.	YE87.1	YE88.1
Length	860 mm	
Width	560 mm	
Height	950 mm	
Floor clearance	570 mm	260 mm
Roller Ø	125 mm	
Load capacity	80 kg	120 kg
Weight	13 kg	17 kg

Delivery incl. four swivel castors, two of which are lockable. Fully disassembled.

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	760 x 440	**YE87.1**	1 unit(s)	207,50
3	760 x 440	**YE88.1**	1 unit(s)	259,10

Shelf trolley with tray shelves

ROTH SELECTION. Material: Stainless steel, stainless steel wheel housing, solid rubber rollers, plastic grip.

Tray depth 40 mm. Roller Ø 160 mm, 2 steering rollers and 2 fixed rollers, steering rollers with brake.

Technical specifications:

Art. No.	1C3L.1	1C3N.1
Length	940 mm	
Width	500 mm	
Height	915 mm	
Floor clearance	653 mm	312 mm
Load capacity	250 kg	350 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	900 x 500	**1C3L.1**	1 unit(s)	1.102,95
3	900 x 500	**1C3N.1**	1 unit(s)	1.241,65

Shelf trolley mini

ROTH SELECTION. Material: Stainless steel 1.4301.

Price plus transport costs of €35.00 within Germany.

- Sturdy and hygienic design
- Four swivel castors, including two with full locking brake
- Castors are not electrically conductive
- Smooth shelves, underlaid with sound-insulating material
- Shelves rigidly welded with four round tubes, Ø 25 mm

Technical specifications:

Art. No.	AXL5.1
Length	450 mm
Width	450 mm
Height	510 mm
Roller Ø	125 mm
Load capacity	120 kg

Number of bases	Art. No.	Pack Qty.	€
2	**AXL5.1**	1 unit(s)	546,10

Transport trolleys

Shelf trolley

ROTH SELECTION. Material: Stainless steel (material 1.4301), galvanised steel wheel housing.

Roller Ø 200 mm, 2 steering rollers and 2 fixed rollers, steering rollers with brake. C-shaped loading surfaces, folded. Push handle made of a pipe, Ø 27 mm.

Technical specifications:

Art. No.	1C3P.1	1C3T.1	1C3X.1	1C3Y.1	1C40.1	1C41.1	1C42.1	1C43.1
Total height	890 mm							
Platform height	890 mm							
Floor clearance	570 mm		265 mm		570 mm		265 mm	
Load capacity	600 kg							

TPE tyres

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	1000 x 700	**1C3P.1**	1 unit(s)	1.276,05
2	1200 x 800	**1C3T.1**	1 unit(s)	1.469,55
3	1000 x 700	**1C3X.1**	1 unit(s)	1.669,50
3	1200 x 800	**1C3Y.1**	1 unit(s)	1.898,45

PUR tyres

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	1000 x 700	**1C40.1**	1 unit(s)	1.488,90
2	1200 x 800	**1C41.1**	1 unit(s)	1.684,55
3	1000 x 700	**1C42.1**	1 unit(s)	1.883,40
3	1200 x 800	**1C43.1**	1 unit(s)	2.099,50

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Transport trolleys

Shelf trolley frame

ROTH SELECTION. Material: Stainless steel 1.4301, solid rubber swivel castors.

Technical specifications:

Art. No.	TC09.1
Length	620 mm
Width	460 mm
Height	1,200 mm
Floor clearance	300 mm
Roller Ø	125 mm
Load capacity	200 kg

Delivery without removable shelves and transport containers.

Number of bases	Art. No.	Pack Qty.	€
3	**TC09.1**	1 unit(s)	805,20

Tub trolley frame

ROTH SELECTION. Material: Steel plastic-coated, Solid rubber castors.

Transport trolley for tubs.

- Four swivel castors
- Overall height (trolley plus tub): 800 mm

Technical specifications:

Art. No.	K625.1
Roller Ø	75 mm
Weight	8,2 kg

Delivery without tub.

Suitable for	Colour	Art. No.	Pack Qty.	€
4524.1 tub	black	**K625.1**	1 unit(s)	236,50

Tub

ROTH SELECTION. Material: LDPE.

Temperature stable from -40 to +120 °C.

Technical specifications:

Art. No.	4524.1
L x W x H, interior	480 x 480 x 400 mm
Weight	2.8 kg

Delivery without chassis and lid.

Not a medical device / Not an IVD product

Vol. (l)	Colour	Art. No.	Pack Qty.	€
85	white	**4524.1**	1 unit(s)	52,55

Tub trolley frame

ROTH SELECTION. Material: Steel, plastic-coated.

Transport trolley for removable tubs. Four fully rotating swivel castors with solid rubber tyres and thread guard. Stability thanks to two lockable swivel castors with double stop. Height of tub support surface 430 mm.

Technical specifications:

Art. No.	C972.1
Length	730 mm
Width	490 mm
Height	580 mm
Roller Ø	75 mm
Load capacity	200 kg

Delivery without tub.

Suitable for	Colour	Art. No.	Pack Qty.	€
C973.1 tub	black	**C972.1**	1 unit(s)	236,50

Tub

ROTH SELECTION. Material: HDPE.

- Impact-resistant and break-proof
- Resistant to most acids and bases
- Temperature stability: -40 to +110 °C

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
85	800 x 550 x 300	red	**C973.1**	1 unit(s)	69,35
100	900 x 550 x 360	white	**E285.1**	1 unit(s)	116,10

Transport containers

Transport castors

ROTH SELECTION. Material: Stainless steel 18/10, Rubber castors.

With five swivel castors, one of which is lockable. For transporting round containers safely.

Technical specifications:

Art. No.	EET7.1	EET8.1	EET9.1	EEX0.1	EEX1.1
Roller Ø	100 mm				

Suitable for	Art. No.	Pack Qty.	€
Ø 300 mm	**EET7.1**	1 unit(s)	184,90
Ø 350 mm	**EET8.1**	1 unit(s)	189,20
Ø 400 mm	**EET9.1**	1 unit(s)	261,25
Ø 445 mm	**EEX0.1**	1 unit(s)	301,00
Ø 550 mm	**EEX1.1**	1 unit(s)	379,50

Transport container Aluminium

ROTH SELECTION. Material: Aluminium.

- Corrosion-resistant, weather-resistant and temperature stable
- Dimensionally stable
- Strong lever clamp seals with holes for padlock or seal lock and for fitting cylinder locks
- Plastic-coated safety folding handles
- Circumferential rubber seal to protect against external influences, such as dust and splash water
- Retaining bands on folding lid prevent hinges from pulling out

Technical specifications:

Art. No.	EPL0.1	EPL1.1	EPL2.1
L x W x H, interior	300 x 400 x 248 mm	350 x 550 x 381 mm	350 x 750 x 350 mm
Material thickness	1.0 mm		
Weight	3.01 kg	4.85 kg	5.96 kg

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Load capacity (kg)	Colour	Art. No.	Pack Qty.	€
30	335 x 430 x 273	30	silver	**EPL0.1**	1 unit(s)	112,25
73	385 x 580 x 398	45	silver	**EPL1.1**	1 unit(s)	172,00
92	385 x 780 x 367	45	silver	**EPL2.1**	1 unit(s)	221,45

Transport container

ROTH SELECTION. Material: Plastic, impact-resistant.

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
20	400 x 300 x 220	**TC10.1**	1 unit(s)	47,70
40	600 x 400 x 220	**TC11.1**	1 unit(s)	79,10

Case ROTILABO® Aluminium

ROTH SELECTION. Material: Aluminium.

Very sturdy, with stabilising aluminium frame profile. Protection in case of impact, through removable convoluted foam cushion in the lid and diced foam insert in the base. Lockable.

Technical specifications:

Art. No.	Y377.1	Y378.1
L x W x H, interior	320 x 125 x 245 mm	440 x 140 x 330 mm
Weight	2 kg	3 kg

Delivery incl. key.

Not a medical device / Not an IVD product

L x W x H, external (mm)	Art. No.	Pack Qty.	€
340 x 145 x 270	**Y377.1**	1 unit(s)	87,00
460 x 155 x 360	**Y378.1**	1 unit(s)	120,35

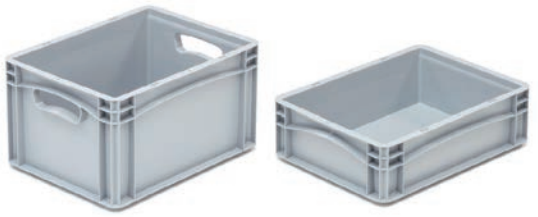
Transport containers

Euro container

ROTH SELECTION. Material: PP.

With 2 handles (without opening) or open grips, ideal for transport and storage.

- Stackable, even with lid
- Closed base and side walls
- Dimensions compliant with Euro pallet (120 x 80 cm)



Technical specifications:

Art. No.	EPK1.1	EPK2.1	EPK3.1	EPK4.1	EPK5.1	EPK6.1
L x W x H, interior	268 x 367 x 117 mm	268 x 367 x 217 mm	268 x 367 x 317 mm	367 x 567 x 117 mm	367 x 567 x 267 mm	367 x 567 x 416 mm
Weight	0.69 kg	1.02 kg	1.46 kg	1.13 kg	1.96 kg	3.20 kg

Delivery without non-hinged lid.

Not a medical device / Not an IVD product

Version	Vol. (l)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
Handle	11.2	300 x 400 x 120	**EPK1.1**	1 unit(s)	12,70
Pass-through handle	20.8	300 x 400 x 220	**EPK2.1**	1 unit(s)	17,85
Pass-through handle	30	300 x 400 x 320	**EPK3.1**	1 unit(s)	20,75
Handle	23.9	400 x 600 x 120	**EPK4.1**	1 unit(s)	19,25
Pass-through handle	54.5	400 x 600 x 270	**EPK5.1**	1 unit(s)	30,00
Pass-through handle	80.0	400 x 600 x 420	**EPK6.1**	1 unit(s)	47,45

Case ROTILABO® plastic

ROTH SELECTION. Material: PP.

Robust design. Can be stacked on top of one another, slip-proof. With handle and sealable snap locks.

Technical specifications:

Art. No.	C236.1	C237.1	C238.1	H310.1	C239.1	H311.1
L x W x H, interior	358 x 258 x 114 mm	358 x 258 x 165 mm	555 x 355 x 114 mm	353 x 253 x 268 mm	552 x 352 x 215 mm	358 x 258 x 320 mm

Delivery incl. lid.

Not a medical device / Not an IVD product

Version	Vol. (l)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
1 central handle	10	400 x 300 x 133	**C236.1**	1 unit(s)	40,90
1 central handle	15	400 x 300 x 183	**C237.1**	1 unit(s)	45,20
1 central handle	20	600 x 400 x 135	**C238.1**	1 unit(s)	58,40
1 central handle + 2 side handles	32	400 x 300 x 282	**H310.1**	1 unit(s)	58,50
1 central handle	40	600 x 400 x 235	**C239.1**	1 unit(s)	70,35
1 central handle + 2 side handles	40	400 x 300 x 338	**H311.1**	1 unit(s)	58,65

Transport containers

NEW / +

Transport container Droplet™

ROTH SELECTION. Material: ABS, PS (Insert).

Lightweight and spacious transport container enables easy organisation. Transport container includes a drawer, side compartments and a folding carrying handle with rubber coating. Disposable inserts have an extra-deep compartment, e.g. for waste disposal containers.

With frame for 13 mm tubes

Delivery incl. 2x disposable inserts and frame for 36 x 13 mm tubes.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
429 x 265 x 172	**1L99.1**	1 unit(s)	80,60

With frame for 16 mm tubes

Delivery incl. 2x disposable inserts and frame for 36 x 16 mm tubes.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
429 x 265 x 172	**1L9A.1**	1 unit(s)	80,60

NEW / +

Accessories for Droplet™ transport container

ROTH SELECTION.

Disposable insert
Material: PS. Eight compartments incl. one extra-deep compartment (e.g. for waste disposal containers).

Suitable for	Art. No.	Pack Qty.	€
36 x 13 mm tube frame	**1LC3.1**	4 unit(s)	26,90
36 x 16 mm tube frame	**1LC4.1**	4 unit(s)	26,90

A 121 °C

Safety containers DuraPorter™

ROTH SELECTION. Material: PC, Silicone seal. Autoclavable: Yes.

Ideal for in-house transportation of biological and chemical samples, instruments or for storage. Transparent box with hinged lid, three snap locks and carry handle, stackable. Partitions for smaller samples can be removed to make use of the entire interior. Lid can be fully opened for easy filling and cleaning.

Technical specifications:

Art. No.	AAA0.1	AAA1.1	AAA2.1
L x W x H, interior	335 x 155 x 135 mm		

Not a medical device / Not an IVD product

L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
380 x 196 x 160	translucent	**AAA0.1**	1 unit(s)	103,35
380 x 196 x 160	red	**AAA1.1**	1 unit(s)	103,35
380 x 196 x 160	yellow	**AAA2.1**	1 unit(s)	104,95

A 121 °C

Safety containers ROTILABO®

Kartell. Material: PC, Stainless steel carrying handle. Autoclavable: Yes.

For dust-tight storage of samples and reagents or for the transport of test tube racks and other vessels. With a tightly fitting lid and four locking clips, two side grips and carry handle. Breakage- and leak-resistant.

Purpose: For transporting test tubes, containers, bottles, plastic bags and ready-to-use syringes for which a tight seal is required.

Technical specifications:

Art. No.	8331.1
L x W x H, interior	300 x 125 x 160 mm

In vitro diagnostic medical device according to IVDD

L x W x H, external (mm)	Art. No.	Pack Qty.	€
330 x 175 x 180	**8331.1**	1 unit(s)	112,70

Transport containers

Transport container ROTILABO®

ROTH SELECTION. Material: Plastic.

With sturdy fold-away carry handle; removable compartment and 2 removable small parts magazines in the lid. For transporting measuring devices, tools and small parts.

Not a medical device / Not an IVD product

L x W x H, external (mm)	Art. No.	Pack Qty.	€
580 x 290 x 300	**CYX1.1**	1 unit(s)	45,70

Transport container

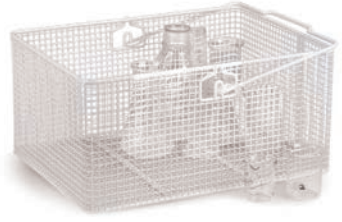
ROTH SELECTION. Material: PP.

With spacious compartment for storing small parts and carrying tray.

- Lid and removable carrying tray each with flush handle
- Hinges with galvanised metal axles
- Eyelet for attachment of a padlock

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
9	410 x 225 x 185	**EPL4.1**	1 unit(s)	26,90
15	485 x 260 x 230	**EPL5.1**	1 unit(s)	31,65



Hand basket ROTILABO®

ROTH SELECTION. Material: Metal PU-coated.

Wire grid, 10 x 10 x 1.5 mm. Foldable, snap-in handle. Base reinforced with two rods.

Not a medical device / Not an IVD product

L x W x H, external (mm)	Art. No.	Pack Qty.	€
400 x 300 x 200	**L048.1**	1 unit(s)	169,85

Transport basket

ROTH SELECTION.

Can be stacked inside one another when empty.

Not a medical device / Not an IVD product

Plastic

Material: PP. With double handle.

Vol. (l)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
22	430 x 300 x 230	red	**TC06.1**	1 unit(s)	35,25

Metal

Material: Metal zinc-plated/chrome-plated, handle with plastic

Vol. (l)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
7	365 x 250 x 120	**TC07.1**	1 unit(s)	75,75
20	470 x 310 x 210	**TC08.1**	1 unit(s)	88,40

Transport box ROTILABO®

ROTH SELECTION. Material: PP.

Foldable.

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Load capacity (kg)	Art. No.	Pack Qty.	€
30	470 x 340 x 240	10	**X857.1**	1 unit(s)	16,70

Transport box CLAX®

ROTH SELECTION. Material: Plastic.

Foldable.

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Load capacity (kg)	Colour	Art. No.	Pack Qty.	€
46	530 x 370 x 270	30	grey	**HNX8.1**	1 unit(s)	22,80

Transport containers

Transport container ROTILABO® for bottles

ROTH SELECTION. Material: PP.

For safe bottle transport. Compartment divisions can be easily removed. The containers are sturdy, anti-scratch and easy to clean.

Not a medical device / Not an IVD product

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
8	97 x 97	400 x 300 x 270	**C014.1**	1 unit(s)	51,45
12	85 x 85	400 x 300 x 220	**C013.1**	1 unit(s)	49,70

Transport container

Nalgene.

For transport of glassware, samples, tools. Moulded partition.

Not a medical device / Not an IVD product

HDPE

Material: HDPE.

Compartment size (mm)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
340 x 89	378 x 241 x 114	**K571.1**	1 unit(s)	35,10

PP

Material: PP. Autoclavable: Yes.

- Certification/conformity: OSHA standard 29CFR1910

Compartment size (mm)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
340 x 89	378 x 241 x 114	**K572.1**	1 unit(s)	37,80

A 121 °C

Transport container

ROTH SELECTION. Material: TPE. Autoclavable: Yes.

Suitable for shock-proof transport of glass bottles or goods for cooling.

- Resistant to most aqueous solvents, acids and bases
- Tensile load capacity up to 50 kg
- Temperature stability: -45 to +110 °C

For 0.5 to 1 l bottles

Ø Internal (mm)	Ø ext. (mm)	Height (mm)	Total height (mm)	Colour	Art. No.	Pack Qty.	€
100	114	165	254	red	**ATC1.1**	1 unit(s)	46,20

For 2.5 to 4 l bottles

Ø Internal (mm)	Ø ext. (mm)	Height (mm)	Total height (mm)	Colour	Art. No.	Pack Qty.	€
175	190	267	406	red	**C804.1**	1 unit(s)	94,90
175	190	267	406	black	**C806.1**	1 unit(s)	94,90

Transport container for bottles

Nalgene. Material: LDPE, PC lid.

For transport and storage of 2.5 l narrow neck bottles (e.g. Art. No. T503.1). A removable cap allows the bottle to stay in the container when pouring.

Ø ext. (mm)	Colour	Art. No.	Pack Qty.	€
165	white	**P333.1**	1 unit(s)	98,40

Transport containers

Bottle basket

ROTH SELECTION. Material: Steel (Wire), plastic-coated.
Carry handles with slight suspension effect.

2 x 2.5 litres

Compartment size (mm)	L x W x H, external (mm)	Total height (mm)	Art. No.	Pack Qty.	€
160 x 160	340 x 180 x 130	320	**0130.1**	1 unit(s)	46,90

4 x 1 litre

Compartment size (mm)	L x W x H, external (mm)	Total height (mm)	Art. No.	Pack Qty.	€
105 x 105	235 x 235 x 130	300	**0869.1**	1 unit(s)	51,75

Bottle carriers

ROTH SELECTION. Material: Metal (Wire) with PE coating.
With feet and carrying handle.

Number of compartments	Compartment size (mm)	Total height (mm)	Art. No.	Pack Qty.	€
12	Ø 80	320	**N146.1**	1 unit(s)	186,00
4	Ø 100	330	**L431.1**	1 unit(s)	122,30
6	Ø 100	330	**L432.1**	1 unit(s)	166,65
8	Ø 100	330	**L433.1**	1 unit(s)	197,80
10	Ø 100	330	**L434.1**	1 unit(s)	237,60
4	Ø 130	370	**L435.1**	1 unit(s)	135,00
6	Ø 130	370	**L436.1**	1 unit(s)	155,80
8	Ø 130	370	**L437.1**	1 unit(s)	189,20

Bottle carriers

Kartell. Material: PP.
With ergonomic carry handle. Stackable.

Number of compart-ments	Compart-ment size (mm)	L x W x H, external (mm)	Total height (mm)	Art. No.	Pack Qty.	€
4	Ø 110	300 x 260 x 150	310	**EPA6.1**	5 unit(s)	53,55
6	90 x 90	295 x 200 x 150	320	**EPA5.1**	5 unit(s)	46,50

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Storage containers

Storage containers MultiStore

ROTH SELECTION. Material: PS.

- Storage systems with transparent tip-out drawers
- For small parts and accessories, versatile
- Dust-free and clean storage of contents
- Can be combined in a variety of ways to provide customised storage solutions

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
2	265 x 221 x 241	601 x 310.5 x 353	white	**EPL7.1**	1 unit(s)	114,25
3	176 x 149 x 161	601 x 198 x 238	white	**ANP7.1**	1 unit(s)	62,15
5	99,5 x 97 x 107,5	601 x 136 x 163	white	**EPL6.1**	1 unit(s)	33,95
6	80 x 67 x 69	601 x 94 x 113	white	**ANP6.1**	1 unit(s)	24,60
9	49 x 45 x 46	601 x 65 x 77	white	**ANP5.1**	1 unit(s)	19,40

Assortment box

ROTH SELECTION. Material: PP.

With fixed compartments and sturdy hinges and closures.

Large

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
8	52 x 52 (4x), 105 x 52 (2x), 105 x 105 (1x), 105 x 325 (1x)	335 x 225 x 55	red	**H355.1**	1 unit(s)	14,35
12	105 x 52 (12x)	335 x 225 x 55	yellow	**EPH8.1**	1 unit(s)	14,75
24	52 x 52 (24x)	335 x 225 x 55	blue	**EPH9.1**	1 unit(s)	14,75

Small

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
8	48 x 38 (4x), 98 x 38 (2x), 98 x 90 (1x), 65 x 242 (1x)	250 x 170 x 46	red	**H354.1**	1 unit(s)	11,10
12	82 x 38 (12x)	250 x 170 x 46	translucent	**EPH6.1**	1 unit(s)	12,70
18	48 x 38 (12x) 65 x 38 (6x)	250 x 170 x 46	translucent	**EPH7.1**	1 unit(s)	12,70

Assortment box ROTILABO®

ROTH SELECTION. Material: PS.

- Food-safe
- Temperature stable: -20 to +70 °C

Small

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
10	50 x 32	170 x 105 x 32	translucent	**K159.1**	1 unit(s)	8,55

Medium

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
7	32 x 57 (6 x) 203 x 57 (1 x)	210 x 120 x 36	red	**8544.1**	1 unit(s)	8,05
9	36 x 67	210 x 120 x 36	translucent	**K156.1**	1 unit(s)	10,30
12	56 x 32	210 x 120 x 36	translucent	**K157.1**	1 unit(s)	9,90

Large

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
12	82 x 38	250 x 170 x 46	translucent	**K154.1**	1 unit(s)	13,35
18	48 x 38 (12 x) 65 x 38 (6 x)	250 x 170 x 46	translucent	**K155.1**	1 unit(s)	13,35

Storage containers

Storage box

ROTH SELECTION. Material: PP.

With hinged lid, stackable.

Mini

With label holder on the lid.

L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
136 x 87 x 35	grey	**YC76.1**	1 unit(s)	6,15

Small

With label holder on the lid.

L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
136 x 87 x 55	grey	**YC77.1**	1 unit(s)	7,00

Medium

L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
185 x 140 x 80	grey	**YC78.1**	1 unit(s)	10,30

Large

L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
228 x 130 x 60	grey	**YC79.1**	1 unit(s)	10,90

Storage bin

ROTH SELECTION. Material: PP.

- Good chemical resistance against fats, resins, bases, oils and acids
- Break-proof, stackable
- Food-safe
- Temperature stability: -20 to +70 °C

L x W x H, external (mm)	Load capacity (kg)	Colour	Art. No.	Pack Qty.	€
115 x 102 x 74	1.4	blue	**Y388.1**	6 unit(s)	8,40
164 x 102 x 74	2.3	blue	**Y389.1**	4 unit(s)	7,15
242 x 146 x 127	10	blue	**Y390.1**	2 unit(s)	7,45
332 x 207 x 155	20	red	**EPH3.1**	2 unit(s)	15,55
332 x 207 x 155	20	yellow	**EPH4.1**	2 unit(s)	15,55
332 x 207 x 155	20	green	**EPH5.1**	2 unit(s)	15,55
332 x 207 x 155	20	blue	**Y391.1**	2 unit(s)	15,55
489 x 312 x 184	30	blue	**Y392.1**	2 unit(s)	26,85

Storage containers for small parts

ROTH SELECTION. Material: PMMA.

Easy to fill from above. Pipette tips, reaction vials and other small parts can easily be removed through the second opening. With non-slip rubber feet.

Number of compartments	L x W x H, external (mm)	Art. No.	Pack Qty.	€
1	180 x 175 x 235	**AXE0.1**	1 unit(s)	84,85
2	139 x 160 x 368	**AXE1.1**	1 unit(s)	96,40
3	210 x 155 x 212	**AXE2.1**	1 unit(s)	107,20
4	278 x 158 x 217	**AXE3.1**	1 unit(s)	112,70

Storage box

ROTH SELECTION. Material: PP, Lid housing made of SAN.

- With hinged lid
- Stackable
- Max. filling capacity 3.7 l

Delivery incl. connectors for side connection.

Vol. (l)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
2.5	232 x 146 x 158	red, translucent	**EPH1.1**	4 unit(s)	56,95

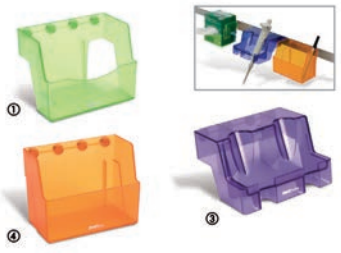
Dust cover

Kartell. Material: PMMA.

Transparent cover with square base for protecting microscopes and other delicate instruments against dust and contamination. Also suitable as draft shield for balances.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
300 x 307 x 400	**CPX2.1**	1 unit(s)	129,60

Storage containers



Wall holders magnetic

ROTH SELECTION. Material: ABS.

With four magnets. For fastening to clean benches, vents or other metallic surfaces.

Delivery incl. metal plate for fastening, self-adhesive.

For tissue boxes
Suitable for 213 x 114 mm tissue boxes (AA64.1).

Pic.	L x W x H, external (mm)	Art. No.	Pack Qty.	€
(1)	130 x 91 x 98	**ACL3.1**	1 unit(s)	23,65

For 2 microlitre pipettes

Pic.	L x W x H, external (mm)	Art. No.	Pack Qty.	€
(3)	131 x 112 x 76	**ACL5.1**	1 unit(s)	23,65

For small parts

Pic.	L x W x H, external (mm)	Art. No.	Pack Qty.	€
(4)	130 x 78 x 102	**ACL6.1**	1 unit(s)	24,80

Drawer insert ROTILABO®

Kartell. Material: PVC.

For small parts. Compartment size 87 x 87 mm.

Number of compart-ments	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	300	410	65	**8110.1**	1 unit(s)	62,25

Drawer insert ROTILABO®

Kartell. Material: PVC.

With compartments for pipettes, thermometers, small parts, etc.

Compartment sizes:

- 1 compartment L 380 x W 96 mm
- 2 compartments L 187 x W 100 mm
- 2 compartments L 187 x W 66 mm

Number of compart-ments	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	300	410	70	**9521.1**	1 unit(s)	60,40

Drawer insert ROTILABO® 9-way

Kartell. Material: PVC.

Longitudinal partitioning. For pipettes, thermometers, columns, etc. Compartment size: L 345 x W 27 mm.

Number of compart-ments	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	300	355	45	**8111.1**	1 unit(s)	55,20

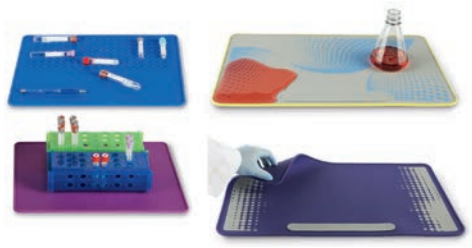
Pipette repository ROTILABO®

Kartell. Material: PVC.

Drawer-ready. Four longitudinal partitions.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
420	300	40	**7230.1**	1 unit(s)	37,85

Anti-slip mats/lab pads



A 121 °C

Laboratory mat

ROTH SELECTION. Material: Silicone. Autoclavable: Yes.

Reduce vibration noise from devices. Raised edge as protection for spilled liquids.

- Slip-resistant
- Usable on both sides
- Washable
- Dishwasher-safe
- Temperature-stable up to +200 °C

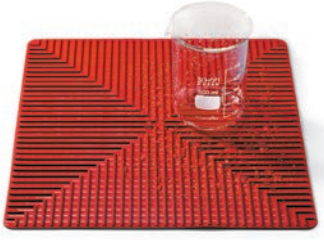
Standard

Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
379	325	2	blue	**KLC9.1**	1 unit(s)	58,45
379	325	2	violet	**KLE0.1**	1 unit(s)	58,45

With metal inserts

Metal inserts in the mat hold magnetic rods in position.

Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
600	325	2	yellow	**HNH0.1**	1 unit(s)	64,85
600	325	2	violet	**HNH1.1**	1 unit(s)	64,85
600	325	2	blue	**HYN8.1**	1 unit(s)	65,70



A 121 °C

Laboratory pad ROTILABO®

ROTH SELECTION. Material: Silicone. Autoclavable: Yes.

Slip-resistant. Temperature stability: -60 to +260 °C.

Technical specifications:

Art. No.	EE86.1	EE87.1	EE88.1	EE89.1
Material thickness	3.5 mm			

Length (mm)	Width (mm)	Colour	Art. No.	Pack Qty.	€
250	250	red	**EE86.1**	1 unit(s)	23,15
250	250	black	**EE87.1**	1 unit(s)	23,15
350	350	red	**EE88.1**	1 unit(s)	36,10
350	350	black	**EE89.1**	1 unit(s)	36,10

Lab sink mat

ROTH SELECTION. Material: PVC.

To prevent glass breakage when cleaning laboratory glassware. Round profiles prevent splash-back from running water. The smooth surface of the profiles prevents the accumulation of dirt particles. The weight of the mat ensures that it remains secure even under flowing water. Additional advantage: Standard sized magnetic rods cannot easily slip into the drain. Profile width 8 mm. Web width 40 mm.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
750	450	15	**C374.1**	1 unit(s)	74,75

Adhesion mat ROTILABO®

ROTH SELECTION. Material: PVC.

Slip-resistant and padded. Effective on both sides, washable, durable.

Technical specifications:

Art. No.	0668.1
Material thickness	1 mm

Length (mm)	Width (mm)	Colour	Art. No.	Pack Qty.	€
1,000	400	red	**0668.1**	1 roll(s)	38,25

Adhesive film Rocker tape

ROTH SELECTION. Material: Polyester.

For shakers. Adhesive on both sides, provides a secure hold for different laboratory vessels on agitators or in incubators. Suitable for gentle shaking movements, dependent on load and contact area. Washable, reusable.

Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
30.5	30.5	**TX33.1**	3 unit(s)	61,40

Anti-slip mats/lab pads

Laboratory pad Anti-vibration

ROTH SELECTION. Material: Neoprene.

For absorbing vibration produced by laboratory equipment. Suitable for a large number of vortexers, shakers, rotators, microscopes and other equipment. Slip-resistant, creates a stable surface. Stackable for bearing heavy equipment, place side by side to produce a larger surface area.

Technical specifications:

Art. No.	AXC1.1	AXC2.1
Material thickness	8 mm	

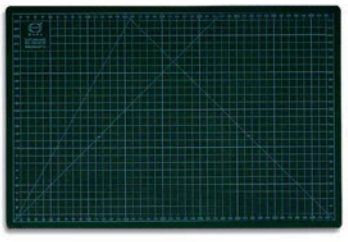
Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
178	216	**AXC1.1**	2 unit(s)	52,05
216	279	**AXC2.1**	2 unit(s)	60,75

Elastic buffer ROTILABO®

ROTH SELECTION. Material: Plastic.

Self-adhesive. To prevent slippage, vibration or rattling of devices, machines, lids, etc.

Ø (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
13	3	colourless	**5352.1**	112 unit(s)	26,15



Cutting mat

ROTH SELECTION. Material: PVC.

With white grid imprint. In 3 layers with special inner core and self-closing surface.

Technical specifications:

Art. No.	KN07.1	PK51.1
Material thickness	3 mm	

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
450	300	**KN07.1**	1 unit(s)	15,35
600	450	**PK51.1**	1 unit(s)	26,55

Cutting boards

ROTH SELECTION. Material: PE.

Temperature-resistant up to +90 °C.

With recessed grip

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
300	200	10	**N115.1**	1 unit(s)	10,35

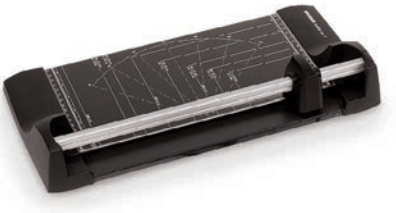
With rubber feet

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
350	250	20	**N116.1**	1 unit(s)	25,30

Cutting boards

ROTH SELECTION. Material: Plastic.

Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
400	300	20	red	**HEC8.1**	1 unit(s)	39,95
400	300	20	blue	**HEC9.1**	1 unit(s)	38,90
400	300	20	green	**HEE0.1**	1 unit(s)	38,90
400	300	20	white	**HEE1.1**	1 unit(s)	38,90



Safety cutting machine

ROTH SELECTION.

With ground, rotating round knife, self-sharpening, in closed plastic head. Automatic contact pressure of the cutting material at the cutting point. Transparent straight-edge. Two angle systems with cm and inch scales, graduation and format markings. Cutting height up to max. 1 mm.

Length of cut (mm)	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
320	430	210	70	**X860.1**	1 unit(s)	52,25
460	570	210	70	**X861.1**	1 unit(s)	65,50

Safety knife SECUNORM 300

Martor. Material: Plastic (Glass fibre reinforced).

- Automatic blade retraction for a high level of occupational safety
- Ergonomic grip, soft grip
- Slider on both sides for left and right-handed users
- Easy and safe blade replacement without the need for tools

Technical specifications:

Art. No.	**1A7Y.1**
Weight	52 g

Delivery incl. blade (trapezoid blade, fitted).

Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
143	16	36	**1A7Y.1**	1 unit(s)	15,70

Safety knife MARTego

Martor. Material: Aluminium.

With automatic blade retractor. Operating lever can be locked to prevent accidental opening. Ergonomic pincer grip with soft 2K handle for anti-slip, non-fatiguing work. For left and right handed users. Easy blade replacement without tools. Application advantage: blade is usable on 4 sides. Suitable for all routine cutting work, ideal for opening boxes.

Technical specifications:

Art. No.	**XK02.1**
Weight	105 g

Total length (mm)	Art. No.	Pack Qty.	€
155	**XK02.1**	1 unit(s)	40,00

Cutter 2-in-1

ROTH SELECTION.

With automatic blade retractor and auto-lock feature. Metal handle with rubberised grip zone and integrated break-off device. Usable as a standard cutter or safety knife. Spring-loaded blade retracts automatically when the blade slips off the cutting object. The standard break-off blade can, however, also be pushed forwards in the conventional fashion using the auto-lock feature.
Blade width 18 mm.

Delivery incl. blade.

Total length (mm)	Width (mm)	Art. No.	Pack Qty.	€
186	38	**PK49.1**	1 unit(s)	14,25

Folding knife

ROTH SELECTION.

With fixable, corrosion-free blade and rubber-type nipple tray for secure handling. Length of knife, closed approx. 105 mm.

Technical specifications:

Art. No.	**1036.1**
Weight	78 g

Blade length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
70	175	**1036.1**	1 unit(s)	16,10

Knives

ROTH SELECTION. Material: Stainless steel 1.4034, Plastic handle.

Strong, rounded blade. Safety handle reduces the risk of injury.

Blade length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
90	225	**PX19.1**	1 unit(s)	19,10

Knife ceramic

ROTH SELECTION. Material: Ceramic, Plastic handle.

With extremely hard, corrosion-free and anti-magnetic blade. Very light. Ergonomically shaped handle. No re-sharpening required.

Blade length (mm)	Art. No.	Pack Qty.	€
90	**T752.1**	1 unit(s)	31,15
120	**T753.1**	1 unit(s)	53,70
150	**T754.1**	1 unit(s)	53,25

Knives

ROTH SELECTION. Material: Stainless steel, ice hardened and hand-polished.

For cutting hoses, foils, insulation panels, etc. Blade made of ice-hardened, hand-polished and corrosion-free special stainless steel. Dishwasher safe.

Blade length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
75	180	**A572.1**	1 unit(s)	40,40
90	190	**A573.1**	1 unit(s)	41,40
120	225	**A574.1**	1 unit(s)	43,00
160	270	**A575.1**	1 unit(s)	49,10
200	330	**A577.1**	1 unit(s)	68,30

Knives

ROTH SELECTION. Material: Stainless steel alloyed (chrome molybdenum steel), Plastic handle.

Coloured handle for colour assignment, slip-resistant for secure grip.

Cutter type

With smooth cutting edge.

Blade length (mm)	Total length (mm)	Colour	Art. No.	Pack Qty.	€
130	270	red	**HEE2.1**	1 unit(s)	16,60
130	270	blue	**HEE3.1**	1 unit(s)	16,60
130	270	green	**HEE4.1**	1 unit(s)	16,60

Serrated edge type

For cutting material with hard shells or crusts.

Blade length (mm)	Total length (mm)	Colour	Art. No.	Pack Qty.	€
110	220	orange	**HEE5.1**	1 unit(s)	6,70
110	220	light blue	**HEE6.1**	1 unit(s)	6,70
110	220	lime green	**HEE7.1**	1 unit(s)	6,70

Scissors

Scissors

ROTH SELECTION. Material: Stainless steel, Plastic (impact-resistant).

Can be readjusted and reground.

Standard, right-handed
For paper, fabric, foil and much more.

Pic.	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	164	66	**9674.1**	1 unit(s)	18,55
(4)	260	130	**0821.1**	1 unit(s)	23,45

Standard, left-handed
For paper, fabric, foil and much more.

Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
164	66	**9676.1**	1 unit(s)	19,95

Right-handed
For cardboard, leather, plastic.

Pic.	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	170	41	**5489.1**	1 unit(s)	15,10
(3)	212	93	**9677.1**	1 unit(s)	20,95

Robust, left-handed
For cardboard, leather, plastic.

Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
212	93	**9678.1**	1 unit(s)	23,40

Scissors universal

ROTH SELECTION.

- Cutting principle Amboss
- Precision-ground upper blade, non-stick
- Ergonomic handle, non-slip
- Integrated spring
- One-handed safety lock
- Maximum cutting thickness 23 mm
- Length 200 mm

Length (mm)	Art. No.	Pack Qty.	€
215	**1259.1**	1 unit(s)	30,80

Scissors combined

ROTH SELECTION. Material: Stainless steel (blade), Plastic handle with soft insert.

Cuts wire, sheet metal, cardboard, fabric, leather and plastic. Lockable.

Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
190	40	**1901.1**	1 unit(s)	20,25

Ampoule opener

ROTH SELECTION.

Opens ampoules from 1 to 10 ml easily and safely. Single-handed opening of up to three ampoules at the same time.

Delivery incl. one ampoule box and four inserts for opening 1 ml, 2 ml, 5 ml and 10 ml ampoules.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
95	76	83	**CXT2.1**	1 unit(s)	62,15

Glass tube cutter ROTILABO®

Usbeck. Material: Die-cast zinc nickel-plated, Carbide cutter wheels.

Suitable for	Art. No.	Pack Qty.	€
Tube Ø of 3 to 30 mm	**YT66.1**	1 unit(s)	14,70

Glass cutters/engravers

Capillary tube cutter

ROTH SELECTION.

Prevents sharp or warped edges when cutting. Depth of cut can be adjusted. Also suitable for clean cuts on PTFE tubes or electrical wires. Can be used approx. 2000 times.

Suitable for	Art. No.	Pack Qty.	€
Ø up to 1/16" (1.59 mm) outer and 0.1 mm inner	**5116.1**	1 unit(s)	57,55

Glass cutter

Usbeck.

With replaceable carbide blade.

Length (mm)	Art. No.	Pack Qty.	€
185	**8209.1**	1 unit(s)	50,35

Glass cutter ROTILABO®

ROTH SELECTION. Material: Metal (Alloy), Plastic handle.

Standard format with Toplife cutting wheel, non-replaceable.

- Very fine, smooth cut
- Cutting angle 135°
- Straight edge stand-off distance 2.5 mm

Suitable for	Art. No.	Pack Qty.	€
Glass thickness 2 to 12 mm	**L124.1**	1 unit(s)	25,05

Glass scraper

ROTH SELECTION. Material: Stainless steel.

Delivery incl. blade (mounted).

Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
135	46	17	**1A3C.1**	1 unit(s)	12,55

Diamond engraving pen

ROTH SELECTION.

With wooden handle. For permanent marking of glass.

Version	Art. No.	Pack Qty.	€
Octahedron Tip	**1530.1**	1 unit(s)	26,35

Glass scriber ROTILABO®

ROTH SELECTION. Material: Aluminium, Plastic handle, carbide scriber.

For permanent marking of glass or metal. Tip can be retracted into the pen body for safe storage.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	11	**CHN4.1**	1 unit(s)	26,80

Glass cutters/engravers

Engraving device Signograph

ROTH SELECTION.

For marking or decorating metal, stone, plastic, glass or porcelain according to the vibration principle, using AC frequency. Infinitely adjustable intensity.

Technical specifications:

Art. No.	**1951.1**
Mains connection	220 V
Cable length	1.75 m
Weight	320 g

Delivery incl. adapter and steel tip.

Type	Art. No.	Pack Qty.	€
Signograph 25	**1951.1**	1 unit(s)	43,65

Engraving device

ROTH SELECTION.

Ideal for engraving, frosting or signing glass, ceramic, acrylic or metal. Approximate dimensions: L 300 x W 200 x H 60 mm.

- Diamond grinding pens for scribing and line work
- Silicon carbide grinding pens for frosting

Technical specifications:

Art. No.	**N411.1**
Mains connection	230 V

Delivery incl. 2 spherical diamond grinding pens (Ø 1.0 and 1.8 mm), 2 silicon carbide grinding pens (cone and bullet-shaped), test glass, sample and instruction manual, power supply unit, plastic case.

Version	Art. No.	Pack Qty.	€
Engraving set, complete	**N411.1**	1 unit(s)	69,85

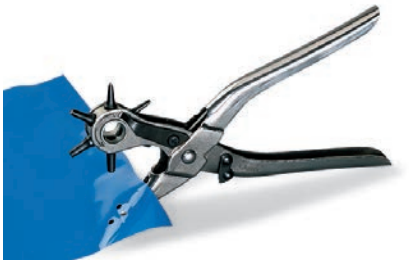
Handheld cork borer set

Bochem. Material: Brass.

For drilling into or punching cork, rubber, leather, Styropor®.

Ø Internal (mm):
5/6.25/7.5/8.75/10/11.25/12.5/13.75/15/16.25/17.5/18.75/20/21.25/22.5/23.75/25/26.25

Version	Art. No.	Pack Qty.	€
Cork borer set, 18-piece	**0581.1**	1 set	166,65



Hole punch

ROTH SELECTION.

For cardboard, plastic film, leather.

- With 6 punches from Ø 2 to 5 mm
- Lockable

Technical specifications:

Art. No.	**0837.1**
Weight	250 g

Total length (mm)	Art. No.	Pack Qty.	€
220	**0837.1**	1 unit(s)	22,05

Diamond steel saw

ROTH SELECTION.

With tungsten carbide cutting blade. For cutting wood, plastic, rubber, ceramic, soft metal, clay pipes and glass pipes without jamming. Length when folded up 255 mm.

Technical specifications:

Art. No.	**1857.1**
Weight	150 g

Total length (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
400	210	**1857.1**	1 unit(s)	25,70

A 121 °C

Ruler

Hammacher. Material: Metal rust-free. Autoclavable: Yes.

Technical specifications:

Art. No.	HCN1.1
Measuring range	150 mm, 6"

Total length (mm)	Art. No.	Pack Qty.	€
167	**HCN1.1**	1 unit(s)	9,10

Calliper

ROTH SELECTION. Material: Stainless steel, cured.

With round scale under acrylic glass cover. Adjusted and set using knurled screws. Measuring accuracy according to DIN 862.

Technical specifications:

Art. No.	0813.1
Measuring range	0–160 mm
Scaling	0.02 mm

Delivery incl. case.

Version	Art. No.	Pack Qty.	€
analogue	**0813.1**	1 unit(s)	68,70

Calliper digital

ROTH SELECTION. Material: Steel rust-free, completely cured.

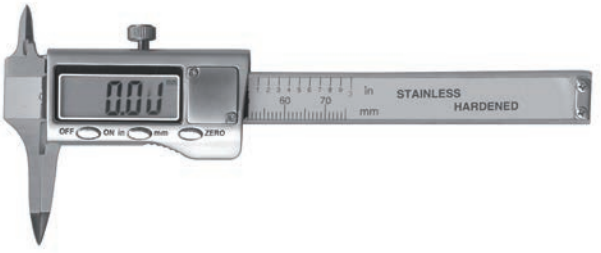
Suitable for internal and external measurements.

- Operating temperature 5 to 40 °C
- Locking screw
- Power supply via 1.5 V button cell
- Automatic shutdown and switching between millimetres/inches

Technical specifications:

Art. No.	L826.1
Measuring range	0–150 mm
Scaling	0.01 mm
Tolerance	±0,03 mm
Max. travel speed	1.5 m/s

Version	Art. No.	Pack Qty.	€
digital	**L826.1**	1 unit(s)	105,35



Vernier calliper digital short shape

Hammacher. Material: Steel rust-free.

- With cross tips and depth measuring stick
- Narrow calliper tips
- Jaw length 20 mm
- Extra-large display
- Measuring accuracy according to DIN 862

Technical specifications:

Art. No.	HCN3.1
Measuring range	0–70 mm, 0–2.75 ⍰
Scaling	0.01 mm, 0.0005 ⍰

Delivery incl. case.

Version	Art. No.	Pack Qty.	€
digital	**HCN3.1**	1 unit(s)	145,85

Telescopic rod

ROTH SELECTION.

chrome-plated. In the shape and size of a propelling pencil. With pocket clip.

Magnet

Length (mm)	Art. No.	Pack Qty.	€
600	**0407.1**	1 unit(s)	18,50

Mirror

Rotatable.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
610	32	**0408.1**	1 unit(s)	17,45

Fastening tool

ROTH SELECTION. Material: Metal.

For fastening and cutting cable ties. Corrugated cable ties or fasteners can be tightened in a single operation and then cut when lifted for the last time. The tension can be set individually. Colour: Blue or red.

Delivery without fasteners.

Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
130	160	**H977.1**	1 unit(s)	99,80

Accessories fasteners for fastening tool

ROTH SELECTION. Material: PA.

Temperature range: -40 to +85 °C.

Width (mm)	Length (mm)	Suitable for	Art. No.	Pack Qty.	€
2.5	102	Bindings up to Ø 22 mm	**1735.1**	100 unit(s)	5,50
4.5	180	Bindings up to Ø 50 mm	**1729.1**	100 unit(s)	10,70

Multi-function tool set PocketStar®

ROTH SELECTION. Material: Chromium-vanadium steel, Glass-fibre-reinforced housing.

Fold-out holder for hexagon, slotted, Philips and TORX® screws. Eject button for simple selection of the required key.

- Slot: 4.5 mm
- Cross: PH2
- TORX®: T10, T15, T20
- Hexagon: 3, 4, 5, 6 mm

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
120	32	39	**HE15.1**	1 unit(s)	31,55

Screwdriver set

ROTH SELECTION.

- Kraftform handle for fast, careful work
- Marking on the handle for finding tools more easily
- Hexagonal shape prevents tools from rolling away

Contents:
Slot:
2.5 x 80 mm
3.5 x 100 mm
4.0 x 100 mm
5.5 x 125 mm
Cross:
PH 1/80 mm
PH 2/100 mm
Voltage tester:
3 x 65 mm

Individually tested for safe work at voltages up to 1000 V (according to IEC 60900).

Version	Art. No.	Pack Qty.	€
Screwdriver set, 7 pieces	**Y258.1**	1 set	54,50

Socket wrench set

ROTH SELECTION. Material: Chromium-vanadium steel.

47-piece.

Contents:

Socket wrench inserts (¼″, hexagonal):
4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
Socket wrench inserts (¼″, long):
8; 10; 11; 13 mm
Inserts for slotted screws (¼″):
4; 5.5; 6.5 mm
Inserts for Philips screws (¼″):
PH 1, 2, 3, PZ 1, 2, 3
Inserts for Allen screws (¼″):
3, 4, 5, 6, 7, 8 mm
Inserts for inner TORX screws (¼″):
TX10; TX15; TX20; TX25; TX30; TX40
Handle with sliding block (¼″)
Lever wrench (¼″, 72 teeth 140 mm)
Drive handle with square drive (¼″)
Cardan joint (¼″)
extensions 50 + 105 mm (¼″)
Hexagon pin wrench 1.5“; 2“; 2.5“

Technical specifications:

Art. No.	**L148.1**
Weight	1050 g

Delivery incl. case (plastic, L 230 x W 160 x H 40 mm).

Version	Art. No.	Pack Qty.	€
Socket wrench set	**L148.1**	1 set	65,50

Tool bag

ROTH SELECTION. Material: Chromium-vanadium steel (Tools), Imitation leather bag.

Contents:

- 1 painted hammer 250 g
- 1 pump pliers 235 mm
- 1 combination pliers 180 mm with side cutter
- 3 screwdrivers 125 x 6, 150 x 5, 75 x 4 mm
- 1 Philips screwdriver 100 x 2 mm
- 1 voltage tester 150–250 V in the form of a screwdriver
- 8 chrome-plated open-end wrenches with width of 6 to 22

Dimensions of open bag: W 400 x L 400 mm.

Technical specifications:

Art. No.	**1829.1**
Weight	2.1 kg

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
400	150	70	**1829.1**	1 unit(s)	184,00

Toolboxes Expert

Heyco. Material: ABS, Aluminium frame.

Double frame can be loaded with up to 30 kg, tipping cylinder lock. High-quality foam insert for secure tool holding during transit.

Contents:

- 1 removable socket wrench set ¼″, 17-piece
- 1 lever wrench ½″ + 5 accessories
- 12 socket wrench inserts ½″ from 10 to 24 mm (hexagonal)
- 1 pipe and water pump wrench 240 mm
- 13 combination wrenches from 6 to 24 mm
- 1 combination pliers 180 mm
- 1 side cutter 160 mm
- 8 offset screwdrivers from 2 to 10 mm (hexagonal)
- 8 offset screwdrivers T9 to T40 (TORX®)
- 1 voltage tester, insulated
- 1 engineer’s hammer
- 1 boxcutter
- 1 torch (LED, 1 W, L 100 mm)
- 1 tape measure, 5 m, with belt clip
- 2 Phillips screwdriver (75 mm, No. 1/100 mm, No. 2)
- 2 screwdrivers (100 x 5.5 mm/150 x 8.0 mm)

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
480	320	150	**NH23.1**	1 unit(s)	1.044,10

Precision gripper

ROTH SELECTION. Material: Chromium-vanadium steel, Plastic handle.

Smooth, polished gripping surfaces for precise work. Smooth-running double spring for soft, steady opening.

Technical specifications:

Art. No.	**ETY7.1**
Weight	61 g

Total length (mm)	Art. No.	Pack Qty.	€
130	**ETY7.1**	1 unit(s)	59,70

Pliers

ROTH SELECTION. Material: Steel chrome-plated, polished.

With protective covering for handles.

Technical specifications:

Art. No.	X191.1	X192.1	X193.1	X194.1
Weight	270 g	180 g		190 g

Combined

Pic.	Total length (mm)	Art. No.	Pack Qty.	€
(1)	160	**X191.1**	1 unit(s)	8,35

Pointed straight

Pic.	Total length (mm)	Art. No.	Pack Qty.	€
(2)	200	**X192.1**	1 unit(s)	9,00

Pointed angled at 45°

Pic.	Total length (mm)	Art. No.	Pack Qty.	€
(3)	200	**X193.1**	1 unit(s)	10,95

For cutting (Side cutter)

Pic.	Total length (mm)	Art. No.	Pack Qty.	€
(4)	160	**X194.1**	1 unit(s)	8,80

Pliers wrench

ROTH SELECTION. Material: Chromium-vanadium steel.

Pipe wrench and socket wrench set in one. Jaw parts are always parallel and can be continuously adjusted to 13 different settings. Extremely high clamping force.

Total length (mm)	Jaw width (mm)	Art. No.	Pack Qty.	€
180	35	**K965.1**	1 unit(s)	62,35
250	42	**K336.1**	1 unit(s)	69,35

Opening key

ROTH SELECTION.

For plastic canisters and bottles with DIN thread.

One-sided

Version	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
DIN 51	195	80	**CNC9.1**	1 unit(s)	5,00
DIN 61	200	85	**TX61.1**	1 unit(s)	7,90

Two-sided

Dimensions: L 220 x W 70/55 mm. Opener with notching, not for universal application.

Version	Art. No.	Pack Qty.	€
DIN 45/32	**X457.1**	1 unit(s)	7,85

Strap spanner

ROTH SELECTION.

For easily loosening connections.

Technical specifications:

Art. No.	X190.1
Weight	15 g

Length (mm)	Span (mm)	Art. No.	Pack Qty.	€
200	140	**X190.1**	1 unit(s)	8,00

All-in-one opener

ROTH SELECTION.

For twist-action closures from the tube cap to the wide-neck-screw closure. Five year factory guarantee.

Technical specifications:

Art. No.	0506.1
Weight	200 g

Length (mm)	Art. No.	Pack Qty.	€
260	**0506.1**	1 unit(s)	11,75

NEW / +

Barrel and keg key Tri-Sure®

ROTH SELECTION.

For taking off tin sealing caps and for unscrewing the screw plugs of Tri-Sure® threads. Suitable for ROTITAINER®.
Dimensions: Narrow side 15 mm, wide side 45 mm.

Technical specifications:

Art. No.	0398.1	1L9H.1
Weight	380 g	

Material: Steel galvanised.

Length (mm)	Art. No.	Pack Qty.	€
260	**0398.1**	1 unit(s)	34,70

Non-sparking
Material: Aluminium, Bronze. Made of non-sparking material, for use in areas with potential fire and explosion risks.

Length (mm)	Art. No.	Pack Qty.	€
260	**1L9H.1**	1 unit(s)	476,35

Tin openers

ROTH SELECTION.

Open all conventional tins without leaving sharp corners and chips. Easy to clean, dishwasher safe. Five year factory guarantee.

Technical specifications:

Art. No.	0505.1
Weight	210 g

Length (mm)	Art. No.	Pack Qty.	€
200	**0505.1**	1 unit(s)	13,95

Universal clamps ROTILABO®

ROTH SELECTION. Material: Metal powder-coated, nickel-plated.

With strong spiral spring. For storing, binding, pressing or glueing, large clamping width. Also suitable for hanging up.

Width (mm)	Span (mm)	Art. No.	Pack Qty.	€
75	20	**AEA0.1**	10 unit(s)	42,90
125	30	**AEA1.1**	10 unit(s)	49,35

Universal spring clamp

ROTH SELECTION. Material: PA.

For a powerful hold with constant clamping force. With anti-slip handle and flexible, moveable soft pads, suitable for sensitive materials such as glass panes, wood and plastics. Light and compact with highest stability.

Length (mm)	Span (mm)	Art. No.	Pack Qty.	€
60	20	**LK35.1**	1 unit(s)	4,95
90	34	**LK36.1**	1 unit(s)	5,75
120	44	**LK37.1**	1 unit(s)	9,05
160	60	**LK38.1**	1 unit(s)	11,85

Fixing clips ROTILABO®

ROTH SELECTION. Material: Steel (spring steel).

For DC–plates, X-ray films, paper stacks and similar. Also suitable for hanging up.

Width (mm)	Span (mm)	Art. No.	Pack Qty.	€
19	7	**ACY9.1**	12 unit(s)	5,05
25	10	**0826.1**	12 unit(s)	5,85
41	18	**0827.1**	6 unit(s)	7,50
51	28	**0850.1**	6 unit(s)	11,75

Hand tape dispenser tesa® Comfort

tesa.

For sealing packages. The blade is protected for special protection against injury. Manually adjustable brake for the roll of tape. Core Ø 76.2 mm, roll Ø max. 140 mm, width of roll max. 50 mm.

Technical specifications:

Art. No.	X163.1
Weight	500 g

L x W (mm)	Art. No.	Pack Qty.	€
220 x 60	**X163.1**	1 unit(s)	32,70

Adhesive tape tesapack® PVC

tesa. Material: PVC (film).

Can be used universally for sealing moderately heavy to heavy shipping boxes.

- Rolls evenly and quietly
- Extremely high tear resistance
- Elongation at tear 60%, tensile strength 60 N/cm

Technical specifications:

Art. No.	6111.1
Material thickness	65 µm

Type	Colour	Suitable for	L x W	Art. No.	Pack Qty.	€
4124	brown		66 m x 50 mm	**6111.1**	3 roll(s)	23,85

Adhesive tape tesapack® paper

tesa. Material: Paper with silicone-free impregnated surface, Synthetic rubber adhesive compound.

Can be used universally for sealing moderately heavy shipping boxes.

- High initial adhesive strength for immediate sealing
- Easy to roll
- Tensile strength 50 N/cm, elongation at tear 8%

Technical specifications:

Art. No.	8574.1
Material thickness	107 µm

Type	Suitable for	L x W	Art. No.	Pack Qty.	€
4313	X163.1 hand tape dispenser	50 m x 50 mm	**8574.1**	3 roll(s)	18,60

Table dispenser tesa Easy Cut®

tesa.

Non-slip base and heavy weight for extra stability.

Technical specifications:

Art. No.	1731.1	4918.1
Weight	1500 g	900 g

Pic.	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	Length of roll: 66 m, max. width of tape: 25 mm	240 x 70 x 130	**1731.1**	1 unit(s)	46,70
(2)	Length of roll: 33 m, max. width of tape: 19 mm	155 x 55 x 80	**4918.1**	1 unit(s)	35,85

Adhesive tape tesafilm®

tesa. Material: PP (film), Acrylate dispersion adhesive compound.

Transparent universal adhesive tape for packaging, e.g. for sealing small boxes, tins and bags.

- Extremely high resistance to UV, ageing and temperature for a longer storage life
- Can be used with all common table dispensers

Technical specifications:

Art. No.	CPY6.1	CPY7.1
Material thickness	52 µm	

Type	Suitable for	L x W	Art. No.	Pack Qty.	€
4204	1731.1 dispenser	66 m x 19 mm	**CPY6.1**	1 unit(s)	3,90
4204	4918.1 dispenser	33 m x 19 mm	**CPY7.1**	1 unit(s)	3,45

Business card box

ROTH SELECTION. Material: Plastic.

With sliding lid and eight plastic dividers.

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
black, blue	235 x 135 x 65	**8194.1**	1 unit(s)	39,35

Magazine file A4

ROTH SELECTION.

For magazines, catalogues, books and documents. Corners are protected thanks to the grid design in the direction in which documents are placed in the file.

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
blue	251 x 75 x 293	**X008.1**	1 unit(s)	6,25
green	251 x 75 x 293	**X007.1**	1 unit(s)	6,25

Writing pad support

ROTH SELECTION. Material: Plastic.

Suitable for formats up to DIN A4. Rubber lip holds the paper securely in place. Clamping width: Approx. 9 mm. Also suitable for hanging up.

L x W x H (mm)	Art. No.	Pack Qty.	€
330 x 220 x 15	**0382.1**	1 unit(s)	17,75

Laboratory notebook

ROTH SELECTION.

For the documentation of research findings, experiment logs, important notes and data. Numbered, acid-free pages, gridded, with preprinted fields for project names, project number, date and signature. With waterproof cover.

Colour	Number of pages	L x W (mm)	Art. No.	Pack Qty.	€
blue	200	281 x 218	**YY90.1**	1 unit(s)	36,10
black	100	281 x 218	**YY89.1**	1 unit(s)	31,30
black	100	281 x 218	**YY89.2**	12 unit(s)	287,05

2-in-1 touch pen

ROTH SELECTION.

Conductive stylus with ballpoint pen. Soft rubber tip for precise navigation on all smartphone and tablet computer touchscreens. Makes it possible to accurately write messages and enables convenient navigation and scrolling without leaving fingerprints on the display. Also works through protective film and anti-glare film. Ballpoint pen with turn mechanism and large-capacity refill (blue). Length 130 mm.

Colour	Art. No.	Pack Qty.	€
black	**ANY5.1**	1 unit(s)	13,60

Fineliner 1700 VARIO

edding.

For fine and precise writing on paper surfaces.

- Metal-mounted round tip
- Water-based ink

Rubber grip, flexible and slip-resistant for a comfortable writing experience. The cap can be stored at the end of the barrel to avoid the risk of loss. The practical clip prevents the pen from rolling away and can be attached to clothing and objects.

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
1700 VARIO	black	0.5	**1AE2.1**	10 unit(s)	28,15
1700 VARIO	red	0.5	**1AE3.1**	10 unit(s)	28,15
1700 VARIO	blue	0.5	**1AE4.1**	10 unit(s)	28,15

Laboratory markers Securline®

Permanent marker for writing on virtually all surfaces made of glass, metal and most plastics. Length 135 mm.

- Even writes on wet or cold surfaces
- Waterproof, even during autoclaving
- Fast-drying
- Can be wiped off high-gloss surfaces

Colour	Line width (mm)	Art. No.	Pack Qty.	€
black	1	**3083.2**	10 unit(s)	32,10
blue	1	**3084.2**	10 unit(s)	32,10
red	1	**3085.2**	10 unit(s)	32,10

Set
4 × black, 4 × blue, 4 × red

Colour	Line width (mm)	Art. No.	Pack Qty.	€
assorted colours	1	**1701.1**	12 unit(s)	36,70

Laboratory markers Sharpie®

ROTH SELECTION.

Waterproof permanent marker for glass, metal, porcelain or similar surfaces. Fast-drying.

Colour	Version	Line width (mm)	Art. No.	Pack Qty.	€
black	Single tip	1	**KN09.1**	12 unit(s)	46,90

Set
Assorted colours (black, blue, purple, bordeaux, light blue, light green, turquoise, orange).

Colour	Version	Line width (mm)	Art. No.	Pack Qty.	€
assorted colours	Double tip	1 / 0,5	**XT85.1**	8 unit(s)	41,15

Laboratory markers ink pen set

Faber-Castell.

Permanent, waterproof, fast-drying. With special rubber.
For writing on virtually all surfaces.

black	0,7	**CET9.1**	12 unit(s)	39,45

Assorted colours (2 × black, 2 × green, 2 × blue, 2 × red).

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
Multimark 1523	assorted colours	0,4	**0883.1**	1 set	10,75

Laboratory markers stericlin® sterilisation-resistant

ROTH SELECTION.

For labelling disposable items such as sterile barrier systems, adhesive tapes and labels. Only label transparent packaging on the film side and outside the area of the filling material.

Colour	Line width (mm)	Art. No.	Pack Qty.	€
black	0,6	**HXE3.1**	10 unit(s)	42,95
blue	0,6	**HXE4.1**	10 unit(s)	42,95

Clean room marker

edding.

For permanent markings in clean-room and dust-free environments. Writes reliably on smooth surfaces, such as special clean-room paper, laminated paper and foil. Tip and shaft have been developed specially to prevent contamination with dust; this is why it contains no metallic parts and has no label or lettering.

- Round tip
- Wipe and water-proof
- Markings can be removed from all smooth surfaces with isopropyl alcohol
- Applications: Semi-conductor production, nano technology and optics/laser technology

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
8011	black	0,6	**HTE1.1**	10 unit(s)	28,20
8011	blue	0,6	**HTE2.1**	10 unit(s)	28,20

Permanent marker

edding.

For permanent marking and labelling on almost all conventional materials, e.g. metal, plastic and glass.

- Round tip
- Waterproof, odourless ink
- Fast-drying, abrasion and light-resistant

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
3000	black	1,5 – 3	**HPE9.1**	10 unit(s)	28,20
3000	blue	1,5 – 3	**HPH0.1**	10 unit(s)	28,20
3000	red	1,5 – 3	**HPH1.1**	10 unit(s)	28,20
3000	green	1,5 – 3	**HPH2.1**	10 unit(s)	28,20
400	black	1	**HPH3.1**	10 unit(s)	37,20
400	blue	1	**HPH4.1**	10 unit(s)	37,20
400	red	1	**HPH5.1**	10 unit(s)	37,20
400	green	1	**HPH6.1**	10 unit(s)	37,20
404	black	0,75	**HPH7.1**	10 unit(s)	37,20
404	blue	0,75	**HPH8.1**	10 unit(s)	37,20
404	red	0,75	**HPH9.1**	10 unit(s)	37,20
404	green	0,75	**HTE0.1**	10 unit(s)	37,20

Highlighter 24 EcoLine

edding.

Highlighter for bright markings and emphasis of texts and notes on virtually all paper surfaces.

- Bright water-based neon ink, high colour brilliance
- Awarded the "Blue Angel" environmental seal
- Cap and barrel made of ≥90% renewable raw material

The cap can be stored at the end of the barrel to avoid the risk of loss.

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
24 EcoLine	yellow	2-5	**1AE5.1**	10 unit(s)	14,20
24 EcoLine	orange	2-5	**1AE6.1**	10 unit(s)	14,20
24 EcoLine	pink	2-5	**1AE7.1**	10 unit(s)	14,20
24 EcoLine	blue	2-5	**1AE8.1**	10 unit(s)	14,20
24 EcoLine	green	2-5	**1AE9.1**	10 unit(s)	14,20

Laboratory markers

edding.

Suitable for fine, precise labelling of smooth and transparent surfaces, such as slides, reaction vials, Petri and laboratory dishes.

- Round tip
- Extremely fast-drying, abrasion-resistant, waterproof, light-resistant and odourless tint (without the addition of toluene/xylene)
- Permanent on plastic
- Removable from glass with acetone, ethanol, isopropanol and methyl ethyl ketone
- Temperature stable from -183 to +500 °C on aluminium

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
8014	black	1	**HPE1.1**	10 unit(s)	29,40
8015F	black	0,75	**HPE2.1**	10 unit(s)	29,40

Textile marker 8040

edding.

Textile marker for washable and boil-resistant marking of almost all textiles and fabrics. The ink is waterproof, smudge-proof, fast-drying, odourless and wash-resistant up to 95 °C.

- For permanent labelling
- Waterproof
- Smudge-proof
- Light-resistant
- Fast-drying
- Odourless

The cap can be stored at the end of the barrel to avoid the risk of loss. The practical clip prevents the pen from rolling away and can be attached to clothing and objects.

Setting the ink: Iron clothes once without steam.

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
8040	black	1	**1AEA.1**	10 unit(s)	32,60
8040	red	1	**1AEC.1**	10 unit(s)	32,60

Paint marker

edding.

For highly opaque markings and permanent labelling on virtually all surfaces, e.g. plastic and glass. Ideal for dark and transparent materials.

- Opaque finish
- Waterproof and odourless
- Resistant to ethanol, most disinfectants and isopropanol
- Colours white and copper, additionally resistant to acetone
- Temperature stable up to 400 °C (white 1000 °C)
- Weather- and extremely light-resistant, abrasion-resistant
- Application: Shake the pen vigorously with the cap closed, then open, position the tip of the pen on a piece of test paper and carefully push it up and down

Type 750

- Round tip

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
750	black	2-4	**1ACY.1**	10 unit(s)	39,25
750	white	2-4	**1AE0.1**	10 unit(s)	39,25
750	copper	2-4	**1AE1.1**	10 unit(s)	39,25

Type 751

- Round tip

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
751	black	1 – 2	**HPE3.1**	10 unit(s)	47,30
751	white	1 – 2	**HPE4.1**	10 unit(s)	47,30
751	copper	1 – 2	**HPE5.1**	10 unit(s)	47,30

Type 780

- Metal-mounted plastic tip, extra-fine

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
780	black	0,8	**HPE6.1**	10 unit(s)	49,95
780	white	0,8	**HPE7.1**	10 unit(s)	49,95
780	copper	0,8	**HPE8.1**	10 unit(s)	49,95

Optical Instruments & Lamps

Batteries and battery chargers 1083
Cold-light sources 1060
Illuminated magnifiers 1062
Infrared lamps 1070
Lamps 1070
Laser pointer 1073
Lens cleaning tissues 1059
Lighting panels 1076
Magnifiers (measuring magnifier, linen testers) . . 1068
Microscopes 1052
Microscope accessories 1059
Microscope cameras. 1057
Refractometers 1079
Stereo microscopes 1048
Torches 1073
Torches, ex-proof. 1075
Transilluminators 1078
Ultraviolet lamps 1078
X-ray-cassettes 1077

Stereo microscopes

Stereo microscope

Eschenbach.

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	X822.1	X823.1
Type	Model 33213	Model 33263
Tube	Binocular	
Total magnification	10x/20x – can be expanded up to 40x as an option	
Magnification type	Revolving turret	
Ocular magnification	Widefield 10x	
Lens arrangement	coaxial	
Lens magnification	1x/2x	
Field of view	19 mm	
Dioptre compensation	±5 dpt on the left ocular tube	
Angular observation	45 °	
Head	Can be rotated 360°	
Distance between eyepieces	54–74 mm	
Working distance	83 mm	
Light source	LED	
Type of lighting	Incident light	
Image focusing	Coarse focus	
Power supply	Mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. eyepiece cups and dust cover.

Model 33213
With robust metal stand. Ø 20 mm stand rod. 200 x 150 mm bottle stand with plastic plate (black/white) for reflected illumination.

Type	Art. No.	Pack Qty.	€
Model 33213	**X822.1**	1 unit(s)	670,80

Model 33263
Stable and long metal hinged arm with three locking screws in the spring joints, fully adjustable. With stable table clamp suitable for tabletop thicknesses up to 70 mm.

Type	Art. No.	Pack Qty.	€
Model 33263	**X823.1**	1 unit(s)	922,35

Stereo zoom microscope SMZ-161

Motic.

Compact design, high-quality optics and robust mechanism. With LED lighting.

- Continuously variable zoom with lock positions for reproducible magnification
- Increased working distance allows sufficient space for sample handling
- Reflected light and transmitted light can be controlled separately

Technical specifications:

Art. No.	ATP9.1	ATT0.1
Type	SMZ-161-BLED (R2LED)	SMZ-161-TLED (R2LED)
Tube	Binocular	Trinocular
Total magnification	7.5x to 45x	
Magnification type	Zoom	
Ocular magnification	Widefield 10x	
Lens magnification	0.75x–4.5x, zoom ratio 1:6	
Field of view	20 mm	
Dioptre compensation	±5 dpt on both ocular tubes	
Angular observation	45 °	
Head	Can be rotated 360°	
Distance between eyepieces	50–75 mm	
Working distance	110 mm	
Light source	LED	
Type of lighting	Incident light and transmitted light	
Image focusing	Coarse focus	
Power supply	Mains-powered	
Mains connection	100–240 V, 50 Hz	

Delivery incl. stage inserts (black/white and matte glass) and dust cover.

Binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SMZ-161-BLED (R2LED)	**ATP9.1**	1 unit(s)	789,05

Trinocular
With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	SMZ-161-TLED (R2LED)	**ATT0.1**	1 unit(s)	848,20

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

Stereo microscope SMZ-168

Motic.

High-quality stereo microscopes for science, research and quality control.

- Larger field of view and working distance
- Sturdy transmitted light stand with wide base plate
- Continuously variable zoom with lock positions for reproducible magnification
- Reflected light and transmitted light can be controlled separately

Optional accessories (please order separately):

- Widefield eyepieces and auxiliary objective lenses for modulating the total magnification.

Technical specifications:

Art. No.	KA17.1	KA18.1
Type	SMZ-168 BL	SMZ-168 TL
Tube	Binocular	Trinocular
Total magnification	7.5x/50x – can be expanded up to 200x as an option	
Magnification type	Zoom	
Ocular magnification	Widefield 10x	
Lens magnification	0.75x–5x, zoom ratio 1:6.7	
Field of view	23 mm	
Dioptre compensation	±5 dpt on both ocular tubes	
Angular observation	35 °	
Head	Can be rotated 360°	
Distance between eyepieces	52,5–75 mm	
Working distance	113 mm	
Light source	Halogen	
Type of lighting	Incident light and transmitted light	
Image focusing	Coarse focus	
Power supply	Mains-powered	
Mains connection	100–240 V, 50 Hz	

Delivery incl. stage inserts (black/white and matte glass), blue filter and dust cover.

Binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SMZ-168 BL	**KA17.1**	1 unit(s)	1.035,25

Trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	SMZ-168 TL	**KA18.1**	1 unit(s)	1.125,55

Stereo microscope OSE-417

Kern.

Robust, rigid and easy to operate stereo microscope for schools, workshops and training organisations. For preparations with focus on spatial impression, e.g. insects and seeds.

- Good optical characteristics for sharp images over a wide field of vision
- Interchangeable lens with two pre-defined magnifications
- Eyepiece fixed securely in the tube
- Stable and precisely adjustable mechanics of the microscope stand

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	HNA2.1
Type	OSE-417
Tube	Binocular
Total magnification	20x, 40x
Magnification type	Turret
Ocular magnification	Widefield 10x
Lens magnification	2x/4x
Field of view	20 mm
Dioptre compensation	left
Angular observation	45 °
Distance between eyepieces	55–75 mm
Working distance	57 mm
Light source	LED
Type of lighting	Incident light and transmitted light
Image focusing	Coarse focus
Power supply	Mains-powered
Mains connection	100–240 V, 50/60 Hz

Total magnification when combining different eyepieces/lenses:

Eyepiece	Lens		
	Magnification	**2x**[1]	**4x**[1]
WF 5x	Total magnification (x-times)	10	20
	Visual field Ø (mm)	10	5
WF 10x[1]	Total magnification (x-times)	20	40
	Visual field Ø (mm)	10	5
WF 20x	Total magnification (x-times)	40	80
	Visual field Ø (mm)	6.5	3.2

[1] Included with delivery

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Art. No.	Pack Qty.	€
OSE-417	**HNA2.1**	1 unit(s)	265,00

Stereo microscopes

Stereo zoom microscope OZL-445

Kern.

Easy-to-operate, stable stereo-zoom microscope for laboratories, test institutes and quality checks.

- Zoom lens allows magnification of the specimen to be continuously adjusted
- Large working area for improved comfort, column stands allow greater flexibility
- Eyepiece fixed securely in the tube
- Reflected light and transmitted light can be controlled separately

Optional accessories (please order separately):

- Protective lens element
- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	HHE1.1
Type	OZL-445
Tube	Binocular
Total magnification	7.5x to 36x – can be expanded up to 144x as an option
Magnification type	Zoom
Ocular magnification	Widefield 10x
Lens magnification	0.75–3.6x
Field of view	20 mm
Dioptre compensation	±5 dpt on both ocular tubes
Angular observation	45 °
Head	Can be rotated 360°
Distance between eyepieces	55–75 mm
Working distance	86 mm
Light source	LED
Type of lighting	Incident light and transmitted light
Image focusing	Coarse focus
Power supply	Mains-powered
Mains connection	100–240 V, 50/60 Hz

Total magnification when combining different eyepieces/lenses:

Eyepiece		Lens		
	Magnification	Standard 1x[1]	0.5x ancillary	2.0x ancillary
WF 5x	Total magnification (x-times) Visual field Ø (mm)	3.5–18 26–6	1.875–9 60–13	7.5–36 12.5–3
WF 10x[1]	Total magnification (x-times) Visual field Ø (mm)	7.5–36 26.7–5.6	3.75–18 53.3–11.1	15–72 13.3–2.8
WF 20x	Total magnification (x-times) Visual field Ø (mm)	15–72 12.5–3	7.5–36 28–6	30–144 6–1.5

[1] Included with delivery

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Art. No.	Pack Qty.	€
OZL-445	**HHE1.1**	1 unit(s)	460,00

Stereo microscope OSF-439

Kern.

Practical and sterile stereo microscope for training and laboratory. With integrated handle and stable stand.

- Ergonomically designed working surface for high level of comfort
- Interchangeable lens with three pre-defined magnifications for fast and effective work
- Eyepiece fixed securely in the tube
- Reflected light and transmitted light can be controlled separately

Technical specifications:

Art. No.	HHC9.1
Type	OSF-439
Tube	Binocular
Total magnification	10x, 20x, 40x
Magnification type	Turret
Ocular magnification	Widefield 10x
Lens magnification	1x, 2x, 4x
Field of view	20 mm
Dioptre compensation	±5 dpt on the left eyepiece
Angular observation	45 °
Head	fixed
Distance between eyepieces	55 – 75 mm
Working distance	57 mm
Light source	LED
Type of lighting	Incident light and transmitted light
Image focusing	Coarse focus
Power supply	Mains-powered
Mains connection	100–240 V, 50/60 Hz

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Art. No.	Pack Qty.	€
OSF-439	**HHC9.1**	1 unit(s)	345,00

Stereo zoom microscope OZL-46 series

Kern.

All-round stereo microscope with zoom function for schools, training workshops and laboratories.

- With extra-wide field eyepieces for greater vision angle, thereby ideal for people who wear glasses
- Reflected light and transmitted light can be controlled separately

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	HHE7.1	HHE8.1
Type	OZL 463	OZL 464
Tube	Binocular	Trinocular
Total magnification	7x to 45x – can be expanded up to 180x as an option	
Magnification type	Zoom	
Ocular magnification	Super wide angle (HWF) 10x	
Lens magnification	0.7–4.5x	
Field of view	20 mm	
Dioptre compensation	±5 dpt on both ocular tubes	
Angular observation	45 °	
Head	Can be rotated 360°	
Distance between eyepieces	55–75 mm	
Working distance	105 mm	
Light source	LED	
Type of lighting	Incident light and transmitted light	
Image focusing	Coarse focus	
Power supply	Mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Total magnification when combining different eyepieces/lenses:

Eyepiece	Lens			
	Magnification	Standard 1x[1]	0.5x ancillary	2.0x ancillary
WF 10x[1]	Total magnification (x-fold)	7–45	3.5–22.5	14–90
	Visual field Ø (mm)	28.6–4.4	57.1–8.9	14.3–2.2
WF 20x	Total magnification (x-fold)	14–90	7–45	28–180
	Visual field Ø (mm)	14.3–2.2	28.6–4.4	7.1–1.1

[1] Included with delivery

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

OZL 463 binocular

Type	Art. No.	Pack Qty.	€
OZL 463	**HHE7.1**	1 unit(s)	520,00

OZL 464 trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Type	Art. No.	Pack Qty.	€
OZL 464	**HHE8.1**	1 unit(s)	570,00

Stereo zoom microscope OZL-456

Kern.

Stereo microscope with large zoom range.

- Integrated LED ring light in the lens housing for uniform illumination of the specimen without shadows
- Visual field and working distance magnified through high super-widefield lenses
- The greater viewing angle of the HSWF eyepieces is particularly suitable for people who wear glasses
- Reflected light and transmitted light can be controlled separately

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	HHH3.1
Type	OZL-456
Tube	Binocular
Total magnification	7.5x to 50x - can be expanded up to 100x as an option
Magnification type	Zoom
Ocular magnification	High super-widefield 10x
Lens magnification	0.75–5x
Field of view	23 mm
Dioptre compensation	±5 dpt on both eyepiece tubes
Angular observation	45 °
Head	Can be rotated 360°
Distance between eyepieces	55–75 mm
Working distance	113 mm
Light source	LED
Type of lighting	Incident light and transmitted light
Image focusing	Coarse focus
Power supply	Mains-powered
Mains connection	100–240 V, 50/60 Hz

Total magnification when combining different eyepieces/lenses:

Eyepiece	Lens	
	Magnification	Standard 1x[1]
HWF 5x	Total magnification (x-times) Visual fieldØ (mm)	3.75–25 31–4.6
HSWF 10x[1]	Total magnification (x-times) Visual field Ø (mm)	7.5–50 33–5
HSWF 20x	Total magnification (x-times) Visual field Ø (mm)	15–100 20–3.5

[1] Included with delivery

Delivery incl. Stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Art. No.	Pack Qty.	€
OZL-456	**HHH3.1**	1 unit(s)	730,00

Transmitted light microscope OBS-106

Kern.

Simple microscope with clear operating elements for school and training. For translucent, thin, high-contrast and non-demanding preparations.

- Height-adjustable, focusable 1.25 Abbe condenser for optimum light concentration
- Mechanical cross table for fast working and moving of the preparation
- Mobile use possible through rechargeable batteries
- With infinitely dimmable 0.5 W LED for optimum illumination of the preparations
- Can be powered by the mains or batteries

Technical specifications:

Art. No.	HNA1.1
Type	OBS-106
Tube	Binocular
Total magnification	40x, 100x, 400x
Magnification type	Turret
Ocular magnification	Widefield 10x
Lens arrangement	4-way, tilted forwards
Lens magnification	– 4x/N.A. 0.10, W.D. 18.0 mm – 10x/N.A. 0.25, W.D. 7.0 mm – 40x/N.A. 0.65 (spring), W.D. 0.53 mm
Field of view	18 mm
Dioptre compensation	on both sides
Angular observation	30 °
Head	Can be rotated 360°
Distance between eyepieces	55–75 mm
Condenser	Focusable Abbe condenser N.A. 1.25 with aperture diaphragm
Light source	LED
Type of lighting	Transmitted light
Image focusing	Coarse and fine focus
Optics	infinity
Microscope stage	115 x 125 mm area, Coaxial x/y travel range of 75 x 18 mm
Power supply	Powered by the mains and batteries
Mains connection	100–240 V, 50/60 Hz

Delivery incl. colour filter (blue, fitted), batteries and dust cover.

Type	Art. No.	Pack Qty.	€
OBS-106	**HNA1.1**	1 unit(s)	320,00

Transmitted light microscope OBE series

Kern.

Fully-equipped transmitted light microscope (brightfield) for training and lab use.

- Very easy to operate, robust and sturdy
- For translucent and thin, high-contrast specimens (e.g. plant tissue, stained cells, parasites)
- With strong 3 W LED that can be infinitely dimmed to optimally illuminate the specimens

Optional accessories (please order separately):

- Dark field use for 4x to 40x lenses; to increase contrast of small, unstained structures
- 100x lens (planachromatic, spring) with water immersion

Technical specifications:

Art. No.	EYP2.1	EYP3.1
Type	OBE 112	OBE 114
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lenses	achromatic	
Lens arrangement	4-way, tilted forwards	
Lens magnification	- 4x/N.A. 0.10, W.D. 18.6 mm - 10x/N.A. 0.25, W.D. 6.5 mm - 40x (spring)/N.A. 0.65, W.D. 0.47 mm - 100x (spring, oil)/N.A. 1.25, W.D. 0.07 mm	
Field of view	18 mm	
Dioptre compensation	±5 dpt on the left ocular tube	
Angular observation	30 °	
Head	Can be rotated 360°	
Distance between eyepieces	50–75 mm	
Light source	LED	
Type of lighting	Transmitted light	
Image focusing	Coaxial coarse and fine focus with scale: 2 µm	
Optics	infinity	
Microscope stage	125 x 115 mm area coaxial x/y travel ranges of 50 x 70 mm	
Power supply	Mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. eyecups and dust cover.

OBE 112 binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	OBE 112	**EYP2.1**	1 unit(s)	540,00

OBE 114 trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	OBE 114	**EYP3.1**	1 unit(s)	650,00

Transmitted light microscope OBL series

Kern.

Versatile transmitted light microscope (brightfield) for translucent, low-contrast, demanding preparations (e.g. living mammal cells, bacteria, tissue).

- With simplified Köhler illumination (fixed pre-centred)
- Infinity optics for optimum image quality
- With strong, 3 W LED that can be infinitely dimmed to optimally illuminate the specimens

Optional accessories (please order separately):

- Dark field condenser to increase contrast of small, unstained structures
- 100x lens (planachromatic, spring) with water immersion

Technical specifications:

Art. No.	EYP7.1	EYP8.1
Type	OBL 127	OBL 137
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lens arrangement	4-way, tilted backwards	
Lens magnification	- 4x/N.A. 0.10, W.D. 12.1 mm - 10x/N.A. 0.25, W.D. 2.1 mm - 40x (spring)/N.A. 0.65, W.D. 0.58 mm - 100x (spring, oil)/N.A. 1.25, W.D. 0.19 mm	
Field of view	20 mm	
Dioptre compensation	±5 dpt on the left ocular tube	
Angular observation	30 °	
Head	can be rotated 360°	
Distance between eyepieces	50–75 mm	
Condenser	Fixed pre-centred, focusable Abbe condenser N.A. 1.25 with aperture and field diaphragm	
Köhler illumination	Yes	
Light source	LED	
Type of lighting	Transmitted light	
Image focusing	Coaxial coarse and fine focus with scale: 2 µm	
Optics	infinity	
Microscope stage	145 x 130 mm area coaxial x/y travel range 76 x 52 mm Holder for two slides	
Power supply	Mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. colour filter (blue, fitted), eyecups and dust cover.

OBL 127 binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	OBL 127	**EYP7.1**	1 unit(s)	910,00

OBL 137 trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	OBL 137	**EYP8.1**	1 unit(s)	1.020,00

Phase contrast microscope OBL series

Kern.

Sturdy phase contrast microscope for very translucent, low-contrast and demanding preparations (e.g. living mammal cells, bacteria, tissue).

- With simplified Köhler illumination (fixed pre-centred)
- Infinity optics for optimum image quality
- With powerful, continuously adjustable 20 W halogen light for optimum illumination of specimens

Optional accessories (please order separately):

- Dark field condenser to increase contrast of small, unstained structures
- 100x lens (planachromatic, spring) with water immersion

Technical specifications:

Art. No.	EYT6.1	EYT7.1
Type	OBL 145	OBL 155
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lenses	Brightfield: Semi-plan achromatic Phase contrast: Plan achromatic	
Lens arrangement	4-way, tilted backwards	
Lens magnification	Brightfield: - 4x/N.A. 0.10, W.D. 12.1 mm - 100x (spring, oil)/N.A. 1.25, W.D. 0.19 mm Phase contrast: - Ph 10x/N.A. 0.25, W.D. 4.64 mm - Ph 40x (spring)/N.A. 0.66, W.D. 0.65 mm	
Field of view	20 mm	
Dioptre compensation	±5 dpt on the left ocular tube	
Angular observation	30 °	
Head	Can be rotated 360°	
Distance between eyepieces	50–75 mm	
Condenser	Fixed pre-centred, focusable Abbe condenser N.A. 1.25 with aperture and field diaphragm	
Köhler illumination	Yes	
Light source	Halogen	
Image focusing	Coaxial coarse and fine focus with scale: 2 µm	
Optics	infinity	
Microscope stage	145 x 130 mm area coaxial x/y travel range 76 x 52 mm Container for two slides	
Power supply	Mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. colour filter (blue, fitted and green), eyecups and dust cover.

OBL 145 binocular

Type	Art. No.	Pack Qty.	€
OBL 145	**EYT6.1**	1 unit(s)	1.390,00

OBL 155 trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Type	Art. No.	Pack Qty.	€
OBL 155	**EYT7.1**	1 unit(s)	1.490,00

Transmitted light microscope SFC-100F LED monocular

Motic.

Robust microscope suitable for pupils and students

- With LED light (can be continuously adjusted)
- With pointer and eyepiece retainer
- Can be powered by the mains or batteries

Technical specifications:

Art. No.	**ATT2.1**
Type	SFC-100F LED
Tube	Monocular
Total magnification	40x, 100x, 400x
Magnification type	Turret
Ocular magnification	Widefield 10x
Lenses	achromatic
Lens arrangement	3-way, tilted forwards
Lens magnification	- 4x/N.A. 0.10 - 10x/N.A. 0.25 - 40x (spring)/N.A. 0.65
Field of view	18 mm
Angular observation	45 °
Head	Can be rotated 360°
Condenser	N.A. 0.65 with iris diaphragm and filter holder
Light source	LED
Image focusing	Coarse and fine focus
Optics	infinity
Microscope stage	120 x 110 mm, with 2 spring clamps
Power supply	Powered by the mains and batteries
Mains connection	100–240 V

Delivery incl. charger, batteries and dust cover.

Type	Art. No.	Pack Qty.	€
SFC-100F LED	**ATT2.1**	1 unit(s)	193,50

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

Transmitted light microscope SHB 45

Motic.

Rugged microscope for pupils and students. With adjustable halogen light and adaptation of light intensity.

Optional accessories (please order separately):

- Lenses for modulating the total magnification

Technical specifications:

Art. No.	**Y421.1**
Type	SHB 45
Tube	Binocular
Total magnification	40x, 100x, 400x – can be expanded up to 1000x
Magnification type	Turret
Ocular magnification	Widefield 10x
Lenses	achromatic
Lens arrangement	4-way, tilted forwards
Lens magnification	4x/N.A. 0.10 10x/N.A. 0.25 40x (spring)/N.A. 0.65
Field of view	18 mm
Dioptre compensation	±5 dpt on both eyepieces
Angular observation	45 °
Head	Can be rotated 360°
Condenser	N.A. 1.25 focusable with iris diaphragm and filter holder
Light source	Halogen
Image focusing	Coaxial coarse and fine focus
Optics	infinity
Microscope stage	120 x 120 mm with X-Y stage that can be fitted
Power supply	Mains-powered
Mains connection	230 V, 50 Hz

Delivery incl. blue filter, dark field diaphragm and dust cover.

Type	Art. No.	Pack Qty.	€
SHB 45	**Y421.1**	1 unit(s)	439,70

Transmitted light microscope B3 Professional series

Motic.

Brightfield microscope for analysing high-contrast, stained samples.

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification
- Measuring eyepiece for determination and reference measurement of the preparation

Technical specifications:

Art. No.	CH56.1	CH57.1
Type	B3-220ASC	B3-223ASC
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lens arrangement	5x, inclined backward, with four achromatic super contrast lenses	
Lens magnification	- 4x/N.A. 0.10, W.D. 17.0 mm - 10x/N.A. 0.25, W.D. 6.4 mm - 40x (spring)/N.A. 0.65, W.D. 0.45 mm - 100x (spring, oil)/N.A. 1.25, W.D. 0.14 mm	
Field of view	20 mm	
Dioptre compensation	±5 dpt on the left ocular tube	
Angular observation	30 °	
Head	Can be rotated 360°	
Distance between eyepieces	55–75 mm	
Condenser	Focusable Abbe condenser N.A. 1.25 with iris diaphragm and filter holder	
Köhler illumination	Yes	
Light source	Halogen	
Image focusing	Coaxial coarse and fine focus	
Optics	infinity	
Microscope stage	140 x 135 mm, height-adjustable coaxial x/y travel range of 78 x 50 mm	
Power supply	Mains-powered	
Mains connection	100–240 V, 50 Hz	

Delivery incl. colour filter set (blue, yellow, green), immersion oil and dust cover.

B3-220ASC binocular

Type	Art. No.	Pack Qty.	€
B3-220ASC	**CH56.1**	1 unit(s)	803,05

B3-223ASC trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Type	Art. No.	Pack Qty.	€
B3-223ASC	**CH57.1**	1 unit(s)	968,60

Brightfield microscope BA210 series

Motic.

Brightfield microscope for analysing high-contrast, stained samples. Lenses supplied: 4x, 10x, 40x and 100x. With LED lighting and infinite optics for optimum image quality.

Technical specifications:

Art. No.	ATT7.1	ATT8.1
Type	BA210 LED binocular	BA210 LED trinocular
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lenses	plan achromatic	
Lens magnification	- 4x/N.A. 0.10, W.D. 15.9 mm - 10x/N.A. 0.25, W.D. 17.4 mm - 40x S/N.A. 0.65, W.D. 0.5 mm - 100x S-Oil/N.A. 1.25, W.D. 0.13 mm	
Field of view	20 mm	
Dioptre compensation	±5 dpt on both eyepieces	
Angular observation	30 °	
Head	can be rotated 360°	
Distance between eyepieces	55–75 mm	
Condenser	Focusable Abbe condenser N.A. 1.25 with iris diaphragm and slider slot	
Light source	LED	
Image focusing	Coarse and fine focus	
Optics	infinity	
Microscope stage	140 x 135 mm area coaxial x/y travel range of 76 x 50 mm	
Power supply	Mains-powered	
Mains connection	230 V, 50 Hz	

Delivery incl. immersion oil and dust cover.

Binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	BA210 LED binocular	**ATT7.1**	1 unit(s)	940,65

Trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	BA210 LED trinocular	**ATT8.1**	1 unit(s)	1.128,75

Inverted microscope AE2000

Motic.

During inverse microscopy, the lenses are positioned under the benchtop. This results in a larger gap between the benchtop and condenser, allowing analysis of thicker preparations such as living cells in culture vessels/microtiter plates.

- With infinite optics for optimum image quality
- Light can be controlled with sleep mode

Optional accessories (please order separately):

- LED light

Technical specifications:

Art. No.	ATT4.1	ATT5.1
Type	AE2000	
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 200x, 400x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lenses	Plan achromatic brightfield	
Lens arrangement	4-way, tilted sideways	
Lens magnification	Brightfield: - PL 4x/N.A. 0.10, W.D. 12.6 mm - LWD PL 40x/N.A. 0.50, W.D. 3.0 mm Phase contrast: - PL Ph 10x/N.A. 0.25, W.D. 4.1 mm - LWD PL Ph 20x/N.A. 0.30, W.D. 4.7 mm	
Field of view	20 mm	
Dioptre compensation	±5 dpt on both eyepieces	
Angular observation	45 °	
Head	Can be rotated 360°	
Distance between eyepieces	48–75 mm	
Condenser	ELWD N.A. 0.30 with (Ph1, BF) W.D. phase shifter with 72 mm condenser	
Light source	Halogen	
Image focusing	Coaxial coarse and fine focus	
Optics	infinity	
Microscope stage	200 x 239 mm area With glass/metal stage insert	
Power supply	Mains-powered	
Mains connection	100–240 V, 50 Hz	

Delivery incl. blue filter, interference filter (green), neutral filter with slider, centring telescope and dust cover.

Binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	AE2000	**ATT4.1**	1 unit(s)	2.644,50

Trinocular

With trinocular head for mounting a microscope camera on the phototube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	AE2000	**ATT5.1**	1 unit(s)	3.040,10

Protective sleeve for microscope

ROTH SELECTION. Material: Vinyl Vikem®.

Protects high-end devices and instruments against dust and liquids.

Size	Scope	Height (mm)	Art. No.	Pack Qty.	€
M	660 mm bottom x 460 mm top	420	**XY16.1**	1 unit(s)	24,20
L	820 mm bottom x 560 mm top	460	**XY17.1**	1 unit(s)	32,80
XL	920 mm bottom x 760 mm top	560	**XY18.1**	1 unit(s)	38,60

Digital USB manual microscope ODC 895

Kern.

For fast and easy pre-examination, for example of plants, insects or skin samples. Strong and effective illumination of the samples with eight LEDs arranged in a ring. Multilingual software supplied. With the streaming, photo snapshot and video functions. Supports the following operating systems: Win XP, Vista, 7, 8, 10.

Technical specifications:

Art. No.	HNH2.1
Type	ODC 895
Total magnification	10x, 200x
Working distance	60 mm
Light source	LED
Type of lighting	Incident light
Image focusing	Coarse focus
Microscope stage	150 x 80 mm
Port	USB 2.0
Number of pixels	2 (MP)
CMOS colour sensor	1/3,2″
Images per second	15–30
Power supply	via USB connection (fixed cable, length 1.4 m)

Type	Art. No.	Pack Qty.	€
ODC 895	**HNH2.1**	1 unit(s)	195,00

Microscope cameras

Microscope camera ODC series

Kern.

For conventional microscope use, and for demanding applications (e.g. darkfield, phase contrast and fluorescence).

- Fast and clear image transmission with proven CMOS technology
- USB 2.0 data transmission adequate for static samples. USB 3.0 version recommended for living samples (faster transmission without stalling)
- Multilingual software available. With the streaming, photo snapshot and video functions. Various measuring functions such as distance, surface and angular measurement, as well as manual counting possible. Image processing and documentation functions included
- Mounting possible either via C-mount connection on the third tube of the microscope or via the eyepiece.
- Suitable C-mount adapter is provided by the microscope manufacturer. Eyepiece adapter (Ø 23.2 mm) and adapter rings (Ø 30.0 mm and 30.5 mm) are also supplied
- Supports the following operating systems: Win XP, Vista, 7, 8, 10

Technical specifications:

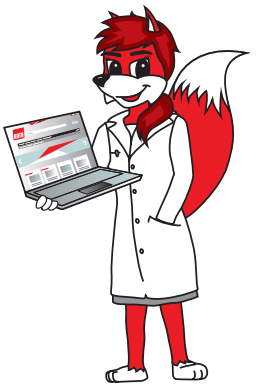
Art. No.	HNH5.1	HNH6.1	HNH7.1	HNH8.1
Type	ODC 824	ODC 825	ODC 831	ODC 832
Sensor type	CMOS			
Sensor format	½″	½,5″	⅓″	½,5″
Number of pixels	3.1 (MP)	5.1 (MP)	3.1 (MP)	5.1 (MP)
Pixel Size	3.2 x 3.2 µm	2.2 x 2.2 µm		
Images per second	11,5 fps @ 2048 x 1536, 32 fps @ 1024 x 768, 45 fps @ 680 x 510	6,8 fps @ 2592 x 1944, 18 fps @ 1280 x 960, 55 fps @ 640 x 480	27,3 fps @ 2048 x 1536, 53,3 fps @ 1024 x 770	14,2 fps @ 2560 x 1922, 38,3 fps @ 1280 x 960, 101,2 fps @ 640 x 480
Application	Bright field, dark field, phase contrast, polarisation, simple fluorescence			
Port	USB 2.0		USB 3.0	
Cable length	2 m			

Delivery incl. USB cable, eyepiece adapter, rings and stage micrometer for calibrating the software. Please download the software free of charge.

Type	Art. No.	Pack Qty.	€
ODC 824	**HNH5.1**	1 unit(s)	370,00
ODC 825	**HNH6.1**	1 unit(s)	385,00
ODC 831	**HNH7.1**	1 unit(s)	500,00
ODC 832	**HNH8.1**	1 unit(s)	530,00

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Microscope camera Moticam S series

Motic.

For diverse applications in day-to-day microscopic work in which data processing is carried out directly on the PC.

- Can be mounted via C-mount connection on the third tube of the microscope; the microscope manufacturer provides appropriate C-mount adapters
- New sCMOS technology for high frame rates and optimal image quality; maximum sensitivity for applications with low light output
- Faster data reading for recording rapid phenomena via USB 3.1 gen.1 connection; USB 2.0 compatibility for older computers ensured
- Supported operating systems: Windows XP and later versions, Apple Mac OSX and Linux
- Minimum system requirements: 2 GHz dual-core, 2 GB RAM, min. 512 MB video memory
- Software functions: Still image and video, live and still image measurements, image enhancement, white balance, automatic and manual exposure time, individual calibration

Technical specifications:

Art. No.	**1C35.1**	**1C36.1**	**1C37.1**	**1C38.1**	**1C39.1**
Type	Moticam S1	Moticam S3	Moticam S6	Moticam S12	Moticam Pro S5 Lite
Sensor type	sCMOS				
Sensor format	1/3″	1/2,8″	1/1,8″	1/1,7″	2/3″
Number of pixels	1.2 (MP)	3 (MP)	6 (MP)	12 (MP)	5 (MP)
Pixel Size	3.75 x 3.75 µm	2.5 x 2.5 µm	2.4 x 2.4 µm	1.85 x 1.85 µm	3.45 x 3.45 µm
Resolution	1280 x 960 pixels (live image display)	2048 x 1536 pixels (live image display)	3072 x 2048 pixels (live image display)	4000 x 3000 pixels (live image display)	2448 x 2048 pixels (live image display)
Images per second	120 fps @ 1280 x 960, 240 fps @ 640 x 480	60 fps @ 2048 x 1536, 60 fps @ 1920 x 1080	30 fps @ 3072 x 2048, 50 fps @ 1536 x 1024	25 fps @ 4000 x 3000, 50 fps @ 2048 x 1080	37.5 fps @ 2448 x 2048, 88.4 fps @ 1224 x 1024
Application	Bright-field, dark-field, polarisation				Bright-field, dark-field, polarisation, fluorescence
Port	USB 3.1				

Delivery incl. CS ring, USB 3.1 cable, Motic 4-point calibration, Motic Images Plus 3.0 software.

Type	Art. No.	Pack Qty.	€
Moticam S1	**1C35.1**	1 unit(s)	413,90
Moticam S3	**1C36.1**	1 unit(s)	519,25
Moticam S6	**1C37.1**	1 unit(s)	651,45
Moticam S12	**1C38.1**	1 unit(s)	866,45
Moticam Pro S5 Lite	**1C39.1**	1 unit(s)	1.020,20

Microscope accessories

Pocket microscope

ROTH SELECTION.

With focusing device and swivel illumination of the viewing area.

Technical specifications:

Art. No.	P387.1
Type	Pocket microscope
Magnification	30-way
L x W x H	45 x 20 x 140 mm
Power supply	2 x 1.5 V AA batteries

Delivery without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
Pocket microscope	**P387.1**	1 unit(s)	33,90

Bellows with cleaning brush

ROTH SELECTION. Material: Rubber.

With attachable brush. For non-contact removal of dust and/or loose dirt particles on optical surfaces and other sensitive surfaces. Easy to handle. Large elastic rubber bellows for strong blowing action. Sturdy air nozzle at the front and air inlet valve at the back.

Ø x L (mm)	Art. No.	Pack Qty.	€
60 x 180	**KP30.1**	1 unit(s)	14,50

Lens paper MN 13 B

Macherey-Nagel.

Lint-free tissue paper for cleaning optical glasses and cuvettes, and as protective paper for metallographic specimens. 50-sheet block.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
80	100	**1068.1**	10 unit(s)	54,90

Lens paper

Motic.

For trace-free cleaning, also removes dust and oil. 500 sheets per pack.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
100	45	**LH30.1**	500 sheet	17,00

Cold light source Dual goose neck LED

Kern.

External lighting unit (reflected) for microscope. For maximum flexibility and maximum comfort. With excellent light quality at constant intensity on the object.

Technical specifications:

Art. No.	HNH3.1
Type	OZB A515
Colour temperature	5600–6300 K
L x W x H	300 x 250 x 250 mm
Weight	1500 g
Light source	6 W LED, dimmable
Service life	approx. 50,000 hours
Mains connection	100–240 V, 50/60 Hz

Delivery incl. dual arm gooseneck light guide.

Type	Art. No.	Pack Qty.	€
OZB A515	**HNH3.1**	1 unit(s)	150,00

Cold light sources

Cold light source Halogen

Krüss.

With a connection for gooseneck light guide.

- Integrated halogen reflector bulb 8 V, 20 W
- With continuous electronic brightness control
- Suitable for, e.g. lighting objects under microscopes

Technical specifications:

Art. No.	C018.1
Version	Cold light source: Halogen
Colour temperature	3200 K
L x W x H	150 x 175 x 90 mm
Light source	Halogen
Mains connection	110–240 V, 50/60 Hz

Delivery without gooseneck light guide, please order separately.

Version	Art. No.	Pack Qty.	€
Cold light source: Halogen	**C018.1**	1 unit(s)	540,75

Accessories Gooseneck light guide

Krüss.

Single arm for halogen cold light source

Designation	Art. No.	Pack Qty.	€
Gooseneck light guide, single arm, with glass fibre cable. Fully flexible, with metallic casing. Front Ø 4.5 mm. Outside Ø 10 mm. Length: 500 mm.	**C019.1**	1 unit(s)	204,25

Dual arm for halogen cold light source

Designation	Art. No.	Pack Qty.	€
Gooseneck light guide, dual arm, with glass fibre cable. Fully flexible, with metallic casing. Front Ø 4.5 mm. Outside Ø 10 mm. Length: 500 mm.	**C020.1**	1 unit(s)	317,15

Spotlight IL 11 LED

Perfect incident lighting for microscopes.

- Flexible lighting thanks to semi-rigid arm
- Small dimensions of the luminaire heads
- Flicker-free light for photos and videos
- Very high colour rendering index (CRI)
- Precise brightness control (0–100%) with memory function

Technical specifications:

Art. No.	KLX4.1	KLX5.1
Arm length	450 mm	600 mm
Luminosity	400,000 lx	
Luminous flux	730 lm	
Colour temperature	5600 K	
Colour rendering index	95 CRI	
Power consumption	10 W	
L x W x H	80 x 40 x 37 mm	
Weight	600 g	
Light source	LED	
Service life	Approx. 50,000 hours	
Mains connection	120–240 V, 50/60 Hz	

Delivery incl. bulb.
Without mounting material, please order separately.

Arm length (mm)	Art. No.	Pack Qty.	€
450	**KLX4.1**	1 unit(s)	267,70
600	**KLX5.1**	1 unit(s)	289,20

Accessories for IL 11 LED spotlight

X-foot with stand rod (Ø 12 mm, L 100 mm)

Designation	Art. No.	Pack Qty.	€
X-foot with stand rod (Ø 12 mm, L 100 mm)	**KLX6.1**	1 unit(s)	109,65

Stand plate with rod (Ø 12 mm, L 200 mm)

Designation	Art. No.	Pack Qty.	€
Stand plate with rod (Ø 12 mm, L 200 mm)	**KLX7.1**	1 unit(s)	112,90

Microscope column attachment (25 mm)

Designation	Art. No.	Pack Qty.	€
Microscope column attachment (25 mm)	**KLX8.1**	1 unit(s)	84,95

Microscope column attachment (32 mm)

Designation	Art. No.	Pack Qty.	€
Microscope column attachment (32 mm)	**KLX9.1**	1 unit(s)	84,95

Cold light sources

Cold light source LED series

Starlight Opto-Electronics.

Modern cold light source with robust aluminium housing and premium-quality finish. LED technology makes it extremely efficient and maintenance-free. Flicker-free and uniform illumination.

Technical specifications:

Art. No.	HAX2.1	KLY1.1	KLY2.1
Type	LED 3	LED8	LED.70
Version	Passive cooling	Active cooling	Passive cooling
Luminous flux	730 lm	1,600 lm	1,500 lm
Colour temperature	5700 K	6900 K	
Colour rendering index	70 CRI	75 CRI	
Power consumption	36 W	110 W	100 W
Fibre-optic cable connection	Ø 15 mm		
L x W x H	259 x 174 x 81 mm	273 x 200 x 116 mm	283 x 230 x 160 mm
Weight	3700 g	2300 g	5200 g
Light source	LED		
Service life	approx. 50,000 hours		
Mains connection	120–240 V, 50/60 Hz		

Delivery without cable and ring light, please order separately.

LED 3

- Passive cooling without a fan for silent and vibration-free working, making it perfect for use in cleanrooms
- More powerful than a 150 W halogen light source
- Stackable. Can be positioned both horizontally and vertically

Pic.	Type	Version	Art. No.	Pack Qty.	€
(1)	LED 3	Passive cooling	**HAX2.1**	1 unit(s)	665,45

LED8

- Actively cooled cold light source, temperature-controlled for minimum noise generation
- Very high luminosity, ideal for high-speed recordings
- Glare protection provided by fibre-optic cable detection

Pic.	Type	Version	Art. No.	Pack Qty.	€
(2)	LED8	Active cooling	**KLY1.1**	1 unit(s)	1.072,85

LED.70

- Passive cooling without a fan for silent and vibration-free working, making it perfect for use in cleanrooms
- Very high luminosity, ideal for high-speed recordings
- Glare protection provided by fibre-optic cable detection

Pic.	Type	Version	Art. No.	Pack Qty.	€
(3)	LED.70	Passive cooling	**KLY2.1**	1 unit(s)	1.494,25

Accessories for LED series cold light source

Starlight Opto-Electronics.

Fibre-optic cable

Pic.	Version	Art. No.	Pack Qty.	€
	Single arm flexible light guide. L: 1000 mm, active-Ø 4.5 mm	**HAX6.1**	1 unit(s)	149,45
(1)	Dual arm gooseneck light guide. L: 450 mm, active-Ø 4.5 mm	**HAX5.1**	1 unit(s)	242,95
(2)	Dual arm flexible light guide. L: 1000 mm, active-Ø 4.5 mm	**HAX7.1**	1 unit(s)	267,70
(3)	Fibre-optic split-ring light 66. L: 1000 mm, active-Ø: 9 mm	**HAX8.1**	1 unit(s)	579,45

LED ring light

Pic.	Version	Art. No.	Pack Qty.	€
(4)	LED-ring light RL4-66-NW, Ø 66 mm, approx. 5000 K	**HAX9.1**	1 unit(s)	402,05
(5)	LED-segment-ring light RL4-66-S4, Ø 66 mm, approx. 5000 K, four segments	**HAY0.1**	1 unit(s)	563,30

Diffuser disc for LED ring light

Pic.	Version	Art. No.	Pack Qty.	€
(6)	Diffuser disc for RL4-66 series	**HAY1.1**	1 unit(s)	64,50

Polarizing filter set for LED ring light

Pic.	Version	Art. No.	Pack Qty.	€
(7)	Polarizing filter set for RL4-66- series	**HAY2.1**	1 unit(s)	239,75

(8) Reducing ring for LED ring lights

Version	Art. No.	Pack Qty.	€
Ø 66 mm to Ø 64 mm	**HAY3.1**	1 unit(s)	32,25
Ø 66 mm to Ø 62 mm	**HAY4.1**	1 unit(s)	32,25
Ø 66 mm to Ø 60 mm	**HAY5.1**	1 unit(s)	32,25
Ø 66 mm to Ø 58 mm	**HAY6.1**	1 unit(s)	32,25
Ø 66 mm to Ø 56 mm	**HAY7.1**	1 unit(s)	32,25
Ø 66 mm to Ø 54 mm	**HAY8.1**	1 unit(s)	32,25
Ø 66 mm to Ø 52 mm	**HAY9.1**	1 unit(s)	32,25
Ø 66 mm to Ø 50 mm	**HCA0.1**	1 unit(s)	32,25

Illuminated magnifiers

Stand magnifier

ROTH SELECTION.

With swivelling plastic lens. Can be used with mini light panel NL24.1.

Technical specifications:

Art. No.	NL23.1
Magnification	1.75x
Dimensions	Lens: L 140 x W 100 mm
Height	185 mm

Magnification	Art. No.	Pack Qty.	€
1.75x	**NL23.1**	1 unit(s)	114,85

Tabletop magnifier LED

ROTH SELECTION. Material: Plastic.

With frameless plastic lens, two-times magnification, with integrated smaller lens with four-times magnification. Separate LED bulb with four LEDs. With removable clamp for attaching to edge of table.

Technical specifications:

Art. No.	PK48.1
Magnification	2-times, 4-times
Field of view	Ø 102 mm
Light source	LED
Performance	0,06 W
Power supply	2 x 1.5 V AAA batteries

Light contains integrated LEDs which cannot be changed.

Delivery incl. batteries.

Version	Magnification	Art. No.	Pack Qty.	€
Tabletop magnifier	2-times, 4-times	**PK48.1**	1 unit(s)	31,80

Magnifier lamp MAULviso

MAUL.

Easy-to-use, robust magnifier lamp.

- Glass lens (144 cm^2)
- Uniform illumination thanks to LEDs arranged in a ring (56 SMD LEDs)
- Colour temperature: Daylight white
- Lamp head can be adjusted upwards and downwards
- Stable metal arm, variable adjustment
- Arm length: Bottom 410 mm, top 410 mm, height in normal working position 420 mm
- Clamp base for clamping widths of up to 63 mm

Technical specifications:

Art. No.	KLX1.1
Type	MAULviso
Colour	white
Magnification	1.75x
Dioptres	3 dpt
Stand length	750 mm
Field of view	Ø 127 mm
Light source	LED
Service life	20,000 hours
Performance	8 W
Energy efficiency class	A
Luminosity	2,120 lx
Luminous flux	660 lm
Colour temperature	6500 K
Cable length	1.60 m
Mains connection	230 V, 50 Hz

Delivery incl. protective cap.

Colour	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
white	1.75x	750	**KLX1.1**	1 unit(s)	106,45

Illuminated magnifiers

Magnifier lamp LED compact

ROTH SELECTION. Material: Glass, Plastic stand.

- Glass lens with three dioptres, field of vision Ø 100 mm
- Embedded 12-dioptre lens, field of vision Ø 25 mm
- Infinitely dimmable
- 40 LEDs
- Colour temperature: Daylight white
- Head can be tilted upwards and downwards, and pivoted to the side
- Arm length: 260 mm
- Height in normal working position: 340 mm
- Sturdy base with ballasting, 170 x 180 mm
- With compartment in the base for small utensils

Technical specifications:

Art. No.	NK01.1	NK02.1
Type	LED compact	
Colour	white	black
Magnification	1.75-times, 4-times	
Dioptres	3 dpt, 12 dpt	
Stand length	260 mm	
Field of view	Ø 100 mm, Ø 25 mm	
Light source	LED	
Service life	20,000 hours, maintenance-free	
Performance	7 W	
Energy efficiency class	A	
Luminosity	2,160 lx	
Luminous flux	470 lm	
Colour temperature	6500 K	
Cable length	1.40 m	
Mains connection	230 V, 50 Hz	

Delivery incl. protective cap.

Version	Colour	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
Tabletop magnifier	white	1.75-times, 4-times	260	**NK01.1**	1 unit(s)	96,25
Tabletop magnifier	black	1.75-times, 4-times	260	**NK02.1**	1 unit(s)	96,25

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

Magnifier lamp LED

MAUL.

Ideal for precision work in laboratories, workshops and engineering offices.

- Glass lenses, metal stand
- Uniform illumination thanks to LEDs arranged in a ring (56 SMD LEDs, non-replaceable)
- Colour temperature: Daylight white
- Ball-and-socket joint allows three-dimensional head rest adjustment
- Stable metal arm in a plastic trim, can be rotated by 360° and tilted
- Arm length bottom 400 mm, top 390 mm, height in normal working position 440 mm
- Clamp base for clamping widths of up to 65 mm

Technical specifications:

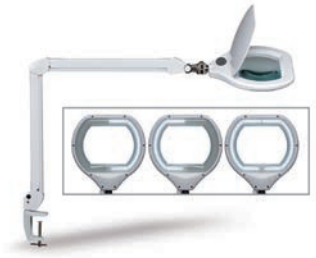
Art. No.	KHE1.1
Colour	white
Magnification	1.75x
Dioptres	3 dpt
Stand length	720 mm
Field of view	Ø 127 mm
Light source	LED
Service life	20,000 hours, maintenance-free
Performance	8 W
Energy efficiency class	A
Luminosity	2,220 lx
Luminous flux	580 lm
Colour temperature	6500 K
Cable length	1.70 m
Mains connection	230 V, 50 Hz

La lampe contient des LED intégrées qui ne peuvent pas être remplacées.

Delivery incl. protective cap.

Colour	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
white	1.75x	720	**KHE1.1**	1 unit(s)	170,95

Illuminated magnifiers



Magnifier lamp MAULcrystal

MAUL.

Ideal for precision work in laboratories, workshops and engineering offices.

- Large glass lens (234 cm²)
- Infinitely dimmable
- With segmented lighting (42 LEDs on the left, 42 LEDs on the right or all 84 LEDs)
- Colour temperature: Daylight white
- Ball-and-socket joint allows three-dimensional head rest adjustment
- Stable metal arm in a plastic trim, can be rotated by 360° and tilted
- Arm length: bottom 390 mm, top 440 mm, height in normal working position 420 mm
- Clamp base for clamping widths of up to 63 mm

Technical specifications:

Art. No.	**KLX2.1**
Type	MAULcrystal
Colour	white
Magnification	1.75x
Dioptres	3 dpt
Stand length	800 mm
Field of view	178 x 132 mm
Light source	LED
Service life	20,000 hours
Performance	17 W
Energy efficiency class	A
Luminosity	2,840 lx
Luminous flux	1,250 lm
Colour temperature	6300 K
Cable length	1.5 m
Mains connection	230 V, 50 Hz

Delivery incl. protective cap.

Colour	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
white	1.75x	800	**KLX2.1**	1 unit(s)	252,65

Magnifier lamp varioLEDflex

Eschenbach. Material: PXM®.

With shadow-free ring illumination and structure-accentuating segment illumination. A flexible gooseneck stand with a smooth action and the lens which also tilts in two directions ensures precise adjustment of the magnifier head to suit individual requirements.

- Aspheric PXM® lightweight lens, cera-tec® hard-coated
- Good edge definition
- 63 LEDs
- Illumination level: approx. 6000 lx at only 5 W (ring illumination)

Technical specifications:

Art. No.	**AEA3.1**
Type	varioLEDflex
Magnification	2.5x
Dioptres	6 dpt
Stand length	410 mm
Field of view	Ø 76 mm
Light source	LED
Service life	50,000 hours, maintenance-free
Performance	5 W
Luminosity	6,000 lx
Colour temperature	6000 K
Cable length	2.5 m
Mains connection	110–230 V, 50/60 Hz

Light contains integrated LEDs which cannot be changed.

Delivery incl. mains adapter (EU/GB/US) and sturdy steel table clamp (clamp opens to max. 60 mm).

Version	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
Tabletop magnifier with clamping base	2.5x	410	**AEA3.1**	1 unit(s)	480,55

Illuminated magnifiers

Illuminated ring magnifier LED

Waldmann. Material: Plastic, Housing made of anodised aluminium and black plastic.

Very sturdy and rugged, resistant to vibration. Excellent colour rendering and homogeneous light distribution.

- Anti-scratch plastic lens
- Distortion-free field of vision
- 63 x Low Power LEDs
- Colour temperature: Neutral-white
- Comfortable switching on/off using sensor button on lamp head

Technical specifications:

Art. No.	**CCE1.1**
Magnification	2.5x
Dioptres	6 dpt
Stand length	730 mm
Field of view	Ø 72 mm
Light source	LED
Performance	6 W
Energy efficiency class	A
Luminosity	2,660 lx
Colour temperature	3700–4300 K
Colour rendering (Ra)	85 Ra
Cable length	2.3 m
Mains connection	100–240 V, 50/60 Hz

Light contains integrated LEDs which cannot be changed.

Delivery incl. base and protective lens casing.

Version	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
Tabletop device	2.5x	730	**CCE1.1**	1 unit(s)	456,90

Magnifier lamp Tevisio

Waldmann. Material: Glass, Housing made of anodised aluminium and black plastic.

For demanding applications in research, manufacturing, quality assurance and assembly.

- Large, distortion-free field of vision
- Anti-scratch glass lens
- Lens removal without tools for cleaning or replacement
- 48 LEDs
- Various light segments can be switched on and off to create structure-accentuating effects
- Continuously variable dimming to 10%
- Colour temperature: Neutral-white
- 40 % energy saving compared to standard magnifier lamps
- 3D head joint for individual adjustments

Technical specifications:

Art. No.	**1EC4.1**	**1EC5.1**
Type	Tevisio	
Magnification	1.9x	
Dioptres	3,5 dpt	
Stand length	784 mm	984 mm
Field of view	Ø 160 mm	
Light source	LED	
Service life	50,000 hours, maintenance-free	
Performance	13 W	
Energy efficiency class	A	
Luminosity	6,000 lx	
Colour temperature	4000 K	
Weight	2.5 kg	3 kg
Cable length	3.6 m	3.4 m
Mains connection	100–240 V, 50/60 Hz	

Light contains integrated LEDs which cannot be changed.

Delivery incl. base and protective cap.

Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
1.9x	784	**1EC4.1**	1 unit(s)	742,85
1.9x	984	**1EC5.1**	1 unit(s)	771,85

Illuminated magnifiers

Magnifier lamp LL6 UV

Starlight Opto-Electronics.

LED magnifier light for daily use in business and industry.

- Glass lens
- Infinitely dimmable
- Can be switched between pure white and UV
- Robust, easily attachable hinged arm
- All-metal design for the most demanding conditions, can be disinfected
- Flicker-free light thanks to optimised, low-loss electronics
- Very powerful and uniform illumination
- Arm length: Bottom 450 mm, top 400 mm
- Clamp base for clamping widths of up to 50 mm

Technical specifications:

Art. No.	KLX3.1
Type	LL6 UV
Colour	grey
Magnification	3x
Dioptres	6 dpt
Stand length	850 mm
Field of view	Ø 120 mm
Light source	LED
Service life	50,000 hours
Performance	20 W
Colour temperature	6000 K
Wavelength	365 nm
Weight	2,65 kg
Cable length	1.5 m
Mains connection	120–240 V, 50/60 Hz

Delivery incl. protective hood.

Colour	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
grey	3x	850	**KLX3.1**	1 unit(s)	796,60

Magnifying glasses MaxDetail

Eschenbach.

2-times magnification. Universal magnifying glasses for all kinds of work, when you need your hands free.

- Adjustable arms for a snug fit
- Large field of vision (~150 mm at 400 mm working distance)
- Dioptre compensation of ±3 dpt possible

Technical specifications:

Art. No.	HE06.1
Type	MaxDetail
Magnification	2x
Dioptres	3 dpt
Field of view	150 mm
Working distance	400 mm
Weight	49 g

Version	Magnification	Art. No.	Pack Qty.	€
Magnifying glasses	2x	**HE06.1**	1 unit(s)	116,00

Headband magnifiers

Eschenbach.

Enables good spatial vision from both eyes with the binocular lens divisions. Suitable for glasses wearers. Lens is sheltered on all sides to protect against flare. Lenses can be flipped up when not in use.

Technical specifications:

Art. No.	P106.1	P107.1	P108.1	P109.1
Magnification	1.7x	2x	2.5x	3x
Working distance	400 mm	250 mm	180 mm	130 mm

Version	Magnification	Art. No.	Pack Qty.	€
Magnifying glasses	1.7x	**P106.1**	1 unit(s)	118,95
Magnifying glasses	2x	**P107.1**	1 unit(s)	118,95
Magnifying glasses	2.5x	**P108.1**	1 unit(s)	118,95
Magnifying glasses	3x	**P109.1**	1 unit(s)	118,95

Illuminated magnifiers

Headlight LED

Eschenbach.

High-performance LED light for shadow-free, ergonomic and fatigue-free working at near-constant illumination levels. Light swivels vertically into the desired position. For attachment to headband magnifiers (P106.1 ff.) and the MaxDetail magnifying glasses (HE06.1).

- 2 high-performance LEDs
- Light strength: Approx. 3200 lx in 250 mm, approx. 1200 lx in 400 mm
- Weight: Lamp housing 11 g, battery housing (without batteries) 60 g

Technical specifications:

Art. No.	CPT7.1
Type	Headlight LED
Light source	LED
Service life	Approx. 8 hours (normal operation), approx. 14 hours (eco mode)
Dimensions	Lamp housing: 32 x 20 x 34 mm. Battery housing (incl.clip) 90 x 55 x 40 mm
Cable length	1 m
Power supply	3 x 1.5 V AA batteries

Light contains integrated LEDs which cannot be changed.

Delivery incl. adapter for headband magnifiers and MaxDetail magnifying glasses, hard foam case and batteries.

Version	Art. No.	Pack Qty.	€
LED light	**CPT7.1**	1 unit(s)	114,95

Magnifiers for glasses binocular

Eschenbach.

Simple and effective magnifying aid for users with glasses.

- Clip easily onto almost any glasses frame
- The field of vision is not reduced
- Leaves both hands free to work

Technical specifications:

Art. No.	P103.1	P104.1	P105.1	H577.1
Magnification	1.7x	2x	2.5x	3x
Working distance	400 mm	250 mm	180 mm	160 mm

Version	Magnification	Art. No.	Pack Qty.	€
Magnifying glasses	1.7x	**P103.1**	1 unit(s)	72,90
Magnifying glasses	2x	**P104.1**	1 unit(s)	72,90
Magnifying glasses	2.5x	**P105.1**	1 unit(s)	72,90
Magnifying glasses	3x	**H577.1**	1 unit(s)	72,90

NEW / +

Pocket illuminated magnifying glass white-light LED

Eschenbach. Material: PXM®.

- Ergonomically shaped handle
- Large, easy-to-operate light switch
- Aspheric PXM® lightweight lens
- Lenses are hard coated on both sides
- Easy battery replacement

Technical specifications:

Art. No.	1HEN.1	1HEP.1	1HET.1	PT98.1	PT99.1
Magnification	3x	5x	7x	10x	12.5x
Dioptres	12 dpt	20 dpt	28 dpt	38 dpt	50 dpt
Field of view	Ø 58 mm		Ø 35 mm		
Working distance	49 mm	36 mm	29 mm	20 mm	15 mm
Light source	LED				
Weight	97 g	105 g	77 g	78 g	75 g
Power supply	2 x 1.5 V AA batteries				

With attachable filters for different light colours.

Delivery incl. batteries and dust cap (can be folded back).

Version	Magnification	Art. No.	Pack Qty.	€
Hand magnifier	3x	**1HEN.1**	1 unit(s)	75,50
Hand magnifier	5x	**1HEP.1**	1 unit(s)	77,95
Hand magnifier	7x	**1HET.1**	1 unit(s)	69,55
Hand magnifier	10x	**PT98.1**	1 unit(s)	73,75
Hand magnifier	12.5x	**PT99.1**	1 unit(s)	76,40

Illuminated magnifiers

Precision illuminated magnifying glass

Eschenbach. Material: PXM®.

With removable measuring scale. 10-times magnification, (38 dpt) thanks to the aspherical PXM® lightweight lens. The measuring scale is divided in intervals of 0.5 mm and 1/64 inch.

Technical specifications:

Art. No.	H568.1
Magnification	10x
Dioptres	38 dpt
Field of view	Ø 35 mm
Power supply	2 x 1.5 V Baby C batteries

Delivery without batteries, please order separately.

Version	Magnification	Art. No.	Pack Qty.	€
Hand magnifier	10x	**H568.1**	1 unit(s)	102,45

Precision measuring magnifier

Eschenbach.

With a distortion-free, high-quality, achromatic lens. Lens-Ø 23 mm. Handy focus ring for focusing. Removable scale with 20 mm measuring range and 0.1 mm graduation. Glass-fibre strengthened polyamide housing.

Technical specifications:

Art. No.	H570.1	H571.1
Magnification	7x	10x
Field of view	Ø 23 mm	

Version	Magnification	Art. No.	Pack Qty.	€
Handheld magnifying glass	7x	**H570.1**	1 unit(s)	116,00
Handheld magnifying glass	10x	**H571.1**	1 unit(s)	138,30

Accessories LED lighting for precision measuring magnifier

Eschenbach.

Technical specifications:

Art. No.	H572.1
Light source	LED
Power supply	2 x 1.5 V Baby C batteries

Delivery without batteries, please order separately.

Version	Art. No.	Pack Qty.	€
Built-in lighting	**H572.1**	1 unit(s)	88,60

Pocket illuminated magnifying glass easyPOCKET

Eschenbach.

- Aspheric lens
- Ultra-flat
- With LED lighting
- Switch on and off by simply pulling the magnifying glass out of its protective case
- Glass-fibre reinforced plastic case to protect the lens

Technical specifications:

Art. No.	KC50.1	KC51.1
Type	easyPOCKET	
Colour	silver	black
Magnification	3x	
Light source	LED	
Dimensions	Lens: L 50 x W 46 x H 3 mm, Plastic case: L 85 x W 55 x H 6 mm	
Power supply	3 V CR 2025 batteries	

Delivery incl. battery.

Version	Colour	Magnification	Art. No.	Pack Qty.	€
Handheld magnifying glass	silver	3x	**KC50.1**	1 unit(s)	68,05
Handheld magnifying glass	black	3x	**KC51.1**	1 unit(s)	68,05

Magnifiers

Folding magnifier with PXM® lens

Eschenbach. Material: PXM®, Plastic casing.

With PXM® lightweight lens (Ø 23 mm). Aplanatic, distortion-free image with good edge definition.

Technical specifications:

Art. No.	PX00.1
Magnification	10x
Field of view	Ø 23 mm

Magnification	Art. No.	Pack Qty.	€
10x	**PX00.1**	1 unit(s)	37,10

Handheld magnifying glass with spare lens

Eschenbach. Material: PXM®.

Suitable for use when a large field of vision is required with low level magnification.

- Biconvex PXM® lightweight lens
- Plano-convex spare lens with 5x magnification integrated in the handle
- Eyelet in the handle for round-the-neck carry cord

Technical specifications:

Art. No.	AXL7.1	AXL6.1
Magnification	2.25x	2.5x
Dioptres	5 dpt	6,4 dpt
Field of view	Ø 80 mm	Ø 60 mm

Version	Magnification	Art. No.	Pack Qty.	€
Handheld magnifying glass	2.5x	**AXL6.1**	1 unit(s)	20,00
Handheld magnifying glass	2.25x	**AXL7.1**	1 unit(s)	27,90

Stand magnifier

ROTH SELECTION. Material: PMMA, Plastic, glass.

Magnifying glass made from impact-resistant plastic for universal application. PMMA lenses. Crystal clear bottom part. With an aspherical lens. Model (2) also has a colour-correcting lens and dioptric compensation.

Technical specifications:

Art. No.	X294.1	KP29.1
Magnification	8x	10x
Field of view	Ø 24 mm	Ø 26 mm
Height	45 mm	38 mm

Mini

Pic.	Version	Magnification	Art. No.	Pack Qty.	€
(1)	Stand magnifier	8x	**X294.1**	1 unit(s)	19,50
(2)	Stand magnifier	10x	**KP29.1**	1 unit(s)	24,95

Measuring magnifying glass

ROTH SELECTION.

With eight-times magnification, freely adjustable measuring scale, length 10 mm.

Technical specifications:

Art. No.	1285.1
Magnification	8x
Graduation	0,1 mm
Ø ext.	32 mm

Version	Magnification	Art. No.	Pack Qty.	€
Stand magnifier	8x	**1285.1**	1 unit(s)	114,40

Linen tester

Eschenbach. Material: Plastic.

8-times magnification. Aperture 20 x 20 mm. With a scale on the side with 1 mm graduations. Collapsible.

Technical specifications:

Art. No.	H576.1
Magnification	8x
Graduation	1 mm
Dimensions	Aperture 20 x 20 mm
Height	35 mm

Version	Magnification	Art. No.	Pack Qty.	€
Stand magnifier	8x	**H576.1**	1 unit(s)	28,40

Precision linen tester

Eschenbach.

Semi-matt, chrome-plated, brass housing. Biconvex lens made from optically ground silicate glass. Foldable.

Technical specifications:

Art. No.	H573.1	H574.1
Magnification	10x	5x
Dimensions	Aperture 15 x 15 mm	Aperture 30 x 30 mm
Height	27 mm	53 mm

Version	Magnification	Art. No.	Pack Qty.	€
Stand magnifier	10x	**H573.1**	1 unit(s)	52,70
Stand magnifier	5x	**H574.1**	1 unit(s)	69,80

Infrared lamp IL21

ROTH SELECTION.

Pressed glass bulb for intensive infrared light. Five angle settings.

Technical specifications:

Art. No.	X435.1
Type	IL21
Version	Desk lamp
Performance	150 W
Tilt angle	0–45 °
Mains connection	230 V, 50/60 Hz

Performance (W)	Art. No.	Pack Qty.	€
150	**X435.1**	1 unit(s)	65,40

Desk lamp MAULseven colour vario

MAUL.

Mobile lights for small spaces, ideal for changing workstations or for on-the-go use.

- Battery operation without mains connection (battery runtime approx. two hours, charging time approx. four hours)
- Can be folded to save space (263 x 50 x 62 mm)
- Adjustable colour temperature: Five warm white and ten daylight white LEDs
- Tiltable lamp head (217 x 5 mm)
- Base (62 x 50 mm) with padding to protect benches

Technical specifications:

Art. No.	KLT9.1
Type	MAULseven colour vario
Colour	grey
Light source	LED
Service life	20,000 hours
Performance	4 W
Energy efficiency class	A+
Luminosity	15,600 lx
Luminous flux	210 lm
Colour temperature	3000 / 6500 K
Height	272 mm
Arm length	253 mm
Cable length	0.94 m
Port	Mini-B USB
Power supply	Lithium-ion battery

Delivery incl. lamp and USB cable with Mini-B connector. Without standard USB mains adapter (1 A).

Colour	Performance (W)	Art. No.	Pack Qty.	€
grey	4	**KLT9.1**	1 unit(s)	37,65

Desk lamp Study

ROTH SELECTION. Material: Metal.

- Upper and lower arm length, approx. 35 cm each (height-adjustable)
- Movable reflector
- Lamp head Ø 17 cm
- Clamping base width: up to 55 mm
- Turns by 360°

Technical specifications:

Art. No.	EP57.1	EP58.1
Type	Study	
Colour	silver	black
Arm length	700 mm	
Cable length	1.75 m	
Mains connection	230 V, 50/60 Hz	

Delivery without bulb, please order separately.

Colour	Art. No.	Pack Qty.	€
black	**EP58.1**	1 unit(s)	34,40
silver	**EP57.1**	1 unit(s)	34,40

Desk lamp Office

ROTH SELECTION. Material: Aluminium, Metal clamping base.

- Adjustable aluminium arm (max. 82 cm)
- Turns by 360°
- Movable arm and reflector (length 21 cm)
- Lamp head with glare protection
- Turning base, alternatively available with metal clamping base (clamp opens up to 55 mm)

Technical specifications:

Art. No.	AH77.1
Type	Office
Version	Desk lamp
Performance	20 W
Arm length	820 mm
Cable length	2 m
Mains connection	230 V, 50/60 Hz

Delivery incl. bulb, base and table clamp.

Performance (W)	Art. No.	Pack Qty.	€
20	**AH77.1**	1 unit(s)	85,50

Work light

ROTH SELECTION. Material: Metal.

Ideal for laboratories, workshops and engineering offices. With electronic ballast for flicker-free start, flicker-free light, low current consumption and longer bulb life.

- Colour temperature: Daylight-white
- Lamp head with aluminumised parabolic louvre for glare-free working
- Switch on lamp head for convenient switching on and off
- Robust metal arm, rotatable through 360°
- Arm length at bottom and top 400 mm
- Height in normal working position 400 mm
- Metal clamping base (plastic coated), for clamping widths up to 65 mm

Technical specifications:

Art. No.	NK58.1
Colour	white
Version	Desk lamp
Energy efficiency class	A
Luminosity	2,800 lx
Luminous flux	1,250 lm
Colour temperature	6500 K
Arm length	800 mm
Cable length	1.50 m
Mains connection	230 V, 50 Hz

Delivery incl. bulb.

Colour	Art. No.	Pack Qty.	€
white	**NK58.1**	1 unit(s)	145,15

Work light MAULcraft

MAUL.

Powerful light with low energy consumption. Ideal for laboratories, workshops and engineering offices.

- Infinitely dimmable
- 90 daylight white LEDs
- Three-dimensional adjustable lamp head
- Button on the lamp head makes it easy to switch on and off
- Robust metal arm, rotates through 360° and tilts by 110°
- Arm length: Bottom 400 mm, top 440 mm
- Height in normal working position 470 mm. Height can be adjusted from -23 cm (below edge of bench) to +76 cm (above edge of bench)
- Clamp base for clamping widths of up to 63 mm

Technical specifications:

Art. No.	**KLT7.1**
Type	MAULcraft
Colour	white
Light source	LED
Service life	20,000 hours
Performance	14 W
Energy efficiency class	A+
Luminosity	2,960 lx
Luminous flux	970 lm
Colour temperature	6500 K
Cable length	1.70 m
Mains connection	230 V, 50 Hz

Delivery incl. bulb.

Colour	Performance (W)	Art. No.	Pack Qty.	€
white	14	**KLT7.1**	1 unit(s)	213,95

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

Work light MAULwork

MAUL.

Powerful lights with high luminosity. Ideal for laboratories, workshops and engineering offices.

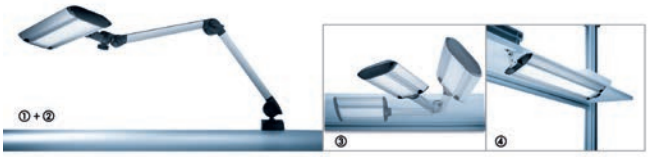
- Infinitely dimmable
- With segmented lighting (42 LEDs at the front, 42 LEDs at the rear or all 84 LEDs)
- Colour temperature: Daylight white
- Freely adjustable lamp head
- Button on the lamp head makes it easy to switch on and off
- Robust metal arm, rotatable through 360°
- Arm length: bottom 390 mm, top 440 mm
- Height in normal working position 500 mm
- Clamp base for clamping widths of up to 63 mm

Technical specifications:

Art. No.	**KLT8.1**
Type	MAULwork
Colour	white
Light source	LED
Service life	20,000 hours
Performance	21 W
Energy efficiency class	A
Luminosity	3,120 lx
Luminous flux	1,180 lm
Colour temperature	6500 K
Arm length	830 mm
Cable length	1.50 m
Mains connection	230 V, 50 Hz

Delivery incl. bulb.

Colour	Performance (W)	Art. No.	Pack Qty.	€
white	21	**KLT8.1**	1 unit(s)	225,75



Workstation lights TANEO

Waldmann. Material: Aluminium, Plastic.

For homogeneous wide area illumination of the workplace without glare or shadows. Good contrast vision and excellent colour detection.

- 30% energy saving compared to standard work lights
- Variable dimming down to 10%, with memory function
- Colour temperature: Neutral-white
- Glare suppression is provided by cone prism aperture
- Flicker-free light without IR and UV content
- Housing made of colourless anodised aluminium and black fibre-reinforced plastic

Technical specifications:

Art. No.	NK90.1	NK91.1	NK92.1	NK93.1
Type	TANEO			
Light source	LED			
Version	For fixing to tables		Swivel arm	Fixed connection
Service life	50,000 hours, maintenance-free			
Performance	31 W	47 W	15 W	31 W
Em/Emax	958/2603 lx	1425/3596 lx	479/1394 lx	958/2603 lx
Colour temperature	5000 K			
Arm length	1,036 mm		431 mm	

Em = medium illuminance, Emax = max. illuminance, measuring field 100 x 100 cm, measuring distance 50 cm

For fixing to tables
Model (1) and (2) for fixing to tables. With frame and 3D head joint.

Delivery incl. screw-on base.

Pic.	Performance (W)	Art. No.	Pack Qty.	€
(1)	31	**NK90.1**	1 unit(s)	660,05
(2)	47	**NK91.1**	1 unit(s)	761,10

Base mounts
Models (3) and (4) with space-saving base mounts. Rotating head joint.

Delivery incl. angle.

Pic.	Performance (W)	Art. No.	Pack Qty.	€
(3)	15	**NK92.1**	1 unit(s)	337,55
(4)	31	**NK93.1**	1 unit(s)	405,30

Laser pointer

ROTH SELECTION. Material: Metal.

All-metal casing with push-on clip. Class two laser.
Power output ≤1 mW.

Technical specifications:

Art. No.	AH29.1
Type	Laser pointer
Range	150 m
Length	140 mm
Ø	10 mm
Wavelength	635–670 nm
Power supply	2 x 1.5 V AAA batteries

Delivery incl. case and batteries.

Type	Art. No.	Pack Qty.	€
Laser pointer	**AH29.1**	1 unit(s)	32,55

Torch Solitaire®

MAG. Material: Aluminium.

Can be adjusted from spot to flood beam by rotating. With battery and spare bulb in the end cap. Torch has ultra-long service life and low energy consumption.

Technical specifications:

Art. No.	N257.1
Type	Solitaire®
Colour	black
Light source	Light bulb
Length	80 mm
Power supply	1.5 V AAA battery

Delivery incl. case, battery, spare bulb and keychain loop.

Type	Art. No.	Pack Qty.	€
Solitaire®	**N257.1**	1 unit(s)	21,75

Torches

Torch LED

TFA-Dostmann. Material: Aluminium.

With zoom for stray light/focusing. Rugged aluminium housing with carry strap.

Technical specifications:

Art. No.	YK82.1
Type	LED torch
Light source	LED
Performance	3 W
Range	120 m
Service life	100,000 hours
Length	115 mm
Ø	34 mm
Weight	160 g
Power supply	3 x 1.5 V AAA batteries

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
LED torch	**YK82.1**	1 unit(s)	19,25

Torch

MAG. Material: Aluminium.

Can be adjusted from spot to flood beam. Anodised on the inside and outside for optimum corrosion protection.

Technical specifications:

Art. No.	N258.1	N259.1
Type	Micro-Mag	Mini-Mag
Colour	black	
Light source	Light bulb	
Length	125 mm	145 mm
Power supply	2 x 1.5 V AAA batteries	2 x 1.5 V AA batteries

Delivery incl. case, spare bulb and batteries.

Micro-Mag

Type	Art. No.	Pack Qty.	€
Micro-Mag	**N258.1**	1 unit(s)	40,70

Mini-Mag

Type	Art. No.	Pack Qty.	€
Mini-Mag	**N259.1**	1 unit(s)	45,80

Torch LED 3-Cell D

MAG. Material: Aluminium.

Continuous adjustment from spot to flood beam. Anodised surfaces for enhanced corrosion protection. Splash-proof and shockproof.

Technical specifications:

Art. No.	HLC2.1
Type	3-Cell D
Light source	LED
Range	364 m
Luminous flux	168 lm
Service life	80 hours
Length	315 mm
Ø	56 mm
Weight	446 g
Power supply	3 x Mono D 1.5 V batteries

Torch contains integrated LED light that cannot be replaced.

Delivery without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
3-Cell D	**HLC2.1**	1 unit(s)	89,45

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Explosion-proof torches

Torch eLED® PEN Intrinsically safe

Ecom.

Pen-sized light for zone 1/21 hazardous areas (areas in which an explosive atmosphere is likely to be present intermittently). Wide beam with powerful, evenly distributed light.

Ex marking:

- Suitable for use in gas atmosphere: II 2G Ex ib IIB T4 Gb
- Suitable for use in dust atmosphere: II 2D Ex ib IIIC T60 °C IP6X Db

Technical specifications:

Art. No.	NT20.1
Type	eLED®PEN
Light source	LED
Performance	0,5 W
Luminosity	1,000 lx
Service life	3 hours (when used continuously)
Ambient temperature	-20 – +40 °C
IP rating	67
Length	135 mm
Width	22 mm
Height	25 mm
Weight	100 g
Power supply	2 x LR03 AAA batteries (type-tested)

Note: Please only use type-tested replacement batteries (see operating instructions).

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
eLED®PEN	**NT20.1**	1 unit(s)	64,50

Torch eLED® CPO TS Intrinsically safe

Ecom.

For zone 1/21 hazardous areas (areas in which an explosive atmosphere is likely to be present intermittently).

Ex marking:

- Suitable for use in gas atmosphere: II 2G Ex e ib IIC T6
- Suitable for use in dust atmosphere: II 2D Ex ibD 21 T61 °C

Technical specifications:

Art. No.	NT21.1
Type	eLED®CPO TS
Light source	LED
Performance	2 W
Luminosity	2,000 lx
Service life	6–8 hours (when used continuously)
Ambient temperature	-20 – +40 °C
IP rating	67
Length	134 mm
Width	35 mm
Height	41 mm
Weight	150 g
Power supply	3 x LR06 AA batteries (type-tested)

Note: Please only use type-tested replacement batteries (see operating instructions).

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
eLED®CPO TS	**NT21.1**	1 unit(s)	134,40

Explosion-proof torches

Torch Lite-Ex PL 10e Intrinsically safe

Ecom.

For zone 0/20 hazardous areas (areas in which an explosive atmosphere is likely to be present continuously for long periods or frequently). With ring switch and coated, anti-scratch protective glass.

Ex marking:

- Suitable for use in gas atmosphere: II 1G Ex ia op is IIC T4 Ga
- Suitable for use in dust atmosphere: II 1D Ex ia IIIC T130 °C Da

Technical specifications:

Art. No.	NT19.1
Type	Lite-Ex PL 10e
Light source	LED
Luminosity	3,000 lx
Service life	55 hours
Ambient temperature	-20 – +50 °C
IP rating	65, 67
Length	147 mm
Width	36 mm
Height	36 mm
Weight	120 g
Power supply	3 x LR03 AAA batteries (type-tested)

Note: Please only use type-tested replacement batteries (see operating instructions).

Delivery incl. batteries, belt clip and wrist strap.

Type	Art. No.	Pack Qty.	€
Lite-Ex PL 10e	**NT19.1**	1 unit(s)	165,55

LED lighting plate slimlite plano

ROTH SELECTION.

With 8 mm high, very flat lighting plates. For an even and true-colour illumination when viewing transparent images. LED lighting in daylight quality, dimmable. Charge time, battery: Five hours.

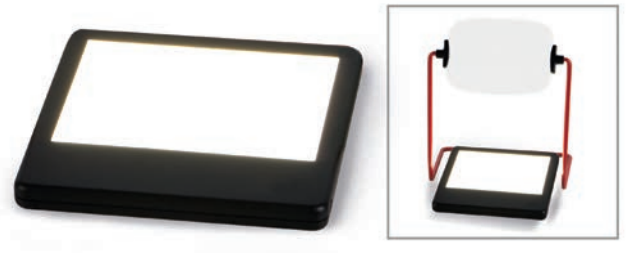
- Touch-sensitive switch for On/Off and brightness control
- Selectable mains or battery operation
- Different units beside the illuminated area (cm and inch)

Technical specifications:

Art. No.	HNK0.1	HNK1.1	HNK2.1
Type	S	M	L
L x W x H	290 x 200 x 8 mm	390 x 270 x 8 mm	499 x 350 x 8 mm
Illuminated area	220 x 160 mm	320 x 228 mm	429 x 309 mm
Colour temperature	5000 K		
Light density	750 cd/m²	600 cd/m²	650 cd/m²
Colour rendering index	95 CRI		
Performance	3,6 W	4,1 W	6,6 W
Service life	5 hours	3.5 hours	1.5 hours
Weight	570 g	1010 g	1690 g
Mains connection	100–240 V, 50/60 Hz		

Delivery incl. power supply unit, USB cable (length 2 m), lithium-ion battery.

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
S	290 x 200 x 8	**HNK0.1**	1 unit(s)	129,40
M	390 x 270 x 8	**HNK1.1**	1 unit(s)	202,10
L	499 x 350 x 8	**HNK2.1**	1 unit(s)	270,90



Light panel Mini

ROTH SELECTION.

Battery-operated. Can be used with NL23.1 stand magnifier.

Technical specifications:

Art. No.	NL24.1
L x W x H	161 x 135 x 44 mm
Illuminated area	127 x 100 mm
Power supply	6 x 1.5 V AAA batteries

Delivery incl. batteries.

L x W x H (mm)	Art. No.	Pack Qty.	€
161 x 135 x 44	**NL24.1**	1 unit(s)	161,15

Light panels, autoradiography

Lighting plate

Rex.

For inspection and precise colour evaluation of slides, for assessing large-format films and foils, lighting radiographs, selecting and evaluating images or for comparing overlaid curves or chromatograms, etc.

- Especially flat design
- Opal disc made of flat and anti-scratch plastic
- **Flicker-free light**, for fatigue-free observation
- High-quality, borderless illumination
- Only minimal surface heating during continuous operation

With fluorescent tubes
Material: Steel Powder-coated (coloured white). Integrated wall mount.

Technical specifications:

Art. No.	P268.1
Type	Size 3 RE
L x W x H	600 x 550 x 60 mm
Illuminated area	580 x 530 mm
Colour temperature	5000 K
Light density	2,000 cd/m²
Performance	5 x 13 W
Cable length	2 m
Mains connection	230 V, 50/60 Hz

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
Size 3 RE	600 x 550 x 60	**P268.1**	1 unit(s)	489,15

With LED
Material: Plastic Housing, (light-grey colour).

Technical specifications:

Art. No.	KKL1.1	KKK8.1	KKK9.1	KKL0.1
Type	Size 2-LED	Size 6-LED	Size 1-LED (2000)	Size 1-LED (3500)
L x W x H	550 x 378 x 58 mm	316 x 250 x 58 mm	416 x 270 x 58 mm	
Illuminated area	530 x 355 mm	298 x 230 mm	395 x 248 mm	
Colour temperature	6500 K			
Light density	2,000 cd/m²			3,500 cd/m²
Performance	18 W	7 W	10 W	20 W
Cable length	2 m			
Mains connection	230 V, 50/60 Hz			

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
Size 2-LED	550 x 378 x 58	**KKL1.1**	1 unit(s)	358,00
Size 6-LED	316 x 250 x 58	**KKK8.1**	1 unit(s)	222,55
Size 1-LED (2000)	416 x 270 x 58	**KKK9.1**	1 unit(s)	235,45
Size 1-LED (3500)	416 x 270 x 58	**KKL0.1**	1 unit(s)	324,65

X-ray-cassettes ROTILABO®

ROTH SELECTION. Material: Aluminium.

Light, stable aluminium cassette. Optimal film screen contact. With safety catch for easy opening. Press to close. High cold stability to -70 °C.

Format	Art. No.	Pack Qty.	€
18 x 24 cm	**X265.1**	1 unit(s)	132,45

Accessories intensifying screen for ROTILABO® X-ray cassettes

ROTH SELECTION.

Suitable for ^{32}P isotopes.

Delivery incl. one set of screens (for front and back).

Universal (sensitivity 100)
Combines relatively high sensitivity with excellent detail recognition. Luminous substance: Calcium tungstate. For blue-sensitized films.

Format	Art. No.	Pack Qty.	€
18 x 24 cm	**X274.1**	1 unit(s)	64,40

Special/Rapid (sensitivity 200)
The Special screen sensitivity is almost twice as high as that of the regular Universal screen. Luminous substance: Calcium tungstate. Blue-emitting.

Format	Art. No.	Pack Qty.	€
18 x 24 cm	**X279.1**	1 unit(s)	77,20

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Transilluminators

UV hand-held lamp

Herolab.

Suitable for fluorescence excitation in microbiology, material technology, mineralogy, botany, etc. The lamps have two wavebands (254 nm/365 nm) and each lamp is switchable. Complete with power cord, on and off switches and handle.

Optional accessories (please order separately):

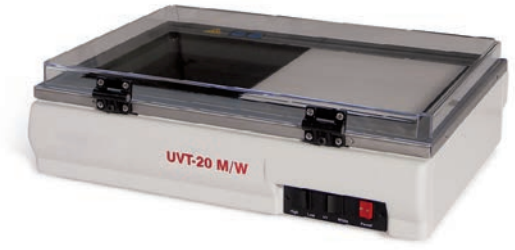
- Table tripod made of metal

Technical specifications:

Art. No.	H466.1	H467.1	H468.1	H469.1
Type	Model I	Model II	Model III	Model IV
L x W x H	195 x 70 x 65 mm	260 x 70 x 65 mm	335 x 70 x 65 mm	485 x 85 x 80 mm
Filter size	100 x 50 mm	150 x 50 mm	200 x 50 mm	300 x 70 mm
Wavelength	254/365 nm			
Performance	2 x 4 W	2 x 6 W	2 x 8 W	2 x 15 W
Weight	700 g	800 g	900 g	1650 g
Mains connection	220 V, 50 Hz			

Delivery without table tripod, please order separately.

Type	Art. No.	Pack Qty.	€
Model I	**H466.1**	1 unit(s)	397,75
Model II	**H467.1**	1 unit(s)	447,20
Model III	**H468.1**	1 unit(s)	456,90
Model IV	**H469.1**	1 unit(s)	612,75



UV–/white light–transilluminator

Herolab.

Multifunction device with 100/75% intensity switch.

- Stainless steel filter cover, plastic coated housing, recessed switch
- Special reflectors made of ultra-pure aluminium for homogeneous illumination with high utilisation of tube UV intensity

Technical specifications:

Art. No.	LY09.1
Type	UVT-20 M/W
L x W x H	470 x 340 x 135 mm
Filter size	200 x 200 mm
Wavelength	312 nm
Performance	6 x 8 / 3 x 6 W
Intensity setting	100/75 %

Delivery incl. UV protective screen.

Type	Art. No.	Pack Qty.	€
UVT-20 M/W	**LY09.1**	1 unit(s)	1.988,75

UV transilluminator

Herolab.

For use in all areas (standard gel analysis, preparation of nucleic acids, etc.).

- Stainless steel filter cover
- Special reflectors made of ultra-pure aluminium for homogeneous illumination with high utilisation of tube UV intensity
- Flicker-free quick starting
- Low thermal output

Technical specifications:

Art. No.	NK03.1	NK04.1	NK05.1
Type	UVT-14 SE	UVT-14 ME	UVT-14 LE
L x W x H	266 x 186 x 80 mm		
Filter size	110 x 140 mm		
Wavelength	254 nm	312/302 nm	365 nm
Performance	4 x 6 W		
Weight	3000 g		

Delivery without UV protective screen – please order separately.

Type	Art. No.	Pack Qty.	€
UVT-14 SE	**NK03.1**	1 unit(s)	922,35
UVT-14 ME	**NK04.1**	1 unit(s)	922,35
UVT-14 LE	**NK05.1**	1 unit(s)	849,25

LED blue light transilluminator

Herolab.

For gentle excitation of fluorescent DNA bands in gel. No damage to DNA by UV radiation. Specially designed for SYBR dyes (excitation at 420-500 nm, emission above 520 nm).

Optional accessories (please order separately):

- UV safety spectacles with orange lens for recognising the bands

Technical specifications:

Art. No.	NN23.1	NN24.1
Type	UVT-14-BE-LED	UVT-22-BE-LED
L x W x H	266 x 186 x 80 mm	
Filter size	110 x 140 mm	140 x 220 mm
Wavelength	470 nm	

Type	Art. No.	Pack Qty.	€
UVT-14-BE-LED	**NN23.1**	1 unit(s)	784,75
UVT-22-BE-LED	**NN24.1**	1 unit(s)	790,15

Refractometers

Handheld refractometer analogue

Kern.

For measuring the refractive index of transparent substances in a liquid state.

- Eyepiece with dioptre compensation
- Scale is precisely calculated and checked, with very thin and clear lines
- Without or with automatic temperature compensation (ATC)
  Measuring temperature with ATC: 10 to 30 °C
  Measuring temperature without ATC: 20 °C

Delivery incl. calibration solution and storage box.

Application area: laboratory

Type	Scale/measuring range	Resolution	Temp. compensation	Art. No.	Pack Qty.	€
ORA 4RR	Refractive index/1.440–1.520 nD	0.001 nD	No	**CEX9.1**	1 unit(s)	85,00
ORA 1RE	Refractive index/1.333–1.517 nD	0.005 nD	No	**CEY0.1**	1 unit(s)	305,00

Usage: food industry/quality control

Type	Scale/measuring range	Resolution	Art. No.	Pack Qty.	€
ORA 10BA	Brix/0–10%	0.1%	**CEY1.1**	1 unit(s)	85,00
ORA 20BA	Brix/0–20%	0.1%	**CEY2.1**	1 unit(s)	85,00
ORA 32BA	Brix/0–32%	0.2%	**CEY3.1**	1 unit(s)	85,00
ORA 80BB	Brix/0–80%	0.5%	**CEY4.1**	1 unit(s)	80,00

Usage: food industry/wine making

Type	Scale/measuring range	Resolution	Art. No.	Pack Qty.	€
ORA 3WA	Brix/0–32%, Oechsle/30–140 °Oe	0.2%, 1 °Oe	**CEY5.1**	1 unit(s)	85,00
ORA 1WA	Brix/0–32%, Oechsle/0–140 °Oe, KMW (Babo)/0–25 °KMW	0.2%, 1 °Oe, 0.25 °KMW	**CEY6.1**	1 unit(s)	85,00
ORA 2AB	Volume (weight)/0–80% Vol	1% Vol (0–50% Vol), 2.5% Vol (50–80% Vol)	**CEY7.1**	1 unit(s)	80,00

Usage: food industry/fishkeeping

Type	Scale/measuring range	Resolution	Temp. compensation	Art. No.	Pack Qty.	€
ORA 1SA	Salinity/0–100 ‰, spec. weight/1.000–1.070 sg	1 ‰, 0.001 sg	Yes	**CEY8.1**	1 unit(s)	85,00
ORA 3SA	Salt (NaCl)/0–28%, Brix/0–32%	0.2% (Salt), 0.2% (Brix)	Yes	**CEY9.1**	1 unit(s)	85,00

Usage: industry/automotive

For analysing glycol concentrations (ethylene: EG and propylene: PG) of battery fluid (BF), and for measuring the freezing point of windscreen washer fluid (CW).

Type	Scale/measuring range	Resolution	Temp. compensation	Art. No.	Pack Qty.	€
ORA 4FA	EG (G13)/-50–0 °C, PG (G11/12)/-50–0 °C, CW/-40–0 °C, BF/1.10–1.40 kg/l	1 °C (EG), 1 °C (PG), 5 °C (CW), 0.01 kg/l (BF)	Yes	**CYN3.1**	1 unit(s)	85,00

Handheld refractometer digital DR series

Krüss.

Digital refractometer for determining the concentration and refractive index of the liquids. Fully automatic measuring, temperature compensation and calibration.

Technical specifications:

Art. No.	HH60.1	EP62.1
Short designation	DR 201-95	DR 301-95
W x D x H	80 x 130 x 40 mm	100 x 180 x 60 mm
Weight	150 g	900 g
Power supply	1.5 V AA battery	E-Block 9 V battery

DR-201-95

Delivery incl. batteries.

Pic.	Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
(1)	DR 201-95	Brix/0–95%, Refractive index/1.3330–1.5320	0.1%, 0.0001 nD	± 0.2%, ±0.0003 nD	Yes	**HH60.1**	1 unit(s)	514,95

DR-301-95

The DR301-95 model also includes a tolerance alarm, serial port, data transfer cable and evaluation software.

Delivery incl. batteries and cable for data transfer.

Pic.	Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
(2)	DR 301-95	Brix/0–95%, Salt (NaCl)/0–30%, Refractive index/1.3330–1.5318 nD	0.1% (Brix), 0.1% (Salt), 0.0001 nD	± 0.1% (Brix), ±0.1% (Salt), ±0.00015 nD	Yes	**EP62.1**	1 unit(s)	1.003,00

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Refractometers

Handheld refractometer digital ORF series

Kern.

Digital refractive index measuring instrument for laboratories and industry.

- Compact, rugged design
- Dust and splash-proof according to protection class IP 65
- With automatic temperature compensation (ATC)
- Measuring temperature with ATC: +5 to +40 °C (Accuracy ±0.5 °C)
- Depending on model, measured value is output on different measurement scales
- Auto-off function after 90 seconds

Technical specifications:

Art. No.	ECL0.1	ECL1.1	ECL2.1	ECL3.1
Minimum sample volume	approx. 2–3 droplets			
Service life	battery: approx. 3750 measurements			
W x D x H	145 x 67 x 40 mm			
Weight	560 g			
Power supply	2 x 1.5 V AAA batteries			

Delivery incl. calibration solution, leather case, storage box and batteries.

Usage: laboratory

For refractive index measurement, with extra-large measuring range.

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORF 1RS	Refractive index/1.3330–1.5400 nD	0.0001 nD	±0.0005 nD	Yes	**ECL0.1**	1 unit(s)	430,00

Usage: food industry/quality control

For calculating the Brix value (refractive index) for the quantification of sugar content in foodstuffs (e.g. fruit, vegetables, juices and beverages containing sugar). Also suitable for monitoring industrial processes (monitoring of cooling lubricants, oils and greases). Refractive index display is optional.

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORF 45BM	Brix/0–45%, Refractive index/1.3330–1.4098 nD	0.1%, 0.0001 nD	±0.2%, ±0.0003 nD	Yes	**ECL1.1**	1 unit(s)	340,00
ORF 85BM	Brix/0–85%, Refractive index/1.3330–1.5100 nD	0.1%, 0.0001 nD	±0.2%, ±0.0003 nD	Yes	**ECL2.1**	1 unit(s)	395,00

Usage: food industry/fishkeeping

For determining the Brix value and the sodium chloride content in water. Refractive index display is optional.

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORF 3SM	Brix/0–45%, Salt (NaCl)/0–28%, Refractive index/1.3330–1.4100 nD	0.1% (Brix), 0.1% (Salt), 0.0001 nD	±0.2% (Brix), ±0.2% (Salt), ±0.0003 nD	Yes	**ECL3.1**	1 unit(s)	340,00

Abbe refractometer ORT 1RS

Kern.

For determining the refraction index of transparent liquids, solids and paste-like samples. Usage: Laboratory/industry/pharmaceuticals.

- Easy-to-use, rugged design
- Eyepiece with dioptre adjustment
- Scale refers to +20 °C
- Includes thermometer for reading the measuring temperature
- Calibrated with distilled water or calibration block and special contact fluid
- Can be connected to a water circulation system for temperature control of measurement prism and illumination prism (outer diameter of connecting piece: 9.5 mm)

Optional accessories (please order separately):

- Transport and storage box made from aluminium

Technical specifications:

Art. No.	ECK5.1
W x D x H	90 x 180 x 240 mm
Weight	1950 g

Delivery incl. thermometer (incl. battery), calibration block and contact fluid.

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORT 1RS	Brix/0–95%, Refractive index/1.3000–1.7000 nD	0.25%, 0.0005 nD	±0.1% Brix, ±0.0002 nD	No	**ECK5.1**	1 unit(s)	690,00

Accessories for Abbe refractometer ORT 1RS

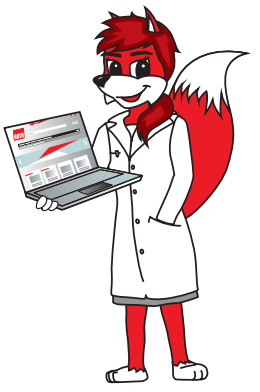
Kern.

Aluminium case

Version	Art. No.	Pack Qty.	€
Dimensions: L 310 x H 120 x T 240 mm Weight: 1300 g	**ECK6.1**	1 unit(s)	80,00

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Batteries

Dry cell battery High Energy

Varta.

Technical specifications:

Art. No.	CH38.1	1021.2	1022.2	1023.2	1024.2	1025.1
Rechargeable	No					

Pic.	Type	System	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
(1)	Lady/ LR 1	Alkaline manga-nese	1,5	800	**CH38.1**	1 unit(s)	3,80
(2)	Micro/ AAA	Alkaline manga-nese	1,5	1,200	**1021.2**	4 unit(s)	6,40
(3)	AA	Alkaline manga-nese	1,5	2,600	**1022.2**	4 unit(s)	6,15
(4)	Baby/C	Alkaline manga-nese	1,5	7,800	**1023.2**	2 unit(s)	4,95
(5)	Mono/D	Alkaline manga-nese	1,5	16,500	**1024.2**	2 unit(s)	6,35
(6)	E-Block	Alkaline manga-nese	9,0	550	**1025.1**	1 unit(s)	4,95

Button cell

Varta

Type	System	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
CR 1220	Lithium	3,0	35	**CH41.1**	1 unit(s)	5,35
CR 1225	Lithium	3,0	48	**AEC3.1**	1 unit(s)	5,35
CR 1616	Lithium	3,0	55	**KE59.1**	1 unit(s)	5,35
CR 1620	Lithium	3,0	60	**CH42.1**	1 unit(s)	5,35
CR 2016	Lithium	3,0	90	**CH43.1**	1 unit(s)	5,35
CR 2025	Lithium	3,0	170	**CH14.1**	1 unit(s)	5,35
CR 2032	Lithium	3,0	230	**P858.1**	1 unit(s)	5,35
CR 2430	Lithium	3,0	280	**EY56.1**	1 unit(s)	5,35
CR 2450	Lithium	3,0	570	**CXC6.1**	1 unit(s)	5,35
V 10 GA	Alkaline manga-nese	1,5	50	**CH39.1**	1 unit(s)	5,35
V 13 GA	Alkaline manga-nese	1,5	125	**1938.1**	1 unit(s)	4,95
V301	Silver	1,55	115	**CH40.1**	1 unit(s)	5,35
V357	Silver	1,55	143	**1AN1.1**	1 unit(s)	5,35

Rayovac

Type	System	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
V 675 AT	Zinc-air	1,4	630	**9800.2**	6 unit(s)	8,55

Battery rechargeable

Varta.

Environmentally friendly Ni-MH batteries. No memory effect. Constant, consistently recurring capacity level.

Technical specifications:

Art. No.	T409.2	1301.2	HT32.1	1302.2	X228.2	1304.1
Rechargeable	Yes					

Pic.	Type	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
(1)	Micro/AAA	1,2	800	**T409.2**	4 unit(s)	16,10
(2)	Mignon/AA	1,2	2,100	**1301.2**	4 unit(s)	16,10
(3)	Mignon/AA	1,2	2,400	**HT32.1**	4 unit(s)	21,50
(4)	Baby/C	1,2	3,000	**1302.2**	2 unit(s)	18,25
(5)	Mono/D	1,2	3,000	**X228.2**	2 unit(s)	17,20
(6)	E-Block	8,4	200	**1304.1**	1 unit(s)	15,00

Battery charger LCD Universal charger

Varta.

Suitable for two or four Ni-MH batteries of sizes AA, AAA, C, D (charging in pairs), 1 x 9 V.

- LCD indicator (blue) for charge status
- Safety features: Minus Delta U-shut-off, timer, alkaline detection
- Charging times: Rechargeable batteries 4 hours, external devices 1.5–5 hours
- Four charging bays for charging batteries

Delivery incl. external mains adapter (100–240 V). Supplied without rechargeable batteries, please order separately.

W x D x H (mm)	Art. No.	Pack Qty.	€
111 x 70 x 187	**EXP0.1**	1 unit(s)	24,70

Measuring Instruments

Airflow measuring devices 1194
Air quality measuring devices 1138
Balances, analytical and precision balances 1200
Counters 1198
Data loggers
(humidity, temperature, pressure) 1113
Densimeters 1140
Hygrometers 1227
Infrared thermometers 1124
Calibration and maintenance solutions 1159
Carbon dioxide measuring devices 1139
Combined measuring instruments
(pH, conductivity, etc.) 1188
Conductivity tester, measuring devices,
test solutions 1180
Luxmeters 1195
Measuring devices (radiation measurement,
sound level meter, tachometer) 1197
Monitoring (Aquastop® II) 1199
Outlets (multiple socket outlets, socket strips) . . . 1232
Oxygen measuring devices 1186
Pressure gauges 1138
Photometers 1153
pH-testers, pH-electrodes, pH-meters 1160
pH-papers 1155
pH-buffer solutions 1159
Pocket calculators 1240
Rain gauges 1137
Temperature measurement 1086
Test weights / calibration weights 1230
Test systems, photometers 1143
Thermohygrometers 1127
Thermometers, analogue 1087
Thermometers, digital 1095
Turbidimeters 1154
Watches
(time switches, timers, stopwatches, wall clocks) . . 1234
Weather stations 1136

Colour-change chalk irreversible

ROTH SELECTION.

For temperature monitoring by colour change on devices and apparatus. Adhere to paper, rubber, textiles, plastic, glass, iron and steel. Can also be used in processing aluminium, enamel processing and smelting. Colour changes when the temperature is reached within 1–2 seconds.

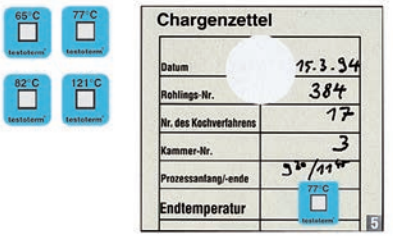
Temperature (°C)	Temperature accuracy	Art. No.	Pack Qty.	€
120	±5 °C	**9307.1**	1 unit(s)	22,10
245	±5 °C	**9312.1**	1 unit(s)	22,10
600	±5 °C	**9547.1**	1 unit(s)	22,10

Temperature measuring strips irreversible

ROTH SELECTION.

Self-adhesive. Show that the specific temperature value has been reached on surfaces. The light indicator points become dark as soon as the required temperature value is reached. Dimensions per measuring strip: L 48 x 18 mm. Packaged in bags with 10 strips each.

Temperature (°C)	Temperature accuracy	Art. No.	Pack Qty.	€
40-43-46-49-54-60-66-71	±1 °C	**1890.1**	10 unit(s)	19,90
77-82-88-93-99-104-110-116	±1 °C (77–99 °C), ±1.5 °C (100–116 °C)	**2077.1**	10 unit(s)	19,90
121-127-132-138-143-149-154-160	±1.5 °C (121–154 °C), ±2.6 °C (160 °C)	**2079.1**	10 unit(s)	19,90
166-171-177-182-188-193-199-204	±(1 °C + 1 % of the measured value)	**5231.1**	10 unit(s)	21,05
210-216-224-232-241-249-254-260	±(1 °C + 1 % of the measured value)	**5232.1**	10 unit(s)	21,05

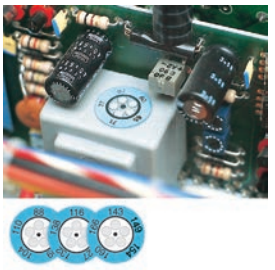


Temperature measuring point irreversible

ROTH SELECTION.

Self-adhesive, temperature stable foil with heat-sensitive elements for temperature monitoring and testing. Irreversible colour change of light grey or yellow field to black occurs within one second as soon as the required temperature is reached. Dimensions per measuring point: L 15 x W 14 mm.
1 sheet with 50 measuring points.

Temperature (°C)	Temperature accuracy	Art. No.	Pack Qty.	€
65	±1,5 °C	**N276.1**	50 unit(s)	28,65
77	±1,5 °C	**N278.1**	50 unit(s)	28,65
82	±1,5 °C	**N279.1**	50 unit(s)	27,85
121	±1,5 °C	**N286.1**	50 unit(s)	28,65



Temperature indicators mini irreversible

ROTH SELECTION.

Self-adhesive, temperature stable foil with heat-sensitive elements for temperature monitoring and testing. Particularly suited to temperature checking on small objects. An irreversible colour change takes place within two seconds as soon as the required temperature is reached. One sheet with 10 indicators (ø 15 mm per measuring point).

Temperature (°C)	Temperature accuracy	Art. No.	Pack Qty.	€
88-93-99-104-110	±1,5 °C	**AY04.1**	10 unit(s)	38,50
116-121-127-132-138	±1,5 °C	**AY05.1**	10 unit(s)	38,50
143-149-154-160-166	±2 °C (143 – 154 °C), ±(1 °C + 1 % of reading) from 160 °C	**AY06.1**	10 unit(s)	38,50

Thermometers, analogue

Low temperature thermometer

ROTH SELECTION.

With bimetallic pointer. With hanger eyelet.

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Ø (mm)	Art. No.	Pack Qty.	€
-50 to +50	1	±2	70	**H717.1**	1 unit(s)	6,95

Soil thermometer

ROTH SELECTION.

With sharp sensor. Suitable for determining the temperature in lower layers. Sensor ø 3 mm, Sensor length 200 mm. ø Head 40 mm.

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Art. No.	Pack Qty.	€
-20 to +60	1	±2	**E755.1**	1 unit(s)	16,15

Maximum/minimum thermometer bimetal

ROTH SELECTION.

Plastic housing. Adjustable red markers indicate the Max/Min temperatures. Reset by turning the dial. With hanger eyelet.

Temperature measuring range (°C)	Graduation (°C)	Depth (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
-50 to +50	1	35	95	135	**LX81.1**	1 unit(s)	14,90

Maximum/minimum thermometer environmentally friendly

ROTH SELECTION.

With mercury-free thermometer fluid (red). Metal markers indicate the max./min. temperatures. Reset by push-button. With hanger eyelet.

Pic.	Temperature measuring range (°C)	Graduation (°C)	Housing material	Fill fluid	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
(1)	-30 to +50	1	Plastic	red	79	230	**KA34.1**	1 unit(s)	11,00
(2)	-30 to +50	1	Aluminium	red	50	220	**CK40.1**	1 unit(s)	17,60

Thermometers, analogue

Thermometers for autoclaves

ROTH SELECTION. Autoclavable: Yes.

For monitoring the temperature during autoclaving.

- Max. temperature is indicated by the moving red marker
- Manual resetting by turn screw
- Bimetallic thermometer with housing and removable base made of stainless steel, dust cap made of silicone rubber
- Waterproof glass window, pressure resistant

A 121 °C

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Housing material	Ø (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
-20 to +150	2	±1,5	Stainless steel	81	85	95	**CXP0.1**	1 unit(s)	66,55

Plastic thermometer

ROTH SELECTION. Material: Plastic.

Fill fluid: Special filling. Calibrated fully immersed: Yes

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-50 to +50	1	±2	200	20	blue	**H718.1**	1 unit(s)	6,45

All-purpose thermometer

ROTH SELECTION.

- Rod type
- Fill fluid: Special filling
- Capillary form: Coated, white
- In yellow plastic sleeve with clip.

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +100	1	±2	165	10	red	**Y932.1**	1 unit(s)	7,65
-30 to +50	1	±2	165	10	red	**Y931.1**	1 unit(s)	7,65

Stirring thermometer

ROTH SELECTION.

- With reinforced vessel base for stirring in beakers, etc.
- Fill fluid: Special filling, biodegradable
- Capillary form: Uncoated
- Calibrated fully immersed: Yes

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-35 to +50	1	±3 – 4	260	7 – 8	red	**PE82.1**	1 unit(s)	13,80
-20 to +110	1	±3 – 4	260	7 – 8	red	**PE85.1**	1 unit(s)	12,40
-10 to +60	1	±3 – 4	200	7 – 8	red	**PE83.1**	1 unit(s)	11,50
-10 to +110	1	±3 – 4	260	7 – 8	red	**PE84.1**	1 unit(s)	12,40
-10 to +150	1	±3 – 4	260	7 – 8	red	**PE86.1**	1 unit(s)	13,75
-10 to +200	1	±3 – 4	300	7 – 8	red	**PE87.1**	1 unit(s)	17,15

Thermometers, analogue

Glass thermometer with green special filling

ROTH SELECTION.

- Rod type, upper with ring
- Fill fluid: Special filling, biodegradable
- Capillary form: Coated, white

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Immersion depth (mm)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +110	1	±3	76	300	5,5 – 7	green	**ET02.1**	1 unit(s)	18,05
-10 to +150	1	±3	76	300	5,5 – 7	green	**ET04.1**	1 unit(s)	19,80
-10 to +250	2	±3	76	300	5,5 – 7	green	**ET05.1**	1 unit(s)	28,65
-10 to +360	2	±3	76	300	5,5 – 7	green	**ET06.1**	1 unit(s)	32,60
-10 to +110	0,5	±3	76	300	5,5 – 7	green	**ET03.1**	1 unit(s)	19,80

Glass thermometer with temperature limiter

ROTH SELECTION.

For monitoring cooling units and temperature control units.

- Fill fluid: Special filling
- With safety coating (PTFE/FEP)
- Supplied in plastic bottle containing filling medium for precise temperature determination
- Can be mounted using magnets (exception: YE26.1)

Bottle filling medium: Sand

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-90 to +20	1,0	±2,0	180	red	**YE17.1**	1 unit(s)	78,15

Bottle fill medium: Ethylene glycol mixture

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-25 to -5	0,1	±0,2	235	blue	**YE18.1**	1 unit(s)	98,90
-30 to 0	0,5	±1,0	130	red	**YE19.1**	1 unit(s)	66,60
-2 to +10	0,1	±0,2	230	blue	**YE20.1**	1 unit(s)	83,25
-5 to +15	0,5	±1,0	130	red	**YE21.1**	1 unit(s)	59,50
+15 to +30	0,1	±0,2	180	blue	**YE22.1**	1 unit(s)	89,80
+18 to +50	0,5	±1,0	130	red	**YE23.1**	1 unit(s)	64,10
+25 to +45	0,1	±0,2	190	blue	**YE24.1**	1 unit(s)	95,45

Bottle filling medium: Vermiculite

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
+20 to +130	1,0	±2,0	135	red	**YE25.1**	1 unit(s)	67,20
+35 to +200	1,0	±2,0 °C (>100 °C ±3,0)	180	red	**YE26.1**	1 unit(s)	187,05

Thermometers, analogue

Glass thermometer standard

ROTH SELECTION.

For day-to-day laboratory use.

- Rod type
- Fill fluid: Special filling
- Calibrated fully immersed: Yes

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-35 to +50	1	±3	300	5,5 – 7	red	**E740.1**	1 unit(s)	12,10
-20 to +110	1	±3	300	5,5 – 7	red	**E742.1**	1 unit(s)	12,10
-20 to +150	1	±3	300	5,5 – 7	red	**E743.1**	1 unit(s)	12,10
-10 to +60	1	±3	200	5,5 – 7	red	**E741.1**	1 unit(s)	12,10
-10 to +200	1	±3	300	5,5 – 7	red	**E744.1**	1 unit(s)	12,10
-10 to +250	1	±3	300	5,5 – 7	blue	**E745.1**	1 unit(s)	32,85

Precision thermometer with high accuracy

ROTH SELECTION.

- Enclosed type
- Fill fluid: Special filling
- Capillary form: Uncoated, prismatic
- Calibrated fully immersed: Yes

Standard

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +50	0,5	±0,5	220	8 – 10	blue	**HKX4.1**	1 unit(s)	57,80
-10 to +100	0,5	±0,5	270	8 – 10	blue	**HKX5.1**	1 unit(s)	65,70
-10 to +150	0,5	±0,5	350	8 – 10	blue	**HKX6.1**	1 unit(s)	78,50
-10 to +200	0,5	±0,5	450	8 – 10	blue	**HKX7.1**	1 unit(s)	86,00
-5 to +50	0,2	±0,3	350	8 – 10	blue	**HKX8.1**	1 unit(s)	66,80
-5 to +100	0,2	±0,3	420	8 – 10	blue	**HKX9.1**	1 unit(s)	92,50
-5 to +201	0,2	±0,4	550	8 – 10	blue	**HKY0.1**	1 unit(s)	166,65
-10 to +50	0,1	±0,2	420	8 – 10	blue	**HKY1.1**	1 unit(s)	98,15
0 to +100	0,1	±0,2	550	8 – 10	blue	**HKY2.1**	1 unit(s)	159,15

With FEP safety coating

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +50	0,5	±0,5	220	8 – 10	blue	**HKY3.1**	1 unit(s)	86,95
-10 to +100	0,5	±0,5	270	8 – 10	blue	**HKY4.1**	1 unit(s)	107,05
-10 to +150	0,5	±0,5	350	8 – 10	blue	**HKY5.1**	1 unit(s)	126,85
-10 to +200	0,5	±0,5	450	8 – 10	blue	**HKY6.1**	1 unit(s)	139,20
-5 to +50	0,2	±0,3	350	8 – 10	blue	**HKY7.1**	1 unit(s)	114,10
-5 to +100	0,2	±0,3	420	8 – 10	blue	**HKY8.1**	1 unit(s)	146,75
-5 to +201	0,2	±0,4	550	8 – 10	blue	**HKY9.1**	1 unit(s)	232,20
-10 to +50	0,1	±0,2	420	8 – 10	blue	**HLA0.1**	1 unit(s)	150,70
0 to +100	0,1	±0,2	550	8 – 10	blue	**HLA1.1**	1 unit(s)	226,85

Thermometers, analogue

Glass thermometer calibrated

ROTH SELECTION.

With official calibration certificate.

- Enclosed type
- Fill fluid: Special filling
- Capillary form: Uncoated, prismatic
- Calibrated fully immersed: Yes

Temperature measuring range (°C)	Graduation (°C)	Total length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
0 to 200	1	300	8 – 9	red	**HXC3.1**	1 unit(s)	239,75
0 to +50	0,5	220	8 – 9	red	**HXC1.1**	1 unit(s)	180,60
0 to +100	0,5	240	8 – 9	red	**HXC2.1**	1 unit(s)	190,30

Low-temperature thermometer

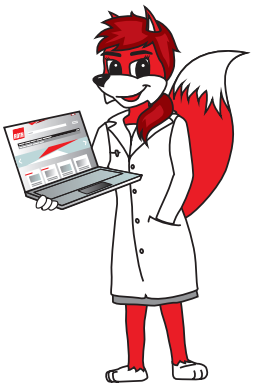
ROTH SELECTION.

Enclosed type. Calibrated fully immersed: Yes

Version	Temperature measuring range (°C)	Graduation (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
Capillary form: Blue luminous, prismatic	-150 to +30	1	300	Pentane	**X576.1**	1 unit(s)	59,35
Capillary form: Uncoated, prismatic	-100 to +30	1	300	Alcohol	**X578.1**	1 unit(s)	42,80
Capillary form: Uncoated, prismatic	-100 to +100	1	300	Alcohol	**X577.1**	1 unit(s)	58,30

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Thermometers, analogue

Glass thermometer with red special filling

ROTH SELECTION.

Calibrated fully immersed: Yes

Rod type

Capillary form: Coated, round, yellow

Temperature measuring range (°C)	Graduation (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +100	1	305	5 – 7	red	**ALH6.1**	1 unit(s)	23,30
-10 to +150	1	305	5 – 7	red	**ALH7.1**	1 unit(s)	25,50
-10 to +200	1	350	5 – 7	red	**ALH8.1**	1 unit(s)	34,70
-10 to +50	0,5	220	5 – 7	red	**ALH9.1**	1 unit(s)	26,15
-10 to +100	0,5	270	5 – 7	red	**ALK0.1**	1 unit(s)	28,45
-10 to +150	0,5	350	5 – 7	red	**ALK1.1**	1 unit(s)	48,65
-5 to +50	0,2	350	5 – 7	red	**ALK2.1**	1 unit(s)	30,75
-5 to +100	0,2	420	5 – 7	red	**ALK3.1**	1 unit(s)	37,65
-1 to +200	0,2	610	5 – 7	red	**ALK4.1**	1 unit(s)	114,15
-10 to +30	0,1	300	5 – 7	red	**ALK5.1**	1 unit(s)	60,00
-10 to +50	0,1	420	5 – 7	red	**ALK6.1**	1 unit(s)	45,20
-1 to +101	0,1	610	5 – 7	red	**ALK7.1**	1 unit(s)	107,50

Enclosed type, with factory test certificate

Capillary form: Uncoated, prismatic

Temperature measuring range (°C)	Graduation (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +100	1	305	8 – 10	red	**ALK8.1**	1 unit(s)	157,15
-10 to +150	1	305	8 – 10	red	**ALK9.1**	1 unit(s)	161,05
-10 to +200	1	350	8 – 10	red	**ALL0.1**	1 unit(s)	172,00
-10 to +50	0,5	220	8 – 10	red	**ALL1.1**	1 unit(s)	159,85
-10 to +100	0,5	270	8 – 10	red	**ALL2.1**	1 unit(s)	172,00
-10 to +150	0,5	350	8 – 10	red	**ALL3.1**	1 unit(s)	178,45
-10 to +200	0,5	450	8 – 10	red	**ALL4.1**	1 unit(s)	191,35
-5 to +50	0,2	350	8 – 10	red	**ALL5.1**	1 unit(s)	166,65
-5 to +100	0,2	420	8 – 10	red	**ALL6.1**	1 unit(s)	191,35
-10 to +30	0,1	300	8 – 10	red	**ALL7.1**	1 unit(s)	193,50
-10 to +50	0,1	420	8 – 10	red	**ALL8.1**	1 unit(s)	191,35
0 to +100	0,1	550	8 – 10	red	**ALL9.1**	1 unit(s)	245,10

Glass thermometer with DAkkS calibration certificate

ROTH SELECTION.

- Enclosed type
- Fill fluid: red
- Capillary form: Uncoated, prismatic
- Calibrated fully immersed: Yes

Temperature measuring range (°C)	Graduation (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +100	1	305	8 – 10	red	**CKX9.1**	1 unit(s)	225,75
-10 to +150	1	305	8 – 10	red	**CKY0.1**	1 unit(s)	211,80
-10 to +200	1	350	8 – 10	red	**CKY1.1**	1 unit(s)	225,75
-10 to +50	0,5	220	8 – 10	red	**CKX7.1**	1 unit(s)	216,10
-10 to +100	0,5	270	8 – 10	red	**CKX8.1**	1 unit(s)	276,30

Thermometers, analogue

Precision thermometer extremely high accuracy

ROTH SELECTION.

- Rod type
- Fill fluid: Special filling
- Capillary form: Coated, white, round

Standard. Calibrated fully immersed: Yes

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-38 to +2	0,1	±0,1	401	blue	**ANK4.1**	1 unit(s)	166,65
-20 to +102	0,2	±0,2	435	blue	**ANK5.1**	1 unit(s)	166,65
-7 to +105	0,5	±0,5	300	blue	**ANK7.1**	1 unit(s)	90,75
+20 to +100	0,2	±0,2	325	blue	**ANK8.1**	1 unit(s)	126,85
+30 to +200	0,5	±0,3	415	blue	**ANK9.1**	1 unit(s)	129,20

Standard, with immersion depth

Temperature measu-ring range (°C)	Graduation (°C)	Accuracy (°C)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-20 to +150	1,0	±0,5	76	335	blue	**ANK6.1**	1 unit(s)	92,45

With DAkkS calibration certificate. Calibrated fully immersed: Yes

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-20 to +102	0,2	±0,2	435	blue	**ANL0.1**	1 unit(s)	350,45
+30 to +200	0,5	±0,3	415	blue	**ANL2.1**	1 unit(s)	331,10

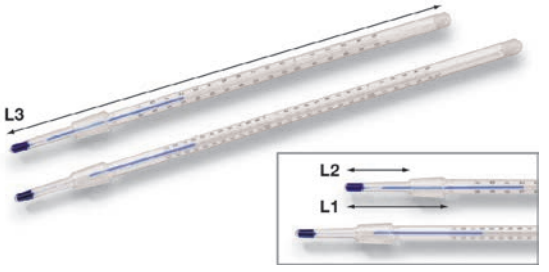
With DAkkS calibration certificate and immersion depth

Temperature measu-ring range (°C)	Graduation (°C)	Accuracy (°C)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-20 to +150	1,0	±0,5	76	335	blue	**ANL1.1**	1 unit(s)	291,35

Ground joint thermometers compliant with DIN 12784

ROTH SELECTION.

- With ground glass joint NS 14.5/23
- Enclosed type
- Fill fluid: Special filling
- Capillary form: Uncoated, prismatic
- ø Upper 11 mm ±0.5 mm.



L1: Installation length
L2: Insertion length
L3: Length

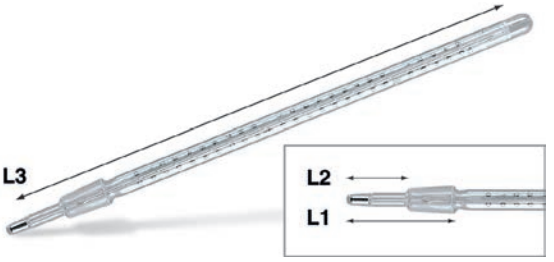
Temperature measu-ring range (°C)	Graduation (°C)	Installed length (mm)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +150	1	68	45	318	blue	**ALN0.1**	1 unit(s)	49,05
-10 to +150	1	75	52	325	blue	**ALN1.1**	1 unit(s)	49,30
-10 to +150	1	95	72	345	blue	**ALN2.1**	1 unit(s)	49,65
-10 to +150	1	125	102	375	blue	**ALN3.1**	1 unit(s)	54,05
-10 to +250	1	68	45	368	blue	**ALN4.1**	1 unit(s)	59,25
-10 to +250	1	75	52	375	blue	**ALN5.1**	1 unit(s)	59,85
-10 to +250	1	95	72	395	blue	**ALN6.1**	1 unit(s)	70,65
-10 to +250	1	125	102	425	blue	**ALN7.1**	1 unit(s)	72,50

Thermometers, analogue

Ground joint thermometers

ROTH SELECTION.

With ground glass joint NS 14/23



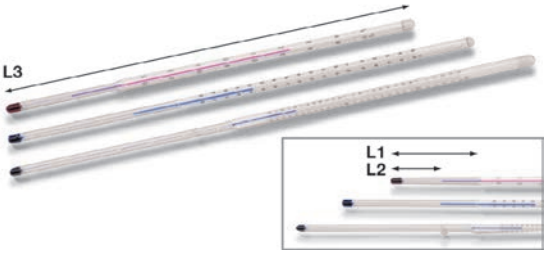
L1: Installation length
L2: Insertion length
L3: Length

Temperature measuring range (°C)	Graduation (°C)	Installed length (mm)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
0 to +250	1	55	32	355	red	**EPY4.1**	1 unit(s)	78,80
0 to +250	1	70	47	370	red	**EPY5.1**	1 unit(s)	78,80
0 to +250	1	85	62	385	red	**EPY6.1**	1 unit(s)	78,80
0 to +150	0,5	55	32	355	red	**EPY1.1**	1 unit(s)	74,65
0 to +150	0,5	70	47	370	red	**EPY2.1**	1 unit(s)	74,40
0 to +150	0,5	85	62	385	red	**EPY3.1**	1 unit(s)	74,65

Straight stem thermometers compliant with DIN 12781

ROTH SELECTION.

- Enclosed type
- Fill luid: Special illing
- Capillary form: Uncoated, prismatic
- ø Upper 11 mm ±0.5 mm, ø Lower 8 mm ±0.5 mm



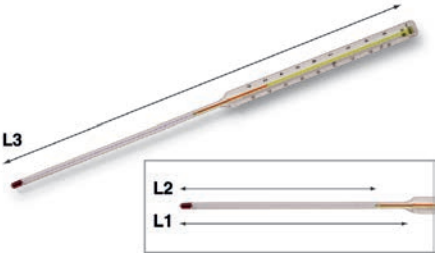
L1: Installation length
L2: Insertion length
L3: Length

Temperature measuring range (°C)	Graduation (°C)	Installed length (mm)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-30 to +50	1	100	80	375	red	**ALP0.1**	1 unit(s)	55,20
-20 to +150	1	150	130	425	blue	**ALP1.1**	1 unit(s)	63,90
-20 to +150	1	250	230	525	blue	**ALP2.1**	1 unit(s)	57,95
-20 to +150	1	300	280	575	blue	**ALP3.1**	1 unit(s)	76,65
-20 to +150	1	400	380	675	blue	**ALP4.1**	1 unit(s)	81,15
-20 to +250	1	100	80	375	blue	**ALP5.1**	1 unit(s)	68,55
-20 to +250	1	150	130	425	blue	**ALP6.1**	1 unit(s)	69,45
-20 to +250	1	200	180	475	blue	**ALP7.1**	1 unit(s)	70,90
-20 to +250	1	300	280	575	blue	**ALP8.1**	1 unit(s)	79,50
-20 to +250	1	400	380	675	blue	**ALP9.1**	1 unit(s)	83,40

Straight stem thermometers

ROTH SELECTION.

- Similar to DIN 16178
- With flat scale
- Fill fluid: Special filling
- Capillary form: Uncoated, prismatic
- ø Upper 20.5 mm ±1 mm, ø Lower 8 mm ±0.5 mm



L1: Installation length
L2: Insertion length
L3: Length

Temperature measuring range (°C)	Graduation (°C)	Installed length (mm)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-30 to +50	1	105	89	340	red	**ALT0.1**	1 unit(s)	49,70
0 to +160	2	165	149	400	red	**ALT1.1**	1 unit(s)	40,30
0 to +160	2	255	239	490	red	**ALT2.1**	1 unit(s)	46,60
0 to +200	2	105	89	340	red	**ALT3.1**	1 unit(s)	50,45

Thermometers, digital

Remote thermometer Ratio

TFA-Dostmann.

Cordless transfer of outside temperature from up to three different transmitters. Displays inside temperature. Also with radio-controlled clock.

Technical specifications:

Art. No.	LP27.1
Type	Ratio
Parameters	Temperature
Temperature measuring range	-40 to +65 °C
Temperature measuring range, internal	0 to +60 °C
Ext. temp. measuring range	-40 to +65 °C
Resolution	0.1 °C
Accuracy	±1 °C
Radio range outdoors	100 m
Min./max. function	Yes
L x W x H	67 x 28 x 113 mm
Power supply	Receiver: 2x battery Mignon/AA 1.5 V, Transmitter: 2x battery Micro/AAA 1.5 V

Delivery incl. 1 receiver and one transmitter (L 32 x W 15 x H 86 mm). Without batteries, please order separately.

Version	Art. No.	Pack Qty.	€
Remote thermometer	**LP27.1**	1 unit(s)	23,40

Thermometers solar Eco, basic

TFA-Dostmann.

For displaying the current inside temperature, with save function for the min./max. value. With integrated, replaceable back-up battery in case the power supply from the solar panel is not sufficient. With stands and system for hanging.

Technical specifications:

Art. No.	KT83.1
Type	Eco, basic
Parameters	Temperature
Temperature measuring range	-10 to +50 °C
Resolution	0.1 °C
Accuracy	±1 °C
Min./max. function	Yes
L x W x H	90 x 20 x 90 mm
Weight	100 g
Power supply	Solar panel and 1.5 V, V 13 GA button cell battery

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Thermomètre solaire	**KT83.1**	1 unit(s)	13,95

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Thermometers, digital

Inside/outside thermometer ROTILABO®

ROTH SELECTION.

With min./max. function. Outside sensor with approx. 1.5 m cable.

Technical specifications:

Art. No.	YE41.1
Type	ROTILABO®
Parameters	Temperature
Temperature measuring range	-40 to +70 °C
Temperature measuring range, internal	-10 to +50 °C
Ext. temp. measuring range	-40 to +70 °C
Resolution	0.1 °C
Accuracy	±1.0 °C (0 to +50 °C) ±2 °C (outside)
Min./max. function	Yes
Cable length	1.5 m
L x W x H	58 x 12 x 68 mm
Weight	37 g
Power supply	Button cell battery CR 2032 (3 V)

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**YE41.1**	1 unit(s)	12,65

Inside/outside thermometer Thermo

TFA-Dostmann.

- Simultaneously displays inside and outside temperature
- Memory function for min./max. temperature values (inside and outside)
- Reset button for memory function
- Outside sensor with 3 m cable
- Table-top support, wall mount

Technical specifications:

Art. No.	AN34.1
Type	Thermo
Parameters	Temperature
Temperature measuring range	-50 to +60 °C
Temperature measuring range, internal	-10 to +50 °C
Ext. temp. measuring range	-50 to +60 °C
Resolution	0.1 °C
Accuracy	±1 °C
Min./max. function	Yes
Cable length	3 m
Weight	105 g
Power supply	1.5 V AA battery

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**AN34.1**	1 unit(s)	15,50

Thermometers, digital

Inside/outside thermometer with limit alarm and min./max. function

TFA-Dostmann.

- Simultaneous display of inside and outside temperature
- Save function for min./max. value
- **Outside temperature alarm with adjustable upper and lower value**(interval alarm sounds as long as the set temperature is exceeded or not met)
- Outside sensor with 2.9 m cable
- Can be wall-mounted or used on desk

Technical specifications:

Art. No.	**HA34.1**
Parameters	Temperature
Temperature measuring range	-50 to +70 °C
Temperature measuring range, internal	-10 to +50 °C
Ext. temp. measuring range	-50 to +70 °C
Resolution	0.1 °C
Accuracy	±1 °C (0 to +50 °C) ±2 °C (outside)
Min./max. function	Yes
Cable length	2.9 m
L x W x H	70 x 20 x 110 mm
Weight	130 g
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**HA34.1**	1 unit(s)	16,15

Inside/outside thermometer standard

TFA-Dostmann.

With large display and min./max. function. Can be wall- or table-mounted. Outside sensor with approx. 3 m cable.

Technical specifications:

Art. No.	**CH86.1**
Parameters	Temperature
Temperature measuring range	-50 to +70 °C
Temperature measuring range, internal	-10 to +50 °C
Ext. temp. measuring range	-50 to +70 °C
Resolution	0.1 °C
Accuracy	±1 °C
Min./max. function	Yes
Cable length	3 m
L x W x H	95 x 20 x 110 mm
Weight	180 g
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**CH86.1**	1 unit(s)	19,80

Inside/outside thermometer with min./max. function

TFA-Dostmann.

- For displaying current, maximum and minimum temperatures
- For inside and outside, splash-proof
- With reset button to reset the max./min. value
- For wall mounting

Technical specifications:

Art. No.	**CK39.1**
Parameters	Temperature
Temperature measuring range	-20 to +50 °C
Resolution	0.1 °C
Accuracy	±1 °C
Min./max. function	Yes
L x W x H	75 x 44 x 115 mm
Weight	161 g
Power supply	Battery Mignon/AA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**CK39.1**	1 unit(s)	20,10

Thermometers, digital

Thermometers Thermo-Timer

TFA-Dostmann.

For measuring temperature. **Alarm when a specific temperature is reached** (upper and lower threshold value can be set).

- Timer function (up to 24 hours), audible signal at “zero”
- Stainless steel probe (L 160 x Ø 4 mm) with 1 m heat resistant cable
- Clock with 12- or 24-hour display
- Display can be used on desktop

Technical specifications:

Art. No.	X256.1
Type	Thermo-Timer
Parameters	Temperature
Temperature measuring range	-10 to +200 °C
Resolution	1 °C
Accuracy	±1 °C
Min./max. function	Yes
Cable length	1 m
L x W x H	68 x 22 x 121 mm
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Thermometers	**X256.1**	1 unit(s)	27,95

Thermometers for fridges

Dostmann.

For indication of current temperature in rooms, refrigerators etc. With fold-out holder for attaching to grids etc. Includes magnet for affixing. Refrigerator symbol is displayed at temperatures between +4 and +8 °C.

Technical specifications:

Art. No.	TA56.1
Parameters	Temperature
Temperature measuring range	-20 to +50 °C
Resolution	0.1 °C
Accuracy	±1 °C
L x W x H	68 x 14 x 43 mm
Power supply	CR 2025 button cell battery (3 V)

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Thermometers for refrigerators	**TA56.1**	1 unit(s)	9,65

Thermometers for refrigerators and freezers

TFA-Dostmann.

For displaying current, maximum and minimum temperatures. With stand and frame for attachment to surfaces or behind glass (display cabinet etc.) by means of self-adhesive film.

Technical specifications:

Art. No.	PE75.1
Parameters	Temperature
Temperature measuring range	-30 to +50 °C
Resolution	0.1 °C
Accuracy	±1 °C
Min./max. function	Yes
L x W x H	91 x 13 x 72 mm
Weight	66 g
Power supply	Button cell battery CR 2032 (3 V)

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Thermometer for refrigerators and freezers	**PE75.1**	1 unit(s)	15,75

Inside/outside thermometer officially calibrated

Amarell.

With temperature warning and min/max value monitoring. Simultaneous display of current temperature and min/max values. Outdoor sensor with approx. 3 m of cable. Use as a desktop unit or mount to wall using fastening magnets.

Technical specifications:

Art. No.	KEC6.1
Parameters	Temperature
Temperature measuring range	-50.0 to +70.0 °C
Temperature measuring range, internal	0.0 to +50.0 °C
Ext. temp. measuring range	-50.0 to +70.0 °C
Resolution	0.1 °C
Accuracy	±1 °C (-20 to +70 °C)
Min./max. function	Yes
L x W x H	65 x 23 x 67 mm
Power supply	V 13 GA (1.5 V) button cell battery

Delivery incl. official calibration certificate with a test point at +4 °C and 1.5 V cell battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**KEC6.1**	1 unit(s)	225,75

Thermometers, digital

Temperature limiter for thermometers

Dostmann.

Reference bodies for constant temperature measurement in fridges. Prevents large temperature variations, e.g. due to frequent opening of the fridge door. The sensor is inserted into one of the custom-fitting holes and fixed with a screw. The reference object acts as a buffer and provides a homogeneous temperature distribution, because mass (and not air) is measured.
Suitable for sensors with Ø 3.5 mm, 4.2 mm and 5.0 mm.

Technical specifications:

Art. No.	PT43.1
L x W x H	60 x 25 x 25 mm

Version	Art. No.	Pack Qty.	€
Temperature limiter	**PT43.1**	1 unit(s)	24,05

Thermometers with factory certificate

Ludwig Schneider.

- Calibrated at -10 °C and +40 °C
- High measuring precision
- Min./max. measured value storage with real time and date
- Limit alarm, audible and visual
- Storage of last threshold violation
- External temperature sensor, cable length 3 m
- For exact temperature measurements with temperature limiter (plastic bottle (Ø 19.5 x H 40 mm) filled with ethylene glycol)

Technical specifications:

Art. No.	HAN2.1
Parameters	Temperature
Temperature measuring range	-50 to +70 °C
Resolution	0.1 °C
Accuracy	±0,3 °C
Min./max. function	Yes
Cable length	3 m
L x W x H	75 x 19 x 124 mm
Weight	170 g
Power supply	2 x AAA 1.5 V batteries

Delivery incl. temperature limiter, factory certificate and batteries.

Version	Calibration	Art. No.	Pack Qty.	€
Thermometers	With factory certificate	**HAN2.1**	1 unit(s)	194,60

Thermometers Lab series

Dostmann.

Areas of application: Measuring in fridges and freezers, storage of food and many more.

- Waterproof housing
- Min/max and hold function
- Audio and visual alarms warn when freely adjustable temperature limits are exceeded or not met
- Magnet for attachment to metal surfaces

Technical specifications:

Art. No.	KA32.1	PY66.1	KA33.1
Type	Lab Basic		Lab Pro
Parameters	Temperature		
Temperature measuring range	-40 to +70 °C		-40 to +200 °C
Resolution	0.1 °C		
Accuracy	±0.5 °C (-20 to +25 °C) ±1.0 °C (outside)		±1.0 °C (-40 to 0 °C) ±0.5 °C (0 to +50 °C) ±1.0 (+50 to +100 °C) ±1.5 °C (outside)
IP rating	65		
Cable length	3 m		1 m
Sensor: Ø x L	5 x 20 mm		3.5 x 100 mm
L x W x H	86 x 30 x 57 mm		
Weight	40 g		
Power supply	Button cell battery CR 2032 (3 V)		

Delivery incl. battery.

(1) Lab Basic

Version	Calibration	Art. No.	Pack Qty.	€
Thermometers	without	**KA32.1**	1 unit(s)	22,15
Thermometers	with factory certificate (test point at +5 °C)	**PY66.1**	1 unit(s)	33,55

(2) Lab Pro

Version	Calibration	Art. No.	Pack Qty.	€
Thermometers	without	**KA33.1**	1 unit(s)	27,90

Thermometers, digital

Penetration probe thermometer

Dostmann.

Ideal for easy temperature measurements in liquids, powdery and plastic materials. HOLD, MAX., and MIN. function. Automatic shut-off after 10 minutes.

Technical specifications:

Art. No.	**T332.1**
Parameters	Temperature
Temperature measuring range	-40 to +200 °C
Resolution	0.1 °C
Accuracy	±1 °C (-20 to +100 °C) ±1.5 °C (outside)
Min./max. function	Yes
Sensor: Ø x L	3.5 x 125 mm
L x W x H	205 x 20 x 16 mm
Power supply	V 13 GA (1.5 V) button cell battery

Delivery incl. protective case (for the sensor) and batteries.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**T332.1**	1 unit(s)	22,60

Penetration thermometer digital

TFA-Dostmann. Material: Plastic, Stainless steel.

For temperature measurements of liquid, paste-like and semi-solid materials. Including factory calibration certificate. According to HACCP for measuring the temperature in food. Backlit display, rotatable through 180°. Automatic shut-off after ten minutes (deactivatable).

Technical specifications:

Art. No.	**1EN2.1**
Temperature measuring range	-40 to +250 °C
Resolution	0,1 °C
Accuracy	±0.5 °C (-20 to +150 °C) ±1 °C (outside)
Min./max. function	Yes
IP rating	67
Sensor: Ø x L	1.5 x 116 mm
L x W x H	206 x 31 x 18 mm
Weight	43 g
Power supply	CR 2032 button cell battery (3 V)

Delivery incl. protective cover, factory calibration certificate and battery.

Version	Calibration	Art. No.	Pack Qty.	€
Penetration thermo-meter	with factory calibration certificate (test points at +0 °C/100 °C/150 °C)	**1EN2.1**	1 unit(s)	38,70

NEW / +

Penetration probe thermometer LABTHERM

Dostmann.

With robust penetration tip, ideal for measuring in liquids, food, etc. **Water and dust proof acc. to IP 67.** Hold, max. and min. function. Auto-Off function, switches off after 15 minutes to prolong battery life, can be deactivated. 0 °C calibration function.

Technical specifications:

Art. No.	**LN45.1**	**1LC6.1**
Type	LABTHERM	LABTHERM XL
Parameters	Temperature	
Temperature measuring range	-40 to +250 °C	
Resolution	0.1 °C	
Accuracy	±0.5 °C (-10 to +100 °C) ±1.0 °C or ±1% (outside)	
Min./max. function	Yes	
IP rating	67	
Sensor: Ø x L	3.5 x 106 mm	3.5 x 300 mm
L x W x H	220 x 25 x 20 mm	414 x 25 x 20 mm
Power supply	V13GA (1.5 V) button cell battery	

Delivery incl. protective case (for the sensor), fastening clip and batteries.

Version	Art. No.	Pack Qty.	€
Insertion thermometer	**LN45.1**	1 unit(s)	25,20
Insertion thermometer	**1LC6.1**	1 unit(s)	28,45

Thermometers, digital

Penetration probe thermometer Pro DigiTemp

Dostmann.

With display rotatable through 180° for easy readability. MAX., MIN. and HOLD function. Automatic shut-off after 5 min.

Technical specifications:

Art. No.	AK16.1
Type	Pro DigiTemp
Parameters	Temperature
Temperature measuring range	-40 to +200 °C
Resolution	0.1 °C
Accuracy	±1 °C (0 to +100 °C) ±2 °C (outside)
Min./max. function	Yes
Sensor: Ø x L	3.5 x 180 mm
Ø x L	50 x 240 mm
Power supply	V 13 GA (1.5 V) button cell battery

Delivery incl. protective case (for the sensor) and batteries.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**AK16.1**	1 unit(s)	23,45

Penetration probe thermometer

Amarell.

With stainless steel penetration tip. For temperature measurements in liquid and semi-solid media and solid bodies. Plastic case can be used as a clip or handle. With hold function for saving the current display.

Technical specifications:

Art. No.	A321.1
Parameters	Temperature
Temperature measuring range	-50 to +200 °C
Resolution	0.1 °C
Accuracy	±1 °C (-20 to +100 °C)
Sensor: Ø x L	3.5 x 120 mm
L x W x H	150 x 58 x 22 mm
Power supply	V 13 GA (1.5 V) button cell battery

Delivery incl. protective case (for the sensor) and batteries.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**A321.1**	1 unit(s)	26,65

Penetration probe thermometer ThermoJack foldable

Dostmann.

For core temperature and random measurements. Suitable for food acc. to EN 13485. Tip of the sensor is tapered to Ø 1.7 mm.

Technical specifications:

Art. No.	TA94.1
Type	ThermoJack
Parameters	Temperature
Temperature measuring range	-40 to +250 °C
Resolution	0.1 °C
Accuracy	±0.5 °C (-20 to +150 °C) ±1% or ±1 °C (outside)
IP rating	65
Sensor: Ø x L	3.5 x 70 mm
L x W x H	190 x 38 x 20 mm
Weight	43 g
Power supply	Button cell battery CR 2032 (3 V)

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**TA94.1**	1 unit(s)	27,35

Fever thermometer electronic

TFA-Dostmann.

For quickly and precisely measuring body temperature. An audio alarm sounds once the measurement is complete.

Technical specifications:

Art. No.	1C5T.1
Parameters	Temperature
Temperature measuring range	+32 to +44 °C
Resolution	0.1 °C
Accuracy	±0.1 °C (+35 to +39 °C) ±0.2 °C (outside)
L x W x H	19 x 10 x 129 mm
Weight	10 g
Power supply	LR 41 button cell battery

Delivery incl. protective cover and battery.

Version	Art. No.	Pack Qty.	€
Maximum thermometer	**1C5T.1**	1 unit(s)	7,85

Thermometers, digital

Penetration probe thermometer foldable

Testo.

For core temperature and random measurements.
On/Off via folding mechanism (approx. 30°). Auto Off after 60 min.
Testo 104, also with auto-hold, hold and min./max. function.

Technical specifications:

Art. No.	PE63.1	PE64.1
Type	testo 103	testo 104
Parameters	Temperature	
Temperature measuring range	-30 to +220 °C	-50 to +250 °C
Resolution	0.1 °C	
Accuracy	±0.5 °C (-30.0 to +99.9 °C) ±1% (+100.0 to +222.0 °C)	±1.0 °C (-50.0 to -30.1 °C) ±0.5% (-30.0 to +99.9 °C) ±1% (+100.0 to +250.0 °C)
Min./max. function		Yes
IP rating	55	65
Sensor: Ø x L	3 x 75 mm	3 x 106 mm
L x W x H	189 x 35 x 19 mm	265 x 35 x 20 mm
Weight	49 g	165 g
Power supply	2 x 3 V button cell batteries CR 2032	2 x AAA 1.5 V batteries

Delivery incl. batteries.

Testo 103
Material: ABS.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**PE63.1**	1 unit(s)	52,70

Testo 104
Material: ABS, TPE, PC, Die-cast zinc, Stainless steel.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**PE64.1**	1 unit(s)	91,40

Temperature measuring device Mini-K

Dostmann.

For easy temperature measurements.
For connecting Type K thermoelement sensors with a miniature plug.

- Waterproof housing
- Auto-off function after 15 minutes to prolong battery life
- Hold display
- With magnet for attachment to metal surfaces

Technical specifications:

Art. No.	KL30.1
Type	Mini-K
Parameters	Temperature
Temperature measuring range	-64 to +1370 °C
Resolution	0.1 °C
Accuracy	±1% or 1 °C (the largest value applies)
Temperature sensor	TE type K
Connection	Miniature thermoelement
IP rating	65
L x W x H	20 x 43 x 78 mm
Weight	41 g
Power supply	Button cell battery CR 2032 (3 V)

Delivery incl. battery. Without measuring probe, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**KL30.1**	1 unit(s)	50,00

Thermometers, digital

Temperature gauge type K with miniature thermoelement connection Testo

Dostmann.

Technical specifications:

Art. No.	KL31.1	KL32.1	KL33.1	X196.1	KL34.1	KL35.1
Parameters	Temperature					
Temperature measuring range	-40 to +400 °C	-60 to +550 °C	-100 to +1100 °C		-200 to +900 °C	-65 to +260 °C
Temperature accuracy	Class 2	Class 1				
Temperature sensor	TE type K					
Connection	Miniature thermoelement					
Ø x L	3.5 x 120 mm	1.5 x 130 mm	1.5 x 300 mm	3.0 x 300 mm	3 x 220 mm	1 x 1000 mm
Cable length	1 m					

Immersion/penetration probe

With centred tip.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +400	1	**KL31.1**	1 unit(s)	32,85
-60 to +550	1	**KL32.1**	1 unit(s)	45,05

Immersion sensors

For measuring liquid, gaseous and powdery media.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-100 to +1100	1	**KL33.1**	1 unit(s)	64,40
-100 to +1100	1	**X196.1**	1 unit(s)	70,95

Immersion sensor without handle

Flexible.

Delivery without handle and connection cable.

Temperature measuring range (°C)	Art. No.	Pack Qty.	€
-200 to +900	**KL34.1**	1 unit(s)	30,30

PTFE insulated thermocouple wire

Delivery without handle and connection cable.

Temperature measuring range (°C)	Art. No.	Pack Qty.	€
-65 to +260	**KL35.1**	1 unit(s)	21,45

Infrared thermometer Bodytemp 478

Dostmann.

Contactless forehead infrared thermometer for quick and precise measurement of body temperature (+32 to +42.5 °C). In Surface Mode, general surface measurements in the range of 0 to 60 °C are possible.

- Large, illuminated LCD display which simultaneously displays the measured values and stored values
- Short response time of <0.5 seconds
- Measurement distance of 5–15 cm
- Audio limit alarm (freely selectable values)
- Switchable between body and surface measurement
- Small measurement data memory
- Hold/Auto Off function

Technical specifications:

Art. No.	1C6C.1
Type	Bodytemp 478
Parameters	Temperature
Infrared measuring range	0 to +60 °C
Resolution	1 °C
Accuracy	±0.3 °C
Measuring distance : measuring spot ratio	8 : 1
Operating temperature	0 to +50 °C
L x W x H	149 x 77 x 43 mm
Weight	172 g
Power supply	2x battery Mignon/AA 1.5 V

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
Bodytemp 478	**1C6C.1**	1 unit(s)	52,70

Temperature measuring device testo 108

Testo.

For fast, simple and precise temperature measurement, above all in the food industry (transport, storage, production, quality testing). Simple operation and handling through two self-explanatory key and a large display. Device and sensor, waterproof.

Technical specifications:

Art. No.	HHY1.1
Type	testo 108
Parameters	Temperature
Temperature measuring range	-50 to +300 °C
Resolution	0.1 °C
Accuracy	Device: ±0.5 °C (-30.0 - +70.0 °C), ±0.5 °C ±0.5% of m.v. (outside) Probe (Delivery incl.): ±0.5 °C (-40 to -20 °C), ±0.2 °C (-20 to +70 °C), ±0.5 °C (+70 to +125 °C), ±0.4 % of m.v. (+125 to +300 °C)
Temperature sensor	TE type K + T
Connection	Miniature thermoelement
Measuring cycle	2 measurements per second
IP rating	67
Sensor: Ø x L	4 x 85 mm
L x W x H	140 x 60 x 24.5 mm
Weight	150 g
Power supply	3x battery Micro/AAA 1.5 V

Delivery incl. type T standard penetration probe thermoelement, protective cover, calibration protocol and batteries.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**HHY1.1**	1 unit(s)	103,20

Temperature gauge type T for testo 108

Testo.

Technical specifications:

Art. No.	HKA0.1	HKA1.1	HKA2.1	HKA3.1
Parameters	Temperature			
Temperature measuring range	-50 to +300 °C	-50 to +250 °C	-50 to +350 °C	-50 to +250 °C
Temperature accuracy	±0.2 °C (-20 to +70 °C), Class 1 (outside)	Class 1	±0.2 °C (-20 to +70 °C), Class 1 (outside)	
Temperature sensor	TE type T			
Connection	Miniature thermoelement			
Ø x L	4 x 85 mm	1.5 x 2000 mm	4 x 125 mm	1.4 x 60 mm
Cable length	1 m	2 m	1.5 m	1.25 m

(1) Standard penetration probe

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +300	1	**HKA0.1**	1 unit(s)	34,40

(2) Air probe

With PTFE connection cable (heat resistant up to +250 °C)

Delivery incl. connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +250	2	**HKA1.1**	1 unit(s)	44,10

(3) Stainless steel penetration probe (IP 67), robust

With FEP connection cable (heat resistant up to +200 °C)

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +350	1.5	**HKA2.1**	1 unit(s)	122,55

(4) Stainless steel penetration probe, thin

With connection cable (heat resistant up to 250 °C)

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +250	1.25	**HKA3.1**	1 unit(s)	105,35

Thermometers, digital

Temperature measuring device testo 110

Testo.

Highly accurate control thermometer for connecting to NTC sensors.

- Audible alarm (threshold value freely adjustable)
- Display of min./max. values
- Display lighting
- Auto-hold automatically recognises the end value

Technical specifications:

Art. No.	EL54.1	EL59.1
Type	testo 110	
Parameters	Temperature	
Temperature measuring range	-50 to +150 °C	
Resolution	0.1 °C	
Accuracy	±0.2 °C (-25 to +150 °C) ±0.5% of m.v. (+100 to +150 °C) ±0.4 °C (outside)	
Temperature sensor	NTC	
Connection	specific	
Min./max. function	Yes	
Operating temperature	-20 to +50 °C	
Operating temperature	-50 to +150 °C	
L x W x H	64 x 40 x 182 mm	
Weight	171 g	
Power supply	Battery: E-Block 9 V	

Standard design

Delivery incl. calibration protocol and batteries. Without measuring probe (please order separately).

Version	Calibration	Art. No.	Pack Qty.	€
Temperature measuring device	without	**EL54.1**	1 unit(s)	113,95

Measuring device kit with certificate

Delivery incl. immersion/penetration probe (Art. No. EL57.1), ISO calibration certificate with three calibration points (-18 °C, 0 °C, +60 °C) and batteries.

Version	Calibration	Art. No.	Pack Qty.	€
Temperature measuring device	with ISO calibration certificate	**EL59.1**	1 unit(s)	327,90

Temperature gauge NTC for testo 110

Testo.

Technical specifications:

Art. No.	EL55.1	EL56.1	EL57.1	EL58.1
Parameters	Temperature			
Temperature measuring range	-50 to +150 °C			
Temperature accuracy	±0.2 °C (-25 to +80 °C), ±0.4 °C (outside)	±0.5% of m.v. (+100 to +150 °C), ±0.2 °C (-25 to +74.9 °C), ±0.4 °C (outside)		
Temperature sensor	NTC			
Connection	specific			
Ø x L	5 x 115 mm			4 x 125 mm
Cable length	1.2 m			

Delivery incl. handle and connection cable.

Air probe

Robust and waterproof.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +150	1.2	**EL55.1**	1 unit(s)	77,40

Surface probe

Waterproof. For flat surfaces. Widened measurement tip (Ø 6 mm).

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +150	1.2	**EL56.1**	1 unit(s)	86,00

Immersion/penetration probe

Waterproof. With bevelled tip.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +150	1.2	**EL57.1**	1 unit(s)	75,25

Food probes

Material: Stainless steel. Waterproof (IP 67), sharp, robust.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +150	1.2	**EL58.1**	1 unit(s)	134,40

Temperature measuring device testo 720

Testo.

For demanding measuring in the laboratory and in industry.

- Audible alarm (threshold value freely adjustable)
- Display of min./max. values
- Light-up display
- Ideal for laboratory work, as glass-coated temperature sensors can be connected

Technical specifications:

Art. No.	EH87.1
Type	testo 720
Parameters	Temperature
Temperature measuring range	-100 to +800 °C
Resolution	0.1 °C
Accuracy	±0.2% of m.v. (+200 to +800 °C) ±0.2 °C (outside)
Temperature sensor	NTC and Pt 100
Connection	specific
Min./max. function	Yes
Operating temperature	-20 to +50
L x W x H	64 x 40 x 182 mm
Weight	171 g
Power supply	Battery: E-Block 9 V

Delivery incl. calibration protocol and batteries. Without measuring probe (please order separately).

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**EH87.1**	1 unit(s)	187,05

Temperature gauge Pt 100 for testo 720

Testo.

Technical specifications:

Art. No.	EH88.1	EH89.1	EH90.1	EH91.1
Parameters	Temperature			
Temperature measuring range	-50 to +400 °C			
Temperature accuracy	Class A			Class B
Temperature sensor	Pt 100			
Connection	specific			
Ø x L	6 x 200 mm	4 x 125 mm	5 x 114 mm	
Cable length	1.2 m			

Delivery incl. handle and connection cable.

Laboratory probe, glass-coated
Replaceable glass tube. Resistant to aggressive media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +400	1.2	**EH88.1**	1 unit(s)	120,40

Food probes
Material: Stainless steel. Sharp, robust. Waterproof (IP 65).

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +400	1.2	**EH89.1**	1 unit(s)	146,20

Immersion/penetration probe
With bevelled tip. Waterproof.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +400	1.2	**EH90.1**	1 unit(s)	82,80

Surface probe
Widened measurement tip (Ø 9 mm). Waterproof.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +400	1.2	**EH91.1**	1 unit(s)	117,20

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Temperature measuring device testo 925

Testo.

Robust thermometer for day-to-day measuring tasks.

- For connecting a Type K thermoelement sensor
- Audible alarm when the set value is exceeded or not met
- Display of min./max. values, hold button
- Light-up display
- **Wireless measuring data transfer possible with optional wireless sensor and wireless module**

Technical specifications:

Art. No.	**EH73.1**
Type	testo 925
Parameters	Temperature
Temperature measuring range	-50 to +1000 °C
Resolution	0.1 °C (-50 to +199.9 °C), 1 °C (outside)
Accuracy	±0.5 °C or 0.3% of m.v. (-40 to +900 °C) ±0.7 °C or 0.5% of m.v. (outside)
Temperature sensor	TE type K
Connection	Miniature thermoelement
Min./max. function	Yes
Operating temperature	-20 to +50 °C
L x W x H	64 x 40 x 182 mm
Weight	171 g
Power supply	Battery: E-Block 9 V

Delivery incl. calibration protocol and batteries. Without measuring probe (please order separately).

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**EH73.1**	1 unit(s)	102,15

Temperature measuring device testo 112 with proof of conformity

Testo.

Applications:

- For official measuring by authorities, institutions and expert assessments
- For measuring the product temperature in food production facilities
- For routine measurements in day-to-day work
- For test measurements during chilled transportation

Properties:

- PTB type test
- Integrated self-testing
- If the adjustable limit values are exceeded or not met, there is an immediate audible alarm from the measuring device
- Light-up display
- Min./max. values
- Declaration of conformity for device and sensor

Note:
A new calibration law (MessEG) and new calibration regulations (MessEV) came into force in Germany on 1st January 2015. The previous initial calibration procedure has been be replaced by a new procedure, the so-called conformity assessment procedure. Instead of the certificate of calibration, a declaration of conformity is now issued by the equipment manufacturer and checked by a conformity assessment agency (e.g. Office of Weights and Measures).
Equipment can, as before, be recalibrated after two years through any Office of Weights and Measures.

Technical specifications:

Art. No.	**EH93.1**
Type	testo 112
Parameters	Temperature
Temperature measuring range	-50 to +300 °C
Resolution	0.1 °C
Accuracy	±0.2 °C (-50 to +200 °C) ±0.3 °C (outside)
Temperature sensor	NTC and Pt 100
Connection	specific
Min./max. function	Yes
Operating temperature	-20 to +50
Cable length	1.2 m
Sensor: Ø x L	5 x 115 mm
L x W x H	64 x 40 x 182 mm
Weight	171 g
Power supply	Battery: E-Block 9 V

Delivery incl. Pt 100 immersion/penetration probe with fixed cable, conformity certificate and batteries.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**EH93.1**	1 unit(s)	594,50

Thermometers, digital

Temperature gauge type K with miniature thermo-element connection Testo

Testo.

Technical specifications:

Art. No.	EH79.1	EH78.1	EH82.1	EH77.1	EH80.1	EH81.1
Parameters	Temperature					
Temperature measuring range	-60 to +400 °C		-200 to +1000 °C	-60 to +1000 °C	-60 to +400 °C	-60 to +300 °C
Temperature accuracy	Class 2		Class 1		Class 2	
Temperature sensor	TE type K					
Connection	Miniature thermoelement					
Ø x L	4 x 125 mm	5 x 114 mm	1.5 x 500 mm	1.5 x 300 mm	5 x 115 mm	
Cable length	1.2 m			1.5 m	1.2 m	

Food probes

Material: Stainless steel. Sharp, robust. Waterproof (IP 65).

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-60 to +400	1.2	**EH79.1**	1 unit(s)	81,70

Surface probe for uneven surfaces

With spring thermoelement ribbon (measuring tip: Ø 12 mm). Fast-reacting and waterproof.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-60 to +300	1.2	**EH81.1**	1 unit(s)	129,00

Surface probe for flat surfaces

Widened measurement tip (Ø 6 mm). Waterproof.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-60 to +400	1.2	**EH80.1**	1 unit(s)	64,50

Immersion/penetration probe

With bevelled tip. Waterproof.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-60 to +400	1.2	**EH78.1**	1 unit(s)	45,15

Immersion sensors

Flexible. Precise and fast. Waterproof.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-60 to +1000	1.5	**EH77.1**	1 unit(s)	101,05

Immersion measuring tip

Filament-like measuring tip, pliable.

Delivery without handle and connection cable.

Temperature measuring range (°C)	Art. No.	Pack Qty.	€
-200 to +1000	**EH82.1**	1 unit(s)	30,10

Temperature measuring device P200

Dostmann.

For measuring air, gas, liquids, and plastic materials.

- **Fixed NTC penetration probe** with handle
- Large display
- Min/max and hold function
- Plastic housing, food-safe and waterproof
- Integrated sensor holder for single-hand operation

Technical specifications:

Art. No.	HNN8.1
Type	P200
Parameters	Temperature
Temperature measuring range	-40 to +200 °C
Resolution	0.1 °C
Accuracy	±1.0 °C (-25 to 150 °C) ±1.5 °C (outside)
Temperature sensor	NTC
Connection	non-adjustable
Min./max. function	Yes
Measuring cycle	1 sec
IP rating	65
Cable length	600 mm
Sensor: Ø x L	3.5 x 110 mm
L x W x H	95 x 60 x 18 mm
Weight	150 g
Power supply	2x Batterie Micro/AAA 1,5 V

Delivery incl. fastening clip, table stand and batteries.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**HNN8.1**	1 unit(s)	52,65

Thermometers, digital

Temperature measuring device P300

Dostmann.

For measuring in liquid, paste-like and semi-solid media.

- **Fixed NTC penetration probe** with handle
- Large backlit display
- Min/Max and Hold functions.
- Integrated sensor holder for single-hand operation
- Plastic housing, food-safe and splash-proof

Technical specifications:

Art. No.	**N359.1**	**HT78.1**
Type	P300	
Parameters	Temperature	
Temperature measuring range	-40 to +200 °C	
Resolution	0.1 °C	
Accuracy	±0.5 °C (0 to 100 °C) ±1.5 °C (outside)	
Temperature sensor	NTC	
Connection	non-adjustable	
Min./max. function	Yes	
IP rating	54	
Cable length	1.2 m	
Sensor: Ø x L	3.5 x 120 mm	
L x W x H	65 x 25 x 130 mm	
Weight	240 g	
Power supply	2x Mignon/AA battery 1.5 V	

Delivery incl. batteries.

Version	Calibration	Art. No.	Pack Qty.	€
Temperature measuring device	without	**N359.1**	1 unit(s)	71,85
Temperature measuring device	with ISO calibration certificate (0 °C, +60 °C)	**HT78.1**	1 unit(s)	98,50

Temperature measuring device P4000

Dostmann.

For measuring liquid, gaseous and powdery media.
With Pt 100 four-conductor sensor technology.

- Plastic splash-proof and washable housing
- Stores min, max, hold and average values
- 1-point adjustment possible
- 2-line LCD display

Optional accessories (please order separately):
Windows software DE graph and USB cable for online documentation.

Technical specifications:

Art. No.	**HNN5.1**
Type	P4000
Parameters	Temperature
Temperature measuring range	-200 to +850 °C
Resolution	0.1 °C (-99.9 to +399.9), 1 °C (outside)
Accuracy	±0,3 °C
Temperature sensor	Pt 100
Connection	specific
Min./max. function	Yes
Data memory	20 measured values
Port	USB
IP rating	54
L x W x H	150 x 74 x 32 mm
Weight	217 g
Power supply	2x Mignon/AA battery 1.5 V

Delivery incl. batteries and test protocol. Without measuring probe, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**HNN5.1**	1 unit(s)	123,95

Temperature gauge Pt 100 for P4000

Dostmann.

Technical specifications:

Art. No.	AY95.1	AY91.1	AY92.1	AY96.1	AY97.1	AY93.1	AY94.1
Parameters	Temperature						
Temperature measuring range	-50 to +250 °C	-50 to +350 °C		-200 to +450 °C		-50 to +350 °C	-40 to +300 °C
Temperature accuracy	Class B			Class B 1/3 DIN		Class B	
Temperature sensor	Pt 100						
Connection	specific						
Ø x L	4 x 250 mm	3 x 150 mm	3 x 300 mm	3 x 150 mm	3 x 300 mm	4 x 150 mm	6 x 150 mm
Cable length	1 m						

Delivery incl. handle and connection cable.

Penetration probe

For measuring in hard and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +350	1	**AY93.1**	1 unit(s)	76,90

Air probe

For quickly measuring air and gas temperatures.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +250	1	**AY95.1**	1 unit(s)	99,45

Surface probe

With spring-loaded contact area.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +300	1	**AY94.1**	1 unit(s)	182,75

Immersion sensor, standard

For measuring liquid, gaseous and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +350	1	**AY91.1**	1 unit(s)	76,90
-50 to +350	1	**AY92.1**	1 unit(s)	82,75

Immersion sensor, precise

For measuring liquid, gaseous and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-200 to +450	1	**AY96.1**	1 unit(s)	132,80
-200 to +450	1	**AY97.1**	1 unit(s)	139,75

Temperature measuring device P4010

Dostmann.

For measuring liquid, gaseous and powdery media.

- **With replaceable type K thermoelement probe class 2:** Measuring range -40 to +400 °C; with handle.
- 2-line LCD display
- Stores min, max, hold and average values
- 1-point adjustment possible
- Plastic splash-proof and washable housing

Technical specifications:

Art. No.	HNN9.1	HNP0.1
Type	P4010	
Parameters	Temperature	
Temperature measuring range	-200 to +1370 °C	
Resolution	0.1 °C (-99.9 to +399.9 °C), 1 °C (outside)	
Accuracy	±0,5 °C	
Temperature sensor	TE type K	
Connection	Miniature thermoelement	
Min./max. function	Yes	
Data memory	20 measured values	
Port	USB	
IP rating	54	
Cable length	1 m	
Sensor: Ø x L	3.5 x 120 mm	
L x W x H	150 x 74 x 32 mm	
Weight	217 g	
Power supply	2x battery Mignon/AA 1.5 V	

Set 1

Standard design

Delivery incl. type K cl. 2 immersion/penetration probe, test protocol and batteries.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**HNN9.1**	1 unit(s)	144,25

Set 2

For graphic and tabular documentation with software and USB cable

Delivery incl. type K cl. 2 immersion/penetration probe, DE graph software, USB cable, test protocol and batteries.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**HNP0.1**	1 unit(s)	252,65

Thermometers, digital

Temperature measuring device P700 series

Dostmann.

With integrated calibration function for easy compensation of sensor tolerances.

- Measuring probe can be connected:
  Pt 100 (Measuring range up to max. +850 °C) or
  Type K, J, L, N, R, S, T thermoelements (measuring range up to max. +1760 °C)
- Stores the max., min., hold and average value
- USB/online/PC port
- Integrated sensor holder
- Foldable bracket for standing

Technical specifications:

Art. No.	X717.1	X718.1	X719.1	X721.1	X720.1
Parameters	Temperature				
Temperature measuring range	-200 to +1760 °C				
Resolution	0.1 °C		0.01 (-200 to +200 °C), 0.1% (outside)		
Accuracy	Pt 100: ±0.1 °C (-100 to +200 °C) ±0.1% of m.v. (outside) Type K: ±0.2 °C (0 to +200 °C) ±0.5 °C (+200 to +1000 °C) ±1.0 °C (outside)		Pt 100: ±0.03 °C (-50 to +199.99 °C) ±0.05 °C (-200 to +200) ±0.1% of m.v. (outside) Type K: ±0.2 °C (0 to +200 °C) ±0.5 °C (+200 to +1000 °C) ±1.0 °C (outside)		
Temperature sensor	TE type K and Pt 100				
Connection	specific				
Min./max. function	Yes				
Port	USB/online/PC				
L x W x H	93 x 44 x 200 mm				
Power supply	Batteries, 9 V E-Block and mains powered				

P700
Single-channel device

Delivery incl. battery. Without measuring probe and mains connectors, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**X717.1**	1 unit(s)	258,00

P705
Two-channel device. For connecting two temperature gauges, with simultaneous display of two measured values or differential temperature.

Delivery incl. battery. Without measuring probe and mains connectors, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**X718.1**	1 unit(s)	311,75

P750
Single-channel device. Highest accuracy of ±0.03 °C. Ideal reference device for testing secondary measuring devices. Humidity sensor and flow sensor can be connected.

Delivery incl. battery. Without measuring probe and mains connectors, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**X719.1**	1 unit(s)	494,50

P750 service case set
Contains: Single-channel temperature measuring device P750 (Art. No. X719.1), immersion sensor (Art. No. X726,1), 9 V block battery with charging device, transport case, mains connector, 9 V block battery, PC adapter cable and software.

Delivery incl. immersion sensor (Art. No. X726.1), 9 V block battery with charging device, transport case, mains connector, 9 V block battery, PC adapter cable and software.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**X721.1**	1 unit(s)	921,30

P755
Two-channel device. For connecting two temperature gauges, with simultaneous display of two measured values or differential temperature.

Delivery incl. battery. Without measuring probe and mains connectors, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**X720.1**	1 unit(s)	559,00

Temperature gauge Pt 100 for P700 series

Dostmann.

With four-conductor technology.

Technical specifications:

Art. No.	X724.1	X722.1	X723.1	X726.1	AY99.1
Parameters	Temperature				
Temperature measuring range	-50 to +350 °C			-200 to +450 °C	
Temperature accuracy	Class B			Class B 1/3 DIN	Class B 1/10 DIN
Temperature sensor	Pt 100				
Connection	specific				
Ø x L	4 x 150 mm	3 x 150 mm	3 x 300 mm		
Cable length	1 m				

Delivery incl. handle and connection cable.

Penetration probe
For measuring in hard and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +350	1	**X724.1**	1 unit(s)	77,40

Immersion sensor, standard
For measuring liquid, gaseous and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +350	1	**X722.1**	1 unit(s)	80,65
-50 to +350	1	**X723.1**	1 unit(s)	86,00

Immersion sensor, precise
For measuring liquid, gaseous and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-200 to +450	1	**X726.1**	1 unit(s)	137,95

Immersion sensor, highly precise
For measuring liquid, gaseous and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-200 to +450	1	**AY99.1**	1 unit(s)	195,65

Thermometers, digital

Temperature gauge type K for P700 series

Dostmann.

Technical specifications:

Art. No.	X730.1	X727.1	X728.1	X729.1
Parameters	Temperature			
Temperature measuring range	-40 to +200 °C	-40 to +400 °C	-100 to +1100 °C	
Temperature accuracy	Class 2		Class 1	
Temperature sensor	TE type K			
Connection	specific			
Ø x L		3.5 x 120 mm	1.5 x 300 mm	3.0 x 500 mm
Cable length	1 m			

Delivery incl. handle and connection cable.

Immersion/penetration probe

For measuring in liquid and gaseous media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +400	1	**X727.1**	1 unit(s)	38,70

Immersion sensors

For measuring in liquid and gaseous media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-100 to +1100	1	**X728.1**	1 unit(s)	68,80
-100 to +1100	1	**X729.1**	1 unit(s)	77,40

Clip-on probe

For measurements in piping up to ø 35 mm.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +200	1	**X730.1**	1 unit(s)	61,30

Combination probe for P750/P755/P770

Dostmann.

For temperature and humidity.

Technical specifications:

Art. No.	X825.1
Parameters	Humidity, Temperature
Temperature measuring range	-30 to +80 °C
Rel. humidity measuring range	0 to 100 %
Temperature sensor	Pt 100
Connection	specific
Ø x L	20 x 120 mm
Cable length	1 m

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Rel. humidity measuring range (%)	Cable length (m)	Art. No.	Pack Qty.	€
-30 to +80	0 to 100	1	**X825.1**	1 unit(s)	179,55

Flow sensor for P750/P755/P770

Dostmann.

For air and gases. Measuring range: 0.3 to 20 m/s.

Technical specifications:

Art. No.	X731.1
Measuring range	0.3 to 20 m/s
Cable length	1 m
Ø x L	22 x 175 mm

Delivery incl. handle and connection cable (length: 1 m).

Version	Art. No.	Pack Qty.	€
Flow sensor	**X731.1**	1 unit(s)	808,40

Data loggers

Data logger LOG32 series

Dostmann.

For measurement data monitoring, e.g. storage and transport conditions, production facilities, greenhouses and refrigerators.

- Pre-programmed data logger (measuring interval: 5 min), ready for immediate use
- Automatic data output as PDF file, no driver installation required
- Integrated USB port
- Windows-compatible software is available for programming the logger (e.g. measuring cycle, alarm limits, start and end times for recording), please download free of charge
- Status and alarm LEDs with audible signal

Technical specifications:

Art. No.	CCE2.1	CCE3.1
Type	LOG32T	LOG32TH
Parameters	Temperature	Temperature, Humidity
Temperature measuring range	-40 to +70 °C	
Temperature accuracy	±0.5 °C (-10 to +40 °C), ±1 °C (outside)	
Rel. humidity measuring range		0 to 100 %
Rel. humidity accuracy		±3% (40–60%), ±3.5% (20–40%, 60–80%), ±5% (outside)
Resolution	0,1 °C	0,1 °C, 0,1 %
Display	No	
Data memory	60000 datasets	
Measuring cycle	30 s to 24 h	
Port	USB	
L x W x H	100 x 19 x 19 mm	
Weight	70 g	
Power supply	3.6 V / ½ AA lithium battery	

Delivery incl. ISO calibration certificate, wall mount and battery.

Type	Art. No.	Pack Qty.	€
LOG32T	**CCE2.1**	1 unit(s)	59,15
LOG32TH	**CCE3.1**	1 unit(s)	82,45

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Data loggers

Data logger

Dostmann.

For monitoring and documentation of measured values during transportation and storage.

- Pre-programmed data logger (measuring interval LOG200, LOG200E: 15 min and LOG210, LOG220, LOG220E: 5 min)
- Automatic data output as PDF file, no driver installation required
- Status and alarm LEDs with audible signal
- Windows-compatible software for logger programming (e.g. measuring cycle, alarm limits); please download free of charge
- Motion sensor detects and documents vibrations (e.g. changing location or opening of windows and doors)
- Network operation possible, please order USB cable separately

NEW / +

Technical specifications:

Art. No.	EHX3.1	EHX4.1	EHX5.1	1ENC.1	1ENE.1
Type	LOG200	LOG210	LOG220	LOG200E	LOG220E
Parameters	Temperature	Temperature, Humidity	Temperature, Humidity, Pressure	Temperature	Temperature, Humidity, Pressure, Carbon dioxide
Temperature measuring range	-40 to +70 °C			-200 to +850 °C	
Temperature measuring range, internal	-40 to +70 °C				
Ext. temp. measuring range				-200 to +850 °C	
Temperature accuracy	±0.5 °C (-10 to +40 °C), ±1.0 °C (outside)			±0.5 °C (0 to +60 °C), ±1.0 °C (outside)	
Rel. humidity measuring range		0 to 100 %			0 to 100 %
Rel. humidity accuracy		±3.5% (20–80%), ±5% (outside)			±3.5% (20 to 80%), ±5% (outside)
Air pressure measuring range			300–1100 hPa		300–1100 hPa
Air pressure accuracy			±1 hPa (900–1100 hPa), 0.5% of end value (outside)		±1.0 hPa (900 to 1100 hPa), ±5.5 hPa (outside)
Carbon dioxide measuring range (external)					0 to 10000 ppm
Carbon dioxide accuracy					±30 ppm +3% of measured value (23 °C)
Resolution	0,1 °C	0,1 °C, 0,1 %	0,1 °C, 0,1 %, 0,1 hPa	0,1 °C	0,1 °C, 0,1 %, 0,1 hPa, 1 ppm
Display	Yes				
Data memory	150 000 measured values	100 000 measured values	60000 measured values	100000 measured values	60000 measured values
Measuring cycle	10 s to 24 h				
Port	USB				
Min./max. function	Yes				
L x W x D	91.5 x 42 x 20 mm				
Weight	83 g				
Power supply	3.6 V/½ AA lithium battery				
Mains connection	100–240 V, 50/60 Hz				

LOG200 series

Delivery incl. ISO calibration certificate, wall mount and battery.

Type	Art. No.	Pack Qty.	€
LOG200	**EHX3.1**	1 unit(s)	67,20
LOG210	**EHX4.1**	1 unit(s)	80,55
LOG220	**EHX5.1**	1 unit(s)	95,70

LOG200E series

Also includes a connection for external sensor.

Delivery incl. ISO calibration certificate, wall mount and battery. External sensor not included, please order separately.

Type	Art. No.	Pack Qty.	€
LOG200E	**1ENC.1**	1 unit(s)	94,60
LOG220E	**1ENE.1**	1 unit(s)	137,60

External sensor for LOG200E series

Dostmann.

NEW/+

Technical specifications:

Art. No.	1ENT.1	1ENX.1	1ENY.1	1ENN.1	1ENP.1
Parameters	Temperature			Temperature, Humidity	Carbon dioxide
Temperature measuring range	-50 to +100 °C	-200 to +200 °C		-40 to +70 °C	
Temperature accuracy	Class B 1/3 DIN			±0.5 °C (0 to +60 °C), ±1.0 °C (outside)	
Rel. humidity measuring range				0 to 100 %	
Rel. humidity accuracy				±3.5% (20 to 80%), ±5% (outside)	
Carbon dioxide measuring range					0 - 5000 ppm
Carbon dioxide accuracy					±30 ppm +3% (23 °C ambient temperature)
Temperature sensor	Pt 100				
Connection	specific				
Ø x L	4 x 30 mm			15 x 43 mm	
L x W x H					75 x 35 x 17 mm
Cable length	3 m		8 m	1.8 m	

(1) Temperature gauge Pt 100
With four-conductor technology.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +100	3	**1ENT.1**	1 unit(s)	53,75
-200 to +200	3	**1ENX.1**	1 unit(s)	64,50
-200 to +200	8	**1ENY.1**	1 unit(s)	75,25

(2) Combination measuring probe

Temperature measuring range (°C)	Rel. humidity measuring range (%)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +70	0 to 100	1.8	**1ENN.1**	1 unit(s)	75,25

(3) CO_2 sensor
Due to the increased power consumption, it is recommended to operate the LOG220E data logger with mains power. Please order USB cable with mains adapter separately.

Carbon dioxide measuring range	Cable length (m)	Art. No.	Pack Qty.	€
0 - 5000 ppm	1.8	**1ENP.1**	1 unit(s)	102,15

Accessories USB cable with mains adapter for LOG200 and LOG200E series

NEW/+

Dostmann.
Cable length 1 m.

Suitable for	Art. No.	Pack Qty.	€
LOG200 and LOG200E series	**1H24.1**	1 unit(s)	21,50

Data logger testo 184 series

Testo.

For monitoring sensitive products.

- With alarm management:
  adjustable min/max function and cumulative alarm
- The configuration file for logger programming is stored directly on the data logger (no software installation required)
- Automatic data output as PDF file via USB port
- Mobile readout via NFC

NEW / +

Technical specifications:

Art. No.	CXC4.1	CXC5.1	1HX9.1
Type	testo 184 T3	testo 184 T4	testo 184 H1
Parameters	Temperature		Temperature, Humidity
Temperature measuring range	-35 to +70 °C	-80 to +70 °C	-20 to +70 °C
Temperature accuracy	±0.5 °C	±0.8 °C (-80 to -35.1 °C), ±0.5 °C (-35 to +70 °C)	±0.8 °C (-20 to 0 °C), ±0.5 °C (0 to +70 °C)
Rel. humidity measuring range			0 to 100 %
Rel. humidity accuracy			±1.8%, ±3.3% (5 to 80% at 25 °C)
Resolution	0,1 °C		0,1 °C, 0,1 %
Sensor type	NTC	Pt 1000	
Display	Yes	No	Yes
Data memory	40,000 measured values		64,000 measured values
Measuring cycle	1 min to 24 h		
Port	USB, NFC		
IP rating	67		30
Min./max. function	Yes		
W x D x H	44 x 12 x 97 mm		
Weight	45 g		
Power supply	CR 2450 coin cell battery (3 V)	ER 2450 coin cell battery (3 V)	CR 2450 coin cell battery (3 V)

Delivery incl. battery and test protocol stored on logger.

Testo 184 T3

For standard applications.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	testo 184 T3	**CXC4.1**	1 unit(s)	116,10

Testo 184 T4

Specially designed for low temperatures (down to -80 °C).

Pic.	Type	Art. No.	Pack Qty.	€
(2)	testo 184 T4	**CXC5.1**	1 unit(s)	196,75

Testo 184 H1

For simultaneous monitoring of temperature and humidity.

Pic.	Type	Art. No.	Pack Qty.	€
(3)	testo 184 H1	**1HX9.1**	1 unit(s)	156,95

① ②

Data logger testo 174 mini series

Testo.

For monitoring climatic conditions, for example in storage, in offices and in production areas.

- With LCD display for current measured value (on the testo 174H model, the current temperature or humidity value is displayed), battery status as well as min/max values
- Optical limit alarm (freely selectable values)
- Please download windows-compatible software (logger programming, reading data, graphic and tabular representation, for printing data) free of charge.
  USB interface is required for communication between the software and logger.

Technical specifications:

Art. No.	NA06.1	NA07.1
Type	testo 174T	testo 174H
Parameters	Temperature	Temperature, Humidity
Temperature measuring range	-30 to +70 °C	-20 to +70 °C
Temperature accuracy	±0.5 °C	
Rel. humidity measuring range		0 to 100 %
Rel. humidity accuracy		±3% (2–98%)
Resolution	0,1 °C	0,1 °C, 0,1 %
Display	Yes	
Data memory	16000 measured values	
Measuring cycle	1 min to 24 h	
Port	USB	
IP rating	65	20
Min./max. function	Yes	
L x W x D	60 x 40 x 20 mm	
Power supply	2x battery button CR 2032 (3 V)	

Delivery incl. wall mount, calibration protocol and batteries. USB interface is not included, please order separately.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	testo 174T	**NA06.1**	1 unit(s)	57,00
(2)	testo 174H	**NA07.1**	1 unit(s)	93,55

Data logger testo 175 series

Testo.

Temperature monitoring of cooling and refrigeration rooms as well as long-term monitoring of working and storage areas.

- With LCD display for showing the current measured value, battery status and min/max values
- Optical limit alarm (freely selectable values)
- Please download windows-compatible software (for logger programming, reading data, graphic and tabular representation and for printing data) free of charge.
  A USB cable is required for communication between the software and logger.
- Data can also be read easily using the SD card, please order separately.
  Note: The SD card is only able to collect data (reprogramming is not possible).
- Long battery life using standard batteries

Technical specifications:

Art. No.	PH31.1	PH32.1
Type	testo 175 T1	testo 175 H1
Parameters	Temperature	Temperature, Humidity
Temperature measuring range	-35 to +55 °C	-20 to +55 °C
Temperature accuracy	±0.5 °C	±0.4 °C
Rel. humidity measuring range		0 to 100 %
Rel. humidity accuracy		±2% (2–98%)
Resolution	0,1 °C	0,1 °C, 1 %
Display	Yes	
Data memory	1000000 measured values	
Measuring cycle	10 s to 24 h	
Port	Mini USB, SD card slot	
IP rating	65	54
Min./max. function	Yes	
W x D x H	53 x 27 x 89 mm	53 x 27 x 149 mm
Power supply	3x battery Micro/AAA 1.5 V	

Delivery incl. wall mount, lock, calibration protocol and batteries. Software and USB cable are not included, please order separately.

Type	Art. No.	Pack Qty.	€
testo 175 T1	**PH31.1**	1 unit(s)	139,75
testo 175 H1	**PH32.1**	1 unit(s)	291,35

Data loggers

Data logger LOG100 series

Dostmann.

For quality control in the lab and in production, as well as for monitoring storage and transport conditions.

- LCD display for showing the current measured value, battery status, min/max and average values
- Limit alarm, audible and visual
- Integrated USB port
- Please order windows-compatible software (logger programming, data transfer, graphic and tabular representation of data) and external temperature sensor (for measuring outside temperature) separately

Technical specifications:

Art. No.	NA22.1	NK56.1	NA23.1
Type	LOG100	LOG100Cryo	LOG110
Parameters	Temperature		Temperature, Humidity
Temperature measuring range	-50 to +125 °C	-200 to +250 °C	-50 to +125 °C
Temperature measuring range, internal	-30 to +70 °C	-10 to +70 °C	-30 to +70 °C
Ext. temp. measuring range	-50 to +125 °C	-200 to +250 °C	-50 to +125 °C
Temperature accuracy	±0,5 °C (-20 to +50 °C), ±0,7 °C (outside)	±0.3 °C (-20 to +50 °C), ±0.7 °C (outside)	±0.5 °C (-10 to +40 °C), ±1.0 °C (outside)
Rel. humidity measuring range			0.1 to 99.0 %
Resolution	0,1 °C		0,1 °C, 0,1 %
Display	Yes		
Data memory	60000 measured values		
Measuring cycle	1 s to 24 h		
Port	USB		
Min./max. function	Yes		
L x W x D	88 x 55 x 20 mm		
Weight	95 g		
Power supply	Battery Button CR 2032 (3 V)		

Delivery incl. battery. Without external temperature sensor and software, please order separately.

Type	Art. No.	Pack Qty.	€
LOG100	**NA22.1**	1 unit(s)	105,35
LOG100Cryo	**NK56.1**	1 unit(s)	149,45
LOG110	**NA23.1**	1 unit(s)	160,20

Temperature gauge

Dostmann.

Technical specifications:

Art. No.	NA25.1	NK57.1
Parameters	Temperature	
Temperature measuring range	-50 to +125 °C	-200 to +250 °C
Temperature accuracy	±0.5 °C (0 to +50 °C), ±1.0 °C (outside)	±0.5 °C
Temperature sensor	NTC	Pt 1000
Connection	specific	
Ø x L	3 x 40 mm	
Cable length	3 m	

Delivery incl. connection cable.

For LOG100 and LOG110

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +125	3	**NA25.1**	1 unit(s)	59,15

For LOG100Cryo

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-200 to +250	3	**NK57.1**	1 unit(s)	73,65

Wireless data logger KlimaLogg Pro

Dostmann.

For monitoring temperature and humidity.

- Gateway with internal temperature and humidity sensor
- Simultaneous display of humidity and temperature values
- Max/Min display with time of day
- **Connection to up to 8 wireless transmitters is possible** via the gateway connection; please order wireless transmitters separately
- Text display with fixed serial number or individual name allocation for stored transmitters
- Custom alarm limits can be set for all channels with audio or visual alarm indication
- Datasets can be retrieved directly on the device and via PC
- Data transfer via USB wireless transceiver (range: up to 10 m)
- Windows-compatible data transfer software is available for download free of charge. Measured values can also be exported as a text file.
- Radio clock with date display
- Battery charge level indicator

Technical specifications:

Art. No.	PL21.1
Type	KlimaLogg Pro
Parameters	Temperature, Humidity
Temperature measuring range	-20 to +60 °C
Temperature accuracy	±1 °C
Rel. humidity measuring range	0 to 99 %
Rel. humidity accuracy	±3% (35 to 75%)
Resolution	0,1 °C, 1 %
Display	Yes
Measuring cycle	Adjustable in increments of 1/5/10/15/30 min or 1/2/3/6 h
Port	USB
Min./max. function	Yes
W x D x H	137 x 26 x 98 mm
Weight	147 g
Power supply	3x battery Mignon/AA 1.5 V

Delivery incl. USB wireless transceiver and batteries. Wireless transmitter not included, please order separately.

Type	Art. No.	Pack Qty.	€
KlimaLogg Pro	**PL21.1**	1 unit(s)	92,70

Accessories for KlimaLogg Pro

Dostmann.

Technical specifications:

Art. No.	PL22.1	PL23.1
Version	with internal temperature/ RH sensor	with external temperature sensor
Parameters	Temperature, Humidity	Temperature
Temperature measuring range	-40 to +60 °C	
Temperature accuracy	±1 °C	
Rel. humidity measuring range	1 to 99 %	
Rel. humidity accuracy	±3% (30–75%)	
Resolution	0,1 °C, 1 %	0,1 °C
Display	Yes	
Radio range outdoors	100 m	
Cable length		3 m
W x D x H	44 x 23 x 160 mm	40 x 23 x 128 mm
Power supply	2x battery Mignon/AA 1.5 V	2x battery Micro/AAA 1.5 V

Delivery incl. batteries.

FS1 wireless transmitter

Pic.	Version	Art. No.	Pack Qty.	€
(1)	with internal temperature/RH sensor	**PL22.1**	1 unit(s)	25,25

FS2 wireless transmitter

Pic.	Version	Art. No.	Pack Qty.	€
(2)	with external temperature sensor	**PL23.1**	1 unit(s)	23,70

Wireless data logger for smartphones

Dostmann.

For simple monitoring of temperature/humidity at any time, any where. For calling up data via Internet-enabled smartphones.

- For operation in a cable-based network (LAN) with Internet connection
- Data storage on a cloud
- Data access via free app (iOS 7.0 or Android™ 3.2 and later)
- **Connection to up to 50 wireless transmitters is possible via the gateway connection**; please order wireless transmitters separately
- Gateway not equipped with internal sensors
- Smartphone with camera required to scan the QR code at the transmitters
- Individual assignment of transmitter names possible
- Reception range for transmitters max. 100 m (free field)
- Freely settable alarm limit with notification in the case of an alarm
- Gateway dimensions: L 104 x W 40 x D 28 mm

Technical specifications:

Art. No.	ENN0.1
Version	Starter kit
Parameters	Temperature
Temperature measuring range	-30 to +60 °C
Temperature accuracy	±1 °C
Resolution	0,1 °C
Display	No
Data memory	90 days
Radio range outdoors	100 m
Port	LAN
Cable length	1 m
Power supply	Mains adapter for gateway, 2 x 1.5 V AAA batteries for wireless transmitters

The temperature can be monitored with the starter kit.

If the humidity also needs to be measured, please order the Profi wireless transmitter separately.

Delivery incl. Gateway unit with mains adapter, standard wireless transmitter with external temperature sensor and network cable (RAJAH).

Version	Art. No.	Pack Qty.	€
Starter kit	**ENN0.1**	1 unit(s)	74,20

Accessories for wireless data logger for smartphones

Dostmann.

Technical specifications:

Art. No.	ENN1.1	ENN2.1
Version	with external temperature sensor	with internal °C-/RH sensor and external °C sensor
Parameters	Temperature	Temperature, Humidity
Temperature measuring range	-30 to +60 °C	-50 to +110 °C
Temperature measuring range, internal		-40 to +60 °C
Ext. temp. measuring range	-30 to +60 °C	-50 to +110 °C
Temperature accuracy	±1 °C	±1 °C (inside), ±0.5 °C (outside)
Rel. humidity measuring range		0 to 99 %
Rel. humidity accuracy		±3% (30 - 80%)
Resolution	0,1 °C	0,1 °C, 0,1 %
Display	No	Yes
Data memory	90 days	18 months
Radio range outdoors	100 m	
Cable length	1 m	1.5 m
L x W x D	87 x 33 x 22 mm	
Power supply	2x battery Micro/AAA 1.5 V	

Delivery without batteries, please order separately.

Standard wireless transmitter

Pic.	Version	Art. No.	Pack Qty.	€
(1)	with external temperature sensor	**ENN1.1**	1 unit(s)	21,40

Professional wireless transmitter

Pic.	Version	Art. No.	Pack Qty.	€
(2)	with internal °C-/RH sensor and external °C sensor	**ENN2.1**	1 unit(s)	74,75

Data loggers

Wireless data logger

Testo.

Modern solution for temperature measurement and monitoring in storage, cold-storage and work rooms.

- Data transfer via WiFi
- Online data storage directly to cloud
- Measured values can be retrieved and evaluated via Internet-compatible smartphones, tablets or PCs
- Logger configuration via the testo basic cloud (free access), no software installation required
- An e-mail alert is generated if limits are exceeded

NEW / +

Technical specifications:

Art. No.	1H20.1	1H1Y.1	ECK0.1	ECK1.1	1H21.1	1H1X.1
Type	testo 160 TH	Saveris 2-H1	Saveris 2-T1	Saveris 2-T3	testo 160 IAQ	Saveris 2-set
Parameters	Temperature, Humidity		Temperature		Temperature, Humidity, Carbon dioxide, Pressure	Temperature
Temperature measuring range	-10 to +50 °C	-30 to +50 °C		-200 to +1350 °C	0 to +50 °C	-50 to +150 °C
Temperature measuring range, internal	-10 to +50 °C	-30 to +50 °C			0 to +50 °C	
Ext. temp. measuring range				-200 to +1350 °C		-50 to +150 °C
Temperature accuracy	±0.5 °C			±(0.5 + 0.5% of measured value) °C	±0.5 °C	
Rel. humidity measuring range	0 to 100 %				0 to 100 %	
Rel. humidity accuracy	±2% (20 to 80%), ±3% (outside)	±2%			±2% (20 to 80%), ±3% (outside)	
Air pressure measuring range					600 to 1100 mbar	
Air pressure accuracy					±3 mbar	
Carbon dioxide measuring range (external)					0–5000 ppm	
Carbon dioxide accuracy					±(50 ppm + 3% of measured value)	
Resolution	0,1 °C, 0,1 %		0,1 °C		0,1 °C, 0,1 %, 1 ppm, 1 mbar	0,1 °C
Display	No	Yes				
Data memory	16,000 per channel	10,000 per channel			8000 per channel	10,000 per channel
Measuring cycle	15 min – 24 h					
Port	WiFi					
IP rating	20	30	65	54	20	65
Reports	manual (.pdf/.csv)					
L x W x D	76 x 64 x 22 mm	115 x 83 x 31 mm	95 x 75 x 30.5 mm		117 x 82 x 32 mm	95 x 75 x 30.5 mm
Weight	94 g	250 g	240 g		260 g	240 g
Power supply	4x battery Micro/AAA 1.5 V	4x battery Mignon/AA 1.5 V				
Mains connection					100–240 V, 50/60 Hz	

Saveris 2-T1

With integrated NTC temperature sensor.

Delivery incl. basic cloud access, micro USB cable, wall mount with lock, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
Saveris 2-T1	**ECK0.1**	1 unit(s)	143,00

Saveris 2-T3

With two connections for external TE temperature sensors.

Delivery incl. basic cloud access, micro USB cable, wall mount with lock, calibration protocol and batteries. External temperature sensor is not included, please order separately.

Type	Art. No.	Pack Qty.	€
Saveris 2-T3	**ECK1.1**	1 unit(s)	238,65

Data loggers

Saveris 2-set
For temperature monitoring in fridges and freezers: Safe and convenient.

- With 2 external NTC temperature sensors
- Special ribbon cables prevent damage to door seals
- Included vials can be filled with glycol. If the sensors are immersed, they act as a temperature limiter and compensate for brief temperature fluctuations

Delivery incl. 2x NTC temperature sensors, 2x vials, basic cloud access, micro USB cable, wall mount with lock, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
Saveris 2-set	**1H1X.1**	1 unit(s)	379,50

Saveris 2-H1
With integrated temperature and humidity sensor.

Delivery incl. basic cloud access, micro USB cable, wall mount with lock, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
Saveris 2-H1	**1H1Y.1**	1 unit(s)	298,85

Testo 160 TH
Small shape, unobtrusive design. With integrated temperature and humidity sensor.

Delivery incl. basic cloud access, micro USB cable, wall mount with lock, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 160 TH	**1H20.1**	1 unit(s)	237,60

Testo 160 IAQ
Ideal for monitoring room air quality. Integrated sensors for temperature, air humidity, CO_2 and atmospheric pressure precisely determine the climate conditions in any room.

- Air quality shown with coloured LEDs on the data logger (traffic light system).
- Custom CO_2 limit values can be defined.
- Can be powered by the mains and batteries.

Delivery incl. basic cloud access, micro USB cable with mains adapter, wall mount with lock, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 160 IAQ	**1H21.1**	1 unit(s)	576,20

Temperature gauge type K for Saveris 2-T3

Testo.
With ribbon cable.

Technical specifications:

Art. No.	ECK3.1	ECK2.1
Parameters	Temperature	
Temperature measuring range	-200 to +40 °C	-40 to +220 °C
Temperature accuracy	Class 3	Class 1
Temperature sensor	TE type K	
Connection	Miniature thermoelement	
Ø x L	5 x 90 mm	5 x 60 mm
Cable length	2 m	

Delivery incl. connection cable.

Penetration probe
For temperature measurements in climatic chambers, incubators and fridges.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +220	2	**ECK2.1**	1 unit(s)	59,35

Low temperature gauge
For temperature measurements in liquid nitrogen, blast freezers and freezers.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-200 to +40	2	**ECK3.1**	1 unit(s)	166,65

Data logger SterilDisk

Dostmann.

For monitoring and recording temperature data in the pharmaceutical and medical fields and in laboratories and food production plants (e.g. for sterilisation and pasteurisation).

- High temperature range
- Waterproof and pressure-tight
- Housing made of food-grade steel AISI316L
- Please download windows-compatible software (logger programming, reading data, graphic and tabular representation, printing data) free of charge.
  Please order the required disk interface with USB cable separately.
  Automatic calculation of F0, Z and N values possible

Technical specifications:

Art. No.	ENE3.1
Type	SterilDisk
Parameters	Temperature
Temperature measuring range	-20 to +140 °C
Temperature accuracy	±0.2 °C (+25 to +140 °C)
Resolution	0,01 °C
Max. pressure	10 bar
Display	No
Measuring cycle	freely adjustable
Port	HS disk interface
IP rating	68
Weight	80 g
Power supply	BR 1632A coin cell battery

Delivery incl. calibration certificate and battery. Disk interface and USB cable are not included, please order separately.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SterilDisk	**ENE3.1**	1 unit(s)	525,70

Accessories for SterilDisk

Dostmann.

Battery

Designation	Art. No.	Pack Qty.	€
Replacement battery with seal	**ENE5.1**	1 unit(s)	55,40

Interface

Designation	Art. No.	Pack Qty.	€
Disk interface with USB cable for SterilDisk	**ENE4.1**	1 unit(s)	310,70

Infrared thermometer testo 826 series

Testo.

- For non-contact measuring without damaging the packaging
- For monitoring upper **or** lower limits with an visual alarm
- **Laser spot marker** for marking the measuring point
- **Audible alarm** for when limits are exceeded/fallen below

Additional features for Quicktemp 826-T4 with core temperature measurement:

- Contact side with penetration sensor
- Measures core temperatures using the thin and robust measuring tip
- Includes drill for frozen goods

Technical specifications:

Art. No.	P855.1	P857.1
Type	testo 826-T2	testo 826-T4
Parameters	Temperature	
Infrared measuring range	-50 to +300 °C	
Penetration probe measuring range		-50 to +230 °C
Resolution	0,1 °C	
Accuracy	Infrared: ±1.5 °C (-20 to +100 °C) ±2 °C (outside)	Infrared: ±1.5 °C (-20 to +100 °C) ±2 °C (outside) Penetration sensor: ±0.5 °C (-20 to +99 °C) ±1 °C or ±1% of m.v. (outside), largest value applies
Measuring distance : measuring spot ratio	6 : 1	
Emissivity	0,95	
L x W x H	148 x 34.4 x 19 mm	
Weight	80 g	
Power supply	2x battery Micro AAA 1.5 V	

Delivery incl. batteries, belt/wall holder and waterproof Top Safe (IP 67) protective case.

Type	Art. No.	Pack Qty.	€
testo 826-T2	**P855.1**	1 unit(s)	103,20
testo 826-T4	**P857.1**	1 unit(s)	161,25

Infrared thermometers

Penetration/infrared thermometer testo 104-IR

Testo.

Penetration thermometer combined with an infrared sensor for core and surface temperature measurements.

- Penetration sensor: L 106 mm, can be folded away; NTC sensor
- Two-point laser mark for indicating the actual measurement spot
- Large LCD display for easy reading of measurement results

Technical specifications:

Art. No.	**XK00.1**
Type	testo 104-IR
Parameters	Temperature
Infrared measuring range	-30 to +250 °C
Penetration probe measuring range	-50 to +250 °C
Resolution	0,1 °C
Accuracy	Infrared: ±2.5 °C (-30 to -20.1 °C) ±2.0 °C (-20 to -0.1 °C) ±1.0 °C or 1.5% of m.v. (outside) Penetration sensor: ±1 °C (-50 to -30.1 °C) ±0.5 °C (-30 to +99.9 °C) ±1% of m.v. (outside)
Measuring cycle	0.5 s
Measuring distance : measuring spot ratio	10 : 1
Emissivity	0,10–1,00
IP rating	65
L x W x H	48 x 21 x 178 mm
Weight	197 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. batteries and calibration protocol.

Type	Art. No.	Pack Qty.	€
testo 104-IR	**XK00.1**	1 unit(s)	127,95

Infrared thermometer Scantemp 385

Dostmann.

For non-contact surface temperature measurement. **With spot laser for marking the measurement zone**. Backlit display. Lock function for continuous operation.

Technical specifications:

Art. No.	**LY46.1**
Type	Scantemp 385
Parameters	Temperature
Infrared measuring range	-35 to +365 °C
Resolution	0.1 °C (-35 to +199.9 °C), 1.0 °C (outside)
Accuracy	±2 °C or ±2% (largest value applies)
Measuring distance : measuring spot ratio	12 : 1
Emissivity	0,95 / 0,70
W x D x H	64 x 34 x 167 mm
Weight	150 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
Scantemp 385	**LY46.1**	1 unit(s)	53,65

Infrared thermometers

Infrared thermometer with thermocouple input

Dostmann.

- Infrared measuring range of up to +500 °C
- **Mini TE input for NiCr-Ni (type K) thermocouple sensor available**
- Min/max/hold function
- Storage of differential and mean values
- Visual and audible alarm when limits are exceeded
- LCD display for simultaneous display of measured value and min/max or limit values
- Emission level can be adjusted from 0.10 to 1.00
- With backlit display

Technical specifications:

Art. No.	KA38.1	EHP6.1
Type	Scantemp 490	Scantemp Pro 450
Parameters	Temperature	
Infrared measuring range	-60 to +1000 °C	-60 to +500 °C
Thermocouple input measuring range	-64 to +1370 °C	
Resolution	0.1 °C (up to +999.9 °C), 1 °C (from 1000 °C)	0.1 °C (up to +199.9 °C), 1 °C (from 200 °C)
Accuracy	Infrared: ±2 °C or 2% (largest value applies) Thermocouple input: ±1 °C or 1% (largest value applies)	
Measuring distance : measuring spot ratio	50 : 1	12 : 1
Emissivity	0,10–1,00	
W x D x H	45 x 145 x 215 mm	39 x 82 x 182 mm
Weight	380 g	180 g
Power supply	2x battery Micro/AAA 1.5 V	

Delivery incl. batteries. No temperature sensor is included, please order separately if required.

(1) Scantemp Pro 450
With circular laser for marking the measuring point

Type	Art. No.	Pack Qty.	€
Scantemp Pro 450	**EHP6.1**	1 unit(s)	107,30

(2) Scantemp 490
With double spot laser for indicating the actual measurement area in each measuring distance.

Type	Art. No.	Pack Qty.	€
Scantemp 490	**KA38.1**	1 unit(s)	227,90

Infrared thermometer Mini flash

Dostmann.

For non-contact measuring of surface temperatures. Automatic hold function for approximately 15 s. Lock function for continuous operation.

Technical specifications:

Art. No.	Y400.1
Type	Mini flash
Parameters	Temperature
Infrared measuring range	-33 to +220 °C
Resolution	0,1 °C
Accuracy	±1.5 °C (0 to +50 °C) ±2.0 °C or 2% (outside)
Measuring distance : measuring spot ratio	1,3 : 1
Emissivity	0,95
Operating temperature	0 to +50 °C
L x W x H	37 x 17 x 68 mm
Weight	25 g
Power supply	1x battery button CR 2032 (3 V)

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
Mini flash	**Y400.1**	1 unit(s)	35,45

Infrared thermometers

Infrared thermometer testo 835-T1 with thermo-couple input

Testo.

Non-contact measurement from a safe distance.

- Reliable IR measurement up to +600 °C with display of min/max values
- **Mini TE input for NiCr-Ni (type K) thermocouple sensor available**
- Four-point laser indicates the exact measuring range, and thus prevents incorrect measurements
- 50:1 lens allows precise measurements at a great distance (5 m distance = 10 cm measured surface)
- Adjustable emission level (0.10 to 1.00) allows the measurement of a variety of surfaces
- Integrated emission level table (stores 20 values) allows the fast selection of the correct emission level for the relevant surface
- With freely adjustable alarm management upper and lower levels; acoustic and visual signals indicate if a limit value is exceeded
- Stores up to 200 measurement values, evaluation using software supplied
- Illuminated display for measurements in dark environments

Technical specifications:

Art. No.	**HTX0.1**
Type	testo 835-T1
Parameters	Temperature
Infrared measuring range	-30 to +600 °C
Thermocouple input measuring range	-50 to +600 °C
Resolution	0,1 °C
Accuracy	Infrared: ±2.5 °C (-30 to -20.1 °C) and ±1 digit ±1.5 °C (-20 to -0.1 °C) ±1 digit ±1.0 °C (0 to +99.9 °C) and ±1 digit ±1% (outside) and ±1 digit Thermocouple: ±(0.5 °C + 0.5%) and ±1 digit
Measuring distance : measuring spot ratio	50:1
W x D x H	63 x 166 x 193 mm
Weight	514 g
Power supply	3x battery Mignon/AA 1.5 V

Delivery incl. PC software, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 835-T1	**HTX0.1**	1 unit(s)	230,05

Thermohygrometer analogue

ROTH SELECTION.

Hygrometer and thermometer. For determining steam pressure, dew point and saturation steam pressure, etc.

Technical specifications:

Art. No.	**1908.1**
Parameters	Temperature, Humidity
Temperature measuring range	-30 to +50 °C
Rel. humidity measuring range	0 to 100 %
Ø x H	100 x 250 mm
Weight	192 g

Version	Art. No.	Pack Qty.	€
Analogue	**1908.1**	1 unit(s)	83,85

Thermohygrometer Ultra-flat

TFA-Dostmann.

Very flat design with glossy surface.

- With smiley as comfort zone indicator (dry/comfortable/wet)
- Can be wall-mounted or used on desk

Technical specifications:

Art. No.	**1AX6.1**
Parameters	Temperature, Humidity
Temperature measuring range, internal	0 to +50 °C
Rel. humidity measuring range	20 to 95 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C (0 to 40 °C), ±2 °C (outside)
Rel. humidity accuracy	±5% (40 to 80%), ±8% (outside)
Min./max. function	Yes
Alarm	No
L x W x H	100 x 48 x 82 mm
Weight	70 g
Power supply	1 x CR 2025 button cell battery (3 V)

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Ultra-flat	**1AX6.1**	1 unit(s)	11,65

Thermohygrometers

Thermohygrometer EXACTO

TFA-Dostmann.

For monitoring the room climate. Coloured comfort zones specify whether the values are optimal, too wet or too dry. Trend arrows inform you of changes in temperature and humidity values.

- With backlit display and stainless steel frame
- Display of the daily highest and lowest values with automatic reset after 24 hours
- Additional min./max. function with manual reset
- Integrated magnetic holder
- Can be wall-mounted or used on desk

Technical specifications:

Art. No.	**1AX5.1**
Type	EXACTO
Parameters	Temperature, Humidity
Temperature measuring range, internal	-20 to +70 °C
Rel. humidity measuring range	1 to 99 %
Resolution	1 °C, 1 %
Temperature accuracy	±1 °C
Rel. humidity accuracy	±3% (35 to 75%), ±5% (outside)
Min./max. function	Yes
Alarm	No
L x W x H	74 x 48 x 90 mm
Weight	120 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
EXACTO	**1AX5.1**	1 unit(s)	18,30

Thermohygrometer with cable sensor

For monitoring inside temperature and humidity for a good room climate. Additionally with waterproof cable sensor for measuring outside temperature, e.g. of refrigerators or freezers.

- Simultaneous display of room climate, outside temperature and time
- Min./max. function with manual and automatic reset
- Can be wall-mounted or used on desk

Technical specifications:

Art. No.	**1AX3.1**
Parameters	Temperature, Humidity
Temperature measuring range, internal	0 to +50 °C
Ext. temp. measuring range	-30 to +60 °C
Rel. humidity measuring range	20 to 90 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C (0 to 50 °C)
Rel. humidity accuracy	±5% (30 to 80%)
Min./max. function	Yes
Alarm	No
L x W x H	72 x 49 x 121 mm
Weight	94 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery without batteries, please order separately.

Version	Art. No.	Pack Qty.	€
With cable sensor	**1AX3.1**	1 unit(s)	13,80

Thermohygrometers

Wireless thermal hygrometer INFO

TFA-Dostmann.

For the simultaneous monitoring of room climate (inside temperature and humidity) and outside temperature.

- Cordless transmitting of the outside temperature via wireless transmitter
- Display of the daily highest and lowest values with automatic reset after 24 hours
- Additional min./max. function with manual reset
- Can be wall-mounted or used on desk

Technical specifications:

Art. No.	**1AX7.1**
Type	INFO
Parameters	Temperature, Humidity
Temperature measuring range, internal	-10 to +60 °C
Ext. temp. measuring range	-40 to +60 °C
Rel. humidity measuring range	10 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C
Rel. humidity accuracy	±3 % (35 to 75 %)
Min./max. function	Yes
Alarm	No
Radio range outdoors	80 m
L x W x D	86 x 77 x 22 mm
Weight	104 g
Power supply	2x AA 1.5 V batteries (1x base station, 1x transmitter)

Delivery incl. 1 transmitter.
Without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
INFO	**1AX7.1**	1 unit(s)	24,10

Thermohygrometer STYLE

TFA-Dostmann.

Max/min value monitoring. Can be wall- or table-mounted.

Technical specifications:

Art. No.	**NA63.1**
Type	STYLE
Parameters	Temperature, Humidity
Temperature measuring range	-20 to +50 °C
Rel. humidity measuring range	20 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C (0 to +40 °C), ±1.5 °C (outside)
Rel. humidity accuracy	±4% (35 to 75%), ±5% (outside)
Min./max. function	Yes
L x W x D	104 x 104 x 13 mm
Weight	50 g
Power supply	CR 2032 (3V) button cell battery

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
STYLE	**NA63.1**	1 unit(s)	21,30

Thermohygrometer

TFA-Dostmann.

Max/min value monitoring. Can be wall- or table-mounted.

Technical specifications:

Art. No.	**Y401.1**
Parameters	Temperature, Humidity
Temperature measuring range	-10 to +60 °C
Rel. humidity measuring range	10 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C
Rel. humidity accuracy	±5%
Min./max. function	Yes
L x W x D	110 x 95 x 20 mm
Weight	171 g
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
digital	**Y401.1**	1 unit(s)	25,30

Thermohygrometers

Thermohygrometer With alarm LED

Dostmann.

Robust measuring device for measuring the room climate in laboratories, production and storage facilities, etc.

- Fast-reacting, capacitive humidity sensor
- **Alarm gives a visual and audible notification when threshold value has been exceeded**
- Battery life approx. 1000 hours in continuous operation

Technical specifications:

Art. No.	**CK97.1**
Temperature measuring range	-40 to +70 °C
Rel. humidity measuring range	0 to 99 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±3.5% (20 to 80%), ±4% (outside)
Dew point	Yes
Min./max. function	Yes
Alarm	Yes
L x W x D	105 x 105 x 44 mm
Weight	125 g
Power supply	2 x AAA 1.5 V batteries

Delivery incl. batteries.

Version	Art. No.	Pack Qty.	€
With alarm LED	**CK97.1**	1 unit(s)	48,70

Thermohygrometer inside/outside

TFA-Dostmann.

With outside sensor for °C and RH (cable length approx. 1.5 m). Simultaneous display of °C and RH values for inside and outside. Can be used on desktop or wall-mounted.

Technical specifications:

Art. No.	**HH28.1**
Parameters	Temperature, Humidity
Temperature measuring range	-10 to +60 °C
Rel. humidity measuring range	10 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±5%
Min./max. function	Yes
L x W x D	110 x 101 x 20 mm
Weight	185 g
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
for inside/outside measurements	**HH28.1**	1 unit(s)	39,40

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Thermohygrometers

Thermohygrometer with extra-large display

Amarell.

Large display (W 79 x H 66 mm) for air humidity, temperature and time (24-hour display with alarm clock).

- Daily memory reset
- Freezing point alarm can be activated (alarm when outside temperature reaches ≤0 °C)
- Removable outdoor temperature sensor, cable length 3 ml
- Can be used on desktop or wall-mounted

Technical specifications:

Art. No.	**AY02.1**
Parameters	Temperature, Humidity
Temperature measuring range	-50 to +70 °C
Temperature measuring range, internal	0 to 50 °C
Ext. temp. measuring range	-50 to +70 °C
Rel. humidity measuring range	20 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C
Rel. humidity accuracy	±5% (40 to 80% RH)
Min./max. function	Yes
Alarm	Yes
L x W x D	110 x 98 x 21 mm
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
with extra-large display	**AY02.1**	1 unit(s)	47,00

Thermohygrometer testo 623

Testo.

With history function.

- The large display shows the current and past temperature and humidity values as well as the date and time
- Selection option for temperature or humidity histogram
- Bar graph display of measured values over the last hour (for 5 min measuring cycle), 2 hours (for 10 min measuring cycle), 12 hours (for 1 h measuring cycle), 24 hours (for 2 h measuring cycle) or 12 days (for 24 h measuring cycle)
- Optical alarm (limit freely selectable)
- Use as desktop or wall-mount unit

Technical specifications:

Art. No.	**LY99.1**
Type	testo 623
Parameters	Temperature, Humidity
Temperature measuring range	-10 to +60 °C
Rel. humidity measuring range	0 to 100 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±0.4 °C
Rel. humidity accuracy	±2% at +25 °C (10 to 90%), ±3% (outside)
Min./max. function	Yes
Alarm	Yes
L x W x D	185 x 105 x 36 mm
Weight	240 g
Power supply	4x battery Mignon/AA 1.5 V

Delivery incl. calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 623	**LY99.1**	1 unit(s)	175,25

Thermohygrometers

Thermohygrometer testo 608 series

Testo.

For monitoring room climate and dew point, for example, in laboratories, storage and clean-rooms.

- Simultaneously displays humidity and temperature
- Humidity sensor is not sensitive to condensation
- Use as desktop or wall-mount unit

Technical specifications:

Art. No.	X226.1	X227.1
Type	testo 608-H1	testo 608-H2
Parameters	Temperature, Humidity	
Temperature measuring range	0 to +50 °C	-10 to +70 °C
Rel. humidity measuring range	10 to 95 %	2 to 98 %
Resolution	0,1 °C, 0,1 %	
Temperature accuracy	±0.5 °C	
Rel. humidity accuracy	±3 %	±2 %
Dew point	Yes	
Min./max. function	Yes	
Alarm	No	Yes
L x W x D	120 x 89 x 40 mm	
Weight	168 g	
Power supply	E-Block 9 V battery	

Testo 608-H1

- Dew point calculation: -20.0 to +50.0 °Ctd

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
testo 608-H1	**X226.1**	1 unit(s)	80,65

Testo 608-H2 with alarm

With additional LED alarm to notify when the threshold value has been exceeded.

- Dew point calculation: -40.0 to +70.0 °Ctd

Delivery incl. calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 608-H2	**X227.1**	1 unit(s)	116,10

Thermohygrometer testo 610

Testo.

- With light-up display
- AUTO-OFF function to conserve battery, can be switched off
- Min./max. and hold function
- Calculation of dew point and wet bulb temperature

Technical specifications:

Art. No.	HY44.1
Type	testo 610
Parameters	Temperature, Humidity
Temperature measuring range	-10 to +50 °C
Rel. humidity measuring range	0 to 100 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±2.5% (5 to 95%)
Dew point	Yes
Min./max. function	Yes
L x W x D	119 x 46 x 25 mm
Weight	250 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. hand strap, belt bag, protective cap, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 610	**HY44.1**	1 unit(s)	138,70

Thermohygrometers

Thermohygrometer testo 605-H1

Testo.

Long-term stabile moisture sensor. With dew point calculation (-20 to +50 °Ctd). Sensor not sensitive to condensation. AUTO-OFF function (10 min). Pivoting display.

Technical specifications:

Art. No.	P302.1	P303.1
Type	testo 605-H1	
Parameters	Temperature, Humidity	
Temperature measuring range	0 to +50 °C	
Rel. humidity measuring range	5 to 95 %	
Resolution	0,1 °C, 0,1 %	
Temperature accuracy	±0.5 °C	
Rel. humidity accuracy	±3%	
Dew point	Yes	
L x W x D	180 x 37 x 36 mm	
Weight	75 g	
Power supply	3x battery Micro/AAA 1.5 V	

Delivery incl. attachment clip and batteries.

Type	Version	Art. No.	Pack Qty.	€
testo 605-H1	Standard	**P302.1**	1 unit(s)	103,20
testo 605-H1	With ISO calibration certificate, 75.3% RH	**P303.1**	1 unit(s)	204,25

Thermohygrometer Dewpoint Pro

Dostmann.

Robust measuring device for measuring the room climate in laboratories, buildings, etc.

- Quick-reacting capacitive humidity sensor (measuring cycle: 1 s)
- Min./max. and hold function
- IP54 splash-proof
- Battery life approx. 1000 hours in continuous operation

Technical specifications:

Art. No.	CK09.1
Type	Dewpoint Pro
Parameters	Temperature, Humidity
Temperature measuring range	-40 to +70 °C
Rel. humidity measuring range	0 to 99 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±3% (10 to 90%), ±4% (outside)
Dew point	Yes
Min./max. function	Yes
IP rating	54
L x W x D	170 x 50 x 17 mm
Weight	100 g
Power supply	2 x AAA 1.5 V batteries

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
Dewpoint Pro	**CK09.1**	1 unit(s)	70,85

Thermohygrometers

Thermohygrometer set

ROTH SELECTION.

Precise, compact measuring device which simultaneously displays humidity and temperature. Delivery includes two humidity reference cells, 33 and 75% RH, to enable testing and calibration. Automatic switch-off.

Technical specifications:

Art. No.	**L895.1**
Parameters	Temperature, Humidity
Temperature measuring range	-16 to +50 °C
Rel. humidity measuring range	0 to 99.8 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±1 °C
Rel. humidity accuracy	±3%
Min./max. function	Yes
L x W x D	175 x 42 x 16 mm
Weight	70 g
Power supply	CR 2032 (3V) button cell battery

Delivery incl. stable carrying case, two reference cells and batteries.

Version	Art. No.	Pack Qty.	€
Thermohygrometer	**L895.1**	1 unit(s)	276,55

Thermohygrometer P770

Dostmann.

For determining **relative** and **absolute humidity, temperature, dew point and flow**.

- Integrated calibration function for easy compensation of sensor tolerances
- **Two measuring probe connections**
- Stores the max., min., hold and average value
- With USB/online/PC interface
- Suitable for battery and mains operation

Technical specifications:

Art. No.	**X732.1**
Type	P770
Parameters	Temperature, Humidity, Current
Temperature measuring range	-200 to +850 °C
Rel. humidity measuring range	0 to 100 %
Flow measuring range	0 to 40 m/s
Resolution	0,1 °C, 0,1 %, 0,01 m/s
Temperature accuracy	for Pt 100:, ±0.1 °C (-100 to +200 °C), ±0.1% from measured value (outside)
Rel. humidity accuracy	±1.5 %
Flow accuracy	±1% from end value
Dew point	Yes
Min./max. function	Yes
L x W x D	200 x 93 x 44 mm
Power supply	Can be powered using 9 V E-Block battery or mains connection

Delivery incl. battery. Without measuring probe and mains connectors, please order separately.

Type	Art. No.	Pack Qty.	€
P770	**X732.1**	1 unit(s)	365,50

Thermohygrometer P330

Dostmann.

Robust hand-held measuring device for determining temperature and humidity.

- Capacitive humidity sensor
- Min./max. and hold function
- Integrated sensor holder
- Backlit display

Technical specifications:

Art. No.	AH55.1
Type	P330
Parameters	Temperature, Humidity
Temperature measuring range	-40 to +70 °C
Rel. humidity measuring range	0 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±3%
Min./max. function	Yes
L x W x D	130 x 70 x 25 mm
Weight	130 g
Power supply	2 x 1.5 V AA batteries

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
P330	**AH55.1**	1 unit(s)	114,10

Thermohygrometer testo 625

Testo.

Two-line display for displaying relative humidity or dew point, as well as temperature. With integrated capacitive humidity sensor head for measuring air humidity and temperature. When measuring in hard-to-reach positions, the humidity sensor head can be removed and plugged into the handle with the sensor cable (please order separately).
Wireless transfer of the measured value to the measuring device is also made possible by the remote handle and wireless module (please order separately).

- Hold button for recording the measured values
- Light-up display
- Auto-Off function

Technical specifications:

Art. No.	EH97.1
Type	testo 625
Parameters	Temperature, Humidity
Temperature measuring range	-10 to +60 °C
Rel. humidity measuring range	0 to 100 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±2.5% (5 to 95%)
Dew point	Yes
Min./max. function	Yes
L x W x D	182 x 64 x 40 mm
Weight	195 g
Power supply	E-Block 9 V battery

Delivery incl. plug-in humidity sensor head, batteries and calibration protocol.

Type	Art. No.	Pack Qty.	€
testo 625	**EH97.1**	1 unit(s)	231,15

Radio accessories for testo 925/625

Testo.

For wireless measuring data transfer

Radio module
Radio frequency 869.85 MHz FSK

Delivery without remote handle, please order separately.

Designation	Art. No.	Pack Qty.	€
Radio module	**EH84.1**	1 unit(s)	46,25

Remote handle
For insertable sensor heads.

- Measuring cycle 0.5 or 10 s, can be set on handle
- Radio range up to 20 m (in open space)
- Operating temperature -20 °C to +50 °C
- Power supply: 2 x 1.5 V AAA batteries

Delivery incl. batteries. Without radio module, please order separately.

Designation	Art. No.	Pack Qty.	€
Remote handle	**EH85.1**	1 unit(s)	102,15

Thermohygrometers

Thermohygrometer HygroPalm 32

Rotronic.

For determining relative humidity and temperature. Psychrometric calculations possible.

- Can also be used for measuring relative humidity and temperature in powders and granulates (only with Pro insertion probe)
- Functions: Point recording, programmable recording interval
- Graphical display of measured values for up to four values
- Freely adjustable visual and audible alarm for every value
- Memory for 64,000 data points
- Data transfer and battery charging via Micro USB cable
- Long battery life (up to 48 hours with a recording internal of 30 s)
- Housing material: ABS, TPR
- Windows-compatible software (for configuring the device and reading the data); please download free of charge. Requisite licence key (for up to three devices) included in the delivery.

Technical specifications:

Art. No.	KHL1.1
Type	HygroPalm 32
Parameters	Temperature, Humidity
Temperature measuring range	-50 to +100 °C
Rel. humidity measuring range	0 to 100 %
Resolution	0,1 %, 0,1 °C
Temperature accuracy	±0.3 K
Rel. humidity accuracy	±1.5%
Min./max. function	Yes
L x W x D	160 x 63 x 30 mm
Weight	185 g
Power supply	Lithium polymer battery, 3.7 V

Delivery incl. soft case, Micro USB cable, licence key.
Without measuring probe, calibration device and humidity standard. Please order separately.

Type	Art. No.	Pack Qty.	€
HygroPalm 32	**KHL1.1**	1 unit(s)	428,95

Combination probe for HygroPalm 32

Rotronic.

Technical specifications:

Art. No.	KX05.1	KX06.1	KX07.1
Parameters	Humidity, Temperature		
Temperature measuring range	-50 to +100 °C	-40 to +85 °C	
Rel. humidity measuring range	0 to 100 %		
Temperature sensor	Pt 100		
Connection	specific		
Ø x L	15 x 108 mm	5 x 200 mm	10 x 280 mm
Cable length		2 m	

Climate sensor HC2A-S

For room climate monitoring and climate control in storage facilities, etc. With polyethylene filter to protect the sensors.

Temperature measuring range (°C)	Rel. humidity measuring range (%)	Art. No.	Pack Qty.	€
-50 to +100	0 to 100	**KX05.1**	1 unit(s)	316,05

Insertion probe, basic

For measuring in dust-free bulk materials and building materials like concrete, brick, etc. Also for maize, wheat, and granulate. Not suitable for powder-like materials.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Rel. humidity measuring range (%)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +85	0 to 100	2	**KX06.1**	1 unit(s)	784,50

Insertion probe, pro

Robust probe for measuring in dusty bulk materials like flour and sugar and building materials like concrete, bricks, etc. With steel sinter filter.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Rel. humidity measuring range (%)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +85	0 to 100	2	**KX07.1**	1 unit(s)	869,15

Thermohygrometers

Material hygrometer HumidCheck mini

Dostmann.

With measuring scale for building materials and wood. With temperature display. Automatic shut down.
Easy to use: Remove protective cap and insert the measuring electrode into the object being measured.

Technical specifications:

Art. No.	KT96.1	
Type	HumidCheck	
Parameters	Temperature, Humidity	
L x W x D	80 x 40 x 20 mm	
Weight	50 g	
Power supply	4 x 1.5 V button cell batteries V 13 GA	
Rel. humidity measuring range	wood	6 to 42%
	Building materials	0.2 to 2.0%
Resolution	wood	1%
	Building materials	0.1%
Rel. humidity accuracy	wood	±2% (<30%) ±4% (>30%)
	Building materials	±0.1% (<1.4%) ±0.2% (>1.4%)

Delivery incl. hand-strap and batteries.

Type	Art. No.	Pack Qty.	€
HumidCheck	**KT96.1**	1 unit(s)	29,25

Weather station analogue

TFA-Dostmann. Material: Stainless steel.

For inside and outside. With hygrometer, barometer and thermometer.

Technical specifications:

Art. No.	X257.1
Type	Weather station
W x D x H	95 x 18 x 280 mm
Ø	70 mm
Weight	380 g

Type	Art. No.	Pack Qty.	€
Weather station	**X257.1**	1 unit(s)	49,85

Material hygrometer

Dostmann.

For wood and building material humidity measurements, e.g. for wood materials, veneers, plaster, screed, cardboard, etc. With graphic measuring scale for both parameters.
Easy to use: Remove protective cap and insert the measuring electrode into the object being measured.

Technical specifications:

Art. No.	EX62.1	
Parameters	Humidity	
W x D x H	40 x 20 x 130 mm	
Weight	100 g	
Power supply	3 x 3 V button cell batteries CR 2032	
Rel. humidity measuring range	wood	6 to 44%
	building materials	0.2 to 2.0%
Resolution	wood	1%
	building materials	0.1%
Rel. humidity accuracy	wood	±1%
	building materials	±0.05%

Delivery incl. batteries.

Version	Art. No.	Pack Qty.	€
Material hygrometer	**EX62.1**	1 unit(s)	64,45

Weather station analogue black

ROTH SELECTION. Material: Plastic.

Suitable for inside use only. With thermometer, hygrometer and barometer.

Technical specifications:

Art. No.	A889.1
Type	Weather station
Temperature accuracy	±1 °C
Rel. humidity accuracy	±5% rel. hum.
Air pressure accuracy	±5-10%
Ø	160 mm
Weight	180 g

Type	Art. No.	Pack Qty.	€
Weather station	**A889.1**	1 unit(s)	34,55

Weather stations, barometers

Weather station analogue silver

TFA-Dostmann. Material: Stainless steel.

For inside and outside. With barometer, hygrometer and thermometer.

Technical specifications:

Art. No.	Y246.1
Type	Weather station
Temperature accuracy	±1 °C
Rel. humidity accuracy	±5% rel. hum.
Air pressure accuracy	±5-10%
Ø	160 mm
Weight	440 g

Type	Art. No.	Pack Qty.	€
Weather station	**Y246.1**	1 unit(s)	70,70

Wireless rain gauge Monsoon

TFA-Dostmann.

For wireless transmission of precipitation amount (up to 9999 mm) and ambient temperature (max. 30 m range in open air).

- Display of precipitation during the previous hour, 24 hours and total precipitation (since last reset), including time and date of storage
- Display of precipitation amount in a bar chart, the previous 7 days, 7 weeks or 7 months can be successively displayed
- Audible and visual alarms at onset of rainfall
- Max./min. function for indoor and outdoor temperature
- Programmable temperature alarm for interior and exterior
- Trend arrow for ambient temperature
- Self-draining rainwater tank
- Wall- or table-mountable receiver
- Transmitter dimensions: Ø 132 x H 160 mm

Technical specifications:

Art. No.	XA41.1
Deposit	0–9999 mm
Ext. temp. measuring range	-50 to +70 °C
Temperature measuring range, internal	-10 to +50 °C
W x D x H	94 x 25 x 122 mm
Power supply	Receiver: 3 x 1.5 V batteries Transmitter: 2 x 1.5 V batteries

Delivery incl. rainwater tank (transmitter) and batteries.

Type	Art. No.	Pack Qty.	€
Monsoon	**XA41.1**	1 unit(s)	42,95

Radio weather station METEO SENS

TFA-Dostmann.

Based on air pressure changes, the weather symbol (sun, clouds or raindrops) in conjunction with tendency arrows give a weather forecast.

- Integrated barometer for air pressure measurement
- Bar chart with the air pressure history of the last 24 hours
- Measuring outside temperature and humidity via wireless transmitter
- Can be extended to up to three wireless transmitters
- Radio clock with date
- To place

Technical specifications:

Art. No.	1AX4.1
Type	METEO SENS
Temperature measuring range, internal	0 to +50 °C
Ext. temp. measuring range	-40 to +60 °C
Rel. humidity measuring range	1 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C (0 to 50 °C)
Rel. humidity accuracy	±5% (30 to 80%)
Radio range outdoors	80 m
W x D x H	157 x 43 x 117 mm
Weight	217 g
Power supply	4x AA 1.5 V batteries (2x base stations, 2x transmitters)

Delivery incl. 1 transmitter.
Without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
METEO SENS	**1AX4.1**	1 unit(s)	45,15

Accessories transmitter for METEO SENS

TFA-Dostmann.

Delivery without batteries, please order separately.

Version	Art. No.	Pack Qty.	€
Additional transmitter	**1E15.1**	1 unit(s)	9,70

Differential pressure gauge testo 510 Pocket

Testo.

For measuring small differential pressures (e.g. testing filter permeability), measuring gas flow pressure, etc.

- With display illumination
- AUTO-OFF function to prolong battery life, can be switched off
- With temperature compensation
- Min/max function, hold function
- Magnets on the back enable hands-free working
- Tube connections for ID 4 or 6 mm

Technical specifications:

Art. No.	**HY42.1**
Type	testo 510
Parameters	Pressure
Air pressure measuring range	0–100 hPa
Resolution	0,01 hPa
Air pressure accuracy	±0.03 hPa (0–0.30 hPa), ±0.05 hPa (0.31–1.00 hPa), ±(0.1 hPa + 1.5% of m.v.) (1.01 to 100 hPa)
Units	hPa, mbar, Pa, mmH_2O, mmHg, inH_20, inHg, psi
Operating temperature	0 to +50 °C
Display	Yes
Min./max. function	Yes
Weight	255 g
L x W x D	119 x 46 x 25 mm
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. silicone connector tubes (2 x 20 cm), wrist strap, belt bag, protective cover, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 510	**HY42.1**	1 unit(s)	149,45

Absolute pressure meter testo 511 Pocket

Testo.

- Display illumination
- AUTO-OFF function to prolong battery life, can be switched off
- With barometric height measuring
- Min/max function
- Tube connections for ID 4 or 6 mm

Technical specifications:

Art. No.	**HY43.1**
Type	testo 511
Parameters	Pressure
Air pressure measuring range	300–1200 hPa
Resolution	0,1 hPa
Air pressure accuracy	±3 hPa
Units	hPa, mbar, Pa, mmH_2O, mmHg, inH_2O, inHg, psi, m, ft
Operating temperature	0 to +50 °C
Display	Yes
Min./max. function	Yes
Auto Off function	Yes
Weight	225 g
L x W x D	119 x 46 x 25 mm
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. wrist strap, belt bag, protective cover, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 511	**HY43.1**	1 unit(s)	172,00

Air quality measuring devices

Carbon dioxide meter Air CO_2ntrol 5000

Dostmann.

For monitoring the CO_2 concentration in buildings where people are present. With data logging function.

- Large backlit display with history function
- Traffic light display: LEDs (green, yellow, red) signalise CO_2 pollution
- Additionally with acoustic alarm signal as soon as the individually set limit is exceeded
- Logger function saves data as a CSV file on a Micro SD card; evaluation via Microsoft Excel®
- For table and wall mounting

Technical specifications:

Art. No.	**1EN4.1**
Type	Air CO_2ntrol 5000
Parameters	Temperature, Humidity, Carbon dioxide
Temperature measuring range	0 to +50 °C
Carbon dioxide measuring range	0 - 5000 ppm
Rel. humidity measuring range	5 to 95 %
Resolution	0.1 °C, 1 % rel. hum., 1 ppm (0–1000 ppm) 5 ppm (1001–2000 ppm) 10 ppm (2001–5000 ppm)
Temperature accuracy	±0.5 °C
Carbon dioxide accuracy	±50 ppm or 5 %, the largest value applies (0–3000 ppm), ±7 % (from 3000 ppm)
Rel. humidity accuracy	±5 % rel. hum.
Measurement data memory	Yes
Measuring cycle	5/30/60/300/600 s
L x W x D	120 x 66 x 33 mm
Power supply	Mains-powered
Mains connection	100–240 V, 50/60 Hz
Weight	103 g

Delivery incl. micro SD card and mains adapter.

Type	Art. No.	Pack Qty.	€
Air CO_2ntrol 5000	**1EN4.1**	1 unit(s)	170,95

Carbon dioxide meter CP11

Rotronic.

Monitors CO_2 concentration, relative humidity and temperature.

- Integrated data logger and real-time clock:
  18,000 values with time stamp, automatic recording (ppm, % RH, °C)
  99 individual values with time stamp, manual recording (ppm, % RH, °C, DWPT, WBT)
- Audible CO_2 alarm
- Maximum, minimum and average value display
- Calculates the dewpoint (DP) and wet bulb temperature (WBT)
- Large backlit display
- Adjustable auto power off function
- Logger programming, data transfer and data display with Windows-compatible software
- Mini USB interface

Technical specifications:

Art. No.	**NL25.1**
Type	CP11
Parameters	Temperature, Carbon dioxide, Humidity
Temperature measuring range	-20 to +60 °C
Carbon dioxide measuring range	0–5000 ppm
Rel. humidity measuring range	0.1 to 99.95 %
Resolution	1 °C, 1 ppm, 0.01 %
Temperature accuracy	±0.3 K
Carbon dioxide accuracy	±30 ppm, plus ±5% of the value displayed
Rel. humidity accuracy	<2.5% (10–90%)
Measurement data memory	Yes
Dew point	Yes
L x W x D	234 x 77 x 42 mm
Power supply	Mains- and battery-powered using 4 x 1.5 V AA batteries
Weight	290 g

Delivery incl. SW2.1 software, mini USB data cable, storage bag and batteries. Please order power supply unit separately.

Type	Art. No.	Pack Qty.	€
CP11	**NL25.1**	1 unit(s)	378,15

Density meters

Hydrometer standard

Greiner-Glasinstrumente. Material: Glass.
Without thermometer. Body Ø 16 mm, stem Ø approx. 7–10 mm.

Measuring range (g/cm³)	Graduation (g/cm³)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0.700 to 1.000	0,005	300	20	**PY81.1**	1 unit(s)	13,10
1.000 to 1.500	0,005	300	20	**PY82.1**	1 unit(s)	14,25
1.500 to 2.000	0,005	300	20	**PY83.1**	1 unit(s)	16,30

Hydrometer search spindle with twin scales

Greiner-Glasinstrumente. Material: Glass.
Without thermometer. Body Ø 18 mm, stem Ø 9 mm.
Graduations (°Bé) 0.01 and 1. measuring range (°Bé) 0 to 72.

Measuring range (g/cm³)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
1.00 to 2.00	350	20	**PY84.1**	1 unit(s)	22,05

Hydrometer precision

Greiner-Glasinstrumente. Material: Glass.
Without thermometer. Body Ø 16 mm, stem Ø 6.25 mm.

Measuring range (g/cm³)	Graduation (g/cm³)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0.600 to 0.700	0,001	300	20	**HH87.1**	1 unit(s)	13,05
0.700 to 0.800	0,001	300	20	**HH88.1**	1 unit(s)	13,05
0.800 to 0.900	0,001	300	20	**HH89.1**	1 unit(s)	13,05
0.900 to 1.000	0,001	300	20	**HH90.1**	1 unit(s)	13,05
1.000 to 1.100	0,001	300	20	**HH91.1**	1 unit(s)	14,30
1.100 to 1.200	0,001	300	20	**HH92.1**	1 unit(s)	14,30
1.200 to 1.300	0,001	300	20	**HH93.1**	1 unit(s)	14,30
1.300 to 1.400	0,001	300	20	**HH94.1**	1 unit(s)	15,60
1.400 to 1.500	0,001	300	20	**HH95.1**	1 unit(s)	15,60
1.500 to 1.600	0,001	300	20	**HH96.1**	1 unit(s)	16,00
1.600 to 1.700	0,001	300	20	**HH97.1**	1 unit(s)	16,00
1.700 to 1.800	0,001	300	20	**HH98.1**	1 unit(s)	16,00
1.800 to 1.900	0,001	300	20	**HH99.1**	1 unit(s)	16,00
1.900 to 2.000	0,001	300	20	**HK03.1**	1 unit(s)	16,00

Density meters

Alcoholometer

ROTH SELECTION. Material: Glass.
Without thermometer.

Standard

Measuring range (vol. %)	Graduation (vol. %)	Limit of error (vol. %)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0 to 100	1	±1	250	20	**HKX3.1**	1 unit(s)	29,90

Precision

Measuring range (vol. %)	Graduation (vol. %)	Limit of error (vol. %)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
10 to 20	0,1	±0,1	320	20	**HKX0.1**	1 unit(s)	41,35
30 to 40	0,1	±0,1	320	20	**HKX1.1**	1 unit(s)	41,35
40 to 50	0,1	±0,1	320	20	**HKX2.1**	1 unit(s)	49,20

Alcoholometer standard with thermometer

ROTH SELECTION. Material: Glass.
With thermometer.
Measuring range from 0 to 30 °C with 1 °C graduation.

Measuring range (vol. %)	Graduation (vol. %)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0 to 100	1	340	20	**AT55.1**	1 unit(s)	45,90

Hydrometer Baumé

Greiner-Glasinstrumente. Material: Glass.
Without thermometer. Body Ø 16 mm, stem Ø 5.25 mm.

Measuring range (°Bé)	Graduation (°Bé)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0.0 to 10.0	0,1	280	15	**HH80.1**	1 unit(s)	12,85
10.0 to 20.0	0,1	280	15	**HH81.1**	1 unit(s)	12,85
20.0 to 30.0	0,1	280	15	**HH82.1**	1 unit(s)	12,85
30.0 to 40.0	0,1	280	15	**HH83.1**	1 unit(s)	14,45
40.0 to 50.0	0,1	280	15	**HH84.1**	1 unit(s)	14,45
50.0 to 60.0	0,1	280	15	**HH85.1**	1 unit(s)	15,35
60.0 to 70.0	0,1	280	15	**HH86.1**	1 unit(s)	15,35

Density meters

Hydrometer made from polycarbonate

ROTH SELECTION. Material: PC.

Shatterproof. Without thermometer. Ideal for applications in the food and pharmaceutical industries.

For measuring density

Measuring range (g/cm³)	Graduation (g/cm³)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
1.020 to 1.220	0,002	300	20	**HKT3.1**	1 unit(s)	80,65
1.200 to 1.420	0,002	300	20	**HKT4.1**	1 unit(s)	80,65
1.400 to 1.620	0,002	300	20	**HKT5.1**	1 unit(s)	80,65

For measuring according to Baumé

Measuring range (°Bé)	Graduation (°Bé)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0 to 25	0,2	300	15	**HKT7.1**	1 unit(s)	80,65
0 to 12	0,2	250	15	**HKT8.1**	1 unit(s)	80,65
19 to 31	0,2	250	15	**HKT9.1**	1 unit(s)	80,65

For measuring sodium chloride (saline solution)

Measuring range (%mas.)	Graduation (%mas.)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0 to 26	0,2	300	20	**HKT6.1**	1 unit(s)	80,65

Hydrometer cylinder

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Without graduations. With a round base and roughly ground edge.

A 121 °C

DURAN WHEATON KIMBLE

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
380	40	400	**KE08.1**	1 unit(s)	19,10
770	50	500	**KE09.1**	1 unit(s)	30,55

Test systems

Colour fan for standard colours RAL K5

ROTH SELECTION.

With **213 colour cards**, matt finish. Contains RAL 840-HR, RAL F 14 colour codes and RAL-F 81 traffic colours.
To precisely describe the colour shades in both paper and thin-layer chromatography and to determine the colour of chemicals, crystalline solids and natural dyes in textile and food colouring.

Type	Art. No.	Pack Qty.	€
Colour fan for standard colours	**0426.1**	1 unit(s)	61,20

Odour strips ROTILABO®

ROTH SELECTION.

For liquids. Made of filter cardboard 240 g/m².
Dimensions: W 6 x L 135 mm, in blocks of 60 strips.

Type	Pack.	Art. No.	Pack Qty.	€
Odour strips	5 x 60 strips	**1679.1**	300 unit(s)	17,90

Test swabs Ozone

ROTH SELECTION.

A simple test to determine the level of ozone in the air.

Application:
The test strip is placed at a location that is sheltered from the wind. Ten minutes later, its colour is then compared to a colour scale.

Verification of	Gradation (µg/m³)	Colour conversion	Art. No.	Pack Qty.	€
O_3	<90, 90–150, 150–210, >210	from white to brown	**L828.1**	12 unit(s)	19,90

Test swabs Aquadur®

ROTH SELECTION.

Quick test to guide semi-quantitative determination of **water hardness (total hardness)**.
Measuring range of 0 °d to more than 25 °d.
Conversion: 1 °d = 1.8 °f = 1.25 °e = 17.8 mg/l $CaCO_3$.
One box contains 100 test strips W 6 x L 95 mm.

Application:
The test strip is briefly dipped into the water to be measured. After approximately one minute, the colouring that has appeared can be compared to a colour scale and the hardness range can be determined.
Caution: The test paper must not come into contact with fingers.

Verification of	Gradation	Art. No.	Pack Qty.	€
Water hardness (total hardness)	<3 °d, >5 °d, >10 °d, >15 °d, >20 °d, >25 °d	**C725.1**	100 unit(s)	25,90

Test paper oil

Macherey-Nagel.

For rapidly detecting the presence of oil in water and/or soil. When the pale blue paper comes into contact with hydrocarbons, specifically gasoline, fuel oil, lubricating oil, etc., it turns a dark blue colour.

Technical specifications:

Substance	Colour reaction can be seen immediately (mg/l water)	Colour reaction can be seen clearly (mg/l water)
Petroleum ether (Kp. 40–80 °C)	250	400
Carburettor fuel (Super)	10	25
EL fuel oil	5	10
Lubricating oil	1	5

Verification of	Colour conversion	Art. No.	Pack Qty.	€
Oil	pale blue to dark blue	**L832.1**	100 unit(s)	28,50

Test paper

Macherey-Nagel.

For qualitative determination of ions and chemical compounds. The test paper changes colour above a specific detection limit.

Lead acetate paper

On the reel, L 5 m x W 7 mm.

Danger H360D-H412

Verification of	Sensitivity limit	Colour conversion	Art. No.	Pack Qty.	€
Hydrogen sulphide (H_2S), Sulphide ions (S^{2-})	5 mg/l S^{2-}	from white to brown/black	**AXT4.1**	1 roll(s)	14,20

Potassium iodide starch paper

On the reel, L 5 m x W 7 mm.

Verification of	Sensitivity limit	Colour conversion	Art. No.	Pack Qty.	€
Nitrite ions (NO_2^-), free chlorine (Cl_2)	1 mg/l NO_2^-	from white to blue-violet	**AXT3.1**	1 roll(s)	13,95

Phosphatesmo KM

Paper strips, L 30 x W 15 mm.

Verification of	Sensitivity limit	Colour conversion	Art. No.	Pack Qty.	€
Sperm, acid phosphatase	in trace amounts	from white to violet	**AXT5.1**	25 unit(s)	131,00

Plumbtesmo

Paper strips, L 40 x W 25 mm.

Verification of	Sensitivity limit	Colour conversion	Art. No.	Pack Qty.	€
Lead (Pb), Lead ions(Pb^{2+})	5 mg/l Pb^{2+}	from white-yellow to pink-red	**1252.1**	40 unit(s)	57,10

Watesmo

On the reel, L 5 m x W 10 mm.

Verification of	Sensitivity limit	Colour conversion	Art. No.	Pack Qty.	€
Water (e.g. water in organic solvents)	in trace amounts	from light blue to dark blue	**AXT6.1**	1 roll(s)	35,50

Test kit water hardness

ROTH SELECTION.

A 5 ml water sample is added drop by drop as a test reagent until there is a change in colour. Each drop corresponds to 1° dGH.

Warning H290-H319
Delivery incl. sample container.

Verification of	Pack.	Art. No.	Pack Qty.	€
Water hardness	2 x 15 ml	**0519.1**	1 unit(s)	30,45

Immerse yourself ... ... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Test systems

Test swabs QUANTOFIX®

Macherey-Nagel.

For semi-quantitive determination of various substances. The test swabs consist of a 0.2 mm-thick plastic strip with testing paper affixed to the lower end. After the test strip has been moistened, the colouration that appears is compared to a colour scale on the side of the can. The concentration value can be read or a concentration range can be estimated. Dimensions: W 6 x L 95 mm.

Aluminium

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Aluminium Al^{3+}	0-5-20-50-200-500	**L865.1**	100 unit(s)	49,95

Ammonium

Test strips with additional reagent

Danger H290-H314

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Ammonium NH_4^+	0-10-25-50-100-200-400	**H920.1**	100 unit(s)	45,90

Ascorbic acid

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Ascorbic acid $C_6H_8O_6$	0-50-100-200-300-500-1000-2000	**LT42.1**	100 unit(s)	31,60

Benzalkonium chloride

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Benzalkonium chloride	0-10-25-50-100-250-500-1000	**HNY9.1**	100 unit(s)	30,50

Carbonate hardness

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Carbonate hardness CO_3^{2-}	0-3-6-10-15-20	**L863.1**	100 unit(s)	30,50

Chlorine

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Chlorine Cl_2	0-1-3-10-30-100	**H921.1**	100 unit(s)	59,50

Chlorine 500

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Chlorine Cl_2	0-25-50-100-250-500	**1EL0.1**	100 unit(s)	30,95

Chlorine sensitive

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Chlorine sensitive Cl_2	0-0,1-0,5-1-3-10	**HPA0.1**	100 unit(s)	27,50

Chloride

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Chloride Cl^-	0-500-1000-1500-2000 ≥3000	**H922.1**	100 unit(s)	34,50

Cyanide

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Cyanide CN^-	0-1-3-10-30	**L864.1**	100 unit(s)	59,90

EDTA

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
EDTA	0-100-200-300-400	**LT47.1**	100 unit(s)	31,20

Iron 100

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Iron 100 Fe^{2+}/Fe^{3+}	0-2-5-10-25-50-100	**L830.1**	100 unit(s)	25,90

Formaldehyde

Test strips with additional reagent

Danger H290-H314

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Formaldehyde HCHO	0-10-20-40-60-100-200	**HPA1.1**	100 unit(s)	54,50

Potassium

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Potassium K^+	0-200-400-700-1000-1500	**LT48.1**	100 unit(s)	45,70

Copper

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Copper Cu^+/Cu^{2+}	0-10-30-100-300	**L831.1**	100 unit(s)	25,90

Molybdenum

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Molybdenum Mo^{6+}	0-5-20-50-100-250	**P921.1**	100 unit(s)	66,90

Nickel

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Nickel Ni^{2+}	0-10-25-50-100-250-500-1000	**LT49.1**	100 unit(s)	30,90

Nitrate/nitrite I

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Nitrate NO_3^-/ nitrite NO_2^-	NO_3^-: 0-5-10-25-50-75-100 mg/l NO_2^-: 0-0,5-2-5-10-25-50	**HPA2.1**	100 unit(s)	33,90

Nitrate/nitrite II

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Nitrate NO_3^-/ nitrite NO_2^-	NO_3^-: 0-10-25-50-100-250-500 mg/l NO_2^-: 0-1-5-10-20-40-80	**C733.1**	100 unit(s)	28,90

Nitrite I

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Nitrite NO_2^-	0-1-5-10-20-40-80	**C734.1**	100 unit(s)	28,40

Nitrite II

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Nitrite NO_2^-	0-100-300-600-1000-2000-3000	**LT43.1**	100 unit(s)	28,50

Test systems

Nitrite/pH

Verification of	Gradation	Art. No.	Pack Qty.	€
Nitrite NO_2/pH	NO_2: 0-1-5-10-20-40-80 mg/l pH: 6,0-6,4-6,7-7,0-7,3-7,6-7,9-8,2-8,4-8,6-8,8-9,0-9,3-9,6	**HL20.1**	100 unit(s)	36,50

Peracetic acid I

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peracetic acid $C_2H_4O_3$	0-5-10-20-30-50	**LT44.1**	100 unit(s)	34,10

Peracetic acid II

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peracetic acid $C_2H_4O_3$	0-50-100-200-300-400-500	**LT45.1**	100 unit(s)	34,10

Peracetic acid III

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peracetic acid $C_2H_4O_3$	0-500-1000-1500-2000	**LT46.1**	100 unit(s)	37,10

Peroxide I

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peroxide H_2O_2	0-0,5-2-5-10-25	**L829.1**	100 unit(s)	26,90

Peroxide II

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peroxide H_2O_2	0-1-3-10-30-100	**C735.1**	100 unit(s)	25,95

Peroxide III

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peroxide H_2O_2	0-50-150-300-500-800-1000	**HPA3.1**	100 unit(s)	27,50

Phosphate
Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}	0-3-10-25-50-100	**H923.1**	100 unit(s)	43,50

Sulphate

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Sulphate SO_4^{2-}	0->400->800->1200->1600	**P922.1**	100 unit(s)	29,80

Sulphite

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Sulphite SO_3^{2-}	0-10-25-50-100-250-500-1000	**C736.1**	100 unit(s)	28,50

Zinc
Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Zinc Zn^{2+}	0-2-5-10-25-50-100	**HPA4.1**	100 unit(s)	46,90

Tin

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Tin Sn^{2+}	0-10-25-50-100-250-500	**L866.1**	100 unit(s)	43,90

Test kit VISOCOLOR® *alpha*

Macherey-Nagel.

The product line covers colorimetric, as well as titrimetric procedures. Using **multicomponent reagents** ensures that **only one reagent is required to determine the presence of a chemical** (two reagents for Cl_2).

Delivery incl. sample container with 5 ml ring marking, dropper bottles or powder flasks with the required reagents, dosing spoon for powder reagents and colour chart.

Ammonium

Danger H290-H314

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4^+	0-0,2-0,5-1-2-3	50	**X319.1**	1 unit(s)	38,30

Carbonate hardness
1 drop = 1 °dGH (corresponds to 18 mg/l $CaCO_3$)

Warning H226-H319

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Carbonate hardness	1 °dH	100	**T361.1**	1 unit(s)	21,90

Chlorine

Warning H315-H319

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chlorine Cl_2	0,25-0,5-1,0-1,5-2,0	150	**T362.1**	1 unit(s)	23,40

Total hardness
1 drop = 1 °dGH (corresponds to 18 mg/l $CaCO_3$)

Warning H226-H319-H336

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Total hardness	1 °dH	50	**T363.1**	1 unit(s)	25,50

Nitrate

Warning H315-H317-H319-H412

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrate NO_3^-	2-8-15-30-50	100	**X320.1**	1 unit(s)	37,90

Nitrite

Warning H315

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrite NO_2^-	0,05-0,10-0,25-0,5-1,0	200	**T364.1**	1 unit(s)	25,90

Test systems

pH 5.0–9.0

Danger H225

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
pH 5.0–9.0	pH 5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0	200	**T365.1**	1 unit(s)	30,95

Phosphate

Danger H315-H318

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}	2-5-10-15-20	70	**X321.1**	1 unit(s)	36,50

Residual hardness

Warning H226-H315-H319

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Residual hardness	0,00-0,04-0,08-0,15-0,30 °dH	200	**X322.1**	1 unit(s)	42,95

Test kit VISOCOLOR® HE

Macherey-Nagel.

This highly sensitive colorimetric measuring method detects even the smallest concentrations of substances. In conjunction with the use of highly sensitive substances and an optical illusion (double irradiation), there is in an **increase in their sensitivity by a factor of between 10 and 100 when compared to other VISOCOLOR® test kits**.

Delivery incl. robust plastic box, the required reagents, a comparator box to hold the ten colour comparison disc and two measuring tubes.

Ammonium

Danger H290-H314

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4	0-0,02-0,04-0,07-0,10-0,15-0,20-0,30-0,40-0,50	110	**T379.1**	1 unit(s)	98,00

Free + total chlorine

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Free + total chlorine Cl_2	0-0,02-0,04-0,06-0,10-0,15-0,20-0,30-0,40-0,60	160	**T380.1**	1 unit(s)	98,00

Cyanide

Danger H226-H314-H332-H334-EUH031

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Cyanide CN.	0-0,002-0,004-0,007-0,010-0,015-0,020-0,025-0,030-0,040	55	**T381.1**	1 unit(s)	98,00

Iron

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Iron Fe	0-0,01-0,02-0,03-0,04-0,05-0,07-0,10-0,15-0,20	300	**T382.1**	1 unit(s)	98,00

Copper

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Copper Cu^{2+}	0-0,04-0,07-0,10-0,15-0,20-0,25-0,30-0,40-0,50	150	**T383.1**	1 unit(s)	98,00

Manganese

Danger H226-H290-H302+H312+H332-H314-H317-H335-H336-H351-H371-H373-H400

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Manganese Mn	0-0,03-0,06-0,10-0,15-0,20-0,25-0,30-0,40-0,50	100	**T384.1**	1 unit(s)	98,00

Nitrite

Warning H290

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrite NO_2^-	0-0,005-0,010-0,015-0,02-0,03-0,04-0,06-0,08-0,10	150	**T385.1**	1 unit(s)	98,00

Phosphate

Danger H290-H314-EUH031

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}	0-0,05-0,10-0,15-0,20-0,3-0,4-0,6-0,8-1,0	300	**T388.1**	1 unit(s)	98,00

Phosphate (DEV)

Method according to the chemical basis of the German standard methods for testing water, waste water and sludge (DEV).

Danger H314

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}	0-0,01-0,02-0,03-0,05-0,07-0,10-0,15-0,20-0,25	100	**T387.1**	1 unit(s)	98,00

Silicon

Danger H315-H318-EUH031

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Silicon Si	0-0,01-0,02-0,03-0,05-0,07-0,10-0,15-0,20-0,30	120	**T389.1**	1 unit(s)	98,00

Test kit VISOCOLOR® ECO

Macherey-Nagel.

The product line covers colorimetric, as well as titrimetric procedures. ECO test kits are suitable for **analysing substances in the water with low limit values, whereby environmentally hazardous and toxic substances are largely eliminated**. Very easy to operate using the pictograms.

Delivery incl. two 20 mm measuring tubes with screw cap, moveable comparator to hold the measuring tubes, colour chart, 5 ml plastic syringe, bottles with the reagents and dosing spoon.

Ammonium

Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H226-H290-H314-H412

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_{4+}	0-0,2-0,3-0,5-0,7-1-2-3	50	**T366.1**	1 unit(s)	54,00

Calcium

Titrimetric procedure.

1 drop = 5 mg/l

Danger H226-H290-H314-H336

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Calcium Ca^{2+}	5 mg/l	100	**X323.1**	1 unit(s)	33,90

Carbonate hardness

Titrimetric procedure.

1 drop = 1 °dGH (corresponds to 18 mg/l $CaCO_3$)

Danger H225

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Carbonate hardness	1 °dH	100	**T367.1**	1 unit(s)	46,50

Chlorine

Colorimetric procedure. Suitable for use with PF12 photometer.

Warning H315-H319

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chlorine Cl_2	<0,1-0,1-0,2-0,3-0,4-0,6-0,9-1,2-2,0	150	**T368.1**	1 unit(s)	49,50

Chloride

Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H225-H290-H301+H311+H331-H314-H370-H373-H413

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chloride Cl-	1-2-4-7-12-20-40-60	90	**T369.1**	1 unit(s)	57,50

Chromium

Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H314

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chromium (VI) Cr	0,02-0,05-0,10-0,15-0,20-0,30-0,40-0,50	140	**T370.1**	1 unit(s)	57,50

Cyanide

Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H290-H314-H334-EUH031

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Cyanide CN^-	0-0,01-0,02-0,03-0,05-0,07-0,10-0,15-0,20	100	**X324.1**	1 unit(s)	71,20

Cyanuric acid

Colorimetric procedure. Suitable for use with PF12 photometer.

Warning H302-H315-H319

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Cyanuric acid	10-15-20-30-40-60-80-100	100	**X325.1**	1 unit(s)	88,60

Iron

Colorimetric procedure. Suitable for use with PF12 photometer.

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Iron Fe	0-0,04-0,07-0,10-0,15-0,20-0,30-0,50-1,0	100	**T371.1**	1 unit(s)	50,50

Total hardness

Titrimetric procedure.

1 drop = 1 °dGH (corresponds to 18 mg/l $CaCO_3$)

Warning H226-H315-H319

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Total hardness	1 °dH	100	**T372.1**	1 unit(s)	46,50

Potassium

Colorimetric procedure. Suitable for use with PF12 photometer.

Warning H290-H302-H315-H319

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Potassium K^+	2-3-4-6-8-10-15	60	**Y556.1**	1 unit(s)	106,00

Test systems

Silica
Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H315-H318-EUH031

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Silica SiO_2	0-0,2-0,4-0,6-1,0-1,5-2,0-2,5-3,0	80	**Y557.1**	1 unit(s)	61,70

Copper
Colorimetric procedure. Suitable for use with PF12 photometer.

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Copper Cu^{2+}	0-0,1-0,2-0,3-0,5-0,7-1,0-1,5	100	**T373.1**	1 unit(s)	54,50

Manganese
Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H290-H302+H312-H314-H317-H335-H351-H373-H400

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Manganese Mn	0-0,1-0,2-0,3-0,5-0,7-0,9-1,2-1,5	70	**Y558.1**	1 unit(s)	65,95

Nickel
Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H272-H290-H302-H314-H317-H334-H335

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Nickel Ni^{2+}	0-0,1-0,2-0,3-0,5-0,7-0,9-1,2-1,5	150	**X326.1**	1 unit(s)	80,10

Nitrate
Colorimetric procedure. Suitable for use with PF12 photometer.

H411

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Nitrate NO_3^-	0-4-10-20-30-50-70-90-120	120	**T374.1**	1 unit(s)	47,50

Nitrite
Colorimetric procedure. Suitable for use with PF12 photometer.

Warning H290

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Nitrite NO_2^-	0-0,02-0,03-0,05-0,07-0,1-0,2-0,3-0,5	150	**T375.1**	1 unit(s)	48,90

pH 4.0 – 9.0
Titrimetric procedure.

Danger H225

Verification of	Gradation	No. measure-ments	Art. No.	Pack Qty.	€
pH 4.0–9.0	pH 4,0-5,0-6,0-6,5-7,0-7,5-8,0-8,5-9,0	400	**T376.1**	1 unit(s)	48,90

Phosphate
Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H315-H318

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}	0-0,2-0,3-0,5-0,7-1-2-3-5	80	**T377.1**	1 unit(s)	47,50

Swimming pool (chlorine + pH value)
Titrimetric procedure.

Warning H315-H319

Verification of	Gradation	No. measure-ments	Art. No.	Pack Qty.	€
chlorine/pH	Cl_2: 0,1-0,2-0,3-0,4-0,6-0,9-1,2-2,0 mg/l pH: 6,9-7,2-7,4-7,6-7,8-8,2	150	**T378.1**	1 unit(s)	62,10

Sulphide
Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H314-H412

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Sulphide S^{2-}	0-0,1-0,2-0,3-0,4-0,5-0,6-0,7-0,8	90	**Y560.1**	1 unit(s)	63,30

Sulphite
Titrimetric procedure.
1 drop = 1 mg/l

Warning H315-H319

Verification of	Gradation	No. measure-ments	Art. No.	Pack Qty.	€
Sulphite SO_3^{2-}	1 mg/l	60	**Y559.1**	1 unit(s)	49,50

Round cuvette test NANOCOLOR®

Macherey-Nagel.

Quick tests for photometric analysis. Reagents and additional reagents are precisely pre-dosed for optimum accuracy and correctness of measured results. Convenient, safe removal of round cuvettes (external diameter 16 mm) from the stable box with coloured pictograms providing step-by-step instructions on the cover. Batch-specific information can be accessed via a 2D bar code on the reverse of the packaging.
For example, NANOCOLOR® round cuvette tests are suitable for use with the PF12^{Plus} photometer.

Ammonium 3

Warning H302

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4/NH_4-N	NH_4^+: 0,05-3,00, NH_4-N: 0,04-2,30	20	**KEK4.1**	1 unit(s)	81,50

Ammonium 10

Warning H302

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4/NH_4-N	NH_4^+: 0,2-10,0, NH_4-N: 0,2-8,0	20	**KEK5.1**	1 unit(s)	81,50

Ammonium 50

Warning H302

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4/NH_4-N	NH_4^+: 1,0-50,0, NH_4-N: 1,0-40,0	20	**KEK6.1**	1 unit(s)	81,50

Ammonium 100

Warning H302-H315-H319

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4/NH_4-N	NH_4^+: 5-100, NH_4-N: 4-80	20	**KEK7.1**	1 unit(s)	81,50

Ammonium 200

Warning H302-H315-H319

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4/NH_4-N	NH_4^+: 40-200, NH_4-N: 30-160	20	**KEK8.1**	1 unit(s)	81,50

Carbonate hardness 15

Verification of	Measuring range	No. measurements	Art. No.	Pack Qty.	€
Carbonate hardness	1.0-15 °d, 0.4-5.4 mmol/l H^+	20	**KEK9.1**	1 unit(s)	73,50

Chloride 50

Danger H225-H290-H301+H311+H331-H314-H370-H373-H413

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chloride Cl^-	Cl^-: 0,5-50,0	20	**KEL0.1**	1 unit(s)	60,90

Chloride 200

Danger H225-H290-H301+H311+H331-H314-H370-H373-H413

Verification of	Measuring range (g/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chloride Cl^-	Cl^-: 0,10-1,00, Cl^-: 5-200	20	**KEL1.1**	1 unit(s)	60,90

Chlorine/ozone 2

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chlorine Cl_2/ Ozone O_3	O_3: 0,05-2,00, Cl_2: 0,05-2,50	20	**KEL2.1**	1 unit(s)	34,90

Chromate 5

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chromate Cr (VI)	Cr: 0.05-2.00	20	**KEL3.1**	1 unit(s)	64,50

Chromium 2 total

Danger H272-H302-H315-H317-H319-H334-H335

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chromium Cr	Cr: 0.05-2.00	20	**KEL4.1**	1 unit(s)	85,90

CSB 60

Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	O_2: 5-60	20	**KEL5.1**	1 unit(s)	77,50

CSB 160

Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	O_2: 15–160	20	**KEL6.1**	1 unit(s)	77,50

CSB 600

Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H340-H350-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	SO_2: 50–600	20	**KEL7.1**	1 unit(s)	77,50

Test systems

CSB 1500
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H340-H350-H360Df-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	O_2: 100–1500	20	**KEL8.1**	1 unit(s)	77,50

CSB 4000
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H340-H350-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	O_2: 400–4000	20	**KEL9.1**	1 unit(s)	77,50

CSB 10000
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H340-H350-H360Df-H373-H412

Verification of	Measuring range (g/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	O_2: 1.0–10.0	20	**KEN0.1**	1 unit(s)	77,50

Iron 3 + total
Required for determining total metal, digestion reagent NanOx metal (Art. No. KEX2.1).

Danger H314

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Iron Fe	Fe: 0.10–3.00	20	**KEN1.1**	1 unit(s)	65,90

Hardness 20

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Total hardness, Magnesium Mg_{2+}, Calcium Ca^{2+}	1,0-20,0 °d, Mg^{2+}: 5-50, Ca^{2+}: 10-100	20	**KEN2.1**	1 unit(s)	65,50

Copper 5 + total
Required for determining total metal, digestion reagent NanOx metal (Art. No. KEX2.1).

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Copper Cu^{2+}	Cu^{2+}: 0,10-7,00	20	**KEN3.1**	1 unit(s)	81,50

Nickel 4 + total
Required for determining total metal, digestion reagent NanOx metal (Art. No. KEX2.1).

Danger H272-H290-H314-H317-H334-H335

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nickel Ni^{2+}	Ni^{2+}: 0.10–7.00	20	**KEN5.1**	1 unit(s)	78,50

Nitrate 50

Danger H226-H290-H302-H314-H336

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrate NO_3^-/ NO_3-N	NO_3^-: 2-100, NO_3-N: 0,3-22,0	20	**KEN6.1**	1 unit(s)	86,90

Nitrate 250

Danger H226-H290-H302-H314-H336

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrate NO_3^-/ NO_3-N	NO_3^-: 20-250, NO_3-N: 4-60	20	**KEN7.1**	1 unit(s)	86,90

Nitrite 2

Warning H319

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrite NO_2^-/ NO_2-N	NO_2^-: 0,02-1,50, NO_2-N: 0,003-0,460	20	**KEN8.1**	1 unit(s)	64,90

Nitrite 4

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrite NO_2^-/ NO_2-N	NO_2^-: 0,3-13,0, NO_2-N: 0,1-4,0	20	**KEN9.1**	1 unit(s)	64,90

Peroxide 2

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Peroxide H_2O_2	H_2O_2: 0.03–2.00	10–19	**KEP0.1**	1 unit(s)	63,90

Phosphate 1 ortho + total
Block thermostat required for determining total phosphate (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H272-H302-H315-H317-H319-H334-H335

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}/PO_4-P	PO_4^{3-}: 0,2-5,0, P (PO_4-P): 0,05-1,50	20	**KEP1.1**	1 unit(s)	83,50

Phosphate 5 ortho + total
Block thermostat required for determining total phosphate (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H272-H302-H315-H317-H319-H334-H335

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}/PO_4-P	PO_4^{3-}: 0,5-15,0, P (PO_4-P): 0,20-5,00	20	**KEP2.1**	1 unit(s)	83,50

Test systems

Phosphate 15 ortho + total
Block thermostat required for determining total phosphate (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H272-H302-H315-H317-H319-H334-H335

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}/PO_4-P	PO_4^{3-}: 1,0-45,0, P (PO_4-P): 0,30-15,00	20	**KEP3.1**	1 unit(s)	83,50

Phosphate 45 ortho + total
Block thermostat required for determining total phosphate (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H272-H302-H315-H317-H319-H334-H335

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}/PO_4-P	PO_4^{3-}: 15-150, P (PO_4-P): 5,0-50,0	20	**KEP4.1**	1 unit(s)	83,50

Residual hardness 1

Verification of	Measuring range	No. measurements	Art. No.	Pack Qty.	€
Residual hardness	0.02–1.00 °d, 0.004–0.180 mmol/l	20	**KEP5.1**	1 unit(s)	69,90

Total nitrogen TN_b22
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H226-H272-H290-H302-H314-H317-H334-H335-H336

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrogen N	N: 0.5–22.0	20	**KEP6.1**	1 unit(s)	97,50

Total nitrogen TN_b60
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H226-H272-H290-H302-H314-H317-H334-H335-H336

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrogen N	N: 3–60	20	**KEP7.1**	1 unit(s)	97,50

Total nitrogen TN_b220
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H226-H272-H290-H302-H314-H317-H334-H335-H336

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrogen N	N: 5–220	20	**KEP8.1**	1 unit(s)	97,50

Sulphate LR 200

Warning H302+H332-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphate SO_4^{2-}	SO_4^{2-}: 20–200	20	**KEP9.1**	1 unit(s)	73,00

Sulphate MR 400

Warning H302+H332-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphate SO_4^{2-}	SO_4^{2-}: 40–400	20	**KET0.1**	1 unit(s)	73,00

Sulphate HR 1000

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphate SO_4^{2-}	SO_4^{2-}: 200-1000	20	**1CA5.1**	1 unit(s)	73,50

Sulphide 3

Danger H314-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphide S^{2-}	S^{2-}: 0.05–3.00	20	**KET2.1**	1 unit(s)	85,00

Sulphite 10

Warning H302-H373

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphite SO_3^{2-}	SO_3^{2-}: 0.2-10.0	20	**KET3.1**	1 unit(s)	79,00

Sulphite 100

Danger H314

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphite SO_3^{2-}	SO_3^{2-}: 5-100	19	**KET4.1**	1 unit(s)	71,00

Surfactant 4, anionic

Danger H226-H302+H312-H315-H319-H331-H336-H351-H361-H371-H373

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Surfactant, anionic	SDS: 0.20–3.5, MBAS: 0.20-4.00	20	**KET5.1**	1 unit(s)	96,00

Surfactant 4, cationic

Danger H226-H302+H312-H315-H319-H331-H336-H351-H361-H371-H373

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Surfactant, cationic	CTAB: 0.20-4.00	20	**KET6.1**	1 unit(s)	96,00

Surfactant 15, non-ionic

Warning H226-H302+H312+H332-H315-H319-H336-H351-H371

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Surfactant ,non-ionic	Triton®X-100: 0.3-15.0	20	**KET7.1**	1 unit(s)	96,00

Test systems

Zinc 4 + total (with CN)
Required for determining total metal, digestion reagent NanOx metal (Art. No. KEX2.1).

Danger H272-H300+H310+H330-H315-H318-H335-H360FD-H410-EUH032

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Zinc Zn^{2+}	Zn^{2+}: 0.10-4.00	20	**KET8.1**	1 unit(s)	84,00

Zinc 6 + total Zinc (CN-free)
Required for determining total metal, digestion reagent NanOx metal (Art. No. KEX2.1).

Warning H302-H315-H319

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Zinc Zn^{2+}	Zn^{2+}: 0.20-6.00	20	**KET9.1**	1 unit(s)	84,00

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Photometer PF-12^{Plus} for water experiments

Macherey-Nagel.

Portable photometer for use in the laboratory and the field, with pre-programmed Visocolor® ECO and Nanocolor® round cuvette tests. Nephelometric turbidity measurement possible (1-1000 NTU).

- Illuminated graphic display
- Automatic wave length setting
- Cuvette rack for round cuvettes, with 16 mm OD
- USB port for data transfer and power supply
- Dust and waterproof casing acc. to IP 68

Technical specifications:

Art. No.	LP73.1
Type	PF-12^{Plus}
Optics	Automatic filter wheel with seven interference filters
Light source	Wolfram lamp
Wavelength	345/436/470/540/585/620/690 nm
Accuracy	±2 nm
Photometric range	±3 E
Photometric correctness	±1 %
IP rating	68
Data memory	1000 measured values, GLP-compliant
Port	USB 2.0
L x W x D	215 x 100 x 65 mm
Power supply	Batteries: 4 x 1.5 V AA

Delivery incl. Software DVD, batteries, 4 empty cuvettes, funnel, beaker, syringe, USB cable, calibration cuvette and transport case. If required, please order USB connector separately.

Type	Art. No.	Pack Qty.	€
PF-12^{Plus}	**LP73.1**	1 unit(s)	995,00

Photometer MD100 for chlorine

Tintometer.

For free, bound and total chlorine.

- Internal ring buffer for 16 datasets with real-time clock and date
- Auto-Off function
- Countdown function to maintain reaction time

Determination of chlorine content using reagent tablets.

- For measuring free chlorine with DPD No. 1
- For measuring total chlorine with DPD No. 1 + DPD No. 3

For checking the degree of accuracy and reproducibility of measured results with a reference standard kit (please order separately).

Technical specifications:

Art. No.	**YE08.1**
Type	MD100
Measuring range	0.01 to 6 mg/l
Resolution	0.01 mg/l
Optics	LEDs, interference filter and photosensor
Light source	LED
Wavelength	530 nm
Accuracy	±0.05 mg/l (0 to 1 mg/l) ±0.10 mg/l (1.01 to 2 mg/l) ±0.20 mg/l (2.01 to 3 mg/l) ±0.30 mg/l (3.01 to 4 mg/l) ±0.40 mg/l (4.01 to 6 mg/l)
Photometric correctness	FS 3 %
IP rating	68
Operating temperature	+5 to +40 °C
L x W x D	155 x 75 x 35 mm
Weight	260 g
Power supply	Batteries: 4 x 1.5 V AAA

Delivery incl. three glass round cuvettes with lids, 1 stirring rod, 1 brush, DPD No. 1 + No. 3 reagent tablets, plastic case and batteries.

Type	Art. No.	Pack Qty.	€
MD100	**YE08.1**	1 unit(s)	488,60

Turbidimeter TB 211 IR

Tintometer.

The wide measuring range from 0.01 to 1100 NTU (= TE/F = FNU) with a detection limit of 0.01 NTU gives this device a versatile range of applications, from waste water to drinking water. For coloured and colourless water.

- Backlit LCD display
- AUTO-OFF function after 10 minutes to prolong battery life
- Internal ring buffer for 16 datasets with real-time clock and date
- Membrane keyboard
- With USB interface for direct transfer of measured values to a PC

Technical specifications:

Art. No.	**LP38.1**
Type	TB 211 IR
Measuring range	0.01 to 1100 NTU
Resolution	0.01 NTU (0.01 to 9.99 NTU), 0.1 NTU (10 to 99.9 NTU), 1 NTU (100 to 1100 NTU)
Optics	Temperature-compensated LED (Wave length: 860 nm)
Light source	Infrared
Accuracy	±2.5% of measured value or 0.01 NTU (0 to 500 NTU) ±5% of measured value (500 to 1100 NTU)
Data memory	Internal ring buffer for 16 datasets
Operating temperature	+5 to +40 °C
L x W x D	190 x 110 x 55 mm
Weight	400 g
Power supply	Battery: E-Block 9 V

Delivery incl. four turbidimeter standards (<0.1, 20, 200, 800 NTU), batteries, 2 cuvettes, USB cable and transport case.

Type	Art. No.	Pack Qty.	€
TB 211 IR	**LP38.1**	1 unit(s)	827,75

pH-papers

pH indicator paper ROTILABO® Eco

ROTH SELECTION.

For fast and accurate measurement of the pH value of liquids. pH indicator paper treated with coloured indicator solutions. Dip in the solution being tested, then compare the colour change with the colour scale. Dispenser with notched rim and small tear-off edge for easier handling. By roll, 8 mm width and 5 m length.

Delivery incl. dispenser with indicator paper and colour chart.

pH 1–11

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0 to 11	0-1-2-3-4-5-6-7-8-9-10-11	**KEE1.1**	1 roll(s)	6,80

pH 1–14

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 14	1-2-3-4-5-6-7-8-9-10-12-14	**KEE2.1**	1 roll(s)	6,80

pH 0.5–5.5

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0.5 to 5.0	0,5-1,0-1,5-2,0-2,5-3,0-3,5-4,0-4,5-5,0-5,5	**KEE3.1**	1 roll(s)	6,80

pH 5.5–9.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
5.5 to 9.0	5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0	**KEE4.1**	1 roll(s)	6,80

pH 6.5–10.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
6.5 to 10.0	6,5-7,0-7,5-8,0-8,5-9,0-9,5-10,0	**KEE5.1**	1 roll(s)	6,80

pH 9.5–13.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
9.5 to 13.0	9,5-10,0-10,5-11,0-11,5-12,0-12,5-13,0	**KEE6.1**	1 roll(s)	6,80

Litmus paper

Macherey-Nagel.

Litmus paper is one of the most well-known and oldest indicator papers. Litmus is a natural product, derived from lichens. By roll, 7 mm length and 5 m width.

Delivery incl. dispenser.

Blue

Colour change when entering the acid range.

pH measuring range	Transition	Colour conversion	Art. No.	Pack Qty.	€
8.0 to 5.0	Alkali → acid	Blue → red	**8222.1**	1 roll(s)	11,95

Neutral

Colour change occurs when moving from neutral to the acid or base range.

pH measuring range	Transition	Colour conversion	Art. No.	Pack Qty.	€
5.0 to 8.0	Acid → neutral → alkali	Red → violet → blue	**8223.1**	1 roll(s)	11,95

Red

Colour change when entering the alkali range.

pH measuring range	Transition	Colour conversion	Art. No.	Pack Qty.	€
5.0 to 8.0	Acid → alkali	Red → blue	**8224.1**	1 roll(s)	11,95

pH indicator paper single-zoned

Macherey-Nagel.

For easy determination of the pH value. The reaction colour of the paper can be compared with the colour chart on the dispenser.
By roll, 5 m length and 7 mm width.

Delivery incl. dispenser with colour chart.

Type (1) pH 1–11

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 11	1-2-3-4-5-6-7-8-9-10-11	**L861.1**	1 roll(s)	13,90

Type (2) pH 1–14

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 14	1-2-3-5-6-7-8-9-10-12-14	**N360.1**	1 roll(s)	12,80

pH indicator paper, three-zone

Macherey-Nagel.

With three indicator zones (one main and two sub-indicator zones) for better estimation of intermediate values.

Delivery incl. two dispensers with indicator paper and a colour chart.

TRITEST

By roll, 10 mm length and 5 m width.

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 11	1-2-3-4-5-6-7-8-9-10-11	**C726.1**	2 roll(s)	29,50

TRITEST L

By roll, 14 mm length and 6 m width.

With two hydrophobic zones for better reading of the alkali range.

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 11	1-2-3-4-5-6-7-8-9-10-11	**C728.1**	2 roll(s)	37,80

pH indicator rod pH-Fix

ROTH SELECTION.

With test fields made from colour-drenched cellulose. Reliable, **doesn't bleed**. Rod dimensions: Length 85 x Width 6 mm.

Delivery incl. colour comparison chart.

(1) pH 0–14 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0 to 14	1-2-3-4-5-6-7-8-9-10-11-12-13-14	**0549.2**	100 unit(s)	13,95

(2) pH 0–14 in round dispenser

Advantage: Snap-on lid can be opened and closed with one hand, just using the thumb.

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0 to 14	1-2-3-4-5-6-7-8-9-10-11-12-13-14	**KH69.1**	100 unit(s)	14,50

(1) pH 0.0–6.0 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0.0 to 6.0	0-0,5-1,0-1,5-2,0-2,5-3,0-3,5-4,0-4,5-5,0-5,5-6,0	**C730.2**	100 unit(s)	13,90

(1) pH 2.0–9.0 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
2.0 to 9.0	2,0-2,5-3,0-3,5-4,0-4,5-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5	**H913.2**	100 unit(s)	13,95

(1) pH 4.5–10.0 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
4.5 to 10.0	4,5-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0-9,5-10,0	**C731.2**	100 unit(s)	13,90

(1) pH 7.0–14.0 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
7.0 to 14.0	7,0-7,5-8,0-8,5-9,0-9,5-10,0-10,5-11,0-11,5-12,0-12,5-13,0-13,5-14,0	**C732.2**	100 unit(s)	13,90

(1) pH 0.3–2.3 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0.3 to 2.3	0,3-0,7-1,0-1,3-1,6-1,9-2,3	**H914.2**	100 unit(s)	13,95

pH-papers

(1) pH 1.7–3.8 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1.7 to 3.8	1,7-2,0-2,3-2,6-2,9-3,2-3,5-3,8	**H915.2**	100 unit(s)	13,95

(1) pH 3.6–6.1 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
3.6 to 6.1	3,6-4,1-4,4-4,7-5,0-5,3-5,6-6,1	**H916.2**	100 unit(s)	13,95

(2) pH 3.6–6.1 in round dispenser

Advantage: Snap-on lid can be opened and closed with one hand, just using the thumb.

Purpose: pH in vaginal secretion

In vitro diagnostic medical device according to IVDD

pH measuring range	Gradation	Art. No.	Pack Qty.	€
3.6 to 6.1	3,6-4,1-4,4-4,7-5,0-5,3-5,6-6,1	**LH91.1**	100 unit(s)	13,50

(1) pH 5.1–7.2 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
5.1 to 7.2	5,1-5,4-5,7-6,0-6,3-6,6-6,9-7,2	**H917.2**	100 unit(s)	13,95

(1) pH 6.0–7.7 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
6.0 to 7.7	6,0-6,4-6,7-7,0-7,3-7,7	**H918.2**	100 unit(s)	13,95

(1) pH 7.5–9.5 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
7.5 to 9.5	7,5-7,9-8,2-8,4-8,6-8,8-9,1-9,5	**H919.2**	100 unit(s)	13,95

Indicator paper PEHANON®

Macherey-Nagel.

With colour comparison chart on every test strip. Ideal for coloured solutions and suspensions, since the colour shift shows equally on the indicator and comparison colours. The individual colour zones are separated by hydrophobic barriers.
One dispenser contains 200 strips (W 11 x L 100 mm).

pH 1.0–12.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1.0 to 12.0	1-2-3-4-5-6-7-8-9-10-11-12	**EA47.1**	200 unit(s)	18,50

pH 0–1.8

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0.0 to 1.8	0-0,3-0,6-0,8-1,0-1,2-1,5-1,8	**AXT7.1**	200 unit(s)	15,90

pH 1.0–2.8

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1.0 to 2.8	1,0-1,3-1,6-1,8-2,0-2,2-2,5-2,8	**EA48.1**	200 unit(s)	17,20

pH 1.8–3.8

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1.8 to 3.8	1,8-2,1-2,4-2,7-3,0-3,2-3,5-3,8	**AXT8.1**	200 unit(s)	15,90

pH 2.8–4.6

pH measuring range	Gradation	Art. No.	Pack Qty.	€
2.8 to 4.6	2,8-3,1-3,4-3,6-3,8-4,0-4,3-4,6	**AXT9.1**	200 unit(s)	15,90

pH 3.8–5.5

pH measuring range	Gradation	Art. No.	Pack Qty.	€
3.8 to 5.5	3,8-4,0-4,2-4,4-4,6-4,9-5,2-5,5	**EA49.1**	200 unit(s)	16,30

pH 4.0–9.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
4.0 to 9.0	4,0-4,5-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0	**AYA0.1**	200 unit(s)	15,90

pH 5.2–6.8

pH measuring range	Gradation	Art. No.	Pack Qty.	€
5.2 to 6.8	5,2-5,5-5,7-5,9-6,1-6,3-6,5-6,8	**AYA1.1**	200 unit(s)	15,90

pH 6.0–8.1

pH measuring range	Gradation	Art. No.	Pack Qty.	€
6.0 to 8.1	6,0-6,3-6,6-6,9-7,2-7,5-7,8-8,1	**EA50.1**	200 unit(s)	16,30

pH 7.2–8.8

pH measuring range	Gradation	Art. No.	Pack Qty.	€
7.2 to 8.8	7,2-7,4-7,6-7,8-8,0-8,2-8,5-8,8	**AYA2.1**	200 unit(s)	15,90

pH 8.0–9.7

pH measuring range	Gradation	Art. No.	Pack Qty.	€
8.0 to 9.7	8,0-8,2-8,4-8,6-8,8-9,1-9,4-9,7	**EA51.1**	200 unit(s)	16,30

pH 9.5–12.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
9.5 to 12.0	9,5-10,0-10,5-11,0-11,5-12,0	**AYA3.1**	200 unit(s)	15,90

pH 10.5–13.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
10.5 to 13.0	10,5-11,0-11,5-12,0-12,5-13,0	**AYA4.1**	200 unit(s)	15,90

pH 12.0–14.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
12.0 to 14.0	12,0-12,5-13,0-13,5-14,0	**AYA5.1**	200 unit(s)	15,90

Indicator solution UNISOL

Macherey-Nagel.

For pH measurement in weak buffered solutions, in pure water, in surface water and in highly diluted acids or alkalis. Droplets of an indicator solution are added to the sample and the reaction colour is compared to a colour chart.

Danger H225

Delivery incl. 100 ml dropper bottle containing reagent (sufficient for approx. 500 pH measurements), colour chart and one type 13/72 measuring cuvette.

UNISOL 410

pH measuring range	Gradation	Art. No.	Pack Qty.	€
4.0 to 10.0	4,0-4,5-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0-9,5-10,0	**TK45.1**	1 unit(s)	29,90

UNISOL 113

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 13	1-2-3-4-5-6-7-8-9-10-11-12-13	**TK46.1**	1 unit(s)	30,30

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Calibration and maintenance solutions

pH buffer tablets

ROTH SELECTION.

For pH tester.

Application:

Dissolve one pH buffer tablet in 20 ml of deionised/distilled water.

pH 4

pH value	pH accuracy	Art. No.	Pack Qty.	€
4	±0.05	**YT50.1**	100 unit(s)	24,30

pH 7

pH value	pH accuracy	Art. No.	Pack Qty.	€
7	±0.05	**YT51.1**	100 unit(s)	24,30

pH10

pH value	pH accuracy	Art. No.	Pack Qty.	€
10	±0.05	**YT52.1**	100 unit(s)	24,30

pH buffer solution ROTILABO® in sachets

ROTH SELECTION.

The quantity of reagent contained in a sachet (25 ml) is sufficient for a single calibration.

- Traceable thanks to comparison with standard references from the National Institute of Standards and Technology (NIST) and the National Metrology Institute of Germany (PTB)
- With certificate of analysis for documenting the quality, traceability and accuracy

pH 4,01

pH value	pH accuracy	Art. No.	Pack Qty.	€
4,01	± 0.01	**KAY0.1**	20 unit(s)	32,20

pH 7,00

pH value	pH accuracy	Art. No.	Pack Qty.	€
7,00	± 0.01	**KAY1.1**	20 unit(s)	32,20

pH 10,01

pH value	pH accuracy	Art. No.	Pack Qty.	€
10,01	± 0.02	**KAY2.1**	20 unit(s)	32,20

Standard conductivity in sachets

ROTH SELECTION.

The quantity of reagent contained in a sachet (25 ml) is sufficient for a single calibration.

- Traceable thanks to comparison with standard references from the National Institute of Standards and Technology (NIST)
- With certificate of analysis for documenting the quality, traceability and accuracy

Delivery incl. certificate of analysis.

1413 µS/cm

Conductivity (µS/cm)	Conductivity accuracy	Art. No.	Pack Qty.	€
1413	±1%	**KCX3.1**	20 unit(s)	32,20

12,880 µS/cm

Conductivity (µS/cm)	Conductivity accuracy	Art. No.	Pack Qty.	€
12880	±1%	**KCX4.1**	20 unit(s)	32,20

Electrolyte

Mettler-Toledo.

KCl 3 mol/l

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells	**A926.1**	250 ml	22,80

KCl 3 mol/l saturated with AgCl

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells	**A925.1**	250 ml	23,00

Calibration and maintenance solutions

Cleaning solution

Mettler-Toledo.

Pepsin/HCl
To remove protein contaminations.

Danger H314-EUH208

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells	**HTE4.1**	250 ml	26,90

Thiourea/HCl
For cleaning diaphragms with silver-sulphide contaminations.

Warning H351-H361d-H412

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells	**HTE5.1**	250 ml	26,90

Regeneration solution ammonium bifluoride

Mettler-Toledo.
To regenerate the pH-sensitive glass membrane.

Warning H315-H319

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells	**HTE6.1**	25 ml	24,00

pH testers CHECK series

Dostmann.
Handy digital-pH tester for measuring the pH value of small liquid quantities in narrow vessels.

- Fixed rod electrode
- Automatic calibration and temperature compensation
- HOLD function
- Battery status display

Technical specifications:

Art. No.	HPC7.1	KLH9.1	KLK0.1	KLK1.1
Parameters	pH, Temperature			
pH measuring range	0 to 14		2 to 12	
pH resolution	0,01			
pH accuracy	±0.1			
pH temp. compensation	yes			
Temperature measuring range	0 to +50 °C			
Temperature resolution	0.5 °C			
Temperature accuracy	±1 °C			
Calibration points	1/2/3			
IP rating	65			
Replaceable electrode	No			
Storage solution	3 M KCl			
Shaft length	120 mm			
Ø Shaft	12 mm			
Shaft material	Plastic	Glass	Plastic	Glass
Weight	70 g		60 g	
Power supply	2 x button CR 2032 (3 V)			

Delivery incl. batteries.
Without storage solution and buffer solutions, please order separately.

pH CHECK
With standard electrode for aqueous solutions.

Type	Art. No.	Pack Qty.	€
pH CHECK	**HPC7.1**	1 unit(s)	46,15

pH CHECK G
With glass electrode for measuring in aggressive media.

Type	Art. No.	Pack Qty.	€
pH CHECK G	**KLH9.1**	1 unit(s)	88,15

pH CHECK S
With insertion electrode for measuring in cheese, meat and semi-solid to solid media.

Type	Art. No.	Pack Qty.	€
pH CHECK S	**KLK0.1**	1 unit(s)	83,85

pH CHECK F
With flat electrode for measuring on surfaces (food, leather, paper, skin, agar dishes, etc.) and for small sample sizes.

Type	Art. No.	Pack Qty.	€
pH CHECK F	**KLK1.1**	1 unit(s)	62,35

pH-testers

pH testers pH series

Dostmann.

- Large LCD display
- Waterproof and dust-proof
- Automatic temperature compensation from 0 to +50 °C
- Confirmation when a stable measured value is reached
- Automatic calibration with display of the calibrated ranges
- Multicolour back lighting for status display of measurement mode, calibration and alarm

Technical specifications:

Art. No.	EHX6.1	EHX7.1	EHX8.1
Parameters	pH	pH, Temperature	
pH measuring range	0 to 14	-2 to 16	
pH resolution	0,01		
pH accuracy	±0,1	±0,01	
Voltage measuring range		-1000 to +1000 mV	
Voltage resolution		1 mV	
Voltage accuracy		±1 mV	
pH temp. compensation	yes		
Temperature measuring range		0 to +50 °C	
Temperature resolution		0.1 °C	
Temperature accuracy		±0,5 °C	
Calibration points	1/2	1/2/3	
IP rating	67		
Replaceable electrode	No	Yes	
Storage solution	3 M KCl		
Ø x L	35 x 175 mm		35 x 210 mm
Power supply	2 x 1.5 V AAA batteries		

Delivery incl. buffer solutions (pH 4.01 and 7.00), storage solution, storage case and batteries.

(1) PH 1
With fixed standard electrode. For aqueous solutions.

Type	Art. No.	Pack Qty.	€
PH 1	**EHX6.1**	1 unit(s)	85,90

(2) PH 5
With replaceable standard electrode. For aqueous solutions.

Type	Art. No.	Pack Qty.	€
PH 5	**EHX7.1**	1 unit(s)	135,45

(3) PH 5 Food
With replaceable immersion electrode. For solid and semi-solid samples like meat, butter, cheese, yoghurt, pastry, cream.

Type	Art. No.	Pack Qty.	€
PH 5 Food	**EHX8.1**	1 unit(s)	288,10

pH testers SD 50

Tintometer.

- Robust, waterproof housing
- Automatic calibration and temperature compensation
- Auto Off after 8 min
- Memory with storage space for 25 datasets incl. time and date

Technical specifications:

Art. No.	YP28.1
Parameters	pH, Temperature
pH measuring range	0 to 14
pH resolution	0,01
pH accuracy	±0.05
Voltage measuring range	-1800 to +1800 mV
Voltage resolution	1 mV
Voltage accuracy	±3 mV
pH temp. compensation	yes
Temperature measuring range	0 to +60 °C
Temperature resolution	0.1 °C
Temperature accuracy	±1 °C
Calibration points	1/2/3
Data memory	25 datasets
IP rating	67
Replaceable electrode	Yes
Storage solution	3 M KCl
L x W x D	177 x 43 x 29 mm
Weight	128 g
Power supply	2 x 1.5 V AAA batteries

Delivery incl. buffer tablets (pH 4, 7 and 10, 10 pieces each), carrying strap, plastic box and batteries.

Type	Art. No.	Pack Qty.	€
SD 50	**YP28.1**	1 unit(s)	145,45

pH-electrodes and accessories

pH single-rod measuring cell standard

Dostmann.

Technical specifications:

Art. No.	HAE4.1	HAH3.1	HAH4.1
Type	201T	GEL	2PoreT
pH range	0 to 14		
Operating temperature	0 to +60 °C		
Diaphragm	Ceramic	Double	Perforated
Reference system	Ag/AgCl		Ag-coated
Electrolyte	Gel		Polymer
Maintenance-free	Yes		
Storage solution	3 mol/l KCl		
Shaft length	120 mm		35 mm
Ø Shaft	12 mm		6 mm
Shaft material	Epoxid		POM
Temperature sensor	NTC 30 kΩ	without	NTC 30 kΩ
Connection	BNC (pH), Cinch (°C)	BNC (pH)	BNC (pH), Cinch (°C)

Delivery incl. fixed cable (length 1 m).

For aqueous solutions in general

Pic.	Type	Art. No.	Pack Qty.	€
(1)	201T	**HAE4.1**	1 unit(s)	109,65
(2)	GEL	**HAH3.1**	1 unit(s)	85,50

For solid to semi-solid samples

e.g. meat, fruit, butter.

Pic.	Type	Art. No.	Pack Qty.	€
(3)	2PoreT	**HAH4.1**	1 unit(s)	177,40

NEW / +

pH single-rod measuring cell LE series

Mettler-Toledo.

Affordable pH single-rod cells for various applications.

Delivery incl. fixed cable (length 1 m).

(1) LE407

Tough with plastic shaft and gel electrolyte, suitable for simple applications and straightforward samples such as water.

Technical specifications:

Art. No.	TC47.1
Type	LE407
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Nylon
Reference system	Ag/AgCl
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	POM
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Type	Art. No.	Pack Qty.	€
LE407	**TC47.1**	1 unit(s)	87,70

(2) LE409

With glass shaft and liquid electrolyte for simple and quick measurements in the laboratory, suitable for aqueous samples such as acids, bases, etc.

Technical specifications:

Art. No.	HY58.1
Type	LE409
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	Ag/AgCl
Electrolyte	3 mol/l KCl + AgCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Type	Art. No.	Pack Qty.	€
LE409	**HY58.1**	1 unit(s)	107,00

pH-electrodes and accessories

(3) LE410
With glass shaft, liquid electrolyte and integrated temperature gauge for quick, easy measurements in the lab. Suitable for aqueous samples (e.g. acids, bases, etc.) with changing temperatures.

Technical specifications:

Art. No.	1L80.1
Type	LE410
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	Ag/AgCl
Electrolyte	3 mol/l KCl + AgCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	No
Connection	BNC (pH), Cinch (°C)

Type	Art. No.	Pack Qty.	€
LE410	**1L80.1**	1 unit(s)	183,00

(4) LE438
With plastic shaft and integrated temperature gauge for field applications and samples with variable temperatures.

Technical specifications:

Art. No.	HY59.1
Type	LE438
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Nylon
Reference system	Ag/AgCl
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	POM
Temperature sensor	NTC 30 kΩ
ISM Technology	No
Connection	BNC (pH), Cinch (°C)

Type	Art. No.	Pack Qty.	€
LE438	**HY59.1**	1 unit(s)	171,00

(5) LE420
With glass shaft and PTFE sliding sleeve for demanding or contaminated samples such as wastewater, suspensions, emulsions, viscous samples, low-ion media, TRIS buffers.

Technical specifications:

Art. No.	NP41.1
Type	LE420
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ground joint
Reference system	Ag/AgCl
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Type	Art. No.	Pack Qty.	€
LE420	**NP41.1**	1 unit(s)	160,00

(6) LE422
Micro-pH single-rod measuring cell with gel electrolyte, suitable for small samples in sample tubes and test tubes.

Technical specifications:

Art. No.	NP42.1
Type	LE422
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	Ag/AgCl
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	90 mm
Ø Shaft	4.3 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Type	Art. No.	Pack Qty.	€
LE422	**NP42.1**	1 unit(s)	182,00

(7) LE427
Thanks to its pointed diaphragm, this product is ideally suited to solid samples such as meat, fruit, cheese, soil samples and many more.

Technical specifications:

Art. No.	TH61.1
Type	LE427
pH range	0 to 11
Operating temperature	0 to +50 °C
Diaphragm	Ceramic
Reference system	Ag/AgCl
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	17 mm
Ø Shaft	6 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Type	Art. No.	Pack Qty.	€
LE427	**TH61.1**	1 unit(s)	193,00

pH-electrodes and accessories

pH single-rod measuring cell InLab®

Mettler-Toledo.

High-quality pH single-rod cells for various applications.
With S7 connector.

NEW / +

Technical specifications:

Art. No.	H948.1	A915.1	A916.1	A917.1	A918.1	KL07.1	1L2X.1
Type	InLab® Easy	InLab® Routine	InLab® Semi-Micro	InLab® Science	InLab® Solids	InLab® Surface	Inlab® Viscous
pH range	0 to 14		0 to 12		0 to 11		0 to 14
Operating temperature	0 to +80 °C	0 to +100 °C			0 to +80 °C	0 to +50 °C	0 to +130 °C
Diaphragm	Ceramic		Perforated	Ground joint	Perforated	Ceramic ring	Ceramic
Reference system	ARGENTHAL™ with Ag^+ ion trap						SteadyForce™
Electrolyte	Gel	3 mol/l KCl	Polymer	3 mol/l KCl	Polymer	3 mol/l KCl	FRISCOLYT-C®
Maintenance-free	Yes	No	Yes	No	Yes	No	Yes
Storage solution	3 mol/l KCl						
Shaft length	120 mm		100 mm	120 mm	25 mm	110 mm	40 mm
Ø Shaft	12 mm		6 mm	12 mm	6 mm	12 mm	6 mm
Shaft material	PSU	Glass				PSU	Glass
Temperature sensor	without						
ISM Technology	No						
Connection	S7 connector						

Delivery without connecting cable, please order separately.

(1) Easy

For general applications in the laboratory and outdoors. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Easy	**H948.1**	1 unit(s)	107,00

(2) Routine

For aqueous solutions in general; quick and extremely resistant to chemicals.

Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Routine	**A915.1**	1 unit(s)	180,00

(3) Semi-Micro

For measurements in small or narrow vessels or for small sample volumes. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Semi-Micro	**A916.1**	1 unit(s)	269,00

pH-electrodes and accessories

(4) Science
For difficult applications such as low-ion media, organic solvents, emulsions, suspensions, viscous samples and media containing proteins. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Science	**A917.1**	1 unit(s)	258,00

(5) Solids
For semi-solid and solid samples such as creams, yoghurt, butter, dough, cheese, meat, fish, fruit and vegetables. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Solids	**A918.1**	1 unit(s)	298,00

(6) Surface
For surfaces such as skin, leather, textiles, paper and agar plates, and droplet-size samples. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Surface	**KL07.1**	1 unit(s)	252,00

(7) Viscous
For emulsions and viscous samples such as cosmetics, paints and adhesives.

With SteadyForce™ reference system for reliable and repeatable results: Electrolyte is under pressure (3 bar) and thereby protects the diaphragm against blockages.

Type	Art. No.	Pack Qty.	€
Inlab® Viscous	**1L2X.1**	1 unit(s)	407,00

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

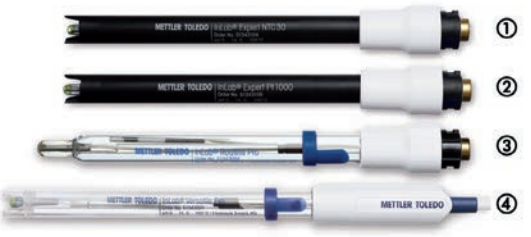
- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

pH-electrodes and accessories

pH single-rod measuring cell InLab® with integrated temperature gauge

Mettler-Toledo.

High-quality pH single-rod measuring cells for temperature-compensated measurements.



With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	X571.1	A920.1	N504.1	TA11.1
Type	InLab® ExpertNTC30	InLab® Expert Pt 1000	InLab® RoutinePro	InLab® VersatilePro
pH range	0 to 14			
Operating temperature	0 to 100 °C			
Diaphragm	Perforated		Ceramic	
Reference system	ARGENTHAL™ with Ag^+ ion trap			
Electrolyte	Polymer		3 mol/l KCl	
Maintenance-free	Yes		No	
Storage solution	3 mol/l KCl			
Shaft length	120 mm			
Ø Shaft	12 mm			
Shaft material	PEEK		Glass	PSU
Temperature sensor	NTC 30 kΩ	Pt 1000	NTC 30 kΩ	
ISM Technology	No			
Connection	MultiPin™			BNC (pH), Cinch (°C)

(1) Expert NTC30

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.
PEEK shaft with excellent chemical and mechanical resistance for extreme strain.
The use of a solid polymer as a reference electrolyte means that there is no need for a diaphragm which could become clogged.

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® ExpertNTC30	**X571.1**	1 unit(s)	232,00

(2) Expert Pt 1000

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.
PEEK shaft with excellent chemical and mechanical resistance for extreme strain.
The use of a solid polymer as a reference electrolyte means that there is no need for a diaphragm which could become clogged.

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Expert Pt 1000	**A920.1**	1 unit(s)	232,00

(3) RoutinePro

For aqueous solutions in general; quick and extremely resistant to chemicals.
Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum.

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® RoutinePro	**N504.1**	1 unit(s)	262,00

(4) VersatilePro

For aqueous solutions in general, tough and quick.

Delivery incl. fixed cable.

Type	Art. No.	Pack Qty.	€
InLab® VersatilePro	**TA11.1**	1 unit(s)	243,00

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

NEW / +

pH single-rod measuring cell InLab® with ISM® technology

Mettler-Toledo.

High-quality pH single-rod measuring cells for temperature-compensated measurements.

Thanks to the Intelligent Sensor Management (ISM®) system, all important data is stored in the sensor and automatically sent to ISM®-compatible measuring devices.

(1) Expert Go-ISM®

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

With IP67 protection for waterproof measurements with FiveGo™, Seven2Go™ and SevenGo Duo™ measuring devices.

PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no diaphragm which could become clogged.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	LN43.1
Type	InLab® Expert Go-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Perforated
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	Polymer
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	PEEK
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
IP rating	67
Connection	BNC (pH), Cinch (°C)

Delivery incl. fixed cable (length 1.8 m).

Type	Art. No.	Pack Qty.	€
InLab® Expert Go-ISM®	**LN43.1**	1 unit(s)	388,00

(2) Expert Pro-ISM®

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no diaphragm which could become clogged.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	YX49.1
Type	InLab® Expert Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Perforated
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	Polymer
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	PEEK
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	BNC (pH), Cinch (°C)

Delivery incl. fixed cable (length 1.2 m).

Type	Art. No.	Pack Qty.	€
InLab® Expert Pro-ISM®	**YX49.1**	1 unit(s)	302,00

(3) Routine Pro-ISM®

For aqueous solutions in general; quick and extremely resistant to chemicals.

Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	YX50.1
Type	InLab® Routine Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Ceramic
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Routine Pro-ISM®	**YX50.1**	1 unit(s)	323,00

pH-electrodes and accessories

(4) Science Pro-ISM®
For difficult applications such as organic solvents, emulsions and samples containing protein.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1L31.1
Type	InLab® Science Pro-ISM®
pH range	0 to 12
Operating temperature	0 to +100 °C
Diaphragm	Movable ground-joint diaphragm
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	170 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Science Pro-ISM®	**1L31.1**	1 unit(s)	449,00

(5) Solids Pro-ISM®
For semi-solid and solid samples such as creams, yoghurt, butter, dough, cheese, meat, fish, fruit and vegetables.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1L30.1
Type	InLab® Solids Pro-ISM®
pH range	1 to 11
Operating temperature	0 to +80 °C
Diaphragm	Hole
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	Polymer
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	25 mm
Ø Shaft	6 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Solids Pro-ISM®	**1L30.1**	1 unit(s)	400,00

(6) Micro Pro-ISM®
For measurements in small or narrow vessels (such as test tubes, vials and cuvettes) or for small sample volumes.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1L33.1
Type	InLab® Micro Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Ceramic
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	130 mm
Ø Shaft	5 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Micro Pro-ISM®	**1L33.1**	1 unit(s)	481,00

(7) Ultra-Micro-ISM®
For measurements in extremely small or narrow vessels (such as vials, microtiter plates and cuvettes) or for small sample volumes.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1LAT.1
Type	InLab® Ultra-Micro-ISM®
pH range	1 to 11
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	40 mm
Ø Shaft	3 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately

Type	Art. No.	Pack Qty.	€
InLab® Ultra-Micro-ISM®	**1LAT.1**	1 unit(s)	354,00

(8) Viscous Pro-ISM®
For emulsions and viscous samples such as cosmetics, paints and adhesives.

With SteadyForce™ reference system for reliable and repeatable results: Electrolyte is under pressure (3 bar) and thereby protects the diaphragm against blockages.

Technical specifications:

Art. No.	1L32.1
Type	InLab® Viscous Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +130 °C
Diaphragm	Ceramic
Reference system	SteadyForce™
Electrolyte	FRISCOLYT-C®
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	40 mm
Ø Shaft	6 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Viscous Pro-ISM®	**1L32.1**	1 unit(s)	540,00

(9) Pure Pro-ISM®
For samples with a low ion concentration such as ultrapure water and deionised water.

Fixed ground-joint diaphragm enables high electrolyte outflow; this results in reduced potential at the diaphragm and therefore more stable measurements.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions.

Technical specifications:

Art. No.	1LAP.1
Type	InLab® Pure Pro-ISM®
pH range	1 to 11
Operating temperature	0 to +80 °C
Diaphragm	Ground joint (fixed)
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	3 mol/l KCl (internal electrolyte), 1 mol/l KCl (external bridge electrolyte)
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	170 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Pure Pro-ISM®	**1LAP.1**	1 unit(s)	457,00

pH single-rod measuring cell with IP67 protection

Mettler-Toledo.

For waterproof measurements.

Technical specifications:

Art. No.	EEP6.1	EEP7.1	CY88.1
Type	LE438-IP67	LE427-IP67	InLab® ExpertGo IP67
pH range	0 to 14	0 to 11	0 to 14
Operating temperature	0 to +80 °C	0 to +50 °C	0 to +100 °C
Diaphragm	Nylon	Ceramic	Perforated
Reference system	Ag/AgCl		ARGENTHAL™ with Ag^+ ion trap
Electrolyte	Gel		Polymer
Maintenance-free	Yes		
Storage solution	3 mol/l KCl		
Shaft length	120 mm	17 mm	120 mm
Ø Shaft	12 mm	6 mm	12 mm
Shaft material	POM	Glass	PEEK
Temperature sensor	NTC 30 kΩ	without	NTC 30 kΩ
ISM Technology	No		
IP rating	67		
Connection	BNC-IP67 (pH), Cinch-IP67 (°C)	BNC-IP67 (pH)	BNC-IP67 (pH), Cinch-IP67 (°C)

Delivery incl. fixed cable (length 2 m).

(1) LE438-IP67
pH single-rod measuring cell with plastic shaft and integrated temperature gauge for field applications and samples with variable temperatures.

Type	Art. No.	Pack Qty.	€
LE438-IP67	**EEP6.1**	1 unit(s)	193,00

(2) LE427-IP67
Thanks to its pointed diaphragm, this product is ideally suited to solid samples such as meat, fruit, cheese, soil samples and many more.

Type	Art. No.	Pack Qty.	€
LE427-IP67	**EEP7.1**	1 unit(s)	194,00

(3) InLab® ExpertGo IP67
Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no need for a diaphragm which could become clogged.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® ExpertGo IP67	**CY88.1**	1 unit(s)	302,00

pH-electrodes and accessories

pH single-rod measuring cell BlueLine

SI Analytics.

Technical specifications:

Art. No.	N525.1	N523.1	N524.1	H772.1	N520.1	N521.1	N522.1
Type	22 pH	23 pH	25 pH	28 pH	12 pH	14 pH	15 pH
pH range	0 to 14						
Operating temperature	-5 to +80 °C				-5 to +100 °C		
Diaphragm	Fibre				Platinum		
Reference system	Ag/AgCl						
Electrolyte	Gel				3 mol/l KCl		
Maintenance-free	Yes				No		
Storage solution	3 mol/l KCl						
Shaft length	120 mm						
Ø Shaft	12 mm						
Shaft material	Noryl				Glass		
Temperature sensor	without			Pt 1000	without	NTC 30 kΩ	
Connection	Schott connector	DIN 19262 (pH)	BNC (pH)	DIN 19262 (pH), 1 x 4 mm banana plug (°C)	DIN 19262 (pH)	DIN 19262 (pH), Banana 1 x 4 mm (°C)	BNC (pH), 1 x 4 mm banana plug (°C)

22 pH

For general measurements. Tough with gel electrolyte and plastic shaft.

Delivery without connecting cable, please order separately.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	22 pH	**N525.1**	1 unit(s)	124,70

23 pH

For general measurements. Tough with gel electrolyte and plastic shaft.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(2)	23 pH	**N523.1**	1 unit(s)	158,05

25 pH

For general measurements. Tough with gel electrolyte and plastic shaft.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(3)	25 pH	**N524.1**	1 unit(s)	158,05

28 pH

For general measurements. Tough with gel electrolyte, plastic shaft and integrated temperature gauge.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(4)	28 pH	**H772.1**	1 unit(s)	245,10

12 pH

For demanding measurements. With liquid electrolytes and glass shaft.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(5)	12 pH	**N520.1**	1 unit(s)	180,60

pH-electrodes and accessories

14 pH
For demanding measurements. With liquid electrolytes, glass shaft and integrated temperature gauge.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(6)	14 pH	**N521.1**	1 unit(s)	273,05

15 pH
For demanding measurements. With liquid electrolytes, glass shaft and integrated temperature gauge.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(7)	15 pH	**N522.1**	1 unit(s)	276,30

pH single-rod measuring cell ScienceLine

SI Analytics.

High-performance electrodes for demanding measurements. The Silamid® reference system enables quicker and more stable measured values and increased service life.

Technical specifications:

Art. No.	C887.1	C894.1	C889.1	C892.1	C899.1
Type	N 42 A	N 52 BNC	N 1042 A	N 6000 A	N 6000 BNC
pH range	0 to 14				
Operating temperature	-5 to +100 °C				
Diaphragm	Ceramic	Platinum	Ceramic	Platinum	
Reference system	Silamid®				
Electrolyte	3 mol/l KCl				
Maintenance-free	No				
Storage solution	3 mol/l KCl				
Shaft length	120 mm			96 mm	
Ø Shaft	12 mm			3 mm	
Shaft material	Glass				
Temperature sensor	without		Pt 1000	without	
Connection	DIN 19262 (pH)	BNC (pH)	DIN 19262 (pH), 1 x 4 mm banana plug (°C)	DIN 19262 (pH)	BNC (pH)

Delivery incl. fixed cable (length 1 m).

(1) N 42 A
Includes glass shaft with ceramic diaphragm for aqueous solutions.

Type	Art. No.	Pack Qty.	€
N 42 A	**C887.1**	1 unit(s)	255,85

(2) N 52 BNC
Includes glass shaft with ceramic diaphragm for aqueous solutions.

Type	Art. No.	Pack Qty.	€
N 52 BNC	**C894.1**	1 unit(s)	264,45

(3) N 1042 A
For temperature-compensated measurements.

Type	Art. No.	Pack Qty.	€
N 1042 A	**C889.1**	1 unit(s)	397,75

(4) N 6000 series
For low quantities of fluid (0.1 ml or higher) or narrow vessels.

Type	Art. No.	Pack Qty.	€
N 6000 A	**C892.1**	1 unit(s)	336,50
N 6000 BNC	**C899.1**	1 unit(s)	336,50

pH-electrodes and accessories

pH single-rod measuring cell SenTix®

WTW.

Technical specifications:

Art. No.	X174.1	X173.1	ETC4.1
Type	SenTix® 21	SenTix® 41	SenTix® 81
pH range	0 to 14		
Operating temperature	0 to +80 °C		0 to +100 °C
Diaphragm	Fibre		Platinum
Electrolyte	Gel		3 mol/l KCl
Maintenance-free	Yes		No
Storage solution	3 mol/l KCl		
Shaft length	120 mm		
Ø Shaft	12 mm		
Shaft material	PPE, PS		Glass
Temperature sensor	without	NTC 30 kΩ	
Connection	DIN 19262 (pH)	DIN 19262 (pH), Banana 1 x 4 mm (°C)	DIN 19262 (pH), 1 x 4 mm banana plug (°C)

Delivery incl. fixed cable (length 1 m).

Standard

With gel electrolyte for mobile pH measurements as well as routine measurement in the laboratory.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SenTix® 21	**X174.1**	1 unit(s)	149,45
(2)	SenTix® 41	**X173.1**	1 unit(s)	226,85

Precision SenTix® 81

With liquid electrolyte for demanding measurement applications. Glass shaft and platinum diaphragm are easy to clean. Can be used even with difficult samples.

Pic.	Type	Art. No.	Pack Qty.	€
(3)	SenTix® 81	**ETC4.1**	1 unit(s)	265,55

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

Metal single-rod measuring cell ScienceLine

SI Analytics.

For measuring the redox potential.

Technical specifications:

Art. No.	C893.1	C900.1
Type	Pt 42 A	Pt 6280
Operating temperature	0 to +100 °C	
Sensor type	Platinum, pin, Ø 1 mm	
Diaphragm	Ceramic	
Reference system	Silamid®	
Electrolyte	3 mol/l KCl	
Shaft length	120 mm	
Ø Shaft	12 mm	
Shaft material	Glass	
Temperature sensor	without	
Connection	DIN 19262 (pH)	BNC (pH)

Delivery incl. fixed cable (length 1 m).

Type	Art. No.	Pack Qty.	€
Pt 42 A	**C893.1**	1 unit(s)	278,45
Pt 6280	**C900.1**	1 unit(s)	345,10

NEW / +

Adapter for pH single-rod measuring cells

Mettler-Toledo.

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells with BNC connector and pH meter with DIN 19262 socket	**1EP5.1**	1 unit(s)	27,50
pH single-rod measuring cells with BNC + Cinch connector and pH meter with DIN 19262 + 4 mm banana plug socket	**1EP6.1**	1 unit(s)	39,50

pH-electrodes and accessories

Electrode holder with cable duct

ROTH SELECTION.

For three electrodes, opening Ø 16 mm. One additional opening with Ø 11 mm. Three joints enable a high degree of adjustment flexibility. Base plate: 110 x 130 mm. Base plate weight: 0.6 kg. Arm weight: 0.1 kg. Max. arm height: 32 cm.

Version	Art. No.	Pack Qty.	€
Electrode holder	**EHY1.1**	1 unit(s)	86,00

Storage set for electrodes

ROTH SELECTION.

For safe storage of electrodes with shaft Ø 12 mm so that they are ready for use at all times.

Set 1

Delivery incl. GL 45 screw cap and 5x seals with hole. Without screw top bottle and storage solution, please order separately.

Version	Art. No.	Pack Qty.	€
Set 1	**KH88.1**	1 unit(s)	35,80

Set 2

Delivery incl. GL 45 screw cap, 5x seals with hole, 100 ml screw top bottle and 250 ml storage solution.

Version	Art. No.	Pack Qty.	€
Set 2	**KCN1.1**	1 unit(s)	41,90

Portable pH meters SensoDirect pH 110

Tintometer.

- Splash-proof membrane keyboard
- Protective cover for measuring in difficult conditions
- Manual single-point or double-point calibration via trimmer

Technical specifications:

Art. No.	YP68.1
Type	SensoDirect pH 110
Parameters	pH
pH measuring range	0 to 14
pH resolution	0,01
pH accuracy	±0.1 (pH 4.0–10.0), ±0.2 (pH 1.1–3.9 and pH 10.0–13.0), ±0.3 (pH 0.1–1.0 and pH 13.1–14.0)
pH temp. compensation	without
Calibration points	1/2 (pH)
Calibration memory	Current calibration
Connection	BNC (pH)
L x W x H	208 x 110 x 34 mm
Power supply	E-Block 9 V battery

Delivery incl. pH plastic electrode with gel electrolyte, buffer solutions (pH 4.01 and pH 7.00, each 90 ml), protective armouring, case and batteries.

Type	Art. No.	Pack Qty.	€
SensoDirect pH 110	**YP68.1**	1 unit(s)	203,20

Pocket pH meters

Portable pH meters pH 7 Vio

Dostmann.

- Large screen with simultaneous display of pH or mV value and temperature
- Automatic or manual temperature compensation
- Confirmation when a stable measured value is reached
- Automatic or manual calibration
- Can be manually calibrated with two user-defined buffer solutions
- Storage of current calibration and display of the electrode status
- Automatic switch-off after 20 min

Technical specifications:

Art. No.	HAH0.1	HAH1.1	HAH2.1
Type	pH 7 Vio, set 1	pH 7 Vio, set 2	pH 7 Vio Food, Set 3
Parameters	pH, Redox, Temperature		
pH measuring range	0 to 14		
pH resolution	0,01		
pH accuracy	±0.01		
Voltage measuring range	-1000 to +1000 mV		
Voltage resolution	1 mV		
Voltage accuracy	±1 mV		
Temperature measuring range	0 to +100 °C		
Temperature resolution	0.1 °C		
Temperature accuracy	±0.5 °C		
Temperature sensor	NTC 30 kΩ		
Calibration points	1/2/3 (pH)		
Calibration memory	Current calibration		
Connection	BNC (pH), Cinch (°C)		
L x W x H	196 x 86 x 33 mm		
Power supply	3 x 1.5 V AA batteries		

Set 1
For common aqueous samples.

201T pH single-rod measuring cell **with integrated temperature gauge**. pH range: 0 to 14. Operating temperature: 0 to +60 °C. Ceramic diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. 201T pH single-rod measuring cell, buffer solutions (pH 4.01 and 7.00, each 75 ml), storage solution (35 ml), empty container for water, 100 ml measuring beaker, transport case and batteries.

Type	Art. No.	Pack Qty.	€
pH 7 Vio, set 1	**HAH0.1**	1 unit(s)	361,20

Set 2
For common aqueous samples.

GEL pH single-rod measuring cell **without integrated temperature gauge**. pH range: 0 to 14. Operating temperature: 0 to +60 °C. Double diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. GEL pH single-rod measuring cell, NT55 external temperature gauge, buffer solutions (pH 4.01 and 7.00, each 75 ml), storage solution (35 ml), empty container for water, 100 ml measuring beaker, transport case and batteries.

Type	Art. No.	Pack Qty.	€
pH 7 Vio, set 2	**HAH1.1**	1 unit(s)	406,35

Food, set 3
For solid and semi-solid samples such as meat, fruit and butter.

2PoreT pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +60 °C. Perforated diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. 2PoreT pH single-rod measuring cell, buffer solutions (pH 4.01 and 7.00, each 75 ml), storage solution (35 ml), empty container for water, 100 ml measuring beaker, transport case and batteries.

Type	Art. No.	Pack Qty.	€
pH 7 Vio Food, Set 3	**HAH2.1**	1 unit(s)	426,80

Portable pH meters FiveGo™

Mettler-Toledo.

- Waterproof and dust-proof
- Ergonomic design for comfortable handling
- Simple, user-friendly menu
- Automatic or manual temperature compensation
- Automatically or manually end a measurement; with acoustic and visual endpoint signal
- Automatic calibration with four predefined buffer groups
- Displays the current calibration and has data memory for 200 measurements

Technical specifications:

Art. No.	HY66.1	HY67.1	HY68.1	EEP5.1
Type	FiveGo™ F2 Basic	FiveGo™ F2-Standard	FiveGo™ F2-Field	FiveGo™ F2-Food
Parameters	pH, Redox, Temperature			
pH measuring range	0 to 14			
pH resolution	0,01			
pH accuracy	±0.01			
Voltage measuring range	-1999 to +1999 mV			
Voltage resolution	1 mV			
Voltage accuracy	±1 mV			
Temperature measuring range	0 to +100 °C			
Temperature resolution	0.1 °C			
Temperature accuracy	±0.5 °C			
Temperature sensor	NTC 30 kΩ			
Calibration points	1/2/3 (pH)			
Calibration memory	Current calibration			
Data memory	200 measured values			
ISM Technology	No			
IP rating	67			
Connection	BNC (pH), Cinch (°C)			
L x W x H	169 x 82 x 36 mm			
Power supply	4 x 1.5 V AAA batteries			

F2 Basic

Delivery incl. buffer solutions (pH 4.01, 7.00 and 9.21), electrode clip, carrying strap and batteries.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
FiveGo™ F2 Basic	**HY66.1**	1 unit(s)	380,00

Pocket pH meters

F2 Standard
For aqueous samples, including emulsions and suspensions.

LE438-IP67 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Protection rating: IP67. Nylon diaphragms, gel-electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. LE438-IP67 pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00 and 9.21), electrode clip, carrying strap and batteries.

Type	Art. No.	Pack Qty.	€
FiveGo™ F2-Standard	**HY67.1**	1 unit(s)	550,00

F2 Field
With transport case. For aqueous samples, including emulsions and suspensions.

LE438-IP67 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Protection rating: IP67. Nylon diaphragms, gel-electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. LE438-IP67 pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00 and 9.21), electrode clip, carrying strap, transport case and batteries.

Type	Art. No.	Pack Qty.	€
FiveGo™ F2-Field	**HY68.1**	1 unit(s)	630,00

F2 Food
For insertion measurements in solid and semi-solid samples such as meat, fruit, butter, yoghurt or cheese.

LE427-IP67 pH single-rod measuring cell without temperature gauge. pH range: 0 to 11. Operating temperature: 0 to +50 °C. Protection rating: IP67. Ceramic diaphragms, gel-electrolyte, glass shaft. Shaft length/Ø: 17/6 mm.

For automatic temperature compensation please order NTC 30 kΩ (Art. No. Y734.1) temperature gauge separately.

Delivery incl. LE427-IP67 pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00 and 9.21), electrode clip, carrying strap and batteries.

Type	Art. No.	Pack Qty.	€
FiveGo™ F2-Food	**EEP5.1**	1 unit(s)	585,00

Portable pH meters Seven2Go™

Mettler-Toledo.

Rugged pH meter designed to withstand the harshest environments. Water- and dust-proof, with impact protection.

- Automatic and manual temperature compensation
- Automatic, manual and timer-controlled endpoint determination
- Can be calibrated with user-defined buffer groups
- User-defined intermittent measurement possible (max. operating time 1 h)
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

InLab® ExpertGo-ISM® pH single-rod measuring cell with integrated temperature gauge for aqueous samples, including emulsions, suspensions and solutions with proteins. pH range: 0 to 14. Operating temperature: 0 to +100 °C. Protection rating: IP67. Perforated diaphragms, polymer-electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm

Technical specifications:

Art. No.	CAL2.1	CAL3.1
Type	pH S2 – standard kit	Seven2Go™ pro pH/Ion S8 – Standard kit
Parameters	pH, Redox, Temperature	
pH measuring range	-2 to +20	
pH resolution	0,01	0,001
pH accuracy	±0.01	±0.002
Voltage measuring range	-1999 to +1999 mV	-2000 to +2000 mV
Voltage resolution	1 mV	0,1 mV
Voltage accuracy	±1 mV	±0,1 mV
Temperature measuring range	-5 to +105 °C	-5 to +130 °C
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C	±0.2 (0 to +105 °C), ±0.5 °C (outside)
Temperature sensor	NTC 30 kΩ	
Calibration points	1/2/3/4/5 (pH)	
Calibration memory	Current calibration	Current calibration (incl. date and time)
Data memory	200 measured values	2000 datasets
Port		Micro USB (for PC)
ISM Technology	Yes	
IP rating	67	
Connection	BNC (pH), Cinch (°C)	
L x W x H	220 x 70 x 35 mm	
Power supply	4 x 1.5 V AA batteries	

pH/mV S2 – standard kit

Delivery incl. InLab® ExpertGo-ISM® pH single-rod measuring cell, buffer solutions (4.01, 7.00 and 9.21, each 2 x 30 ml), electrode clip and batteries.

Type	Version	Art. No.	Pack Qty.	€
pH S2 – standard kit	with ISM	**CAL2.1**	1 unit(s)	695,00

Pocket pH meters

Pro pH/Ion S8 – standard kit

- Menu structure with full-text display in 12 languages
- Graphical LCD display
- Memory capacity for 2000 datasets incl. date and time (GLP-compliant)
- Data readout via Micro USB port

Delivery incl. InLab® ExpertGo-ISM® pH single-rod measuring cell, buffer solutions (4.01, 7.00 and 9.21, each 2 x 30 ml), electrode clip, software, data cable and batteries.

Type	Version	Art. No.	Pack Qty.	€
Seven2Go™ pro pH/Ion S8 – Standard kit	with ISM	**CAL3.1**	1 unit(s)	1.085,00

Portable pH meters ProfiLine

WTW.

Measuring device in a professional case with integrated measuring space and separate pockets for accessories.

- Dust- and waterproof
- Large, clear display
- Integrated calibration timer

Technical specifications:

Art. No.	KT20.1	KT21.1	KT25.1	KT26.1
Type	pH 3110 Basic	pH 3110 set 1	pH 3310 Basic	pH 3310 set 2
Parameters	pH, Redox, Temperature			
pH measuring range	-2 to +19			
pH resolution	0,001			
pH accuracy	±0.005			
Voltage measuring range	-2000 to +2000 mV			
Voltage resolution	1 mV			
Voltage accuracy	±1 mV			
Temperature measuring range	-5 to +105 °C			
Temperature resolution	0.1 °C			
Temperature accuracy	±0.1 °C			
Temperature sensor	NTC 30 kΩ, Pt 1000			
Calibration points	1/2/3 (pH)		1/2/3/4/5 (pH)	
Calibration memory	Current calibration		Five calibrations	
Data memory			Manual, 200 data sets, Time-delayed, 5000 data sets	
Port	without		Mini USB	
IP rating	67			
Connection	DIN 19262 (pH), Banana, 2 x 4 mm (°C)			
L x W x H	180 x 80 x 55 mm			
Power supply	4 x 1.5 V AA batteries			

pH 3110 Basic
Easy to use and robust measuring device for routine measurements on the go.

Clear keyboard and automatic AutoRead function for reproducible measured values.

Delivery incl. buffer solutions (pH 4 and 7, each 50 ml), professional case, tripod, beaker and batteries.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
pH 3110 Basic	**KT20.1**	1 unit(s)	576,20

pH 3110 set 1
Easy to use and robust measuring device for routine measurements on the go.

Clear keyboard and automatic AutoRead function for reproducible measured values.

SenTix® 41 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Fibre diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. Sentix® 41 pH single-rod measuring cell, buffer solutions (pH 4 and 7, 50 ml of each), professional case, tripod, beaker and batteries.

Type	Art. No.	Pack Qty.	€
pH 3110 set 1	**KT21.1**	1 unit(s)	721,35

pH 3310 Basic
Professional measuring device with built-in data logging function (GLP-compliant) and mini-USB port.

Interval measurements possible, optimum utilisation of the measuring range thanks to the CMC function.

Delivery incl. buffer solutions (pH 4 and 7, each 50 ml), professional case, tripod, beaker and batteries.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
pH 3310 Basic	**KT25.1**	1 unit(s)	713,80

pH 3310 set 2
Professional measuring device with built-in data logging function (GLP-compliant) and mini-USB port.

Interval measurements possible, optimum utilisation of the measuring range thanks to the CMC function.

SenTix® 41 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Fibre diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. Sentix® 41 pH single-rod measuring cell, buffer solutions (pH 4 and 7, 50 ml of each), driver software for USB, USB cable (length 1 m), professional case, tripod, beaker and batteries.

Type	Art. No.	Pack Qty.	€
pH 3310 set 2	**KT26.1**	1 unit(s)	923,45

Table pH meters

Benchtop pH meters pH 50 VioLab

Dostmann.

- Large screen with simultaneous display of pH or mV value and temperature
- Automatic or manual temperature compensation
- Automatic calibration
- Saves the current calibration
- Confirmation when a stable measured value is reached

Technical specifications:

Art. No.	HAE2.1	HAE3.1
Type	pH 50 VioLab Basic	pH 50 VioLab set
Parameters	pH, Redox, Temperature	
pH measuring range	0 to 14	
pH resolution	0,01 pH	
pH accuracy	±0.01	
Voltage measuring range	-1999 to +1999 mV	
Voltage resolution	1 mV	
Voltage accuracy	±1 mV	
Temperature measuring range	0 to +100 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C (+5 to +60 °C), ±1 °C (outside)	
Temperature sensor	NTC 30 kΩ	
Calibration points	1/2/3 (pH)	
Calibration memory	Current calibration	
Data memory	25 measurements	
Port	without	
Connection	BNC (pH), Cinch (°C)	
L x W x H	160 x 190 x 70 mm	
Power supply	Mains adapter	
Mains connection	100–240 V, 50/60 Hz	

Basic

Delivery incl. NT55 external temperature gauge, buffer solutions (pH 4.01 and 7.00, each 50 ml), electrode holder and mains adapter.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
pH 50 VioLab Basic	**HAE2.1**	1 unit(s)	363,35

Set

For common aqueous samples.

201T pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +60 °C, ceramic diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. 201T pH single-rod measuring cell, buffer solutions (pH 4.01 and 7.00, each 50 ml), electrode holder and mains adapter.

Type	Art. No.	Pack Qty.	€
pH 50 VioLab set	**HAE3.1**	1 unit(s)	418,20

Benchtop pH meters Lab 855

SI Analytics.

- Large easy-to-use LCD screen and clearly laid out keypad
- Simultaneous display of pH or mV value and temperature
- Can analyse and store current calibration data
- Adjustable calibration interval
- Stability control for identifying stable measured values
- Automatic or manual temperature compensation
- Suitable for battery and mains operation
- Can be set to switch off automatically when battery-operated

BlueLine 14 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: -5 to +100 °C. Platinum diaphragms, liquid electrolyte, plastic shaft, shaft length/Ø: 120/12 mm.

Technical specifications:

Art. No.	EPH2.1
Type	Lab 855
Parameters	pH, Redox, Temperature
pH measuring range	-2 to +19
pH resolution	0,001
pH accuracy	±0.005
Voltage measuring range	-2000 to +2000 mV
Voltage resolution	0,1 mV, 1 mV
Voltage accuracy	±0,3 mV, ±1 mV
Temperature measuring range	-5 to +105 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.1 °C
Temperature sensor	NTC 30 kΩ, Pt 1000
Calibration points	1/2/3 (pH)
Calibration memory	Current calibration
Connection	DIN 19262 (pH), Banana, 2 x 4 mm (°C)
L x W x H	230 x 190 x 80 mm
Power supply	Mains adapter or 4 x 1.5 V AA batteries
Mains connection	100–240 V, 50/60 Hz

Delivery incl. BlueLine 14 pH single-rod measuring cell, buffer solutions (pH 4.00 and 7.00), electrolyte solution (3 mol/l KCl), tripod, universal mains connector and batteries.

Type	Art. No.	Pack Qty.	€
Lab 855	**EPH2.1**	1 unit(s)	973,95

Table pH meters

Benchtop pH meters

Mettler-Toledo.

- Space-saving design with large display
- Simple, user-friendly menu
- Automatic or manual temperature compensation
- Automatically or manually end a measurement; with acoustic and visual endpoint signal
- Automatic calibration with four predefined buffer groups
- Displays the current calibration

Technical specifications:

Art. No.	HY56.1	PE70.1	TE49.1	TE50.1
Type	FiveEasy™ F20 – Basic	FiveEasy™ F20 – Standard	FiveEasyPlus™ FP20-Basic	FiveEasyPlus™ FP20-Standard
Parameters	pH, Redox, Temperature			
pH measuring range	0 to 14		-2 to +16	
pH resolution	0,01			
pH accuracy	±0.01			
Voltage measuring range	-2000 to +2000 mV			
Voltage resolution	1 mV			
Voltage accuracy	±1 mV			
Temperature measuring range	0 to +100 °C		-5 to +105 °C	
Temperature resolution	0.1 °C			
Temperature accuracy	±0.5 °C		±0.3 °C	
Temperature sensor	NTC 30 kΩ			
Calibration points	1/2/3 (pH)		1/2/3/4/5 (pH)	
Calibration memory	Current calibration			
Data memory			200 measured values	
Port	without		RS 232 (for printers), USB-B (for PC)	
ISM Technology	No			
Connection	BNC (pH), Cinch (°C)			
L x W x H	227 x 147 x 70 mm			
Power supply	Mains adapter			
Mains connection	100–240 V, 50/60 Hz			

FiveEasy™ F20 – Basic

Delivery incl. buffer solutions (pH 4.01, 7.00 and 9.21), electrode holder and 12 V mains adapter.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
FiveEasy™ F20 – Basic	**HY56.1**	1 unit(s)	468,00

FiveEasy™ F20 – Standard

For aqueous samples, including emulsions and suspensions.

LE438 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Nylon diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. LE438 pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00 and 9.21), electrode holder and 12 V mains adapter.

Type	Art. No.	Pack Qty.	€
FiveEasy™ F20 – Standard	**PE70.1**	1 unit(s)	620,00

FiveEasyPlus™ FP20-Basic

Delivery incl. buffer solutions (pH 4.01, 7.00 and 9.21), electrode holder and 12 V mains adapter.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
FiveEasyPlus™ FP20-Basic	**TE49.1**	1 unit(s)	675,00

FiveEasyPlus™ FP20-Standard

For aqueous samples, including emulsions and suspensions.

LE438 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Nylon diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. LE438 pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00 and 9.21), electrode holder and 12 V mains adapter.

Type	Art. No.	Pack Qty.	€
FiveEasyPlus™ FP20-Standard	**TE50.1**	1 unit(s)	835,00

NEW / +

Benchtop pH meters SevenCompact™ S220

Mettler-Toledo.

- All important data at a glance, thanks to the high-resolution colour display (4.3″) with large digits and clear symbols.
- Simple and intuitive to use; menus with complete sentences in 12 languages.
- Electrode arm is easy to operate with one hand; electrode can be positioned securely by moving it up and down.
- Calibration with predefined and user-specific buffers and buffer groups is possible; calibration memory with optional sensor lock setting available; quality of the most recent sensor calibration shown directly via pH sensor symbol.
- Comprehensive safety functions both for routine measurements and measurements under strict GLP specifications.
- With two operating modes: In Routine mode, it is not possible to delete data or change settings; in Expert mode (secured with PIN code), all functions can be used by an authorised user.
- Internal measured value memory: Saving by pressing key or timed (intermittent) saving (interval can be set between 1 s and 40 min).
- USB ports for exporting data via USB stick (datasets are exported as a text (.txt) file) or for connecting a USB keyboard.
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data.
- Sustainable with highest Energy Star rating for the power supply (low energy loss, low heat generation) and environmentally friendly packaging.

Table pH meters

Technical specifications:

Art. No.	TA09.1	1LAL.1	TA10.1	1LAN.1	1LAK.1
Type	S220 Basic	S220 Bio kit	S220 Uni kit	S220 Micro kit	S220 Standard kit
Sensor	without	InLab® Routine Pro-ISM®	InLab® Versatile Pro	InLab® Ultra-Micro-ISM®	InLab® Expert Pro ISM®
Parameters	pH, Redox, Ions, Temperature				
pH measuring range	-2 to +20				
pH resolution	0,001 / 0,01 / 0,1 pH				
pH accuracy	±0.002 pH				
Voltage measuring range	-2000 to +2000 mV				
Voltage resolution	0,1 / 1 mV				
Voltage accuracy	±0,2 mV				
Temperature measuring range	-5 to +105 °C				
Temperature resolution	0.1 °C				
Temperature accuracy	±0.1 °C				
Temperature sensor	NTC 30 kΩ, Pt 1000				
Calibration points	1/2/3/4/5 (pH)				
Calibration memory	current calibration (incl. date and time)				
Data memory	1000 data sets				
Port	RS 232, USB-A (printer), USB-B (PC)				
ISM Technology	Yes				
IP rating	54				
Connection	BNC (pH), Cinch (°C)				
L x W x H	204 x 174 x 74 mm				
Power supply	Mains adapter				
Mains connection	100–240 V, 50/60 Hz				

Basic

Delivery incl. electrode holder and protective casing.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
S220 Basic	**TA09.1**	1 unit(s)	1.000,00

Uni kit version

For general applications.

InLab® Versatile Pro pH single-rod measuring cell with integrated temperature sensor, quick and robust, but with no ISM support.

Delivery incl. InLab® Versatile Pro pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2 x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S220 Uni kit	**TA10.1**	1 unit(s)	1.170,00

Standard kit

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

InLab® Expert Pro-ISM® pH single-rod measuring cell with integrated temperature gauge. PEEK shaft with excellent chemical and mechanical resistance for extreme strain. The use of a solid polymer as a reference electrolyte means that there is no diaphragm which could become clogged.

Delivery incl. InLab® Expert Pro-ISM® pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S220 Standard kit	**1LAK.1**	1 unit(s)	1.285,00

Bio kit

For general aqueous solutions, high ionic strengths, hot samples, TRIS buffer.

InLab® Routine Pro-ISM® pH single-rod measuring cell with integrated temperature sensor, quick and extremely chemical-resistant. Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum.

Delivery incl. InLab® Routine Pro-ISM® pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S220 Bio kit	**1LAL.1**	1 unit(s)	1.370,00

Micro kit

For measurements in small or narrow vessels (such as test tubes, vials and cuvettes) or for small sample volumes.

InLab® Ultra-Micro-ISM® pH single-rod measuring cell without integrated temperature sensor, with small shaft diameter.

Delivery incl. InLab® Ultra-Micro-ISM® pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S220 Micro kit	**1LAN.1**	1 unit(s)	1.340,00

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Conductivity testers

Conductivity testers

Dostmann.

- Large LCD display
- Waterproof and dust-proof
- Automatic calibration with display of the calibrated ranges
- Automatic temperature correction from 0 to +50 °C
- Confirmation when a stable measured value is reached

Technical specifications:

Art. No.	HPC8.1	HPC9.1
Type	COND 1	COND 5
Parameters	Conductivity, TDS	Conductivity, TDS, Salinity, Temperature
Conductivity measuring range	0 µS/cm to 20 mS/cm	
Conductivity resolution	automatic (1 µS/cm – 1 mS/cm)	
Conductivity accuracy	±20 µS/cm (0 to 1999 µS/cm), ±0.2 mS/cm (2.0 to 20.0 mS/cm)	±2 µS/cm (0 to 199.9 µS/cm), ±20 µS/cm (200 to 1999 µS/cm), ±0.2 mS/cm (2.0 to 20.0 mS/cm)
Calibration points	1/2 (standard)	1/2/3 (standard)
Reference temperature	+25 °C	+20 / +25 °C
TDS measuring range	0 ppm to 10 ppt	
TDS resolution	automatic (0.1 ppm – 0.01 ppt)	
TDS accuracy	±2 ppm (0.1 to 199.9 ppm), ±20 ppm (200 to 1999 ppm), ±0.1 ppt (2.00 to 10.00 ppt)	±2 ppm (0.1 to 199.9 ppm), ±20 ppm (200 to 1999 ppm), ±0.1 ppt (2.00 to 10.00 ppt)
Salinity measuring range		0 mg/l to 10 g/l
Salinity resolution		automatic (0.1 mg/l – 0.01 g/l)
Salinity accuracy		±2 mg/l (0.1 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.1 g/l (2.00 to 10.00 g/l)
Temperature measuring range		0 to +50 °C
Temperature resolution		0.1 °C
Temperature accuracy		±0.2 °C
IP rating	67	
Replaceable electrode	No	Yes
Ø x L	35 x 175 mm	
Weight	130 g	
Power supply	2x battery Micro/AAA 1.5 V	

Delivery incl. test solutions (1413 µS/cm and 12.88 mS/cm), storage case and batteries.

(1) COND 1

Type	Art. No.	Pack Qty.	€
COND 1	**HPC8.1**	1 unit(s)	96,15

(2) COND 5

Multicolour back lighting for status display of measurement mode, calibration and alarm.

Type	Art. No.	Pack Qty.	€
COND 5	**HPC9.1**	1 unit(s)	149,45

Conductivity testers SD 70

Tintometer.

- Robust, waterproof housing
- Automatic calibration (1413 µS/cm, 12.88 mS/cm) and manual calibration (freely selectable calibration standards)
- Automatic temperature compensation
- Automatic change-over from µS/cm to mS/cm
- Small memory
- Auto Off after 8 min

Technical specifications:

Art. No.	YP30.1
Type	SD 70
Parameters	Conductivity, Temperature
Conductivity measuring range	0 µS/cm to 20 mS/cm
Conductivity resolution	automatic (1 µS/cm – 0.01 mS/cm)
Conductivity accuracy	±60 µS/cm (0 to 1999 µS/cm), ±0.6 mS/cm (2.00 to 20.00 mS/cm)
Calibration points	1/2 (standard and user-defined)
Reference temperature	+25 °C
Temperature measuring range	0 to +60 °C
Temperature resolution	0.1 °C
Temperature accuracy	±1 °C
Data memory	25 data sets
IP rating	67
Replaceable electrode	Yes
L x W x H	177 x 43 x 29 mm
Weight	126 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. conductivity measuring cells, carrying strap, plastic box and batteries. Without solutions, please order separately.

Type	Art. No.	Pack Qty.	€
SD 70	**YP30.1**	1 unit(s)	117,20

Portable conductivity meters COND 7 Vio

Dostmann.

- Large LCD display with simultaneous display of conductivity and temperature
- Automatic calibration with display of the calibrated ranges
- Temperature correction: automatic from 0 to +100 °C, manual 0 to +80 °C
- Confirmation when a stable measured value is reached
- Reference temperature, adjustable cell constant and temperature coefficient

Technical specifications:

Art. No.	HPL7.1	HPL8.1
Type	COND 7 Vio Basic	COND 7 Vio Set
Parameters	Conductivity, TDS, Temperature	
Conductivity measuring range	0 µS/cm to 200 mS/cm	
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)	
Conductivity accuracy	±0.4 µS/cm (0 to 19.99 µS/cm), ±4 µS/cm (20.0 to 199.9 µS/cm), ±40 µS/cm (200 to 1999 µS/cm), ±0.4 mS/cm (2.00 to 19.99 mS/cm), ±4 mS/cm (20.0 to 200.0 mS/cm)	
Calibration points	automatic: 1/2/3/4 (standard) manual: 1 (user-defined)	
Reference temperature	+15 – +30 °C	
Cell constant	0,1 / 1,0 / 10 cm^{-1}	
Temperature coefficient	0 – 10,00 %/°C	
TDS measuring range	0 mg/l to 100 g/l	
TDS resolution	automatic (0.01 mg/l – 0.1 g/l)	
TDS accuracy	±0.2 mg/l (0 to 19.99 mg/l), ±2 mg/l (20.0 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.2 g/l (2.00 to 19.99 g/l), ±1 g/l (20.0 to 100.0 g/l)	
Temperature measuring range	0 to +100 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C	
Connection	BNC (EC), Cinch (°C)	
L x W x H	196 x 86 x 33 mm	
Weight	300 g	
Power supply	3x battery Mignon/AA 1.5 V	

Basic

Delivery incl. test solutions (1413 µS/cm and 12.88 mS/cm), measuring beaker, storage case and batteries. Without conductivity sensor, please order separately.

Type	Art. No.	Pack Qty.	€
COND 7 Vio Basic	**HPL7.1**	1 unit(s)	295,65

Set

2301T conductivity sensor with integrated temperature gauge. Measuring range: 10 µS to 200 mS/cm. Steel shaft, length/Ø: 120/12 mm. Operating range: 0 to +60 °C.

Delivery incl. 2301T conductivity sensor, test solutions (1413 µS/cm and 12,88 mS/cm), measuring beaker, storage case and batteries.

Type	Art. No.	Pack Qty.	€
COND 7 Vio Set	**HPL8.1**	1 unit(s)	408,50

Conductivity sensor with BNC/Cinch

Dostmann.

With BNC/Cinch connection for measuring devices from Dostmann.

Technical specifications:

Art. No.	HPL9.1	HPN0.1
Type	2301T	VPT 51/01
Conductivity measuring range	10 µS/cm to 200 mS/cm	0.1 µS/cm to 1 mS/cm
Operating temperature	0 to +60 °C	
Cell constant	1	0,1
Shaft length	120 mm	
Ø Shaft	12 mm	
Shaft material	Steel, PVC	
Temperature sensor	NTC 30 kΩ	
Connection	BNC (EC), Cinch (°C)	

Pic.	Type	Art. No.	Pack Qty.	€
(1)	2301T	**HPL9.1**	1 unit(s)	151,10
(2)	VPT 51/01	**HPN0.1**	1 unit(s)	263,40

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Portable conductivity meters FiveGo™

Mettler-Toledo.

- Waterproof and dust-proof
- Ergonomic design for comfortable handling
- Simple, user-friendly menu
- Automatic calibration with three predefined standards
- Displays the current calibration and data memory
- Automatic or manual temperature correction
- Automatically or manually end a measurement; with acoustic and visual endpoint signal
- Selectable reference temperature

With robust conductivity sensor for medium to very high conductivity: LE703-IP67 with integrated temperature gauge.
Measuring range: 0.01 to 200 S/cm. Plastic shaft, L/Ø: 120/12 mm.
Operating range: 0 to +80 °C.

Technical specifications:

Art. No.	HY63.1	HY64.1
Type	FiveGo™ F3 standard	FiveGo™ F3 field
Parameters	Conductivity, TDS, Temperature	
Conductivity measuring range	0 µS/cm to 200 mS/cm	
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)	
Conductivity accuracy	±0.5% of the measured value	
Calibration points	One (standard)	
Reference temperature	+20 / +25 °C	
TDS measuring range	0 mg/l to 200 g/l	
TDS resolution	automatic (0.01 mg/l – 0.1 g/l)	
TDS accuracy	±0.5% of the measured value	
Temperature measuring range	0 to +100 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C	
Data memory	200 measured values	
Connection	LTW 7-pin (IP 67)	
ISM Technology	No	
IP rating	67	
L x W x H	188 x 77 x 33 mm	
Power supply	4x battery Micro/AAA 1.5 V	

F3 standard kit

Delivery incl. LE703-IP67 conductivity sensor, test solutions (1413 µS/cm and 12.88 mS/cm, each 1 x 20 ml), electrode clip, carrying strap and batteries.

Type	Art. No.	Pack Qty.	€
FiveGo™ F3 standard	**HY63.1**	1 unit(s)	600,00

F3 field kit

Delivery incl. transport case, LE703-IP67 conductivity sensor, test solutions (1413 µS/cm and 12.88 mS/cm, each 1 x 20 ml), electrode clip, carrying strap and batteries.

Type	Art. No.	Pack Qty.	€
FiveGo™ F3 field	**HY64.1**	1 unit(s)	650,00

Portable conductivity meters Seven2Go™

Mettler-Toledo.

Robust conductivity meter designed to withstand the harshest environments.

- Water and dust-proof, casing with impact protection
- Automatic and manual temperature correction
- Automatic, manual and timer-controlled endpoint determination
- User-defined intermittent measurement possible (max. operating time 1 h)
- Selectable reference temperature
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

With robust conductivity sensor for medium to very high conductivity: InLab® 738-ISM® (IP67) with integrated temperature gauge.
Measuring range: 0.01 to 1000 S/cm. Plastic shaft, L/Ø: 120/12 mm.
Operating range: 0 to +100 °C.

Technical specifications:

Art. No.	CAL4.1	CAL5.1
Type	Seven2Go™ S3 Standard	Seven2Go™ S7 Standard
Parameters	Conductivity, TDS, Salinity, Temperature	
Conductivity measuring range	0 µS/cm to 500 mS/cm	0 µS/cm to 1000 mS/cm
Conductivity resolution	automatic (0.01 µS/cm – 1 mS/cm)	
Conductivity accuracy	±0.5% of the measured value	
Calibration points	One (standard and user-defined)	
Reference temperature	+20 / +25 °C	
TDS measuring range	0 mg/l to 300 g/l	0 mg/l to 600 g/l
TDS resolution	automatic (0.01 mg/l – 1 g/l)	
TDS accuracy	±0.5% of the measured value	
Salinity measuring range	0 to 42 psu	
Salinity resolution	automatic (0.01 psu – 0.1 psu)	
Temperature measuring range	-5 to +105 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0,2 °C	±0,1 °C
Data memory	200 measured values	2000 data sets
Port		Micro USB (PC)
Connection	LTW 7-pin (IP 67)	
ISM Technology	Yes	
IP rating	67	
L x W x H	220 x 70 x 35 mm	
Weight	270 g	290 g
Power supply	4 x 1.5 V AA batteries	4x battery Micro/AAA 1.5 V

S3 Standard Kit

Delivery incl. InLab® 738-ISM® (IP 67) conductivity sensor, test solutions (1413 µS/cm and 12.88 mS/cm, each with 2 x 20 ml sachets), electrode clip and batteries.

Type	Art. No.	Pack Qty.	€
Seven2Go™ S3 Standard	**CAL4.1**	1 unit(s)	880,00

Conductivity meters

S7 Standard Kit

- Menu structure with full-text display in 12 languages
- Graphical LCD display
- Memory capacity for 2000 data sets incl. date and time (GLP-compliant)
- Data readout via micro USB port

Delivery incl. InLab® 738-ISM® (IP 67) conductivity sensor, test solutions (1413 µS/cm and 12.88 mS/cm, each with 2 x 20 ml sachets), software, data cable, electrode clip and batteries.

Type	Art. No.	Pack Qty.	€
Seven2Go™ S7 Standard	**CAL5.1**	1 unit(s)	1.265,00

Conductivity sensor with LTW

Mettler-Toledo.

With LTW connection for handheld measuring devices from Mettler Toledo.

Technical specifications:

Art. No.	EEP9.1	CY95.1	LN44.1
Type	LE703-IP67	InLab® 738	InLab® 738-ISM®
Conductivity measuring range	0.01 to 200 mS/cm	0.01 to 1000 mS/cm	
Operating temperature	0 to +80 °C	0 to +100 °C	
Cell type	Four graphite pins		
Cell constant	0,55 cm^{-1}	0,57 cm^{-1}	
Shaft length	120 mm		
Ø Shaft	12 mm		
Shaft material	Epoxid		
Temperature sensor	NTC 30 kΩ		
ISM Technology	No		Yes
IP rating	67		
Connection	LTW, 7-pin (IP67)		

Delivery incl. fixed cable (length 1.8 m).

InLab® without ISM®

Pic.	Type	Art. No.	Pack Qty.	€
(1)	LE703-IP67	**EEP9.1**	1 unit(s)	168,00
(2)	InLab® 738	**CY95.1**	1 unit(s)	459,00

InLab® with ISM®

Thanks to the Intelligent Sensor Management (ISM®) system, all important data is stored in the sensor and automatically sent to ISM®-compatible measuring devices.

Pic.	Type	Art. No.	Pack Qty.	€
(3)	InLab® 738-ISM®	**LN44.1**	1 unit(s)	520,00

Portable conductivity meters ProfiLine

WTW.

Robust and waterproof conductivity meter with parallel temperature display.

- 1-point calibration (freely adjustable calibration standard)
- Non-linear function for high-purity water and natural water (nLF)
- Selectable reference temperature

Technical specifications:

Art. No.	KT27.1	KT28.1
Type	Cond 3110-set	Cond 3310-set
Parameters	Conductivity, Salinity, Temperature	Conductivity, TDS, Salinity, Temperature
Conductivity measuring range	0 µS/cm to 1000 mS/cm	
Conductivity resolution	automatic (0.1 µS/cm – 1 mS/cm)	automatic (0.001 µS/cm – 1 mS/cm)
Conductivity accuracy	±0.5% of the measured value	
Calibration points	1 (standard and user-defined)	
Reference temperature	+20 / +25 °C	
TDS measuring range		0 mg/l to 199 g/l
TDS resolution		automatic (1 mg/l – 0.1 g/l)
Salinity measuring range	0 to 70	
Salinity resolution	0.1	
Temperature measuring range	-5 to +105 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.1 °C	
Data memory		Manual, 200 data sets, Time-delayed, 5000 data sets
Port		Mini-USB
L x W x H	180 x 80 x 55 mm	
Power supply	4x battery Mignon/AA 1.5 V	

Cond 3110 set

Delivery incl. TetraCon® 325 four-pole conductivity measuring cell, professional case with integrated measuring space and separate pockets for accessories, tripod, measuring beaker, test solutions (1413 µS/cm) and batteries.

Type	Art. No.	Pack Qty.	€
Cond 3110-set	**KT27.1**	1 unit(s)	1.085,75

Cond 3310 set

- Integrated data logger
- Temperature compensation can be switched off
- Back-lit graphics display

Delivery incl. TetraCon® 325 four-pole conductivity measuring cell, professional case with integrated measuring space and separate pockets for accessories, tripod, measuring beaker, test solutions (1413 µS/cm), software, data cable and batteries.

Type	Art. No.	Pack Qty.	€
Cond 3310-set	**KT28.1**	1 unit(s)	1.215,85

Benchtop conductivity meters COND 50 VioLab

Dostmann.

- Large LCD display, backlit with simultaneous display of conductivity and temperature
- Automatic calibration with display of the calibrated ranges, stores the current calibration
- Automatic and manual temperature correction
- Confirmation when a stable measured value is reached
- Reference temperature, adjustable cell constant and temperature coefficient

Technical specifications:

Art. No.	HXA8.1	HXA9.1
Type	COND 50 VioLab Basic	COND 50 VioLab Set
Parameters	Conductivity, TDS, Temperature	
Conductivity measuring range	0 µS/cm to 200 mS/cm	
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)	
Conductivity accuracy	±0.4 µS/cm (0 to 19.99 µS/cm), ±4 µS/cm (20.0 to 199.9 µS/cm), ±40 µS/cm (200 to 1999 µS/cm), ±0.4 mS/cm (2.00 to 19.99 mS/cm), ±4 mS/cm (2.00 to 200.0 mS/cm)	
Calibration points	automatic: 1/2/3/4 (standard) manual: 1 (user-defined)	
Reference temperature	+15 – +30 °C	
Cell constant	0,1 / 1,0 / 10 cm^{-1}	
Temperature coefficient	0 – 10,00 %/°C	
TDS measuring range	0 mg/l to 100 g/l	
TDS resolution	automatic (0.01 mg/l – 0.1 g/l)	
TDS accuracy	±0.2 mg/l (0 to 19.99 mg/l), ±2 mg/l (20.0 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.2 g/l (2.00 to 19.99 g/l), ±1 g/l (20.0 to 100.0 g/l)	
Temperature measuring range	0 to +100 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C	
Connection	BNC (EC), Cinch (°C)	
L x W x H	160 x 185 x 70 mm	
Weight	550 g	
Power supply	Mains adapter	

Basic

Delivery incl. test solutions (1413 µS/cm and 12.88 mS/cm), electrode holder and mains adapter.

Without conductivity sensor, please order separately.

Type	Art. No.	Pack Qty.	€
COND 50 VioLab Basic	**HXA8.1**	1 unit(s)	459,05

Set

2301T conductivity sensor with integrated temperature gauge. Measuring range: 10 µS to 200 mS/cm.
Steel shaft, length/Ø: 120/12 mm. Operating range: 0 to +60 °C.

Delivery incl. 2301T conductivity sensor, test solutions (1413 µS/cm and 12.88 mS/cm), electrode holder and mains adapter.

Type	Art. No.	Pack Qty.	€
COND 50 VioLab Set	**HXA9.1**	1 unit(s)	543,95

Benchtop conductivity meters SevenCompact™ S230

Mettler-Toledo.

- Large colour display (4.3″) with Routine or Expert mode (e.g. for disabling Delete data or Edit data function)
- Menu navigation in 10 languages (DE, GB, FR, ES, IT, PT, CN, JP, KR, RU)
- 1-point calibration with 5 predefined groups and 1 user-defined group incl. temperature chart
- Automatic and manual temperature correction
- Selection of compensation methods: Linear, non-linear, high-purity water, off
- Manual cell constant input
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data
- Internal measured value memory: Saving by pressing key or timed (intermittent) saving (interval is variable from 1 s to 40 min)
- USB ports for exporting data via USB stick (data sets are exported as a text (.txt) file) or for connecting a USB keyboard

Technical specifications:

Art. No.	TA12.1	TA13.1
Type	SevenCompact™ S230 standard	SevenCompact™ S230-USP/EP
Parameters	Conductivity, TDS, Salinity, Temperature	
Conductivity measuring range	0 µS/cm to 1000 mS/cm	
Conductivity resolution	automatic (0.001 µS/cm – 1 mS/cm)	
Conductivity accuracy	±0.5% of the measured value	
Calibration points	One (standard and user-defined)	
Reference temperature	+20 / +25 °C	
TDS measuring range	0 mg/l to 1000 g/l	
TDS resolution	automatic (0.1 mg/l – 1 g/l)	
TDS accuracy	±0.5% of the measured value	
Salinity measuring range	0 to 80 psu	
Salinity resolution	automatic (0.01 psu – 0.1 psu)	
Salinity accuracy	±0.5% of the measured value	
Temperature measuring range	-5 to +105 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.1 °C	
Data memory	1000 data sets	
Port	RS 232, USB-A (printer), USB-B (PC)	
Connection	Mini-DIN	
ISM Technology	Yes	
L x W x H	204 x 174 x 74 mm	
Power supply	Mains adapter	
Mains connection	100–240 V, 50/60 Hz	

S230 Standard kit

With conductivity sensor for medium to very high conductivity: InLab® 731-ISM® with integrated temperature gauge. Measuring range: 0.01 to 1000 S/cm. Plastic shaft, L/Ø: 120/12 mm. Operating range: 0 to +100 °C.

Delivery incl. InLab® 731-ISM® conductivity sensor, buffer solutions (1413 µS/cm and 12.88 mS/cm, each 2 x 20 ml), electrode holder and protective case.

Type	Art. No.	Pack Qty.	€
SevenCompact™ S230 standard	**TA12.1**	1 unit(s)	1.650,00

Conductivity meters

USP/EP kit
With conductivity sensor for samples with low conductivity, such as pure and high-purity water. InLab® 741-ISM® with integrated temperature gauge. Measuring range: 0.001 to 500 µS/cm. Stainless steel shaft, L/Ø: 120/12 mm.
Operating range: 0 to +100 °C.

Delivery incl. InLab® 741-ISM® conductivity sensor, test solutions (1413 µS/cm, 2 x 20 ml), electrode holder and protective case.

Type	Art. No.	Pack Qty.	€
SevenCompact™ S230-USP/EP	**TA13.1**	1 unit(s)	1.830,00

Benchtop conductivity meters FiveEasy™ F30 Standard Kit

Mettler-Toledo.

- Space-saving design with large display
- Simple, user-friendly menu
- Automatic calibration with three predefined standards
- Automatic or manual temperature correction
- Automatically or manually end a measurement; with acoustic and visual endpoint signal
- Saves the current calibration
- Selectable reference temperature

With robust conductivity sensor for medium to very high conductivity: LE703 with integrated temperature gauge. Measuring range: 0.01 to 200 S/cm. Plastic shaft, L/Ø: 120/12 mm. Operating range: 0 to +80 °C.

Technical specifications:

Art. No.	HY61.1
Type	FiveEasy™ F30 Standard
Parameters	Conductivity, TDS, Temperature
Conductivity measuring range	0 µS/cm to 200 mS/cm
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)
Conductivity accuracy	±0.5% of the measured value
Calibration points	One (standard)
Reference temperature	+20 / +25 °C
TDS measuring range	0 mg/l to 200 g/l
TDS resolution	automatic (0.1 mg/l – 0.1 g/l)
TDS accuracy	±0.5% of the measured value
Temperature measuring range	0 to +100 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.5 °C
Connection	Mini-DIN
ISM Technology	No
L x W x H	227 x 147 x 70 mm
Power supply	Mains adapter
Mains connection	100–240 V, 50/60 Hz

Delivery incl. conductivity electrode type LE703, test solutions (1413 µS/cm and 12.88 mS/cm, each with 2 x 20 ml sachets), electrode arm and mains adapter.

Type	Art. No.	Pack Qty.	€
FiveEasy™ F30 Standard	**HY61.1**	1 unit(s)	975,00

Conductivity sensor with Mini-DIN

Mettler-Toledo.

With Mini-DIN connection for tabletop measuring devices from Mettler Toledo.

Technical specifications:

Art. No.	PP35.1	PP36.1	HY62.1	TA15.1	TA14.1
Type	InLab® 720	InLab® 751-4 mm	LE703	InLab® 741-ISM®	InLab® 731-ISM®
Conductivity measuring range	0.1 to 500 µS/cm	0.01 to 100 mS/cm	0.01 to 200 mS/cm	0.001 to 500 µS/cm	0.01 to 1000 mS/cm
Operating temperature	0 to +100 °C				
Cell type	Two platinum poles	Two platinum pins	Four graphite poles	Two steel pins	Four graphite poles
Cell constant	0,06 cm^{-1}	1,0 cm^{-1}	0,55 cm^{-1}	0,105 cm^{-1}	0,57 cm^{-1}
Shaft length	120 mm				
Ø Shaft	12 mm	4 mm	12 mm		
Shaft material	Glass		Epoxid	Stainless steel	Epoxid
Temperature sensor	NTC 30 kΩ				
ISM Technology	No			Yes	
Connection	Mini-DIN				

Delivery incl. fixed cable (length 1 m).

Without ISM®

Pic.	Type	Art. No.	Pack Qty.	€
(1)	InLab® 720	**PP35.1**	1 unit(s)	366,00
(2)	InLab® 751-4 mm	**PP36.1**	1 unit(s)	550,00
(3)	LE703	**HY62.1**	1 unit(s)	159,00

With ISM®
Thanks to the Intelligent Sensor Management (ISM®) system, all important data is stored in the sensor and automatically sent to ISM®-compatible measuring devices.

Pic.	Type	Art. No.	Pack Qty.	€
(4)	InLab® 741-ISM®	**TA15.1**	1 unit(s)	635,00
(5)	InLab® 731-ISM®	**TA14.1**	1 unit(s)	457,00

Oxygen meters

Oxygen meter OXY 7

Dostmann.

For determining dissolved oxygen in liquids. Large LCD display which simultaneously displays the measured value and temperature.

- Automatic calibration with display of the calibrated ranges
- Confirmation when a stable measured value is reached
- Automatic and manual temperature compensation
- Automatic compressed air compensation
- Manual salinity compensation of 0 to 50 ppt
- Auto Off after 20 minutes

Technical specifications:

Art. No.	HPK6.1
Type	OXY 7
Parameters	Oxygen
O_2 concentration measuring range	0 to 50 mg/l
O_2 saturation concentration	±0.30 mg/l (0.00 to 19.99 mg/l), ±0.75 mg/l (20.0 to 50.0 mg/l)
O_2 saturation measuring range	0 to 400%
O_2 saturation accuracy	±20% (0.0 to 199.9%), ±40% (200 to 400%)
O_2 resolution	Automatic
Partial pressure measuring range	0 to 1100 mbar
Partial pressure resolution	1 mbar
Partial pressure accuracy	±0.55 mbar
Temperature measuring range	0 to +60 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.5 °C
W x D x H	86 x 33 x 196 mm
Power supply	3x battery Mignon/AA 1.5 V

Delivery incl. polarographic oxygen sensor OXY DO7 with integrated temperature sensor, electrolyte solution (30 ml), standard zero calibration solution (30 ml), replaceable membrane, storage case and batteries.

Type	Art. No.	Pack Qty.	€
OXY 7	**HPK6.1**	1 unit(s)	714,90

Oxygen meter ProfiLine Oxi 3310

WTW.

Robust and waterproof portable meter.

- Integrated data logger
- Installed air pressure compensation sensor
- Backlit graphics display
- With calibration memory – five calibrations can be retrieved

Technical specifications:

Art. No.	KT29.1
Type	Oxi 3310
Parameters	Oxygen
O_2 concentration measuring range	0.01 to 90.9 mg/l
O_2 saturation concentration	±0.5 % of the measured value
O_2 saturation measuring range	0.1 to 600 %
O_2 saturation accuracy	±0.5 % of the measured value
O_2 resolution	0.01 mg/l (0.01 to 19.9 mg/l), 0.1 mg/l (0 to 90.9 mg/l), 0.1 % (0.1 to 199.9 %), 1 % (0 to 600 %)
Partial pressure measuring range	0.1 to 1250 hPa
Partial pressure resolution	0.1 hPa (0.1 to 199.9 hPa), 1 hPa (0 to 1250 hPa)
Partial pressure accuracy	±0.5 % of the measured value
Temperature measuring range	-5 to +50 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.1 °C
Data memory	200 datasets can be entered manually, 5000 datasets can be entered at a scheduled time
Port	Mini USB
W x D x H	80 x 55 x 180 mm
Power supply	4x battery Mignon/AA 1.5 V

Delivery incl. CellOx® 325 galvanic oxygen sensor with 1.5 m fixed cable, professional case with integrated measuring station, cleaning and electrolyte solution, three replaceable membrane caps, stand, beaker, software, USB cable and batteries.

Type	Art. No.	Pack Qty.	€
Oxi 3310	**KT29.1**	1 unit(s)	1.603,90

NEW / +

Accessories for Oxi 3310 set

WTW.

CellOx® 325 oxygen sensor
With 1.5 m fixed cable.

Delivery incl. 30 ml cleaning solution, 50 ml electrolyte solution, abrasive film and 3 replaceable membrane caps.

Art. No.	Pack Qty.	€
1L2P.1	1 unit(s)	1.042,75

Cleaning and electrolyte solution
30 ml cleaning solution and 50 ml electrolyte solution.

Warning H290-H315-H319

Delivery incl. abrasive film and 3 replaceable membrane caps.

Art. No.	Pack Qty.	€
1L2T.1	1 unit(s)	293,50

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Combi tester PC 5

Dostmann.

For measuring pH, conductivity, TDS, salinity and temperature.

- Large LCD display
- Waterproof and dust-proof
- Automatic temperature compensation/correction
- Confirmation when a stable measured value is reached
- Automatic calibration with display of the calibrated ranges
- Multicolour back lighting for status display of measurement mode, calibration and alarm

Technical specifications:

Art. No.	HPK4.1
Type	PC 5
Parameters	pH, Conductivity, Salinity, TDS, Temperature
pH measuring range	-2 to +16
pH resolution	0,01 pH
pH accuracy	±0.01 pH
Voltage measuring range	-1000 to +1000 mV
Voltage resolution	0,1 mV, 1 mV
Voltage accuracy	±1 mV
Conductivity measuring range	0 µS/cm to 20 mS/cm
Conductivity resolution	automatic (0.1 µS/cm – 0.1 mS/cm)
Conductivity accuracy	±2 µS/cm (0 to 199.9 µS/cm), ±20 µS/cm (200 to 1999 µS/cm), ±0.2 mS/cm (2.0 to 20.0 mS/cm)
Reference temperature	+20 / +25 °C
TDS measuring range	0 to 10 ppt
TDS resolution	automatic (0.1 ppm – 0.01 ppt)
TDS accuracy	±2 ppm (0.1 to 199.9 ppm), ±20 ppm (200 to 1999 ppm), ±0.1 ppt (2.00 to 10.00 ppt)
Salinity measuring range	0 mg/l to 10 g/l
Salinity resolution	automatic (0.1 mg/l – 0.01 g/l)
Salinity accuracy	±2 mg/l (0.1 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.1 g/l (2.00 to 10.00 g/l)
Temperature measuring range	0 to +50 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.2 °C
Calibration points	1/2/3 (pH/EC)
IP rating	67
Ø x L	35 x 175 mm
Weight	130 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. buffer solutions (pH 4.01/7.00; EC 1413 µS/cm), storage solution, two measuring beakers, storage case and batteries.

Type	Art. No.	Pack Qty.	€
PC 5	HPK4.1	1 unit(s)	198,90

Combined measuring instruments

Combi hand-held measuring device PM 2000 set

ROTH SELECTION.

For measuring pH, Redox, conductivity and temperature.

- Automatic sensor detection
- Robust, coated aluminium housing
- Automatic pH-calibration
- Zero-point can be set separately for Redox electrodes

Technical specifications:

Art. No.	HT24.1
Type	PM 200 set
Parameters	pH, Conductivity, Temperature
pH measuring range	0 to 14
pH resolution	0,01 pH
pH accuracy	±0.01 pH
pH temp. compensation	automatic: 0 to +100 °C
Voltage measuring range	-1000 to +1000 mV
Voltage resolution	1 mV
Conductivity measuring range	0 µS/cm to 500 mS/cm
Conductivity resolution	0.01 µS/cm, 1.0 mS/cm
Conductivity accuracy	±2% (up to 200 mS), ±4% (up to 500 mS)
Reference temperature	20 / 25 °C
Temperature coefficient	0 – 3,9 %
Temperature measuring range	-50 to +150 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.2 °C
IP rating	65
L x W x H	138 x 85 x 35 mm
Weight	350 g
Power supply	3x lithium batteries Mignon 1.5 V

Delivery incl. pH/Redox pre-amplifier with temperature gauge, pH single-rod measuring cell pH 62/A7, conductivity probe with an integrated temperature gauge, batteries. Without Redox single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
PM 200 set	**HT24.1**	1 unit(s)	646,10

Combi hand-held measuring device PC 7 Vio

Dostmann.

For measuring pH, Redox, conductivity, TDS and temperature.

- Large LCD display with simultaneous display of measured value and temperature
- Automatic and manual temperature compensation
- Confirmation when a stable measured value is reached
- Automatic calibration with display of the calibrated ranges, storage of current calibration
- Manual calibration possible with user-defined buffer
- Reference temperature, adjustable cell constant and temperature coefficient
- 201T pH single-rod measuring cell with integrated temperature gauge for common aqueous samples. pH range: 0 to 14. Operating temperature 0 to +60 °C. Ceramic diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.
- 2301T conductivity sensor with integrated temperature gauge. Measuring range: 10 µS to 200 mS/cm. Operating temperature: 0 to +60 °C. Steel shaft, length/Ø: 120/12 mm.

Technical specifications:

Art. No.	HTE8.1
Type	PC 7 Vio
Parameters	pH, Redox, Conductivity, TDS, Temperature
pH measuring range	0 to 14
pH resolution	0,1 / 0,01 pH
pH accuracy	±0.01 pH
Voltage measuring range	-1000 to +1000 mV
Voltage resolution	1 mV
Voltage accuracy	±1 mV
Conductivity measuring range	0 µS/cm to 200 mS/cm
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)
Conductivity accuracy	±0.4 µmS/cm (0 to 19.99 µmS/cm), ±4 µmS/cm (20.0 to 199.9 µmS/cm), ±40 µS/cm (200 to 1999 µS/cm), ±0.4 mS/cm (2.00 to 19.99 mS/cm), ±4 mS/cm (20.0 to 200.0 mS/cm)
Reference temperature	+15 – +30 °C
Temperature coefficient	0 – 10,00 % / °C
Cell constant	0,1 / 1,0 / 10 cm^{-1}
TDS measuring range	0 mg/l to 100 g/l
TDS resolution	automatic (0.01 mg/l – 0.1 g/l)
TDS accuracy	±0.2 mg/l (0 to 19.99 mg/l), ±2 mg/l (20.0 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.2 g/l (2.00 to 19.99 g/l), ±1 g/l (20.0 to 100.0 g/l)
Temperature measuring range	0 to +100 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.5 °C
Calibration points	1/2/3 (pH), 1/2/3/4 (EC)
Connection	BNC (pH), BNC (EC), Cinch (°C)
L x W x H	196 x 86 x 33 mm
Weight	300 g
Power supply	3x battery Mignon/AA 1,5 V

Delivery incl. 201T pH single-rod measuring cell, 2301T conductivity sensor, buffer solutions (pH 4.01/7.00; EC 1413 µS/cm / 12.88 mS/cm), storage solution, measuring beaker, transport case and batteries.

Type	Art. No.	Pack Qty.	€
PC 7 Vio	**HTE8.1**	1 unit(s)	696,60

Combined measuring instruments

Combi hand-held measuring device SensoDirect 150

Tintometer.

For measuring pH, Redox, conductivity, TDS, oxygen and temperature.

- Automatic/manual temperature compensation
- Min/Max and Hold functions
- Saves up to 16,000 data sets automatically/manually
- Auto Off after 10 min

Technical specifications:

Art. No.	YT94.1
Type	SensoDirect 150
Parameters	pH, Redox, Conductivity, TDS, Oxygen, Temperature
pH measuring range	0 to 14
pH resolution	0,01 pH
pH accuracy	±0.02 pH
pH temp. compensation	automatic: 0 to +65 °C, manual: 0 to +100 °C
Voltage measuring range	-1999 to +1999 mV
Voltage resolution	1 mV
Voltage accuracy	±1 mV
Conductivity measuring range	0.2 to 200 mS/cm
Conductivity resolution	automatic (0.001 S/cm – 0.1 mS/cm)
Conductivity accuracy	±0.01 mS/cm (0.200 to 2.000 mS), ±0.1 mS/cm (2.01 to 20.00 mS), ±1 mS/cm (20.1 to 200.0 mS)
Temperature compensation conductivity	Automatic: 0 to +60 °C
TDS measuring range	0 to 132000 ppm
TDS resolution	0.1 ppm (0 to 132 ppm), 1 ppm (132 to 1320 ppm), 10 ppm (1320 to 13,200 ppm), 100 ppm (13,200 to 132,000 ppm)
TDS accuracy	2.64 ppm (0 to 132 ppm), 26.4 ppm (132 to 1320 ppm), 264 ppm (1320 to 13,200 ppm), 2640 ppm (13,200 to 132,000 ppm)
O_2 concentration measuring range	0 to 20 mg/l
O_2 saturation concentration	±0.4 mg/l
O_2 saturation measuring range	0 to 100%
O_2 saturation accuracy	±0.7 %
O_2 resolution	0.1 mg/l, 0.1 %
O_2 temp. compensation	automatic: 0 to +50 °C
Salt correction	0 – 39 %
Air pressure compensation	0 – 8900 m
Calibration points	1/2/3 (pH, EC), 1 (Redox)
Data memory	16000 data sets
Connection	BNC (pH)
L x W x H	220 x 120 x 40 mm
Weight	625 g
Power supply	4x battery Mignon/AA 1.5 V

Delivery incl. pH plastic electrode with gel electrolyte, external temperature gauge, conductivity probe, buffer solutions (pH 4/7), plastic case and batteries. Without oxygen sensor and Redox electrode; please order separately.

Type	Art. No.	Pack Qty.	€
SensoDirect 150	**YT94.1**	1 unit(s)	653,60

Combi table-top multimeter PC 50 VioLab

Dostmann.

For measuring pH, Redox, conductivity, TDS and temperature.

- Large LCD display, backlit with simultaneous display of measured value and temperature
- Automatic and manual temperature compensation
- Automatic calibration with display of the calibrated ranges, storage of current calibration
- Manual calibration possible with user-defined buffer
- Confirmation when a stable measured value is reached
- Adjustable reference temperature, cell constant and temperature coefficient
- 201T pH single-rod measuring cell with integrated temperature gauge for common aqueous samples. pH range: 0 to 14. Operating temperature 0 to +60 °C. Ceramic diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.
- 2301T conductivity sensor with integrated temperature gauge. Measuring range: 10 µS to 200 mS/cm. Operating temperature: 0 to +60 °C. Steel shaft, length/Ø: 120/12 mm.

Technical specifications:

Art. No.	HXC0.1
Type	PC 50 VioLab
Parameters	pH, Redox, Conductivity, TDS, Temperature
pH measuring range	0 to 14
pH resolution	0,01 pH
pH accuracy	±0.01 pH
Voltage measuring range	-1000 to +1000 mV
Voltage resolution	1 mV
Voltage accuracy	±1 mV
Conductivity measuring range	0 µS/cm to 200 mS/cm
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)
Conductivity accuracy	±0.4 µmS/cm (0 to 19.99 µmS/cm), ±4 µmS/cm (20.0 to 199.9 µmS/cm), ±40 µS/cm (200 to 1999 µS/cm), ±0.4 mS/cm (2.00 to 19.99 mS/cm), ±4 mS/cm (20.0 to 200.0 mS/cm)
Reference temperature	+15 – +30 °C
Temperature coefficient	0 – 10,00 % / °C
Cell constant	0,1 / 1,0 / 10 cm^{-1}
TDS measuring range	0 mg/l to 100 g/l
TDS resolution	automatic (0.01 mg/l – 0.1 g/l)
TDS accuracy	±0.2 mg/l (0 to 19.99 mg/l), ±2 mg/l (20.0 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.2 g/l (2.00 to 19.99 g/l), ±1 g/l (20.0 to 100.0 g/l)
Temperature measuring range	0 to +100 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.5 °C
Calibration points	1/2/3 (pH), 1/2/3/4 (EC)
Connection	BNC (pH), BNC (EC), Cinch (°C)
L x W x H	160 x 185 x 70 mm
Weight	550 g
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 201T pH single-rod measuring cell, 2301T conductivity sensor, buffer solutions (pH 4.01/7.00; EC 1413 µS/cm / 12.88 mS/cm), storage solution, electrode holder and mains adapter.

Type	Art. No.	Pack Qty.	€
PC 50 VioLab	**HXC0.1**	1 unit(s)	791,20

Combined measuring instruments

Combi hand-held measuring device SevenGo Duo™

Mettler-Toledo.

For measuring pH, Redox, conductivity, TDS, salinity and temperature.

- Robust, waterproof housing
- Data memory for 99 GLP data sets
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

pH measurement:

- Automatic 1-/2-/3-point pH-calibration from four pre-defined points and a user-defined buffer set
- Automatic end point recognition, automatic buffer recognition and temperature compensation give reproducible results
- InLab® ExpertGo-ISM® pH single-rod measuring cell with integrated temperature gauge for aqueous samples, including emulsions, suspensions and solutions with proteins. PH-range: 0 to 14. Operating temperature: 0 to +100 °C. Protection rating: IP67. Perforated diaphragms, polymer-electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm

Conductivity measurement:

- Single-point calibration with calibration standards (84/1413/12880 µS/cm)
- Linear temperature compensation
- Selectable reference temperature
- With robust conductivity sensor for medium to very high conductivity: InLab® 738-ISM® (IP67) with integrated temperature gauge. Measuring range: 0.01 to 1000 mS/cm. Plastic shaft, length/Ø: 120/12 mm. Operating range: 0 to +100 °C

Technical specifications:

Art. No.	LN42.1	LN41.1
Type	SG23-FK5	SG23-ELK
Parameters	pH, Redox, Conductivity, Temperature	
pH measuring range	0 to 14	
pH resolution	0,01 pH	
pH accuracy	±0.01 pH	
pH temp. compensation	automatic	
Voltage measuring range	-1999 to +1999 mV	
Voltage resolution	1 mV	
Voltage accuracy	±1 mV	
Conductivity measuring range	0 µS/cm to 500 mS/cm	
Conductivity resolution	Automatic (0.01 µS/cm – 1 mS/cm)	
Conductivity accuracy	±0.5% of the measured value	
Temperature compensation conductivity	linear	
Reference temperature	20 / 25 °C	
TDS measuring range	0 mg/l to 300 g/l	
TDS resolution	Automatic (0.1 mg/l – 1 g/l)	
Salinity measuring range	0 to 80 ppt	
Salinity resolution	0.01 ppt	
Temperature measuring range	-5 to +105 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C	
Calibration points	1/2/3 (pH), 1 (EC)	
Data memory	99 data sets	
Port	Infrared adapter (PC)	
ISM Technology	Yes	
IP rating	67	
L x W x H	220 x 90 x 45 mm	
Power supply	4x battery Mignon/AA 1.5 V	

Note: For ORP measurements, please order Redox electrodes separately.

SG23-ELK

Delivery incl. InLab® ExpertGo-ISM® pH single-rod measuring cell, InLab® 738-ISM® conductivity sensor, batteries and wrist straps.

Type	Art. No.	Pack Qty.	€
SG23-ELK	**LN41.1**	1 unit(s)	1.415,00

SG23-FK5

Delivery incl. InLab® Expert Go-ISM®pH single-rod measuring cell, InLab® 738-ISM® conductivity sensor, rubber-elastic protective case, buffer solutions (pH 4.01/7.00; EC 1413/12.88 mS/cm), sample bottles, carrying case, wrist strap and batteries.

Type	Art. No.	Pack Qty.	€
SG23-FK5	**LN42.1**	1 unit(s)	1.620,00

Combined measuring instruments

NEW / +

Combi table-top multimeter SevenCompact™ Duo S213

Mettler-Toledo.

- All important data at a glance, thanks to the high-resolution colour display (4.3″) with large digits and clear symbols.
- Simultaneous measurement and display of pH value and conductivity is possible.
- Simple and intuitive to use; menus with complete sentences in 12 languages.
- Electrode arm is easy to operate with one hand; electrode can be positioned securely by moving it up and down.
- Calibration with predefined and user-specific buffers and buffer groups is possible; calibration memory with optional sensor lock setting available; quality of the most recent sensor calibration shown directly via pH sensor symbol.
- Comprehensive safety functions both for routine measurements and measurements under strict GLP specifications.
- With two operating modes: In Routine mode, it is not possible to delete data or change settings; in Expert mode (secured with PIN code), all functions can be used by an authorised user.
- Internal measured value memory: Saving by pressing key or timed (intermittent) saving (interval can be set between 1 s and 40 min).
- USB ports for exporting data via USB stick (datasets are exported as a text (.txt) file) or for connecting a USB keyboard.
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data.
- Sustainable with highest Energy Star rating for the power supply (low energy loss, low heat generation) and environmentally friendly packaging.

Technical specifications:

Art. No.	1LE3.1	1LE4.1	1LE5.1
Type	S213 Basic	S213 Standard kit	S213 Water kit
Sensor	without	InLab® Expert-Pro-ISM®, InLab® 731-ISM®	InLab® Pure-Pro-ISM®, InLab® 741-ISM®
Parameters	pH, Redox, Conductivity, TDS, Salinity, Temperature		
pH measuring range	-2 to +20		
pH resolution	0,001 / 0,01 / 0,1 pH		
pH accuracy	±0.002 pH		
Voltage measuring range	-2000 to +2000 mV		
Voltage resolution	0,1 / 1 mV		
Voltage accuracy	±0,2 mV		
Conductivity measuring range	0 µS/cm to 1000 mS/cm		
Conductivity resolution	Automatic (0.001 µS/cm – 1 mS/cm)		
Conductivity accuracy	±0.5% of the measured value		
Reference temperature	+20 / +25 °C		
TDS measuring range	0 mg/l to 1000 g/l		
TDS resolution	Automatic (0.01 mg/l – 1 g/l)		
TDS accuracy	±0.5% of the measured value		
Salinity measuring range	0 to 80 psu		
Salinity resolution	Automatic (0.01 / 0.1 psu)		
Salinity accuracy	±0.5% of the measured value		
Temperature measuring range	-5 to +105 °C		
Temperature resolution	0.1 °C		
Temperature accuracy	±0.1 °C		
Calibration points	1/2/3/4/5 (pH), 1 (EC)		
Data memory	2000 datasets		
Port	RS 232, USB-A (printer), USB-B (PC)		
Connection	BNC (pH), Mini-DIN (EC), Cinch (°C)		
ISM Technology	Yes		
IP rating	54		
L x W x H	204 x 174 x 74 mm		
Power supply	Mains adapter		
Mains connection	100–240 V, 50/60 Hz		

Basic

Delivery incl. electrode holder and protective cover.

Without sensors, please order separately.

Type	Art. No.	Pack Qty.	€
S213 Basic	**1LE3.1**	1 unit(s)	1.830,00

Standard kit

For a wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

Delivery incl. InLab® Expert Pro-ISM® pH single-rod measuring cell, InLab® 731-ISM® conductivity sensor, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00 / 1413 µS/cm and 12.88 mS/cm, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S213 Standard kit	**1LE4.1**	1 unit(s)	2.300,00

Water kit

For samples with a low ion concentration such as ultrapure water and deionised water.

Delivery incl. InLab® Pure Pro-ISM® pH single-rod measuring cell, InLab® 741-ISM® conductivity sensor, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00 / 1413 µS/cm and 12.88 mS/cm, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S213 Water kit	**1LE5.1**	1 unit(s)	2.535,00

Combined measuring instruments

Combi table-top multimeter SevenExcellence™

Mettler-Toledo.

Modular professional system for measuring various parameters. Up to three modules can in be connected to a basic unit in variable configurations. This means that up to three parameters can be measured in one or more samples.

- High-resolution 7-inch colour display with touchscreen control
- Intuitive menu structure with full-text display (in 10 languages)
- 4-level user management hierarchy with different access rights
- Automatic calibration
- Flexible buffer selection and make-up; pH buffers from various groups can be combined with one another
- Automatic and manual temperature compensation
- Direct measurement or individual analysis methods (for standard conditions)
- Individual, intermittent or series measurement
- Automatic calculation of statistical data (mean values, standard deviation)
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data
- GLP support (PIN protection, GLP-compliant printouts containing all relevant data and monitoring of measurement limits)
- Radio clock for precise display of time and date
- Data storage (20,000 measuring values, 250 analyses)
- Data export with USB stick or LabX®direct PC software

Technical specifications:

Art. No.	YX44.1	YX45.1	YX46.1
Type	pH kit version S400	EC kit version S700	pH/EC kit version S470
Parameters	pH, Redox, Temperature	Conductivity, Salinity, TDS, Temperature	pH, Redox, Conductivity, Salinity, TDS, Temperature
pH measuring range	-2 to +20		-2 to +20
pH resolution	0,001 pH		0,001 pH
pH accuracy	±0.002 pH		±0.002 pH
Voltage measuring range	-2000 to +2000 mV		-2000 to +2000 mV
Voltage resolution	0,1 mV		0,1 mV
Voltage accuracy	±0,1 mV		±0,1 mV
Conductivity measuring range		0 µS/cm to 2000 mS/cm	
Conductivity resolution		automatic (0.001 µS/cm – 1 mS/cm)	
Conductivity accuracy		±0.5% of the measured value	
TDS measuring range		0 mg/l to 1000 g/l	
TDS resolution		automatic (0.01 mg/l – 1 g/l)	
TDS accuracy		±0.5% of the measured value	
Salinity measuring range		0 to 80 psu	
Salinity resolution		0.01 psu	
Salinity accuracy		±0.5% of the measured value	
Temperature measuring range	-30 to +130 °C		
Temperature resolution	0.1 °C		
Temperature accuracy	±0.1 °C		
Calibration points	1/2/3/4/5 (pH)	1 (EC)	1/2/3/4/5 (pH), 1 (EC)
Data memory	20,000 measuring values, 250 analyses		
Port	RS 232, USB-A (printer), USB-B (PC)		
Connection	BNC (pH), Cinch (°C)	Mini-DIN (EC), Cinch (°C)	BNC (pH), Mini-DIN (EC), Cinch (°C)
ISM Technology	Yes		
L x W x H	235 x 188 x 75 mm		
Weight	1120 g		
Mains connection	100–240 V, 50/60 Hz		

Combined measuring instruments

pH set S400
For measuring pH, Redox and temperature.

- InLab® RoutinePro-ISM® pH single-rod measuring cell with integrated temperature gauge for common aqueous solutions. pH-range: 0 to 14. Operating temperature 0 to +100 °C. Ceramic diaphragms, liquid electrolyte, glass shaft. Shaft length/Ø: 120/12 mm

Delivery incl. base unit with a pH module, InLab® Routine Pro-ISM® pH single-rod measuring cell, buffer solutions (pH 4.01/7.00/9.21/10.00), electrode holder, LabX®direct PC software and mains adapter.

Type	Art. No.	Pack Qty.	€
pH kit version S400	**YX44.1**	1 unit(s)	2.500,00

EC set S700
For measuring conductivity, TDS, salinity and temperature.

- InLab® 731-ISM® conductivity sensor with integrated temperature gauge for medium to very high conductivity. Measuring range: 0.01 to 1000 mS/cm. Operating temperature: 0 to +100 °C. Plastic shaft, length/Ø: 120/12 mm.

Delivery incl. base unit with a conductivity module, InLab® 731-ISM® conductivity sensor, buffer solutions (pH 1413/12.88 mS/cm), electrode holder, LabX®direct PC software and mains adapter.

Type	Art. No.	Pack Qty.	€
EC kit version S700	**YX45.1**	1 unit(s)	2.655,00

pH/EC set S470
For measuring pH, Redox, conductivity, TDS, salinity and temperature.

- InLab® ExpertGo-ISM® pH single-rod measuring cell with integrated temperature gauge for aqueous samples, including emulsions, suspensions and solutions with proteins. PH-range: 0 to 14. Operating temperature: 0 to +100 °C. Perforated diaphragms, polymer-electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.
- InLab® 731-ISM® conductivity sensor with integrated temperature gauge for medium to very high conductivity. Measuring range: 0.01 to 1000 mS/cm. Operating temperature: 0 to +100 °C. Plastic shaft, length/Ø: 120/12 mm.

Delivery incl. base unit with a pH-module, a conductivity-module, inLab® Expert Pro-ISM® pH single-rod measuring cell, InLab®731-ISM® conductivity sensor, buffer solutions (pH 4.01/7.00/9.21/10.00; EC 1413 µS/cm / 12.88 mS/cm), electrode holder, LabX®direct PC software and mains adapter.

Type	Art. No.	Pack Qty.	€
pH/EC kit version S470	**YX46.1**	1 unit(s)	3.170,00

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Flow stick testo 405-V1

Testo.

Mini-anemometer with air current and volume flow measurement. Pivoting display. Extendable telescope (Max. L 300 mm x Ø 12 to 16 mm).

Technical specifications:

Art. No.	P304.1	P305.1
Type	Testo 405-V1	
Parameters	Current, Temperature	
Flow measuring range	0 to 10 m/s	
Temperature measuring range	-20 to +50 °C	
Flow rate measuring range	0 to 099,990 m^3/h	
Resolution	0.01 m/s	
Temperature resolution	0.1 °C	
Accuracy	±(0.1 m/s +5% of the measured value) (0 to +2 m/s) ±(0.3 m/s +5% of the measured value) (outside)	
Operating temperature	0 to +50 °C	
L x W x H	490 x 37 x 36 mm	
Weight	115 g	
Power supply	3x battery Micro AAA 1.5 V	

Delivery incl. batteries and attachment clip.

Type	Version	Art. No.	Pack Qty.	€
Testo 405-V1	without calibration certificate	**P304.1**	1 unit(s)	132,25
Testo 405-V1	with ISO calibration certificate (5 and 10 m/s)	**P305.1**	1 unit(s)	253,70

Air-flow measuring device testo 425

Testo.

Anemometer with attached thermal current probe incl. telescopic pipe (max. L 820 mm x Ø 7.5 mm). Calculates volume flow when channel area is input.

- Measures temperature, current and volume flow
- Point-by-point, chronological calculation of average
- Min./max. values
- Hold button for recording the measured values
- Light-up display

Technical specifications:

Art. No.	EH95.1
Type	testo 425
Parameters	Current, Temperature
Flow measuring range	0 to 20 m/s
Temperature measuring range	-20 to +70 °C
Resolution	0.01 m/s
Temperature resolution	0.1 °C
Flow accuracy	±0.03 m/s or 5% of the measured value
Temperature accuracy	±0.5 °C (0 to +60 °C), ±0.7 °C (outside)
Operating temperature	-20 to +50 °C
Auto Off function	Yes
L x W x H	182 x 64 x 40 mm
Cable length	1.2 m
Weight	285 g
Power supply	Battery E block 9 V

Delivery incl. Air-flow measuring device with attached current probe, incl. telescopic pipe, batteries and calibration protocol.

Type	Art. No.	Pack Qty.	€
testo 425	**EH95.1**	1 unit(s)	469,80

Luxmeters

Luxmeter Mini

Dostmann.

For monitoring the lighting conditions in the workplace, warehouses etc.

- Automatic zero calibration
- Max Hold display
- Backlit display

Technical specifications:

Art. No.	PK79.1
Parameters	Illuminance
Measuring range	0–40,000 lx
Resolution	automatic (0.1–100 lx)
Accuracy	±5%
Photosensor	Silicon photodiode with filter
Auto Off function	Yes
L x W x H	165 x 54 x 34 mm
Weight	180 g
Power supply	Battery E block 9 V

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
Mini	**PK79.1**	1 unit(s)	55,70

Luxmeter LM37

Dostmann.

For measuring illuminance.

- Switch between lx and fc units (fc = foot candelas; 1 fc = 10.764 lx)
- Switch between ranges automatically or manually
- With automatic zero adjustment
- Change battery display and Auto-Off function (can be switched off)
- Hold function

Technical specifications:

Art. No.	KP25.1
Parameters	Illuminance
Measuring range	39.99 – 39,990 lx, 3.999 – 3999 fc
Resolution	automatic (0.01–10 lx), automatic (0.001–1 fc)
Accuracy	±3%
Photosensor	Silicon photodiode
Auto Off function	Yes
L x W x H	196 x 54 x 33 mm
Weight	180 g
Power supply	Battery E block 9 V

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
LM37	**KP25.1**	1 unit(s)	96,25

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Luxmeter RO 1332

Rotronic.

For measuring illuminance.

- With large 3½ digit LCD display and data-hold function
- Compact, robust and easy to use
- High accuracy and quick display
- With automatic zero-point adjustment

Technical specifications:

Art. No.	**E513.1**
Parameters	Illuminance
Measuring range	0–200,000 lx
Resolution	automatic (0.1–100 lx)
Accuracy	±3% of the measured value ±4% of the measured value ±10 digits> 1000 Lux
Repeat accuracy	±2 %
Photosensor	Silicon photodiode
Operating temperature	0–40 °C at 80% RH
Service life	200 hours
L x W x H	135 x 72 x 33 mm
Cable length	1.5 m
Weight	250 g
Power supply	Battery E block 9 V

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
RO 1332	**E513.1**	1 unit(s)	112,90

Luxmeter TES 1335

Rotronic.

For measuring illuminance.

- With bar-graph display
- Switch between lx and fc units (fc = foot candelas; 1 fc = 10.764 lx)
- With overall range display
- Cosine-adjusted angle
- Min/max value and hold function

Technical specifications:

Art. No.	**EN32.1**
Parameters	Illuminance
Measuring range	0–400,000 lx, 0–40,000 fc
Resolution	automatic (0–100 lx), automatic (0–10 fc)
Accuracy	±3%
Photosensor	Silicon photodiode
Operating temperature	0–40 °C at 80% RH
Auto Off function	Yes
L x W x H	150 x 72 x 29 mm
Cable length	1.5 m
Weight	320 g
Power supply	6x battery Micro AAA 1.5 V

Delivery incl. case and batteries.

Type	Art. No.	Pack Qty.	€
TES 1335	**EN32.1**	1 unit(s)	145,65

Other measuring instruments

UVA meter

Rotronic.

For measuring lighting performance on the go, for example, taking environmental measurements when cultivating plants, etc.

- With three measuring ranges
- Low-battery display
- Hold function and maximum measurement data memory
- UV sensor spectrum: 320–400 nm
- Overall range display

Technical specifications:

Art. No.	EN33.1
Parameters	Illuminance
Measuring range	0 µW/cm² – 19,99 mW/cm²
Resolution	automatic (0.1 µW/cm² – 0,01 mW/cm²)
Accuracy	±4%
Operating temperature	0–50 °C at 75% RH
L x W x H	155 x 48 x 24 mm
Weight	85 g
Power supply	3x battery Micro AAA 1.5 V

Delivery incl. belt holster and batteries.

Type	Art. No.	Pack Qty.	€
UVA meter	**EN33.1**	1 unit(s)	111,75

Sound level meter Mini

Dostmann.

For monitoring permissible noise pollution levels in the workplace, e.g. assessment of office equipment (copiers, printers etc.), and for measuring industrial and environmental noise. Backlit display.

Technical specifications:

Art. No.	PK80.1
Parameters	Sound
Measuring range	40 – 130 dB
Resolution	0.1 dB
Accuracy	±3 dB
Auto Off function	Yes
Min./max. function	Yes
L x W x H	157 x 54 x 34 mm
Weight	131 g
Power supply	Battery E block 9 V

Delivery incl. battery and wind protection screen.

Type	Art. No.	Pack Qty.	€
Mini	**PK80.1**	1 unit(s)	45,05

Sound level meter SL328

Dostmann.

For monitoring permissible noise pollution levels in the workplace and for measuring industrial and environmental noise, e.g. measuring noise produced by machines or equipment.

- Automatic range selection
- With sub- and over-range display
- Max Hold function to detect the maximum sound level or the maximum volume
- Electronic calibration via the integrated oscillator (94 dB, 1 kHz)

Technical specifications:

Art. No.	EY76.1
Parameters	Sound
Measuring range	32 – 130 dB
Resolution	0.1 dB
Accuracy	±1.5 dB
L x W x H	206 x 42 x 25 mm
Weight	100 g
Power supply	2x battery Micro AAA 1.5 V

Delivery incl. batteries and wind protection screen.

Type	Art. No.	Pack Qty.	€
SL328	**EY76.1**	1 unit(s)	110,75

Tachometer testo 465

Testo.

Optical and contact-free tachometer using reflective marks.

Technical specifications:

Art. No.	P306.1
Parameters	Speed
Measuring range	0 – 99999 rpm
Distance from object being measured	350 mm
Auto Off function	Yes
Min./max. function	Yes
L x W x H	144 x 58 x 20 mm
Weight	145 g
Power supply	2x battery Mignon AA 1.5 V

Delivery incl. meter, reflective marks, batteries and carrying case.

Type	Art. No.	Pack Qty.	€
testo 465	**P306.1**	1 unit(s)	218,25

Multi-position counters

ROTH SELECTION.

Mechanical table counter for counting blood cells, bacterial colonies or for other applications in which different samples are be counted repeatedly. Counts individual points up to 999. With summary window to show the total count and an audible signal after total counts of 100. Rotary knob to reset to 0.

Delivery incl. with annotated labels for blood cell count.

Number of counting stations	Counting range	L x W x H	Art. No.	Pack Qty.	€
6	0 – 999	250 x 76 x 56	**ENK8.1**	1 unit(s)	275,20
9	0 – 999	320 x 76 x 56	**ENK9.1**	1 unit(s)	374,10

Hand-held counter

ROTH SELECTION. Material: Metal, chrome-plated.

For mechanical counting up to 9999. The counter adds 1 every time a button is pressed. Rotary knob to reset to 0. With holding ring. Weight 66 g.

Number of counting stations	Counting range	Ø Housing (mm)	Art. No.	Pack Qty.	€
1	1 – 9999	46	**EE53.1**	1 unit(s)	14,15

Flow indicator with impeller

Bürkle.

With two hose nozzles (L 25 mm, Ø 6–11 mm). Minimum flow rate 150 ml/min.

Technical specifications:

Art. No.	1736.1	E486.1	E487.1	E488.1	1737.1	E489.1
Parameters	Current					
Material	SAN			PMP		
Temperature stability up to	30 °C			60 °C		
Max. pressure	2 bar					
L x W x H	90 x 40 x 15 mm					
Weight	12 g					

Made from styrene-acrylonitrile
Material: SAN.

Suitable for water and similar liquids.

Colour	Art. No.	Pack Qty.	€
blue	**1736.1**	1 unit(s)	12,40
red	**E486.1**	1 unit(s)	13,10
black	**E487.1**	1 unit(s)	13,10

Made of polymethylpentene
Material: PMP.

Can be sterilised. Highly chemical-resistant.

Colour	Art. No.	Pack Qty.	€
blue	**E488.1**	1 unit(s)	15,35
red	**1737.1**	1 unit(s)	15,35
black	**E489.1**	1 unit(s)	15,35

Flow indicator with ball

ROTH SELECTION. Material: SAN.

For easy visual monitoring of flow rates. With ball and two hose connectors. Minimum flow rate of 140 ml/min for fluids and 8 l/min for gases. Connectors for hose internal Ø 6.5–10 mm.

Technical specifications:

Art. No.	TT47.1
Parameters	Current
Material	SAN
Temperature stability up to	+50 °C
L x W x H	102 x 57 x 14 mm
Weight	16 g

Colour	Art. No.	Pack Qty.	€
translucent	**TT47.1**	1 unit(s)	17,00

Laboratory cooling water monitor AQUASTOP® II

ROTH SELECTION.

For monitoring cooling water flow and temperature in the laboratory. For installation in apparatus that runs without permanent supervision. Power supply and water supply are cut off in case of irregularities or when the preset temperature limit is exceeded.

Application:

- If the flow rate drops below the preset minimum level, the solenoid valve shuts off the coolant supply and connected electrical device (e.g. heating mantle) is de-energised.
- If the maximum temperature is exceeded, the solenoid valve stays open, the apparatus continues to be cooled and the electrical device is de-energised.

The temperature at the coolant outlet is recorded by the internal NTC sensor integrated in the flow sensor. As an option, an external Pt 100 temperature sensor which automatically deactivates the internal sensor can be installed in a freely selectable position on the test set-up (if required, please order separately).

Features:

- 2-line LED display for simultaneous display of flow rate and temperature
- LED for switching status and alarm indication
- Freely selectable alarm limits
- Acoustic pre-alarm alerts user before final deactivation
- With Schuko socket on the back

Technical specifications:

Art. No.	CKY2.1
Type	AQUASTOP® II
Flow measuring range	2 – 99 l/h
Temperature measuring range, internal	0 to 80 °C
Ext. temp. measuring range	0 to 250 °C
Setting accuracy	±1 l/h, ±1 °C
Fuse	16 A mT (load) 0.5 A mT (solenoid valve) 0.2 A mT (control unit)
Solenoid valve	Connection to tap: ¾″ IG, Connection to apparatus: ¾″ AG or hose connector Ø 10 mm
L x W x H	205 x 175 x 78 mm
Weight	1300 g
Rated power	35,500 W
Rated current	15 A
Mains connection	230 V, 50 Hz

Delivery incl. solenoid valve, flow sensor with internal NTC sensor and hose connector (for hose internal Ø 10 mm).

Type	Art. No.	Pack Qty.	€
AQUASTOP® II	**CKY2.1**	1 unit(s)	1.711,40

Temperature gauge Pt 100 for AQUASTOP® II

ROTH SELECTION. Material: Stainless steel 1.4571.

External temperature gauge Pt 100 with LEMO connector.

Technical specifications:

Art. No.	CKY3.1
Parameters	Temperature
Temperature measuring range	0 to +250 °C
Temperature sensor	Pt 100
Connection	Lemo
Ø x L	4 x 200 mm
Cable length	2 m

Delivery incl. connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
0 to +250	2	**CKY3.1**	1 unit(s)	144,90

Leakage monitor

ROTH SELECTION.

For monitoring all equipment powered by water. Reliably prevents flooding by automatically cutting off the water using the solenoid valve. When the highly sensitive moisture sensor detects a water film of 0.5 mm, it will set off an audible alarm and close the solenoid valve. Plug housing with earthed plug connection and earthed socket.

Technical specifications:

Art. No.	H481.1	H482.1
Type	Model I	Model II
Solenoid valve	with ¾″ ports and 12 V safety extra-low voltage	
Min. pressure difference (inlet/outlet)	0,5 bar	
Cable length	2 m	
Mains connection	220–240 V, 50/60 Hz	

Delivery incl. moisture sensor, solenoid valve and alarm buzzer.

Model I

Type	Art. No.	Pack Qty.	€
Model I	**H481.1**	1 unit(s)	164,50

Model II

With additional machine switch-off function in the event of an alarm (up to 16 A, 220 V, 50 Hz).

Type	Art. No.	Pack Qty.	€
Model II	**H482.1**	1 unit(s)	181,70

Balances – Basic for Beginners

Hanging balances HDB series electronic

Kern.

With data-hold function to “freeze” the weight display for 5 seconds. Stainless steel hooks, can be folded away. AUTO-OFF function after the load does not change for 5 minutes. Dimensions: W 70 x D 25 x H 105 mm (with hooks, 195 mm). Weight approx. 150 g.

Delivery incl. 2 x 1.5 V AAA batteries.

Type	Weighing range (kg)	Readability (g)	Art. No.	Pack Qty.	€
HDB 5K5N	5	5	**HK43.1**	1 unit(s)	60,00
HDB 10K10N	10	10	**HK44.1**	1 unit(s)	60,00

Pocket balance TEE 150-1

Kern.

- Blue backlit LCD display
- AUTO-OFF function after the load does not change for 2 minutes, can be deactivated
- Weighing plate dimensions: W 60 x D 64 mm
- Dimensions of entire balance: W 67 x D 100 x H 22 mm
- Weight approx. 100 g

Delivery incl. plastic cover and 2 x 1.5 V AAA batteries.

Type	Weighing range (g)	Readability (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
TEE 150-1	150	0.1	60 x 64	**HL50.1**	1 unit(s)	45,00

Compact balances CX series

Ohaus.

- ABS housing with stainless steel weighing plate
- Backlit LCD display
- External calibration function
- Overload protection
- Battery change indicator
- Automatic switch-off after 4 minutes when battery-powered
- Suitable for battery and mains operation
- Dimensions W 135 x D 201 x H 41 mm, weight 700 g

Delivery incl. 3x batteries Mignon 1.5 V. Without connector, please order separately if required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
CX221	220	0.1	±0,1	±0,1	128 x 142	**KEX4.1**	1 unit(s)	65,00
CX621	620	0.1	±0,1	±0,1	128 x 142	**KEX5.1**	1 unit(s)	65,00
CX1201	1200	0.1	±0,2	±0,2	128 x 142	**KEX6.1**	1 unit(s)	82,00
CX2200	2200	1	±1	±1	128 x 142	**KEX7.1**	1 unit(s)	65,00
CX5200	5200	1	±1	±1	128 x 142	**KEX8.1**	1 unit(s)	70,00

Balances – Basic for Beginners

Precision balance EHA series

Kern.

- External calibration
- Stainless steel weighing plate
- Backlit LCD display
- Suitable for battery and mains operation
- Level indicator and levelling feet for levelling the balance
- Overall dimensions:
  Width 160 mm x Depth 225 mm x Height 20 mm

Delivery incl. mains adapter. Please order batteries separately. Two 1.5 V AA batteries are required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EHA 500-2	500	0.01	0,03	±0,02	Ø 105	**1A4A.1**	1 unit(s)	90,00
EHA 500-1	500	0.1	0,3	±0,2	Ø 105	**1A4C.1**	1 unit(s)	65,00
EHA 1000-1	1000	0.1	0,3	±0,2	Ø 105	**1A4E.1**	1 unit(s)	65,00
EHA 3000-1	3000	0.1	0,3	±0,3	120 x 120	**1A4H.1**	1 unit(s)	90,00
EHA 3000-0	3000	1	3	±2	120 x 120	**1A4K.1**	1 unit(s)	65,00

Pocket balance CM series

Kern.

With a hinged lid. The balance in its case is perfectly protected from any kind of pressure by the hinged lid.
With TARE function, recipe program, automatic switch-off to prolong battery life and integrated calculator as standard. Dimensions: Balance W 85 x D 130 x H 25 mm, weight 150 g.

Delivery incl. 2 x 1.5 V AAA batteries in a soft case.

Type	Weighing range (g)	Readability (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
CM 150-1N	150	0,1	80 x 70	**P961.1**	1 unit(s)	55,00
CM 320-1N	320	0,1	80 x 70	**P923.1**	1 unit(s)	58,00
CM 1 K1N	1000	1	80 x 70	**P924.1**	1 unit(s)	55,00

Compact balances EMB series

Kern.

- Large LCD display with 15 mm high digits
- AUTO-OFF function after 3 minutes to prolong battery life, can be deactivated
- External calibration
- Adding function
- Dimensions of entire balance: W 170 x D 240 x H 39 mm
- Suitable for battery and mains operation

Delivery incl. batteries: EMB 2200-0 incl. 2 x 1.5 V AA batteries. All other models: Incl. 9 V block battery. **Without mains connector (if required, please order separately).**

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EMB 100-3	100	0,001	±0,003	Ø 82	**KX09.1**	1 unit(s)	215,00
EMB 200-2	200	0,01	±0,02	Ø 105	**CT06.1**	1 unit(s)	130,00
EMB 200-3	200	0,001	±0,003	Ø 82	**LY69.1**	1 unit(s)	235,00
EMB 500-1	500	0,1	±0,2	Ø 150	**ET20.1**	1 unit(s)	55,00
EMB 600-2	600	0,01	±0,03	Ø 105	**ET19.1**	1 unit(s)	170,00
EMB 1000-2	1000	0,01	±0,03	Ø 150	**KX10.1**	1 unit(s)	210,00
EMB 1200-1	1200	0,1	±0,3	Ø 150	**ET21.1**	1 unit(s)	79,00
EMB 2000-2	2000	0,01	±0,03	Ø 150	**LY70.1**	1 unit(s)	225,00
EMB 2200-0	2200	1	±2	Ø 150	**X415.1**	1 unit(s)	57,00
EMB 3000-1	3000	0,1	±0,3	Ø 150	**TA62.1**	1 unit(s)	130,00
EMB 5.2 K 1	5200	1	±3	Ø 150	**ET22.1**	1 unit(s)	60,00
EMB 6000-1	6000	0,1	±0,3	Ø 150	**LY71.1**	1 unit(s)	170,00
EMB 5.2 K 5	5200	5	±10	Ø 150	**X416.1**	1 unit(s)	55,00

Balances – Basic for Beginners

Table balances

Kern.

Features:

- LCD display with 25 mm high digits
- External calibration
- Mains- or battery-powered
- Dimensions of entire balance: B 270 x D 345 x H 106 mm
- Automatic switch-off after the load does not change for 3 minutes to prolong battery life

Delivery incl. power supply unit and protective hood.
Without battery, please order separately. 1 E-Block 9 V battery is required.

FCE series with weighing plate made of plastic (ABS)

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FCE 3K1N	3000	1	±2	252 x 228	**PA30.1**	1 unit(s)	130,00
FCE 6K2N	6000	2	±4	252 x 228	**PA31.1**	1 unit(s)	130,00
FCE 15K5N	15000	5	±10	252 x 228	**PA32.1**	1 unit(s)	130,00
FCE 30K10N	30000	10	±20	252 x 228	**PA33.1**	1 unit(s)	130,00

FCB series with stainless steel weighing plate

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FCB 3K0.1	3000	0,1	±0,3	252 x 228	**PA34.1**	1 unit(s)	250,00
FCB 12K1	12000	1	±3	252 x 228	**PA36.1**	1 unit(s)	205,00
FCB 30K1	30000	1	±3	252 x 228	**PA37.1**	1 unit(s)	250,00
FCB 6K0.5	6000	0,5	±1,5	252 x 228	**PA35.1**	1 unit(s)	230,00

Platform balances DE series

Kern.

Features:

- Backlit LCD display with 25 mm high digits
- Function programs for number of items, recipe, percentage weighing and animal weighing
- RS 232 port
- External calibration
- Mains- or battery-powered
- Dimensions of display unit: W 225 x D 110 x H 45 mm

Delivery incl. power supply unit. Without battery, please order separately. 1 E-Block 9 V battery is required.

Standard balances DE-A series

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
DE 12K1A	12000	1	±3	315 x 305	**PA39.1**	1 unit(s)	230,00
DE 24K2A	24000	2	±6	315 x 305	**PA40.1**	1 unit(s)	230,00
DE 6K0.5A	6000	0,5	±1,5	315 x 305	**PA38.1**	1 unit(s)	230,00
DE 60K5A	60000	5	±15	315 x 305	**PA41.1**	1 unit(s)	230,00
DE 120K10A	120000	10	±30	315 x 305	**PA42.1**	1 unit(s)	230,00

Dual range balances DE-D series

Automatic changeover.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
DE 6K1D	3000 / 6000	1 / 2	±2 / 4	315 x 305	**PA43.1**	1 unit(s)	200,00
DE 15K2D	6000 / 15000	2 / 5	±4 / 10	315 x 305	**PA44.1**	1 unit(s)	200,00
DE 35K5D	15000 / 35000	5 / 10	±10 / 20	315 x 305	**PA45.1**	1 unit(s)	200,00
DE 60K10D	30000 / 60000	10 / 20	±20 / 40	315 x 305	**PA46.1**	1 unit(s)	200,00
DE 150K20D	60000 / 150000	20 / 50	±40 / 100	315 x 305	**PA47.1**	1 unit(s)	210,00

Platform balances Ranger® 3000 series battery-powered

Ohaus.

Application:

- Item counting, percentage weighing, dynamic weighing (animal weighing), check weighing and totalling
- Display memory function – display of last stable value, can be initiated manually or automatically
- Adjustable weighing units: kg or g

Features:

- External calibration
- Backlit LCD display
- Stainless steel weighing platform
- **Battery operation possible, up to 210 h runtime, approx. 12 h charging time**
- Integrated hook for below-balance weighing
- Adjustable levelling feet and level indicator on the front
- Stability indicator
- Battery charge level indicator
- Automatic deactivation during battery operation (can be switched off)
- RS 232 port

Delivery incl. universal mains adapter (100–240 V, 50/60 Hz).

Models cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
R31P3	3000	0,1	±0,2	300 x 225	**YY33.1**	1 unit(s)	415,00
R31P30	30000	1	±2	300 x 225	**YY36.1**	1 unit(s)	415,00
R31P6	6000	0,2	±0,5	300 x 225	**YY34.1**	1 unit(s)	415,00
R31P1502	1500	0,05	±0,1	300 x 225	**YY32.1**	1 unit(s)	415,00
R31P15	15000	0,5	±1	300 x 225	**YY35.1**	1 unit(s)	415,00

Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
R31P3-M	3000	1	±0,2	300 x 225	**YY38.1**	1 unit(s)	490,00
R31P6-M	6000	2	±0,5	300 x 225	**YY39.1**	1 unit(s)	490,00
R31P1502-M	1500	0,5	±0,1	300 x 225	**YY37.1**	1 unit(s)	490,00
R31P15-M	15000	5	±1	300 x 225	**YY40.1**	1 unit(s)	490,00
R31P30-M	30000	10	±2	300 x 225	**YY41.1**	1 unit(s)	490,00

Table balances FKB series

Kern.

Features:

- External calibration
- Functions: Item counting, formulation, percentage weighing and animal weighing
- Backlit display
- Suitable for battery and mains operation
- AUTO-OFF function after 3 minutes to prolong battery life, can be deactivated
- RS 232 data port
- Stainless steel weighing plate

Delivery incl. power supply unit. Please order batteries separately. An extra 6 x Baby/C batteries are required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FKB 16K0.1	16000	0,1	±0,3	±0,1	340 x 240	**YC95.1**	1 unit(s)	480,00
FKB 36K0.1	36000	0,1	±0,5	±0,1	340 x 240	**YC96.1**	1 unit(s)	550,00
FKB 36K0.2	36000	0,2	±0,6	±0,2	340 x 240	**YC97.1**	1 unit(s)	510,00
FKB 65K0.2	65000	0,2	±1	±0,2	340 x 240	**YC98.1**	1 unit(s)	550,00
FKB 6K0.02	6000	0,03	±0,1	±0,02	340 x 240	**YC92.1**	1 unit(s)	520,00
FKB 8K0.05	8000	0,05	±0,15	±0,05	340 x 240	**YC93.1**	1 unit(s)	440,00
FKB 16K0.05	16000	0,05	±0,25	±0,05	340 x 240	**YC94.1**	1 unit(s)	580,00
FKB 65K0.5	65000	0,5	±1,5	±0,5	340 x 240	**YC99.1**	1 unit(s)	510,00

Balances – Basic for Beginners

Precision balances Navigator™

Ohaus.

Application:

- Various weighing units are adjustable
- Function programs: Item counting, percentage weighing and check weighing

Features:

- Weighing pan made of stainless steel
- External calibration
- Backlit LCD display
- Level indicator
- Overload/underload protection
- Can be upgraded with RS 232, USB or Ethernet port (please order separately)
- Suitable for battery and mains operation

Delivery incl. mains adapter. Without batteries (please order separately, 4 x Baby/C 1.5 V batteries are required).

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
NV222	220	0.01	±0,02	±0,01	Ø 145	**KEH1.1**	1 unit(s)	240,00
NV422	420	0.01	±0,02	±0,02	Ø 145	**KEH2.1**	1 unit(s)	251,00
NV622	620	0.01	±0,02	±0,02	Ø 145	**KEH3.1**	1 unit(s)	262,00
NV221	220	0.1	±0,2	±0,1	190 x 144	**KEH4.1**	1 unit(s)	131,00
NV621	620	0.1	±0,2	±0,1	190x 144	**KEH5.1**	1 unit(s)	163,00
NV1201	1200	0.1	±0,2	±0,1	190 x 144	**KEH6.1**	1 unit(s)	196,00
NVT2201	2200	0.1	±0,2	±0,1	230 x 174	**KEH7.1**	1 unit(s)	237,00
NVT4201	4200	0.1	±0,2	±0,1	230 x 174	**KEH8.1**	1 unit(s)	247,00
NVT6201	6200	0.1	±0,2	±0,1	230 x 174	**KEH9.1**	1 unit(s)	257,00
NVT2200	2200	1	±2	±1	230 x 174	**KEK0.1**	1 unit(s)	131,00
NVT6200	6200	1	±2	±1	230 x 174	**KEK1.1**	1 unit(s)	142,00
NVT12000	12000	1	±2	±1	230 x 174	**KEK2.1**	1 unit(s)	218,00
NVT22000	22000	1	±2	±1	230 x 174	**KEK3.1**	1 unit(s)	237,00

Accessories for Navigator™ precision balances

Ohaus.

Designation	Art. No.	Pack Qty.	€
RS 232 port, installation kit with cable	**Y609.1**	1 unit(s)	37,40
USB port, installation kit with cable	**Y610.1**	1 unit(s)	37,40
Ethernet port, installation kit with cable	**PH78.1**	1 unit(s)	76,90

Precision balances BTG series

Phönix Instrument.

Application:

- Percent and counting
- Select from 21 weight units: g, ct, kg, lb, etc.

Features:

- Stainless steel weighing platform
- Backlit display showing the capacity
- With external calibration
- Three-door glass draft shield on the BTG-303 model (internal height 150 mm); (W) = incl. draft shield
- RS 232 data port
- Integrated battery operation for mobile use (up to 40 hrs runtime and approx. 12 hrs charging time)

Delivery incl. mains adapter, external additional test weight (class M1) and protective hood (BTG-2002 and BTG-6001 models only).

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
BTG-303 (W)	300	0,001	±0,003	±0,001	Ø 118	**EEH4.1**	1 unit(s)	424,65
BTG-2002	2000	0,01	±0,03	±0,01	188 x 148	**EEH5.1**	1 unit(s)	349,40
BTG-6001	6000	0,1	±0,2	±0,1	188 x 148	**EEH6.1**	1 unit(s)	301,00

Balances – Basic for Beginners

Precision balances PCD series

Kern.

Features:

- With separate platform for working in glove bags or fume cupboards
- External calibration
- Functions: Item counting, formulation, percentage weighing and animal weighing
- Backlit display
- Various weighing units can be set, e.g. g, ct, free value, etc.
- With level indicator and levelling feet
- Draft shield for model PCD 250-3 and PCD 300-3: Dimensions of weighing space: W 146 x D 146 x H 80 mm
- Mains or battery operation
- Auto-Off function, switches balance off after 3 minutes to prolong battery life, can be deactivated
- (W) = incl. draft shield

Delivery incl. power supply unit. Please order batteries separately. One E-Block 9 V battery is required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PCD 250-3 (W)	250	0,001	±0,005	±0,002	Ø 105	**YC31.1**	1 unit(s)	330,00
PCD 300-3 (W)	350	0,001	±0,005	±0,002	Ø105	**HEH0.1**	1 unit(s)	360,00
PCD 2500-2	2500	0,01	±0,05	±0,02	160 x 160	**YC32.1**	1 unit(s)	320,00
PCD 3000-2	3500	0,01	±0,05	±0,02	160 x 160	**HEH1.1**	1 unit(s)	360,00
PCD 6K-4	6000	0,1	±0,3	±0,1	160 x 160	**HEH2.1**	1 unit(s)	270,00
PCD 10K0.1	10000	0,1	±0,3	±0,1	160 x 160	**YC33.1**	1 unit(s)	270,00
PCD 10K-3	10000	1	±3	±1	160 x 160	**HEH3.1**	1 unit(s)	195,00

Precision balances PCB series

Kern.

Features:

- Backlit LCD display
- Stainless steel platform (ABS plastic platform with models with the Ø 81 mm weighing dish)
- External calibration
- Functions: Item counting, formulation, percentage weighing and animal weighing
- RS 232 port
- Draft shield ring with models with 0.001 g readability
- Suitable for battery and mains operation
- AUTO-OFF function, switches balance off after 3 minutes to prolong battery life, can be deactivated

Delivery incl. power supply unit and protective hood for keyboard and housing. Please order batteries separately. An E-Block 9 V battery is required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PCB 100-3	100	0,001	±0,003	±0,001	Ø 81	**HK92.1**	1 unit(s)	305,00
PCB 200-2	200	0,01	±0,02	±0,01	Ø 105	**HK93.1**	1 unit(s)	265,00
PCB 250-3	250	0,001	±0,005	±0,001	Ø 81	**KX11.1**	1 unit(s)	320,00
PCB 350-3	350	0,001	±0,005	±0,001	Ø 81	**LY67.1**	1 unit(s)	350,00
PCB 1000-1	1000	0,1	±0,2	±0,1	130 x 130	**HK99.1**	1 unit(s)	210,00
PCB 1000-2	1000	0,01	±0,03	±0,01	130 x 130	**HK97.1**	1 unit(s)	295,00
PCB 2000-1	2000	0,1	±0,2	±0,1	130 x 130	**HL00.1**	1 unit(s)	245,00
PCB 2500-1	2500	0,01	±0,05	±0,01	130 x 130	**KX12.1**	1 unit(s)	330,00
PCB 3500-2	3500	0,01	±0,05	±0,01	130 x 130	**LY68.1**	1 unit(s)	335,00
PCB 6000-0	6000	1	±2	±1	150 x 170	**HL05.1**	1 unit(s)	185,00
PCB 6000-1	6000	0,1	±0,3	±0,1	150 x 170	**HL02.1**	1 unit(s)	280,00

Balances – Basic for Beginners

Precision balances Scout™ series

Ohaus.

General features of all models:

- With external calibration
- Draft shield for models with 0.001 g readability (internal height 45 mm); (W) = incl. draft shield
- Battery and mains operation
- Connection options for data logging (please order separately)

Delivery incl. M1 test weight included in models up to 620 g and mains adapter. Without batteries, please order separately. Four 1.5 V AA batteries are required.

(1) SKX series

- Application: Determining density
- Background-lit LCD display

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
SKX123 (W)	120	0,001	±0,003	±0,002	Ø 93	**EHE8.1**	1 unit(s)	433,00
SKX222	220	0,01	±0,01	±0,01	Ø 120	**EHE9.1**	1 unit(s)	317,00
SKX421	420	0,1	±0,1	±0,1	Ø 120	**EHH4.1**	1 unit(s)	186,00
SKX422	420	0,01	±0,01	±0,01	Ø 120	**EHH0.1**	1 unit(s)	378,00
SKX621	620	0,1	±0,1	±0,1	170 x 140	**EHH5.1**	1 unit(s)	208,00
SKX622	620	0,01	±0,02	±0,01	Ø 120	**EHH1.1**	1 unit(s)	411,00
SKX1202	1200	0,01	±0,03	±0,02	170 x 140	**EHH2.1**	1 unit(s)	482,00
SKX2201	2200	0,1	±0,1	±0,1	170 x 140	**EHH6.1**	1 unit(s)	312,00
SKX2202	2200	0,01	±0,03	±0,02	170 x 140	**EHH3.1**	1 unit(s)	515,00
SKX6201	6200	0,1	±0,2	±0,1	170 x 140	**EHH7.1**	1 unit(s)	421,00
SKX8200	8200	1	±1	±1	170 x 140	**EHH8.1**	1 unit(s)	254,00

(2) STX series with touchscreen and additional features

- Application: Percentage weighing, item counting, check weighing, dynamic weighing, totalling and determining density
- Full-colour touchscreen with WQVGA graphic LCD (4.3″ diagonal)
- QWERTY keyboard and numerical keyboard
- 9 different menu language options can be selected
- Front level display and levelling feet

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
STX123 (W)	120	0,001	±0,003	±0,002	Ø 93	**EHH9.1**	1 unit(s)	690,00
STX222	220	0,01	±0,01	±0,01	Ø 120	**EHK1.1**	1 unit(s)	525,00
STX223 (W)	220	0,001	±0,003	±0,002	Ø 93	**EHK0.1**	1 unit(s)	800,00
STX421	420	0,1	±0,1	±0,1	Ø 120	**EHK6.1**	1 unit(s)	291,00
STX422	420	0,01	±0,01	±0,01	Ø 120	**EHK2.1**	1 unit(s)	640,00
STX621	620	0,1	±0,1	±0,1	170 x 140	**EHK7.1**	1 unit(s)	345,00
STX622	620	0,01	±0,02	±0,01	Ø 120	**EHK3.1**	1 unit(s)	690,00
STX1202	1200	0,01	±0,03	±0,02	170 x 140	**EHK4.1**	1 unit(s)	765,00
STX2201	2200	0,1	±0,1	±0,1	170 x 140	**EHK8.1**	1 unit(s)	525,00
STX2202	2200	0,01	±0,03	±0,02	170 x 140	**EHK5.1**	1 unit(s)	800,00
STX6201	6200	0,1	±0,2	±0,1	170 x 140	**EHK9.1**	1 unit(s)	680,00
STX8200	8200	1	±1	±1	170 x 140	**EHL0.1**	1 unit(s)	500,00

Accessories interface installation kit for SKX and STX series precision balances

Ohaus.

Designation	Art. No.	Pack Qty.	€
RS 232 interface kit	**EHL1.1**	1 unit(s)	68,20
USB host interface kit	**EHL2.1**	1 unit(s)	103,50
USB device interface kit	**EHL3.1**	1 unit(s)	76,40
Bluetooth interface kit	**EHL4.1**	1 unit(s)	128,50

Balances – Basic for Beginners

Precision balances 440 series

Kern.

Application:

- Function programs for number of items, recipe, percentage weighing and animal weighing

Features:

- Stainless steel weighing platform
- With external calibration
- With RS 232 data port
- A draft shield ring is also supplied with Art. No. LY72.1
- Suitable for battery and mains operation
- AUTO-OFF after 3 minutes to prolong battery life

Delivery incl. power supply unit and protective hood. Please order batteries separately. An E-Block 9 V battery is required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
440-21A	60	0,001	±0,003	Ø 81	**LY72.1**	1 unit(s)	350,00
440-33N	200	0,01	±0,02	Ø 105	**H723.1**	1 unit(s)	290,00
440-35N	400	0,01	±0,03	Ø 105	**AK49.1**	1 unit(s)	330,00
440-43N	400	0,1	±0,2	130 x 130	**P936.1**	1 unit(s)	215,00
440-35A	600	0,01	±0,03	Ø 105	**LY73.1**	1 unit(s)	365,00
440-45N	1000	0,1	±0,2	130 x 130	**H724.1**	1 unit(s)	245,00
440-47N	2000	0,1	±0,2	130 x 130	**H725.1**	1 unit(s)	270,00
440-49N	4000	0,1	±0,3	170 x 150	**Y530.1**	1 unit(s)	330,00
440-51N	4000	1	±2	170 x 150	**P937.1**	1 unit(s)	160,00
440-53N	6000	1	±2	170 x 150	**P938.1**	1 unit(s)	210,00

Table balances GAB, calibrated

Kern.

Application examples: Dispensing balance for pharmacies, hand mixing of tea, coffee, etc.

- Functions: Item counting and percentage weighing
- Weighing with tolerance range: Entry of upper/lower limits. A visual signal aids dosing and sorting.
- RS 232 port
- Overall dimensions: W 320 x D 330 x H 125 mm
- Min. load 20 g
- Stainless steel weighing platform

Delivery incl. mains adapter.

Type	Weighing range (kg)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
GAB	3 / 6	1/2	±1 / 2	294 x 225	**PX18.1**	1 unit(s)	330,00

Balances – Basic for Beginners

Precision balances 572 series

Kern.

Application:

- Function programs: Item counting, recipes and percentage weighing

Features:

- **Robust metal case**
- With external calibration
- RS 232 data port
- Easy to operate following the yes/no questions in the display
- With below balance weighing device
- Dimensions: W 180 x D 310 x H 90 mm
- A draft shield ring (Ø 160 mm, H 60 mm) is supplied with Art. No. HT19.1 and HT20.1

Delivery incl. protective hood for keyboard, housing and the mains adapter.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
572-31	300	0,001	±0,003	±0,001	Ø 105	**HT19.1**	1 unit(s)	580,00
572-32	420	0,001	±0,005	±0,002	Ø 105	**HT20.1**	1 unit(s)	630,00
572-33	1600	0,01	±0,03	±0,01	Ø 150	**L961.1**	1 unit(s)	550,00
572-35	2400	0,01	±0,03	±0,01	Ø 150	**L962.1**	1 unit(s)	570,00
572-37	3000	0,01	±0,05	±0,02	Ø 150	**HT21.1**	1 unit(s)	580,00
572-39	4200	0,01	±0,05	±0,02	Ø 150	**KX14.1**	1 unit(s)	630,00
572-49	16000	0,1	±0,3	±0,1	200 x 160	**L964.1**	1 unit(s)	560,00
572-57	24000	0,1	±0,3	±0,1	200 x 160	**L966.1**	1 unit(s)	570,00
572-45	12000	0,05	±0,15	±0,05	200 x 160	**L963.1**	1 unit(s)	570,00

Precision balances EWJ series

Kern.

Application:

- Item counting and percentage weighing

Features:

- Time-controlled automatic internal calibration
- Capacity indication – LED strip indicates available weighing range
- Draft shield comprising four side parts (H = 90 mm) for models up to ≤600 g; (W) = including draft shield
- Spirit level
- RS 232 data port

Delivery incl. protective hood and mains adapter (230 V, 50 Hz).

Models not calibratable

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EWJ 300-3 (W)	300	0,001	±0,003	±0,001	Ø 80	**CHH7.1**	1 unit(s)	490,00
EWJ 600-2M (W)	600	0,01	±0,03	±0,01	Ø 135	**CHH8.1**	1 unit(s)	410,00
EWJ 3000-2	3000	0,01	±0,03	±0,01	Ø 135	**CHH9.1**	1 unit(s)	450,00
EWJ 6000-1M	6000	0,1	±0,3	±0,1	155 x 145	**CHK0.1**	1 unit(s)	390,00

Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EWJ 600-2M (W)	600	0,01	±0,03	±0,01	Ø 135	**CHK1.1**	1 unit(s)	480,00
EWJ 6000-1M	6000	0,1	±0,3	±0,1	155 x 145	**CHK2.1**	1 unit(s)	472,00

Balances – Basic for Beginners

Precision balances

Kern.

Application:

- Item counting, percentage weighing, weighing with a tolerance range (above or below the programmable limit value; option to input in g, items or %)
- Capacity indicator
- Various weighing units (e.g. g, ct, oz, etc.) can be set
- LCD display with 16 mm high digits

Features:

- Stainless steel weighing platform
- **EW models with external calibration, EG models with internal calibration switch via a rotary knob on the side**
- Spirit level
- Bidirectional RS 232 data port
- Draft shield as standard on all 0.001-g models, with removable lid and an opening for pipetting (Weighing space W 158 x D 130 x H 78 mm); (W) = incl. draft shield
- Dimensions of entire balance:
  with weighing plates Ø 118 and 170 x 142 mm: W 180 x D 235 x H 75 mm,
  with weighing plate 180 x 160 mm: W 190 x D 265 x H 90 mm

Delivery incl. protective hood and mains adapter.

EW series, external calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EW 220-3 NM (W)	220	0,001	±0,002	±0,001	Ø 118	**AX07.1**	1 unit(s)	700,00
EW 420-3 NM (W)	420	0,001	±0,003	±0,001	Ø 118	**AX08.1**	1 unit(s)	770,00
EW 620-3 NM (W)	620	0,001	±0,004	±0,001	Ø 118	**AX09.1**	1 unit(s)	860,00
EW 820-2 NM	820	0,01	±0,01	±0,01	170 x 142	**AX10.1**	1 unit(s)	610,00
EW 2200-2 NM	2200	0,01	±0,01	±0,01	180 x 160	**AX11.1**	1 unit(s)	740,00
EW 4200-2 NM	4200	0,01	±0,02	±0,01	180 x 160	**AX12.1**	1 unit(s)	830,00
EW 6200-2 NM	6200	0,01	±0,03	±0,01	180 x 160	**CT72.1**	1 unit(s)	890,00
EW 12000-1 NM	12000	0,1	±0,2	±0,1	180 x 160	**CT73.1**	1 unit(s)	710,00

EG series, internal calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EG 220-3 NM (W)	220	0,001	±0,002	±0,001	Ø 118	**AX13.1**	1 unit(s)	850,00
EG 420-3 NM (W)	420	0,001	±0,003	±0,001	Ø 118	**AX14.1**	1 unit(s)	920,00
EG 620-3 NM (W)	620	0,001	±0,004	±0,001	Ø 118	**AX15.1**	1 unit(s)	1.030,00
EG 2200-2 NM	2200	0,01	±0,01	±0,01	180 x 160	**AX16.1**	1 unit(s)	890,00
EG 4200-2 NM	4200	0,01	±0,02	±0,01	180 x 160	**AX17.1**	1 unit(s)	970,00

Balances – Basic for Beginners

Precision balances PNJ series

Kern.

Application:

- Item counting, percentage weighing and check weighing.

Features:

- With internal calibration
- Capacity indication – LED strip indicates available weighing range
- Glass draft shield with 3 sliding doors for model with 0.001 g readability (internal height 160 mm); (W) = incl. draft shield
- Spirit level
- RS 232 data port

Delivery incl. protective hood and mains adapter.

Models not calibratable

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PNJ 600-3M (W)	620	0,001	±0,004	±0,001	Ø 140	**ENH3.1**	1 unit(s)	810,00
PNJ 3000-2M	3200	0,01	±0,02	±0,01	190 x 190	**ENH4.1**	1 unit(s)	770,00
PNJ 12000-1M	12000	0,1	±0,2	±0,1	190 x 190	**ENH5.1**	1 unit(s)	770,00

Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PNJ 600-3M (W)	620	0,001	±0,004	±0,001	Ø 140	**ENH6.1**	1 unit(s)	880,00
PNJ 3000-2M	3200	0,01	±0,02	±0,01	190 x 190	**ENH7.1**	1 unit(s)	840,00
PNJ 12000-1M	12000	0,1	±0,2	±0,1	190 x 190	**ENH8.1**	1 unit(s)	852,00

Balances – Basic for Beginners

Precision balances PLJ-A series

Kern.

Application:

- Item counter, percentage weighing and weighing with a tolerance range
- Recipe database: 99 recipes with up to 20 recipe components each, including name and set value, can be stored

NEW / +

Features:

- With internal adjustment
- Backlit LCD graphic display,
- Plain text operator guidance in the display, available in different languages
- Dosing aid: High-stability mode and other filter settings can be selected
- Spirit level
- Draft shield on the model with 0.001 g readability (interior height 60 mm) except for model PLJ 2000-3A (large square draft shield with interior height 225 mm); (W) = incl. draft shield
- RS-232 data port

Delivery incl. protective hood and mains adapter.

Models not calibratable

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PLJ 720-3A (W)	720	0.001	0,002	0,001	110	**1LH9.1**	1 unit(s)	1.100,00
PLJ 1200-3A (W)	1200	0.001	0,003	0,001	110	**1LHA.1**	1 unit(s)	1.160,00
PLJ 2000-3A (W)	2100	0.001	0,004	0,002	110	**1LHC.1**	1 unit(s)	1.690,00
PLJ 6200-2A	6200	0.01	0,03	0,01	160	**1LHE.1**	1 unit(s)	1.100,00

Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PLJ 720-3AM (W)	720	0.001	0,002	0,001	110	**1LHH.1**	1 unit(s)	1.220,00
PLJ 6200-2AM	6200	0.01	0,03	0,01	160	**1LHK.1**	1 unit(s)	1.232,00

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Balances - Standard

Precision balances

A & D.

Application:

- Percent, counting and animal weighing
- Selectable weight units: g, ct, etc.

Features:

- FX-i models have external calibration
- FZ-i models have internal calibration
- All models with additional WP: Dust and water protection acc. to IP 65
- Draft shield for models with 0.001 g readability (internal height 85 mm); (W) = incl. draft shield
- With RS 232 data port
- Overload protection
- Four-year warranty

Delivery incl. mains adapter.

FX series models with external calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FX-120i (W)	122	0,001	±0,002	±0,001	Ø 130	**CTH4.1**	1 unit(s)	766,50
FX-200i (W)	220	0,001	±0,002	±0,001	Ø 130	**CTH6.1**	1 unit(s)	824,55
FX-300i (W)	320	0,001	±0,002	±0,001	Ø 130	**CTH8.1**	1 unit(s)	875,05
FX-1200i	1220	0,01	±0,02	±0,01	Ø 150	**CTK0.1**	1 unit(s)	766,50
FX-2000i	2200	0,01	±0,02	±0,01	Ø 150	**CTK2.1**	1 unit(s)	823,45
FX-3000i	3200	0,01	±0,02	±0,01	Ø 150	**CTK4.1**	1 unit(s)	875,05

FZ series models with internal calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FZ-120i (W)	122	0,001	±0,002	±0,001	Ø 130	**EHP8.1**	1 unit(s)	976,10
FZ-200i (W)	220	0,001	±0,002	±0,001	Ø 130	**EHP9.1**	1 unit(s)	1.046,00
FZ-300i (W)	320	0,001	±0,002	±0,001	Ø 130	**EHT0.1**	1 unit(s)	1.046,00
FZ-1200i	1220	0,01	±0,02	±0,01	Ø 150	**EHT1.1**	1 unit(s)	976,10
FZ-2000i	2200	0,01	±0,02	±0,01	Ø 150	**EHT2.1**	1 unit(s)	1.046,00
FZ-3000i	3200	0,01	±0,02	±0,01	Ø 150	**EHT3.1**	1 unit(s)	1.046,00

FX series models with external calibration, dust and water protection acc. to IP 65

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FX-120i-WP (W)	122	0,001	±0,002	±0,001	Ø 130	**CTH5.1**	1 unit(s)	1.257,75
FX-200i-WP (W)	220	0,001	±0,002	±0,001	Ø 130	**CTH7.1**	1 unit(s)	1.323,35
FX-300i-WP (W)	320	0,001	±0,002	±0,001	Ø 130	**CTH9.1**	1 unit(s)	1.390,00
FX-1200i-WP	1220	0,01	±0,02	±0,01	Ø 150	**CTK1.1**	1 unit(s)	1.258,85
FX-2000i-WP	2200	0,01	±0,02	±0,01	Ø 150	**CTK3.1**	1 unit(s)	1.323,35
FX-3000i-WP	3200	0,01	±0,02	±0,01	Ø 150	**CTK5.1**	1 unit(s)	1.391,05

FX series models with internal calibration, dust and water protection acc. to IP 65

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FZ-120i-WP (W)	122	0,001	±0,002	±0,001	Ø 130	**CTK6.1**	1 unit(s)	1.382,45
FZ-200i-WP (W)	220	0,001	±0,002	±0,001	Ø 130	**CTK7.1**	1 unit(s)	1.456,65
FZ-300i-WP (W)	320	0,001	±0,002	±0,001	Ø 130	**CTK8.1**	1 unit(s)	1.514,70
FZ-1200i-WP	1220	0,01	±0,02	±0,01	Ø 150	**CTK9.1**	1 unit(s)	1.382,45
FZ-2000i-WP	2200	0,01	±0,02	±0,01	Ø 150	**CTL0.1**	1 unit(s)	1.455,55
FZ-3000i-WP	3200	0,01	±0,02	±0,01	Ø 150	**CTL1.1**	1 unit(s)	1.514,70

Balances - Standard

Precision balances, explosion protected EK series

A & D.

For explosive areas in zones 0.1 and 2.

Application:

- Item counting and percentage weighing
- Acc. to ATEX: II 1G ia IIB T3 Ga
- With external calibration

Features:

- Backlit display, can be deactivated
- Auto power OFF to prolong battery life (battery life approx. 250 h with backlight off)
- Weighing pan made of stainless steel
- Anti-theft lug, level indicator, levelling feet

Delivery incl. 4 x 1.5 V AA batteries. Please note: Use only type-tested replacement batteries (see operating instructions).

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EK-300AEP	300	0,01	±0,02	±0,01	Ø 110	**EXC0.1**	1 unit(s)	1.602,85
EK-3000AEP	3000	0,1	±0,02	±0,01	133 x 170	**EXC1.1**	1 unit(s)	1.602,85
EK-12KAEP	12000	1	±1	±1	133 x 170	**EXC2.1**	1 unit(s)	1.602,85

Analytical balances ADB/ADJ series

Kern.

Application:
Item counting and percentage weighing

Features:

- Stainless steel weighing platform
- With RS 232 data port
- Dimensions of entire balance incl. draft shield (W):
  W 230 x D 310 x H 330 mm
- Weighing space dimensions: W 170 x D 160 x H 205 mm

Delivery incl. mains adapter.

ADB series with external calibration function

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (%)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ADB 100-4 (W)	120	0.0001	±0,0004	±0,0002	Ø 90	**HPP9.1**	1 unit(s)	670,00
ADB 200-4 (W)	210	0.0001	±0,0004	±0,0002	Ø 90	**HPT0.1**	1 unit(s)	740,00

ADJ series with internal automatic calibration, either after a change of temperature ≥2 °C or time-controlled

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (%)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ADJ 100-4 (W)	120	0.0001	±0,0004	±0,0002	Ø 90	**KHE3.1**	1 unit(s)	810,00
ADJ 200-4 (W)	210	0.0001	±0,0004	±0,0002	Ø 90	**KHE4.1**	1 unit(s)	910,00

Balances - Standard

Analytical balances

Kern.

Application:

- Item counting, percentage weighing and batching
- High stability mode and other filter settings are selectable

Features:

- ABS-N models with external calibration
- ABJ-NM models have internal automatic calibration, either after a change of temperature >2 °C or time-controlled every 4 hours
- Spirit level
- Dimensions of entire balance incl. draft shield: W 210 x D 340 x H 325 mm
- Dimensions of weighing space: W 174 x D 162 x H 227 mm; (W) = incl. draft shield

ABS-N series models with external calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ABS 80-4N (W)	80	0.0001	±0,0003	±0,0002	Ø 91	**TA63.1**	1 unit(s)	990,00
ABS 120-4N (W)	120	0.0001	±0,0003	±0,0002	Ø 91	**TA64.1**	1 unit(s)	1.090,00
ABS 220-4N (W)	220	0.0001	±0,0003	±0,0002	Ø 91	**TA65.1**	1 unit(s)	1.150,00
ABS 320-4N (W)	320	0.0001	±0,0003	±0,0002	Ø 91	**TA66.1**	1 unit(s)	1.290,00

ABJ-NM series models with internal calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ABJ 120-4NM (W)	120	0.0001	±0,0003	±0,0002	Ø 91	**TA67.1**	1 unit(s)	1.150,00
ABJ 220-4NM (W)	220	0.0001	±0,0003	±0,0002	Ø 91	**TA68.1**	1 unit(s)	1.250,00
ABJ 320-4NM (W)	320	0.0001	±0,0003	±0,0002	Ø 91	**TA69.1**	1 unit(s)	1.420,00

Balances - Standard

Semi-micro and analytical balances ALJ series

Kern.

Application:
Function programs: Item counting, percentage weighing, weighing with a tolerance range, animal weighing function and recipe

Features:

- With internal automatic calibration if temperature changes by ≥1.2 °C and time-controlled every 3 hours
- Available with or without an ionizer:
  Ionizer to neutralise electrostatic charge.
  The ionizing blower is activated by pressing a button.
- RS 232 data port
- Dimensions of weighing space with draft shield:
  W 160 x D 140 x H 205 mm; (W) = incl. draft shield
- Overall dimensions (incl. draft shield) W 210 x D 340 x H 330 mm

NEW / +

Delivery incl. protective hood.

(1) Standard version

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ALJ 200-5DA (W)	80/220	0.00001/0.0001	±0,0001/ 0,0002	±0,00004/0,0001	Ø 80	**HPT1.1**	1 unit(s)	1.950,00
ALJ 250-4A (W)	250	0.0001	±0,0003	±0,0001	Ø 80	**HPT2.1**	1 unit(s)	1.210,00
ALJ 310-4A (W)	310	0.0001	±0,0003	±0,0001	Ø 80	**HPT3.1**	1 unit(s)	1.250,00
ALJ 500-4A (W)	510	0.0001	±0,0004	±0,0002	Ø 80	**HPT4.1**	1 unit(s)	2.050,00

(1) Standard version, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ALJ250-4AM (W)	250	0.0001	±0,0003	±0,0002	Ø 80	**1H25.1**	1 unit(s)	1.370,00

(2) Comfort design with ionizer

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ALJ 200-5DA (W)	80/220	0.00001/0.0001	±0,0001/0,0002	±0,00004/0,0001	Ø 80	**HPT5.1**	1 unit(s)	2.570,00
ALJ 250-4A (W)	250	0.0001	±0,0003	±0,0001	Ø 80	**HPT6.1**	1 unit(s)	1.830,00
ALJ 310-4A (W)	310	0.0001	±0,0003	±0,0001	Ø 80	**HPT7.1**	1 unit(s)	1.870,00
ALJ 500-4A (W)	510	0.0001	±0,0004	±0,0002	Ø 80	**HPT8.1**	1 unit(s)	2.670,00

Semi-micro, analytical and precision balances Pioneer® series

Ohaus.

Application: item counting, percentage weighing and dynamic weighing

Features:

- Backlit LCD display
- Glass draft shield with 3 sliding doors for models with 0.00001, 0.0001 and 0.001 g readability (internal height 200 mm); (W) = incl. draft shield
- Models with draft shield are fitted with an antistatic rod for grounding (made from permanent static, electrically conductive ABS)
- Spirit level, safety lug
- USB and RS 232 data port

Delivery incl. industrial protective cover and mains adapter.

Models with external calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PX124 (W)	120	0.0001	±0,0002	±0,0001	Ø 90	**KAC6.1**	1 unit(s)	1.255,00
PX224 (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**KAC7.1**	1 unit(s)	1.375,00
PX323 (W)	320	0.001	±0,002	±0,001	Ø 120	**KAC8.1**	1 unit(s)	885,00
PX523 (W)	520	0.001	±0,002	±0,001	Ø 120	**KAC9.1**	1 unit(s)	955,00
PX3202	3200	0.01	±0,02	±0,01	Ø 180	**KAE0.1**	1 unit(s)	900,00
PX5202	5200	0.01	±0,02	±0,01	Ø 180	**KAE1.1**	1 unit(s)	990,00
PX4201	4200	0.1	±0,2	±0,1	Ø 180	**KAE2.1**	1 unit(s)	845,00

Balances - Standard

Models with internal calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PX125D (W)	52/120	0.00001/0.0001	±0,0001 /0,0001	±0,00002/0,0001	Ø 80	**KAE3.1**	1 unit(s)	2.860,00
PX85 (W)	82	0.00001	±0,0001	±0,00002	Ø 80	**KAE4.1**	1 unit(s)	2.955,00
PX225D (W)	82/220	0.00001/0.0001	±0,0001/0,0001	±0,00002/0,0001	Ø 80	**KAE5.1**	1 unit(s)	3.070,00
PX124 (W)	120	0.0001	±0,0002	±0,0001	Ø 90	**KAE6.1**	1 unit(s)	1.450,00
PX224 (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**KAE7.1**	1 unit(s)	1.560,00
PX323 (W)	320	0.001	±0,002	±0,001	Ø 120	**KAE8.1**	1 unit(s)	1.095,00
PX523 (W)	520	0.001	±0,002	±0,001	Ø 120	**KAE9.1**	1 unit(s)	1.165,00
PX3202	3200	0.01	±0,02	±0,01	Ø 180	**KAH0.1**	1 unit(s)	1.115,00
PX5202	5200	0.01	±0,02	±0,01	Ø 180	**KAH1.1**	1 unit(s)	1.190,00
PX4201	4200	0.1	±0,2	±0,1	Ø 180	**KAH2.1**	1 unit(s)	1.055,00

Models with internal calibration, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PX125D (W)	52/120	0.00001/0.0001	±0,0001/0,0001	±0,00002/0,0001	Ø 80	**KAH3.1**	1 unit(s)	3.075,00
PX85 (W)	82	0.00001	±0,0001	±0,00002	Ø 80	**KAH4.1**	1 unit(s)	3.180,00
PX225D (W)	82/220	0.00001/0.0001	±0,0001/0,0001	±0,00002/0,0001	Ø 80	**KAH5.1**	1 unit(s)	3.285,00
PX124 (W)	120	0.0001	±0,0002	±0,0001	Ø 90	**KAH6.1**	1 unit(s)	1.660,00
PX224 (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**KAH7.1**	1 unit(s)	1.780,00
PX323 (W)	320	0.001	±0,002	±0,001	Ø 120	**KAH8.1**	1 unit(s)	1.275,00
PX523 (W)	520	0.001	±0,002	±0,001	Ø 120	**KAH9.1**	1 unit(s)	1.340,00
PX3202	3200	0.01	±0,02	±0,01	Ø 180	**KAK0.1**	1 unit(s)	1.315,00
PX5202	5200	0.01	±0,02	±0,01	Ø 180	**KAK1.1**	1 unit(s)	1.390,00
PX4201	4200	0.1	±0,2	±0,1	Ø 180	**KAK2.1**	1 unit(s)	1.230,00

Analytical and precision balances PR series

Ohaus.

Application

Item counter, percentage weighing

Features:

- With internal adjustment
- Background LCD
- Stainless steel weighing pan
- Glass draft shield (W) with three sliding doors for models with 0.0001 g and 0.001 g readability (interior height 170 mm); (W) = incl. draft shield
- Safety lug, stability indicator
- RS-232 data port

Models with internal calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PR224 (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**KHH9.1**	1 unit(s)	1.190,00
PR523 (W)	520	0.001	±0,002	±0,001	Ø 120	**KHK0.1**	1 unit(s)	880,00
PR2202	2200	0.01	±0,02	±0,01	Ø 180	**KHK1.1**	1 unit(s)	865,00
PR4202	4200	0.01	±0,02	±0,01	Ø 180	**KHK2.1**	1 unit(s)	915,00
PR4201	4200	0.1	±0,2	±0,1	Ø 180	**KHK3.1**	1 unit(s)	795,00
PR6201	6200	0.1	±0,2	±0,1	Ø 180	**KHK4.1**	1 unit(s)	820,00

Models with internal calibration, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PR224M (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**KHK5.1**	1 unit(s)	1.340,00
PR523M (W)	520	0.001	±0,002	±0,001	Ø 120	**KHK6.1**	1 unit(s)	1.010,00
PR2202M	2200	0.01	±0,02	±0,01	Ø 180	**KHK7.1**	1 unit(s)	1.010,00
PR4202M	4200	0.01	±0,02	±0,01	Ø 180	**KHK8.1**	1 unit(s)	1.045,00
PR4201M	4200	0.1	±0,2	±0,1	Ø 180	**KHK9.1**	1 unit(s)	930,00
PR6201M	6200	0.1	±0,2	±0,1	Ø 180	**KHL0.1**	1 unit(s)	955,00

Balances - Standard

Analytical balances HR series

A & D.

Application:

- Percent, counting, animal weighing
- Selectable weight units: g, mg, ct, etc.

Features:

- HR-A model with external calibration
- HR-AZ models with internal calibration
- Backlit LCD display
- Removable, round full-sized draft shield (internal height 198 mm); (W) = incl. draft shield
- The sliding doors of the draft shield tilt back to minimise space requirements
- With RS 232 data port
- Level indicator on the front
- Solid metal housing
- Overload protection
- Four-year warranty

Delivery incl. mains adapter.

Models with external calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
HR-251A	62 / 252	0,0001 / 0,001	±0,0003 / 0,001	±0,0001 / 0,001	Ø 90	**CTE2.1**	1 unit(s)	1.193,25
HR-100A	102	0,0001	±0,0002	±0,0001	Ø 90	**CTE3.1**	1 unit(s)	1.193,25
HR-150A	152	0,0001	±0,0002	±0,0001	Ø 90	**CTE4.1**	1 unit(s)	1.301,85
HR-250A	252	0,0001	±0,0003	±0,0002	Ø 90	**CTE5.1**	1 unit(s)	1.529,75

Models with internal calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
HR-251AZ (W)	62 / 252	0,0001 / 0,001	±0,0003/0,001	±0,0001/0,001	Ø 90	**CTE6.1**	1 unit(s)	1.457,70
HR-100AZ (W)	102	0,0001	±0,0002	±0,0001	Ø 90	**CTE7.1**	1 unit(s)	1.449,10
HR-150AZ (W)	152	0.0001	±0,0002	±0,0001	Ø 90	**CTE8.1**	1 unit(s)	1.522,20
HR-250AZ (W)	252	0.0001	±0,0003	±0,0002	Ø 90	**CTE9.1**	1 unit(s)	1.830,75

The complete ROTH product range in the ROTH webshop

Over 30,000 items orderable around the clock!

Discover everything at **www.carlroth.com**

- Latest NEW products
- Continuous range extensions
- Detailed product information
- Additional information about the products
- Regular special offers
- ... and much more. Stay curious!

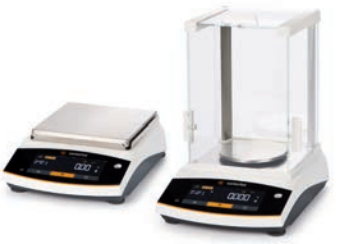
Balances - Premium

Analytical and precision balances Entris® II series

Sartorius.

Application:

- Item counter, percentage weighing, dynamic weighing (weighing animals), check weighing, components/totalling and maximum value



Features:

- Hybrid display with combined LED and touchscreen technology
- All balances are available with external adjustment or with a fully automatic, internal temperature and time-controlled adjustment function
- Glass draft shield with three sliding doors for models with 0.0001/0.001 g readability (interior height 240 mm); (W) = incl. draft shield
- Eight different menu language options can be selected
- USB-C port with “PC direct” function which makes connecting to a PC easy, for transferring weighing data directly to tables or documents, like Microsoft® Excel or Word
- With RS-232 port
- **Monolithic weighing technology**

Delivery incl. mains adapter.

Models with external calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility	Weighing pan (mm)	Art. No.	Pack Qty.	€
BCE64-1S (W)	60	0.0001	0,0002	0,0001	90	**KLK2.1**	1 unit(s)	1.630,00
BCE124-1S (W)	120	0.0001	0,0002	0,0001	90	**KLK3.1**	1 unit(s)	1.730,00
BCE224-1S (W)	220	0.0001	0,0002	0,0001	90	**KLK4.1**	1 unit(s)	1.850,00
BCE223-1S (W)	220	0.001	0,002	0,001	120	**KLK5.1**	1 unit(s)	998,00
BCE323-1S (W)	320	0.001	0,002	0,001	120	**KLK6.1**	1 unit(s)	1.100,00
BCE423-1S (W)	420	0.001	0,002	0,001	120	**KLK7.1**	1 unit(s)	1.210,00
BCE623-1S (W)	620	0.001	0,002	0,001	120	**KLK8.1**	1 unit(s)	1.420,00
BCE822-1S	820	0.01	0,02	0,01	182 x 182	**KLK9.1**	1 unit(s)	998,00
BCE1202-1S	1200	0.01	0,02	0,01	182 x 182	**KLL0.1**	1 unit(s)	1.100,00
BCE2202-1S	2200	0.01	0,02	0,01	182 x 182	**KLL1.1**	1 unit(s)	1.210,00
BCE3202-1S	3200	0.01	0,02	0,01	182 x 182	**KLL2.1**	1 unit(s)	1.320,00
BCE4202-1S	4200	0.01	0,02	0,01	182 x 182	**KLL3.1**	1 unit(s)	1.420,00
BCE6202-1S	6200	0.01	0,02	0,01	182 x 182	**KLL4.1**	1 unit(s)	1.630,00
BCE2201-1S	2200	0.1	0,1	0,1	182 x 182	**KLL5.1**	1 unit(s)	998,00
BCE8201-1S	8200	0.1	0,3	0,1	182 x 182	**KLL6.1**	1 unit(s)	1.210,00

Models with internal calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility	Weighing pan (mm)	Art. No.	Pack Qty.	€
BCE64i-1S (W)	60	0.0001	0,0002	0,0001	90	**KLL7.1**	1 unit(s)	1.900,00
BCE124i-1S (W)	120	0.0001	0,0002	0,0001	90	**KLL8.1**	1 unit(s)	2.000,00
BCE224i-1S (W)	220	0.0001	0,0002	0,0001	90	**KLL9.1**	1 unit(s)	2.100,00
BCE223i-1S (W)	220	0.001	0,002	0,001	120	**KLN0.1**	1 unit(s)	1.260,00
BCE323i-1S (W)	320	0.001	0,002	0,001	120	**KLN1.1**	1 unit(s)	1.370,00
BCE423i-1S (W)	420	0.001	0,002	0,001	120	**KLN2.1**	1 unit(s)	1.470,00
BCE623i-1S (W)	620	0.001	0,002	0,001	120	**KLN3.1**	1 unit(s)	1.680,00
BCE822i-1S	820	0.01	0,02	0,01	182 x 182	**KLN4.1**	1 unit(s)	1.260,00
BCE1202i-1S	1200	0.01	0,02	0,01	182 x 182	**KLN5.1**	1 unit(s)	1.370,00
BCE2202i-1S	2200	0.01	0,02	0,01	182 x 182	**KLN6.1**	1 unit(s)	1.470,00
BCE3202i-1S	3200	0.01	0,02	0,01	182 x 182	**KLN7.1**	1 unit(s)	1.580,00
BCE4202i-1S	4200	0.01	0,02	0,01	182 x 182	**KLN8.1**	1 unit(s)	1.680,00
BCE6202i-1S	6200	0.01	0,02	0,01	182 x 182	**KLN9.1**	1 unit(s)	1.900,00
BCE2201i-1S	2200	0.1	0,1	0,1	182 x 182	**KLP0.1**	1 unit(s)	1.260,00
BCE8201i-1S	8200	0.1	0,3	0,1	182 x 182	**KLP1.1**	1 unit(s)	1.470,00

Balances - Premium

Models with internal calibration, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility	Weighing pan (mm)	Art. No.	Pack Qty.	€
BCE64i-1CEU (W)	60	0.0001	0,0002	0,0001	90	**KLP2.1**	1 unit(s)	2.320,00
BCE124i-1CEU (W)	120	0.0001	0,0002	0,0001	90	**KLP3.1**	1 unit(s)	2.430,00
BCE224i-1CEU (W)	220	0.0001	0,0002	0,0001	90	**KLP4.1**	1 unit(s)	2.530,00
BCE223i-1CEU (W)	220	0.001	0,002	0,001	120	**KLP5.1**	1 unit(s)	1.680,00
BCE323i-1CEU (W)	320	0.001	0,002	0,001	120	**KLP6.1**	1 unit(s)	1.790,00
BCE423i-1CEU (W)	420	0.001	0,002	0,001	120	**KLP7.1**	1 unit(s)	1.900,00
BCE623i-1CEU (W)	620	0.001	0,002	0,001	120	**KLP8.1**	1 unit(s)	2.100,00
BCE822i-1CEU	820	0.01	0,02	0,01	182 x 182	**KLP9.1**	1 unit(s)	1.680,00
BCE1202i-1CEU	1200	0.01	0,02	0,01	182 x 182	**KLT0.1**	1 unit(s)	1.790,00
BCE2202i-1CEU	2200	0.01	0,02	0,01	182 x 182	**KLT1.1**	1 unit(s)	1.900,00
BCE3202i-1CEU	3200	0.01	0,02	0,01	182 x 182	**KLT2.1**	1 unit(s)	2.000,00
BCE4202i-1CEU	4200	0.01	0,02	0,01	182 x 182	**KLT3.1**	1 unit(s)	2.100,00
BCE6202i-1CEU	6200	0.01	0,02	0,01	182 x 182	**KLT4.1**	1 unit(s)	2.320,00
BCE2201i-1CEU	2200	0.1	0,1	0,1	182 x 182	**KLT5.1**	1 unit(s)	1.680,00
BCE8201i-1CEU	8200	0.1	0,3	0,1	182 x 182	**KLT6.1**	1 unit(s)	1.900,00

Analytical and precision balances Practum® series

Sartorius.

Application:

- Percent, checking, maximum value, counting, animal weighing
- Selectable weight units: g, kg, mg, ct, etc.
- Made in Germany

Features:

- With external calibration function
- Touchscreen operation
- 10 different menu language options can be selected
- Full-sized draft shield for models with 0.0001 g/0.001 g readability (internal height 209 mm); (W) = incl. draft shield
- Mini USB port for automatic detection of YDP40 Sartorius standard printer (please order separately) or direct data transfer, e.g. to Microsoft® Excel, without additional software. Programmable interval for data output.
- Menu lock for protection against accidental manipulation
- Levelling feet and glass level indicator on the front
- Anti-theft loop for chain or cable
- Models with 0.01 g, 0.1 g and 1 g readability incl. protective cover for operation

Delivery incl. universal mains adapter (100–240 V).

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
64-1S (W)	60	0,0001	±0,0002	±0,0001	Ø 90	**AHC2.1**	1 unit(s)	1.800,00
124-1S (W)	120	0,0001	±0,0003	±0,0001	Ø 90	**NN46.1**	1 unit(s)	1.900,00
213-1S (W)	210	0,001	±0,003	±0,001	Ø 120	**NN48.1**	1 unit(s)	1.240,00
224-1S (W)	220	0,0001	±0,0003	±0,0001	Ø 90	**NN45.1**	1 unit(s)	2.010,00
313-1S (W)	310	0,001	±0,003	±0,001	Ø 120	**NN47.1**	1 unit(s)	1.410,00
412-1S	410	0,01	±0,03	±0,01	Ø 180	**AHC4.1**	1 unit(s)	949,00
513-1S (W)	510	0,001	±0,002	±0,001	Ø 120	**AHC3.1**	1 unit(s)	1.690,00
612-1S	610	0,01	±0,03	±0,01	Ø 180	**NN51.1**	1 unit(s)	1.100,00
1102-1S	1100	0,01	±0,03	±0,01	Ø 180	**NN50.1**	1 unit(s)	1.190,00
2101-1S	2100	0,1	±0,3	±0,1	Ø 180	**AHC6.1**	1 unit(s)	999,00
2102-1S	2100	0,01	±0,03	±0,01	Ø 180	**NN49.1**	1 unit(s)	1.420,00
3102-1S	3100	0,01	±0,03	±0,01	Ø 180	**AHC5.1**	1 unit(s)	1.590,00
5100-1S	5100	1	±1	±1	Ø 180	**NN53.1**	1 unit(s)	899,00
5101-1S	5100	0,1	±0,3	±0,1	Ø 180	**NN52.1**	1 unit(s)	1.190,00
6100-1S	6100	1	±1	±1	Ø 180	**AHC8.1**	1 unit(s)	999,00
6101-1S	6100	0,1	±0,3	±0,1	Ø 180	**AHC7.1**	1 unit(s)	1.300,00

Balances - Premium

Analytical and precision balances Adventurer® series

Ohaus.

Application:

- Percent, counting, animal weighing, check weighing, density measurement, batching, display-hold function and totalling
- Selectable weight units

Features:

- All balances are available with external calibration or with AutoCal™ – automatic time- and temperature-controlled internal calibration
- Colour touchscreen with graphical LCD display and additional mechanical buttons for tare, calibration etc.
- Removable stainless steel weighing plate
- Language selection (nine languages)
- Analytical full-sized draft shield for models with 0.0001 g/0.001 g readability (internal height 230 mm); (W) = incl. draft shield
- Minimum sample weight function – a warning is displayed if the current sample weight is below the defined minimum sample weight
- **Two USB ports – one USB host port on the front for saving weighing data directly to a USB stick (not supplied) and an additional USB port on the back for connecting to a PC**
- RS 232 port
- Integrated hook for below-balance weighing

Models with external calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
AX124 (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**CCE5.1**	1 unit(s)	2.030,00
AX223 (W)	220	0,001	±0,002	±0,001	Ø 130	**CCE7.1**	1 unit(s)	1.300,00
AX224 (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**CCE6.1**	1 unit(s)	2.135,00
AX422	420	0,01	±0,02	±0,01	175 x 195	**EKH8.1**	1 unit(s)	995,00
AX423 (W)	420	0,001	±0,002	±0,001	Ø 130	**CCE8.1**	1 unit(s)	1.535,00
AX523 (W)	520	0,001	±0,002	±0,001	Ø 130	**CCE9.1**	1 unit(s)	1.770,00
AX822	820	0,01	±0,02	±0,01	175 x 195	**EKH9.1**	1 unit(s)	1.140,00
AX1502	1520	0,01	±0,02	±0,01	175 x 195	**CCH1.1**	1 unit(s)	1.295,00
AX2201	2200	0,1	±0,2	±0,1	175 x 195	**EKK0.1**	1 unit(s)	940,00
AX2202	2200	0,01	±0,02	±0,01	175 x 195	**CCH2.1**	1 unit(s)	1.315,00
AX4201	4200	0,1	±0,2	±0,1	175 x 195	**EKK1.1**	1 unit(s)	1.145,00
AX4202	4200	0,01	±0,02	±0,01	175 x 195	**CCH3.1**	1 unit(s)	1.530,00
AX8201	8200	0,1	±0,2	±0,1	175 x 195	**EKK2.1**	1 unit(s)	1.265,00

Models with internal calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
AX422	420	0.01	±0,02	±0,01	175 x 195	**EKK3.1**	1 unit(s)	1.310,00
AX822	820	0.01	±0,02	±0,01	175 x 195	**EKK4.1**	1 unit(s)	1.450,00
AX1502	1520	0.01	±0,02	±0,01	175 x 195	**CCK1.1**	1 unit(s)	1.600,00
AX2202	2200	0.01	±0,02	±0,01	175 x 195	**CCK2.1**	1 unit(s)	1.625,00
AX4202	4200	0.01	±0,02	±0,01	175 x 195	**CCK3.1**	1 unit(s)	1.830,00
AX5202	5200	0.01	±0,02	±0,01	175 x 195	**CCK4.1**	1 unit(s)	2.085,00
AX124 (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**CCH4.1**	1 unit(s)	2.315,00
AX223 (W)	220	0,001	±0,002	±0,001	Ø 130	**CCH7.1**	1 unit(s)	1.630,00
AX224 (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**CCH5.1**	1 unit(s)	2.410,00
AX324 (W)	320	0,0001	±0,0002	±0,0001	Ø 90	**CCH6.1**	1 unit(s)	2.560,00
AX423 (W)	420	0,001	±0,002	±0,001	Ø 130	**CCH8.1**	1 unit(s)	1.845,00
AX523 (W)	520	0,001	±0,002	±0,001	Ø 130	**CCH9.1**	1 unit(s)	2.085,00
AX2201	2200	0,1	±0,2	±0,1	175 x 195	**EKK5.1**	1 unit(s)	1.255,00
AX4201	4200	0,1	±0,2	±0,1	175 x 195	**EKK6.1**	1 unit(s)	1.460,00
AX8201	8200	0,1	±0,2	±0,1	175 x 195	**EKK7.1**	1 unit(s)	1.570,00

Balances - Premium

Models with internal calibration, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
AX124 (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**EKK8.1**	1 unit(s)	2.560,00
AX223 (W)	220	0,001	±0,002	±0,001	Ø 130	**EKL1.1**	1 unit(s)	1.860,00
AX224 (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**EKK9.1**	1 unit(s)	2.665,00
AX324 (W)	320	0,0001	±0,0002	±0,0001	Ø 90	**EKL0.1**	1 unit(s)	2.805,00
AX423 (W)	420	0,001	±0,002	±0,001	Ø 130	**EKL2.1**	1 unit(s)	2.080,00
AX523 (W)	520	0,001	±0,002	±0,001	Ø 130	**EKL3.1**	1 unit(s)	2.315,00
AX1502	1520	0,01	±0,02	±0,01	175 x 195	**EKL4.1**	1 unit(s)	1.835,00
AX2202	2200	0,01	±0,02	±0,01	175 x 195	**EKL5.1**	1 unit(s)	1.855,00
AX4202	4200	0,01	±0,02	±0,01	175 x 195	**EKL6.1**	1 unit(s)	2.075,00
AX5202	5200	0,01	±0,02	±0,01	175 x 195	**EKL7.1**	1 unit(s)	2.315,00
AX8201	8200	0,1	±0,2	±0,1	175 x 195	**EKL8.1**	1 unit(s)	1.800,00

Semi-micro balances ABT series

Kern.

Application:

- Function programs: Item counting, percentage weighing and recipe
- Different selectable filter settings
- LCD display capacity indicator
- Various weighing units (e.g. mg, g, ct, etc.) can be set

Features:

- Monolithic weighing technology
- With internal automatic calibration: Time or temperature dependant, or set individually by key stroke
- RS 232 data port
- Stainless steel weighing platform
- Dimensions of balance incl. draft shield: W 217 x D 356 x H 338 mm
- Full-sized glass draft shield (internal height 223 mm); (W) = incl. draft shield

Delivery incl. industrial protective cover for the display.

Models not calibratable

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ABT 120-5DNM (W)	42 / 120	0.00001/0.0001	±0,00003 / 0,0002	±0,00002 / 0,0001	Ø 80	**HL85.1**	1 unit(s)	2.140,00

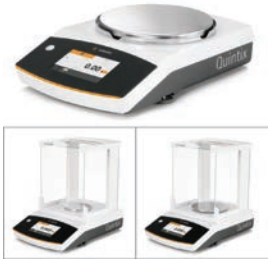
Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ABT 120-5DNM (W)	42 / 120	0,00001/0,0001	±0,00003/0,0002	±0,00002/0,0001	Ø 80	**HL86.1**	1 unit(s)	2.260,00

Balances - Premium

Semi-micro, analytical and precision balances Quintix® series

Sartorius.



Application:

- Mixing, components, statistics, conversion, percentage weighing, checking, maximum value, counting, animal weighing
- Made in Germany

Features:

- With isoCAL – fully automatic, temperature- and time-controlled internal calibration
- Touchscreen with easy menu navigation
- 10 different menu language options can be selected
- Full-sized draft shield for models with 0.0001 g/0.001 g readability (internal height 209 mm); (W) = incl. draft shield
- Mini USB port for automatic detection of YDP40 Sartorius standard printer (please order separately) or direct data transfer, e.g. to Microsoft® Excel, without additional software. Programmable data output interval
- Password protection – menu lock for protection against accidental manipulation
- Levelling feet and glass level indicator on the front
- Anti-theft loop for chain or cable
- Models with 0.01 g, 0.1 g and 1 g readability incl. protective cover for operation

Delivery incl. universal mains adapter (100–240 V).

Semi-micro balances, models cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
35-1S (W)	30	0,00001	±0,0001	±0,00003	Ø 80	**CNH8.1**	1 unit(s)	5.380,00
65-1S (W)	40 / 60	0,00001/0,00001	±0,0001/0,0001	±0,0002/0,00004	Ø 90	**CNK0.1**	1 unit(s)	5.510,00
125D-1S (W)	40 / 60 / 120	0,00001/0,00001/ 0,0001	±0,0001/0,0001/ 0,0002	±0,0002/0,0004/ 0,00007	Ø 80	**CNK2.1**	1 unit(s)	6.458,00

Semi-micro balances, models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
125D-1CEU (W)	40 / 60 / 120	0,00001/0,00001/ 0,0001	±0,0001/0,0001/ 0,0002	±0,00002/0,00004/ 0,00007	Ø 80	**CNK3.1**	1 unit(s)	7.127,00

Standard models, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
64-1S	60	0,0001	±0,0002	±0,0001	Ø 90	**AHC9.1**	1 unit(s)	3.220,00
124-1S (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**NN59.1**	1 unit(s)	3.450,00
213-1S (W)	210	0,001	±0,002	±0,001	Ø 120	**NN65.1**	1 unit(s)	2.510,00
224-1S (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**NN57.1**	1 unit(s)	3.850,00
313-1S (W)	310	0,001	±0,002	±0,001	Ø 120	**NN63.1**	1 unit(s)	2.700,00
412-1S	410	0,01	±0,03	±0,01	Ø 180	**AHE3.1**	1 unit(s)	1.810,00
513-1S (W)	510	0,001	±0,002	±0,001	Ø 120	**NN61.1**	1 unit(s)	3.220,00
612-1S	610	0,01	±0,03	±0,01	Ø 180	**NN75.1**	1 unit(s)	2.000,00
613-1S (W)	610	0,001	±0,002	±0,001	Ø 120	**AHE1.1**	1 unit(s)	3.370,00
1102-1S	1100	0,01	±0,03	±0,01	Ø 180	**NN73.1**	1 unit(s)	2.250,00
2101-1S	2100	0,1	±0,3	±0,1	Ø 180	**AHE7.1**	1 unit(s)	2.070,00
2102-1S	2100	0,01	±0,03	±0,01	Ø 180	**NN71.1**	1 unit(s)	2.510,00
3102-1S	3100	0,01	±0,02	±0,01	Ø 180	**NN69.1**	1 unit(s)	2.640,00
5100-1S	5100	1	±1	±1	Ø 180	**NN79.1**	1 unit(s)	1.870,00
5101-1S	5100	0,1	±0,3	±0,1	Ø 180	**NN77.1**	1 unit(s)	2.300,00
5102-1S	5100	0,01	±0,02	±0,01	Ø 180	**NN67.1**	1 unit(s)	3.400,00
6100-1S	6100	1	±1	±1	Ø 180	**AHH1.1**	1 unit(s)	2.070,00
6101-1S	6100	0,1	±0,3	±0,1	Ø 180	**AHE9.1**	1 unit(s)	2.430,00
6102-1S	6100	0,01	±0,02	±0,01	Ø 180	**AHE5.1**	1 unit(s)	3.670,00

Balances - Premium

Standard models, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
64-1CEU (W)	60	0,0001	±0,0002	±0,0001	Ø 90	**AHE0.1**	1 unit(s)	3.530,00
124 -1CEU (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**NN60.1**	1 unit(s)	3.800,00
213-1CEU (W)	210	0,001	±0,002	±0,001	Ø 120	**NN66.1**	1 unit(s)	2.760,00
224-1CEU (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**NN58.1**	1 unit(s)	4.150,00
313-1CEU (W)	310	0,001	±0,002	±0,001	Ø 120	**NN64.1**	1 unit(s)	2.950,00
513-1CEU (W)	510	0,001	±0,002	±0,001	Ø 120	**NN62.1**	1 unit(s)	3.500,00
612-1CEU	610	0,01	±0,03	±0,01	Ø 180	**NN76.1**	1 unit(s)	2.240,00
613-1CEU (W)	610	0,001	±0,002	±0,001	Ø 120	**AHE2.1**	1 unit(s)	3.620,00
1102-1CEU	1100	0,01	±0,03	±0,01	Ø 180	**NN74.1**	1 unit(s)	2.500,00
2102-1CEU	2100	0,01	±0,03	±0,01	Ø 180	**NN72.1**	1 unit(s)	2.760,00
3102-1CEU	3100	0,01	±0,02	±0,01	Ø 180	**NN70.1**	1 unit(s)	2.870,00
5100-1CEU	5100	1	±1	±1	Ø 180	**NN80.1**	1 unit(s)	2.120,00
5101-1CEU	5100	0,1	±0,3	±0,1	Ø 180	**NN78.1**	1 unit(s)	2.560,00
5102-1CEU	5100	0,01	±0,02	±0,01	Ø 180	**NN68.1**	1 unit(s)	3.660,00
6100-1CEU	6100	1	±1	±1	Ø 180	**AHH2.1**	1 unit(s)	2.300,00
6101-1CEU	6100	0,1	±0,3	±0,1	Ø 180	**AHH0.1**	1 unit(s)	2.680,00
6102-1CEU	6100	0,01	±0,02	±0,01	Ø 180	**AHE6.1**	1 unit(s)	3.900,00

Semi-micro and analytical balances GR series

A & D.

Application:

- Percent, counting
- Selectable weight units: g, mg, ct

Features:

- With internal automatic calibration function which adapts to changes in temperature
- Automatic adaptation to ambient conditions
- **Door opening system** allows the user to open the left- or right-hand side of the weighing chamber from the front of the balance. For easy access if you have only one hand free.
- Full-sized draft shield (internal height 215 mm); (W) = incl. draft shield
- Data storage function for storing 200 units of weighing data for output to PC. Windows-compatible software (for direct readout of data, e.g. in Excel), available for download free of charge.
- Interval storage mode (measuring cycle: 2 s, 5 s, 10 s, 30 s, 1 min, 2 min, 5 min or 10 min
- With RS 232 data port
- Level indicator on the front

Delivery incl. mains adapter.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
GR-202 (W)	42 / 210	0,00001/0,0001	±0,00003 / 0,0001	±0,00002 / 0,0001	Ø 85	**CTH0.1**	1 unit(s)	3.275,55
GR-120 (W)	120	0,0001	±0,0002	±0,0001	Ø 85	**CTH1.1**	1 unit(s)	2.229,55
GR-200 (W)	210	0,0001	±0,0002	±0,0001	Ø 85	**CTH2.1**	1 unit(s)	2.299,45
GR-300 (W)	310	0,0001	±0,0003	±0,0001	Ø 85	**CTH3.1**	1 unit(s)	2.926,15

Balances - Premium

Semi-micro, analytical and precision balances Explorer™ series

Ohaus.

Application:

- Numerous balance applications (item counting, percentage weighing, animal weighing, check weighing, batching etc.) and additional library for saving personal settings
- Various weighing units (e.g. g, mg, ct, etc.) can be set.
- High-resolution colour VGA touchscreen (145 mm diagonal) with QWERTY and number pad keyboards
- Touchscreen display can be detached from the weighing platform (cable length 1.5 m)

Features:

- Metal housing, ABS upper housing shell and stainless steel weighing pan
- All models have a fully automatic time- and temperature-controlled internal calibration system (AutoCal)
- Full-sized draft shield for models with 0.0001 g/0.001 g readability (internal height 230 mm); (W) = incl. draft shield
- Multifunctional sensors for non-contact operation, e.g. contactless control of the zero/tare function to avoid specimen residues on the keypad. Two sensors on the platform and two on the display are independently adjustable.
- With USB and RS 232 communication ports
- Integrated weighing hook on underside of balance and illuminated level indicator on the front

Delivery incl. mains connector and industrial protective cover for display.

Semi-micro balance models, cannot be calibrated

With ionizer and automatic doors installed.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX225D/AD	120 / 220	0.00001/0.0001	±0,0001 / 0,0001	0,00002 / 0,0001	Ø 80	**HPC4.1**	1 unit(s)	8.400,00

Semi-micro balances, models calibrated ex works

With ionizer and automatic doors installed.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX225DM/AD	120 / 220	0.00001/0.0001	0,0001 / 0,0001	0,00002 / 0,0001	Ø 80	**HPC5.1**	1 unit(s)	8.765,00

Standard models cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX224 (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**PX41.1**	1 unit(s)	4.215,00
EX324 (W)	320	0,0001	±0,0002	±0,0001	Ø 90	**PX42.1**	1 unit(s)	4.805,00
EX423 (W)	420	0,001	±0,002	±0,001	Ø 130	**PX43.1**	1 unit(s)	3.490,00
EX1103 (W)	1100	0,001	±0,002	±0,001	Ø 130	**PX44.1**	1 unit(s)	5.090,00
EX4202	4200	0,01	±0,02	±0,01	190 x 200	**PX45.1**	1 unit(s)	3.455,00
EX10201	10200	0,1	±0,1	±0,1	190 x 200	**PX47.1**	1 unit(s)	3.155,00
EX10202	10200	0,01	±0,02	±0,01	190 x 200	**PX46.1**	1 unit(s)	4.760,00

Standard models, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX224M (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**PX48.1**	1 unit(s)	4.505,00
EX324M (W)	320	0,0001	±0,0002	±0,0001	Ø 90	**PX49.1**	1 unit(s)	5.090,00
EX423M (W)	420	0,001	±0,002	±0,001	Ø 130	**PX50.1**	1 unit(s)	3.745,00
EX1103M (W)	1100	0,001	±0,002	±0,001	Ø 130	**PX51.1**	1 unit(s)	5.350,00
EX4202M	4200	0,01	±0,02	±0,01	190 x 200	**PX52.1**	1 unit(s)	3.715,00
EX10201M	10200	0,1	±0,1	±0,1	190 x 200	**PX54.1**	1 unit(s)	3.410,00
EX10202M	10200	0,01	±0,02	±0,01	190 x 200	**PX53.1**	1 unit(s)	5.015,00

Balances - Premium

Standard models with auto-door function, cannot be calibrated
Including automatic, side-opening doors. Can be controlled by means of a non-contact sensor. Draft shield cover, folding or sliding.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX124/AD (W)	120	0.0001	±0,0002	±0,0001	Ø 90	**APA8.1**	1 unit(s)	4.735,00
EX224/AD (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**APA9.1**	1 unit(s)	5.200,00
EX324/AD (W)	320	0.0001	±0,0002	±0,0001	Ø 90	**APC0.1**	1 unit(s)	5.790,00

Standard models with auto door function, calibrated ex works
Including automatic, side-opening doors. Can be controlled by means of a non-contact sensor. Draft shield cover, folding or sliding.

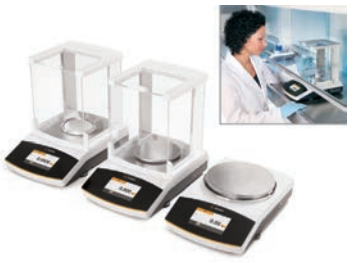
Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX224M/AD (W)	220	0.0001	0,0002	0,0001	Ø 90	**APC2.1**	1 unit(s)	5.490,00
EX324M/AD (W)	320	0.0001	0,0002	0,0001	Ø 90	**APC3.1**	1 unit(s)	6.080,00

Semi-micro, analytical and precision balances Secura® series

Sartorius.

Application:

- Mixing, components, statistics, conversion, percentage weighing, checking, maximum value, counting, animal weighing
- Made in Germany



Features:

- With isoCAL, internal calibration is performed automatically in a time or temperature controlled manner and after levelling
- Touchscreen optimised for users in the pharmaceuticals laboratory
- **Optoelectronic levelling sensor with interactive user guidance** (if the sensor detects deviations, the risk is indicated immediately and a specific help text is displayed)
- 10 different menu language options can be selected
- Full-sized draft shield for models with 0.0001 g/0.001 g readability (internal height 209 mm); (W) = incl. draft shield
- Three configurable safety levels
- Mini USB port for automatic detection of YDP40 Sartorius standard printer (please order separately) or direct data transfer, e.g. to Microsoft® Excel, without additional software. Programmable interval for data output.
- Storage of completed calibration cycles incl. detected deviation
- Models with 0.01 g, 0.1 g and 1 g readability incl. protective cover for operation

APC functions (Advanced Pharma Compliance) are possible:

- Monitoring of minimum sample weight according to USP
- Blocking of data transfer to printer or computer in case of uncertain weighing results e.g. non-level balance, etc.
- **Please note:** APC functions are activated by a separate service. If this activation service is required, additional costs apply. Please check with our Sales Department.

Delivery incl. universal mains adapter (100–240 V).

Semi-micro balances, models cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
125-1S	60/120	0.00001/0.00001	0,0001/0,0001	0,00002/0,00004	Ø 80	**CNK4.1**	1 unit(s)	6.748,00
225D-1S	60/120/220	0.00001/0.00001/ 0.0001	0,0001/0,0001/0,0002	0,00002/0,00004/ 0,00007	Ø 80	**CNK6.1**	1 unit(s)	7.108,00

Semi-micro balances, models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
125-1CEU	60/120	0.00001/0.00001	0,0001/0,0001	0,00002/0,00004	Ø 80	**CNK5.1**	1 unit(s)	7.370,00
225D-1CEU	60/120/220	0.00001/0.00001/ 0.0001	0,0001/0,0001/0,0002	0,00002/0,00004/ 0,00007	Ø 80	**CNK7.1**	1 unit(s)	7.759,00

Balances - Premium

Series Standard models, not calibrated

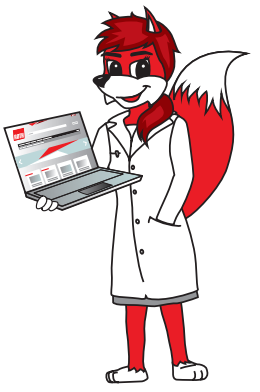
Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
124-1S (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**NN83.1**	1 unit(s)	4.190,00
213-1S (W)	210	0,001	±0,002	±0,001	Ø 120	**NN89.1**	1 unit(s)	3.030,00
224-1S (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**NN81.1**	1 unit(s)	4.650,00
313-1S (W)	310	0,001	±0,002	±0,001	Ø 120	**NN87.1**	1 unit(s)	3.220,00
513-1S (W)	510	0,001	±0,002	±0,001	Ø 120	**NN85.1**	1 unit(s)	3.910,00
613-1S (W)	610	0,001	±0,002	±0,001	Ø 120	**AHH3.1**	1 unit(s)	4.040,00
612-1S / -1CEU	610	0,01	±0,02	±0,01	Ø 180	**AHH5.1**	1 unit(s)	2.500,00
1102-1S	1100	0,01	±0,02	±0,01	Ø 180	**NN97.1**	1 unit(s)	2.720,00
2102-1S	2100	0,01	±0,02	±0,01	Ø 180	**NN95.1**	1 unit(s)	2.960,00
3102-1S	3100	0,01	±0,02	±0,01	Ø 180	**NN93.1**	1 unit(s)	3.160,00
5102-1S	5100	0,01	±0,02	±0,01	Ø 180	**NN91.1**	1 unit(s)	4.070,00
6102-1S	6100	0,01	±0,02	±0,01	Ø 180	**AHH7.1**	1 unit(s)	4.330,00

Standard models, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
124-1CEU (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**NN84.1**	1 unit(s)	4.500,00
213-1CEU (W)	210	0,001	±0,002	±0,001	Ø 120	**NN90.1**	1 unit(s)	3.320,00
224-1CEU (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**NN82.1**	1 unit(s)	4.950,00
313-1CEU (W)	310	0,001	±0,002	±0,001	Ø 120	**NN88.1**	1 unit(s)	3.450,00
513-1CEU (W)	510	0,001	±0,002	±0,001	Ø 120	**NN86.1**	1 unit(s)	4.130,00
612-1CEU	610	0,01	±0,02	±0,01	Ø 180	**AHH6.1**	1 unit(s)	2.730,00
613-1CEU (W)	610	0,001	±0,002	±0,001	Ø 120	**AHH4.1**	1 unit(s)	4.350,00
1102-1CEU	1100	0,01	±0,02	±0,01	Ø 180	**NN98.1**	1 unit(s)	2.950,00
2102-1CEU	2100	0,01	±0,02	±0,01	Ø 180	**NN96.1**	1 unit(s)	3.200,00
3102-1CEU	3100	0,01	±0,02	±0,01	Ø 180	**NN94.1**	1 unit(s)	3.390,00
5102-1CEU	5100	0,01	±0,02	±0,01	Ø 180	**NN92.1**	1 unit(s)	4.310,00
6102-1CEU	6100	0,01	±0,02	±0,01	Ø 180	**AHH8.1**	1 unit(s)	4.570,00

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Moisture analyzers

Moisture analysers MB Basic series

Ohaus.

Specification for all models:

- Backlit display
- RS 232 interface
- Two optional shut-down criteria: Automatic or timed shut-down
- Display screen: % moisture or weight value, as well as temperature and time

Technical specifications:

Art. No.	KT40.1	KT41.1
Type	MB23	MB25
Weighing range	110 g	
Temperature range	+50 to +160 °C	
Additional data	can be selected in 5 °C increments	
Readability	0,1 % / 0,01 g	0,05 % / 0,005 g
Reproducibility	0,3 % (3 g) 0,2 % (10 g)	0,2 % (3 g) 0,05 % (10 g)
Heating technology	Infrared (no glass)	Halogen
Timer	1 to 99 mins (30-second increments up to 60 mins)	
Sample size	Typisch 3 bis 20 g, min. 0,5 g	Typical 3 to 20 g, min. 0.5 g
Weighing pan	Ø 90 mm	
W x D x H	165 x 283 x 132 mm	
Weight	2.3 kg	
Mains connection	100–240 V, 50/60 Hz	

Model MB 23
Heat source: Infrared heating system

Delivery incl. work protection cover. If a sample pan holder is required, please order separately.

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
MB23	110	0,1 % / 0,01	**KT40.1**	1 unit(s)	1.175,00

Model MB 25
Heat source: Halogen heating system

Delivery incl. work safety cover and sample pan holder.

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
MB25	110	0,05 % / 0,005	**KT41.1**	1 unit(s)	1.665,00

Accessories for MB Basic series hygrometer

Ohaus.

Type	Art. No.	Pack Qty.	€
Sample tray holder for model MB 23	**KT42.1**	1 unit(s)	48,70
Temperature calibration set	**X840.1**	1 unit(s)	357,00

Moisture analysers DAB series

Kern.

Features:

- Backlit display: % humidity, % dry matter or weight loss in g
- Heat source: Halogen quartz glass heater
- Switch-off criteria:
  – Automatic switch-off (2 mg weight loss in 45 s)
  – Scheduled switch-off (3 mins up to 99 hrs 59 mins at 10 s intervals)
  – Manual switch-off by pressing a button
- Drying modes: Standard, gentle and quick drying
- Internal memory for automatic execution of 15 drying processes and five memory spaces for test results
- RS 232 data port
- Sample viewing window

Technical specifications:

Art. No.	EEK2.1	KHE2.1
Type	DAB 100-3	DAB 200-2
Weighing range	110 g	200 g
Temperature range	40 to 160 °C	40 to 199 °C
Additional data	can be selected in 1 °C increments	
Readability	0.01 % / 0.001 g	0.05 % / 0.01 g
Reproducibility	0,15 % (2 g) 0,02 % (10 g)	1,5 % (2 g) 0,3 % (10 g)
Heating technology	Halogen quartz glass heater	
Time setting from	3 min	
Time setting up to	99:59 h	
Weighing pan	Ø 92 mm	
W x D x H	240 x 365 x 180 mm	
Weight	4.82 kg	
Mains connection	220 V, 50 Hz	

Model DAB 100-3

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
DAB 100-3	110	0.01 % / 0.001	**EEK2.1**	1 unit(s)	1.090,00

Model DAB 200-2
With low resolution, meaning that the switch-off criteria are met more quickly. Suitable for quick tests and samples.

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
DAB 200-2	200	0.05 % / 0.01	**KHE2.1**	1 unit(s)	990,00

Moisture analyzers

Moisture analysers DBS 60-3

Kern.

Features:

- Displays: % humidity, % dry matter, ATRO % or weight loss in g
- Heat source: Halogen quartz glass heater
- Switch-off criteria:
  AUTO = drying stops if the set weight loss remains constant for 30 s
  TIME = drying stops on expiration of the set time
  Manual = stop button
- Drying modes: Standard drying, phase drying, gentle drying and quick drying
- Internal memory for automatic execution of 10 drying programs and 100 drying processes carried out
- RS 232 data port
- Sample code for up to 99 samples, 2-digit, freely programmable
- Date and time display
- Sample viewing window

Technical specifications:

Art. No.	**TE06.1**
Type	DBS 60-3
Weighing range	60 g
Temperature range	+50 to +200 °C
Additional data	can be selected in 1 °C increments
Readability	0.01 % / 0.001 g
Reproducibility	0,15 % (2 g) 0,02 % (10 g)
Heating technology	Halogen quartz glass heater
Time setting from	1 min
Time setting up to	12 h
Weighing pan	Ø 95 mm
W x D x H	202 x 336 x 157 mm
Weight	4.2 kg
Mains connection	220–240 V, 50/60 Hz

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
DBS 60-3	60	0.01 % / 0.001	**TE06.1**	1 unit(s)	1.350,00

Moisture analysers MA35M

Sartorius.

For the determination of moisture content in organic and inorganic substances, e.g. in greases, oils, foodstuffs, building materials, wood or paper. For use in chemistry, pharmaceutics, medicine, environmental analytics or in sewage treatment plants.

Features:

- Heat source: Infrared lamp
- RS 232 data port
- Display: % moisture content, % dry matter (residue), ATRO % or in weight values
- 2 selectable switch-off criteria: Time controlled and automatic switch-off options (moisture determination ends if no significant weight loss is detected)
- A 30 g calibration weight is required for calibration of the moisture analyser (please order separately)
- **With window for observation of the sample material**

Technical specifications:

Art. No.	**NT00.1**
Type	MA35M
Weighing range	35 g
Temperature range	+40 to +160 °C
Additional data	can be selected in 1 °C increments
Readability	0.01%/0.001 g
Reproducibility	0,20 % (1 g); 0,05 % (5 g)
Heating technology	Infrared
Time setting from	0.1 min
Time setting up to	99 min
Weighing pan	Ø 90 mm
W x D x H	224 x 366 x 191 mm
Weight	5.8 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. sample tray holder.

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
MA35M	35	0.01%/0.001	**NT00.1**	1 unit(s)	2.540,00

Moisture analyzers

Moisture analysers MB-series

Ohaus.

Specification for all models:

- Halogen heating technology
- 4.3″, QVGA, TFT touchscreen and four mechanical buttons
- Display results: % moisture, % solids, % moisture absorption, time, temperature, weight, method name
- 13 operating languages
- RS 232, USB host, USB device

Technical specifications:

Art. No.	HAP1.1	HAP2.1
Type	MB90	MB120
Weighing range	90 g	120 g
Temperature range	+40 to +200 °C	+40 to +230 °C
Additional data	can be selected in 1 °C increments	
Readability	0.01%/0.001 g	
Reproducibility	0,18 % (3 g); 0,02 % (10 g)	0,05 % (3 g) 0,015 % (10 g)
Heating technology	Halogen	
Time setting up to	48 h	
Weighing pan	Ø 90 mm	
W x D x H	210 x 180 x 350 mm	
Weight	5.23 kg	
Mains connection	120/240 V, 50/60 Hz	

Delivery incl. work protection cover and stainless steel sample tray holder.

Model MB 90

- 3 switch-off criteria (manual, time-controlled or automatic)
- Storage of up to 2 methods and 100 test results for each method
- 2 heating profiles (standard and fast)

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
MB90	90	0.01%/0.001	**HAP1.1**	1 unit(s)	2.700,00

Model MB 120

- 7 switch-off criteria (manual, time-controlled, AutoFree selectable %/s, AutoFree selectable mg/s, A30, A60 and A90)
- Storage of up to 100 methods and 1000 test results for each method
- 4 heating profiles (standard, fast, gentle/ramp and gradual)

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
MB120	120	0.01%/0.001	**HAP2.1**	1 unit(s)	4.060,00

NEW / +

Accessories for moisture analyser disposable aluminium sample pans, Ø 90 x H 7 mm

Ohaus.

Type	Art. No.	Pack Qty.	€
Aluminium disposable sample trays, Ø 90 x H 7 mm	**X837.2**	50 unit(s)	13,90

Ionizer for balances

Kern.

Suitable for neutralising static charge. Non-conductive samples, e.g. plastic, porcelain, glass, etc. is often statically charged. The resultant electromagnetic field between the sample and balance can falsify the weighing result .

- For weighing in the milligram range or more accurate
- Blower can be switched on and off

Technical specifications:

Art. No.	CET5.1
Type	Ionizer
Distance from object being measured	5–40 mm
Discharge time	9 s/5 cm, 13 s/10 cm, 100 s/40 cm (with the blower switched on)
Width	110 mm
Depth	105 mm
Height	60 mm
Weight	310 g
Mains connection	110–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Ionizer	**CET5.1**	1 unit(s)	890,00

Test weights

Balance table

Kern.

For analytical laboratories. Absorbs oscillations and vibrations which would otherwise falsify weighing results. Workbench with aluminium profile frame and height-adjustable feet. Polished marble slab (36 kg) as integrated worktop, mounted on absorbent rubber elements. Weighing plate dimensions: W 267 x D 405 x H 120 mm.

Technical specifications:

Art. No.	AEP0.1
Type	Balance table
Width	770 mm
Depth	650 mm
Height	815 mm
Weight	55 kg

Delivery times may apply to this product. Please check with our Sales Department. Price plus transport costs of €67.00 per piece within Germany. Delivery to behind first lockable door.

Type	Art. No.	Pack Qty.	€
Balance table	**AEP0.1**	1 unit(s)	890,00

Test weight OIML class M1

Kern. Material: Stainless steel.

With or without DAkkS calibration certificate.

Delivery incl. case.

Without certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
50	±3	**EX28.1**	1 unit(s)	17,00
100	±5	**EX29.1**	1 unit(s)	19,50
200	±10	**EX30.1**	1 unit(s)	22,50
500	±25	**EX31.1**	1 unit(s)	37,00
1000	±50	**EX32.1**	1 unit(s)	51,00
2000	±100	**EX33.1**	1 unit(s)	94,00
5000	±250	**EX34.1**	1 unit(s)	190,00

With certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
50	±3	**EX35.1**	1 unit(s)	36,00
100	±5	**EX36.1**	1 unit(s)	40,00
200	±10	**EX37.1**	1 unit(s)	45,00
500	±25	**EX38.1**	1 unit(s)	56,00
1000	±50	**EX39.1**	1 unit(s)	75,00
2000	±100	**EX40.1**	1 unit(s)	107,00
5000	±250	**EX41.1**	1 unit(s)	228,00

Set of weights OIML class M1

Kern. Material: Stainless steel.

With or without DAkkS calibration certificate.

Delivery incl. wooden case.

Without certificate

Additional info	Art. No.	Pack Qty.	€
9 weights from 1 to 100 g	**Y121.1**	1 set	151,00
12 weights from 1 to 500 g	**Y123.1**	1 set	235,00
15 weights from 1 to 2000 g	**Y125.1**	1 set	530,00

With certificate

Additional info	Art. No.	Pack Qty.	€
9 weights from 1 to 100 g	**Y122.1**	1 set	205,00
12 weights from 1 to 500 g	**Y124.1**	1 set	310,00
15 weights from 1 to 2000 g	**Y126.1**	1 set	628,00

Set of weights OIML class M2

Kern. Material: Stainless steel.

With or without DAkkS calibration certificate.

Delivery incl. wooden case.

Without certificate

Additional info	Art. No.	Pack Qty.	€
8 weights from 1 to 50 g	**Y127.1**	1 set	93,00
9 weights from 1 to 100 g	**Y129.1**	1 set	113,00
12 weights from 1 to 500 g	**Y131.1**	1 set	198,00
13 weights from 1 to 1000 g	**Y133.1**	1 set	315,00
15 weights from 1 to 2000 g	**Y135.1**	1 set	495,00

With certificate

Additional info	Art. No.	Pack Qty.	€
8 weights from 1 to 50 g	**Y128.1**	1 set	139,00
9 weights from 1 to 100 g	**Y130.1**	1 set	167,00
12 weights from 1 to 500 g	**Y132.1**	1 set	273,00
13 weights from 1 to 1000 g	**Y134.1**	1 set	396,00
15 weights from 1 to 2000 g	**Y136.1**	1 set	596,00

Test weights

Test weight OIML class F1

Kern. Material: Stainless steel, polished.

For test equipment monitoring according to ISO 9000. Polished stainless steel. For adjusting (= calibrating) and testing laboratory balances. Delivery with or without DAkkS calibration certificate.

Delivery incl. case.

Without certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
1	±0,10	**N001.1**	1 unit(s)	36,00
2	±0,12	**N002.1**	1 unit(s)	36,00
5	±0,15	**N003.1**	1 unit(s)	37,00
10	±0,2	**N004.1**	1 unit(s)	41,00
20	±0,25	**N005.1**	1 unit(s)	46,00
50	±0,3	**N006.1**	1 unit(s)	53,00
100	±0,5	**N007.1**	1 unit(s)	58,00
200	±1,0	**N008.1**	1 unit(s)	78,00
500	±2,5	**N009.1**	1 unit(s)	124,00
1000	±5	**N010.1**	1 unit(s)	157,00
2000	±10	**N011.1**	1 unit(s)	244,00

With certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
1	±0,10	**N151.1**	1 unit(s)	56,00
2	±0,12	**N152.1**	1 unit(s)	56,00
5	±0,15	**N153.1**	1 unit(s)	57,00
10	±0,2	**N154.1**	1 unit(s)	61,00
20	±0,25	**N155.1**	1 unit(s)	66,00
50	±0,3	**N156.1**	1 unit(s)	73,00
100	±0,5	**N157.1**	1 unit(s)	80,00
200	±1,0	**N158.1**	1 unit(s)	90,00
500	±2,5	**N159.1**	1 unit(s)	146,00
1000	±5	**N160.1**	1 unit(s)	179,00
2000	±10	**N161.1**	1 unit(s)	272,00

Set of weights OIML class E2

Kern.

All milligram weights are in wafer form. 1 to 5 mg made of aluminium, 10 to 500 mg made of nickel silver. Delivery with or without DAkkS calibration certificate.

Delivery incl. plastic case.

Without certificate

Additional info	Art. No.	Pack Qty.	€
12 weights from 1 to 500 mg	**YP75.1**	1 set	325,00

With certificate

Additional info	Art. No.	Pack Qty.	€
12 weights from 1 to 500 mg	**YP76.1**	1 set	535,00

Set of weights OIML class F1

Kern. Material: Stainless steel, polished.

With or without DAkkS calibration certificate.

Delivery incl. wooden case.

Without certificate

Additional info	Art. No.	Pack Qty.	€
1 to 50 g with 8 weights	**YP77.1**	1 set	445,00
1 to 100 g with 9 weights	**YP78.1**	1 set	510,00
1 to 200 g with 11 weights	**YP79.1**	1 set	670,00
1 to 500 g with 12 weights	**YP80.1**	1 set	860,00
1 to 1000 g with 13 weights	**YP81.1**	1 set	1.020,00

With certificate

Additional info	Art. No.	Pack Qty.	€
1 to 50 g with 8 weights	**YP82.1**	1 set	519,00
1 to 100 g with 9 weights	**YP83.1**	1 set	595,00
1 to 200 g with 11 weights	**YP84.1**	1 set	768,00
1 to 500 g with 12 weights	**YP85.1**	1 set	980,00
1 to 1000 g with 13 weights	**YP86.1**	1 set	1.151,00

Test weight OIML class E2

Kern. Material: Stainless steel, corrosion-resistant and anti-magnetic.

Mirror finished. For adjusting analytical balances. Delivery with or without DAkkS calibration certificate.

Delivery incl. velvet cushioned wooden case.

Without certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
20	±0,08	**Y113.1**	1 unit(s)	94,00
50	±0,10	**Y115.1**	1 unit(s)	101,00
100	±0,15	**Y117.1**	1 unit(s)	110,00
200	±0,30	**Y119.1**	1 unit(s)	131,00

With certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
20	±0,08	**Y114.1**	1 unit(s)	124,00
50	±0,10	**Y116.1**	1 unit(s)	131,00
100	±0,15	**Y118.1**	1 unit(s)	154,00
200	±0,30	**Y120.1**	1 unit(s)	169,00

Multiple sockets

Socket strip Eco series

Power supply 250 V~, max. 3600 W, 16 A.

(1) 3-way socket strip model
With rotated sockets.
Dimensions: W 100 mm x H 60 mm x L 200 mm.

Version	Bar length (mm)	Cable length (m)	Art. No.	Pack Qty.	€
3-way	200	1.4	**XK32.1**	1 unit(s)	12,80

(2) 2+2-way socket strip model
With 2 Euro sockets and 2 safety sockets.
Dimensions: W 70 mm x H 50 mm x L 200 mm.

Version	Bar length (mm)	Cable length (m)	Art. No.	Pack Qty.	€
2 +2-way	200	1.4	**XK33.1**	1 unit(s)	12,80

(3) 6-way socket strip model
With rotated sockets. Dimensions: W 75 mm x H 60 mm x L 345 mm.

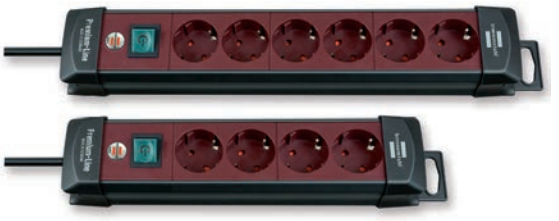
Version	Bar length (mm)	Cable length (m)	Art. No.	Pack Qty.	€
6-way	345	1.4	**XK34.1**	1 unit(s)	17,10

Socket strip Eco line, 3-way with switch

Brennenstuhl.

Inclined socket arrangement. Illuminated safety switch, 2-pole on/off switch.
Dimensions: W 240 mm x H 65 mm x D 100 mm. Max. 3500 W, 16 A.
Power supply 230 V.

Version	Cable length (m)	Art. No.	Pack Qty.	€
3-way	3	**HHN0.1**	1 unit(s)	14,20
3-way	5	**HHN1.1**	1 unit(s)	21,00



Socket strip

Brennenstuhl.

Made of special, highly break-resistant plastic. The ideal diagonal arrangement of the plug contacts allows easy simultaneous connection of 4/6 angle plugs. The integrated on/off switch indicates readiness for operation. With practical cable holder to store the cable after use. Can also be wall-mounted; hanging device is provided. 2 m connecting cable 2 m on 4-way strip, 3 m on 6-way strip. Colour: Anthracite/bordeaux.

Version	Colour	Bar length (mm)	Art. No.	Pack Qty.	€
4-fold	anthracite, bordeaux red	320	**E757.1**	1 unit(s)	17,65
6-fold	anthracite, bordeaux red	410	**E758.1**	1 unit(s)	25,50

Socket strip 6-way

Brennenstuhl.

With overvoltage and lightning protection.
Protects connected devices from damage in the event of overvoltage through indirect lightning strikes or from voltage peaks in the mains supply up to 4500 A; for example, through inductive load switching. Diagonal arrangement of sockets for up to 6 central or angle plugs. Suitable for devices up to 16 A and 3680 W power consumption. Two-pole isolating mains switch with function indicator light. H05 VV-F 3G1.0 1.5 m connection cable. 16 A, 230 V safety plug.

Version	Colour	Art. No.	Pack Qty.	€
6-way	black	**P685.1**	1 unit(s)	26,45
6-way	light grey	**P686.1**	1 unit(s)	26,45

Multiple sockets

Socket strip IP44, 4-way

Brennenstuhl.

Also for use outdoors. With self-closing lids, protection class IP 44. Approx. 2 m rubber/neoprene connection cable. Screw hole for fastening. H 50 mm x W 410 mm x D 100 mm. Max. 3680 W, 16 A. Power supply 250 V.

Type	Version	Cable length (m)	Art. No.	Pack Qty.	€
Socket strip, 4-way, IP44	4-way	2	**HHN7.1**	1 unit(s)	21,00

Socket strip IP54, 5-way

Brennenstuhl.

For rugged use and outdoor applications. Splashproof (IP 54). Impact and break-resistant plastic housing. Connection-cable with **FI plug (fault-current circuit breaker)** 30 mA protects against hazardous electrical accidents. Illuminated 2-pole On/Off switch with protective hood. 5 splash-proof sockets with sealing ring and self-closing hinged lids to protect against contamination, according to VDE. Sockets in 45° arrangement. Cable length 5 m. Dimensions: L 480 mm x W 80 mm x H 62 mm.

Type	Version	Bar length (mm)	Art. No.	Pack Qty.	€
Socket block, 5-way, IP54	5-way	480	**KP32.1**	1 unit(s)	60,75

Socket outlet distributor with 4-way socket

Brennenstuhl.

With safety plug. Housing made of special, highly break-resistant plastic. 3 m connection cable (can be rolled up into housing). Very flat (height 60 mm), Ø 180 mm. Colour: Black/white.

Version	Colour	Cable length (m)	Art. No.	Pack Qty.	€
4 way	black, white	3	**E759.1**	1 unit(s)	22,10

Safety cable reel

Brennenstuhl.

With automatic overheating and accident prevention function. If the temperature reaches +55 °C, current passage is interrupted and the red indicator light lights up. Connected load 220 V/4 A. Rating up to 3500 W when cable is unwound. Four Schuko plug sockets and cable with Schuko plug. Dimensions: H 230 mm x D 105 mm, Ø 190 mm.

Version	Cable length (m)	Art. No.	Pack Qty.	€
4-way	5	**HHN3.1**	1 unit(s)	27,10
4-way	10	**4687.1**	1 unit(s)	38,55

Extension cable

PVC-hose line. With safety-plug.

Cable length (m)	Art. No.	Pack Qty.	€
3	**Y203.1**	1 unit(s)	18,20
5	**Y204.1**	1 unit(s)	26,80

NEW / +

Timer MZ 20-1

Brennenstuhl.

Mechanical, with 96 switch on/switch off times per day. Minimum switching interval 15 min. With LED function display. Max. switching capacity 3500 W. Dimensions W 80 x D 70 x H 120 mm. Weight 160 g. Mains power 230 V.

Type	Art. No.	Pack Qty.	€
MZ 20-1 timer	**1K64.1**	1 unit(s)	8,50

Timer with temperature sensor

Allows time-controlled or temperature-controlled switching, or both combined. In **Time mode** there are three possible On/Off time pairs in a 24 hour cycle. In **Temperature mode**, the device switches itself on/off when the value falls below a freely-set temperature. Maximum load capacity 3500 W. Sensor cable length 1 m.

Technical specifications:

Art. No.	C012.1
Operating temperature	0 to +40 °C
Accuracy	1 °C
Width	55 mm
Depth	55 mm
Height	130 mm
Weight	250 g

Delivery incl. micro 1.5 V battery.

Version	Art. No.	Pack Qty.	€
Timer with sensor	**C012.1**	1 unit(s)	48,35

One-hour signal timer

In plastic housing. With spring drive. After the set time has expired, a subtle yet clearly audible ringing signal sounds.
Dimensions: W 70 x D 40 x H 70 mm. Weight approx. 108 g.

Colour	Art. No.	Pack Qty.	€
red	**KN86.1**	1 unit(s)	9,20
black	**KN87.1**	1 unit(s)	9,20
white	**KN85.1**	1 unit(s)	9,20
yellow	**KN88.1**	1 unit(s)	9,20

One-hour signal timer

Stainless steel housing, plastic coating. Shows remaining time in colour. Ringing signal once the time has elapsed. Metal winding movement. Magnetic fastener. Dimensions: Ø 79 x T 32 mm. Weight 118 g.

Type	Art. No.	Pack Qty.	€
One-hour signal timer	**EEC7.1**	1 unit(s)	11,30

Two-hour signal timer

With spring drive. Made of plastic. A clear ringing signal is heard at the end of the cycle. Can be wall-mounted.
Dimensions: W 69 x D 40 x H 69 mm.

Type	Art. No.	Pack Qty.	€
Two-hour signal timer	**N022.1**	1 unit(s)	12,65

Signal clocks

Timers ROTILABO® with count-down/count-up

Carl ROTH.

4-digit LCD display for minutes and seconds. Programmable for 99 min, 59 s. Timer memory function. Alarm triggered when "0" is reached. With magnetic fastener. Rubberised coating. Dimensions: Ø 55 x D 15 mm. Weight 80 g.

Delivery incl. 1.5 V button cell battery.

Colour	Art. No.	Pack Qty.	€
red	**LY66.1**	1 unit(s)	11,05
white	**LY65.1**	1 unit(s)	11,05

Timers ROTILABO® with count-down

Carl ROTH.

4-digit LCD display for minutes and seconds. Programmable for 99 min, 59 s. Alarm triggered when "0" is reached. Timer memory function. Magnet for attachment to metal surfaces.
Dimensions: 88 x 46 x 12 mm, weight 30 g.

Delivery incl. 1.5 V button cell battery.

Type	Art. No.	Pack Qty.	€
Count-down timer	**X396.1**	1 unit(s)	29,50

Timers ROTILABO® with count-down

Carl ROTH.

4-digit LCD display for minutes and seconds. Programmable for 99 min, 59 s. Alarm triggered when "0" is reached. Timer memory function. Clip for hanging and magnet for placing.
Dimensions: W 66 x D 56 x H 18 mm, weight 45 g.

Delivery incl. 1.5 V AAA battery.

Type	Art. No.	Pack Qty.	€
Count-down timer	**X398.1**	1 unit(s)	15,45

Timers count-down/count-up

Direct numerical input via numerical keypad. Maximum operating time 99 h, 99 min and 99 s. With on/off switch to conserve the battery and folding stand. Audio signal at “zero”. Dimensions: W 66 x D 20 x H 108 mm. Weight 67 g.

Delivery incl. 2 x 1.5 V AAA batteries.

Type	Art. No.	Pack Qty.	€
Count-down/count-up timer	**TY87.1**	1 unit(s)	11,45

Timers count-down/count-up with rapid entry

4-digit LCD display for minutes and seconds. Programmable for 99 min, 50 s. Easy **direct time input with 10, 5 and 1 min button, as well as 10 s button**. Deactivatable alarm. With magnetic fastener, stand and mounting ring.
Dimensions: L 90 x W 90 x D 17 mm. Weight: 66 g.

Delivery incl. CR 2032 button cell battery, 3 V.

Type	Art. No.	Pack Qty.	€
Count-down/count-up timer	**HPX7.1**	1 unit(s)	13,40

Timers with count-down/count-up

With large display. Count-down/count-up. Direct numerical input via numerical keypad. Maximum operating time 10 hours. Audio signal at "zero". Dimensions: W 60 x H 70 x D 25 mm. With attachment magnet, stand, clip and hanger. Weight 95 g.

Delivery incl. 1.5 V AAA battery.

Type	Art. No.	Pack Qty.	€
Electronic signal timer	**X253.1**	1 unit(s)	14,70

Timers ROTILABO®

Carl ROTH.

Count-down/count-up function. With clock, 24-hour quartz clock, with second increments. To prop up, fix with magnets and for attaching to the chest pocket. Intense intermittent beeping.
Dimensions: W 60 x H 60 mm.

Delivery incl. 1.5 V button cell battery.

Type	Art. No.	Pack Qty.	€
Signal timer	**0773.1**	1 unit(s)	23,90

Timers ROTILABO®

Carl ROTH.

Count-down/count-up. Maximum operating time 99 min, 59 s. Start/stop button with visual timer status display (green = time counting down; red = preset time expired). After the countdown stops, an acoustic signal sounds for 1 min and is accompanied by a visual signal. Two different volumes or mute mode can selected. **Timer memory function for 3 times.** Includes stand, magnet for fixing to metal surfaces and hanging attachment. Dimensions: L 90 x W 60 x D 20 mm.

Delivery incl. 2 x 1.5 V AAA batteries.

Type	Art. No.	Pack Qty.	€
Short period timer	**TA16.1**	1 unit(s)	16,85

Timers count-down Cube

Cube with 4 preset expiry times.
Simple time entry: The required duration is selected by turning the corresponding side upwards. **Choose from: 5, 15, 30 or 60 min.** The count-down display counts backwards in second intervals. Pulsating LED signals operation (can be deactivated). Adjustable alarm tone (off/quiet/loud). Pre-alarm can be activated (10 s before time expires). Dimensions: W 60 x D 60 x H 60 mm. Weight 70 g.

Delivery without batteries. Requires 2 x AAA 1.5 V batteries for operation.

Type	Art. No.	Pack Qty.	€
One-hour signal timer	**HPC6.1**	1 unit(s)	16,10

Timers Shake Awake

- Count-down/count-up
- **With alarm sound, light signal or vibrating alarm. All signal settings can be activated separately or together.**
- Four-digit LCD display, showing hours/min or min/seconds
- Operating time: 19 h, 59 min or 99 min, 59 s
- With magnetic fastener and clip to attach and prop-up
- Dimensions: W 48 x D 31 x H 75 mm, weight 110 g

Delivery incl. 2 x 1.5 V AAA batteries.

Type	Art. No.	Pack Qty.	€
Shake Awake short period timer	**EE51.1**	1 unit(s)	23,55

Timers 2-channel

Count-down/count-up. With two independent channels for separate time measurement. Maximum operating tome 99 h, 59 min and 59 s.. Start/stop button with visual timer status display (green = time counting down; red = preset time expired).
After the count-down, a deep sounds for 1 minute accompanied by a visual display. Two different volumes or mute mode can selected. Includes stand, magnet for fixing to metal surfaces and hanging attachment. Dimensions: L 88 x W 75 x D 20 mm.

Delivery without batteries. Requires 2 x AAA 1.5 V batteries for operation.

Type	Art. No.	Pack Qty.	€
2-channel short period timer	**TA55.1**	1 unit(s)	17,35

Signal clocks

Timers ROTILABO® with clock

Carl ROTH.

Count-down/Count-up. With two independent channels for separate time measurement. Time displayed when function keys are switched. Adjustable to 99 h, 59 min and 59 s. Large LCD display. Alarm sound lasts 1 min. With clamp stands and magnet for metal surfaces. Automatically counts up as soon as the timer has reached zero. Dimensions: H 65 x W 75 x D 15 mm, weight approx. 65 g.

Delivery incl. 1.5 V AAA battery.

Type	Art. No.	Pack Qty.	€
Signal timer with clock	**A802.1**	1 unit(s)	42,70

Timers ROTILABO® 3-line

Carl ROTH.

All three displays have a **count-down/count-up** and memory function. Large 3-line LCD display. **Three separate timers in one device.** Adjustable to 99 h, 59 min and 59 s. Alarm sounds when “zero” is reached. Clock can be switched from 12 to 24-hour display. Clip for hanging and magnet for placing. Dimensions: W 83 x H 70 x D 22 mm. Weight 80 g.

Delivery incl. 1.5 V button cell battery.

Type	Art. No.	Pack Qty.	€
Short period measurer, 3-line	**P874.1**	1 unit(s)	29,65

Timers Triple XL 3-line

All three displays have a count-down function. Count-up function for display with 1/100 second display.
With large display (80 x 60 mm) and clock. Three separate timers in one device. Max. operating time 19 h, 59 min and 59 s. After the count-down is complete, a beep sounds for 1 min and the timer begins to count up. Memory function. With magnetic fastener, wall hanger and foldable stand. Dimensions: W 103 x D 121 x H 20 mm.

Delivery incl. 2 x 1.5 V AAA batteries.

Type	Art. No.	Pack Qty.	€
Triple XL Timer	**PT76.1**	1 unit(s)	19,10

Timers with large LCD display

With 24-hour timer and calender. Count-down/count-up function.
Extra large LCD display (L 140 x W 40 mm).
Programmable to 23 h, 59 min and 59 s. Alarm triggered when „0“ is reached. Timer memory function. Dimensions: L 160 x W 90 x D 68 mm.

Delivery incl. Baby 1.5 V battery.

Type	Art. No.	Pack Qty.	€
Laboratory timer	**Y224.1**	1 unit(s)	100,80

Stopwatches

Stopwatch ROTILABO®

Carl ROTH.

Splash-proof. With 24 h operating time. 1/100 second display over 30 min. Viewable intervals. Additional functions: Time, calender and alarm. Snooze function. Dimensions: H 69 mm x W 59 mm x D 19 mm.

Delivery incl. 1.5 V button cell.

Type	Art. No.	Pack Qty.	€
Stopwatch	**L423.1**	1 unit(s)	12,20

Stopwatch with calibration certificate

Hanhart.

Waterproof ABS housing. Max. operating time: 9 h, 59 min, 59 s. 1/100 second display. Interval recording.
Dimensions: H 82 mm x W 61 mm x D 28 mm.

Delivery incl. 1.5 V AA battery and calibration certificate.

Version	Art. No.	Pack Qty.	€
Stopwatch with certificate	**LK76.1**	1 unit(s)	117,20

① ②

Winding stopwatch

Wound by hand. Chrome-plated, brass housing. Start/stop: Winder. Ø 50 mm. Weight 100 g.

(1) Basic model
Max. measuring range: 15 min, resolution 1/10 s. Reset: Winder.

Type	Art. No.	Pack Qty.	€
Basic	**HA62.1**	1 unit(s)	66,45

(2) Classic model
Max. measuring range: 30 min, resolution 1/5 s. Reset: Zero-position. With pause button.

Type	Art. No.	Pack Qty.	€
Classic	**HA63.1**	1 unit(s)	73,05

Addition stopwatch

Hanhart.

In pocket watch format. To be wound up. Shockproof, dust- and water-proof plastic housing. Unbreakable tension spring.
Resolution $^1/_{10}$ s. Weight approximately 60 g.

Type	Art. No.	Pack Qty.	€
Addition stopwatch	**2050.1**	1 unit(s)	123,65

Desktop timer

Hanhart.

Large, easy-to-read LCD display. Max. operating time 9 h, 5 min, 59 s or 999 min. Two timers which can be started and stopped together or separately. Count-up or count-down.
Adjustable volume, max. 90 dB. Time resolution $^1/_{10}$ s or $^1/_{100}$ min.
Dimensions: H 170 mm x W 130 mm x D 97 mm.

Delivery incl. 1.5 V AA battery.

Type	Art. No.	Pack Qty.	€
Desktop timer	**N317.1**	1 unit(s)	118,25

Desktop stopwatch Analogue

Hanhart.

Measuring range: 0 - 60 s / 0 - 60 min, internal scale: $^1/_{100}$ Display. Quartz-controlled. Ergonomically designed with optimum stability. Functions: Start/stop/reset and also addition (as often as required). Dial: Ø 110 mm. Dimensions: H 175 mm x W 130 mm x D 95 mm. Weight: 375 g

Delivery incl. 1.5 V AA battery.

Type	Art. No.	Pack Qty.	€
Analogue desktop stopwatch	**H735.1**	1 unit(s)	145,15

Wall clocks

Wall clock

With additional inside temperature and relative humidity display. Ø 265 mm, plastic housing and plastic cover.

Delivery incl. 1.5 V AA battery.

Type	Ø (mm)	Art. No.	Pack Qty.	€
Wall clock	265	**KT37.1**	1 unit(s)	15,70

Quartz wall clocks

With plastic housing. Ø 245 mm, D 40 mm.

Delivery without battery. One 1.5 V battery is required.

Colour	Ø (mm)	Art. No.	Pack Qty.	€
black	245	**C334.1**	1 unit(s)	16,95
white	245	**C333.1**	1 unit(s)	16,95

Wall clock

Bushed aluminium housing. Glass cover. Ø 300 mm, D 41 mm.

Delivery incl. 1.5 V AA battery.

Colour	Ø (mm)	Art. No.	Pack Qty.	€
white	300	**KN89.1**	1 unit(s)	21,65

Radio-controlled wall clock

Automatic time setting and changeover to summer/winter time. Art. No. KN68.1 also with digital date display.

Delivery incl. 1.5 V AA battery.

Pic.	Ø (mm)	Art. No.	Pack Qty.	€
(1)	246	**KN66.1**	1 unit(s)	26,35
(2)	300	**KN68.1**	1 unit(s)	42,90

Radio-controlled wall clock

Automatic time setting and changeover to summer/winter time.

(1) Sweep model
Quiet Sweep movement with no ticking. Plastic housing. Dimensions: Ø 302 x D 47 mm, weight 434 g.

Delivery without battery. One 1.5 V AA battery is required.

Pic.	Type	Ø (mm)	Art. No.	Pack Qty.	€
(1)	Sweep	302	**EEC8.1**	1 unit(s)	31,75

(2) Corona model
LED-illuminated dial that uses a light sensor to switch on and off automatically, or alternatively, can be switched on and off manually. Dimensions: Ø 308 x D 43 mm, weight 509 g. Separate battery slot for clock and lighting. Lighting battery life approx. 100 days when used for 8 h/day (in "auto" position).

Delivery without battery. 4 x 1.5 V AA batteries are required.

Pic.	Type	Ø (mm)	Art. No.	Pack Qty.	€
(2)	Corona	308	**EEC9.1**	1 unit(s)	39,90

Wall clocks

Radio-controlled wall clock

Automatic time setting and changeover to summer/winter time.
Ø 300 mm, depth 45 mm. Glass cover. Station clock face.
Plastic housing available in either black or with chromed edges.

Delivery without battery. One 1.5 V AA battery is required.

Colour	Ø (mm)	Art. No.	Pack Qty.	€
black	300	**L486.1**	1 unit(s)	37,55
chrome	300	**Y227.1**	1 unit(s)	37,10

Radio-controlled wall clock with room climate display

With analogue LCD clock and revolving second hand. Display of date and day of the week (7 languages), inside temperature (measuring range -10 to +50 °C) and relative humidity (5 to 99% RH), calendar week or digital clock. Selected via sensor buttons. Dimensions:
W 220 x D 31 x H 265 mm. Weight: 580 g.

Delivery incl. 4 x 1.5 V AA batteries.

Type	Art. No.	Pack Qty.	€
Radio-controlled wall clock	**XX18.1**	1 unit(s)	69,90

Radio-controlled alarm clock XXL

Automatic time setting and changeover to summer/winter time.
With large display. Display of inside temperature (-10 to +60 °C), day of the week and date. Wake-up alarm with snooze function. Can be wall- or table-mounted. Dimensions: W 235 x H 195 x D 28 mm. Weight: 400 g.

Delivery without batteries. Two 1.5 V AA batteries are required.

Type	Art. No.	Pack Qty.	€
Radio-controlled alarm clock XXL	**PY80.1**	1 unit(s)	24,20

Solar-powered pocket calculator EL-243S

Sharp.

8-digit LCD display. Solar- and battery-powered. With function for calculating roots and percentages. Memory. Swivelling protective cover (can be folded by 180°).
Dimensions (opened): 11 x 104 x 64 mm, weight approx. 51 g.

Delivery incl. backup battery.

Type	Art. No.	Pack Qty.	€
EL-243S	**LN02.1**	1 unit(s)	10,40

Solar-powered pocket calculator LCD 1000P

Olympia.

Water and dust-repellent housing acc. to IP 54. With shock absorbing rubber edging. 12-digit LCD display. Solar- and battery-powered. Square root/percentage calculation. Memory.
Dimensions: L 158 x W 106 x H 40 mm. Weight approx. 146 g.

Delivery incl. backup battery.

Type	Art. No.	Pack Qty.	€
LCD 1000P	**LN01.1**	1 unit(s)	29,35

Solar-powered pocket calculator Sharp EL-340W

Sharp.

12-digit display, movable. Solar- and battery-powered.
Number of decimal places (F-3-2-0-A) can be selected.
Four-key memory. "00" button. Correction button. Tax calculation.
With function for calculating roots and percentages.
Dimensions W 127 x L 185 x H 17 mm, weight 199 g.

Delivery incl. backup battery CR 2032.

Type	Art. No.	Pack Qty.	€
Sharp EL-340W	**KCT4.1**	1 unit(s)	23,30

Calculators

Chemistry/life sciences calculator Chemcode®

Features:

- Keyboard with periodic table and numerical keyboard
- Buttons for DNA (A, T, G, C) and RNA (A, U, G, C) nucleotides
- Two-line display with scroll function
- Functions for scientific calculations
- Dimensions: L 136 x W 110 x D 14 mm

Stoichiometric functions
Displays: Molar mass, ideal gas volumes, mass to be weighed in g, amount of substance in moles
Calculates: Molecular formulas, proportion of individual elements or element groups in % or g, mass of substances in g. Converts from molar concentration (mol/l; molarity) into mass concentration (g/l) and vice versa, mass-% into molarity. When diluting, determines the volumes to be input in litres and calculates the amount of substance in mmol when performing titrations.

Molecular biological functions for the PCR®
Displays: Protein codes, %-proportion of guanine and cytosine, molar mass of the nucleotide sequence and protein sequence, amount of substance in nmol, optical density, amount of substance in a DNA segment in ng, melting temperature of the oligonucleotide.

Lexical functions:

- Conversion between °C, F and Kelvin
- Recalls different constants (Avogadro, Faraday, etc.)
- Functions for recalling chemical, physical and biological characteristics of elements and other information such as melting point, boiling point, electro-negativity, year of discovery, etc.

Delivery incl. four CR 2025 button cell batteries.

Type	Art. No.	Pack Qty.	€
Chemcode® calculator	**CE95.1**	1 unit(s)	128,40

Scienti ic solar-powered calculator TI-30 X II S

Texas Instruments.

2-line display for statistical and scientific functions. **11-digit, scroll-through input line** and 10-digit result line. **Combined solar and battery power.** With various functions, like fractions with automatic simplification, trigonometric functions, five memory variables, random number generator and many more. Dimensions: W 82 x D 155 x H 19 mm.

Delivery incl. protective bag and backup battery.

Type	Art. No.	Pack Qty.	€
TX-1210E	**KT82.1**	1 unit(s)	34,45

Scientific solar-powered calculator EL-W531TG

Sharp.

Dot matrix display, 96 x 32 dot resolution. 422 functions.
Nine memory variables. Three freely assignable keys for frequently used functions. Maths functions, statistical functions and trigonometric functions.
WriteView™ displays vinicula, roots, Pi and other functions in mathematical notation style. **Combined solar and battery power.**
Dimensions W 80 x D 166 x H 15 mm, weight 108 g.

Delivery incl. backup battery.

Type	Art. No.	Pack Qty.	€
EL-W531TG	**1C90.1**	1 unit(s)	35,50

Laboratory Equipment

Autoclaves and accessories 1244
Barrel heaters 1354
Block thermostats 1314
Burners / lighters 1270
Cell disruptors / homogenizers 1420
Centrifuges and accessories 1476
Cooling incubators 1337
Dispersing / homogenizing systems 1416
Drying and heating cabinets 1342
Flocculators 1415
Hot air blowers 1287
Hot air sterilizers 1282
Heating and magnetic stirrers 1382
Heating mantles and heating leads 1355
Hotplates and cookers 1365
Histology and pathology equipment 1362
Ice makers 1267
Immersion heaters 1285
Incubators 1328
Incubation shakers 1454
Kettles 1288
Magnetic stirrers 1371
Magnetic bars 1394
Melting point measuring units 1362
Microwave ovens 1286
Mills, mixers 1426
Muffle furnaces 1352
Overheadmixer 1468
Pressure digestion vessels 1256
Recirculating coolers 1298
Refrigerating thermostats 1300
Refrigerators / freezers, freezer chests 1257
Rocker 1464
Rotary evaporators 1324
Roller mixers, mixers 1461
Shakers, mixers 1437
Steam sterilizers 1253
Stirrers and accessories 1401
Thermoshakers 1318
Thermostats 1290
Thermostat cabinets 1265
Tripod and quadrupod stands / heating tiles 1283
Ultrasonic disintegators 1420
Vacuum drying cabinets 1353
Vortexer 1430
Water baths 1304

High-pressure laboratory autoclaves model 0

Carl ROTH. Material: Stainless steel 1.4571 (V4A).

50 ml/100 bar

Model 0 is the smallest autoclave in the ROTH range. Initially it was developed for preliminary tests at room temperature. **It is the steel test tube for all preliminary tests where work is carried out under high pressure. It is the ideal and cost-effective alternative for situations where glass carius tubes may present a danger.** Model 0 has a screw-on head with a threaded opening for fitting to equipment. The opening can be closed with a screw stopper. Sealed with PTFE gaskets (max. 180 °C) or pure silver gaskets (max. 300 °C).
Depending on the scope of the autoclave system, delivery times may apply!

Technical specifications:

Empty space	75 ml
Working volume	50 ml
Height	135 mm
Weight	835 g
Material	Stainless steel 1.4571 (V4A)
Operating temperature	-60 to 300 °C
Max. working pressure	100 bar
Test pressure	300 bar
Additional data	Test pressure at 20 °C
Outer beaker Ø	40 mm
Outer head Ø	54 mm
Inner beaker Ø	30 mm
Bottom shape	flat outside and inside
Connection opening in head	G ¼″

Basic equipment

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	Model 0, 50 ml beaker and head	**2970.1**	1 unit(s)	858,95
(2)	Adapter I	**2207.1**	1 unit(s)	1.355,60
(3)	Fine control valve and check valve	**H745.1**	1 unit(s)	440,75
(4)	Display pressure gauge up to 160 bar	**2031.1**	1 unit(s)	225,75
	Bursting disc type 8.100 E, 100 bar	**2199.1**	1 unit(s)	139,25
	PTFE gasket set I (with silver gasket for bursting disc)	**2067.1**	1 unit(s)	65,65
	Pure silver gasket set I	**2065.1**	1 unit(s)	211,80
	Wrench set I, Size No.. 14 - 17 - 19 - 22 - 27 - 41	**2071.1**	1 set	45,35

Accessories for gas injection

Accessories:

Designation	Art. No.	Pack Qty.	€
PTFE high-pressure hose with NPT inner thread ¼″	**H996.1**	1 unit(s)	436,45
Reducer union of direct connection to gas cylinders (please specify type of gas)	**2066.1**	1 unit(s)	216,10

Option

Accessories:

Designation	Art. No.	Pack Qty.	€
Glass sleeve for 50 ml beaker, height 104 mm, Ø 28 mm	**H976.1**	1 unit(s)	21,30
Base plate 41, as mount for screwing autoclave models 0 and I	**2072.1**	1 unit(s)	590,20
Tablet stirring magnet Ø 22 mm, H 15 mm	**3003.1**	1 unit(s)	10,05
Screw stopper type A for ¼″ connection opening	**2052.1**	1 unit(s)	111,50

Replacement seals

Accessories:

Designation	Art. No.	Pack Qty.	€
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	5,85
PTFE seal 20 - for pressure gauge	**2161.1**	1 unit(s)	6,15
PTFE seal 42 - for autoclave beaker/head (models 0 and I) or head opening for sampling (models II and IV)	**2163.1**	1 unit(s)	6,95
Silver gasket 12 - for connections to head, valve and reducer union	**2170.1**	1 unit(s)	52,45
Silver gasket 18 - for pressure gauge	**2172.1**	1 unit(s)	45,55
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
Silver gasket 15 - for bursting disc type 8.100 E, 100 bar	**2173.1**	1 unit(s)	45,40

High-pressure laboratory autoclaves model I

Carl ROTH. Material: Stainless steel 1.4571 (V4A).

100 ml/100 bar

Model I is the standard model in the ROTH range. It is used primarily for preliminary testing. Model I consists of a cylindrical autoclave beaker and a threaded autoclave head. The head has a threaded opening on top for attachment of adapter I (to fit bursting disc, pressure gauge and valve). The opening can be closed with a screw stopper. Sealed with PTFE gaskets (max. 180 °C) or pure silver gaskets (max. 300 °C).
Depending on the scope of the autoclave system, delivery times may apply!

Technical specifications:

Empty space	135 ml
Working volume	100 ml
Height	220 mm
Weight	1210 g
Material	Stainless steel 1.4571 (V4A)
Operating temperature	-60 to +300 °C
Max. working pressure	100 bar
Test pressure	300 bar
Outer beaker Ø	40 mm
Outer head Ø	54 mm
Inner beaker Ø	30 mm
Connection opening in head	G ¼″
Adapter (T-piece), with bursting disc protection	
Material	V4A stainless steel 1.4571 (adapter to accommodate the bursting disc, valve and pressure gauge)
Connectionopenings	G½″ for pressure gauge G¼″ for valve

Basic equipment

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	Model I, 100 ml beaker and head	**2001.1**	1 unit(s)	1.120,15
(2)	Adapter I	**2207.1**	1 unit(s)	1.355,60
(3)	Fine control valve and check valve	**H745.1**	1 unit(s)	440,75
(4)	Display pressure gauge up to 160 bar	**2031.1**	1 unit(s)	225,75
	Bursting disc type 8.100 E, 100 bar	**2199.1**	1 unit(s)	139,25
	PTFE gasket set I (with silver gasket for bursting disc)	**2067.1**	1 unit(s)	65,65
	Pure silver gasket set I	**2065.1**	1 unit(s)	211,80
	Tablet stirring magnet Ø 22 mm, H 15 mm	**3003.1**	1 unit(s)	10,05
	Wrench set I, Size No.. 14 - 17 - 19 - 22 - 27 - 41	**2071.1**	1 set	45,35
	Heating mantle 10 S for 100 ml, with magnetic stirrer	**KCX5.1**	1 unit(s)	2.654,20

Accessories for gas injection

Designation	Art. No.	Pack Qty.	€
PTFE high-pressure hose with NPT inner thread ¼″	**H996.1**	1 unit(s)	436,45
Reducer union of direct connection to gas cylinders (please specify type of gas)	**2066.1**	1 unit(s)	216,10

Accessories for assembly/option

Designation	Art. No.	Pack Qty.	€
Base plate 41, as mount for screwing autoclave models 0 and I	**2072.1**	1 unit(s)	590,20
Screw stopper type A for ¼″ connection opening	**2052.1**	1 unit(s)	111,50
Glass sleeve for 100 ml beaker, height 185 mm, Ø 28 mm	**2196.1**	1 unit(s)	23,15
Tube connection fitting AD 6.35 mm	**H746.1**	1 unit(s)	34,25

Replacement seals

Designation	Art. No.	Pack Qty.	€
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	5,85
PTFE seal 20 - for pressure gauge	**2161.1**	1 unit(s)	6,15
PTFE seal 42 - for autoclave beaker/head (models 0 and I) or head opening for sampling (models II and IV)	**2163.1**	1 unit(s)	6,95
Silver gasket 12 - for connections to head, valve and reducer union	**2170.1**	1 unit(s)	52,45
Silver gasket 15 - for bursting disc type 8.100 E, 100 bar	**2173.1**	1 unit(s)	45,40
Silver gasket 18 - for pressure gauge	**2172.1**	1 unit(s)	45,55
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50

High-pressure laboratory autoclaves model II

Carl ROTH. Material: Stainless steel 1.4571 (V4A).

200/300 ml/100 bar, 250 ml/200 bar

Model II encompasses devices for all reactions where spontaneous gas development and a quick increase in pressure are to be expected. The devices are operated with a large bursting disc, that is incorporated in the autoclave head. They thus offer maximum operational safety.
The enlarged autoclave head is screwed directly onto the cylindrical autoclave beaker. It contains the bursting disc holder at the top and three threaded openings at the side.
For connections with: valves, reducers for pressure gauges and temperature sensors or burst disc safety device II (when using magnetic stirrer head MRK 10).
Threaded openings can be closed with screw stoppers. Sealed with PTFE gaskets (max. 180 °C) or pure silver gaskets (max. 300 °C).
Depending on the scope of the autoclave system, delivery times may apply!

Autoclaves

Autoclave beakers	200 mm	300 ml	250 ml
Empty space (ml)	265	350	320
Working capacity (ml)	200	300	250
Height (mm)	220	300	300
Weight (g)	1375	1900	2250
Max. working pressure (bar)	100	100	200
Test pressure at +20 °C (bar)	300	300	400
Outside Ø (mm)	50	50	50
Inside Ø (mm)	40	40	37
Bottom shape	**flat outside and inside**		
Material	V4A stainless steel 1.4571		
Working temperature	–60 to +300 °C		

Basic equipment

Technical specifications:

Material	Stainless steel 1.4571 (V4A)
Outer beaker Ø Additional data	69 mm top head opening for bursting disc 28.100/28.200 or magnetic stirrer head MRK 10
Connection opening in head	G ¼″
Weight	1250 g

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	200 ml autoclave beaker/100 bar	**2098.1**	1 unit(s)	989,00
	300 ml autoclave beaker/100 bar	**2108.1**	1 unit(s)	1.373,85
	250 ml autoclave beaker/200 bar	**2094.1**	1 unit(s)	1.009,45
(2)	Autoclave head II	**2126.1**	1 unit(s)	711,65
	Bursting disc type 28.100 E, 100 bar	**2203.1**	1 unit(s)	146,55
	Bursting disc type 28.200 E, 200 bar	**2204.1**	1 unit(s)	146,55
(3)	Fine control valve and check valve	**H745.1**	1 unit(s)	440,75
(4)	Display pressure gauge up to 160 bar	**2031.1**	1 unit(s)	225,75
	Display pressure gauge up to 250 bar	**2036.1**	1 unit(s)	242,70
(5)	Reducer for pressure gauge	**2033.1**	1 unit(s)	164,50
	Screw stopper type A for ¼″ connection opening	**2052.1**	1 unit(s)	111,50
	PTFE gasket set with silver gasket	**2082.1**	1 unit(s)	74,20
	Pure silver gasket set II	**2102.1**	1 unit(s)	276,30
	Tablet stirring magnet Ø 30 mm, H 12 mm	**4490.1**	1 unit(s)	10,90
	Wrench set II, Size No. 14 - 17 - 19 - 22 - 27 - 50 - 2 x 55	**2078.1**	1 set	147,85
	Heating mantle 20 S for 200 ml beaker with magnetic stirrer	**KCX6.1**	1 unit(s)	2.654,20
	Heating mantle 30 S for 250/300 ml beaker, with magnetic stirrer	**KCX7.1**	1 unit(s)	2.654,20

Accessories for gas injection

Designation	Art. No.	Pack Qty.	€
PTFE high-pressure hose with NPT inner thread ¼″	**H996.1**	1 unit(s)	436,45
Reducer union of direct connection to gas cylinders (please specify type of gas)	**2066.1**	1 unit(s)	216,10

Special accessories for temperature measurement in autoclaves

Designation	Art. No.	Pack Qty.	€
Temperature sensor for model II (200 ml), L 220 mm	**2115.1**	1 unit(s)	401,00
Temperature sensor for model II (250/300 ml), L 280 mm	**A880.1**	1 unit(s)	401,00
Connection cable between heating mantle/sensor, L 1.5 m	**KCX9.1**	1 unit(s)	160,20

Special accessories for insertion or removal of gaseous or liquid samples

Designation	Art. No.	Pack Qty.	€
Adapter with immersion tube 2 for 200 ml autoclave beaker	**2043.1**	1 unit(s)	952,45
Adapter with immersion tube 3 for 250/300 ml autoclave beaker	**2044.1**	1 unit(s)	952,45
Fine control valve and check valve	**H745.1**	1 unit(s)	440,75
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	5,85
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
PTFE seal 42 - for autoclave beaker/head (models 0 and I) or head opening for sampling (models II and IV)	**2163.1**	1 unit(s)	6,95

Special accessories for stirring

Designation	Art. No.	Pack Qty.	€
Magnetic stirrer head MRK 10	**2359.1**	1 unit(s)	2.122,05
Adapter for magnetic stirrer head M 42 to M 30	**2358.1**	1 unit(s)	442,90
Bursting disc safety device II	**3167.1**	1 unit(s)	1.178,20
Bursting disc type 8.100 E, 100 bar	**2199.1**	1 unit(s)	139,25
Silver gasket 15 - for bursting disc type 8.100 E, 100 bar	**2173.1**	1 unit(s)	45,40
Gas treatment stirrer type 2 for 200 ml beaker, L 220 mm	**3184.1**	1 unit(s)	722,40
Gas treatment stirrer type 3 for 250/300 ml beaker, L 299 mm	**3189.1**	1 unit(s)	784,50

Special accessories for assembly/option

Designation	Art. No.	Pack Qty.	€
Base plate 55, as mount for screwing autoclave model II	**2074.1**	1 unit(s)	664,35
Tube connection fitting AD 6.35 mm	**H746.1**	1 unit(s)	34,25
Glass sleeve for 200 ml beaker, height 205 mm, Ø 38 mm	**2197.1**	1 unit(s)	26,80
Glass sleeve for 300 ml beaker, height 285 mm, Ø 38 mm	**2198.1**	1 unit(s)	28,95
Glass sleeve for 250 ml beaker, height 285 mm, Ø 38 mm	**2192.1**	1 unit(s)	27,45

Replacement seals

Designation	Art. No.	Pack Qty.	€
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	5,85
PTFE seal 20 - for pressure gauge	**2161.1**	1 unit(s)	6,15
PTFE seal 51 - for autoclave beaker/head (model II)	**2164.1**	1 unit(s)	13,05
Silver gasket 12 - for connections to head, valve and reducer union	**2170.1**	1 unit(s)	52,45
Silver gasket 18 - for pressure gauge	**2172.1**	1 unit(s)	45,55
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
Silver gasket 50 - for autoclave beaker/head (model II)	**2175.1**	1 unit(s)	58,80

High-pressure laboratory autoclaves model IV

Carl ROTH. Material: Stainless steel 1.4571 (V4A).

500 ml/100 bar

Model IV is the largest autoclave in the ROTH range. It is an enhanced version of the original from which all other models were developed. Model IV consists of a stainless steel beaker with flange. The solid stainless steel lid is screwed onto the flange using eight screws.
The autoclave head is intended for a large busting disc as standard. It thus provides enhanced operational safety in the case of spontaneous gas development and a quick increase in pressure.
The enlarged autoclave head is screwed directly onto the cylindrical autoclave beaker. It contains the bursting disc holder at the top and three threaded openings at the side.
For connections with: valves, reducers for pressure gauges and temperature sensors or bursting disc safety device II (when using the magnetic stirrer head).
Threaded openings can be closed with screw stoppers. Sealed with PTFE gaskets (max. 180 °C) or with pure silver gaskets (max. 300 °C).
The beaker and head combination consists of 8 hexagon bolts and nuts for simple assembly.
Depending on the scope of the autoclave system, delivery times may apply!

Technical specifications:

Empty space	700 ml
Working volume	500 ml
Height	425 mm
Material	Stainless steel 1.4571 (V4A)
Operating temperature	-60 to +300 °C
Max. working pressure	100 bar
Test pressure	300 bar
Additional data	Test pressure at 20 °C
Outer beaker Ø	60 mm
Inner beaker Ø	50 mm
Outer lid Ø	125 mm
Bottom shape	flat outside and inside

Autoclave head II	
Material	V4A stainless steel (1.4571)
Outside Ø	64 mm, top head opening for bursting disc 28.100 or Magnetic stirrer head MRK 10
Three lateral connection openings in the head	G¼″ for valve, reducer for pressure gauge and temperature sensor or bursting disc safety device II for use with magnetic stirrer head MRK 10

Basic equipment

	Designation	Art. No.	Pack Qty.	€
	500 ml beaker and head	**K172.1**	1 unit(s)	2.273,65
	Bursting disc type 28.100 E, 100 bar	**2203.1**	1 unit(s)	146,55
(3)	Fine control valve and check valve	**H745.1**	1 unit(s)	440,75
(4)	Display pressure gauge up to 160 bar	**2031.1**	1 unit(s)	225,75
	Locking piece for reducer	**2034.1**	1 unit(s)	365,50
(5)	Reducer for pressure gauge	**2033.1**	1 unit(s)	164,50
	Screw stopper type A for ¼″ connection opening	**2052.1**	1 unit(s)	111,50
	PTFE gasket set with pure silver gasket	**K454.1**	1 set	63,75
	Pure silver gasket set IV	**K459.1**	1 unit(s)	229,00
	Wrench set II, Size No. 14 - 17 - 19 - 22 - 27 - 50 - 55 x	**K455.1**	1 set	106,40
	Tablet stirring magnet Ø 40 mm, H 14 mm	**4517.1**	1 unit(s)	20,75
	Heating mantle 50 S for 500 ml beaker, with magnetic stirrer	**KCX8.1**	1 unit(s)	2.654,20

Special accessories for gas injection

Designation	Art. No.	Pack Qty.	€
PTFE high-pressure hose with NPT inner thread ¼″	**H996.1**	1 unit(s)	436,45
Reducer union of direct connection to gas cylinders (please specify type of gas)	**2066.1**	1 unit(s)	216,10

Special accessories for temperature measurement

Designation	Art. No.	Pack Qty.	€
Temperature sensor for model IV (500 ml), L 330 mm	**K456.1**	1 unit(s)	401,00
Connection cable between heating mantle/sensor, L 1.5 m	**KCX9.1**	1 unit(s)	160,20

Special accessories for insertion and removal of gaseous or liquid samples

Designation	Art. No.	Pack Qty.	€
Adapter with immersion tube 4 for 500 ml autoclave beaker	**K457.1**	1 unit(s)	952,45
Fine control valve and check valve	**H745.1**	1 unit(s)	440,75
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	5,85
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
PTFE seal 42 - for autoclave beaker/head (models 0 and I) or head opening for sampling (models II and IV)	**2163.1**	1 unit(s)	6,95
Wrench 55	**2187.1**	1 unit(s)	68,55

Special accessories for stirring

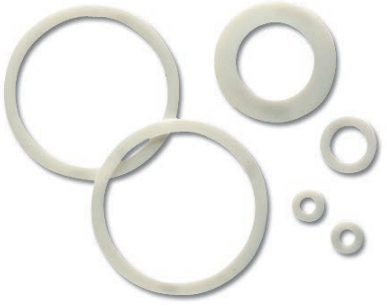
Designation	Art. No.	Pack Qty.	€
Magnetic stirrer head MRK 10	**2359.1**	1 unit(s)	2.122,05
Adapter for magnetic stirrer head M 42 to M 30	**2358.1**	1 unit(s)	442,90
Bursting disc safety device II	**3167.1**	1 unit(s)	1.178,20
Bursting disc type 8.100 E, 100 bar	**2199.1**	1 unit(s)	139,25
Silver gasket 15 - for bursting disc type 8.100 E, 100 bar	**2173.1**	1 unit(s)	45,40
Gas treatment stirrer type 4 for 500 ml beaker	**K458.1**	1 unit(s)	866,90

Assembly/option

Designation	Art. No.	Pack Qty.	€
Tube connection fitting AD 6.35 mm	**H746.1**	1 unit(s)	34,25
Glass sleeve for 500 ml beaker, height 320 mm, Ø 48 mm	**2099.1**	1 unit(s)	33,55
Tablet stirring magnet Ø 40 mm, H 14 mm	**4517.1**	1 unit(s)	20,75

Replacement seals

Designation	Art. No.	Pack Qty.	€
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	5,85
PTFE seal 20 - for pressure gauge	**2161.1**	1 unit(s)	6,15
PTFE seal 60 - for autoclave beaker/head (model IV)	**2165.1**	1 unit(s)	13,05
Silver gasket 12 - for connections to head, valve and reducer union	**2170.1**	1 unit(s)	52,45
Silver gasket 18 - for pressure gauge	**2172.1**	1 unit(s)	45,55
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
Seal 60 - for autoclave beaker/head (model IV)	**2176.1**	1 unit(s)	60,80



Accessories seal made of PTFE

Carl ROTH.

Dimensions = outside Ø in mm.

Seal 60 – for autoclave beaker/head (model IV)

Type	Art. No.	Pack Qty.	€
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	5,85
PTFE seal 20 - for pressure gauge	**2161.1**	1 unit(s)	6,15
PTFE seal 42 - for autoclave beaker/head (models 0 and I) or head opening for sampling (models II and IV)	**2163.1**	1 unit(s)	6,95
PTFE seal 51 - for autoclave beaker/head (model II)	**2164.1**	1 unit(s)	13,05
PTFE seal 60 - for autoclave beaker/head (model IV)	**2165.1**	1 unit(s)	13,05

Accessories wrench set

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Wrench set I, size No. 14 - 17 - 19 - 22 - 27 - 41	**2071.1**	1 set	45,35
Wrench set II, size No. 14 - 17 - 19 - 22 - 27 - 50 - 2 x 55	**2078.1**	1 set	147,85
Wrench set II, size No. 14 - 17 - 19 - 22 - 27 - 50 - 55 x	**K455.1**	1 set	106,40

Accessories seal made of pure silver

Carl ROTH.

Dimensions = outside Ø in mm.

Type	Art. No.	Pack Qty.	€
Silver gasket 12 - for connections to head, valve and reducer union	**2170.1**	1 unit(s)	52,45
Silver gasket 15 - for bursting disc type 8.100 E, 100 bar	**2173.1**	1 unit(s)	45,40
Silver gasket 18 - for pressure gauge	**2172.1**	1 unit(s)	45,55
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
Silver gasket 50 - for autoclave beaker/head (model II)	**2175.1**	1 unit(s)	58,80
Seal 60 - for autoclave beaker/head (model IV)	**2176.1**	1 unit(s)	60,80

Accessories glass sleeve

Carl ROTH.

It has proved useful to place highly viscous materials or strong contaminants into laboratory autoclaves in glass sleeves. These special vessels are designed for the high pressure and temperatures in autoclaves.

Type	Art. No.	Pack Qty.	€
Glass sleeve for 50 ml beaker, height 104 mm, Ø 28 mm	**H976.1**	1 unit(s)	21,30
Glass sleeve for 300 ml beaker, height 285 mm, Ø 38 mm	**2198.1**	1 unit(s)	28,95
Glass sleeve for 100 ml beaker, height 185 mm, Ø 28 mm	**2196.1**	1 unit(s)	23,15
Glass sleeve for 200 ml beaker, height 205 mm, Ø 38 mm	**2197.1**	1 unit(s)	26,80
Glass sleeve for 250 ml beaker, height 285 mm, Ø 38 mm	**2192.1**	1 unit(s)	27,45
Glass sleeve for 500 ml beaker, height 320 mm, Ø 48 mm	**2099.1**	1 unit(s)	33,55

Autoclave accessories

Accessories fine control and check valve

ROTH SELECTION.

Made of stainless steel. For high-pressure laboratory autoclaves. With 6 mm swagelock tube connection on both sides. Multi-positioning range. Pressure range up to max. 210 bar, temperature range up to max. +205 °C.

Delivery incl. valve with thread adapter made of stainless steel (6 mm pipe to ¼″).

Pic.	Type	Art. No.	Pack Qty.	€
(3)	Fine control valve and check valve	**H745.1**	1 unit(s)	440,75

Accessories

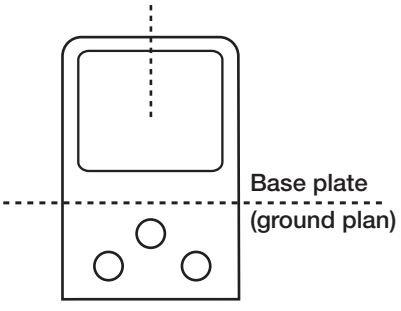
Carl ROTH.

Tube connector fitting for fine control and check valve
Made of stainless steel. For fine control and check valve (output side). Matches hose inner diameter ¼″.

Type	Art. No.	Pack Qty.	€
Tube connection fitting AD 6.35 mm	**H746.1**	1 unit(s)	34,25

Thread adapter for fine control and check valve
Made of stainless steel. (6 mm pipe to ¼″).

Type	Art. No.	Pack Qty.	€
Thread adapter 6 mm pipe to ¼″	**P437.1**	1 unit(s)	47,20



Accessories retaining plate

Carl ROTH.

Type	Art. No.	Pack Qty.	€
Base plate 41, as mount for screwing autoclave models 0 and I	**2072.1**	1 unit(s)	590,20
Base plate 55, as mount for screwing autoclave model II	**2074.1**	1 unit(s)	664,35

Accessories pressure gauge

ROTH SELECTION.

The parts that have contact with the medium (thread adapter and spring pipe) are made of stainless steel. The white face has black numbers. Spring pipe measuring system. With composite glass pane (safety glass). For a maximum medium temperature up to +100 °C. Thread adapter G½″, at radial bottom. Outer Ø 100 mm.

Pic.	Type	Art. No.	Pack Qty.	€
(4)	Display pressure gauge up to 160 bar	**2031.1**	1 unit(s)	225,75
	Display pressure gauge up to 250 bar	**2036.1**	1 unit(s)	242,70

Accessories bursting disc

Carl ROTH.

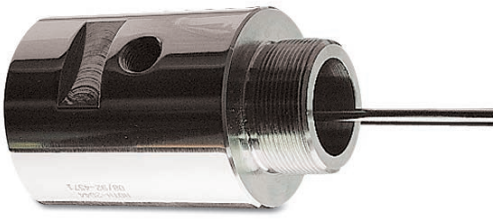
Use to seal the bursting disc **pure silver gaskets**!
Working temperature up to +300 °C. Made of stainless steel.

Technical specifications:

Art. No.	2199.1	2203.1	8135.1	2204.1
Ø Internal	8 mm	28 mm		
Ø ext.	14 mm	40 mm		

Type	Response pressure (bar)	Art. No.	Pack Qty.	€
8.100 E	100	**2199.1**	1 unit(s)	139,25
28.100 E	100	**2203.1**	1 unit(s)	146,55
28.060 E	60	**8135.1**	1 unit(s)	146,55
28.200 E	200	**2204.1**	1 unit(s)	146,55

Autoclave accessories



Accessories sampling

Carl ROTH.

Adapter with welded supply pipe. For inserting or removing gaseous or liquid samples.

- Material: V4A stainless steel 1.4571
- Working temperature: max. +300 °C
- Working pressure: max. 200 bar

Type	Art. No.	Pack Qty.	€
Adapter with immersion tube 2 for 200 ml autoclave beaker	**2043.1**	1 unit(s)	952,45
Adapter with immersion tube 3 for 250/300 ml autoclave beaker	**2044.1**	1 unit(s)	952,45
Adapter with immersion tube 4 for 500 ml autoclave beaker	**K457.1**	1 unit(s)	952,45

Accessories screw stopper

Carl ROTH.

For closing a connection opening G¼″ or G½″ (e.g. adapter 2207.1).

Type	Art. No.	Pack Qty.	€
Screw stopper type A for ¼″ connection opening	**2052.1**	1 unit(s)	111,50
Screw stopper type C for ½″ connection opening	**2038.1**	1 unit(s)	308,55

Accessories temperature measurement

Carl ROTH.

The temperature sensor consist of a thermoelement with iron-copper thermocouple. The thermoelement is sealed in a protective pipe made of stainless steel 1.4541. It records the temperature directly inside the autoclave and transfers the values to the WRT 2000x temperature controller. The unit displays the relevant temperature value and controls the performance of the heating mantle.
Only the pure silver gaskets offered should be used for sealing, as too frequent insertion and removal of the seals could unduly reduce the service life of the sensor.
Temperature sensor Fe-Cu-Ni, with pure silver gasket, Ø 1.5 mm

Type	Art. No.	Pack Qty.	€
Temperature sensor for model II (200 ml), L 220 mm	**2115.1**	1 unit(s)	401,00
Temperature sensor for model II (250/300 ml), L 280 mm	**A880.1**	1 unit(s)	401,00
Temperature sensor for model IV (500 ml), L 330 mm	**K456.1**	1 unit(s)	401,00

Accessories connection cable between heating mantle/sensor

Carl ROTH.

Type	Art. No.	Pack Qty.	€
Connection cable between heating mantle/sensor, L 1.5 m	**KCX9.1**	1 unit(s)	160,20

Autoclave accessories

Accessories gas injection

Carl ROTH.

Stainless steel-coated PTFE hose for possible connection to a pressure reducer and/or direct combination to the high-pressure hose of a gas cylinder, in combination with the gas cylinder connection (Art. No. 2066.1, please order separately).

Technical specifications:

Art. No.	H996.1	N246.1
Additional data	The operating pressure applies for working temperatures from +20 to +50 °C	
Ø Internal	4.8 mm	
Ø ext.	8 mm	
Min. burst pressure	825 bar	
Operating pressure	205 bar	
Temperature range	-55 to +235 °C	
Min. bend radius	51 mm	
Length	1.5 mm	
Wall thickness	1 mm	

PTFE hose with NPT inner thread ¼″
On 6 mm pipe adapter, for gas cylinder connection (Art. No. 2066.1, please order separately).

Type	Art. No.	Pack Qty.	€
PTFE high-pressure hose with NPT inner thread ¼″	**H996.1**	1 unit(s)	436,45

PTFE hose with NPT outer thread ¼″
On 6 mm pipe adapters.

Type	Art. No.	Pack Qty.	€
PTFE high-pressure hose with NPT outer thread ¼″	**N246.1**	1 unit(s)	342,95

Accessories gas cylinder connection

Carl ROTH.

Type	Art. No.	Pack Qty.	€
For **direct connection** of the high-pressure hose to the gas cylinder (max. bursting disc 200 bar). **Please specify type of gas.**	**2066.1**	1 unit(s)	216,10

Accessories stirrer head with permanent magnetic coupling, type MRK 10

ROTH SELECTION. Material: Stainless steel V4A 1.4435.
Absolutely gas tight. Vacuum-tight.

Technical specifications:

Art. No.	2359.1
Max. working pressure	200 bar
Operating temperature	max. 300 °C
Maximum speed	5,000 rpm
Max. temperature	300 °C
Max. viscosity	1,500 mPas
Ø ext.	44 mm
Additional data	Torque 20 N · cm
Height	172 mm

Delivery without adapter and gas treatment stirrer. Please order separately.

Type	Art. No.	Pack Qty.	€
Magnetic stirrer head MRK 10	**2359.1**	1 unit(s)	2.122,05

Accessories

Carl ROTH.

Adapter M 42 - M 30 for stirrer head with magnetic coupling
Adapter for connection of autoclave head II to magnetic stirrer head.

Type	Art. No.	Pack Qty.	€
Adapter for magnetic stirrer head M 42 to M 30	**2358.1**	1 unit(s)	442,90

Gas treatment stirrer for stirrer head with magnetic coupling
For use with stirrer head MRK 10. Made of stainless steel 1.4435 and PTFE. Ø 25 mm. Working temperature: max. +150 °C.

Type	Art. No.	Pack Qty.	€
Gas treatment stirrer type 2 for 200 ml beaker, L 220 mm	**3184.1**	1 unit(s)	722,40
Gas treatment stirrer type 3 for 250/300 ml beaker, L 299 mm	**3189.1**	1 unit(s)	784,50
Gas treatment stirrer 4 for 500 ml beaker, L 380 mm	**K458.1**	1 unit(s)	866,90

Autoclave accessories

Type	Heating output (W)	Suitable for	Art. No.	Pack Qty.	€
10 S	200	Model I, 100 ml	**KCX5.1**	1 unit(s)	2.654,20
20 S	300	Model II, 200 ml	**KCX6.1**	1 unit(s)	2.654,20
30 S	400	Model II, 250/300 ml	**KCX7.1**	1 unit(s)	2.654,20
50 S	600	Model IV, 500 ml	**KCX8.1**	1 unit(s)	2.654,20

Accessories heating mantle with magnetic stirrer

Carl ROTH.

Specially designed for ROTH's high-pressure laboratory autoclaves. To ensure optimum distribution and use of heat, the heating mantles are precisely adapted to the dimensions of the individual autoclave beaker.

Features:

- High temperature stability
- Integrated magnetic stirrer with continuous speed adjustment without direct drive
- Heating and stirrer can be activated separately
- Temperature adjustment using the digital display and display of the actual temperature of the heating mantles
- **Integrated contact thermometer with full functionality. Option to directly connect the medium temperature sensor thermo-couple type J/Fe-Cu-Ni (please order temperature measuring sensor and connection cable separately)**
- Due to the high working temperature range of up to 300 °C, temperatures of over 240 °C can be reached, depending on the medium and application
- Additional safety: Temperature limiter for the internal and external temperature sensors

Technical specifications:

Art. No.	KCX5.1	KCX6.1	KCX7.1	KCX8.1
Speed range	850 to 1500 rpm			
Operating temperature	+8 °C **above** room temperature up to 300 °C, continuously adjustable			
Setting accuracy	±1 K			
Control accuracy	±8 K			
Control accuracy with sensor	±3 K			
Control	Internally via heating mantle, externally via separate temperature gauge (available as an option)			
Width	220 mm			
Depth	250 mm			
Height	319 mm	334 mm	414 mm	455 mm
Mains connection	230 V, 50/60 Hz			

Delivery without temperature measuring sensor and connecting cable (please order separately).

Accessories:

Designation	Art. No.	Pack Qty.	€
Temperature sensor for model II (200 ml), L 220 mm	**2115.1**	1 unit(s)	401,00
Temperature sensor for model II (250/300 ml), L 280 mm	**A880.1**	1 unit(s)	401,00
Temperature sensor for model IV (500 ml), L 330 mm	**K456.1**	1 unit(s)	401,00
Connection cable between heating mantle/sensor, L 1.5 m	**KCX9.1**	1 unit(s)	160,20

Steam sterilisation

Benchtop steam steriliser CertoClav EL series

CertoClav.

With aluminium chamber. For steam heating of substances and use in research & development.
Applications: preparation of nutrient media, as well as sterilisation of waste, utensils, bottles and instruments.

Features:

- Bayonet lock for lid lock
- Quadruple pressure safety: safety lock to prevent opening under pressure, antilock safety valve, pressure relief valve and pressure relief vent
- Pressure regulation by control valve
- Alternate versions with different temperature / pressure levels 125/140 °C or 115/121 °C are available

Technical specifications:

Art. No.	TL61.1	TL62.1	TL63.1	TL64.1
Type	EL 12L		EL 18L	
Vol.	12 l		18 l	
Temperature stage	125/140 °C	115/121 °C	125/140 °C	115/121 °C
Pressure level	1,4/2,7 bar	0,7/1,2 bar	1,4/2,7 bar	0,7/1,2 bar
Test pressure	4.1 bar			
Ventilation method	Flow method			
Inner height	230 mm		360 mm	
Ø Internal	240 mm			
Outer height	535 mm		665 mm	
Ø ext.	250 mm			
Diagonal	350 mm		465 mm	
Max. wire basket capacity	1 unit(s)		2 unit(s)	
Temperature measuring range	0 to +160 °C			
Temperature resolution	2 °C			
Pressure measuring range	0 to 4 bar			
Graduation	0,1 bar			
Exhaust steam valve outflow	Ø 10 mm			
Power consumption	1,900 W			
Weight	7 kg		9 kg	
Mains connection	230 V, 50/60 Hz			

Delivery incl. precision pressure gauge with maximum drag pointer, precision thermometer, one wire basket (for Order No. TL63.1 and TL64.1, 2 wire baskets can be incorporated, please order separately if required) and aluminium Instrument plate (Ø 225 mm, H 40 mm) with three feet as baseplate above the water.

Type	Vol. (l)	Tempera-ture stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.	€
EL 12L	12	125/140	1,4/2,7	**TL61.1**	1 unit(s)	2.460,70
EL 12L	12	115/121	0,7/1,2	**TL62.1**	1 unit(s)	2.460,70
EL 18L	18	125/140	1,4/2,7	**TL63.1**	1 unit(s)	2.911,10
EL 18L	18	115/121	0,7/1,2	**TL64.1**	1 unit(s)	2.911,10

Accessories for benchtop steam sterilizers, CertoClav EL series

CertoClav.

Additional wire basket
For simple filling with sterilisable material. Inside Ø 225 mm, H 170 mm. Mesh width: ¼ inch. 2. wire basket for model EL 18L or replacement-wire basket for model EL 12L.

Designation	Art. No.	Pack Qty.	€
Wire basket	**TL65.1**	1 unit(s)	188,15

Seal service set
With cover and valve seal as well as seal for steam outlet cock, pressure gauge, steam outlet valve.

Designation	Art. No.	Pack Qty.	€
Seal service set for EL series	**TL66.1**	1 unit(s)	56,15

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Benchtop steam steriliser

CertoClav.

With stainless steel chamber. For culture media processing, as well as sterilisation of equipment and waste. No water connection required. Complementary to the large autoclaves. Space-saving positioning on the laboratory bench.

- Quadruple pressure safety: safety lock to prevent opening under pressure, antilock safety valve, pressure relief valve and pressure relief vent
- Lock the lid with one hand movement

Technical specifications:

Art. No.	CYH3.1	CYH4.1	CYH5.1
Type	Classic		Multicontrol 2
Vol.	18 l		
Temperature stage	125/140 °C	115/121 °C	RT–140 °C
Pressure level	1,4/2,7 bar	0,7/1,2 bar	max. 2,7 bar
Operation	Manual		LCD display
Timer	analogue (0 to 60 min or continuous operation)		digital (1 min to 14 d)
Process logging			PC-Software
Port			USB
Test pressure	4.1 bar		
Inner height	300 mm		
Ø Internal	260 mm		
Outer height	550 mm		
Ø ext.	270 mm		
Diagonal	424 mm		
Max. wire basket capacity	1 unit(s)		
Temperature measuring range	0 to +160 °C		+30 to +140 °C
Temperature resolution	2 °C		via LCD display
Pressure measuring range	0 to 4 bar		
Graduation	0,1 bar		
Exhaust steam valve outflow	Ø 10 mm		
Power consumption	1,300 W		
Weight	13 kg		
Mains connection	230 V, 50/60 Hz		

Model CertoClav Classic
Controlled by precision valves and thermostat. With timer. Models available with sterilisation temperature of 125/140 °C or 115/121 °C.

Delivery incl. steam outlet cock, precision thermometer and pressure gauge. Wire basket, please order separately.

Type	Vol. (l)	Temperature stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.	€
Classic	18	125/140	1,4/2,7	**CYH3.1**	1 unit(s)	2.452,10
Classic	18	115/121	0,7/1,2	**CYH4.1**	1 unit(s)	2.452,10

Model CertoClav MultiControl 2
With freely programmable control system (room temperature to 140 °C). Standard sterilisation programs preinstalled. USB port for connectivity to PC incl. basic software (to display process data).

Delivery incl. electronic control, precision pressure gauge, steam outlet cock and PC software. Please order wire basket separately.

Type	Vol. (l)	Temperature stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.	€
Multicontrol 2	18	RT–140	max. 2,7	**CYH5.1**	1 unit(s)	3.223,95

Accessories for Benchtop steam steriliser CertoClav Classic and MultiControl 2

CertoClav.

Wire basket
For loading items to be autoclaved. Inside-Ø 250 mm, H 230 mm. Mesh width: ¼ inch.

Designation	Art. No.	Pack Qty.	€
Wire basket	**CYH6.1**	1 unit(s)	188,15

Seal service set
With cover and safety valve seal as well as seal for steam outlet cock, pressure gauge, steam outlet valve and control valve.

Designation	Art. No.	Pack Qty.	€
Seal service set	**CYH7.1**	1 unit(s)	73,10

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Horizontal benchtop autoclave CertoClav Vacuum Pro series

CertoClav.

For the sterilisation of liquids, solids and waste, e.g. instruments, hollow bodies, porous materials, textiles, plastics, etc.

- Chamber material: Stainless steel 1.4301
- Sterilisation temperature 105 to 134 °C, sterilisation pressure 0.2 to 2.1 bar
- 7″ Touch-screen user interface
- 12 sterilisation programs
- Video step-by-step guide can be activated directly on the steriliser
- Integrated steam generator separated from the chamber
- Integrated water tank for distilled water (approx. 4 litres)
- Connections for report generation: USB, SD card, RS 232 and RS 485
- Network-enabled with Ethernet, LAN and Wi-Fi
- Flexible Pt1000 media temperature sensor to measure and regulate the temperature directly in the medium
- Loading capacity of bottles: 14 x 100 ml, 10 x 250 ml or 6 x 500 ml
- Tray set: middle drawer W 220 x L 430 mm, upper/lower drawer W 170 x L 430 mm

Technical specifications:

Art. No.	KAA6.1
Type	Vacuum Pro
Vol.	22 l
Temperature stage	105 - 134 °C
Pressure level	0,2 - 2,1 bar
Port	USB, SD card, RS 232 and RS 485
Ø Internal	250 mm
Inner depth	450 mm
Outer length	650 mm
Outer width	500 mm
Outer height	430 mm
Weight	63 kg
Mains connection	220 V, 50/60 Hz

Delivery incl. 3 drawers, drawer enclosure, handle, quick connect waste water hose and CertoCloud basic license. Please order base plate for bottles and flasks separately.

Type	Vol. (l)	Tempera-ture stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.	€
Vacuum Pro	22	105 - 134	0,2 - 2,1	**KAA6.1**	1 unit(s)	5.149,25

Accessories base plate for benchtop autoclave CertoClav Vacuum Pro series

CertoClav.

For flasks and bottles.

Designation	Art. No.	Pack Qty.	€
Base plate	**KAA7.1**	1 unit(s)	226,85

Hydrolyses and digestion vessel without insert ROTILABO®

ROTH SELECTION.

The energy of the microwave is virtually predestined for the digestion of small sample quantities. If affects only the contents of the vessel, not the container itself interactively. The liquid contents hereby heat up within seconds up to far above the boiling point.

ROTILABO® digestion vessels are made of isostatically compressed ultrapure TFM. TFM is a modified PTFE from Hoechst and it contains thermoplastic fluoroplastic components. A homogeneous, pore-free surface is produced. Disturbing residues from earlier digestions are thus avoided.

For samples up to max. 0.5 g, high dimension stability under pressure (max. 25 bar) and temperature loading (max. 160 °C). The sealing film prevents loss of volatile elements from the steam room; bursting film provides protection against impermissible high pressure. To protect the microwave, optional collection containers and a hose are available. If the sealing and rupture membrane bursts, collecting vessels can be used to drain and collect gases and fluids. Please order hose and collecting vessels separately.

Technical specifications:

Art. No.	E138.1	E139.1	E140.1	E141.1	E142.1
Vol.	5 ml	10 ml	20 ml	50 ml	100 ml
Inner height	32 mm	52 mm	60 mm	62 mm	110 mm
Ø Internal	15 mm	16 mm	22 mm	33 mm	35 mm
Temperature range	to +160 °C		to +150 °C		to +140 °C

Delivery incl. 10 clear foils made of PFA and 10 rupture membranes made of PTFE.

Vol. (ml)	Pressure (bar)	Art. No.	Pack Qty.	€
5	25	**E138.1**	1 unit(s)	389,15
10	25	**E139.1**	1 unit(s)	564,40
20	20	**E140.1**	1 unit(s)	438,60
50	20	**E141.1**	1 unit(s)	639,65
100	15	**E142.1**	1 unit(s)	613,85

Pressure digestion vessels

Digestion vessel ROTILABO® with inserts

ROTH SELECTION.

The energy of the microwave is virtually predestined for the digestion of small sample quantities. It affects only the contents of the vessel, not the container itself interactively. The liquid contents hereby heat up within seconds up to far above the boiling point.

With inserts (inliners) made of TFM. The easily replaceable inliners allow precise weighting of samples taken. The complete vessel is usually too heavy for the existing scales in many cases. Furthermore, it is possible to use a variety of inliners to perform various digestions with one single digestion vessel. To protect the microwave, optional collection containers and a hose are available. If the sealing and rupture membrane bursts, collecting vessels can be used to drain and collect gases and fluids. Please order hose and collecting vessels separately.

Delivery incl. 10 sealing membranes made of PFA and 10 rupture membranes made of PTFE.

Vol. (ml)	Art. No.	Pack Qty.	€
10	**E143.1**	1 unit(s)	680,50
20	**E144.1**	1 unit(s)	668,65
50	**E145.1**	1 unit(s)	648,25

Accessories for digestion vessels

ROTH SELECTION.

Inserts (Inliner), separate

Suitable for	Art. No.	Pack Qty.	€
Tubes 20 ml	**E147.1**	1 unit(s)	91,05
Vessels 10 ml	**E146.1**	1 unit(s)	82,00
Vessels 50 ml	**E148.1**	1 unit(s)	111,95

Sealing and rupture membranes for digestion vessels

Suitable for	Art. No.	Pack Qty.	€
Tubes 5 ml	**E149.1**	10 unit(s)	29,75
Tubes 10/20 ml	**E150.1**	10 unit(s)	35,75
Vessels 50/100 ml	**E151.1**	10 unit(s)	51,40

Collecting vessel

ROTH SELECTION.

Made of PFA. Suitable for ROTILABO® digestion vessels. Collecting vessels can be used to collect gases and fluids for protection of the microwave (if the sealing and rupture membrane bursts). Transparent and pore-free. With two connections for hose outside Ø 6.35 mm (¼″) in screw cap.

Technical specifications:

Art. No.	LT39.1	LT40.1
Vol.	120 ml	240 ml
Ø Internal	60 mm	
Outer height	74 mm	116 mm
Ø ext.	66 mm	

Delivery without FEP hose, please order separately.

Vol. (ml)	Art. No.	Pack Qty.	€
120	**LT39.1**	1 unit(s)	239,75
240	**LT40.1**	1 unit(s)	287,05

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Refrigerators/freezers

Household cooling box

Severin.

- Energy efficiency class (year): E (80 kWh)
- Cooling temperature adjustable from +3 to +7 °C
- Temperature selection range:
  1 (= lowest cooling capacity) to 7 (= highest cooling capacity)
- With additional **froster compartment 5 l** (for temperatures of approx. 0 to -5 °C; not controllable), compartment dimensions W 180 x D 270 x H 100 mm
- Height-adjustable feet
- Interior dimensions
  top: W 355 x D 320 x H 235 mm
  bottom: W 355 x D 170 x H 175 mm

Technical specifications:

Art. No.	KP21.1
Type	Household cooling box
Cooling capacity	45 l
Refrigeration temperature from	+3 °C
Refrigeration temperature up to	+7 °C
Number of grates	1
Outer width	480 mm
Outer depth	445 mm
Outer height	500 mm
Thawing method	manual
Energy consumption (24 h)	0.222 kWh
Weight	18 kg

Type	Art. No.	Pack Qty.	€
Household cooling box	**KP21.1**	1 unit(s)	336,50

Household refrigerating box

Severin.

- Energy efficiency class (year): E (148 kWh)
- Cooling temperature adjustable from -18 to -24 °C
- Temperature selection range:
  1 (= lowest cooling capacity) to 5 (= highest cooling capacity)
- Height-adjustable feet
- Interior dimensions
  top: W 360 x D 295 x H 162 mm
  bottom: W 360 x D 155 x H 202 mm

Technical specifications:

Art. No.	KP22.1
Type	Household refrigerating box
Cooling capacity	32 l
Freezing temperature from	-18 °C
Freezing temperature up to	-24 °C
Number of grates	1
Outer width	445 mm
Outer depth	480 mm
Outer height	500 mm
Thawing method	manual
Energy consumption (24 h)	0.411 kWh
Weight	20 kg

Type	Art. No.	Pack Qty.	€
Household refrigerating box	**KP22.1**	1 unit(s)	324,65

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

NEW / +

Household fridge KS 9788

Severin.

- Cooling temperature is adjustable from 1 to +7 °C (mechanical control)
- Temperature selection range:
  1 (= lowest cooling capacity) to 7 (= highest cooling capacity)
- One variable refrigeration circuit
- LED interior lighting
- Two adjustable feet height at the front, two transport castors at the rear
- Automatic defrosting
- Energy efficiency class (year/24 h): A++ (104/0.285 kWh)

Technical specifications:

Art. No.	1K0X.1
Type	KS 9788
Cooling capacity	267 l
Refrigeration temperature from	1 °C
Refrigeration temperature up to	7 °C
Number of bases	5
Additional data	Base made of glass (four adjustable)
Outer width	600 mm
Outer depth	650 mm
Outer height	1,450 mm
Thawing method	Automatic
Energy consumption (24 h)	0.285 kWh
Weight	54 kg
Mains connection	230 V, 50 Hz

Delivery incl. five glass shelves and one drawer.

Type	Art. No.	Pack Qty.	€
KS 9788	**1K0X.1**	1 unit(s)	771,85

Refrigerator FKU 1800-21

Liebherr.

- Cooling temperature is adjustable from +2 to +10 °C
- With static cooling
- Mechanical control unit
- Lockable door
- With digital temperature display outside on the door

Technical specifications:

Art. No.	NP82.1
Type	FKU 1800-21
Cooling capacity	160 l
Refrigeration temperature from	+2 °C
Refrigeration temperature up to	+10 °C
Number of grates	3
Performance	100 W
Outer width	600 mm
Outer depth	600 mm
Outer height	850 mm
Inner width	513 mm
Inner depth	441 mm
Inner height	702 mm
Thawing method	Automatic
Energy consumption (24 h)	0.560 kWh
Weight	37 kg
Mains connection	220–240 V

Delivery incl. height-adjustable grids. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Art. No.	Pack Qty.	€
FKU 1800-21	**NP82.1**	1 unit(s)	665,45

NEW / +

Refrigerator with circulation cooling MRFvc series

Liebherr.

General information for all models:

- Temperature range: +2 to +9 °C
- Mechanical control with stages
- Dynamic cooling system for fast cool-down and even cooling temperature via fans
- Automatic defrost system
- Lockable door
- Analogue thermometer in the interior
- Steel casing, plastic interior container

Technical specifications:

Art. No.	1K19.1	1K1A.1	1K1C.1
Type	MRFvc 3501	MRFvc 4001	MRFvc 5501
Cooling capacity	250 l	286 l	432 l
Refrigeration temperature from	+2 °C		
Refrigeration temperature up to	+9 °C		
Number of grates	4	5	4
Outer width	597 mm		747 mm
Outer depth	654 mm		769 mm
Outer height	1,684 mm	1,884 mm	1,684 mm
Inner width	475 mm		625 mm
Inner depth	423 mm		539 mm
Inner height	1,459 mm	1,659 mm	1,459 mm
Thawing method	Automatic		
Energy consumption (24 h)	1.005 kWh	1.068 kWh	1.051 kWh
Weight	63 kg	67 kg	81 kg
Mains connection	220–240 V, 50 Hz		

Delivery incl. height-adjustable grates. There are additional transport costs for delivery to the point of use. We are happy to provide you with these on requestion.

Type	Art. No.	Pack Qty.	€
MRFvc 3501	**1K19.1**	1 unit(s)	891,20
MRFvc 4001	**1K1A.1**	1 unit(s)	987,95
MRFvc 5501	**1K1C.1**	1 unit(s)	1.127,70

NEW / +

Refrigerator with MRFvd series circulation cooling

Liebherr.

General information for all models:

- Temperature range: +1 to +15 °C
- **Exterior digital temperature display**
- Mechanical control with stages
- Dynamic cooling system for fast cool-down and even cooling temperature via fans
- Automatic defrost system
- **LED cover lighting**
- Lockable door
- Steel casing, colour grey, plastic interior container

Technical specifications:

Art. No.	1KKX.1	1KKY.1	1KL0.1
Type	MRFvd 3501	MRFvd 4001	MRFvd 5501
Cooling capacity	250 l	286 l	432 l
Refrigeration temperature from	+1 °C		
Refrigeration temperature up to	+15 °C		
Number of grates	4	5	4
Outer width	597 mm		747 mm
Outer depth	654 mm		769 mm
Outer height	1,684 mm	1,884 mm	1,684 mm
Inner width	475 mm		625 mm
Inner depth	423 mm		539 mm
Inner height	1,459 mm	1,659 mm	1,459 mm
Thawing method	Automatic		
Energy consumption (24 h)	1.021 kWh	1.085 kWh	1.064 kWh
Weight	63 kg	67 kg	81 kg
Mains connection	220–240 V, 50 Hz		

Delivery incl. height-adjustable grates. There are additional transport costs for delivery to the point of use. We are happy to provide you with these on request.

Type	Art. No.	Pack Qty.	€
MRFvd 3501	**1KKX.1**	1 unit(s)	987,95
MRFvd 4001	**1KKY.1**	1 unit(s)	1.095,45
MRFvd 5501	**1KL0.1**	1 unit(s)	1.364,20

Refrigerator FKUv series

Liebherr.

General information for all models:

- Cooling temperature is adjustable from +1 to +15 °C
- With dynamic cooling system (switchable fan, for even temperature distribution)
- Digital temperature display (resolution 1 °C)
- Outer design: sheet steel, white, powder coated
- Door opening alarm - if the door is opened for longer than 60 s (can be deactivated)

Technical specifications:

Art. No.	YP21.1	YP22.1
Type	FKUv 1610-24 with insulating door	FKUv 1613-22 with glass door
Cooling capacity	130 l	
Refrigeration temperature from	+1 °C	
Refrigeration temperature up to	+15 °C	
Number of grates	3	
Outer width	600 mm	
Outer depth	611 mm	
Outer height	830 mm	
Inner width	440 mm	
Inner depth	435 mm	
Inner height	670 mm	
Thawing method	Automatic	
Energy consumption (24 h)	0.616 kWh	0.968 kWh
Weight	37 kg	43 kg
Mains connection	220–240 V, 50 Hz	

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Model FKUv 1610-24 - with insulated door
With insulated door and powder-coated sheet steel.

Type	Art. No.	Pack Qty.	€
FKUv 1610-24 with insulating door	**YP21.1**	1 unit(s)	837,45

Model FKUv 1613-22 - with glass door
With glass door. Additional LED top light can be switched separately.

Type	Art. No.	Pack Qty.	€
FKUv 1613-22 with glass door	**YP22.1**	1 unit(s)	987,95

Refrigerator LK series with insulated glass door

Liebherr.

General information for all models:

- Cooling temperature adjustable from +3 to +16 °C
- With convection cooling
- Exterior digital temperature display (resolution 0.1 °C)
- Acoustic and optical temperature alarm (adjustable limits) and door-opening alarm
- Saving the min./max. interior temperature that occurs
- Saving the last three temperature alarms and power outage with time, date and duration of the alarm
- **LED lighting, can be switched separately**
- With lockable door
- **Insulated glass door**

Technical specifications:

Art. No.	1APP.1	1APT.1
Type	LKUv 1613	LKv 3913
Cooling capacity	132 l	332 l
Refrigeration temperature from	+3 °C	
Refrigeration temperature up to	+16 °C	
Number of bases	3	5
Removable shelves	Grate	
Additional data	Plastic-coated grates	
Outer width	601 mm	
Outer depth	618 mm	
Outer height	820 mm	1,840 mm
Inner width	440 mm	
Inner depth	435 mm	
Inner height	670 mm	1,635 mm
Thawing method	Automatic	
Energy consumption (24 h)	1.010 kWh	1.315 kWh
Weight	46 kg	88 kg
Mains connection	220–240 V, 50 Hz	

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Art. No.	Pack Qty.	€
LKUv 1613	**1APP.1**	1 unit(s)	1.718,95
LKv 3913	**1APT.1**	1 unit(s)	2.439,20

NEW / +

Household freezer GS 8866

Severin.

- Cooling temperature adjustable from -14 to -28 °C
- Temperature controller on the top door edge - mechanical
- 4 x freezer drawers and 2 x freezer flaps
- One variable refrigeration circuit
- Energy efficiency class (year/24 h): E (186/0.510 kWh)

Technical specifications:

Art. No.	1K16.1
Type	GS 8866
Cooling capacity	155 l
Freezing temperature from	-14 °C
Freezing temperature up to	-28 °C
Drawers	4 unit(s)
Additional data	Two freezer flaps
Outer width	580 mm
Outer depth	550 mm
Outer height	1,430 mm
Thawing method	manual
Energy consumption (24 h)	0.510 kWh
Weight	48 kg
Mains connection	230 V, 50 Hz

Delivery incl. four freezer drawers and two freezer flaps.

Type	Art. No.	Pack Qty.	€
GS 8866	**1K16.1**	1 unit(s)	543,95

Freezer

Liebherr.

General information for all models:

- Housing made of stainless steel
- Power fail indicator
- Door opening alarm
- With lockable door

Technical specifications:

Art. No.	NH36.1	NH37.1
Type	GGU 1550-21	GGv 5860
Cooling capacity	133 l	490 l
Freezing temperature from	-9 °C	-14 °C
Freezing temperature up to	-26 °C	-28 °C
Basket	4 (pull-out)	
Number of grates		5
Base grid		1
Outer width	600 mm	750 mm
Outer depth	615 mm	750 mm
Outer height	830 mm	2,064 mm
Inner width	474 mm	610 mm
Inner depth	443 mm	500 mm
Inner height	676 mm	1,395 mm
Thawing method	manual	Automatic
Energy consumption (24 h)	0.724 kWh	3.701 kWh
Weight	41 kg	121 kg
Mains connection	220–240 V, 50 Hz	

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Model GGU 1550-21

- **With static cooling**
- Digital temperature display (resolution 1 °C)
- Temperature constancy ±5 °C
- 4 shelves/evaporator plates

Type	Art. No.	Pack Qty.	€
GGU 1550-21	**NH36.1**	1 unit(s)	934,20

Model GGv 5860

- **With convection cooling**
- NoFrost technology - products are frozen with cooled recirculated air and moisture is discharged into the open
- Digital temperature display (resolution 1 °C)
- Temperature constancy ±2 °C
- Height of adjustable feet: 150 to 180 mm
- Height-adjustable carrier grids with stop and pull-out stopper

Type	Art. No.	Pack Qty.	€
GGv 5860	**NH37.1**	1 unit(s)	2.793,95

NEW / +

Freezer GG 4010

Liebherr.

- Temperature range: -14 to -28 °C
- Static cooling system
- Exterior digital temperature display and setting (resolution 1 °C)
- With door opening alarm and grid failure display
- Compartment height 6 x 224 mm, 1 x 240 mm
- Lockable door
- Manual thawing

Technical specifications:

Art. No.	1LKH.1
Type	GG 4010
Cooling capacity	348 l
Freezing temperature from	-14 °C
Freezing temperature up to	-28 °C
Basket	3 (max. 6)
Additional data	Seven shelves
Outer width	597 mm
Outer depth	680 mm
Outer height	1,900 mm
Inner width	457 mm
Inner depth	480 mm
Inner height	1,686 mm
Thawing method	manual
Energy consumption (24 h)	1.178 kWh
Weight	87 kg
Mains connection	220–240 V, 50 Hz

Delivery incl. three baskets. There are additional transport costs for delivery to the point of use. We are happy to provide you with these on request.

Type	Art. No.	Pack Qty.	€
GG 4010	**1LKH.1**	1 unit(s)	1.815,70

NEW / +

Accessories additional wire basket for GG 4010 freezer

Liebherr.

Plastic-coated (Rilsan-coated).
Dimensions: W 455 x D 430 x H 198 mm.

Type	Art. No.	Pack Qty.	€
Additional wire basket for GG 4010 freezer	**1LKK.1**	1 unit(s)	32,80

NEW / +

Deep freezer MediLine LGv 5010

Liebherr.

- Digital temperature display
  resolution: 0.1 °C (to -19.9 °C) and/or 1 °C (from -20 °C)
- Memory for Min/Max temperatures
- Memory function for storing last three temperature alarms and power failures with date/time/duration of alarm
- **Circulation cooling with NoFrost technology**
- With lockable door
- Audible and visual with alarms
- Audible and visual door opening alarms
- Dimensions of drawer: W 301 x D 504 x H 190 mm
  Dimensions of basket: W 255 x D 371 x H 219 mm
- Steering rollers with front holding brake, rear fixed rollers

Technical specifications:

Art. No.	1LKT.1
Type	LGv 5010
Cooling capacity	337 l
Freezing temperature from	-9 °C
Freezing temperature up to	-35 °C
Basket	2 pieces
Drawers	8 unit(s)
Outer width	751 mm
Outer depth	750 mm
Outer height	1,844 mm
Inner width	602 mm
Inner depth	520 mm
Inner height	1,224 mm
Thawing method	Automatic
Energy consumption (24 h)	3.410 kWh
Weight	124 kg
Mains connection	220–240 V, 50 Hz

Delivery incl. 8 drawers and 2 baskets. There are additional transport costs for delivery to the point of use. We are happy to provide you with these on request.

Type	Art. No.	Pack Qty.	€
LGv 5010	**1LKT.1**	1 unit(s)	3.524,95

Laboratory freezer Froster-Labo 330

Kirsch.

- Cooling temperature adjustable from -5 to -30 °C
- Digital temperature display (resolution 1 °C)
- With re-circulating air cooling for even temperature control when opening the door)
- A rapid defrosting system through temporary, automatic reversal of the coolant circuit
- Condensate evaporation is carried out in the refrigerator room
- Min/Max temperature storage
- Audible and visual with alarms
- Outer cabinet made of galvanized sheet steel, powder-coated
- Adjustable feet to compensate for uneven floors
- With lockable door

Technical specifications:

Art. No.	KL29.1
Type	Froster-Labo 330
Cooling capacity	300 l
Freezing temperature from	-5 °C
Freezing temperature up to	-30 °C
Number of grates	4
Performance	500 W
Outer width	740 mm
Outer depth	770 mm
Outer height	1,490 mm
Inner width	595 mm
Inner depth	530 mm
Inner height	950 mm
Energy consumption (24 h)	4.58 kWh
Weight	125 kg

Type	Art. No.	Pack Qty.	€
Froster-Labo 330	**KL29.1**	1 unit(s)	6.648,35

NEW / +

Household refrigerator and freezer unit KGK 8913

Severin.

- One variable refrigeration circuit:
  cooling temperature is adjustable from 2 to +8 °C (electrical control at the light in the interior)
  Freezer compartment: Average temperature -18 °C (non-adjustable)
- Temperature selection range: Can be adjusted in stages (2, 4, 6 and 8)
- Refrigerator compartment with LED interior lighting, freezer compartment without lighting
- Height-adjustable front feet
- No-frost technology
- 2 x height-adjustable glass storage surfaces in the fridge unit, 3 x drawers in the freezer area
- Energy efficiency class (year/24 h): E (219/0.6 kWh)

Technical specifications:

Art. No.	1K0A.1
Type	KGK 8913
Fridge unit cooling capacity	180 l
Freezer unit cooling capacity	70 l
Removable shelves in the fridge unit	Glass stage
Removable shelves in the freezer unit	Drawer
Number of shelves in the fridge unit	2
Number of shelves in the freezer unit	3
Outer width	590 mm
Outer depth	545 mm
Outer height	1,800 mm
Energy consumption (24 h)	0.6 kWh
Weight	63 kg
Mains connection	230 V, 50 Hz

Delivery incl. two glass shelves with three drawers.

Type	Art. No.	Pack Qty.	€
KGK 8913	**1K0A.1**	1 unit(s)	1.011,60

Laboratory fridge-freezer unit 263C-AEV-TS

Thermo.

- **Adjustable cooling temperature from:**
  Fridge unit: 4 to 6 °C; 5 °C is preset
  Freezer unit: -20 °C (non-adjustable)
- **Max. temperature range**
  Fridge unit: 1 to 10 °C
  Freezer unit: -18 to -25 °C
- **Digital temperature display (resolution 1 °C)**
- Alarm function for high and low temperature limits (alarm limits have fixed settings; 1 and 11 °C or -15 and -30 °C)
- Standard entries (Ø 16 mm), e.g. for external temperature sensors
- With lockable door

Technical specifications:

Art. No.	NN38.1
Type	263C-AEV-TS
Fridge unit cooling capacity	159 l
Freezer unit cooling capacity	109 l
Removable shelves in the fridge unit	Grate/drawer
Removable shelves in the freezer unit	Grate/drawer
Number of shelves in the fridge unit	3
Number of shelves in the freezer unit	1
Additional data	Number of baskets: Fridge unit: 2 basket halves; Freezer unit: 2 baskets
Inner fridge unit width	457 mm
Inner fridge unit depth	450 mm
Inner fridge unit height	725 mm
Inner freezer unit width	408 mm
Inner freezer unit depth	415 mm
Inner freezer unit height	670 mm
Outer width	540 mm
Outer depth	600 mm
Outer height	1,680 mm
Thawing method	Automatic cooling compartment, manual freezer compartment
Energy consumption (24 h)	0.9 kWh
Weight	95 kg
Mains connection	230 V, 50 Hz

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Art. No.	Pack Qty.	€
263C-AEV-TS	**NN38.1**	1 unit(s)	1.957,00

Laboratory fridge-freezer combination LCv 4010 and LCexv 4010, explosion protected

Liebherr.

- Adjustable cooling temperature (2 separately adjustable refrigeration circuits)
  Fridge unit: +3 to +16 °C
  Freezer unit: -9 to -30 °C
- Fridge unit with recirculated-air ventilation system, freezer unit with static cooling system
- Digital temperature display
  fridge unit resolution: 0.1 °C
  freezer unit resolution: 0.1 °C (to -19,9 °C) and/or 1 °C (from -20 °C)
- Temperature consistency
  fridge unit: ±2.0 K
  freezer unit: ±3.5 K
- With lockable door
- Memory for Min/Max temperatures
- Memory function for storing last three temperature alarms and power failures with date/time/duration of alarm
- Audible and visual limit alarms
- Audible and visual door opening alarms
- Feedthrough for external temperature sensor (Ø 10 mm)

Technical specifications:

Art. No.	TP33.1	AET2.1
Type	LCv 4010	LCexv 4010, explosion protected
Fridge unit cooling capacity	240 l	
Freezer unit cooling capacity	105 l	
Removable shelves in the fridge unit	Grate	Glass stage
Removable shelves in the freezer unit	Drawer	
Number of shelves in the fridge unit	4	
Number of shelves in the freezer unit	3	
Inner fridge unit width	440 mm	
Inner fridge unit depth	435 mm	
Inner fridge unit height	1,105 mm	
Inner freezer unit width	431 mm	
Inner freezer unit depth	435 mm	
Inner freezer unit height	597 mm	
Outer width	600 mm	
Outer depth	615 mm	
Outer height	2,000 mm	
Thawing method	Automatic cooling compartment, manual freezer compartment	
Energy consumption (24 h)	1.800 kWh	
Weight	91 kg	
Mains connection	220–240 V, 50/60 Hz	

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Model LCv 4010, standard version

Type	Art. No.	Pack Qty.	€
LCv 4010	**TP33.1**	1 unit(s)	2.793,95

Fridge-freezers

Model LCexv 4010, explosion protected
With explosion protected interior in compliance with the safety requirements of EU Directive 94/9/EC (ATEX 95) for the storage of explosive and highly flammable substances in enclosed containers.

Type	Art. No.	Pack Qty.	€
LCexv 4010, explosion protected	**AET2.1**	1 unit(s)	2.847,70

Ultra-low temperature freezer -86 °C HERAfreeze™ HFC390TV

Thermo.

- Cooling temperature is adjustable from -50 to -86 °C
- Outer housing made of robust steel with powder-baked finish
- Stainless steel interior
- Alphanumeric LED display shows thresholds, system status and alarm messages
- Set-up adjustable for high-temperature and low-temperature alarm
- Backup battery (NiCd Gel battery 12 V) to preserve the display and alarm functions for 48 hours in the event of a power failure
- Access code to protect the setpoint defined
- Lockable door handle
- RS 232 interface and 4 mA up to 20 mA analogue outputs

Technical specifications:

Art. No.	HPA6.1
Type	HERAfreeze™ HFC390TV
Operating temperature	-50 to -86 °C
Cooling capacity	85 l
Outer width	724 mm
Outer depth	759 mm
Outer height	1,133 mm
Inner width	470 mm
Inner depth	470 mm
Inner height	417 mm
Energy consumption (24 h)	5.3 kWh
Weight	196 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	€
HERAfreeze™ HFC390TV	**HPA6.1**	9.361,00

Thermostat cabinet TCS series

Tintometer.

For continuous temperature control in different applications, e.g. microbiological research, BSB requirements etc.

- Temperature range +2 to +40 °C, infinitely adjustable in 0.1 °C increments
- Illuminated LED temperature display for actual/nominal values
- Temperature constancy ±1.0 °C
- With internal sockets for devices which require a power supply, e.g. magnetic stirrer
- Built-in cooling and heating units
- Lockable door
- With height-adjustable grids

Technical specifications:

Art. No.	AKX5.1	AKX9.1	AKX7.1	AKY0.1	AKX8.1
Type	TC 135 S	TC 140 G	TC 255 S	TC 256 G	TC 455 S
Cooling capacity	135 l	140 l	255 l		445 l
Base grid	1				
Number of grates	3		4		
Outer width	600 mm				750 mm
Outer depth	600 mm		610 mm		730 mm
Outer height	850 mm		1,640 mm		
Inner width	513 mm		470 mm		600 mm
Inner depth	441 mm		440 mm		560 mm
Inner height	702 mm		1,452 mm		
Sockets in the working area	4 unit(s)		7 unit(s)		9 unit(s)
Energy consumption (24 h)	1.35 kWh	1.77 kWh	1.54 kWh	1.56 kWh	1.42 kWh
Weight	39 kg	50 kg	61 kg	77 kg	78.5 kg
Mains connection	220–240 V, 50 Hz				

With standard door

Type	Art. No.	Pack Qty.	€
TC 135 S	**AKX5.1**	1 unit(s)	2.050,05
TC 255 S	**AKX7.1**	1 unit(s)	2.811,15
TC 455 S	**AKX8.1**	1 unit(s)	3.321,75

With glass door, double insulating glass with ABS frame

Type	Art. No.	Pack Qty.	€
TC 140 G	**AKX9.1**	1 unit(s)	2.318,80
TC 256 G	**AKY0.1**	1 unit(s)	2.906,80

Refrigerators/freezers, explosion-proof

Laboratory fridge, explosion-proof

Tintometer.

Explosion-proof acc. to directive for “safe working in laboratories DGUV Information 213-850 of BG RCI”. Enclosed spaces in which hazardous, explosive atmospheres can develop, e.g. rooms where flammable liquids are stored, must be explosion-proof.

- Cooling temperature is infinitely variable from +1 to +15 °C
- Temperature selection range:
  1 (= lowest cooling capacity) to 5 (= highest cooling capacity)
- Mechanical control unit
- Digital temperature display (resolution 1 °C)
- Sheet steel housing with impact resistant powder coating
- With lockable door and height-adjustable glass base
- Dynamic cooling system (with forced air ventilation)
- Models EX 220, EX 300 and EX 490 have a fan stop function which switches off the fan when the door is opened
- Automatic condensation drainage into inner catch tank

Technical specifications:

Art. No.	AKY7.1	AKY8.1	AKY9.1	ALA0.1
Type	EX 160	EX 220	EX 300	EX 490
Cooling capacity	160 l	221 l	307 l	520 l
Refrigeration temperature from	+1 °C			
Refrigeration temperature up to	+15 °C			
Number of bases	3	4	5	
Additional data	Shelves made of glass			
Outer width	600 mm			750 mm
Outer depth	600 mm	610 mm		730 mm
Outer height	860 mm	1,250 mm	1,640 mm	
Inner width	513 mm	470 mm		600 mm
Inner depth	441 mm	440 mm		560 mm
Inner height	702 mm	1,062 mm	1,452 mm	
Energy consumption (24 h)	0.898 kWh	0.786 kWh	0.947 kWh	0.983 kWh
Weight	40 kg	53 kg	64 kg	84 kg
Mains connection	220–240 V, 50 Hz			

Delivery incl. height-adjustable glass shelf.

Type	Art. No.	Pack Qty.	€
EX 160	**AKY7.1**	1 unit(s)	1.248,10
EX 220	**AKY8.1**	1 unit(s)	1.356,65
EX 300	**AKY9.1**	1 unit(s)	1.606,05
EX 490	**ALA0.1**	1 unit(s)	1.817,85

Fridge, explosion-proof MediLine type LK series

Liebherr.

With explosion-proof interior acc. to EU Directive 94/9/EG (ATEX 95).

General information for all models:

- Cooling temperature adjustable from +3 to +16 °C
- With convection cooling
- Digital temperature display (resolution 0.1 °C)
- Temperature constancy ±2,0 K
- Memory for Min/Max temperatures
- Memory function for storing last three temperature alarms and power failures with date/time/duration of alarm
- With lockable door
- Audible and visual with alarms
- Audible and visual door opening alarms

Technical specifications:

Art. No.	LL34.1	LL33.1
Type	LKUexv 1610	LKexv 3910
Cooling capacity	130 l	344 l
Refrigeration temperature from	+3 °C	
Refrigeration temperature up to	+16 °C	
Number of bases	3	5
Additional data	Shelves made of glass	
Outer width	600 mm	
Outer depth	615 mm	
Outer height	820 mm	1,840 mm
Inner width	455 mm	
Inner depth	435 mm	
Inner height	669 mm	1,650 mm
Thawing method	Automatic	
Energy consumption (24 h)	0.747 kWh	0.865 kWh
Weight	42 kg	70 kg

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Art. No.	Pack Qty.	€
LKUexv 1610	**LL34.1**	1 unit(s)	1.632,95
LKexv 3910	**LL33.1**	1 unit(s)	2.213,45

Refrigerators/freezers, explosion-proof

Freezer, explosion-proof MediLine type LG series

Liebherr.

With explosion-proof interior acc. to EU Directive 94/9/EG (ATEX 95).

General information for all models:

- Static cooling
- Digital temperature display
  resolution: 0.1 °C (to -19.9 °C) and/or 1 °C (from -20 °C)
- Temperature constancy ±2 K
- Memory for Min/Max temperatures
- Memory function for storing last three temperature alarms and power failures with date/time/duration of alarm
- With lockable door
- Audible and visual with alarms
- Audible and visual door opening alarms

Technical specifications:

Art. No.	LL36.1	LL35.1
Type	LGUex 1500	LGex 3410
Cooling capacity	129 l	284 l
Freezing temperature from	-9 °C	
Freezing temperature up to	-26 °C	-30 °C
Basket	1	
Drawers	3 unit(s)	8 unit(s)
Outer width	600 mm	
Outer depth	615 mm	
Outer height	820 mm	1,840 mm
Inner width	454 mm	420 mm
Inner depth	450 mm	400 mm
Inner height	663 mm	1,587 mm
Thawing method	manual	
Energy consumption (24 h)	0.926 kWh	1.309 kWh
Weight	46 kg	89 kg

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Art. No.	Pack Qty.	€
LGUex 1500	**LL36.1**	1 unit(s)	1.697,45
LGex 3410	**LL35.1**	1 unit(s)	2.342,45

Cone ice makers SCOTSMAN® B-series

Scotsman.

For making solid and crystal clear cone ice. Applications: Laboratories and industry.

- Stainless steel version, air-cooled
- Integrated reservoir
- Insulated removal flap for reduced condensation
- Ice cone size: Approx. H 30.5 x Ø 34 mm (20 g)
- Suitable for use with drinking water and demineralised water

Technical specifications:

Art. No.	NH38.1	NH39.1
Type	B 2508	B 3015
Max. output in 24 h	25 kg	31 kg
Storage capacity	8 kg	15 kg
Width	390 mm	467 mm
Depth	515 mm	570 mm
Height	640 mm	690 mm
Operating limits	Ambient temperature: Min. 10 °C/max. 43 °C Water temperature: Min. 5 °C/max. 38 °C Water pressure: Min. 0.8 bar/max. 5 bar	
Weight	31 kg	34 kg
Mains connection	230 V, 50 Hz	

Delivery incl. one ice shovel, 1 supply hose ¾″ (length 1.5 m), drainage hose (Ø 20 mm, length 1.5 m).

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
B 2508	8	**NH38.1**	1 unit(s)	1.166,40
B 3015	15	**NH39.1**	1 unit(s)	1.451,25

Flake ice maker

Flake ice maker with ice storage tank UFP-series Manitowoc Ice

Manitowoc.

Applications: Laboratories, research institutes and industry. To produce ice flakes or crushed ice, with a temperature of -0.5 °C. The ice is crystalline-shaped and suitable for pouring.

- With free water drainage
- With an integrated storage tank
- Outer housing made of stainless steel
- Air-cooled
- Separate On/Off switch
- Suitable for use with drinking water and demineralised water
- Adjustable feet height (110 to 150 mm)

Technical specifications:

Art. No.	LP30.1	LP31.1	LP32.1	LP33.1
Type	UFP 0244 A	UFP 0200 A	UFP 0388 A	UFP 0399 A
Max. output in 24 h	113 kg		153 kg	
Storage capacity	20 kg	30 kg	40 kg	55 kg
Power consumption	470 W		700 W	
Width	500 mm		738 mm	780 mm
Depth	660 mm		690 mm	
Height	843 mm	953 mm	1,070 mm	1,173 mm
Operating temperature from	10 °C			
Operating temperature up to	43 °C			
Weight	67 kg	76 kg	102 kg	105 kg
Mains connection	230 V, 50 Hz			

Delivery incl. one ice shovel and set of attachments (supply and drainage hose with ¾″-thread, each 1.5 m).

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
UFP 0244 A	20	**LP30.1**	1 unit(s)	3.312,75
UFP 0200 A	30	**LP31.1**	1 unit(s)	3.370,25
UFP 0388 A	40	**LP32.1**	1 unit(s)	3.749,85
UFP 0399 A	55	**LP33.1**	1 unit(s)	3.841,85

Flake ice machines with ice storage tank SCOTSMAN®

Scotsman.

Applications: Laboratories, research institutes and industry.

- Stainless steel version, air-cooled
- Environmentally friendly safety refrigerant

The ice flakes have a temperature of -0.5 °C; the irregular, large surface delivers a very good cooling effect. Each flake is saturated and firm and they do not stick together.

All models can be modified for operation with demineralised water (conductivity ≤30 µS) for an additional charge. Please check with our Sales Department.

Technical specifications:

Art. No.	CK94.1	CK95.1
Type	AF 80 AS	EF 103 AS
Max. output in 24 h	70 kg	105 kg
Storage capacity	25 kg	30 kg
Power consumption	330 W	470 W
Width	535 mm	592 mm
Depth	626 mm	622 mm
Height	933 mm	1,126 mm
Operating limits	Ambient temperature: Min. 10 °C/max. 40 °C Water temperature: Min. 5 °C/max. 35 °C Water pressure: Min. 1 bar/max. 5 bar	
Weight	51 kg	63 kg
Mains connection	230 V, 50 Hz	

Delivery incl. one scoop, 1 supply hose ¾″ (length 1.5 m), 1 drainage hose (Ø 20 mm, length 1.5 m).

Standard version

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
AF 80 AS	25	**CK94.1**	1 unit(s)	3.864,65

With waste water pump

With additional waste water pump (waste water can be pumped up to a height of 1.7 m or up to a distance of 15 m)

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
EF 103 AS	30	**CK95.1**	1 unit(s)	4.617,15

Flake ice maker

Flake ice maker with separate store RFP-series Manitowoc Ice

Manitowoc.

(1) General dimensions: Flake ice maker

- For large production quantities
- Stainless steel design (inside/outside), air-cooled
- Separate On/Off switch
- HACCP-compliant
- Suitable for use with drinking water and demineralised water

(2) General details of base ice store

- Easy removal of ice due to flap with locking mechanism
- Constant cooling temperature through PE insulation
- Ice shovel holder
- Adjustable feet height (110 to 150 mm)

Technical specifications:

Art. No.	HPK0.1	HPK1.1	HPK2.1	HPK3.1
Type	RFP 0320 A with store D 320	RFP 0320 A with store D 420	RFP 0620 A with store D 320	RFP 0620 A with store D 420
Max. output in 24 h	157 kg		280 kg	
Storage capacity	95 kg	141 kg	95 kg	141 kg
Power consumption	830 W		1,100 W	
Width	559 mm			
Depth	864 mm			
Height	1,625 mm	1,930 mm	1,625 mm	1,930 mm
Operating temperature from	10 °C			
Operating temperature up to	43 °C			
Weight	108 kg	123 kg	138 kg	153 kg
Mains connection	230 V, 50 Hz			

Delivery incl. set of attachments (supply and drainage hose with ¾″ thread, each 1.5 m) and ice shovel 180 ml.

RFP 0320 A

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
RFP 0320 A with store D 320	95	**HPK0.1**	1 unit(s)	4.934,60
RFP 0320 A with store D 420	141	**HPK1.1**	1 unit(s)	5.003,60

RFP 0620 A

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
RFP 0620 A with store D 320	95	**HPK2.1**	1 unit(s)	6.798,00
RFP 0620 A with store D 420	141	**HPK3.1**	1 unit(s)	6.867,00

Ice scraper ROTILABO® for refrigerators and freezers

ROTH SELECTION. Material: PP.

Robust design. Practical short handle for cleaning iced refrigerators, freezer cabinets and freezers. Overall length 250 mm.
Handle length 130 mm. Scraper width 110 mm, thickness 4 mm.

Type	Art. No.	Pack Qty.	€
Ice scraper	**HNH9.1**	5 unit(s)	34,05

Ice crusher

Chrome housing. Ice tank volume approx. 900 ml. With hand crank.
Grinder made of stainless steel.
Dimensions: W 160 mm x D 135 mm x H 270 mm.

Delivery incl. ice shovel made of PP.

Type	Storage capacity (ml)	Art. No.	Pack Qty.	€
Ice crusher	900	**LT26.1**	1 unit(s)	60,80

Gas burners

Gas burners acc. to Bunsen

Usbeck.

Suitable for propane gas or natural gas. Made of die-cast zinc.
Connection for hose with inside Ø 9.5 mm.

Technical specifications:

Art. No.	CHP1.1	C634.1	CHP0.1	C633.1
Gas type	Natural gas		Propane gas	
Temperature	1500 °C		1550 °C	1520 °C
Consumption	110 l/h	100 l/h	55 l/h	
Pilot flame	No	Yes	No	Yes
Ø Head	17 mm			

(1) With needle valve and air regulation

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	220	**CHP1.1**	1 unit(s)	35,70
Propane gas	155	220	**CHP0.1**	1 unit(s)	35,70

(2) With needle valve, pilot flame and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	245	**C634.1**	1 unit(s)	52,95
Propane gas	155	245	**C633.1**	1 unit(s)	52,45

Gas burners acc. to Bunsen and DIN

Usbeck.

Acc. to DIN. Suitable for propane gas or natural gas. Connection for hose with inside Ø 9.5 mm. Made of die-cast zinc.

Technical specifications:

Art. No.	Y562.1	Y564.1	CHT3.1	CHT5.1	Y561.1	Y563.1	CHT2.1	CHT4.1
Gas type	Natural gas				Propane gas			
Temperature	1500 °C				1540 °C	1550 °C	1520 °C	
Consumption	110 l/h	115 l/h	110 l/h		55 l/h			50 l/h
Ø Head	17 mm							

(1) Basic version with air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	210	**Y562.1**	1 unit(s)	32,15
Propane gas	155	210	**Y561.1**	1 unit(s)	32,15

(2) With needle valve and air regulation

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	210	**Y564.1**	1 unit(s)	41,85
Propane gas	155	210	**Y563.1**	1 unit(s)	41,85

(3) With needle valve, pilot flame and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	220	**CHT3.1**	1 unit(s)	48,85
Propane gas	155	220	**CHT2.1**	1 unit(s)	48,85

(4) With stop cock, pilot flame and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	225	**CHT5.1**	1 unit(s)	51,10
Propane gas	155	225	**CHT4.1**	1 unit(s)	51,10

Gas burners

Teclu burners

Usbeck.

Suitable for propane gas or natural gas. Made of die-cast zinc. Connection for hose with inside Ø 9.5 mm.

Technical specifications:

Art. No.	CHP5.1	CHP9.1	CHT1.1	CHP4.1	CHP8.1	CHT0.1
Gas type	Natural gas			Propane gas		
Temperature	1520 °C	1530 °C	1520 °C	1560 °C	1550 °C	1600 °C
Consumption	125 l/h	110 l/h		65 l/h	55 l/h	85 l/h
Pilot flame	No	Yes	No		Yes	No
Ø Head	17 mm		32 mm	17 mm		32 mm

(1) With needle valve and air regulation

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	260	**CHP5.1**	1 unit(s)	47,80
Propane gas	155	260	**CHP4.1**	1 unit(s)	47,80

(2) Wth stop cock, pilot flame and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	265	**CHP9.1**	1 unit(s)	57,85
Propane gas	155	265	**CHP8.1**	1 unit(s)	57,85

(3) With needle valve, enhanced heat output and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	165	330	**CHT1.1**	1 unit(s)	82,05
Propane gas	165	330	**CHT0.1**	1 unit(s)	82,05

Teclu burners

Usbeck.

Acc. to DIN. Suitable for propane gas or natural gas. Connection for hose with inside Ø 9.5 mm. Made of die-cast zinc.

Technical specifications:

Art. No.	CHT7.1	Y566.1	CHT9.1	CHT6.1	Y565.1
Gas type	Natural gas			Propane gas	
Temperature	1520 °C	1530 °C	1550 °C	1560 °C	1550 °C
Consumption	125 l/h	110 l/h	220 l/h	65 l/h	55 l/h
Pilot flame	No	Yes	No		Yes
Ø Head	17 mm		32 mm	17 mm	

(1) With needle valve and air regulation

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	260	**CHT7.1**	1 unit(s)	54,25
Propane gas	155	260	**CHT6.1**	1 unit(s)	54,25

(2) With stop cock, pilot flame and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	265	**Y566.1**	1 unit(s)	68,60
Propane gas	155	265	**Y565.1**	1 unit(s)	68,60

(3) With needle valve, enhance heating output and air regulation

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	165	330	**CHT9.1**	1 unit(s)	83,45

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Gas burners with suction foot

Usbeck.

Acc. to DIN. Connection for hose with-Ø 9.5 mm. Suitable for propane gas or natural gas With suction foot:

- For stability on all smooth surfaces
- Accidental movement of the burner is largely avoided
- No metal in contact with the standing area

Technical specifications:

Art. No.	CK29.1	CK31.1	CK33.1	CK28.1	CK30.1	CK32.1
Gas type	Natural gas			Propane gas		
Temperature	1500 °C		1520 °C	1550 °C	1520 °C	1560 °C
Consumption	115 l/h	110 l/h	125 l/h	55 l/h	50 l/h	65 l/h
Pilot flame	No	Yes	No		Yes	No
Ø Head	17 mm					

(1) With needle valve and air control - Bunsen gas burner

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	220	**CK29.1**	1 unit(s)	46,70
Propane gas	155	220	**CK28.1**	1 unit(s)	46,70

(2) With stopcock, pilot flame and air control - Bunsen gas burner

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	225	**CK31.1**	1 unit(s)	56,10
Propane gas	155	225	**CK30.1**	1 unit(s)	56,10

(3) With needle valve and air control - Teclu gas burner

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	260	**CK33.1**	1 unit(s)	59,25
Propane gas	155	260	**CK32.1**	1 unit(s)	59,25

Gas burners with double lever stop cock

Usbeck.

Acc. to DIN. Connection for hose with inside Ø 10 mm. Suitable for propane gas or natural gas. With double lever stopcock, pilot flame and air regulation.

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	150	290	**CX72.1**	1 unit(s)	62,90
Propane gas	150	290	**CX71.1**	1 unit(s)	62,90

Gas burners

For propane or natural gas. A non-tilting stand and a low centre of gravity ensure high stability. The burner can be remove from the stand The tilt angle can be set via a resolution to 60°/90°/120 °. With separate chimney for low flame and control value to switchover between main and pilot flame. A regulation mechanism for the air supply allows finest settings for the flame temperature. Installation height depends on the angle setting 100/107 mm, weight 530 g. Suitable for continuous operation

Gas type	Art. No.	Pack Qty.	€
Natural gas	**H613.1**	1 unit(s)	188,50
Propane gas	**H612.1**	1 unit(s)	188,50

Safety laboratory burners acc. to Teclu

With thermo sensor safety valve (if the flame extinguishes of the gas supply is interrupted, the safety valve closes automatically). Solid round base. With air regulation and needle valve.

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	180	300	**NA05.1**	1 unit(s)	145,85
Propane gas	180	300	**NA04.1**	1 unit(s)	145,85

Horizontal burner

For soldering, melting, burning-off etc. With piezo ignition. Flame temperature up to 1300 °C. Sturdy metal construction with slip-resistant piston for one-handed operation.
Safety switch Dimensions: Ø 30 mm x H 150 mm. Fillable with lighter gas.

Delivery without filling, refillable gas please order separately.

Type	Art. No.	Pack Qty.	€
Horizontal burner	**YE28.1**	1 unit(s)	38,90

Gas burners

Micro horizontal burners GB 2001

For soldering, welding, stoving and melting glass, made of chrome and camera-plastic. Pieozo-electric ignition and fine flame produces temperatures up to 1300 °C. Tank for liquid butane in handle, sufficient for two hours normal operation. Height 145 mm, weight empty 200 g. Complete with removable stand, without filling for safety reasons.

Delivery without filling, refillable gas please order separately.

Type	Art. No.	Pack Qty.	€
GB 2001	**0386.1**	1 unit(s)	100,35

Universal refillable gas

With 250 ml liquid butane and 5 different injection nozzles.

Danger H220-H280

Designation	Vol. (ml)	Art. No.	Pack Qty.	€
Universal refillable gas 250 with liquid butane	250	**1652.1**	1 unit(s)	3,80

Gas burners Labogaz® 206

Camping Gaz.

For operation with cartridge C 206 D Super. With Clip & Go mounting system for simple cartridge change. With cartridge bell made of plastic Flame temperature approx. 1100 °C. Dimensions without cartridge: height 130 mm, Ø 90 mm.

Delivery without stand and cartridge, please order separately.

Designation	Art. No.	Pack Qty.	€
LABOGAZ® 206	**0802.1**	1 unit(s)	79,00

Accessories stand foot for LABOGAZ 206

Camping Gaz.

Designation	Art. No.	Pack Qty.	€
Stand for Bunsen burner laboratory gas 206	**X711.1**	1 unit(s)	9,25

Gas burners Labogaz® 470

Camping Gaz.

For operation with cartridge CV 470 plus.
Dimensions without cartridge: Ø 22 mm, height 59 mm.

Delivery without cartridge, please order separately.

Designation	Art. No.	Pack Qty.	€
LABOGAZ® 470	**Y650.1**	1 unit(s)	81,45

Gas cooker Twister® Plus OZ

Camping Gaz.

Easy Clic®-Connection for easy fitting of valve cartridges.
With 3 container holders. **Piezo ignition.** Operation with gas cartridges CV 470 plus. Continuous operation of cartridge: approx. 2 h with CV 470 plus. Dimensions (without cartridge): L 105 x W 70 mm, pot rest Ø 140 mm. Weight (without cartridge) 285 g.

Delivery without gas cartridge, please order separately.

Designation	Art. No.	Pack Qty.	€
Twister® Plus OZ	**EL22.1**	1 unit(s)	53,80

Fine soldering unit Spotflam

Camping Gaz.

Network-independent multi-purpose unit with micro burner and fine soldering iron for attachment Flame adjusts directly adjusting the air supply setting. Burning duration approx. 4 hours. Applications: heating of test tubes, sterilisation of instruments, hard and soft soldering.

Danger H220-H280
Delivery incl. cartridge CV 360.

Designation	Art. No.	Pack Qty.	€
Spotflam	**T926.1**	1 unit(s)	40,55

Soldering blow torch Soudogaz® X series

Camping Gaz.

Flame temperature approx. +1800 °C. Weight with cartridge approx. 800 g. Flame adjustment. Gas consumption 120 l/h.

Delivery without cartridge, please order separately.

(1) Model X 2000

Type	Art. No.	Pack Qty.	€
X 2000	**0777.1**	1 unit(s)	48,50

(2) Model X 2000 OZ with automatic piezo-electric ignition

Type	Art. No.	Pack Qty.	€
X 2000 OZ	**N183.1**	1 unit(s)	56,60

Mobile hand-held laboratory gas burner powerjet

WLD-TEC.

For all flame-protection sterilisations in microbiological or biotechnological field.

- **Flame temperature approx. 1350 °C**
- Automatic ignition through piezo effect
- The burner ignites when the button is pressed; the flame extinguishes when the button is released
- Continuous adjustment of the flame size
- Operation with gas cartridge CG 1750, optimal for laboratories without central gas supply
- Dimensions: W 150 x H 180 mm

Delivery incl. gas cartridge adapter for cartridge CG 1750.
Without cartridge CG 1750, please order separately.

Type	Art. No.	Pack Qty.	€
powerjet	**EL35.1**	1 unit(s)	252,65

Mobile hand-held laboratory gas burner powerjet 2

WLD-TEC.

For connecting the central gas supply (propane, butane and natural gas) and for operation with gas cartridge CV 360.

- Flame temperature: approx. 1350 °C for liquid gas and 1300 °C for natural gas
- Automatic ignition through piezo effect
- Gas supply only when the button is pressed
- The burner ignites when the button is pressed; the flame extinguishes when the button is released
- With lock to set the flame for mobile continuous flaming
- Continuous adjustment of the flame size
- Dimensions: W 150 x H 210 mm

Delivery incl. gas cartridge adapter for cartridge CV 360, nozzle for propane/butane gas and natural gas, hose nozzle with union nut, nozzle socket wrench, wrench and stainless steel holder.
Gas cartridge CV 360, please order separately.

Designation	Art. No.	Pack Qty.	€
powerjet 2	**EP56.1**	1 unit(s)	416,05

Gas burners

Gas cartridges

Camping Gaz.

Technical specifications:

Art. No.	T927.1	EL36.2	0191.2	Y652.1	Y652.2
Type	CV 360	CG 1750	C 206 GLS	CV 470 plus	
Height	140 mm		90 mm	135 mm	
Ø ext.	38 mm	60 mm	90 mm	109 mm	

Danger H220-H280

(1) Valve cartridge CV 360
Space-saving butane cartridges can be removed from the unit, even when they are not completely empty. The valve ensures that the gas does not escape.

Type	Designation	Art. No.	Pack Qty.	€
CV 360	Valve cartridge CV 360, 52 g	**T927.1**	6 unit(s)	67,05

(2) Screw valve cartridge CG 1750
Special mixture 70/30 butane/propane. Self-sealing safety valve, removable and re-attachable even if the cartridge is not yet empty.

Type	Designation	Art. No.	Pack Qty.	€
CG 1750	Screw valve cartridge CG 1750, 170 g	**EL36.2**	8 unit(s)	68,80

(3) Pierce-through cartridge C 206 GLS
Butane/propane mixture 80/20 %. If pierce-through cartridges are fitted to the unit, they may only be removed when they are completely empty. With gas lock system acc. to EN 417:2012. The system extensively retains the gas in the cartridge it the unit and cartridge are disconnected unintentionally.

Type	Designation	Art. No.	Pack Qty.	€
C 206 GLS	Pierce-through cartridge C 206 GLS, 190 g	**0191.2**	8 unit(s)	37,30

(4) CV 470 plus Valve cartridge CV 470 plus
Butane/propane mixture (80/20 %). Valve cartridges can be removed from the unit, even when they are not completely empty. The valve ensures that the gas does not escape.

Type	Designation	Art. No.	Pack Qty.	€
CV 470 plus	Valve cartridge CV 470 plus, 450 g	**Y652.1**	2 unit(s)	27,35
CV 470 plus	Valve cartridge CV 470 plus, 450 g	**Y652.2**	12 unit(s)	145,25

DURAN
WHEATON
KIMBLE

Spirits burner

DWK Life Sciences.

Delivery incl. wick.

(1) Made of stainless steel
With wick regulating facility and sealing cover. Volume approx. 85 ml. Dimensions: Ø 100 mm, H 65 mm. Weight 105 g.

Type	Art. No.	Pack Qty.	€
Spirit burner made of stainless steel	**AL28.1**	1 unit(s)	23,70

(2) Made of calcium soda glass
With ground sealing cover. Volume approx. 100 ml. Dimensions: Ø 76 mm, H 102 mm. Weight 190 g.

Type	Art. No.	Pack Qty.	€
Spirits burner made of calcium soda glass	**AL29.1**	1 unit(s)	17,00

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Gas safety burners

Gas safety burner Flame 100

WLD-TEC.

Ideal for sterilization of microbiological instruments and graduated heating of dental tools.

- Housing and burner tube made of stainless steel
- With key function:
  Flame is started and stopped by pressing the function button. Operation also via optional foot-switch (with foot pedal depressed) or external IR motion sensor (flame as long as the hand is in the detection zone of the sensor).
- With ignition and flame control, clogging monitor, as well as overtemperature protection
- Continuous cartridge operation: 65 min with CV 360, 230 min with C 206, 550 min with CV 470 plus, 210 min with CG 1750
- Suitable for stationary natural gas and propane/butane gas.
  If cartridges are required, please order gas adapter and cartridge separately

Technical specifications:

Art. No.	NA00.1
Type	Flame 100
Foot switch operation is possible	Yes
IR sensor operation is possible	Yes
Width	89 mm
Depth	88 mm
Height	34 mm
Weight	385 g

Delivery incl. variable power supply (100 to 240 V, 50/60 Hz), hose nozzle and injectors for natural gas, propane / butane gas. Without foot pedal or IR motion sensor (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Flame 100	**NA00.1**	1 unit(s)	288,10

Accessories

WLD-TEC.

Standard foot switch for gas safety burners
Standard foot pedal made of stainless steel. Cable length 3 m.

Type	Art. No.	Pack Qty.	€
Standard foot switch	**AN88.1**	1 unit(s)	52,25

External IR motion sensor for gas safety burners
Cable length 0.4 m.

Type	Art. No.	Pack Qty.	€
External IR motion sensor	**NA01.1**	1 unit(s)	105,25

Accessories gas safety adapter for cartridges

WLD-TEC.

With integrated pressure reducer, stop cock and DVGW hose, length 0.5 m.

Suitable for	Art. No.	Pack Qty.	€
Cartridge C 206 GLS	**AN84.1**	1 unit(s)	122,70
Cartridge CV 470 plus	**AN85.1**	1 unit(s)	128,60
Cartridge CG 1750	**EX07.1**	1 unit(s)	84,75

For cartridge CV 360
Gas safety adapter for cartridge CV 360

Suitable for	Art. No.	Pack Qty.	€
Cartridge CV 360	**NA02.1**	1 unit(s)	107,45

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Gas safety burners

Gas safety burner Fuego SCS basic

WLD-TEC.

Ideal for heating, burning-off and annealing as well as for use in microbiological safety workbenches.

- Foot-switch control: Flame burns until the foot-switch is pressed or start/stop with automatic switch-off (up to 60 min)
- Additionally with button function: flame is started and stopped by pressing the function button
- Casing/control elements made of stainless steel and glass, UV and solvent proof
- Removable and dismountable burner head
- Can be tilted left or right
- Continuous cartridge operation: 40 min with CV 360, 170 min with C 206, 370 min with CV 470, 150 min with CG 1750
- Safety equipment with gas safety shutoff: ignition, flame and temperature monitoring, contamination and installation monitoring, automatic unit switch-off and residual heat display
- Ideal for natural, propane or butane gas. If cartridges are required, please order gas adapter and cartridge separately.

Technical specifications:

Art. No.	HA64.1
Type	SCS basic
Foot switch operation is possible	Yes
Width	103 mm
Depth	130 mm
Height	49 mm
Weight	700 g

Delivery incl. foot-switch, variable power supply (100 to 240 V, 50/60 Hz), hose nozzle with union nut, inoculation loop holder and nozzles for natural gas, propane / butane gas.

Type	Art. No.	Pack Qty.	€
SCS basic	**HA64.1**	1 unit(s)	470,85

With integrated pressure reducer, stop cock and DVGW hose, length 0.5 m.

Suitable for	Art. No.	Pack Qty.	€
Cartridge C 206 GLS	**AN84.1**	1 unit(s)	122,70
Cartridge CV 470 plus	**AN85.1**	1 unit(s)	128,60
Cartridge CG 1750	**EX07.1**	1 unit(s)	84,75

Accessories gas safety adapter for cartridge CV 360

WLD-TEC.

With integrated pressure reducer.

Suitable for	Art. No.	Pack Qty.	€
Cartridge CV 360	**HC48.1**	1 unit(s)	100,45

Gas safety burner Fuego series

WLD-TEC.

Ideal for heating, burning-off and annealing as well as for use in microbiological safety workbenches.

- Animated graphic display with buzzer: installation and operating instructions with symbols, user ID, gas consumption display and cooling time reminder
- Casing/control elements made of stainless steel and glass, UV and solvent proof
- Programme with firing time display for double-click IR sensor (switchable), button, foot pedal and temperature control for precise heating of media.
  Operating modes:
  Key function: Flame is started and stopped by actuating the function button, or the flame extinguishes after a preselected time
  IR sensor: Contactless On/Off of the flame via IR sensor or the flame extinguishes after a preselected time(1 s to 120 min) or auto-off with teach function (1 s to 120 min)
  Foot-switch control: Flame burns until the foot-switch is pressed or start/stop with automatic switch-off (1 s to 120 min)
- Safety equipment with gas safety shutoff: ignition, flame and temperature monitoring, contamination and installation monitoring, automatic unit switch-off and residual heat display
- Zero-pressure shutoff: for releasing residual gas pressure after use
- Angle adjustment and removable burner head
- Ideal for natural, propane or butane gas. If cartridges are required, please order gas adapter and cartridge separately

Technical specifications:

Art. No.	EX06.1	LE17.1
Type	Fuego SCS	Fuego SCS pro
Foot switch operation is possible	Yes	
IR sensor operation is possible	Yes	
Detection range of IR sensor	5-100 mm	
Width	103 mm	
Depth	130 mm	
Height	49 mm	

Model Fuego SCS

Delivery incl. IR sensor, inoculation loop holder plug-in power supply and nozzles for natural gas, propane / butane gas. Without foot switch (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Fuego SCS	**EX06.1**	1 unit(s)	573,00

Gas safety burners

Model Fuego SCS pro

- **Mains-independent operation using rechargeable batteries**
- Additional tilt sensor with gas safety shutoff

Delivery incl. two Mignon 1.2 V rechargeable batteries (battery time up to 9 h for continuous operation, charging time approx. 3 h), IR sensor, inoculation loop holder, plug-in power supply, hose sleeve with union nut and nozzles for natural gas, propane/butane gas. Without foot switch (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Fuego SCS pro	**LE17.1**	1 unit(s)	674,05

Standard foot switch for gas safety burners
Standard foot pedal made of stainless steel. Cable length 3 m.

Type	Art. No.	Pack Qty.	€
Standard foot switch	**AN88.1**	1 unit(s)	52,25

Accessories wireless foot-switch set for Fuego SCS

WLD-TEC.

Allows foot pedal operation without disturbing cable. Range 2 to 5 m. Frequency 2.4 GHz. Remote control foot-switch made of stainless steel.

Delivery incl. RF stick, remote control foot pedal and 2 Mignon 1.5 V batteries.

Designation	Art. No.	Pack Qty.	€
Wireless foot-switch set	**KA26.1**	1 unit(s)	135,25

Accessories gas safety adapter for cartridge CV 360

WLD-TEC.

With integrated pressure reducer.

Suitable for	Art. No.	Pack Qty.	€
Cartridge CV 360	**HC48.1**	1 unit(s)	100,45

With integrated pressure reducer, stop cock and DVGW hose, length 0.5 m.

Suitable for	Art. No.	Pack Qty.	€
Cartridge C 206 GLS	**AN84.1**	1 unit(s)	122,70
Cartridge CV 470 plus	**AN85.1**	1 unit(s)	128,60
Cartridge CG 1750	**EX07.1**	1 unit(s)	84,75

Gas safety burner Gasprofi 1 SCS *micro*

WLD-TEC.

Space-saving laboratory gas burner for microbiology, cell biology and biotechnology.

Features:

- ***5 operating modes***:
  Key function: Flame is started and stopped by actuating the function button, or the flame extinguishes after a preselected time
  IR sensor: Contactless On/Off of the flame via IR sensor or the flame extinguishes after a preselected time (1 s to 60 min) or auto-off with teach function (1 s to 60 min)
  Foot-switch control: Flame burns until the foot-switch is pressed or start/stop with automatic switch-off (1 s to 60 min)
- Stainless steel housing and operating elements
- Operation either with natural gas or propane/butane gas
- Tilt adjustment left/right
- Continuous cartridge operation: 45 min with CV 360, 170 min with C 206, 345 min with CV 470 plus
- Removable burner head

Technical specifications:

Art. No.	AN82.1
Type	Gasprofi 1 SCS micro
Foot switch operation is possible	Yes
IR sensor operation is possible	Yes
Detection range of IR sensor	5-50 mm
Width	85 mm
Depth	86 mm
Height	49 mm
Weight	930 g

Delivery incl. stainless steel foot-switch, IR sensor, nozzles for natural gas, propane/butane gas, hose connector with union nut and plug-in power supply. If cartridges are required, please order gas adapter and cartridge separately.

Type	Art. No.	Pack Qty.	€
Gasprofi 1 SCS micro	**AN82.1**	1 unit(s)	527,85

Accessories gas safety adapter for cartridges

WLD-TEC.

With integrated pressure reducer, stop cock and DVGW hose, length 0.5 m.

Suitable for	Art. No.	Pack Qty.	€
Cartridge C 206 GLS	**AN84.1**	1 unit(s)	122,70
Cartridge CV 470 plus	**AN85.1**	1 unit(s)	128,60
Cartridge CG 1750	**EX07.1**	1 unit(s)	84,75

Accessories gas safety adapter for cartridge CV 360

WLD-TEC.

With integrated pressure reducer.

Suitable for	Art. No.	Pack Qty.	€
Cartridge CV 360	**HC48.1**	1 unit(s)	100,45

Gas safety burners

Fully automatic inoculation loop carousel auto*loop*PRO

WLD-TEC.

Allows removal of the **safety laboratory burner from the Fuego SCS series** for sterilisation stations. The microprocessor-controlled carousel detects removed and returned inoculation loops, rotates and control the sterilisation fully automatically For up to 4 inoculation loop.

Features:

- Fully graphic DOT matrix display to show the pone of removal of cool inoculation loops, the remaining cooling time, residual heating and flame sterilisation time
- Settable annealing time: 1 to 15 s, adjustable cooling time: 1 to 45 s
- Completely made of stainless steel and anodised aluminium. The display is protected with special glass
- With sterilisation monitor for monitoring the safe sterilisation of the inoculation loops. A symbol indicates whether he inoculation loops have been annealed properly. Sensor intensity adjustable on 3 levels (low to high annealing intensity selectable for thin to thick inoculation loop wires)
- Overtemperature protection and residual heat indicator
- Dimensions: W 135 mm x H 305 mm x D 180 mmm
- Voltage supply via the foot pedal of the burner

Delivery incl. 4 inoculation loop holders, 4 inoculation loops and stand. To operate the carousel for inoculation loops, the safety laboratory gas burner from the Fuego SCS series is requirement if not present, order separately).

Type	Art. No.	Pack Qty.	€
auto*loop*PRO	**LH88.1**	1 unit(s)	1.237,35

Accessories splash guard for auto*loop*PRO

WLD-TEC.

For safe handling of pathogenic material, protected.

Designation	Art. No.	Pack Qty.	€
Splash guard	**HY19.1**	1 unit(s)	59,35

Gas safety burner phoenix II

schuett biotec.

For use in microbiological safety work benches.

- LED colour display with choice of languages
- Plain text menu navigation and display of burning time left
- UV-resistant, can be flamed (stainless steel housing, special glass display)
- Can be tilted left or right
- ***5 operating modes***:
  Key function: Flame is started and stopped by actuating the function button, or the flame extinguishes after a preselected time
  IR sensor: Contactless On/Off of the flame via IR- sensor or the flame extinguishes after a preselected time (1 s to min) or auto-off with teach function (s to 120 min)
  Foot-switch control: Flame burns until the foot-switch is pressed or start/stop with automatic switch-off (1 s to 120 min)
- Flame, ignition and contamination monitoring
- Ideal for natural, propane or butane gas. Can be operated with gas cartridges CV 360, C 206 and CV 470 plus (please order the required gas adapter separately) or from the central gas supply

Technical specifications:

Art. No.	TA01.1
Type	phoenix II
Foot switch operation is possible	Yes
IR sensor operation is possible	Yes
Detection range of IR sensor	30 mm / 80 mm
Width	125 mm
Depth	160 mm
Height	85 mm

Delivery incl. IR sensor, stainless steel foot-operated push-button/foot switch and power unit (100 to 240 V, 50/60 Hz), hose fitting, natural gas and propane /butane nozzles.

Type	Art. No.	Pack Qty.	€
phoenix II	**TA01.1**	1 unit(s)	579,45

Accessories gas safety adapter for cartridges

schuett biotec.

With integrated pressure reducer and 0.5 m safety gas hose.

Suitable for	Art. No.	Pack Qty.	€
Cartridge C 206 GLS	**TA03.1**	1 unit(s)	131,85
Cartridge CV 470	**TA04.1**	1 unit(s)	131,85

For cartridge CV 360

Suitable for	Art. No.	Pack Qty.	€
Cartridge CV 360	**TA02.1**	1 unit(s)	135,50

Gas safety burners

Overhead gas burners Flame 110

WLD-TEC.

Heats dental tools, sterilises microbiological instruments or flame deburred/flame polished plastic and rubber mouldings in an industrial environment.

- **Variable flame from any direction – even upside down (depending on positioning)**
- ***Operating modes***:
  Key function: Flame is started and stopped by actuating the function button
  IR sensor Contactless On/Off of the flame via IR sensor or the flame extinguishes after a preselected time (1 s to min) or auto-off with teach function (s to 120 min)
  Foot-switch control: Flame burns until the foot-switch is pressed or start/stop with automatic switch-off(1 s to 120 min)
- With gas safety shutoff and overtemperature protection
- Can be operated using optional foot-switch or external IR motion sensor. If required, please order separately.

Technical specifications:

Art. No.	**YP70.1**
Type	Flame
Foot switch operation is possible	Yes
IR sensor operation is possible	Yes
Height	135 mm
Ø ext.	88 mm
Weight	580 g

Delivery incl. fixing plate for overhead attachment and 100 to 240 V power supply, 50/60 Hz. Without gas adapter and cartridge (please order separately).

Type	Art. No.	Pack Qty.	€
Flame	**YP70.1**	1 unit(s)	530,00

Accessories

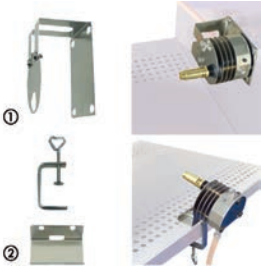
WLD-TEC.

Standard foot switch for gas safety burners
Standard foot pedal made of stainless steel. Cable length 3 m.

Type	Art. No.	Pack Qty.	€
Standard foot switch	**AN88.1**	1 unit(s)	52,25

External IR motion sensor for gas safety burners
Cable length 0.4 m.

Type	Art. No.	Pack Qty.	€
External IR motion sensor	**NA01.1**	1 unit(s)	105,25



Accessories holders for overhead gas burners

WLD-TEC.

(1) Stainless steel lateral bracket

Designation	Art. No.	Pack Qty.	€
Lateral brackets	**YP71.1**	1 unit(s)	44,65

(2) Stainless steel horizontal bracket

Designation	Art. No.	Pack Qty.	€
Horizontal bracket	**YP72.1**	1 unit(s)	36,25

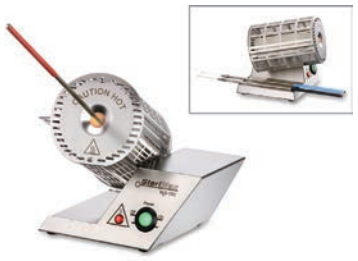
Accessories gas safety adapter for Flame 110

WLD-TEC.

For cartridge C 206 and CV 470 plus with pressure reducer stop cock and DVGW hose (length 0.5 m).

Suitable for	Art. No.	Pack Qty.	€
Cartridge C206 GLS	**YP73.1**	1 unit(s)	164,50
Cartridge CV 470 plus	**YP74.1**	1 unit(s)	166,10

Inoculation loop sterilisers



Infrared sterilising station SteriMax series

WLD-TEC.

For annealing inoculation loops, needles and instruments. For laboratories and safety work benches, in which gas and naked flames are not allowed to be used. The inoculation loop is held in the quartz glass annealing tube for annealing. The inoculation loop is sterilised after approx. five to seven seconds.

- Made of stainless steel
- Residual heat display warns users of high temperatures
- With adjustment at seven angles
- Integrated splash guard
- Storage for three instruments

Technical specifications:

Art. No.	KL88.1	LH89.1
Type	SteriMax 15	SteriMax 21
Temperature range	900 to 950 °C	
Ø Internal	15 mm	21 mm
Inner length	118 mm	161 mm
Warm-up period	7–9 min	
Performance	160 W	225 W
Width	175 mm	
Depth	139 mm	169 mm
Height	129 mm	
Weight	960 g	1060 g
Mains connection	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
SteriMax 15	**KL88.1**	1 unit(s)	557,95
SteriMax 21	**LH89.1**	1 unit(s)	618,15

Infrared inoculation loop steriliser SteriMax smart

WLD-TEC.

Specially focussed infrared light creates an IR hotspot and sterilises inoculation loops at a temperature from 750 to 1000 °C within 5–10 s.

- Auto start by non-contact IR sensor technology
- Adjustable sterilisation and cool-down timer for two users via touch operation
- Ready for use straight from the box without heat-up phase
- Dynamic Thermocontrol sterilisation timer for the utilisation of residual heat to speed up subsequent sterilisation cycles
- Housing made of special toughened glass and stainless steel
- With removable quartz glass annealing tube

Technical specifications:

Art. No.	ACN7.1
Type	SteriMax smart
Temperature range	750 to 1000 °C
Ø ext.	19 mm
Ø Internal	16 mm
Inner length	112 mm
Timer function	Sterilisation timer: 5–10 s Inoculation loop cool-down timer: 0–25 s
Safety devices	Residual heat indicator, overtemperature protection and autom. unit switch-off
Performance	600 W
Heat source	IR halogen spotlamp
Width	110 mm
Depth	200 mm
Height	170 mm
Weight	1800 g
Mains connection	220–240 V, 50/60 Hz

Delivery incl. quartz glass annealing tube, inoculation loop holder with inoculation loop Ø 3 mm and holders for three inoculation loop holders.

Type	Art. No.	Pack Qty.	€
SteriMax smart	**ACN7.1**	1 unit(s)	891,20

Hot air sterilisers

Suitable for dry sterilisation of instruments. The units are filled with approx. 310 g glass beads and reach a temperature of approx. 240 °C. Sterilisation time: 10-30 seconds. Glass beads are included in the scope of supply.

Small version, 70 W
Power 70 W. Heating time 15 min. Inside-Ø 50 mm.
Outside dimensions: L 140 x W 120 x H 140 mm.

Type	Art. No.	Pack Qty.	€
without timer	**E996.1**	1 unit(s)	416,05
with timer (30 s)	**E997.1**	1 unit(s)	493,45

Large version, 100 W
Power 100 W. Heating time 30 min. Inside Ø 70 mm.
Outside dimensions: L 195 x W 145 x H 154 mm.

Type	Art. No.	Pack Qty.	€
without timer	**E998.1**	1 unit(s)	441,85
with timer (30 s)	**E999.1**	1 unit(s)	556,85

Electrical Bunsen burners BA6101

Electrothermal.

Suitable for laboratories in which no gas and naked flames are allowed to be used. Ideal for heating test tubes, crucibles, small bottles and beakers. Max. temperature of 800 °C. The ceramic heating element is located in the upper part of the stainless steel cylinder. 80 % of max. temperature is reached in approx. 4 min and maximum temperature is reached in approx. 12 min.
Heating element: Inner dimensions (Ø x H): 60 x 45 mm,
Chimney: Outer dimensions (Ø x H): 120 x 180 mm
Heat output regulator MC5: With special sleeve for attaching a stand rod (max. Ø. 12.5 mm) and indicator lights for „Power On“ and „Output regulator operation“.
Dimensions of heat output regulator (W x D x H): 95 x 130 x 105 mm.

Technical specifications:

Art. No.	**YL73.1**
Temperature range	to +800 °C
Performance	480 W
Mains connection	220 V, 50/60 Hz

Delivery incl. heat output regulator MC5.

Type	Art. No.	Pack Qty.	€
BA6101	**YL73.1**	1 unit(s)	748,00

Infrared burner IRB 1

Edmund Bühler.

Compact and highly efficient thanks to IR emitter technology. Ideal for fast, contactless heating tasks in laboratories, factories and schools. On/off switch with indicator light. Housing remains cool. Infrared emitter element has a long service life. Additional output regulator available. Max. temperature of the **heating surface is 750 °C.** Connection values: 250 W, 230 V. Dimensions: L 100 mm x W 100 mm x H 100 mm, weight 850 g.

Type	Art. No.	Pack Qty.	€
IRB 1	**L487.1**	1 unit(s)	350,45

Accessories for IRB series infrared burners

Edmund Bühler.

Output regulator

Designation	Art. No.	Pack Qty.	€
Output regulator	**L488.1**	1 unit(s)	313,90

Stand rod for IRB 1 & 2

Designation	Art. No.	Pack Qty.	€
Stand rod for IRB 1 & 2	**L489.1**	1 unit(s)	22,80

Infrared burner IRB 2

Edmund Bühler.

Infrared heater for high temperatures up to **900 °C**. **With integrated output control**, for variable adjustment between 0 and 100 %. Fast and even heating **with no open flame**. Electronic parts are protected against overflowing liquids. Additional side protection of the burner. With ceramic heating element and protection against overheating. Safe-to-touch housing. **Integrated handholds** for safe transport. Connection values: 800 W/230 V. Dimensions: W 150 mm x D 150 mm x H 170 mm, weight approx. 2250 g.

Delivery incl. cross recess enables flat vessels to be laid directly on the heating element.

Type	Art. No.	Pack Qty.	€
IRB 1	**P910.1**	1 unit(s)	609,55

Accessories for IRB series infrared burners

Edmund Bühler.

Stand rod for IRB 1 & 2

Designation	Art. No.	Pack Qty.	€
Stand rod for IRB 1 & 2	**L489.1**	1 unit(s)	22,80

Burner accessories and lighters

Gas lighter

Material: Plastic, Metal.

Ignition sparks triggered by piezoelectronic device. Made from coloured plastic and stainless metal. Total length 220 mm, weight 85 g.

Type	Art. No.	Pack Qty.	€
Gas lighter	**1949.1**	1 unit(s)	18,05

Lighter with flame

Handy lighter with hanging loop. Size of flame can be controlled. Refillable. With safety device. Length of gas lighter 256 mm, length of stainless steel ignition gun 110 mm. Weight approx. 67 g.

Danger H220-H280

Type	Art. No.	Pack Qty.	€
Lighter with flame	**P960.1**	1 unit(s)	13,80

Universal refillable gas

With 250 ml liquid butane and 5 different injection nozzles.

Danger H220-H280

Designation	Vol. (ml)	Art. No.	Pack Qty.	€
Universal refillable gas 250 with liquid butane	250	**1652.1**	1 unit(s)	3,80

Tripod

Material: Malleable cast iron, galvanised.

Feet can be unscrewed.

Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	180	**KC15.1**	1 unit(s)	15,95
120	210	**KC16.1**	1 unit(s)	17,25
140	210	**KC17.1**	1 unit(s)	19,90
150	240	**KC18.1**	1 unit(s)	21,55

Tripod

Material: Stainless steel Remanit 4301.

Can be taken apart.

Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	210	**9167.1**	1 unit(s)	25,95
120	210	**9170.1**	1 unit(s)	25,35
140	210	**9171.1**	1 unit(s)	27,70
160	210	**9172.1**	1 unit(s)	29,90
180	210	**9175.1**	1 unit(s)	33,10

Accessories extension tube for tripods

Fits all tripods (Art. No. 9167.1 to 9175.1). With knurled screws. Can be extended up to a total length of 370 mm.

Type	Art. No.	Pack Qty.	€
Extension legs	**9179.1**	3 unit(s)	36,50

Burner accessories and lighters

DURAN WHEATON KIMBLE

Quadrupod stand

DWK Life Sciences. Material: Chrome-nickel steel.

For glass ceramic protective tiles. Made from temperature-resistant chrome-nickel steel, with four feet and sturdy design for excellent stability. Please order matching glass ceramic protective tiles separately.

Lab quadrupod stands

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
135	135	210	**HH18.1**	1 unit(s)	32,90
155	155	210	**HH19.1**	1 unit(s)	36,05
175	175	220	**HH20.1**	1 unit(s)	42,15

Tile holders

DWK Life Sciences. Material: Chrome-nickel steel.

For glass ceramic protective tiles.
Please order matching glass ceramic protective tiles separately.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
135	135	**HH21.1**	1 unit(s)	28,70
155	155	**HH22.1**	1 unit(s)	33,55
175	175	**HH23.1**	1 unit(s)	39,60

Wire supports

Material: Steel Wire mesh, galvanised with a special ceramic fibre coating.

Asbestos-free. With non-hazardous special coating (ceramic fibre). Excellent heat conduction. Long service life.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
120	120	**1861.1**	1 unit(s)	5,85
160	160	**1862.1**	1 unit(s)	6,85

DURAN WHEATON KIMBLE

Glass ceramic protective tile

DWK Life Sciences.

Temperature-resistant from –200 to +700 °C. 4 mm thick.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
135	135	**A385.1**	1 unit(s)	20,35
155	155	**0619.1**	1 unit(s)	22,55
175	175	**A386.1**	1 unit(s)	25,75

Triangle ROTILABO® for melting crucibles

ROTH SELECTION. Material: Steel, galvanised.

With smooth clay pipes.

Additional info	Suitable for	Art. No.	Pack Qty.	€
Daypipe length 40 mm	Fits tripods with ring Ø 120 mm	**KN11.1**	5 unit(s)	13,80
Daypipe length 50 mm	Fits tripods with ring Ø 130 mm	**KN12.1**	5 unit(s)	14,55
Daypipe length 60 mm	Fits tripods with ring Ø 140 mm	**KN13.1**	5 unit(s)	14,75
Daypipe length 80 mm	Fits tripods with ring Ø 160 mm	**KN15.1**	5 unit(s)	15,80

Immersion heaters

Safety lab immersion heater

For 220 V ~. With automatic shut-off. Lab immersion heaters do not become defective through improper handling (overheating due to lack of water, if the water has boiled away or operation without any water). The control unit can be reset. Shut-off occurs at approx. 120 °C. **Both models are suitable for water only.**

Model	Small model	Large model
Power	1000 W	2000 W
Immersion depth	min. 70 mm, max. 200 mm	min. 120 mm, max. 280 mm
Dimensions	L 300 mm × Ø 46 mm	L 380 mm × Ø 53 mm
Connecting cord	750 mm, with right-angle plug	900 mm, with right-angle plug
Weight, without cord	150 g	280 g
Heating element material	Nickel-plated brass	
Probe material	Nickel-plated copper	

Type	Art. No.	Pack Qty.	€
Small model	**0116.1**	1 unit(s)	55,00
Large model	**0117.1**	1 unit(s)	57,15

Simple immersion coil heater

With melting point protection. Power 1000 W. Immersion depth 160 mm. Cable approx. 750 mm long.

Type	Art. No.	Pack Qty.	€
Simple immersion coil heater	**1002.1**	1 unit(s)	18,80

Microwave oven

Severin.

- Highly heat-resistant housing
- Interior space approx. 20 l
- Microwave power approx. 700 W
- 5 power stages are infinitely adjustable
- 35 min timer with acoustic signal
- Removable turntable (Ø approx. 254 mm)
- Internal dimensions: W 305 x D 290 x H 165 mm
- External dimensions: W 435 x D 345 x H 254 mm
- Mains connection 230 V, 50 Hz

Microwave oven with grill

Severin.

- Brushed stainless steel housing
- Interior approx. 23 l, painted
- Microwave power approx. 900 W; can be set to 9 power stages incl. defrosting and grilling
- Separate grill approx. 1000 W, with additional rack
- Microwave and grill can be combined
- Removable turntable (Ø 270 mm)
- 30-min-timer with acoustic signal
- Internal dimensions: L 335 x D 320 x H 190 mm
- External dimensions: L 483 x D 400 x H 281 mm
- Mains connection 230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Microwave with grill	**AT41.1**	1 unit(s)	197,80

Microwave ovens

Microwave oven with grill and hot air functions

Severin.

- Housing heat-resistant coating
- Interior space approx. 30 l
- Microwave power approx. 900 W; can be set to 5 power stages
- With separate grill approx. 1100 W and hot air function approx. 2500 W
- Microwave, grill and hot air can be switched on separately or combined
- Removable turntable (Ø 315 mm)
- Digital multifunction display
- Quick button for immediate start at full power
- 99-min-timer with acoustic signal
- Internal dimensions: L 335 x D 340 x H 200 mm
- External dimensions: L 520 x D 510 x H 335 mm
- Mains connection 230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Microwave with grill and hot air	**AT40.1**	1 unit(s)	305,30

Microwave oven

Bosch.

- Interior space approx. 17 l
- Microwave output 800 W
- 5 adjustable output stages (800/600/360/180/90 W)
- Digital display for time of day or countdown
- 30 min timer with acoustic signal
- Removable glass turntable (Ø approx. 245 mm)
- Memory function stores 1 parameter combination of time and microwave power
- Dimensions, inside: W 290 x D 300 x H 184 mm
- Dimensions, outside: W 462 x D 320 x H 280 mm
- Power supply 220–230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Microwave oven	**KN83.1**	1 unit(s)	227,90

Large-capacity microwave oven with grill and hot air functions

Sharp.

- Housing made of stainless steel
- Interior approx. 40 l, stainless steel
- **Optimum interior space, e.g. for heating 1 litre lab screw top bottle, etc.**
- Microwave power approx. 1050 W; can be set to 5 power stages
- Quarz grill approx. 1300 W
- Hot air function approx. 1450 W (10 stages: 40 to 250 °C)
- Microwave, grill and hot air can be switched on separately or combined
- Ceramic turntable (Ø 362 mm)
- Time settings up to 90 min
- Internal dimensions: W 375 x D 395 x H 272 mm
- External dimensions: W 550 x D 535 x H 368 mm
- Weight approx. 21 kg
- Mains connection 230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Large-capacity microwave oven	**HX94.1**	1 unit(s)	595,55

NEW / +

Fan heater HL 300

Fakir.

- Continuous temperature adjustment from 10-30 °C
- Touch display
- 3 heat levels with additional fan function (cold setting)
- Integrated swivel function (75° oscillating)
- 24-hour timer with Auto On and Auto Off functions in 1-hour increments
- Frost protection function

Technical specifications:

Art. No.	1LEN.1
Type	HL 300
Performance	600/1200/1800 W
W x D x H	160 x 140 x 254 mm
Weight	1,7 kg
Mains connection	220–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
HL 300	**1LEN.1**	1 unit(s)	105,35

Hot air blowers

Hot air dryer

Braun.

With connectable concentration nozzle. Two heat levels and one blowing level. **Heating output 1200 W**. With fold-down handle and hanging loop. Power cord 1.5 m. Connection value 120/230 V, 50 Hz.

Type	Art. No.	Pack Qty.	€
Hot air dryer 1200 W	**P096.1**	1 unit(s)	33,25

Hot air dryer

Braun.

For warm and cold air. With three heat levels and two blowing levels. **Heating output 2200 W.** Filter is removable for easy cleaning. Power cord 2 m. Voltage 230 V, 50/60 Hz.

Delivery incl. hanging loop and attachable nozzle.

Type	Art. No.	Pack Qty.	€
Hot-air dryer 2200 W	**Y399.1**	1 unit(s)	77,90

Hot air gun HL 1920 E

Steinel.

With temperature and air flow control. Nine-step temperature adjustment using adjustment wheel. Blower control via three-step operating switch. Level 1: Air volume 150 l/min, temperature 50 °C, level 2: Air volume 150-300 l/min, temperature 50-600 °C and level 3: Air volume 300-500 l/min, temperature 50-600 °C.

Technical specifications:

Art. No.	AKN4.1
Type	HL 1920 E
Performance	2000 W
Weight	850 g
Mains connection	220–230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
HL 1920 E	**AKN4.1**	1 unit(s)	87,65

Hot air gun with LCD HG 2320 E

Steinel.

Electronically controlled with continuously variable air flow rate and temperature control. Optical display of temperature and speed (resolution in 10 °C-increments) via LCD. Residual heat display. Four stored programs for temperature and air flow. Level 1: Air volume 150 l/min, temperature 80 °C, level 2: Air volume 150-500 l/min, temperature 80-650 °C. With soft grip.

Technical specifications:

Art. No.	ALN9.1
Type	HG 2320 E
Performance	2300 W
Weight	960 g
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
HG 2320 E	**ALN9.1**	1 unit(s)	167,70

Hot air gun HG 2220 E

Steinel.

Temperature adjustment from 80 to 630 °C in 9 increments by adjusting wheel. Two operating levels. Level 1: Air volume 150-300 l/min, temperature 80-630 °C, level 2: Air volume 300-500 l/min, temperature 80-630 °C.

Technical specifications:

Art. No.	CEP4.1
Type	HG 2200 E
Performance	2200 W
Weight	610 g
Mains connection	220–230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
HG 2200 E	**CEP4.1**	1 unit(s)	170,95

Accessories for hot air guns HL 1920 E, HG 2320 E and HG 2220 E

Steinel.

Wide spray nozzle
To be plugged on, ensures flat air distribution. Width 50 mm.

Designation	Art. No.	Pack Qty.	€
Wide spray nozzle	**1946.1**	1 unit(s)	13,55

Reducing nozzle
For plug-on, for targeted heat beam. Ø 14 mm.

Designation	Art. No.	Pack Qty.	€
Reducing nozzle	**1947.1**	1 unit(s)	13,55

Coffee machines

Severin.

Power: 1000 watt. For up to eight cups. 1-litre Thermos flask with screw cap. Fresh water thermometer. With cable storage compartment. On/off switch with indicator light. Swivel filter 1 x 4 with anti-drip closure.

Colour	Art. No.	Pack Qty.	€
black	**KN84.1**	1 unit(s)	69,70
white	**AT37.1**	1 unit(s)	68,65

Kettle

Severin.

Powerful, transportable kettle. Heating output approx. 2200 W. **Capacity up to 1.5 l**. Cordless with separate device charging stand. **Automatic steam stop**. On/off switch with indicator light. Transparent water level display on both sides. Spout with sieve. With over-heating prevention (the heating element switches off automatically when there is no water in the kettle or the vessel is too covered in limescale) and over-temperature cut-out. Power supply 220 V/50 Hz.

Colour	Art. No.	Pack Qty.	€
black	**KT58.1**	1 unit(s)	42,60
white	**Y527.1**	1 unit(s)	45,50

Kettle

Bosch.

1.7 l capacity. Heating power approx. 2400 W. Stainless steel base – covered heating element. Removable limescale filter made of stainless steel. Locking lid. Boil-dry and overheating protection. 360° cordless system (can be placed on base at any angle). Cordless kettle automatically switches off as soon as it is removed from the base. Illuminated on/off switch. Automatic steam stop: Device automatically switches off when the boiling point is reached. Cord retractor. Weight 1.2 kg. Power supply 220–240 V, 50/60 Hz.

Type	Art. No.	Pack Qty.	€
Kettle, 2400 W	**KNE9.1**	1 unit(s)	74,40

Kettle

Severin.

For 1.7 l water. Heating power approx. 2200 W. Stainless-steel housing and heating element covered by stainless-steel plate. Removable limescale filter. 360° cordless system (can be placed on base at any angle). Overheating protection. Automatic steam stop: Device automatically switches off when the boiling point is reached. Cord retractor. Illuminated on/off switch. Weight 1.2 kg. Power supply: 230 V, 50 Hz.

Type	Art. No.	Pack Qty.	€
Kettle, 2200 W	**1A01.1**	1 unit(s)	39,35

Kettle with temperature adjustment

Severin. Material: Stainless steel, Glass.

Made of stainless steel and glass. Volume 1.7 l. Adjustable temperature from 40 to 100 °C in 5 °C increments. Automatic switch-off after the set temperature has been reached. Separate keep-hot function for approx. 30 mins (selectable only in the temperature range from 40 to 95 °C). With LCD- display. Detachable lid for easier cleaning, large opening. Concealed heating element. Overheating protection. Power 2200 W. Dimensions: W 240 x D 150 x H 260 mm. Mains connection: 220–240 V, 50/60 Hz.

Type	Art. No.	Pack Qty.	€
Kettle 2200 W	**HHY9.1**	1 unit(s)	80,00

Thermos flask Columbus 2000

Leifheit.

With practical quick closure. High-quality, double-walled vacuum-flasks. Aroma-button for single-handed pouring. Capacity 1 l.

Pic.	Colour	Art. No.	Pack Qty.	€
(1)	black	**X232.1**	1 unit(s)	24,70
(2)	blue	**X233.1**	1 unit(s)	24,70
(3)	white	**X231.1**	1 unit(s)	24,70

Thermos flask ROTILABO®

ROTH SELECTION.

With insulating body made of stainless steel. Pump mechanism for easy pouring. Carry handle. Capacity 3 l. Dimensions: H 360 x Ø 150 mm. Weight approx. 1.6 kg.

Type	Art. No.	Pack Qty.	€
Stainless steel thermos flask	**YE85.1**	1 unit(s)	64,70

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Immersion circulator

Thermo.

Technical specifications:

Art. No.	LP51.1	LP52.1	LP53.1
Type	SC 100	SC 150	AC 200
Operating temperature	+25 to +100 °C	+25 to +150 °C	+25 to +200 °C
Temperature constancy	±0,02 K		±0,01 K
Heating output	2000 W		
Max. pump pressure	300 mbar		475 mbar
Max. flow	17 l/min		20 l/min
Max. pump suction			330 mbar
Outer width	165 mm		
Outer depth	195 mm		
Outer height	333 mm		368 mm
Safety class	I (NFL)	III (FL)	

(1) SC series standard thermostat

- Simultaneous display of setpoint and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Pumps with 2-stage turbulence reduction system
- USB port (except SC 100)
- Head can be turned in 90° increments on the bath
- Submersion depth 90 to 145 mm
- Excess temperature warning
- **With screw clamp for bath tubs up to 26 mm thick**
- I (NFL) = non-flammable liquids
  III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
SC 100	**LP51.1**	1 unit(s)	1.084,00
SC 150	**LP52.1**	1 unit(s)	1.495,00

(2) Advanced Thermostat AC 200
as for SC 100 and SC 150, but also comes with:

- Simultaneous display of setpoint and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Pumps with 3-stage turbulence reduction system
- **With screw clamp for bath tubs up to 26 mm thick**
- Programmable application temperature alarm with signal that can be selected by the user (On/Off), safe temperature state or switch-off function
- Ramp programming with the option to alter the ramp during operation
- Timer with real-time clock for critical applications
- **With bath bridge for attaching to bath tubs (adjustable from 300 to 800 mm)**
- I (NFL) = non-flammable liquids
  III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
AC 200	**LP53.1**	1 unit(s)	2.184,00

Accessories for immersion circulators

Thermo.

Tap water cooling coils for SC 100 and SC 150

Designation	Art. No.	Pack Qty.	€
Tap water cooling coils for SC 100 and SC 150	**PE43.1**	1 unit(s)	179,00

Tap water cooling coils for SC 100-S14P, SC 100-S21P, SC 150-S13, SC 150-S21 and AC 200

Designation	Art. No.	Pack Qty.	€
Water cooling coils for cooling. Can be connected to the water supply	**LP55.1**	1 unit(s)	179,00

Circulating thermostat with integrated bath

Thermo.

- With pump circulation set for temperature control of external sealed applications
- Simultaneous display of setpoint and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Polyphenylene oxide (PPO) bath tanks
- Thermostat heads can be turned in 90° increments on the bath if required (except SC 100-S5P)
- Pumps with 2-stage turbulence reduction system
- Hose connectors for tubes with 8 and 12 mm inside Ø
- Integrated handles
- I (NFL) = non-flammable liquids

Technical specifications:

Art. No.	LP57.1	LP58.1	LP59.1
Type	SC 100-S5P	SC 100-S14P	SC 100-S21P
Operating temperature	From +13 °C above room temperature to +100 °C		
Temperature constancy	±0,02 K		
Display resolution	0,1/0,01 °C		
Heating output	2000 W		
Max. pump pressure	300 mbar		
Max. flow	17 l/min		
Bath volume	3-5 l	8-14 l	13-21 l
Bath opening	130 x 135 mm	300 x 190 mm	300 x 375 mm
Inner depth	160 mm		
Safety class	I (NFL)		

Delivery without bath cover or cooling coil. If required, please order separately.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SC 100-S5P	**LP57.1**	1 unit(s)	1.339,00
	SC 100-S14P	**LP58.1**	1 unit(s)	1.463,00
	SC 100-S21P	**LP59.1**	1 unit(s)	1.477,00

Accessories water cooling coil for SC 100-S5P

Thermo.

Designation	Art. No.	Pack Qty.	€
tap water cooling coil for SC 100-S5P	**PE44.1**	1 unit(s)	384,00

Tap water cooling coils for SC 100-S14P, SC 100-S21P, SC 150-S13, SC 150-S21 and AC 200

Designation	Art. No.	Pack Qty.	€
Water cooling coils for cooling. Can be connected to the water supply	**LP55.1**	1 unit(s)	179,00

Immersion circulator CORIO™ C series

Julabo.

For internal standard applications. Flexible application, e.g. when changing bath tubs.

I (NFL) = non-flammable liquids
III (FL) = flammable liquids

Technical specifications:

Art. No.	CXX7.1	CXX8.1
Type	CORIO™ C	CORIO™ CD
Operating temperature	+20 to +100 °C	+20 to +150 °C
Temperature constancy	±0,03 K	
Display resolution	0,1 °C	
Setting resolution	0.1 °C	
Heating output	2000 W	
Max. pump pressure	100 mbar	350 mbar
Max. flow	6 l/min	15 l/min
Outer width	132 mm	
Outer depth	160 mm	
Outer height	362 mm	
Safety class	I (NFL)	III (FL)

Delivery incl. bath clamps for walls up to 30 mm thick.

Type	Art. No.	Pack Qty.	€
CORIO™ C	**CXX7.1**	1 unit(s)	739,00
CORIO™ CD	**CXX8.1**	1 unit(s)	856,00

Accessories bath tubs made of stainless steel

Julabo.

For CORIO™ C series immersion circulators.

Technical specifications:

Art. No.	CXY0.1	CXY1.1	CXY2.1	CXY3.1	CXY4.1
Operating temperature	to +150 °C				
Bath volume	5 l	13 l	17 l	19 l	27 l
Inner width	150 mm	300 mm			
Inner length	300 mm	330 mm		500 mm	
Inner depth	150 mm		200 mm	150 mm	200 mm
Outer length	350 mm	380 mm		560 mm	
Outer width	190 mm	330 mm			
Outer depth	180 mm		230 mm	180 mm	230 mm

Designation	Art. No.	Pack Qty.	€
5 l stainless steel bath tank	**CXY0.1**	1 unit(s)	256,00
13 l stainless steel bath tank	**CXY1.1**	1 unit(s)	439,00
17 l stainless steel bath tank	**CXY2.1**	1 unit(s)	514,00
19 l stainless steel bath tank	**CXY3.1**	1 unit(s)	510,00
27 l stainless steel bath tank	**CXY4.1**	1 unit(s)	651,00

Immersion circulator CORIO™ CP

Julabo.

For internal applications.

- LED temperature display
- Setting/display resolution 0.01 °C (to 99.99 °C), 0.1 °C (from 100 °C)
- With timer (range: 0 to 999 min)
- Continuously adjustable pump
- USB and RS-232 port
- Early warning system for low liquid level
- Protection against excess temperature and low liquid level for flammable liquids (FL), safety class III
- Can be fitted with pump circulation set (1) for temperature control of external sealed applications (please order separately)
- Water cooling coil (2) for counter-cooling with cooling water, please order separately

Technical specifications:

Art. No.	KKH0.1
Type	CORIO™ CP
Operating temperature	+20 to +200 °C
Temperature constancy	±0,02 K
Heating output	2000 W
Max. pump pressure	700 mbar
Max. flow	8–27 l/min
Outer width	132 mm
Outer depth	160 mm
Outer height	362 mm
Mains connection	200–230 V, 50/60 Hz

Delivery incl. bath attachment clamps for max. 30 mm-thick bath tubs.

Type	Art. No.	Pack Qty.	€
CORIO™ CP	**KKH0.1**	1 unit(s)	1.539,00

Accessories pump circulation set for CORIO™ CP immersion thermostat

Julabo.

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	Pump circulation set	**KKH1.1**	1 unit(s)	157,00

Accessories water pipe cooling coil for C- and CP-series

Julabo.

For CORIO™ C series circulators. Suitable for work at near ambient temperature. Attachable cooling coil for counter-cooling with cooling water.

Designation	Art. No.	Pack Qty.	€
Water cooling coils for C and CP series	**CXX9.1**	1 unit(s)	110,00

Immersion circulator

Lauda.

Technical specifications:

Art. No.	KP35.1	LX94.1	LX95.1
Type	Alpha	Silver	Gold
Operating temperature	+25 to +100 °C	+20 to +200 °C	
Temperature constancy	±0,05 K	±0,01 K	
Display resolution	0,1 °C	0,01 °C	
Heating output	1,5 W	2,0 W	2,6 W
Max. pump pressure	200 mbar	550 mbar	
Max. flow	15 l/min	22 l/min	
Safety class	I (NFL)	III (FL)	

(1) Model: Alpha

- Three-button operation
- LED display with 0.1 °C display resolution
- Display of actual and setpoint values
- With timer function (max. operating time 99 h, 59 mins)
- Heating and malfunction indicator lamps
- With screw clamp for bath tubs up to 25 mm thick
- I (NFL) = non-flammable liquids

Type	Art. No.	Pack Qty.	€
Alpha	**KP35.1**	1 unit(s)	844,00

(2) Model: Silver

- LCD display with 0.01 °C display resolution
- Operation by means of cursor keys and softkeys
- Simultaneous display of setpoint and actual values
- Pump with six adjustable output levels
- With screw clamp for bath tubs up to 25 mm thick
- USB port
- III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
Silver	**LX94.1**	1 unit(s)	1.560,00

(3) Model: Gold

- Colour TFT display with 0.01 °C display resolution
- Operation by means of cursor keys and softkeys
- Simultaneous display of setpoint and actual values
- Graphical display of temperature characteristics
- Ramp function
- Timer
- Programmer with five programs and 150 segments
- Pump with six adjustable output levels
- With screw clamp for bath tubs up to 25 mm thick
- USB port
- III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
Gold	**LX95.1**	1 unit(s)	2.020,00

Accessories for immersion circulators Alpha, Silver and Gold

Lauda.

Water cooling coil for Alpha and Alpha A

Designation	Art. No.	Pack Qty.	€
Water cooling coil for Alpha and Alpha A	**KP44.1**	1 unit(s)	67,10

Water cooling coil Silver and Gold

Designation	Art. No.	Pack Qty.	€
Water cooling coil for Silver and Gold	**LX96.1**	1 unit(s)	147,00

Accessories bath tank

Lauda.

Suitable for immersion circulator models Alpha, Silver and Gold.

Polycarbonate tanks

Transparent.

Technical specifications:

Art. No.	LY03.1	LY04.1	LY05.1	LY06.1
Operating temperature	to +100 °C			
Bath volume	6 l	12 l	15 l	20 l
Inner width	130 mm	300 mm	416 mm	300 mm
Inner length	420 mm	315 mm	130 mm	490 mm
Inner height	160 mm		310 mm	160 mm

Designation	Art. No.	Pack Qty.	€
6 l bath tank	**LY03.1**	1 unit(s)	293,00
12 l bath tank	**LY04.1**	1 unit(s)	435,75
15 l bath tank	**LY05.1**	1 unit(s)	436,00
20 l bath tank	**LY06.1**	1 unit(s)	579,60

Stainless steel bath tanks

With drain outlet.

Technical specifications:

Art. No.	LX97.1	LX98.1	LY00.1	LY01.1	LY02.1
Operating temperature	to +200 °C				
Bath volume	3.5 l	11 l	19 l	25 l	40 l
Inner width	135 mm	300 mm			
Inner length	240 mm	329 mm	505 mm		750 mm
Inner height	150 mm			200 mm	

Designation	Art. No.	Pack Qty.	€
3.5 l bath tank	**LX97.1**	1 unit(s)	338,00
11 l bath tank	**LX98.1**	1 unit(s)	479,00
19 l bath tank	**LY00.1**	1 unit(s)	611,00
25 l bath tank	**LY01.1**	1 unit(s)	681,00
40 l bath tank	**LY02.1**	1 unit(s)	1.550,00

Immersion circulator with Alpha A-series bath tubs

Lauda.

For temperature control of liquids up to +85 °C in open tubs.

- 3-button operation
- LED display with 0.1 °C display resolution
- Display of actual and setpoint values
- With timer function (max. operating time 99 h, 59 mins)
- Heating and malfunction indicator lamp
- Pump capacity can be reduced to 5 l/min
- Thermostats are fixed using a fixing clamp, therefore also suitable for other similar standard bath tubs (min. bath depth 150 mm)
- Can be fitted with pump circulation set for temperature control of external sealed applications (please order separately)
- I (NFL) = non-flammable liquids

Technical specifications:

Art. No.	KP36.1	KP37.1	KP38.1
Type	Alpha A 6	Alpha A 12	Alpha A 24
Operating temperature	+25 to +100 °C		
Temperature constancy	±0,05 K		
Display resolution	0,1 °C		
Heating output	1500 W		
Max. pump pressure	200 mbar		
Max. flow	15 l/min		
Bath volume	2,5–5,5 l	8–12 l	18–25 l
Bath opening	145 x 161 mm	235 x 161 mm	295 x 374 mm
Inner depth	150 mm	200 mm	
Safety class	I (NFL)		

Delivery incl. stainless steel bath tub.

Pic.	Type	Art. No.	Pack Qty.	€
	Alpha A 6	**KP36.1**	1 unit(s)	1.250,00
(1)	Alpha A 12	**KP37.1**	1 unit(s)	1.330,00
	Alpha A 24	**KP38.1**	1 unit(s)	1.560,00

Water cooling coil for Alpha and Alpha A

Designation	Art. No.	Pack Qty.	€
Water cooling coil for Alpha and Alpha A	**KP44.1**	1 unit(s)	67,10

Circulation set for Alpha A series immersion circulators

Lauda.

Designation	Art. No.	Pack Qty.	€
Pump circulation set	**KP39.1**	1 unit(s)	67,10

Open heating bath circulator CORIO™ C-BT series

Julabo.

Applications: Sample temperature control, sample preparation for serology and clinical chemistry, analysis and materials testing.
I (NFL) = non-flammable liquids.

Technical specifications:

Art. No.	CXY5.1	CXY6.1	CXY7.1
Type	C-BT5	C-BT19	C-BT27
Operating temperature	+20 to +100 °C		
Temperature constancy	±0,03 K		
Display resolution	0,1 °C		
Setting resolution	0.1 °C		
Heating output	2000 W		
Max. pump pressure	100 mbar		
Max. flow	6 l/min		
Bath volume	3-5 l	14-19 l	20-27 l
Bath opening	150 x 150 mm	300 x 350 mm	
Inner depth	150 mm		200 mm
Outer width	230 mm	380 mm	
Outer depth	380 mm	580 mm	
Outer height	380 mm		430 mm
Safety class	I (NFL)		

Delivery incl. transparent Makrolon bath tank.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	C-BT5	**CXY5.1**	1 unit(s)	918,00
(2)	C-BT19	**CXY6.1**	1 unit(s)	1.028,00
(3)	C-BT27	**CXY7.1**	1 unit(s)	1.072,00

Accessories water pipe cooling coil for C- and CP-series

Julabo.

For CORIO™ C series circulators. Suitable for work at near ambient temperature. Attachable cooling coil for counter-cooling with cooling water.

Designation	Art. No.	Pack Qty.	€
Water cooling coils for C and CP series	**CXX9.1**	1 unit(s)	110,00

Circulating bath thermostats

Circulating thermostat E5 series

Option for temperature control in the stainless steel bath. Small, external, sealed vessels can be temperature controlled using pressure pumps.

Delivery incl. bath cover, pump outlets and cooling coil.

Model: E5 standard, up to 100 °C

- For working temperatures up to **+100 °C**
- Programmable timer function (up to 99.99 mins)
- LCD display with 0.1 °C display resolution
- Actual or setpoint value display (call up setpoint value display by pressing a button, actual value is permanently visible)
- Adjustable button locking
- Visual and/or audible limit alarm
- Adjustable setpoint value limit and alarm circuit
- Excess temperature and sub-level protection for non-flammable liquids (FL)

Technical specifications:

Art. No.	KA69.1	KA70.1	KA71.1	KA72.1
Type	E5-B4	E5-B6	E5-B12	E5-B16
Operating temperature	+25 to +100 °C			
Temperature constancy	±0,1 K			
Display resolution	0,1 °C			
Heating output	1000 W			
Max. pump pressure	120 mbar			
Max. flow	5 l/min			
Bath volume	4 l	6 l	12 l	16 l
Bath opening	115 x 115 mm	230 x 75 mm	230 x 270 mm	
Inner depth	150 mm			200 mm

Type	Art. No.	Pack Qty.	€
E5-B4	**KA69.1**	1 unit(s)	1.300,75
E5-B6	**KA70.1**	1 unit(s)	1.386,75
E5-B12	**KA71.1**	1 unit(s)	1.451,25
E5-B16	**KA72.1**	1 unit(s)	1.483,50

Model: E5s, up to 150 °C

- For working temperatures up to **+150 °C**
- Programmable timer function (up to 99.99 mins)
- LCD display with 0.1 °C display resolution
- Actual or setpoint value display (call up setpoint value display by pressing a button, actual value is permanently visible)
- Adjustable button locking
- Visual and/or audible limit alarm
- Adjustable setpoint value limit and alarm circuit
- Excess temperature and sub-level protection for non-flammable liquids (FL)

Technical specifications:

Art. No.	KA73.1	KA74.1	KA75.1	KA76.1	KA77.1
Type	E5s-B4	E5s-B6	E5s-B12	E5s-B16	E5s-B22
Operating temperature	+25 to +150 °C				
Temperature constancy	±0,1 K				
Display resolution	0,1 °C				
Heating output	1800 W				
Max. pump pressure	120 mbar				
Max. flow	5 l/min				
Bath volume	4 l	6 l	12 l	16 l	22 l
Bath opening	115 x 115 mm	230 x 75 mm	230 x 270 mm		
Inner depth	150 mm			200 mm	250 mm

Type	Art. No.	Pack Qty.	€
E5s-B4	**KA73.1**	1 unit(s)	1.354,50
E5s-B6	**KA74.1**	1 unit(s)	1.440,50
E5s-B12	**KA75.1**	1 unit(s)	1.494,25
E5s-B16	**KA76.1**	1 unit(s)	1.537,25
E5s-B22	**KA77.1**	1 unit(s)	1.569,50

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Circulating bath thermostats

Bath/circulation thermostat CORIO™ CD-B series

Julabo.

For internal standard applications. Flexible use, e.g. when changing bath tanks.

- External pump connections each with 2 hose connectors for hoses with inside Ø of 8 and 12 mm
- Simple changeover between internal and external circulation
- USB port
- Integrated drain screw (except in model CD-B5)
- III (FL) = flammable liquids

Technical specifications:

Art. No.	CXY8.1	CXY9.1	CYA0.1
Type	CORIO™ CD-B5	CORIO™ CD-B13	CORIO™ CD-B27
Operating temperature	+20 to +150 °C		
Temperature constancy	±0,03 K		
Display resolution	0,1 °C		
Setting resolution	0.1 °C		
Heating output	2000 W		
Max. pump pressure	350 mbar		
Max. flow	15 l/min		
Bath volume	3–5 l	9–13 l	17–27 l
Bath opening	150 x 150 mm	300 x 180 mm	300 x 350 mm
Inner depth	150 mm		200 mm
Outer width	230 mm	380 mm	
Outer depth	380 mm	400 mm	580 mm
Outer height	410 mm	420 mm	470 mm
Safety class	III (FL)		

Delivery incl. stainless steel bath tub. **Without** bath cover (please order separately).

Pic.	Type	Art. No.	Pack Qty.	€
	CORIO™ CD-B5	**CXY8.1**	1 unit(s)	1.348,00
(1)	CORIO™ CD-B13	**CXY9.1**	1 unit(s)	1.555,00
(2)	CORIO™ CD-B27	**CYA0.1**	1 unit(s)	1.768,00

Accessories bath cover for CORIO™ CD-B series

Julabo.

Designation	Art. No.	Pack Qty.	€
Bath cover for CORIO™ CD-B5	**CYA2.1**	1 unit(s)	109,00
Bath cover for CORIO™ CD-B13	**CYA3.1**	1 unit(s)	152,00
Bath cover for CORIO™ CD-B27	**CYA4.1**	1 unit(s)	172,00

Accessories water cooling coil

Julabo.

For CORIO™ CD series circulators. Suitable for work at near ambient temperature. Integrated cooling coil for counter-cooling with cooling water.

Designation	Art. No.	Pack Qty.	€
Water cooling coil	**CYA1.1**	1 unit(s)	108,00

Heating thermostat E series

Lauda.

- With bath tubs suitable for up to 200 °C
- Stainless steel inner basin
- Outer shell made of powder-coated sheet steel
- LCD display with 0.01 °C display resolution
- Operation by means of cursor keys and softkeys
- Simultaneous display of setpoint and actual values
- USB port
- III (FL) = flammable liquids
- With cooling coil

Technical specifications:

Art. No.	LX90.1	LX89.1
Type	E 20 S	E 4 S
Operating temperature	+20 to +200 °C	
Temperature constancy	±0,01 K	
Display resolution	0,01 °C	
Heating output	2000 W	
Max. pump pressure	550 mbar	
Max. flow	22 l/min	
Bath volume	19 l	3,5 l
Bath opening	300 x 365 mm	135 x 105 mm
Inner depth	150 mm	
Safety class	III (FL)	

Model: Circulating thermostat E 4 S

- **For temperature control of external closed circuits and with the option for simultaneous temperature control in the thermostatic bath**
- Pump connections with 13 mm plastic hose connector as standard
- **Delivery incl.** bath cover

Type	Art. No.	Pack Qty.	€
E 4 S	**LX89.1**	1 unit(s)	2.150,00

Model: Heating thermostat E 20 S

- **For internal temperature control of liquids in a bath tank**
- **Delivery without** bath cover (please order separately).

Type	Art. No.	Pack Qty.	€
E 20 S	**LX90.1**	1 unit(s)	2.450,00

Accessories bath cover for heating thermostat E 20 S

Lauda.

Designation	Art. No.	Pack Qty.	€
Bath cover, made of stainless steel, two-part for E 20 S	**LX91.1**	1 unit(s)	219,00

Circulating bath thermostats

Circulating thermostat with stainless steel bath

Thermo.

For temperature control of external sealed circuits, for example, density measuring instruments, viscosity meters, photometers, refractometers, etc. Simultaneous temperature control possible in the thermostatic bath.

- Simultaneous display of setpoint and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Stainless-steel bath for oil baths
- Thermostat heads can be turned invariably in 90° increments on the bath
- Pumps with 2-stage turbulence reduction system
- Drain opening (on the front)
- Bath with handles
- Hose connectors for tubes with 8 and 12 mm inside Ø
- A water cooling coil is also available if required (please order separately)
- III (FL) = flammable liquids

Technical specifications:

Art. No.	LP64.1	LP65.1
Type	SC 150-S13	SC 150-S21
Operating temperature	From +13 °C above room temperature to +150 °C	
Temperature constancy	±0,02 K	
Display resolution	0,1/0,01 °C	
Heating output	2000 W	
Max. pump pressure	300 mbar	
Max. flow	17 l/min	
Bath volume	8–13 l	9–21 l
Bath opening	239 x 110 mm	296 x 310 mm
Inner depth	200 mm	150 mm
Safety class	III (FL)	

Delivery incl. circulation set for external circulation and bath cover.

Type	Art. No.	Pack Qty.	€
SC 150-S13	**LP64.1**	1 unit(s)	2.309,00
SC 150-S21	**LP65.1**	1 unit(s)	2.487,00

Tap water cooling coils for SC 100-S14P, SC 100-S21P, SC 150-S13, SC 150-S21 and AC 200

Designation	Art. No.	Pack Qty.	€
Water cooling coils for cooling. Can be connected to the water supply	**LP55.1**	1 unit(s)	179,00

Bath/circulation thermostat CP series

Julabo.

Temperature control either in the internal bath or in a connected external application such as measuring devices, measuring cells and many more.

- Simple changeover between internal and external circulation
- LED temperature display
- Setting/display resolution 0.01 °C (to 99.99 °C), 0.1 °C (from 100 °C)
- Early warning system for low liquid level
- Continuously adjustable pressure pump
- With USB and RS-232 port
- With timer (range: 0 to 999 min)
- Protection against excess temperature and low liquid level for flammable liquids (FL), safety class III

Technical specifications:

Art. No.	KKE9.1	KKE8.1
Type	(2) CP-BC26	(1) CP-BC12
Operating temperature	+20 to +200 °C	
Temperature constancy	±0,02 K	
Heating output	2000 W	
Max. pump pressure	700 bar	
Max. flow	8–27 l/min	
Bath volume	19–26 l	8,5–12 l
Bath opening	260 x 350 mm	200 x 150 mm
Inner depth	200 mm	
Outer width	390 mm	330 mm
Outer depth	620 mm	490 mm
Outer height	480 mm	470 mm
Mains connection	200–230 V, 50/60 Hz	

Delivery incl. stainless steel bath tank with lid, draining tap, integrated cooling coil for counter-cooling and hose connectors suitable for hoses with ID 8 and 12 mm.

Type	Art. No.	Pack Qty.	€
(2) CP-BC26	**KKE9.1**	1 unit(s)	3.164,00
(1) CP-BC12	**KKE8.1**	1 unit(s)	2.851,00

Circulating bath thermostats

Circulating thermostat PC300-S7

Thermo.

For temperature control in bath or external open and closed circuits.

- 8-language full text display and numerical input via 10 keys in large colour display
- Powerful pressure and suction pump for external open and closed applications
- Pump with 5-stage turbulence reduction system
- 5-ramp programming with 10 segments; options for ramp processing during operation
- Programmable application temperature alarm with signal that can be selected by the user (On/Off) or switch-off function
- Timer with real-time clock for critical applications
- USB port
- With stainless steel bath
- Thermostat heads can be turned invariably in 90° increments on the bath
- Drain orifice (on the front) and handles
- Hose connectors for tubes with 8 and 12 mm inside Ø
- III (FL) = flammable liquids

Technical specifications:

Art. No.	PE45.1
Type	PC300-S7
Operating temperature	+20 to +300 °C
Temperature constancy	±0,01 K
Heating output	3000 W
Max. pump pressure	560 mbar
Max. flow	24 l/min
Max. pump suction	380 mbar
Bath volume	7 l
Bath opening	239 x 110 mm
Inner depth	200 mm
Safety class	III (FL)

Delivery incl. circulation set for external circulation and bath cover.

Type	Art. No.	Pack Qty.	€
PC300-S7	**PE45.1**	1 unit(s)	3.894,00

Accessories water cooling coil for circulating bath thermostat PC300-S7

Thermo.

Attachable cooling coil for PC300-S7

Designation	Art. No.	Pack Qty.	€
Attachable cooling coil for PC300-S7	**PE47.1**	1 unit(s)	350,00

Recirculating coolers LAUDA LOOP

Lauda.

Applications: Temperature control for refractometers, polarimeters, electrophoresis chambers or small bioreactors.

- Refrigerant-free temperature control with Pertier technology
- Power-controlled fans
- 3-key operation with OLED display, display resolution 0.1 °C
- RS 232 interface

Technical specifications:

Art. No.	HHY7.1	HHY8.1
Type	Loop L 100	Loop L 250
Operating temperature	+4 to +80 °C	
Temperature constancy	±0,1 K	
Display resolution	0,1 °C	
Heating output	200 W	400 W
Cooling capacity	20 °C: 120 W 10 °C: 60 W	20 °C: 250 W 10 °C: 130 W
Max. pump pressure	800 mbar	
Max. flow	2.6 l/min	
Bath volume	0.3 l	
Outer length	301 mm	368 mm
Outer width	175 mm	261 mm
Outer height	266 mm	312 mm
Weight	6,9 kg	11,9 kg
Mains connection	230 V, 50/60 Hz	

Delivery incl. pump connectors for hoses with ID 6.4 mm.

Type	Art. No.	Pack Qty.	€
Loop L 100	**HHY7.1**	1 unit(s)	2.130,00
Loop L 250	**HHY8.1**	1 unit(s)	3.250,00

Recirculating coolers

NEW / +

Recirculating coolers RC 2 lite

IKA.

Application

Cooling of rotary evaporators, return condensers or as a cooling source for devices which dissipate heat by means of a heat exchanger (e.g. double-walled grinding containers, cooled incubators, laboratory reactors, cooling coils).

- With pressure and suction pump
- Illuminated window to show fill level
- Discharge nozzle for easy drainage
- USB/RS 232 interface
- I (NFL) = non-flammable liquids

Technical specifications:

Art. No.	1LHL.1
Type	RC 2 lite
Operating temperature	-10 to +40 °C
Temperature constancy	±0,5 K
Display resolution	0,1 °C
Heating output	0 W
Cooling capacity	20 °C: 400 W 10 °C: 350 W 0 °C: 250 W -10 °C: 140 W
Max. pump pressure	350 mbar
Max. flow	18 l/min
Max. pump suction	150 mbar
Bath volume	1-3,5 l
Outer width	225 mm
Outer depth	430 mm
Outer height	385 mm
Safety class	I (NFL)
Weight	24,5 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. hose connectors suitable for hoses with internal Ø 8 mm.

Type	Art. No.	Pack Qty.	€
RC 2 lite	**1LHL.1**	1 unit(s)	2.150,00

Recirculating coolers Accel series

Thermo.

For external, closed applications with water as a tempering medium, for example for cooling electrophoresis equipment. The integrated stainless steel bath design minimises the volume and evaporation of tempering medium, however it does not allow access to the bath for direct tempering of samples.

Features:

- Digital temperature display
- LCD-Display with multi-lingual text menu control (German, English, French)
- 5 user-defined set temperatures
- Energy savings feature
- Liquid level indicator
- 2.8 litres internal volume of bath
- Pump speed control - allows the user to set the pump speed at either 50 or 100 % for tighter control
- Pump for hoses with 12 mm inner-Ø
- With discharge nozzle on the front for convenient changing of water
- USB-port
- Low-level alarm

Technical specifications:

Art. No.	PE51.1	APT5.1
Type	Accel 250	Accel 500
Operating temperature	-10 to +80 °C	
Temperature constancy	±0,1 K	
Heating output	2000 W	
Cooling capacity	20 °C: 250 W	20 °C: 500 W
Max. pump pressure	300 mbar	
Max. flow	15 l/min	
Outer width	232 mm	
Outer depth	620 mm	
Outer height	487 mm	
Weight	30 kg	

Type	Art. No.	Pack Qty.	€
Accel 250	**PE51.1**	1 unit(s)	2.757,00
Accel 500	**APT5.1**	1 unit(s)	3.361,00

Recirculating coolers

Recirculating chiller F series

Julabo.

Applications: Rotary evaporators, soxhlet apparatuses, distillation plants, gas chromatographs etc. For external, closed applications.

Features:

- LED temperature display, display resolution 0.1 °C
- PID temperature control
- Drain tap for easy emptying
- Fill level indicator

Technical specifications:

Art. No.	AXX4.1	AXX5.1	HHK6.1
Type	F250	F500	F1000
Operating temperature	-10 to +40 °C	0 to +40 °C	
Temperature constancy	±0,5 K		
Display resolution	0,1 °C		
Heating output	0 W		
Cooling capacity	20 °C: 250 W 10 °C: 220 W 5 °C: 210 W 0 °C: 180 W	20 °C: 500 W 10 °C: 400 W 5 °C: 300 W 0 °C: 250 W	20 °C: 1000 W 10 °C: 700 W 5 °C: 550 W 0 °C: 250 W
Max. pump pressure	350 mbar	500 mbar	1,000 mbar
Max. flow	15 l/min	24 l/min	23 l/min
Bath volume	1,7 l–2,6 l	5–7,5 l	7–9,5 l
Outer width	240 mm	375 mm	
Outer depth	400 mm	440 mm	490 mm
Outer height	520 mm	590 mm	640 mm
Weight	27 kg	34 kg	45 kg
Mains connection	230 V, 50 Hz		

Delivery incl. 2 hose olives suitable for hoses with 8 and 10 mm inner-Ø (model F250) or hoses with 8 and 12 inner-Ø (model F500).

Type	Art. No.	Pack Qty.	€
F250	**AXX4.1**	1 unit(s)	2.217,00
F500	**AXX5.1**	1 unit(s)	3.161,00
F1000	**HHK6.1**	1 unit(s)	3.949,00

Recirculating coolers Microcool

Lauda.

Applications: cooling of rotary evaporators, distillation systems and analytical apparatus, as well as supply of cold traps.

- LED temperature display, display resolution 0.1 °C
- Time-controlled starting and shutdown of the circulation chiller (Auto-Start or Auto-Shut-Down-Timer)
- Illuminated sight glass for checking the thermostating liquid level
- Filler neck on top of apparatus at front
- Removable front grid for cleaning the condenser
- RS 232 interface

Technical specifications:

Art. No.	AEP2.1	AEP3.1	AEP4.1
Type	MC 250	MC 600	MC 1200
Operating temperature	-10 to +40 °C		
Temperature constancy	±0,5 K		
Display resolution	0,1 °C		
Heating output	0 W		
Cooling capacity	20 °C: 250 W 10 °C: 200 W 0 °C: 150 W -10 °C: 90 W	20 °C: 600 W 10 °C: 500 W 0 °C: 360 W -10 °C: 150 W	20 °C: 1200 W 10 °C: 1050 W 0 °C: 750 W -10 °C: 400 W
Max. pump pressure	350 mbar	1,300 mbar	
Max. flow	16 l/min	35 l/min	
Bath volume	2–4 l	4–8 l	7–14 l
Outer width	200 mm	350 mm	450 mm
Outer depth	350 mm	480 mm	550 mm
Outer height	465 mm	595 mm	650 mm
Timer	1 min to 99 h, 59 min		
Weight	26 kg	51 kg	64 kg
Mains connection	230 V, 50 Hz		

Delivery incl. pump connection socket 10 mm (model MC 250). For the models MC 600 and MC 1200, two 10 mm hose fittings with union nut G $^{3}/_{4}$″ are still required. Please order separately.

Model: MC 250

Pic.	Type	Art. No.	Pack Qty.	€
(1)	MC 250	**AEP2.1**	1 unit(s)	2.440,00

Model: MC series plus
With additional features:

- Bypass adjusting wheel for regulating the pump pressure
- Pressure gauge for displaying the pump pressure
- Four rollers with holding brakes

Pic.	Type	Art. No.	Pack Qty.	€
(2)	MC 600	**AEP3.1**	1 unit(s)	3.320,00
	MC 1200	**AEP4.1**	1 unit(s)	4.100,00

Cooling thermostats

Refrigerating circulating thermostat

Thermo.

For temperature control in baths or for open and closed external circuits.

- Simultaneous display of target and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Stainless steel bath
- Thermostat heads can be turned to any position in 90° increments on the bath
- Draincock (on the front)
- With integrated handles
- Hose connectors for hoses with 8 and 12 mm inside Ø
- I (NFL) = non-flammable liquids
  III (FL) = flammable liquids

Technical specifications:

Art. No.	PC14.1	PC15.1
Type	SC 100-A10	SC 150-A25
Cooling capacity	20 °C: 240 W	20 °C: 500 W
Bath volume	6 l	12 l
Operating temperature	-10 to +100 °C	-25 to +150 °C
Temperature constancy	±0,02 K	
Display resolution	0,1/0,01 °C	
Heating output	2000 W	
Max. pump pressure	300 mbar	
Max. flow	17 l/min	
Bath opening	137 x 124 mm	173 x 183 mm
Inner depth	150 mm	200 mm
Safety class	I (NFL)	III (NFL)

Delivery incl. bath cover and circulation set for circulation.

Type	Art. No.	Pack Qty.	€
SC 100-A10	**PC14.1**	1 unit(s)	2.990,00
SC 150-A25	**PC15.1**	1 unit(s)	4.274,00

Refrigerating circulating thermostat CORIO™ CD-F series

Julabo.

For temperature control of samples in baths or for enclosed external instruments such as refractometers, polarimeters, photometers, viscosimeters, electrophoresis chambers, chromatography columns and rotary evaporators.

- External pump connections each with 2 hose connectors for hoses with inside Ø of 8 and 12 mm
- With draincock
- Handles (front and back) for easy transportation
- USB port
- III (FL) = flammable liquids

Technical specifications:

Art. No.	CYA5.1	CYA6.1	HHK5.1
Type	CORIO™ CD-200F	CORIO™ CD-600F	CORIO™ CD-300F
Operating temperature	-20 to +150 °C	-35 to +150 °C	-25 to +150 °C
Temperature constancy	±0,03 K		
Display resolution	0,1 °C		
Setting resolution	0.1 °C		
Heating output	2000 W		
Cooling capacity	20 °C: 220 W 0 °C: 170 W -20 °C: 60 W	20 °C: 600 W 0 °C: 530 W -20 °C: 220 W	20 °C: 310 W 0 °C: 280 W -20 °C: 110 W
Max. pump pressure	350 mbar		
Max. flow	15 l/min		
Bath volume	3–4 l	5–7,5 l	3–4 l
Bath opening	130 x 150 mm	220 x 150 mm	130 x 150 mm
Inner depth	150 mm		
Outer width	230 mm	330 mm	240 mm
Outer depth	390 mm	470 mm	420 mm
Outer height	650 mm	690 mm	660 mm
Safety class	III (FL)		
Mains connection	230 V, 50 Hz		

Delivery incl. bath cover.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	CORIO™ CD-200F	**CYA5.1**	1 unit(s)	3.262,00
	CORIO™ CD-600F	**CYA6.1**	1 unit(s)	4.762,00
(2)	CORIO™ CD-300F	**HHK5.1**	1 unit(s)	3.793,00

Cooling thermostats

Cooling circulation thermostat Alpha RA series

Lauda.

For controlling temperature of external, closed electric loads. Simultaneous internal temperature control possible.

- 3-key operation
- LCD display, display resolution 0.1 °C
- Actual or set value
- With timer function (max. runtime 99 h, 59 min)
- Control lamp for heating, cooling and breakdown.
- Front panel can be removed to clean the condenser
- With drain outlet on the back to empty tempering liquid
- Bath tubs made of stainless steel
- I (NFL) = non-flammable liquids

Technical specifications:

Art. No.	KP41.1	KP42.1	KP43.1
Cooling capacity	20 °C: 225 W	20 °C: 325 W	20 °C: 425 W
Bath volume	5–7,5 l	9,5–14,5 l	14–22 l
Type	Alpha RA 8	Alpha RA 12	Alpha RA 24
Operating temperature	-25 to +100 °C		
Temperature constancy	±0,05 K		
Display resolution	0,1 °C		
Heating output	1500 W		
Max. pump pressure	200 mbar		
Max. flow	15 l/min		
Bath opening	165 x 190 mm	300 x 190 mm	350 x 290 mm
Inner depth	160 mm		
Safety class	I (NFL)		

Delivery incl. bath cover and pump circulation set.

Type	Art. No.	Pack Qty.	€
Alpha RA 8	**KP41.1**	1 unit(s)	3.140,00
Alpha RA 12	**KP42.1**	1 unit(s)	3.730,00
Alpha RA 24	**KP43.1**	1 unit(s)	4.630,00

Cooling circulation thermostat RE series

Lauda.

For temperature control of external consumers. Simultaneous internal temperature control. Small external dimensions.

- Operation by means of cursor keys and softkeys
- Simultaneous display of set and actual temperature
- USB port
- Hose connectors for hoses with 10 mm inside Ø
- III (FL) = flammable liquids

Technical specifications:

Art. No.	LX92.1	LX93.1
Type	RE 415 S	RE 415 G
Operating temperature	-15 to +200 °C	
Temperature constancy	±0,02 K	
Display resolution	0,01 °C	
Setting resolution	0.01 °C	
Heating output	2000 W	2600 W
Cooling capacity	20 °C: 180 W	
Max. pump pressure	550 mbar	
Max. flow	22 l/min	
Bath volume	4 l	
Bath opening	130 x 105 mm	
Inner depth	160 mm	
Safety class	III (FL)	

Delivery incl. thermostat with drain cock, recessed grip and bath lid.

Model: RE 415 S

- LCD display with 0.01 °C display resolution

Pic.	Type	Art. No.	Pack Qty.	€
(1)	RE 415 S	**LX92.1**	1 unit(s)	3.990,00

Model: RE 415 G

- Colour TFT display with 0.01 °C display resolution
- Graphical display of temperature characteristics
- Ramp function
- Timer

Pic.	Type	Art. No.	Pack Qty.	€
(2)	RE 415 G	**LX93.1**	1 unit(s)	4.460,00

Cooling thermostats

Refrigerating circulating thermostat CP-200F

Julabo.

Temperature control either in the internal bath or in a connected external application such as a photometer, refractometer, viscometer and others.

- Simple changeover between internal and external circulation
- LED temperature display
- Setting/display resolution 0.01 °C (to 99.99 °C), 0.1 °C (from 100 °C)
- Early warning system for low liquid level
- Continuously adjustable pressure pump
- With USB and RS-232 port
- With timer (range: 0 to 999 min)
- Protection against excess temperature and low liquid level for flammable liquids (FL), safety class III

Technical specifications:

Art. No.	KKH3.1
Type	CP-200F
Operating temperature	-20 to +200 °C
Temperature constancy	±0,03 K
Heating output	2000 W
Cooling capacity	20 °C: 200 W 10 °C: 170 W 0 °C: 150 W -10 °C: 100 W -20 °C: 20 W
Max. pump pressure	700 mbar
Max. flow	8–27 l/min
Bath volume	3–4 l
Bath opening	130 x 150 mm
Inner depth	150 mm
Outer width	230 mm
Outer depth	390 mm
Outer height	650 mm
Mains connection	230 V, 50/60 Hz

Delivery incl. stainless steel bath with lid, draining tap and hose connectors suitable for hoses with ID 8 and 12 mm.

Type	Art. No.	Pack Qty.	€
CP-200F	**KKH3.1**	1 unit(s)	3.945,00

Cold circulation thermostat AC series

Thermo.

For temperature control in bath or for open and closed external circuits.

- Simultaneous display of set and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Stainless steel bath
- Thermostat heads can be turned invariably in 90° steps on the bath
- Drain cock (on the front)
- With integrated handles
- Connectors for tubes with 8 and 12 mm inner-Ø
- III (FL) = flammable liquids

Technical specifications:

Art. No.	LP68.1	LP69.1
Type	AC 150-A10B	AC 150-A25B
Operating temperature	-10 to +100 °C	-25 to +150 °C
Temperature constancy	±0,01 K	
Display resolution	0,1/0,01 °C	
Heating output	2000 W	
Cooling capacity	20 °C: 250 W	20 °C: 500 W
Max. pump pressure	475 mbar	
Max. flow	20 l/min	
Max. pump suction	330 mbar	
Bath volume	18–30 l	13–20 l
Bath opening	295 x 375 mm	220 x 243 mm
Inner depth	200 mm	230 mm
Safety class	III (FL)	

Delivery incl. circulation set for external circulation. Not including bath cover. If required, please order separately.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	AC 150-A10B	**LP68.1**	1 unit(s)	4.625,00
	AC 150-A25B	**LP69.1**	1 unit(s)	4.771,00

Accessories bath cover for AC 150-A10B refrigerating circulating thermostat

Thermo.

Designation	Art. No.	Pack Qty.	€
Bath cover for AC 150-A10B	**LP71.1**	1 unit(s)	158,00

Cooling thermostats

Refrigerated circulation thermostat VersaCool 7

Thermo.

For heating and cooling. For external closed-circuit temperature control tasks or direct use in circulating baths.

- Languages: German, English, French and four others
- Intuitively operated colour touchscreen (screen size 14.4 cm)
- Electronically adjustable pump output levels (40 to 100 %)
- Graphical display of temperature profile
- Programmable with 30 program steps for up to 10 different programs (max. process time per program step 999 h, max. 10 repetitions per step)
- Integrated data logger incl. 4 GB SD card
- USB port for reading out the data logger and storing ramp profiles. Ramp profiles can be used for various baths by using the download and upload functions of the USB flash drive
- Overtemperature protection
- RS 232, RS 485 and Micro USB port
- Bluetooth communication port - for remote control and monitoring via iOS or Android smartphone
- Timer function
- Pt 100 external sensor connection for measurement and control in external system. Please order temperature sensor Pt 100 separately
- III (FL) = flammable liquids

Technical specifications:

Art. No.	CAY7.1
Type	VersaCool 7
Operating temperature	-20 to +150 °C
Temperature constancy	±0,02 K
Heating output	2000 W
Cooling capacity	20 °C: 425 W 0 °C: 200 W -10 °C: 100 W -20 °C: 50 W
Max. pump pressure	1,200 mbar
Max. flow	14.6 l/min
Bath volume	7 l
Bath opening	173 x 297 mm
Inner depth	150 mm
Outer width	258 mm
Outer depth	585 mm
Outer height	474 mm
Safety class	III (FL)
Weight	36 kg
Mains connection	200–240 / 100–120 V, 50/60 Hz

Delivery incl. bath cover (this can be attached on the right or left side or can lie loose), 2 hose olives for hoses with 8 and 12 mm inner-Ø and 4 GB SSD card.

Type	Art. No.	Pack Qty.	€
VersaCool 7	**CAY7.1**	1 unit(s)	7.822,00

Water bath

Phönix Instrument.

- Stainless steel inner tank
- LCD display for displaying setpoint/actual temperature values
- Integrated digital clock (1 min to 99 h, 59 mins or continuous)
- Overheating protection
- Heater exposed on floor

Technical specifications:

Art. No.	EEA3.1	EEA4.1	EEA5.1
Type	WB-12	WB-22	WB-22-P
Bath volume	12 l	22 l	
Inner length	290 mm	470 mm	
Inner width	230 mm	290 mm	
Inner height	150 mm		
Outer length	480 mm	680 mm	
Outer width	310 mm	365 mm	
Outer height	375 mm	395 mm	
Temperature constancy	±0,5 K		±0,2 K
Heating output	900 W	1100 W	
Max. loading of	4 test tube racks	8 test tube racks	
Weight	12 kg	18 kg	19 kg
Mains connection	230 V, 50 Hz		

Delivery incl. removable bottom and stainless steel cover.

WB series standard model
Operating temperature range from 5 °C above room temperature to 99 °C (temperature adjustment range from 10 to 99 °C).

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WB-12	12	**EEA3.1**	1 unit(s)	564,40
WB-22	22	**EEA4.1**	1 unit(s)	919,15

WB-22-P model with pump
Operating temperature range from 5 °C above room temperature to 85 °C (temperature adjustment range from 10 to 85 °C).

With built-in circulation pump for faster and more even heat distribution within the bath.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WB-22-P	22	**EEA5.1**	1 unit(s)	1.020,20

Accessories test tube racks for WB series water baths

Phönix Instrument.

Suitable for	Art. No.	Pack Qty.	€
20 test tubes Ø 13 mm	**EEA6.1**	1 unit(s)	72,25
20 test tubes Ø 18 mm	**EEA7.1**	1 unit(s)	72,25
5 test tubes Ø 31 mm	**EEA8.1**	1 unit(s)	72,25

Water bath WBT series

For a working temperature range from 25 to 100 °C.

- Stainless steel inner tank
- Microprocessor-controlled temperature controller
- Digital temperature display
- Adjustable upper and lower setpoint value limit
- Visual and/or audible limit alarm (adjustable)
- With dry run protection
- Memory function saves three combinations of setpoint temperature and time parameters
- Bath is emptied via a floor drain with a locking screw. A drain cock is also available as an option (please order separately)
- WBT 1 water bath supplied with round, flat cover, all other models have a slanting cover
- Heater exposed on floor

Technical specifications:

Art. No.	EA02.1	EA03.1	EA04.1	EA05.1
Type	WBT1	WBT6	WBT12	WBT22
Bath volume	1–2 l	2–6 l	4–12 l	6–22 l
Inner length		215 mm	390 mm	455 mm
Inner width		230 mm		
Inner height	120 mm			170 mm
Inner Ø x H	130 x 120 mm			
Outer length	230 mm	320 mm	490 mm	570 mm
Outer width	240 mm	340 mm		
Outer height	220 mm	260 mm		310 mm
Operating temperature	+25 to +100 °C			
Temperature constancy	±0,25 K	±0,60 K		
Heating output	700 W	1000 W	1600 W	2000 W
Weight	5.0 kg	7.5 kg	10.5 kg	12.5 kg
Mains connection	230 V, 50/60 Hz			

Delivery incl. removable bottom.

Round bath opening

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WBT1	1–2	**EA02.1**	1 unit(s)	720,25

Square bath opening

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WBT6	2–6	**EA03.1**	1 unit(s)	843,90
WBT12	4–12	**EA04.1**	1 unit(s)	967,50
WBT22	6–22	**EA05.1**	1 unit(s)	1.069,65

Accessories for WBT series water baths

Round test tube rack for WBT 1 water bath
Made of stainless steel. Water bath holding capacity: 1 piece

Suitable for	Ø Hole (mm)	Art. No.	Pack Qty.	€
36 test tubes Ø 10.5 mm	10.5	**EA07.1**	1 unit(s)	94,60
36 test tubes Ø 11.5 mm	11.5	**EA08.1**	1 unit(s)	94,60
24 test tubes Ø 14.5 mm	14.5	**EA09.1**	1 unit(s)	94,60
16 test tubes Ø 18.5 mm	18.5	**EA10.1**	1 unit(s)	94,60
6 test tubes Ø 32 mm	32.0	**EA11.1**	1 unit(s)	94,60

Test tube racks for water baths WBT 6 to WBT 22
Made of stainless steel. Water bath holding capacity:
WBT 6 = 3 pieces, WBT 12 = 5 pieces, WBT 22 = 6 pieces.

Suitable for	Ø Hole (mm)	Art. No.	Pack Qty.	€
56 test tubes Ø 10.5 mm	10.5	**EA12.1**	1 unit(s)	64,50
56 test tubes Ø 11.5 mm	11.5	**EA13.1**	1 unit(s)	64,50
33 test tubes Ø 14.5 mm	14.5	**EA14.1**	1 unit(s)	64,50
18 test tubes Ø 18.5 mm	18.5	**EA15.1**	1 unit(s)	64,50
6 test tubes Ø 32 mm	32.0	**EA16.1**	1 unit(s)	64,50

Drain cock for water baths WBT 1 to WBT 22

Designation	Art. No.	Pack Qty.	€
Drain cock, complete	**EA17.1**	1 unit(s)	81,95

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Water baths

Water bath Hydro-series

Lauda.

For an operating temperature range from 25 to 100 °C.

- TFT display showing all process data
- Adjustment and display of temperature values at increments of 0.1 °C
- With timer function, max. 999 hrs, 59 mins
- Adjustable trigger points for overheating and insufficient temperature alarm up to max. ±10 K
- Visual and audible alarm in the event of lack of water, overheating, insufficient temperature and gauge break or short circuit
- Three application-specific timer functions
- Bath unit, cover frame, sieve plate, lid and heater made of stainless steel
- With a drain valve

Technical specifications:

Art. No.	1A81.1	1A82.1	1A87.1	1A83.1	1A88.1	1A84.1	1A85.1	1A86.1
Type	H 4	H 8	H 8 A	H 16	H 16 A	H 22	H 24	H 41
Bath volume	4 l	8 l		16 l		22 l	24 l	41 l
Inner length	245 mm			400 mm			600 mm	410 mm
Inner width	100 mm	200 mm		245 mm				296 mm
Inner height	115 mm					180 mm	115 mm	285 mm
Outer length	340 mm			500 mm			700 mm	510 mm
Outer width	290 mm	395 mm		440 mm				490 mm
Outer height	275 mm		345 mm	275 mm	345 mm		275 mm	476 mm
Operating temperature	25 to 100 °C							
Temperature constancy	0,1 K							
Heating output	500 W	1000 W		1500 W				
Mains connection	230 V, 50/60 Hz							

Delivery incl. stainless steel lid.

Standard version

Type	Bath volume (l)	Art. No.	Pack Qty.	€
H 4	4	**1A81.1**	1 unit(s)	729,00
H 8	8	**1A82.1**	1 unit(s)	943,00
H 16	16	**1A83.1**	1 unit(s)	1.007,00
H 22	22	**1A84.1**	1 unit(s)	1.140,00
H 24	24	**1A85.1**	1 unit(s)	1.160,00
H 41	41	**1A86.1**	1 unit(s)	1.280,00

Design with a circulation system

Type	Bath volume (l)	Art. No.	Pack Qty.	€
H 8 A	8	**1A87.1**	1 unit(s)	1.180,00
H 16 A	16	**1A88.1**	1 unit(s)	1.350,00

Water baths

Water bath WTB series

Memmert.

For temperature control of ointments, emulsions, samples, plates and nutrient solutions in the laboratory, as well as warm storage and calibration in industrial applications.

- For an operating temperature range from 5 °C above ambient temperature to +100 °C
- Intuitive 3.5″ colour graphic display with touchscreen
- Integrated digital clock from 1 min to 99.59 h
- Independent temperature limiter for heater switch-off in the event of a fault
- Corrosion-protected heating outside of the working area
- Stainless steel tray with no corners or edges for ease of cleaning, incl. central drain (no obstructing fittings)
- Bath drainage by drain valve

NEW / +

With slanting cover

Technical specifications:

Art. No.	1EYA.1	1EYC.1	1EYE.1	1EYH.1	1EYK.1	1EYL.1
Type	WTB 6	WTB 11	WTB 15	WTB 24	WTB 35	WTB 50
Bath volume	7 l	10 l	17 l	23 l	37 l	51 l
Inner length	277 mm	267 mm	482 mm	472 mm	602 mm	592 mm
Inner width	217 mm	207 mm	277 mm	267 mm	482 mm	472 mm
Inner height	150 mm	200 mm	150 mm	200 mm	150 mm	200 mm
Outer length	349 mm		554 mm		674 mm	
Outer width	289 mm		349 mm		554 mm	
Outer height	245 mm	295 mm	245 mm	295 mm	245 mm	295 mm
Height with slanting cover	348 mm	398 mm	348 mm	398 mm	348 mm	398 mm
Operating temperature	From 5 °C **above** room temperature to 100 °C					
Set temperature range	+10 to +100 °C					
Setting accuracy	0,1 °C					
Temporal temp. variance	±0,1 K					
Spatial temp. deviation	±0,3 K					
Heating output	1000 W		1420 W		2800 W	
Weight	10 kg	12 kg	14 kg	16 kg	20 kg	23 kg
Mains connection	230 V, 50/60 Hz					

Delivery incl. stainless steel slanting cover and drain valve.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WTB 6	7	**1EYA.1**	1 unit(s)	775,00
WTB 11	10	**1EYC.1**	1 unit(s)	834,00
WTB 15	17	**1EYE.1**	1 unit(s)	912,00
WTB 24	23	**1EYH.1**	1 unit(s)	1.004,00
WTB 35	37	**1EYK.1**	1 unit(s)	1.223,00
WTB 50	51	**1EYL.1**	1 unit(s)	1.456,00

Water baths

With flat cover and sets of rings

Technical specifications:

Art. No.	1EXX.1	1EXY.1	1EY0.1	1EY1.1	1EY2.1	1EY3.1
Type	WTB 6	WTB 11	WTB 15	WTB 24	WTB 35	WTB 50
Bath volume	7 l	10 l	17 l	23 l	37 l	51 l
Inner length	277 mm	267 mm	482 mm	472 mm	602 mm	592 mm
Inner width	217 mm	207 mm	277 mm	267 mm	482 mm	472 mm
Inner height	150 mm	200 mm	150 mm	200 mm	150 mm	200 mm
Outer length	349 mm		554 mm		674 mm	
Outer width	289 mm		349 mm		554 mm	
Outer height	245 mm	295 mm	245 mm	295 mm	245 mm	295 mm
Height with flat cover	245 mm	295 mm	245 mm	295 mm	245 mm	295 mm
Ring set openings	3		6		8	
Ø Flat cover opening	87 mm		107 mm			
Operating temperature	From 5 °C **above** room temperature to 100 °C					
Set temperature range	+10 to +100 °C					
Setting accuracy	0,1 °C					
Temporal temp. variance	±0,1 K					
Spatial temp. deviation	±0,3 K					
Heating output	1000 W		1420 W		2800 W	
Weight	10 kg	12 kg	14 kg	16 kg	20 kg	23 kg
Mains connection	230 V, 50/60 Hz					

Delivery incl. flat cover with sets of rings and drain valve.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WTB 6	7	**1EXX.1**	1 unit(s)	878,00
WTB 11	10	**1EXY.1**	1 unit(s)	937,00
WTB 15	17	**1EY0.1**	1 unit(s)	1.084,00
WTB 24	23	**1EY1.1**	1 unit(s)	1.176,00
WTB 35	37	**1EY2.1**	1 unit(s)	1.578,00
WTB 50	51	**1EY3.1**	1 unit(s)	1.811,00

Accessories floor grids for water baths WTB series

Memmert.

Usable on both sides. Height: 30 mm or 60 mm.

NEW/+

Suitable for	Art. No.	Pack Qty.	€
WTB 6/11	**1EYN.1**	1 unit(s)	42,00
WTB 15/24	**1EYP.1**	1 unit(s)	51,00
WTB 35/50	**1EYT.1**	1 unit(s)	116,00

Water baths

Water bath Precision series

Thermo.

- **For a working temperature range of 30 to 100 °C** (except for the GP 02 model which can only be used up to 90 °C)
- Microprocessor-controlled temperature controller
- Digital temperature display
- Integrated timer for programming on/off times, timer function (1 to 99 mins) or continuous operation-
- Memory function can save up to four setpoint temperatures
- Equipped with protection against overheating
- Heating elements under the bath tank (no fittings in bath tank)
- Internal water drainage tube with integrated quick-release coupling (only with models GP 10, GP 20, GP 28 and GP 15 Dual)

Technical specifications:

Art. No.	HAC0.1	HAC1.1	HAC2.1	HAC3.1	HAC4.1	HAC5.1
Type	GP 02	GP 05	GP 10	GP 20	GP 28	GP 15 Dual
Bath volume	2 l	5 l	10 l	20 l	28 l	5/10 l
Inner length	155 mm	300 mm	330 mm	500 mm		
Inner width	138 mm	154 mm	301 mm	297 mm		
Inner height	150 mm				200 mm	
Outer length	199 mm	355 mm	383 mm	555 mm		587 mm
Outer width	230 mm	246 mm	393 mm	392 mm		
Outer height	344 mm	363 mm			412 mm	363 mm
Operating temperature	30 to 90 °C	30 to 100 °C				
Temperature constancy	±0,2 K					
Heating output	200 W	300 W	800 W	1200 W		300/800 W
Mains connection	100–155 / 200–230 V, 50/60 Hz					

Delivery incl. transparent cover.

Standard

Pic.	Type	Bath volume (l)	Art. No.	Pack Qty.	€
	GP 02	2	**HAC0.1**	1 unit(s)	638,00
(1)	GP 05	5	**HAC1.1**	1 unit(s)	735,00
	GP 10	10	**HAC2.1**	1 unit(s)	886,00
(2)	GP 20	20	**HAC3.1**	1 unit(s)	1.007,00
	GP 28	28	**HAC4.1**	1 unit(s)	1.120,00

Dual bath

Two independently controllable baths in one device. A different temperature can be set for each bath.
Bath 1: Volume 5 l; L x W x H internal: 300 x 154 x 150 mm
Bath 2: Volume 10 l; L x W x H internal: 330 x 301 x 150 mm

Pic.	Type	Bath volume (l)	Art. No.	Pack Qty.	€
(3)	GP 15 Dual	5/10	**HAC5.1**	1 unit(s)	1.506,00

Water bath PURA™ PURA™ series

Julabo.

For a temperature range up to 99.9 °C.

- Digital temperature display
- Internal timer function (max. 99 h, 59 mins in 1-min increments), with signal after expiry of the time, optionally with or without heating switch-off
- Integrated drain screw (except PURA™ 4)
- Easy to clean as there are no fittings in the bath
- Integrated run-dry protection and recessed grips
- **Foldable bath cover available as accessory, please order separately**

Technical specifications:

Art. No.	HCH1.1	HCH2.1	HCH3.1	HCH4.1	HCH5.1
Type	Pura™ 4	Pura™ 10	Pura™ 14	Pura™ 22	Pura™ 30
Bath volume	0,8–4,5 l	1,4–9,5 l	2–14 l	3,4–25,5 l	4,8–36 l
Inner length	120 mm	220 mm	330 mm	550 mm	770 mm
Inner width	270 mm				
Inner height	140 mm			180 mm	
Outer length	210 mm	310 mm	420 mm	640 mm	860 mm
Outer width	350 mm				
Outer height	220 mm			260 mm	
Height with lid	360 mm			400 mm	
Display resolution	0,1 °C				
Temperature constancy	0,15 K				
Heating output	500 W	1200 W	1800 W	2000 W	
Weight	4,9 kg	7 kg	8,5 kg	11,5 kg	14,5 kg
Mains connection	230 V, 50/60 Hz				

Pic.	Type	Bath volume (l)	Art. No.	Pack Qty.	€
(1)	Pura™ 4	0,8–4,5	**HCH1.1**	1 unit(s)	761,00
(2)	Pura™ 10	1,4–9,5	**HCH2.1**	1 unit(s)	872,00
	Pura™ 14	2–14	**HCH3.1**	1 unit(s)	903,00
(3)	Pura™ 22	3,4–25,5	**HCH4.1**	1 unit(s)	992,00
	Pura™ 30	4,8–36	**HCH5.1**	1 unit(s)	1.192,00

Accessories bath cover folds back, transparent for PURA™ series

Julabo.

Suitable for	Art. No.	Pack Qty.	€
for Pura™ 4	**HCH6.1**	1 unit(s)	133,00
for Pura™ 10	**HCH7.1**	1 unit(s)	168,00
for Pura™ 14	**HCH8.1**	1 unit(s)	178,00
for Pura™ 22	**HCH9.1**	1 unit(s)	217,00
for Pura™ 30	**HCK0.1**	1 unit(s)	263,00

Water bath with circulation pump WTB series

Memmert.

With pump device for continuous circulation of the temperature control medium.

- For an operating temperature range from 5 °C above ambient temperature to +100 °C
- Pump can be switched on and off
- Intuitive 3.5″ colour graphic display with touchscreen
- Integrated digital clock from 1 min to 99.59 h
- Independent temperature limiter for heater switch-off in the event of a fault
- Corrosion-protected heating outside of the working area
- Stainless steel tray with no corners or edges for ease of cleaning, incl. central drain (no obstructing fittings)
- Bath drainage by drain valve

NEW / +

Technical specifications:

Art. No.	1EY4.1	1EY5.1	1EY6.1	1EY7.1	1EY8.1	1EY9.1
Type	WTB 6	WTB 11	WTB 15	WTB 24	WTB 35	WTB 50
Bath volume	7 l	10 l	17 l	23 l	37 l	51 l
Inner length	277 mm	267 mm	482 mm	472 mm	602 mm	592 mm
Inner width	217 mm	207 mm	277 mm	267 mm	482 mm	472 mm
Inner height	150 mm	200 mm	150 mm	200 mm	150 mm	200 mm
Outer length	349 mm		554 mm		674 mm	
Outer width	289 mm		349 mm		554 mm	
Outer height	245 mm	295 mm	245 mm	295 mm	245 mm	295 mm
Height with slanting cover	348 mm	398 mm	348 mm	398 mm	348 mm	398 mm
Operating temperature	From 5 °C above room temperature to 100 °C					
Set temperature range	+10 to +100 °C					
Setting accuracy	0,1 °C					
Temporal temp. variance	±0,1 K					
Spatial temp. deviation	±0,3 K					
Heating output	1000 W		1420 W		2800 W	
Weight	10 kg	12 kg	14 kg	16 kg	20 kg	23 kg
Mains connection	230 V, 50/60 Hz					

Delivery incl. stainless steel slanting cover and pump device.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WTB 6	7	**1EY4.1**	1 unit(s)	1.473,00
WTB 11	10	**1EY5.1**	1 unit(s)	1.532,00
WTB 15	17	**1EY6.1**	1 unit(s)	1.629,00
WTB 24	23	**1EY7.1**	1 unit(s)	1.721,00
WTB 35	37	**1EY8.1**	1 unit(s)	2.036,00
WTB 50	51	**1EY9.1**	1 unit(s)	2.269,00

Accessories floor grids for water baths WTB series

Memmert.

Usable on both sides. Height: 30 mm or 60 mm.

NEW / +

Suitable for	Art. No.	Pack Qty.	€
WTB 6/11	**1EYN.1**	1 unit(s)	42,00
WTB 15/24	**1EYP.1**	1 unit(s)	51,00
WTB 35/50	**1EYT.1**	1 unit(s)	116,00

Heating bath with magnetic drive, HBR 4 control

IKA.

Effective volume 4 l. Interior free of heating coils (no components in the bath tub). Made of stainless steel. Available with low viscosity oil (50 mPas) or water as a heat conductor. Digital display for setpoint, actual and safety temperature as well as the speed. **Integrated magnetic drive for rotating the heating medium,** creating a better heat distribution in the bath. Heating element under the bath tank (no fittings in bath tank). With RS 232 port. Two handles.

Technical specifications:

Art. No.	LN86.1
Type	HBR 4
Bath volume	4 l
Speed range	100 to 800 rpm
Inner height	160 mm
Inner Ø x H	200 x 160 mm
Outer height	250 mm
Operating temperature	Room temperature up to +200 °C
Setting accuracy	±1 K
Control deviation	±1 K
Heating output	1000 W
Weight	4.4 kg
Mains connection	230 V, 50/60 Hz

Type	Bath volume (l)	Art. No.	Pack Qty.	€
HBR 4	4	**LN86.1**	1 unit(s)	3.888,00

Accessories set of rings for HBR 4 control heating bath

IKA.

For covering, comprises 10 rings with a Ø of 25 to 185 mm. Prevents dust gathering, heat radiation, intake of water and formation of oil mist when working with oil.

Designation	Art. No.	Pack Qty.	€
Set of rings	**9700.1**	1 unit(s)	545,00

Accessories intermediate bottom HBR 4 control

IKA.

Made of stainless steel. For achieving a better heat distribution without disrupting the movement of the rotating stirring bar.

Type	Art. No.	Pack Qty.	€
Intermediate bottom	**9689.1**	1 unit(s)	250,00

NEW/+

Serial water baths Hydro H-V series

Lauda.

For an operating temperature range from 5 °C above room temperature to 100 °C. Special baths for gentle exhaust steam applications from columns, Erlenmeyer flasks or beakers. For unsupervised continuous operation based on water lever controllers and a low-water safety device. Bath unit, cover frame with openings and split sieve plate over the tubular heating element, made of stainless steel. Bath clearance 150 mm.

Technical specifications:

Art. No.	1H1P.1	1H1N.1
Type	Hydro H 9 V	Hydro H 6 V
Bath volume	9 l	5,3 l
Inner height	90 mm	
Outer length	982 mm	682 mm
Outer width	232 mm	
Outer height	190 mm	
Ring set openings	6	4
Ø Flat cover opening	131 mm	
Operating temperature	25 to 100 °C	
Temperature constancy	±3 K	
Heating output	1500 W	1000 W
Weight	20 kg	15 kg
Mains connection	230 V, 50/60 Hz	

Delivery incl. removable flat/perforated lids with multi-part set of rings and stand rods (L 600 x Ø 12 mm).

Type	Bath volume (l)	Art. No.	Pack Qty.	€
Hydro H 9 V	9	**1H1P.1**	1 unit(s)	1.190,00
Hydro H 6 V	5,3	**1H1N.1**	1 unit(s)	1.014,00

Shaking water baths

Shaking water bath Hydro H-20 series

Lauda.

- Digital LED display
- Adjustment and display of temperature values at increments of 0.1 °C
- Overheating protection for operation with non-flammable liquids and the low-water safety device
- The speed is continuously adjustable
- Bath tank with drain valve
- Lid, bath unit, cover frame, shaking basket, sieve plate and heater made of stainless steel
- Shaking basket is easy to remove for cleaning

Technical specifications:

Art. No.	1A93.1	1A94.1	1A95.1
Type	H 20 S	H 20 SW	H 20 SOW
Bath volume	20 l		
Movement type	Back and forward		Circular
Inner length	450 mm		
Inner width	300 mm		
Inner height	115 mm		110 mm
Outer length	715 mm		632 mm
Outer width	520 mm		500 mm
Outer height	330 mm		390 mm
Operating temperature	25 to 100 °C		25 to 80 °C
Temperature constancy	±0,1 K		
Shaking frequency	10–250 rpm		
Shaking amplitude (stroke)	22 mm		14 mm
Weight	32 kg	34 kg	40 kg
Mains connection	230 V, 50/60 Hz		

Delivery incl. lid and shaking basket.

H 20 S

Standard design. Back and forward movement.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
H 20 S	20	**1A93.1**	1 unit(s)	2.470,00

H 20 SW

Back and forward movement. With a cooling coil for connecting an external cooling unit. Depending on the cooling capacity, temperatures as low as 10 °C can be achieved. Also includes an actual speed display for the shaking frequency.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
H 20 SW	20	**1A94.1**	1 unit(s)	3.210,00

H 20 SOW

Circular movement. With a cooling coil for connecting an external cooling unit. Depending on the cooling capacity, temperatures as low as 10 °C can be achieved. Also includes an actual speed display for the shaking frequency.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
H 20 SOW	20	**1A95.1**	1 unit(s)	4.270,00

NEW / +

Accessories shaking tray for the Hydro H-20 series

Lauda.

For shaking Erlenmeyer flasks.
With a hole gird for fastening Erlenmeyer flask spring clips.

Max. number per board:
52 fixing clips for 25 ml flasks or
33 fixing clips for 50 ml flasks or
22 fixing clips for 100 ml flasks or
15 fixing clips for 200 ml flasks or
13 fixing clips for 250/300 ml flasks or
10 fixing clips for 500 ml flasks or
6 fixing clips for 1000 ml flasks

Please note: 1000 ml Erlenmeyer flasks require a raised lid. Only possible with shaking water bath models H 20 S and H 20 SW.

Delivery without spring clips, please order separately.

Designation	Art. No.	Pack Qty.	€
Shaking tray	**1H98.1**	1 unit(s)	147,00

NEW / +

Accessories raised lid suitable for shaking water bath models H 20 S and H 20 SW

Lauda.

For 1000 ml Erlenmeyer flasks. Suitable for shaking water bath models H 20 S and H 20 SW.

Designation	Art. No.	Pack Qty.	€
Raised lid	**1H99.1**	1 unit(s)	332,00

Shaking water baths

NEW/+

Shaking water bath WTB series

Memmert.

With horizontal back and forward shaking strokes. Continuously variable frequency adjustment (35 to 160 strokes per min).

- For an operating temperature range from 5 °C above ambient temperature to +100 °C
- Intuitive 3.5″ colour graphic display with touchscreen
- Integrated digital clock from 1 min to 99.59 h
- Independent temperature limiter for heater switch-off in the event of a fault
- Corrosion-protected heating outside of the working area
- Stainless steel tray with no corners or edges for ease of cleaning, incl. central drain (no obstructing fittings)
- Bath drainage by draincock
- **The collection tray supplied is sufficient for general operation. If desired, fixing clips for flasks can be ordered as an option and attached to the perforated mounting plate.**

Technical specifications:

Art. No.	1EYX.1	1EYY.1	1H00.1	1H01.1
Type	WTB 15	WTB 24	WTB 35	WTB 50
Bath volume	17 l	23 l	37 l	51 l
Movement type	Back and forward			
Inner length	482 mm	472 mm	602 mm	592 mm
Inner width	277 mm	267 mm	482 mm	472 mm
Inner height	150 mm	200 mm	150 mm	200 mm
Outer length	554 mm		674 mm	
Outer width	349 mm		554 mm	
Outer height	245 mm	295 mm	245 mm	295 mm
Height with slanting cover	348 mm	398 mm	348 mm	398 mm
Operating temperature	From 5 °C above room temperature to 100 °C			
Set temperature range	+10 to +100 °C			
Setting accuracy	0,1 °C			
Temporal temp. variance	±0,1 K			
Spatial temp. deviation	±0,3 K			
Shaking frequency	35–160 rpm			
Heating output	1420 W		2800 W	
Max. loading of	Fixing clips 14 x 100 ml flasks 10 x 200 ml flasks 8 x 300 ml flasks 5 x 500 ml flasks		Fixing clips 33 x 100 ml flasks 24 x 200 ml flasks 24 x 300 ml flasks 16 x 500 ml flasks	
Weight	14 kg	16 kg	20 kg	23 kg
Mains connection	230 V, 50/60 Hz			

Delivery incl. stainless steel slanting cover for diverting condensation, shaker with mounting frame and collection tray with perforated mounting plate (stainless steel) for mounting fixing clips for Erlenmeyer flasks (fixing clips for flasks can be ordered separately if required).

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WTB 15	17	**1EYX.1**	1 unit(s)	1.861,00
WTB 24	23	**1EYY.1**	1 unit(s)	1.953,00
WTB 35	37	**1H00.1**	1 unit(s)	2.891,00
WTB 50	51	**1H01.1**	1 unit(s)	3.124,00

Shaking water bath SBS40

Stuart.

- Optionally available with tray for back and forth shaking strokes (type SBS40/1) or tray for circular movements (type SBS40/2)
- The shaking movement is generated by inserting the tray
- Loading configurations per tray:
  e.g. 8 x 250 ml or 6 x 500 ml, 6 x 500 ml or 4 x 1000 ml Erlenmeyer flasks
- Each tray includes 15 springs for attaching bottles, beakers and flasks in different sizes
- Digital temperature display (resolution 0.1 °C)
- With overheating protection and drain cock

Technical specifications:

Art. No.	AK06.1
Type	SBS 40
Bath volume	24 l
Inner length	500 mm
Inner width	300 mm
Inner height	200 mm
Outer length	580 mm
Outer width	335 mm
Outer height	320 mm
Operating temperature	10 °C above room temperature up to 95 °C
Set temperature range	+19 to +95 °C
Temperature constancy	±0,25 °C
Shaking frequency	20–130 min^{-1}
Shaking amplitude (stroke)	20 mm
Weight	17 kg
Mains connection	230 V, 50 Hz

Delivery without stainless steel cover, shaking tray and test tube racks, please order separately.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
SBS 40	24	**AK06.1**	1 unit(s)	3.119,00

Accessories shaking trays for SBS40 shaking water bath

Stuart.

Designation	Art. No.	Pack Qty.	€
SBS40/1 shaking tray for back and forth movement	**AK07.1**	1 unit(s)	612,00
SBS40/2 shaking tray for circular movement	**AK08.1**	1 unit(s)	650,00

Shaking water baths

Accessories test tube racks for SBS40 shaking water bath

Stuart.

Made of stainless steel. Max. capacity of a shaking tray: 2 pieces.

Suitable for	Art. No.	Pack Qty.	€
143 Reaction vessels 1.5/2.0 ml	**XY08.1**	1 unit(s)	272,00
120 Culture tubes Ø 13 mm	**XY09.1**	1 unit(s)	242,00
72 Culture tubes Ø 16 mm	**XY10.1**	1 unit(s)	272,00
30 culture tubes Ø 26 mm	**XY11.1**	1 unit(s)	242,00
56 Centrifuge tubes 15 ml	**XY12.1**	1 unit(s)	272,00
25 centrifuge tubes 50 ml	**XY13.1**	1 unit(s)	268,00

Accessories slanting cover made of stainless steel with insulated handle

Stuart.

Designation	Art. No.	Pack Qty.	€
Stainless steel slanted cover with insulated handle	**AK09.1**	1 unit(s)	350,00

Block thermostat single Accublock™ Mini

Labnet International.

For precision temperature control of 12 1.5 ml reaction vials.

- Temperature adjustment via digital display
- Digital display of actual temperature
- Acoustic timer adjustable from 1 min to 19 h, 59 min (has no effect on heater performance; no shutdown upon expiration of the timer)
- Integrated aluminium block; ports have been adapted to fit 1.5 ml reaction vials

Technical specifications:

Art. No.	PE74.1
Type	Accublock™ Mini
Operating temperature	From +5 °C above room temperature to +100 °C
Temperature adjustment range	20-101 °C
Accuracy	±0,2 K
Resolution	0,1 °C
Warm-up period	20 min (100 °C)
W x D x H	110 x 140 x 55 mm
Weight	1.4 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. AccuRack™ for rapid filling and emptying of reaction vials.

Type	Art. No.	Pack Qty.	€
Accublock™ Mini	**PE74.1**	1 unit(s)	418,20

Block thermostat

Labnet International.

For precision heating of reaction vials, test tubes, type Falcon® centrifuge tubes and 96 well PCR trays.

- Stainless steel housing
- With LED temperature display
- Integrated timer function
- Suitable for one or two interchangeable blocks depending on model

Technical specifications:

Art. No.	PY25.1	YC47.1
Type	Single block thermostats	Dual block thermostats
Max. exchange blocks	1	2
Operating temperature	From +5 °C above room temperature to +150 °C	
Temperature adjustment range	0 - 150 °C	
Accuracy	±0,3 K	
Resolution	0,1 °C	
Timer	1 to 99 h 59 min in 1 min increments or continuous operation	
Warm-up period	35 min (100 °C)	
W x D x H	210 x 290 x 120 mm	
Mains connection	230 V, 50/60 Hz	

Delivery incl. removal rod for changing the blocks and removable cover for microlitre tubes.
Without interchangeable blocks, please order separately.

Type	Max. exchange blocks	Art. No.	Pack Qty.	€
Single block thermostats	1	**PY25.1**	1 unit(s)	439,70
Dual block thermostats	2	**YC47.1**	1 unit(s)	532,15

Block thermostats

Accessories interchangeable block for single/dual block thermostats

Labnet International. Material: Aluminium.

For reaction vials

Dimensions: W 90 mm x D 76 mm x H 51 mm,
can be used for Single/dual

Suitable for	Art. No.	Pack Qty.	€
48 reaction vessels 0.2 ml	**PY26.1**	1 unit(s)	153,75
24 reaction vessels 0.5 ml	**PY27.1**	1 unit(s)	153,75
24 reaction vessels 1.5 ml	**PY28.1**	1 unit(s)	153,75
20 reaction vessels 2.0 ml	**PY29.1**	1 unit(s)	153,75

For sample tubes/vials

Dimensions: W 90 mm x D 76 mm x H 51 mm,
can be used for Single/dual

Suitable for	Art. No.	Pack Qty.	€
20 tubes Ø 12 mm	**PY30.1**	1 unit(s)	153,75
12 tubes Ø 16 mm	**PY31.1**	1 unit(s)	153,75
6 tubes Ø 20 mm	**YC48.1**	1 unit(s)	120,40
6 tubes Ø 25 mm	**YC49.1**	1 unit(s)	120,40

For centrifuge tubes (Falcon®)

Dimensions: W 90 mm x D 76 mm x H 83 mm,
can be used for Single/dual

Suitable for	Art. No.	Pack Qty.	€
12 centrifuge tubes 15 ml	**PY32.1**	1 unit(s)	153,75
5 centrifuge tubes 50 ml	**PY33.1**	1 unit(s)	153,75

For individual processing

Dimensions: W 90 mm x D 76 mm x H 51 mm,
can be used for Single/dual

Type	Art. No.	Pack Qty.	€
Without hole	**YC50.1**	1 unit(s)	120,40

For 96-well PCR trays and microtiter plates

Please note: Only a PCR or microtiter plate block can be used in a dual-block thermostat (due to block dimensions).

Suitable for	Art. No.	Pack Qty.	€
96-well PCR tray (with/without frame), can be used forSingle	**PY34.1**	1 unit(s)	327,90
96-well PCR tray (with/without frame), can be used forDual	**YC51.1**	1 unit(s)	310,70
Microtiter plate, can be used for Dual	**YC52.1**	1 unit(s)	235,45

Block thermostats with touchscreen

Thermo.

For precision temperature control of reaction vials, test tubes and centrifuge vials of the type Falcon®.

- 4.3″ touchscreen display with time and temperature display
- PID thermostat
- Integrated timer function
- 10 user-definable programs for up to 5 successive steps with different temperature and operating time
- Connectivity for external Pt 1000 temperature gauge (please order separately); in this case, temperature is controlled and displayed using the external sensor instead of the built-in temperature sensor

Technical specifications:

Art. No.	CTN8.1	CTN9.1	CTP0.1
Type	1-block thermostat	2-block thermostat	4-block thermostat
Max. exchange blocks	1	2	4
Operating temperature	From +5 °C above room temperature to +130 °C		
Temperature adjustment range	0 - +135 °C		
Accuracy	±0,1 K		
Resolution	0,1 °C		
Timer	0 to 99 h 59 min in 1 min increments or continuous operation		
Warm-up period	20 min (130 °C)		25 min (130 °C)
W x D x H	200 x 373 x 100 mm	200 x 403 x 100 mm	200 x 535 x 100 mm
Weight	3.4 kg	3.7 kg	5.1 kg
Mains connection	220–240 V, 50/60 Hz		

Delivery incl. removal rod for changing the blocks.
Without interchangeable blocks, please order separately.

Type	Max. exchange blocks	Art. No.	Pack Qty.	€
1-block thermostat	1	**CTN8.1**	1 unit(s)	577,00
2-block thermostat	2	**CTN9.1**	1 unit(s)	654,00
4-block thermostat	4	**CTP0.1**	1 unit(s)	799,00

Block thermostats

Accessories interchangeable block for touchscreen block thermostats

Thermo.

(1) For reaction vials
Dimensions W 124 mm x D 76 mm x H 39 mm

Suitable for	Art. No.	Pack Qty.	€
28 reaction vessels 1.5 ml	**CTP1.1**	1 unit(s)	70,70
28 reaction vessels 2.0 ml	**CTP2.1**	1 unit(s)	70,70

(2) Combined interchangeable blocks for reaction vials
Dimensions W 124 mm x D 76 mm x H 39 mm

Suitable for	Art. No.	Pack Qty.	€
30/20 reaction vessels 0.5/0.2 ml	**CTP3.1**	1 unit(s)	136,00
18/10 Reaction vessels 1.5/2.0 ml	**CTP4.1**	1 unit(s)	99,70

(3) For centrifuge tubes Falcon®
Dimensions W 124 mm x D 76 mm x H 113 mm

Suitable for	Art. No.	Pack Qty.	€
15 x 15 ml centrifuge tubes	**CTP5.1**	1 unit(s)	332,00
4 x 50 ml centrifuge tubes	**CTP6.1**	1 unit(s)	332,00

(4) For sample tubes
Dimensions W 124 mm x D 76 mm x H 39 mm

Suitable for	Art. No.	Pack Qty.	€
15 tubes Ø 16 mm	**CTP7.1**	1 unit(s)	94,90
12 tubes Ø 18 mm	**CTP8.1**	1 unit(s)	94,90
8 tubes Ø 20 mm	**CTP9.1**	1 unit(s)	76,80

Accessories external temperature gauge for the touchscreen block thermostat

Thermo.

Designation	Art. No.	Pack Qty.	€
External Pt 1000 temperature sensor	**CTT0.1**	1 unit(s)	30,50

Block thermostat SBH200D

Stuart.

For precise heating of test tubes and reaction vials.

- Digital temperature display
- Uniform and stable temperature distribution

Technical specifications:

Art. No.	**1A7H.1**
Type	SBH200D
Max. exchange blocks	2
Operating temperature	8 °C above room temperature up to 200 °C
Accuracy	37 °C: ±0,1 °C; 130 °C: ±1 °C
Resolution	0,1 °C
W x D x H	235 x 280 x 115 mm
Weight	2,3 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. removal rod for changing the blocks. Without interchangeable blocks (please order separately).

Type	Max. exchange blocks	Art. No.	Pack Qty.	€
SBH200D	2	**1A7H.1**	1 unit(s)	1.218,00

Accessories interchangeable block for SBH200D

Stuart.

Dimensions: W 75 x D 95 x H 50 mm.

For reaction vials

Suitable for	Art. No.	Pack Qty.	€
20 reaction vials 1.5 ml	**1A7K.1**	1 unit(s)	185,00
20 x reaction vials 2.0 ml	**1A7L.1**	1 unit(s)	187,00

For sample tubes

Suitable for	Art. No.	Pack Qty.	€
12 tubes Ø 16 mm tubes	**1A7N.1**	1 unit(s)	164,00
8 tubes Ø 19 mm tubes	**1A7P.1**	1 unit(s)	166,00
4 tubes Ø 30 mm tubes	**1A7T.1**	1 unit(s)	167,00

For individual processing

Suitable for	Art. No.	Pack Qty.	€
Without hole	**1A7X.1**	1 unit(s)	169,00

Block thermostats

Cooling/heating block thermostat TK 23

Hettich Benelux.

For dry, clean and fast **cooling and heating.** For reaction vials, test tubes and microtiter plates.

Features:

- **Cooling function up to 16 °C below room temperature, heating up to +90 °C**
- Active counter cooling with Peltier elements
- Background LCD display for all set and actual values
- **Direct input of temperature curves**

Programmable control:
Programmable with 30 program steps for up to 9 different programs. Program parameters: Set temperature, process time (max. 99 h/ continuous), expansion time (time in which the set temperature is to be reached), etc.

Technical specifications:

Art. No.	HA03.1
Type	Cooling/heating block thermostat TK 23
Max. exchange blocks	2
Operating temperature	From +16 °C below room temperature up to +90 °C
Temperature adjustment range	-10 - +90 °C
Accuracy	±0,1 K
Resolution	0,1 °C
Average heating rate	approx. 4 °C/min from +41 °C min
Medium cooling rate	approx. 5 °C/min below +20 °C min approx. 2 °C/min up to +20 °C min
W x D x H	220 x 345 x 195 mm

Delivery without interchangeable block, please order required interchangeable block separately.

Type	Max. exchange blocks	Art. No.	Pack Qty.	€
Cooling/heating block thermostat TK 23	2	**HA03.1**	1 unit(s)	2.031,75

For reaction vials

Suitable for	Art. No.	Pack Qty.	€
96 reaction vessels 0.2 ml conical	**AY21.1**	1 unit(s)	282,75
38 reaction vessels 0.5 ml conical	**AY22.1**	1 unit(s)	282,75
24 reaction vessels 1.5 ml conical	**AY23.1**	1 unit(s)	282,75
24 reaction vessels 2.0 ml cylindrical	**AY24.1**	1 unit(s)	282,75
24 x 0.5 and 1.5 ml reaction vials (combined block)	**ANN7.1**	1 unit(s)	383,80

Heating thermoshaker

Thermo.

For heating and mixing in 0.5/1.5 ml reaction vials, 50 ml test tubes or 96-well plates. With circular shaking action. Applications: Cultivating bacteria and yeast, enzyme reactions, denaturation of DNA, RNA and proteins, etc.

- VFD display
- PID controller for constant shaking action and precise temperature control
- Programmable with 10 programming steps for up to 7 different programs (program parameters: Nominal temperature, process time per programming step and shaking frequency)
- Two timer function modes (1 min to 99 h, 59 mins):
  - Process time does not begin to elapse until nominal temperature is reached
  - Timer starts immediately after setting the required process time
- Max. recommended shaking frequency:
  Block for 96-well plates: 150 to 1500 rpm
  Block for 0.5 ml vessels: 150 to 1200 rpm
  Block for 1.5 ml vessels: 150 to 1200 rpm
  Block for 50 ml tubes: 150 to 800 rpm

Technical specifications:

Art. No.	ATX7.1
Operating temperature	From +5 °C above room temperature to +100 °C
Temperature adjustment range	0 - +100 °C
Accuracy	±0,5 °C
Resolution	0,1 °C
Average heating rate	approx. 5 °C/min from +41 °C
Timer	1 min to 99 h, 59 mins/continuous operation
Shaking amplitude (stroke)	2 mm
W x D x H	249 x 325 x 120 mm
Weight	8,3 kg
Mains connection	230 V, 50/60 Hz

Delivery without interchangeable block, please order separately.

Version	Shaking motion	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating	rund	1	**ATX7.1**	1 unit(s)	1.302,00

Accessories interchangeable block for heating thermoshakers

Thermo.

For conical reaction vials
Dimensions: W 98 mm x D 76.5 mm x H 30/40 mm

Suitable for	Art. No.	Pack Qty.	€
48 x 0.5 ml reaction vials	**ATX8.1**	1 unit(s)	163,00
24 x 1.5/2.0 ml reaction vials	**ATX9.1**	1 unit(s)	281,00

For 50 ml test tubes (Ø 30 mm)
Dimensions: W 98 mm x D 76.5 mm x H 51 mm

Suitable for	Art. No.	Pack Qty.	€
6 x 50 ml test tubes (Ø 30 mm)	**ATY1.1**	1 unit(s)	281,00

For 96-well plates
Dimensions: W 111 mm x D 76.5 mm x H 15 mm

Suitable for	Art. No.	Pack Qty.	€
96-well PCR plate	**ATY0.1**	1 unit(s)	324,00

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Cooling and heating thermoshaker

CellMedia.

Applications: Enzyme reactions, transformations, denaturation of DNA and RNA, isolation of DNA fragments from agarose gels, proteins, protein purification and cultivation of bacteria or yeasts.

Features:

- Two-line plain text display with backlit LCD display
- Simultaneous display of setpoint and actual values
- Timer operation: 1 min to 99 h, 59 mins; adjustable in 1 min increments or continuous operation
- Short mix function
- Shaking frequency can be set in 10° increments

Technical specifications:

Art. No.	CPL7.1	CPL8.1
Type	Basic	Pro
Operating temperature	from 5 °C above room temperature up to +100 °C	from 20 °C below room temperature up to 100 °C
Temperature adjustment range	4 to +100 °C	
Accuracy	<±0,5 K	
Resolution	0,1 °C	
Average heating rate	from 20 to 100 °C in approx. 13 mins	
Medium cooling rate		from 100 to 20 °C in approx. 14 mins, from 20 to 4 °C in approx. 13 min
Timer	1 min to 99 h, 59 mins/continuous operation	
Shaking frequency	200–1500 rpm	
Shaking amplitude (stroke)	2 mm	
W x D x H	220 x 280 x 170 mm	
Weight	9 kg	
Mains connection	230 V, 50 Hz	

Delivery without interchangeable blocks, please order separately.

Model: Basic – Heating and shaking

- For rapid heating and mixing
- Memory function saves five combinations of speed and time parameters

Type	Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Basic	Heating	1	**CPL7.1**	1 unit(s)	1.494,25

Model Pro – Heating, cooling and shaking

- For cooling, heating and mixing
- Five individually adjustable program segments with an option for combining segments to create a ramp or to activate each segment individually

Type	Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Pro	Heating and cooling	1	**CPL8.1**	1 unit(s)	2.128,50

Accessories interchangeable block for cooling and heating thermoshakers, Basic and Pro versions

CellMedia.

For reaction vials

Delivery incl. lid.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	96 PCR® vials 0.2 ml	**CPL9.1**	1 unit(s)	317,15
(2)	54 reaction vials 0,5 ml	**CPN0.1**	1 unit(s)	317,15
(3)	35 reaction vials 1,5 ml	**CPN1.1**	1 unit(s)	317,15
(4)	35 reaction vials 2,0 ml	**CPN2.1**	1 unit(s)	317,15
(5)	15 reaction vials 0,5/20x1,5 ml	**CPN3.1**	1 unit(s)	317,15
(13)	15 x 5 ml reaction vials (max. 1200 rpm)	**CPN4.1**	1 unit(s)	317,15

For sample tubes and vials

Pic.	Suitable for	Art. No.	Pack Qty.	€
(6)	24 sample vials Ø 12 mm (max. 1200 rpm)	**CPN5.1**	1 unit(s)	317,15
(11)	24 sample tubes Ø 14 mm (max. 1200 rpm)	**CPN6.1**	1 unit(s)	317,15

For centrifuge tubes

Pic.	Suitable for	Art. No.	Pack Qty.	€
(7)	12 x 15 ml centrifuge tubes (Falcon®) (max. 750 rpm)	**CPN7.1**	1 unit(s)	317,15
(8)	6 x 50 ml centrifuge tubes (Falcon®) (max. 750 rpm)	**CPN8.1**	1 unit(s)	317,15

Water bath block

Dimensions W 103 mm x 67 mm D x H 29 mm

Delivery incl. lid.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(9)	Water bath block	**CPN9.1**	1 unit(s)	317,15

For microtiter plates

Delivery incl. lid.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(10)	Microtiter plates 96	**CPP0.1**	1 unit(s)	317,15

For Deepwell plate

Delivery incl. lid.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(12)	96-well Deepwell plate (max. 900 rpm, up to max. 80 °C)	**CPP1.1**	1 unit(s)	317,15

Cooling and heating Thermoshaker Thermal mixer

Thermo.

Applications: Genetic analysis, DNA and RNA extraction, sample preparation and many more.

Features:

- Heating/cooling and shaking can be performed independently
- LCD display shows setpoint and actual values for operating time, shaking frequency and temperature
- Digital timer function with alarm signal
- Short heating and cooling times, and shaking frequency reached quickly
- Shaking frequency can be adjusted in 10° increments

Technical specifications:

Art. No.	HEH6.1
Operating temperature	15 °C below room temperature up to +100 °C
Temperature adjustment range	4 to +100 °C
Accuracy	±0.6 K at 4 °C ±0.1 K at 37 °C ±0.3 K at 100 °C
Resolution	0,1 °C
Average heating rate	5 °C/min
Medium cooling rate	from 100 to 25 °C in approx. 15 mins (5 °C/min) from 25 to 4 °C in approx. 8 mins (1.8 °C/min)
Timer	1 min to 96 h (in 1-min increments)
Shaking frequency	250–1400 rpm
Shaking amplitude (stroke)	2 mm
W x D x H	205 x 230 x 130 mm
Weight	4 kg
Mains connection	120–240 V, 50/60 Hz

Delivery without interchangeable blocks (please order separately, see Interchangeable blocks for cooling and heating thermoshaker, thermal mixer).

Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating and cooling	1	**HEH6.1**	1 unit(s)	1.886,00

Accessories interchangeable block for cooling and heating thermoshaker Thermal mixer

Thermo.

For reaction vials

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	24 x 1.5 ml reaction vials	**HEH7.1**	1 unit(s)	973,00
	24 x 2.0 ml reaction vials	**HEH8.1**	1 unit(s)	973,00
(2)	20 x 0.2 ml and 12 x 1.5 ml reaction vials	**HEH9.1**	1 unit(s)	973,00
(3)	20 x 0.5 ml and 12 x 1.5 ml reaction vials	**HEK0.1**	1 unit(s)	973,00

For 96-well plates

Pic.	Suitable for	Art. No.	Pack Qty.	€
(4)	96-well plates or 0.2 ml tube strips for rimless plates and plates with mid-height rim and round indentations	**HEK1.1**	1 unit(s)	973,00

Heating thermoshaker Matrix Orbital Delta series

IKA.

Mixes and heats reaction vials and microtiter plates with round/circular motions.

Features:

- TFT display with convenient menu layout
- Automatically performs mixing and heating tasks with five programmable ramps with five increments each consisting of temperature, speed and time
- Diecast-aluminium housing for stability
- USB and RS 232 interfaces
- Shaking frequency can be adjusted in 10° increments

Technical specifications:

Art. No.	1A32.1	1A2Y.1	1A30.1	1A31.1
Operating temperature	5 °C above room temperature up to +100 °C			
Temperature adjustment range	1 to +100 °C			
Accuracy	±0.5 K at 20–45 °C ±1.5 K >45 °C			
Resolution	1 °C			
Average heating rate	5 °C/min			
Timer	1 s to 100 h (in 1 min increments) or continuous operation			
Shaking frequency	300–2000 rpm		300–1500 rpm	
Shaking amplitude (stroke)	1,5 mm			
W x D x H	220 x 350 x 150 mm			
Weight	9,5 kg			
Mains connection	120–240 V, 50/60 Hz			

Model Delta F0.5

Delivery incl. insert for 24 x 0.5 ml reaction vials. Block cannot be changed.

Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating	1	**1A2Y.1**	1 unit(s)	2.299,00

Model Delta F1.5

Delivery incl. insert for 24 x 1.5 ml reaction vials. Block cannot be changed.

Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating	1	**1A30.1**	1 unit(s)	2.299,00

Model Delta F2.0

Delivery incl. insert for 24 x 2.0 ml reaction vials. Block cannot be changed.

Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating	1	**1A31.1**	1 unit(s)	2.299,00

Model Delta FP

Delivery incl. insert for microtiter plates. Block cannot be changed.

Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating	1	**1A32.1**	1 unit(s)	2.299,00

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

NEW / +

Cooling and heating thermoshaker Matrix Orbital Delta Plus

IKA.

For cooling, heating and mixing in circular motions.

Applications: Temperature control/mixing of samples, synthesis of cDNA, enzyme-catalysed joining RNA or DNA (ligation), lysis reactions and structural changes to DNA, RNA and proteins (denaturation).

Features:

- TFT display with convenient menu structure
- Snap-lock mechanism for changing attachments and automatic attachment detection
- For mixing liquids at up to 3000 rpm and with a 3 mm shaking stroke (depending on the attachment used)
- It has two different speed modes for controlling temperature according to the sample
- Automatically performs mixing and heating tasks with five programmable ramps with five increments each consisting of temperature speed and time
- Die-cast aluminium housing ensures stability
- USB and RS 232 interfaces
- Shaking frequency can be adjusted in 10° increments

Technical specifications:

Art. No.	**1H67.1**
Type	Matrix Orbital Delta Plus
Operating temperature	15 °C below room temperature up to 100 °C
Temperature adjustment range	+1 to +100 °C
Accuracy	0,5 K
Resolution	1 °C
Average heating rate	6 °C/min
Medium cooling rate	0.8 °C/min
Timer	1 sec to 100 h, (in 1 min increments) or continuous operation
Shaking frequency	300–3000 rpm
Shaking amplitude (stroke)	3 mm
W x D x H	216 x 351 x 127 mm
Weight	10 kg
Mains connection	100–240 V, 50/60 Hz

Delivery without interchangeable block (please order separately).

Type	Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Matrix Orbital Delta Plus	Heating and cooling	1	**1H67.1**	1 unit(s)	2.499,00

NEW / +

Accessories interchangeable block for Matrix Orbital Delta Plus thermoshaker

IKA.

For reaction vials
Max. shaking frequency of 2000 rpm for 0.5/1.5/2.0 ml reaction vials, max. 1000 rpm for 5 ml reaction vials (max. Ø 17 mm).

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	24 x 0.5 ml conical reaction vials	**1H8A.1**	1 unit(s)	534,00
(2)	24 x 1.5 ml conical reaction vials	**1H8C.1**	1 unit(s)	499,00
(3)	24 x 2.0 ml cylindrical reaction vials	**1H8E.1**	1 unit(s)	499,00
(4)	8 x 5.0 ml conical reaction vials	**1H8H.1**	1 unit(s)	534,00

For centrifuge tubes
Max. shaking frequency 1000 rpm.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(5)	8 x 15 ml centrifuge tubes (Falcon®)	**1H8K.1**	1 unit(s)	534,00
(6)	4 x 50 ml centrifuge tubes (Falcon®)	**1H8L.1**	1 unit(s)	499,00

For trays
Max. shaking frequency of 3000 rpm for microtiter plates/384-well PCR trays, max. 2000 rpm for 96-well PCR trays and max. 1000 rpm for deep-well trays.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(7)	Microtiter plate or deep-well tray	**1H8N.1**	1 unit(s)	599,00
(8)	96-well PCR tray	**1H8P.1**	1 unit(s)	599,00
(9)	384-well PCR tray	**1H8T.1**	1 unit(s)	641,00

NEW / +

Accessories cover for blocks which are suitable for the Matrix Orbital Delta Plus thermoshaker

IKA.

Suitable for blocks for 96-/384-well PCR trays and blocks for 0.5/1.5/2.0 ml reaction vials.

(1) Cover
For uniform temperature control and to protect the samples against unwanted light exposure.

Type	Art. No.	Pack Qty.	€
Cover	**1H8X.1**	1 unit(s)	106,00

(2) Thermocover
Prevents condensation from forming on container walls or covers.

Type	Art. No.	Pack Qty.	€
Thermocover	**1H8Y.1**	1 unit(s)	499,00

Heating thermoshaker type MH series

Hettich Benelux.

For dry, clean and fast **heating and mixing.** For reaction vials, tubes and microtiter plates.

Equipment features of all models:

- With timer, short-mix function (e.g. for vortexing) and interval shaking with snipping effect
- Background LCD display for all setpoint and actual values
- **Direct input of temperature curves with different shaking frequencies**
- Removable control panel for connecting to an extension cable

Programmable control:
Programmable with 30 programming steps for up to 9 different programs. Program parameters: Nominal temperature, process time (max. 99 h/continuous), expansion time (time in which the nominal temperature is to be reached), shaking frequency, interval shaking, pause, etc.

Technical specifications:

Art. No.	HA05.1	EY98.1	EY99.1
Type	MHR 13	MHR 23	MHL 23
Operating temperature	From 3 °C above room temperature to +130 °C		
Temperature adjustment range	0 - 140 °C		
Accuracy	±0,1 K		
Resolution	0,1 °C		
Average heating rate	approx. 4 °C/min from +41 °C approx. 5 °C/min up to +40 °C		
Shaking frequency	200–1500 rpm		200–1300 rpm
Shaking amplitude (stroke)	3 mm		
W x D x H	220 x 345 x 160 mm		
Mains connection	110/240 V, 50/60 Hz		

Delivery incl. control panel. Without interchangeable blocks, please order separately (see Interchangeable blocks for cooling and heating thermoshakers).

Model: MHR 13
Circular shaking motion for dissolving critical DNA pellets from conical tips in conical reaction vials.

Type	Version	Shaking motion	Max. exchange blocks	Art. No.	Pack Qty.	€
MHR 13	Heating	round	1	**HA05.1**	1 unit(s)	2.234,95

Model: MHR 23
Double heating thermoshaker with circular shaking motion for dissolving critical DNA pellets from conical tips in conical reaction vials. Suitable for two insertion blocks. Same position when stopped.

Type	Version	Shaking motion	Max. exchange blocks	Art. No.	Pack Qty.	€
MHR 23	Heating	round	2	**EY98.1**	1 unit(s)	2.540,25

Model: MHL 23
Double heating thermoshaker with linear shaking motion creates a jerky motion for better mixing of small sample volumes in the µl range. Suitable for two insertion blocks. Same position when stopped.

Type	Version	Shaking motion	Max. exchange blocks	Art. No.	Pack Qty.	€
MHL 23	Heating	linear	2	**EY99.1**	1 unit(s)	2.540,25

Thermoshakers

Cooling and heating Thermoshaker MKR 13 and MKR 23

Hettich Benelux.

For dry, clean and fast **cooling, heating and mixing**. For reaction vials, tubes and microtiter plates.
Circular shaking motion: Ideal for dissolving critical DNA pellets from conical tips in conical reaction vials.

Features:

- **Cooling function up to 16/10 °C below room temperature, heating up to +100/75 °C**
- Active counter cooling with Peltier elements
- Coolers with speed-controlled fans direct heat or cold air to the outside
- With timer, short-mix function (e.g. for vortexing) and interval shaking with snipping effect
- Background LCD display for all setpoint and actual values
- **Direct input of temperature curves with different shaking frequencies**

Programmable control:
Programmable with 30 programming steps for up to 9 different programs. Program parameters: Nominal temperature, process time (max. 99 h/continuous), expansion time (time in which the nominal temperature is to be reached), shaking frequency, interval shaking, pause, etc.

Technical specifications:

Art. No.	HA02.1	KA68.1
Type	MKR 13	MKR 23
Operating temperature	From 16 °C below room temperature up to +100 °C	From 13 °C below room temperature up to +75 °C
Temperature adjustment range	-10 to +105 °C	0 to +75 °C
Accuracy	±0,1 °C	±0,3 °C
Resolution	0,1 °C	
Average heating rate	approx. 5 °C/min from +41 °C approx. 6 °C/min up to +40 °C	
Medium cooling rate	approx. 3 °C/min below +20 °C approx. 7 °C/min up to +20 °C	
Shaking frequency	200–1500 rpm	200–1200 rpm
Shaking amplitude (stroke)	3 mm	
W x D x H	220 x 345 x 195 mm	
Mains connection	110/240 V, 50/60 Hz	

Delivery incl. control panel. Not including insert block (please order separately, see Insert blocks for cooling and heating thermoshaker).

Type	Version	Shaking motion	Max. exchange blocks	Art. No.	Pack Qty.	€
MKR 13	Heating and cooling	round	1	**HA02.1**	1 unit(s)	2.540,25
MKR 23	Heating and cooling	round	2	**KA68.1**	1 unit(s)	3.059,45

Accessories interchangeable block for cooling and heating thermoshaker

Hettich Benelux. Material: Aluminium.

Suitable for models: MHR 13, MHR 23, MHL 23, MKR 13, MKR 23 and TK 23.

For reaction vials

Suitable for	Art. No.	Pack Qty.	€
96 reaction vessels 0.2 ml conical	**AY21.1**	1 unit(s)	282,75
38 reaction vessels 0.5 ml conical	**AY22.1**	1 unit(s)	282,75
24 reaction vessels 1.5 ml conical	**AY23.1**	1 unit(s)	282,75
24 reaction vessels 2.0 ml cylindrical	**AY24.1**	1 unit(s)	282,75
24 x 0.5 and 1.5 ml reaction vials (combined block)	**ANN7.1**	1 unit(s)	383,80

For sample tubes

Suitable for	Art. No.	Pack Qty.	€
24 sample tubes Ø 10.3 mm x D 46 mm, round bottom	**AY25.1**	1 unit(s)	383,80
24 sample tubes Ø 16.5 mm x D 46 mm, round bottom	**AY26.1**	1 unit(s)	383,80
24 sample tubes Ø 12.0 mm x D 20 mm, flat bottom	**TA95.1**	1 unit(s)	282,75
24 sample tubes Ø 15.0 mm x D 30 mm, flat bottom	**TA96.1**	1 unit(s)	282,75
24 sample tubes Ø 17.0 mm x D 30 mm, flat bottom	**TA97.1**	1 unit(s)	282,75
24 sample tubes Ø 19.0 mm x D 25 mm, flat bottom	**TA98.1**	1 unit(s)	282,75
12 sample tubes Ø 23.0 mm x D 56 mm, flat bottom	**TA99.1**	1 unit(s)	282,75
8 sample tubes Ø 28.0 mm x D 40 mm, flat bottom	**TC00.1**	1 unit(s)	383,80

For centrifuge tubes with cover (for block insulation)

Suitable for	Art. No.	Pack Qty.	€
14 x 15 ml centrifuge tubes (Falcon®)	**AY27.1**	1 unit(s)	383,80
6 x 50 ml centrifuge tubes (Falcon®)	**AY28.1**	1 unit(s)	383,80

For cells

Suitable for	Art. No.	Pack Qty.	€
36 rectangular cells, 12.5 mm outer width	**TC01.1**	1 unit(s)	383,80

For Deepwell plate

Suitable for	Art. No.	Pack Qty.	€
96-well Deepwell plate	**TC02.1**	1 unit(s)	383,80

For individual processing

Suitable for	Art. No.	Pack Qty.	€
Without hole, H 37 mm	**TC04.1**	1 unit(s)	282,75
Without hole, H 50 mm	**TC05.1**	1 unit(s)	282,75

For microtiter plates

Suitable for	Art. No.	Pack Qty.	€
U-/V-profile	**AY29.1**	1 unit(s)	383,80
Flat profile	**AY30.1**	1 unit(s)	383,80

Thermoshakers

For PCR® trays

Suitable for	Art. No.	Pack Qty.	€
PCR® trays 96, V-profile	**AY31.1**	1 unit(s)	383,80
PCR® trays 384	**AY32.1**	1 unit(s)	383,80

For DURAN® flasks

Suitable for	Art. No.	Pack Qty.	€
1 x 250 ml DURAN® flask, Ø 71.5 mm, D 74 mm	**ANN9.1**	1 unit(s)	508,50
2 x 50 ml DURAN® flasks, Ø 47 mm, D 60 mm	**ANN8.1**	1 unit(s)	451,50

For cryogenic vials

Suitable for	Art. No.	Pack Qty.	€
24 cryogenic vials, Ø 13 mm, D 30 mm, flat bottom	**ANP0.1**	1 unit(s)	383,80
24 cryogenic vials, Ø 13 mm, D 40 mm, round bottom	**ANP1.1**	1 unit(s)	383,80

Rotary evaporators RV 3 series

IKA.

Usable in the chemical, pharmaceutical and bio-industry, in the fields of research and development, production and quality assurance, in laboratories and in plant engineering.

- 4 l water heating bath with digital temperature display and handles
- Mechanical end stop for lift
- Manual lift
- Adjustable insertion angle
- Continuous speed adjustment via rotary knob and display scale
- Piston fixture with integrated push-off mechanism for easy changing of evaporating flasks

Technical specifications:

Art. No.	KAX8.1	HTX5.1
Type	RV 3 V	RV 3 V-C
Speed range	20 to 300 rpm	
Temperature range	to 99 °C	
Heating output	1350 W	
Setting accuracy	1 K	
Control deviation	±1 K	
Bath volume	4 l	
Heating bath width	330 mm	
Heating bath length	190 mm	
Heating bath height	325 mm	
Hose connectors	For hoses ID 8 mm (water and vacuum hose)	
L x W x H, total	440 x 330 x 530 mm	
Weight	8 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. heating bath and vertical glassware. With PTFE inlet tube and 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (KS 35/20).

Type	Version	Glassware	Art. No.	Pack Qty.	€
RV 3 V	Vertical cooler	Uncoated	**KAX8.1**	1 unit(s)	2.405,00
RV 3 V-C	Vertical cooler	Coated	**HTX5.1**	1 unit(s)	2.564,00

Rotary evaporators RV 8 series

IKA.

General properties:

- Manual lift with integrated safety lift function (single-hand operation, suitable for left and right handed users)
- Digital displays for rotation speed and heating bath temperature
- Adjustable immersion angle and height
- Piston fixture with integral push-off mechanism for easier changing of evaporating flasks
- Available in two versions: With standard glassware or coated glassware (condenser and receiving flask are coated for shatter protection).

HB 10 digital heating bath:

- Universal water/oil heating bath with integrated carrying handles
- Locking function prevents accidental changing of heating bath settings
- Run-dry monitoring
- Adjustable safety temperature

Technical specifications:

Art. No.	NH24.1	NH25.1
Type	RV 8 V	RV 8V-C
Speed range	5 to 300 rpm	
Operating temperature	Ambient temperature to +180 °C	
Heating output	1300 W	
Setting accuracy	1 °C	
Control deviation	±1 K	
Bath volume	4 l	
Heating bath width	330 mm	
Heating bath length	190 mm	
Heating bath height	325 mm	
Adjustable head angle	0–45 °	
Hose connectors	For hoses ID 8 mm (water and vacuum hose)	
L x W x H, total	630 x 345 x 760 mm	
Weight	17.2 kg	
Mains connection	220–240 V, 50/60 Hz	

Delivery incl. heating bath and vertical glassware. With PTFE inlet tube and 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (KS 35/20).

Type	Version	Glassware	Art. No.	Pack Qty.	€
RV 8 V	Vertical cooler	Non-coated	**NH24.1**	1 unit(s)	2.995,00
RV 8V-C	Vertical cooler	Coated	**NH25.1**	1 unit(s)	3.163,00

Rotary evaporators

Rotary evaporators RV 10 series

IKA.

General features of all models:

- **Motorised lift (stroke displacement 140 mm) with adjustable height limit**
- Digital speed display
- Rotates intermittently clockwise and anticlockwise for drying processes (interval cycle for direction reversal is adjustable from 1 to 60 sec)
- Timer function for time lapse controls (1 to 199 min)
- Water/oil heating bath with integrated carry handles
- Heating bath with adjustable safety circuit
- Push-off mechanism to loosen tightly fitting flasks
- Includes Woulff bottle
- Available in two versions: With standard glassware or coated glassware (condenser and receiving flask are coated for shatter protection).

Technical specifications:

Art. No.	PE52.1	PE53.1	PE54.1	PE55.1
Type	RV 10 digital V	RV 10 digital V-C	RV 10 auto V	RV 10 auto V-C
Speed range	20 to 280 rpm			
Operating temperature	Ambient temperature to +180 °C			
Heating output	1300 W			
Setting accuracy	1 K			
Control deviation	±1 K			
Bath volume	4 l			
Heating bath width	330 mm			
Heating bath length	190 mm			
Heating bath height	325 mm			
Adjustable head angle	0–45 °			
Integrated vacuum controller	No		Yes	
Hose connectors	For hoses ID 8 mm (water and vacuum hose)			
L x W x H, total	680 x 410 x 990 mm			
Weight	28 kg			
Mains connection	220–240 V, 50/60 Hz			

RV 10 digital model

- Heating bath with digital temperature display
- Control deviation ±1 K
- Infrared interface for data transfer between the heating bath and drive unit
- RS 232 interface

Delivery incl. heating bath and vertical glassware. With PTFE inlet tube and 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (KS 35/20).

Type	Version	Glassware	Art. No.	Pack Qty.	€
RV 10 digital V	Vertical cooler	Non-coated	**PE52.1**	1 unit(s)	4.517,00
RV 10 digital V-C	Vertical cooler	Coated	**PE53.1**	1 unit(s)	4.896,00

(1) RV 10 auto model
Model with integrated vacuum controller for automatic distillation, for volume-based processes or full drying, depending on the application.

- Integrated solvent library with stored distillation-specific
- Parameters for standard distillations; can be extended by the customer
- Programmable volume-controlled distillation processes
- Colour graphic display shows distillation curves
- Ramp programming (speed/time and vacuum/time)
- Automatic ventilation and switch-off of heating bath after test

Delivery incl. heating bath and vertical glassware. With PTFE inlet tube and 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (KS 35/20). Also with RV 10.4002 magnetic valve lab vacuum (integrated check valve eliminates external influence on the operating pressure of the vacuum chamber). Hose connectors for ID 10 mm hoses.

Type	Version	Glassware	Art. No.	Pack Qty.	€
RV 10 auto V	Vertical cooler	Non-coated	**PE54.1**	1 unit(s)	7.693,00
RV 10 auto V-C	Vertical cooler	Coated	**PE55.1**	1 unit(s)	8.150,00

Rotary evaporators Hei-VAP Core

Heidolph.

- With manual and motorised lifting
- Clear 3.5″ digital LCD display for viewing current values and key for showing the set values
- Direct access to rotation and heating bath via separate rotary pressure controller with LED light activity indicator
- Locking function for values in order to prevent unintentional adjustment or overheating
- Residual heat warning at >50 °C
- Standby key stops all functions and, for motorised lift models, moves the evaporating flask out of the heating bath
- All models are available as a space-saving version with a vertical cooler (type G3) or as a normal version with a diagonal cooler (G1)
- XL cooler for higher evaporation rates thanks to improved tightness and expanded cooling surface (standard 1400 cm^2, XL model 2200 cm^2)

Delivery incl. device with heating bath and glassware. The glassware consists of a glass hollow shaft, cooler, inlet tube, 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (S 35/20).

Rotary evaporators

Models with manual lifting

Technical specifications:

Art. No.	KEA4.1	KEA5.1	KEA6.1	KEA7.1	KEA8.1	KEA9.1
Speed range	10 to 280 rpm					
Temperature range	+20 to +210 °C					
Heating output	1300 W					
Setting accuracy	±1 °C					
Control deviation	±1 K					
Bath volume	4,5 l					
Ø Internal	255 mm					
Evaporation rate	at 20/40 °C Acetone: 2.4/4.7 l/h Ethanol: 1.6/3.2 l/h Water: 0.5/1.0 l/h					
L x W x H, total	739 x 477 x 845 mm				739 x 477 x 920 mm	
Mains connection	230 V, 50/60 Hz					

Version	Glassware	Art. No.	Pack Qty.	€
Diagonal cooler G1	Non-coated	**KEA4.1**	1 unit(s)	3.190,00
Diagonal cooler G1B	Coated	**KEA5.1**	1 unit(s)	3.390,00
Vertical cooler G3	Non-coated	**KEA6.1**	1 unit(s)	3.377,00
Vertical cooler G3B	Coated	**KEA7.1**	1 unit(s)	3.577,00
Vertical cooler G3 XL	Non-coated	**KEA8.1**	1 unit(s)	3.618,00
Vertical cooler G3B XL	Coated	**KEA9.1**	1 unit(s)	3.818,00

Models with motorised lifting

Technical specifications:

Art. No.	KEC0.1	KEC1.1	KEC2.1	KEC3.1	KEC4.1	KEC5.1
Speed range	10 to 280 rpm					
Temperature range	+20 to +210 °C					
Heating output	1300 W					
Setting accuracy	±1 °C					
Control deviation	±1 K					
Bath volume	4,5 l					
Ø Internal	255 mm					
Evaporation rate	at 20/40 °C Acetone: 2.4/4.7 l/h Ethanol: 1.6/3.2 l/h Water: 0.5/1.0 l/h					
L x W x H, total	739 x 407 x 845 mm				739 x 407 x 920 mm	
Mains connection	230 V, 50/60 Hz					

Version	Glassware	Art. No.	Pack Qty.	€
Diagonal cooler G1	Non-coated	**KEC0.1**	1 unit(s)	3.490,00
Diagonal cooler G1B	Coated	**KEC1.1**	1 unit(s)	3.690,00
Vertical cooler G3	Non-coated	**KEC2.1**	1 unit(s)	3.677,00
Vertical cooler G3B	Coated	**KEC3.1**	1 unit(s)	3.877,00
Vertical cooler G3 XL	Non-coated	**KEC4.1**	1 unit(s)	3.918,00
Vertical cooler G3B XL	Coated	**KEC5.1**	1 unit(s)	4.118,00

Rotary evaporators Hei-VAP Expert

Heidolph.

- With manual or motorised lifting
- 5″ touch display with clear display of all values (Basic/Advanced modes)
- Timer (max. 99 hrs, 99 mins)
- Limitation of heating temperature
- Multilingual menu with warning message
- Optional display of boiling temperature (if required, please order boiling temperature sensor separately)
- Direct access to rotation and heating bath via separate rotary pressure controller with LED light activity indicator
- Locking function for values in order to prevent unintentional adjustment or overheating
- Residual heat warning at >50 °C
- Standby key stops all functions and, for motorised lift models, moves the evaporating flask out of the heating bath
- All models are available as a space-saving version with a vertical cooler (type G3) or as a normal version with a diagonal cooler (G1)
- XL cooler for higher evaporation rate thanks to improved tightness and expanded cooling area (standard 1400 cm^2, XL models 2200 cm^2)

Delivery incl. device with heating bath and glassware. The glassware consists of a glass hollow shaft, cooler, inlet tube, 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (S 35/20).

Models with manual lifting

Technical specifications:

Art. No.	KHE7.1	KHE8.1	KHE9.1	KHH0.1	KHH1.1	KHH2.1
Speed range	10 to 280 rpm					
Temperature range	+20 to +210 °C					
Heating output	1300 W					
Setting accuracy	±1 °C					
Control deviation	±1 ° K					
Bath volume	4,5 l					
Ø Internal	255 mm					
Evaporation rate	at 20/40 °C: Acetone: 2.4/4.7 l/h Ethanol: 1.6/3.2 l/h Water: 0.5/1.0 l/h					
L x W x H, total	739 x 477 x 845 mm				739 x 477 x 920 mm	
Mains connection	230 V, 50/60 Hz					

Version	Glassware	Art. No.	Pack Qty.	€
Diagonal cooler G1	Non-coated	**KHE7.1**	1 unit(s)	3.650,00
Vertical cooler G3	Non-coated	**KHE9.1**	1 unit(s)	3.837,00
Vertical cooler G3 XL	Non-coated	**KHH1.1**	1 unit(s)	4.078,00
Diagonal cooler G1B	Coated	**KHE8.1**	1 unit(s)	3.850,00
Vertical cooler G3B	Coated	**KHH0.1**	1 unit(s)	4.037,00
Vertical cooler G3B XL	Coated	**KHH2.1**	1 unit(s)	4.278,00

Rotary evaporators

Models with motorised lifting

Technical specifications:

Art. No.	KHH3.1	KHH4.1	KHH5.1	KHH6.1	KHH7.1	KHH8.1
Speed range	10 to 280 rpm					
Temperature range	+20 to +210 °C					
Heating output	1300 W					
Setting accuracy	±1 °C					
Control deviation	±1 ° K					
Bath volume	4,5 l					
Ø Internal	255 mm					
Evaporation rate	at 20/40 °C: Acetone: 2.4/4.7 l/h Ethanol: 1.6/3.2 l/h Water: 0.5/1.0 l/h					
L x W x H, total	739 x 407 x 845 mm				739 x 407 x 920 mm	
Mains connection	230 V, 50/60 Hz					

Version	Glassware	Art. No.	Pack Qty.	€
Diagonal cooler G1	Non-coated	**KHH3.1**	1 unit(s)	3.950,00
Vertical cooler G3	Non-coated	**KHH5.1**	1 unit(s)	4.137,00
Vertical cooler G3 XL	Non-coated	**KHH7.1**	1 unit(s)	4.378,00
Diagonal cooler G1B	Coated	**KHH4.1**	1 unit(s)	4.150,00
Vertical cooler G3B	Coated	**KHH6.1**	1 unit(s)	4.337,00
Vertical cooler G3B XL	Coated	**KHH8.1**	1 unit(s)	4.578,00

Accessories for Hei-VAP series rotary evaporator

Heidolph.

(1) Protective screen
For fastening to the edge of a bath

Designation	Art. No.	Pack Qty.	€
Protective screen	**LH20.1**	1 unit(s)	123,00

(2) Protective hood

Designation	Art. No.	Pack Qty.	€
Protective hood	**LH21.1**	1 unit(s)	301,00

(3) Boiling temperature sensor
For digital display of steam temperature.
For Hei-VAP Advantage HL/ML only.

Designation	Art. No.	Pack Qty.	€
Boiling temperature sensor	**X818.1**	1 unit(s)	214,00

N°ICE ice bath

TECHNE.

Space-saving sample chiller with general-purpose heat treatment bath for various vial types and sizes. Ceramic beads are used instead of ice as a chilling medium. This allows unlimited cooling times and avoids the problem of floating samples in thawing ice as well as contamination by coolants. As a time saving option, the ice box with beads can be pre-incubated in the fridge and simply inserted into the unit as and when required.

- Peltier cooling technology
- Max. capacity approx. 60 x1.5 ml reaction vials
- Ceramic beads are autoclavable and suitable for multiple use

Technical specifications:

Art. No.	AKN5.1
Type	N°ICE
Operating temperature	0.0 to 40.0 °C
Accuracy	±1 K
Resolution	0,1 °C
Medium cooling rate	from 20 to 4 °C in approx. 60 mins from 20 to 0 °C in approx. 3–4 hours
W x D x H, interior	155 x 108 x 70 mm
W x D x H	190 x 240 x 225 mm
Weight	4.5 kg
Mains connection	100–230 V, 50/60 Hz

Delivery incl. aluminium heat treatment bath and 1.7 kg ceramic beads (Ø 1.5–2.5 mm).

Type	Art. No.	Pack Qty.	€
N°ICE	**AKN5.1**	1 unit(s)	1.541,00

DipSlide incubator EM4 EM4

Laboratories Humeau.

Lightweight, small incubator specially designed for DipSlides. With transparent, easily removable cover for quick insertion and removal of DipSlides. Easy to operate, even for inexperienced users.
A stand insert and a thermometer are also supplied. Also usable without a stand for incubation of Petri dishes and contact plates.

Technical specifications:

Art. No.	KK43.1
Type	DipSlide incubator EM4
Suitable for	23 DipSlides
Operating temperature	Room temperature up to +44 °C
Vol.	4 l
Inner width	180 mm
Inner depth	180 mm
Inner height	125 mm
Outer width	230 mm
Outer depth	230 mm
Outer height	180 mm
Weight	1,5 kg
Mains connection	200 V

Type	Suitable for	Vol. (l)	Art. No.	Pack Qty.	€
DipSlide incubator EM4	23 DipSlides	4	**KK43.1**	1 unit(s)	492,15

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Small incubator Cultura® M

For incubating 18 dip slides (e.g. ROTI® DipSlides culture medium) or 12 Petri dishes and other small vessels for verifying bacteria, fungi and yeasts.

- **Operating temperature range from +5 °C above room temperature to 45 °C; temperature adjustment range from 25 to 45 °C**
- Thermometer in tube with special petroleum filling.
  Measuring range 7 to 60 °C. Graduations 1 °C. Accuracy ±1 °C.
  Dimensions: H 95 x Ø 25 mm.
- Transparent full-vision door for visual inspection
- Minimal footprint, i.e. space-saving

Technical specifications:

Art. No.	AHH9.1
Type	Cultura® M
Operating temperature	From +5 °C above room temperature to +45 °C
Set temperature from	+25 °C
Set temperature up to	+45 °C
Vol.	4 l
Inner width	220 mm
Inner depth	150 mm
Inner height	120 mm
Outer width	310 mm
Outer depth	168 mm
Outer height	155 mm
Temperature variance	±1 K
Weight	1.1 kg
Mains connection	230 V, 50 Hz

Delivery incl. control thermometer in the tube and shelf.

Type	Vol. (l)	Art. No.	Pack Qty.	€
Cultura® M	4	**AHH9.1**	1 unit(s)	250,50

Multirack for Cultura® M small incubator

Suitable for Cultura® M mini incubator. Made of ABS. For 18 tubes (Ø 25 to 30 mm). Dimensions: W 213 mm x D 142 mm x H 50 mm.

Designation	Art. No.	Pack Qty.	€
Multirack	**AHK0.1**	1 unit(s)	79,20

Small incubator

Labnet International.

Space-saving unit for incubating culture bottles, petri dishes, micro-titration plates and other small-volume vessels.

- **Operating temperature range from + 5 °C above ambient temperature to 60 °C; temperature adjustment range from 20 to 60 °C**
- Cable conduit (Ø 55 mm) at the rear
- Loading options, e.g. 48 petri dishes or 28 microtitration plates in 96 well format
- Thermometer holder (Ø 7 mm) on the top allows the inner temperature to be monitored

Technical specifications:

Art. No.	YC53.1
Type	Small incubator
Operating temperature	From +5 °C above room temperature to +60 °C
Set temperature from	+20 °C
Set temperature up to	+60 °C
Vol.	9.2 l
Inner width	230 mm
Inner depth	200 mm
Inner height	200 mm
Outer width	285 mm
Outer depth	280 mm
Outer height	335 mm
Max. removable shelves	3
Temperature variance	±0,7 K
Weight	8.3 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. 1 shelf (L 220 x W 180 mm). Please order thermometer separately.

Type	Vol. (l)	Art. No.	Pack Qty.	€
Small incubator	9.2	**YC53.1**	1 unit(s)	590,20

Small incubator Heratherm™ IMC18

Thermo.

- Operating temperature range from 17 to 40 °C
- With Peltier cooling
- Minimal footprint for space-restricted lab areas
- Microprocessor control
- Round edges make it easy to clean
- Interior lighting facilitates sample monitoring
- Fan for air circulation; runs permanently and is not adjustable

Technical specifications:

Art. No.	HAP4.1	PL74.1
Type	Darkened front panel	Standard model – glass front
Operating temperature	Operating temperature range from 17 to 40 °C	
Vol.	18 l	
Resolution	1 °C	
Inner width	180 mm	
Inner depth	310 mm	
Inner height	290 mm	
Outer width	260 mm	
Outer depth	470 mm	
Outer height	415 mm	
Max. removable shelves	3	
Temporal temp. variance	±0,2 K	
Spatial temp. deviation	±1,2 K	
Weight	7.2 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. two removable shelves.

With glass front – standard model

Type	Vol. (l)	Art. No.	Pack Qty.	€
Standard model – glass front	18	**PL74.1**	1 unit(s)	757,00

With darkened front panel – IMC18 bio model

For incubation without the influence of light, cool long-term storage in the dark, light-sensitive micro-organisms and much more.

Type	Vol. (l)	Art. No.	Pack Qty.	€
Darkened front panel	18	**HAP4.1**	1 unit(s)	814,00

Accessories additional tray for IMC18

Thermo.

Designation	Art. No.	Pack Qty.	€
Additional shelf for IMC18	**PL75.1**	1 unit(s)	36,80

Small incubator TIN series

Phönix Instrument.

- **Operating temperature range from +5 °C above room temperature to 70 °C; temperature adjustment range from 20 to 70 °C**
- Digital timer (adjustable from 1 min to 99 hrs or continuous run)
- Glass window in the door for monitoring the samples
- Natural air flow (convection)
- Stainless steel interior
- Test opening (Ø 5 mm) on top, e.g. for introducing sensors

Technical specifications:

Art. No.	EEH0.1	EEH1.1
Type	TIN-IN16B	TIN-IN35B
Operating temperature	From +5 °C above room temperature to +70 °C	
Set temperature from	+20 °C	
Set temperature up to	+70 °C	
Vol.	16 l	35 l
Inner width	270 mm	360 mm
Inner depth	230 mm	300 mm
Inner height	255 mm	320 mm
Outer width	505 mm	595 mm
Outer depth	370 mm	440 mm
Outer height	400 mm	460 mm
Max. removable shelves	6	
Rated power	85 W	125 W
Warm-up period	18 min (37 °C)	22 min (37 °C)
Temperature variance	±0,4 K	
Weight	23 kg	33 kg
Mains connection	230 V, 50/60 Hz	

Delivery incl. 2 removable shelves.

Type	Vol. (l)	Art. No.	Pack Qty.	€
TIN-IN16B	16	**EEH0.1**	1 unit(s)	838,50
TIN-IN35B	35	**EEH1.1**	1 unit(s)	972,90

Accessories grate made of stainless steel for TIN series incubators

Phönix Instrument.

Suitable for	Art. No.	Pack Qty.	€
for TIN-IN16B	**EEH2.1**	1 unit(s)	64,50
for TIN-IN35B	**EEH3.1**	1 unit(s)	74,05

Incubator BD-S Solid.Line

Binder.

- **Operating temperature range from +5 °C above room temperature to 70 °C**
- APT.line™ pre-heating chamber technology
- Natural convection
- Adjustable exhaust air flap
- Controller with timer function (1 min to 99 h)
- Inner door made of safety glass
- Integrated Class 3.1 temperature safety device (DIN 12880) with visual alarm

Technical specifications:

Art. No.	KCT5.1	KCT6.1
Type	BD-S 056	BD-S 115
Operating temperature	From +5 °C above room temperature to 70 °C	
Vol.	62 l	118 l
Resolution	1 °C	
Inner width	400 mm	550 mm
Inner depth	350 mm	390 mm
Inner height	440 mm	550 mm
Outer width	614 mm	764 mm
Outer depth	580 mm	662 mm
Outer height	625 mm	735 mm
Max. removable shelves	4	5
Temporal temp. variance	±0,1 °C	±0,2 °C
Spatial temp. deviation	±0,7 °C	±0,5 °C
Weight	41 kg	57 kg
Mains connection	230 V, 50 Hz	

Delivery incl. two chrome-plated insertable grates.

Type	Vol. (l)	Art. No.	Pack Qty.	€
BD-S 056	62	**KCT5.1**	1 unit(s)	1.268,50
BD-S 115	118	**KCT6.1**	1 unit(s)	1.723,25

Accessories racks, chrome-plated for Solid.Line incubators and drying ovens

Binder.

Suitable for	Art. No.	Pack Qty.	€
for BD-S 056/ED-S 056/FD-S 056	**KCT7.1**	1 unit(s)	43,90
for BD-S 115/ED-S 115/FD-S 115	**KCT8.1**	1 unit(s)	62,80

Incubator Heratherm™ Protocol series

Thermo.

General features:

- Housing interior with round edges make it easy to clean
- With additional inner glass door
- RS 232 port
- Natural convection minimises dessication of samples; air circulation achieves more accurate temperatures
- Handle and display (65 mm) not included in depth; adjustable feet (35 mm) not included in height
- Mains connection 230 V, 50 Hz

Technical specifications:

Art. No.	PL96.1	PL97.1	PL98.1	PL99.1	PP00.1	PP01.1
Type	IGS60	IGS100	IGS180	IMH60	IMH100	IMH180
Operating temperature	From +5 °C above room temperature to +75 °C			From +5 °C above room temperature to +105 °C		
Vol.	75 l	117 l	194 l	66 l	104 l	178 l
Inner width	354 mm	464 mm		354 mm	464 mm	
Inner depth	414 mm		589 mm	368 mm		543 mm
Inner height	508 mm	608 mm	708 mm	508 mm	608 mm	708 mm
Outer width	530 mm	640 mm		530 mm	640 mm	
Outer depth	565 mm		738 mm	565 mm		738 mm
Outer height	720 mm	820 mm	920 mm	720 mm	820 mm	920 mm
Max. removable shelves	13	16	19	13	16	19
Rated power	300 W	520 W	710 W	850 W	1,100 W	1,300 W
Temporal temp. variance	±0,2 °C			±0,1 °C		
Spatial temp. deviation	±0,6 °C			±0,2 °C	±0,3 °C	±0,4 °C
Weight	40 kg	51 kg	65 kg	45 kg	56 kg	70 kg
Mains connection	230 V, 50 Hz					

Delivery incl. two removable shelves. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

General Protocol with natural convection

- **Operating temperature range: From +5 °C above room temperature to 75 °C**
- Stainless steel interior (1.4016)
- Integrated timer (1 min to 99 h, 59 min)
- Microprocessor control
- Actual temperature display
- Setting accuracy ±0.1 K
- Automatic overheating alarm

Type	Vol. (l)	Art. No.	Pack Qty.	€
IGS60	75	**PL96.1**	1 unit(s)	1.397,00
IGS100	117	**PL97.1**	1 unit(s)	1.971,00
IGS180	194	**PL98.1**	1 unit(s)	2.744,00

Advanced Protocol with air-circulation fan

- **Operating temperature range: From +5 °C above room temperature to 105 °C**
- Stainless steel interior (1.4301)
- Digital timer for daily/weekly on/off cycles
- Setting accuracy ±0.1 K
- Automatic overheating alarm
- Cable conduit (Ø 50 mm) at the rear
- With varnished housing
- With air-circulation fan: Dual convection with adjustable fan speed from 0 (corresponds to natural convection) to 100%

Type	Vol. (l)	Art. No.	Pack Qty.	€
IMH60	66	**PL99.1**	1 unit(s)	2.157,00
IMH100	104	**PP00.1**	1 unit(s)	2.872,00
IMH180	178	**PP01.1**	1 unit(s)	4.106,00

Accessories shelf kit for Heratherm® incubators

Thermo.

Shelf kit: One shelf with two mounting clips.

Designation	Art. No.	Pack Qty.	€
for IGS60	**PP02.1**	1 unit(s)	113,00
for IGS100	**PP03.1**	1 unit(s)	140,00
for IGS180	**PP04.1**	1 unit(s)	152,00
for IMH60	**PP05.1**	1 unit(s)	113,00
for IMH100	**PP06.1**	1 unit(s)	140,00
Insert kit for IMH180 and IMP180	**PP07.1**	1 unit(s)	152,00

Incubator IN/INplus series

Memmert.

General features:

- **Operating temperature range from 5 °C above room temperature to 80 °C**
  Set temperatures from 20 to 80 °C
  Adjustment accuracy 0.1 K
- Stainless steel interior (1.4301)
- Fully insulated stainless steel door (two-wing from size 450 upwards)
- **With additional inner glass door**
- Fresh air supply by electronically adjustable exhaust air flap
- Textured stainless steel housing
- Model sizes 450 and 750, with moveable and lockable rollers
- Depth plus door handle: 56 mm
- Incl. factory calibration certificate valid for +37 °C

Other features:

- **With natural air circulation (convection)**
- German, English, French and Spanish language options
- Digital timer (adjustable from 1 min to 99 d, 23 h) or continuous operation
- “SetpointWAIT” function – process time does not start until the target temperature is reached

Delivery incl. stainless steel grating (models 30 and 55: One grate, models 75 to 750: Two grates). Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

IN series models

- Graphical single TFT display with touch screen for operation and displaying temperature, program runtime and air flap position
- Integrated data logger with 10-year memory
- With Ethernet communication port for reading out log data
- Protection against overheating

Technical specifications:

Art. No.	TY30.1	TY31.1	TY32.1	TY33.1	TY34.1	TY35.1	TY36.1	TY37.1
Type	IN 30	IN 55	IN 75	IN 110	IN 160	IN 260	IN 450	IN 750
Operating temperature	From +5 °C above room temperature to +80 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	749 l
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer depth	434 mm	514 mm		584 mm		684 mm	784 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Max. removable shelves	3	4	6	5	8	9	8	14
Rated power	800 W	1,000 W	1,250 W	1,400 W	1,600 W	1,700 W	1,800 W	2,000 W
Temporal temp. variance	<±0,2 °C							
Spatial temp. deviation	<±0,7 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz							

Type	Vol. (l)	Art. No.	Pack Qty.	€
IN 30	32	**TY30.1**	1 unit(s)	1.094,00
IN 55	53	**TY31.1**	1 unit(s)	1.350,00
IN 75	74	**TY32.1**	1 unit(s)	1.599,00
IN 110	108	**TY33.1**	1 unit(s)	1.886,00
IN 160	161	**TY34.1**	1 unit(s)	2.511,00
IN 260	256	**TY35.1**	1 unit(s)	3.317,00
IN 450	449	**TY36.1**	1 unit(s)	4.418,00
IN 750	749	**TY37.1**	1 unit(s)	5.973,00

Incubators

INplus series models

- Two graphical TFT displays with touchscreen for operation and displaying temperature, program runtime, air damper position and graphical display of temperature distribution
- Integrated data logger with 10-year memory
- **Display of recorded log data (max. 10,000 values correspond to approx. one week) directly on the device**
- Application-specific correction of the heat output distribution between the upper and lower heating groups within an adjustment range from -50 % to +50 %
- With Ethernet communication port for log data readout as well as for transmitting and launching programs and online logging
- With sterilisation program: Four-hour program at 160 °C for sterilisation of the interior, incl. all fittings and sensors
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and weekly programs)**
- Definition of individual min./max. values for protection against excessive/insufficient temperatures

Technical specifications:

Art. No.	TY38.1	TY39.1	TY40.1	TY41.1	TY42.1	TY43.1	TY44.1	TY45.1
Type	INplus 30	INplus 55	INplus 75	INplus 110	INplus 160	INplus 260	INplus 450	INplus 750
Operating temperature	From +5 °C above room temperature to +80 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	749 l
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer depth	434 mm	514 mm		584 mm		684 mm	784 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Max. removable shelves	3	4	6	5	8	9	8	14
Rated power	800 W	1,000 W	1,250 W	1,400 W	1,600 W	1,700 W	1,800 W	2,000 W
Temporal temp. variance	<±0,05 °C							
Spatial temp. deviation	<±0,7 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz							

Type	Vol. (l)	Art. No.	Pack Qty.	€
INplus 30	32	**TY38.1**	1 unit(s)	1.826,00
INplus 55	53	**TY39.1**	1 unit(s)	2.060,00
INplus 75	74	**TY40.1**	1 unit(s)	2.324,00
INplus 110	108	**TY41.1**	1 unit(s)	2.610,00
INplus 160	161	**TY42.1**	1 unit(s)	3.256,00
INplus 260	256	**TY43.1**	1 unit(s)	3.966,00
INplus 450	449	**TY44.1**	1 unit(s)	5.156,00
INplus 750	749	**TY45.1**	1 unit(s)	6.758,00

The complete ROTH product range in the ROTH webshop

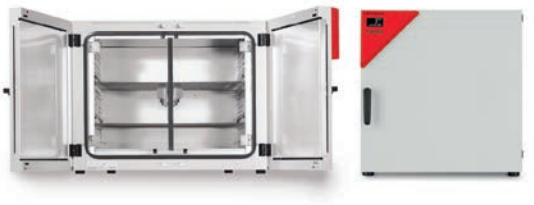
Over 30,000 items orderable around the clock!

Discover everything at **www.carlroth.com**

- Latest NEW products
- Continuous range extensions
- Detailed product information
- Additional information about the products
- Regular special offers
- ... and much more. Stay curious!

Incubator BD/BF series

Binder.



General features:

- **Operating temperature range from 7 °C through room temperature right up to 100 °C**
  Setting temperatures from 30 to 100 °C
  Setting accuracy: ±0.1 °C
- Models with volumes of 400 l or more come with a double-leaf door
- With integrated timer with range from 0 to 99 h
- With additional inner door of safety glass
- 100 °C disinfection routine for reduced cross-contamination
- Adjustable air exchange and rear exhaust air pipe Ø 50 mm
- Class 3.1 temperature safety device (DIN 12880) with visual alarm
- Depth, incl. door handle and exhaust
- Mains connection 230 V, 50/60 Hz

Delivery incl. two chrome-plated grates.

BD series with natural air circulation (convection)

- Models BD 56, BD 115 and BD 260 also have a USB port for recording data (time, actual temperature value, set temperature value, etc.)

Technical specifications:

Art. No.	CKE6.1	CKE7.1	CKE8.1	CKE9.1	CKH0.1	CKH1.1
Type	BD 23	BD 56	BD 115	BD 260	BD 400	BD 720
Operating temperature	From +7 °C above room temperature to +100 °C					
Set temperature from	+30 °C					
Set temperature up to	+100 °C					
Vol.	20 l	57 l	112 l	253 l	400 l	737 l
Inner width	222 mm	360 mm	510 mm	610 mm	1,000 mm	960 mm
Inner depth	277 mm	380 mm	420 mm	545 mm	500 mm	600 mm
Inner height	330 mm	420 mm	530 mm	760 mm	800 mm	1,280 mm
Outer width	435 mm	560 mm	710 mm	810 mm	1,235 mm	1,165 mm
Outer depth	620 mm	640 mm	680 mm	815 mm	860 mm	910 mm
Outer height	495 mm	625 mm	735 mm	965 mm	1,025 mm	1,590 mm
Max. removable shelves	3	4	5	7	10	15
Rated power	200 W	300 W	350 W	850 W		1,250 W
Temporal temp. variance	±0,2 °C	±0,1 °C		±0,2 °C	±0,1 °C	
Spatial temp. deviation	±0,5 °C	±0,3 °C			±0,5 °C	
Weight	27 kg	39 kg	54 kg	85 kg	135 kg	170 kg
Mains connection	230 V, 50/60 Hz					

Type	Vol. (l)	Art. No.	Pack Qty.	€
BD 23	20	**CKE6.1**	1 unit(s)	1.867,30
BD 56	57	**CKE7.1**	1 unit(s)	1.618,95
BD 115	112	**CKE8.1**	1 unit(s)	2.177,95
BD 260	253	**CKE9.1**	1 unit(s)	3.690,50
BD 400	400	**CKH0.1**	1 unit(s)	5.279,35
BD 720	737	**CKH1.1**	1 unit(s)	7.176,70

Incubators

BF series with forced air circulation (fan)

- Fan speed cannot be regulated or switched off
- Timer function selection:
  – Heater is switched off when the set time expires
  – The set timer does not start until the actual value reaches the selected set value. The heater is switched off when the time expires.
  – Heater is switched on after set time expires and stays in continuous operation.
- Models BF 56, BF 115 and BF 260 also have a USB port for recording data (time, actual temperature value, set temperature value, etc.)

Technical specifications:

Art. No.	CKH2.1	CKH3.1	CKH4.1	CKH5.1	CKH6.1
Type	BF 56	BF 115	BF 260	BF 400	BF 720
Operating temperature	From +7 °C above room temperature to +100 °C				
Set temperature from	+30 °C				
Set temperature up to	+100 °C				
Vol.	59 l	114 l	257 l	400 l	734 l
Inner width	400 mm	550 mm	650 mm	1,000 mm	
Inner depth	340 mm	380 mm	510 mm	500 mm	565 mm
Inner height	440 mm	550 mm	780 mm	800 mm	1,300 mm
Outer width	560 mm	710 mm	810 mm	1,235 mm	1,165 mm
Outer depth	640 mm	680 mm	815 mm	875 mm	910 mm
Outer height	625 mm	735 mm	965 mm	1,025 mm	1,590 mm
Max. removable shelves	4	5	7	10	15
Rated power	400 W		900 W	850 W	1,250 W
Temporal temp. variance	±0,1 °C				
Spatial temp. deviation	±0,2 °C	±0,3 °C	±0,2 °C	±0,4 °C	
Weight	38 kg	54 kg	85 kg	145 kg	165 kg
Mains connection	230 V, 50/60 Hz				

Type	Vol. (l)	Art. No.	Pack Qty.	€
BF 56	59	**CKH2.1**	1 unit(s)	2.198,40
BF 115	114	**CKH3.1**	1 unit(s)	2.870,25
BF 260	257	**CKH4.1**	1 unit(s)	4.468,80
BF 400	400	**CKH5.1**	1 unit(s)	5.585,70
BF 720	734	**CKH6.1**	1 unit(s)	7.459,45

Accessories grate for incubators and drying ovens for the BD, BF, ED, FD and FED series

Binder.

Grids, chrome plated

Suitable for	Art. No.	Pack Qty.	€
for BD 23, ED 23 and FD 23	**CKE0.1**	1 unit(s)	55,55
for BD 56 and ED 56	**CKE1.1**	1 unit(s)	89,15
for BF 56, FD 56 and FED 56	**ECY1.1**	1 unit(s)	89,15
for BD 115 and ED 115	**CKE2.1**	1 unit(s)	137,30
for BF 115, FD 115 and FED 115	**ECY2.1**	1 unit(s)	137,30
for BD 260 and ED 260	**CKE3.1**	1 unit(s)	251,55
for BF 260, FD 260 and FED 260	**ECY3.1**	1 unit(s)	255,85
for BD 400, BF 400, ED 400 and FED 400	**CKE4.1**	1 unit(s)	283,80
for BD 720 and ED 720	**CKE5.1**	1 unit(s)	308,55
for BF 720 and FED 720	**HPA7.1**	1 unit(s)	308,55

High-capacity incubators Heratherm™

Thermo.

General features:

- Free-standing devices with fixed rollers
- With internal glass door
- Stainless steel interior
- RS 232 port
- Not including depth of handle and display (65 mm) and height of rollers (108 mm)
- Mains connection 230 V, 50 Hz

Technical specifications:

Art. No.	XH26.1	XH27.1	XH28.1	XH29.1
Type	IGS400	IGS750	IMH400-S	IMH750-S
Operating temperature	From +5 °C above room temperature to +75 °C		From +5 °C above room temperature to +105 °C	
Vol.	405 l	747 l	381 l	702 l
Inner width	544 mm	1,004 mm	544 mm	1,004 mm
Inner depth	569 mm		524 mm	
Inner height	1,307 mm		1,335 mm	
Outer width	778 mm	1,261 mm	778 mm	1,261 mm
Outer depth	770 mm			
Outer height	1,545 mm			
Max. removable shelves	39			
Rated power	1,200 W	1,500 W	1,400 W	1,600 W
Temporal temp. variance	±0,4 °C		±0,2 °C	
Spatial temp. deviation	±0,5 °C	±1,3 °C	±0,2 °C	±0,3 °C
Weight	145 kg	201 kg	144 kg	205 kg
Mains connection	230 V, 50 Hz			

Delivery incl. two stainless steel perforated sheets. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

General Protocol

- **Operating temperature range from +5 °C above room temperature to 75 °C**
- With natural convection
- Integrated timer (1 min to 99 h, 59 min)
- Actual temperature display; setting accuracy ±0.1 K

Type	Vol. (l)	Art. No.	Pack Qty.	€
IGS400	405	**XH26.1**	1 unit(s)	4.762,00
IGS750	747	**XH27.1**	1 unit(s)	6.515,00

Advanced Protocol

- **Operating temperature range from +5 °C above room temperature to 105 °C**
- Setting accuracy ±0.1 K
- Mechanical convection – two-stage fan: Can run fast or slow, but cannot be switched off
- Cable conduit (Ø 19 mm), e.g. for fitting sensors
- An audible alarm sounds if the door is accidentally left open
- Switch on/off after a preset time
- Weekly time setting or real-time control
- Programmable control for temperature ramps and dwell times (memory for 10 programs each with 10 individual steps)

Type	Vol. (l)	Art. No.	Pack Qty.	€
IMH400-S	381	**XH28.1**	1 unit(s)	5.896,00
IMH750-S	702	**XH29.1**	1 unit(s)	7.448,00

Accessories perforated sheet kit for Heratherm® high-capacity incubators

Thermo.

Perforated shelf kit: One shelf with two supports.

Designation	Art. No.	Pack Qty.	€
Insert kit for IGS400, IMH400-S and IMP400	**XH30.1**	1 unit(s)	236,00
Insert kit for IGS750, IMH750-S	**XH31.1**	1 unit(s)	315,00

Incubators

Incubator inserts

Made of PP, stackable. For easy organisation of Petri dishes and convenient transfer to other incubation or storage systems.
With 16 ventilation holes and two labelling areas.
Outer dimensions: W 251 mm x D 237 mm x H 35 mm.
Loading options: E.g. Five Petri dishes Ø 100 mm
or 15 Petri dishes Ø 60 mm or 21 culture bottles of 25 cm².

Type	Art. No.	Pack Qty.	€
Incubator inserts	**YC19.1**	3 unit(s)	72,60

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Peltier cooling incubator KT series

Binder.

General features:

- **Operating temperature range: From 4 to 100 °C**
  Setting accuracy: ±0.1 °C
- 5.7-inch LCD monitor and turn/push button for input
- Variable time and weekday programming
  – Storage capacity for up to 60 programs (for KT 53) or 100 programs (for KT 115)
  – Measurement data can be saved to internal memory
  – Readout of programs and data via USB port
  – Adjustable fan speed (min. speed 30%)
- With additional inner door of safety glass
- Ethernet interface
- Class 3.1 temperature safety device (DIN 12880) with visual and audible alarms

Technical specifications:

Art. No.	CKK0.1	CKK1.1
Type	KT 53	KT 115
Vol.	53 l	102 l
Inner width	400 mm	600 mm
Inner depth	334 mm	355 mm
Inner height	400 mm	455 mm
Outer width	660 mm	860 mm
Outer depth	695 mm	815 mm
Outer height	635 mm	715 mm
Max. removable shelves	5	6
Rated power	400 W	700 W
Temporal temp. variance	±0,1 K	
Spatial temp. deviation	±0,3 K	
Weight	63 kg	83 kg
Mains connection	200–240 V, 50/60 Hz	

Delivery incl. two stainless steel grids.

Type	Vol. (l)	Art. No.	Pack Qty.	€
KT 53	53	**CKK0.1**	1 unit(s)	4.631,10
KT 115	102	**CKK1.1**	1 unit(s)	5.682,45

Cooling incubators

Cooling incubator KB series

Binder.

General features:

- **Operating temperature range:**
  KB 23: From 0 to 100 °C
  KB 53 and KB 115: From -5 to 100 °C
  Setting accuracy: ±0.1 °C
- **Cooling using a compression refrigerator**
- Controller with two programs, each with 10 individual steps
  – Integrated seven-day programmable timer with real-time function
  – Adjustable ramp function via program editor
  – Adjustable fan speed (min. speed 30%)
- With additional inner door of safety glass
- Class 3.1 temperature safety device (DIN 12880) with visual and audible alarms
- Mains connection 230 V, 50 Hz

Technical specifications:

Art. No.	CKH7.1	CKH8.1	CKH9.1
Type	KB 23	KB 53	KB 115
Operating temperature	From 0 to +100 °C	From -5 to +100 °C	
Vol.	20 l	53 l	115 l
Inner width	222 mm	400 mm	600 mm
Inner depth	277 mm	330 mm	400 mm
Inner height	330 mm	400 mm	480 mm
Outer width	435 mm	635 mm	835 mm
Outer depth	595 mm	660 mm	700 mm
Outer height	620 mm	835 mm	1,025 mm
Max. removable shelves	3	4	5
Rated power	340 W	460 W	
Temporal temp. variance	K K	±0,1 K	
Spatial temp. deviation	±0,3 K	±0,2 K	
Weight	44 kg	72 kg	106 kg
Mains connection	230 V, 50 Hz		

Delivery incl. two stainless steel grids.

Type	Vol. (l)	Art. No.	Pack Qty.	€
KB 23	20	**CKH7.1**	1 unit(s)	5.082,60
KB 53	53	**CKH8.1**	1 unit(s)	5.519,05
KB 115	115	**CKH9.1**	1 unit(s)	6.597,30

Peltier cooling incubator

Memmert.

General features:

- **Operating temperature range of 0 to 70 °C (devices with inner socket have a limited temperature range of max. 60 °C)**
  Set temperature of 0 to 70 °C
  Setting accuracy 0.1 K
- Stainless steel interior (1.4301)
- Fully insulated stainless steel door (two-wing from size 450 upwards)
- **With additional inner glass door**
- Textured stainless steel housing
- **Incl.** factory calibration certificate valid for +10 °C and +37 °C

Other features:

- German, English, French and Spanish language options
- Digital timer (adjustable from 1 min to 99 d, 23 h) or continuous operation
- "SetpointWAIT" function – process time does not start until the target temperature is reached

Delivery incl. stainless steel grating (models 30 and 55: One grate; models 110 and 260: Two grates). Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

IPP standard models with single TFT display

- Graphical single TFT display with touchscreen for operation and displaying temperature and timer runtime
- Integrated data logger with a memory capacity of up to 10 years
- With Ethernet communication port
- Protection against overheating

Technical specifications:

Art. No.	TY46.1	TY47.1	TY48.1	TY49.1
Type	IPP 30	IPP 55	IPP 110eco	IPP 260eco
Operating temperature	From 0 to 70 °C			
Vol.	32 l	53 l	108 l	256 l
Inner width	400 mm		560 mm	640 mm
Inner depth	240 mm	320 mm	368 mm	468 mm
Inner height	320 mm	400 mm	480 mm	800 mm
Outer width	585 mm		745 mm	824 mm
Outer depth	562 mm	642 mm	722 mm	822 mm
Outer height	704 mm	784 mm	864 mm	1,183 mm
Peltier elements	1		2	3
Max. removable shelves	3	4	5	9
Rated power	140 W	275 W	320 W	600 W
Temporal temp. variance	±0,1 °C			
Spatial temp. deviation	±0,4 °C			
Weight	40 kg	52 kg	78 kg	114 kg
Mains connection	230 V, 50/60 Hz			

Type	Vol. (l)	Art. No.	Pack Qty.	€
IPP 30	32	**TY46.1**	1 unit(s)	2.777,00
IPP 55	53	**TY47.1**	1 unit(s)	3.023,00
IPP 110eco	108	**TY48.1**	1 unit(s)	4.507,00
IPP 260eco	256	**TY49.1**	1 unit(s)	6.304,00

Cooling incubators

IPP-Soc models with inner socket

- **Version with inner socket** (current capacity 220 V/2.2 A) can be switched off via the master switch and is not separately switchable. Due to the socket, the temperature range is limited to max. +60 °C.
- Graphical single TFT display with touchscreen for operation and displaying temperature and timer runtime
- Integrated data logger with up to 10-year memory
- With Ethernet communication port
- Overheating protection

Technical specifications:

Art. No.	TY50.1	TY51.1	TY52.1	TY53.1
Type	IPP-Soc 30	IPP-Soc 55	IPP-Soc 110eco	IPP-Soc 260eco
Operating temperature	From 0 to 60 °C			
Vol.	32 l	53 l	108 l	256 l
Inner width	400 mm		560 mm	640 mm
Inner depth	240 mm	320 mm	368 mm	468 mm
Inner height	320 mm	400 mm	480 mm	800 mm
Outer width	585 mm		745 mm	824 mm
Outer depth	562 mm	642 mm	722 mm	822 mm
Outer height	704 mm	784 mm	864 mm	1,183 mm
Peltier elements	1		2	3
Max. removable shelves	3	4	5	9
Rated power	140 W	275 W	320 W	600 W
Temporal temp. variance	±0,1 °C			
Spatial temp. deviation	±0,4 °C			
Weight	40 kg	52 kg	78 kg	114 kg
Mains connection	230 V, 50/60 Hz			

Type	Vol. (l)	Art. No.	Pack Qty.	€
IPP-Soc 30	32	**TY50.1**	1 unit(s)	3.282,00
IPP-Soc 55	53	**TY51.1**	1 unit(s)	3.528,00
IPP-Soc 110eco	108	**TY52.1**	1 unit(s)	5.012,00
IPP-Soc 260eco	256	**TY53.1**	1 unit(s)	6.809,00

IPPplus models with two graphical TFT displays

- Two graphical TFT displays with touchscreen for operation and displaying temperature, program runtime and graphical display of program flow
- Integrated data logger with a memory capacity of up to 10 years
- **Display of recorded log data (max. 10,000 values correspond to approx. one week) directly on the device**
- Application-specific correction of the heat output distribution between the upper and lower heating groups within an adjustment range from -50 to +50 %
- With Ethernet communication port for reading out log data as well as for transmitting and launching programs and online logging
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and weekly programs)**
- Definition of individual min./max. values for protection against excessive/insufficient temperatures

Technical specifications:

Art. No.	TY54.1	TY55.1	TY56.1	TY57.1
Type	IPPplus 30	IPPplus 55	IPPplus 110eco	IPPplus 260eco
Operating temperature	From 0 to 70 °C			
Vol.	32 l	53 l	108 l	256 l
Inner width	400 mm		560 mm	640 mm
Inner depth	240 mm	320 mm	368 mm	468 mm
Inner height	320 mm	400 mm	480 mm	800 mm
Outer width	585 mm		745 mm	824 mm
Outer depth	562 mm	642 mm	722 mm	822 mm
Outer height	704 mm	784 mm	864 mm	1,183 mm
Peltier elements	1		2	3
Max. removable shelves	3	4	5	9
Rated power	140 W	275 W	320 W	600 W
Temporal temp. variance	±0,1 °C			
Spatial temp. deviation	±0,4 °C			
Weight	40 kg	52 kg	78 kg	114 kg
Mains connection	230 V, 50/60 Hz			

Type	Vol. (l)	Art. No.	Pack Qty.	€
IPPplus 30	32	**TY54.1**	1 unit(s)	3.124,00
IPPplus 55	53	**TY55.1**	1 unit(s)	3.369,00
IPPplus 110eco	108	**TY56.1**	1 unit(s)	4.507,00
IPPplus 260eco	256	**TY57.1**	1 unit(s)	6.304,00

Cooling incubators

Cooling incubator Heratherm™ IMP series

Thermo.

Applications: Development processes for new products, quality assurance in the food, beverage and cosmetics industries, water analysis, and cell culture and microbiological analyses.

General features:

- **Operating temperature range: from 5 to 70 °C**, setting accuracy: ±0.1 °C
- Peltier technology
- Heated door minimises condensation
- Timer with weekly/daily or real-time mode
- Programming option for defined temperature ramps, with cooling and dwell time: Storage of up to 10 programs with 10 temperature stages, loop program and selection mode at end of cycle
- Adjustable over-temperature shut-down
- Fan speeds adapt for power optimization
- Inside glass door for sample monitoring
- **Cable conduit for data monitoring (42 mm) on rear side**
- RS 232 port
- Stainless steel interior (1.4301/ASTM 304)
- IMP180 tabletop device: Handle/display not included in depth (65 mm) and adjustable feet not included in height (35 mm) IMP400 standing device: Handle/display not included in depth (65 mm) and rollers not included in height (180 mm)

Technical specifications:

Art. No.	HCE7.1	HCE9.1	HCE8.1	HCH0.1
Type	IMP180 desktop unit		IMP400 floor standing unit	
Operating temperature	From 5 to 70 °C			
Vol.	178 l		381 l	
Inner width	464 mm		544 mm	
Inner depth	543 mm		524 mm	
Inner height	708 mm		1,335 mm	
Outer width	640 mm		778 mm	
Outer depth	738 mm		770 mm	
Outer height	920 mm		1,545 mm	
Max. removable shelves	9		17	
Rated power	80 W		150 W	
Temporal temp. variance	±0,1 K			
Spatial temp. deviation	±0,2/±0,5 K (20/37 °C)		±0,3/±0,7 K (20/37 °C)	
Weight	97 kg		216 kg	
Mains connection	100–230 V, 50/60 Hz			

Delivery incl. two stainless steel perforated sheet removable shelves (IMP180: W 439 x D 505 mm; IMP400: W 528 x D 468 mm). Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Standard version

Type	Vol. (l)	Art. No.	Pack Qty.	€
IMP180 desktop unit	178	**HCE7.1**	1 unit(s)	6.294,00
IMP400 floor standing unit	381	**HCE8.1**	1 unit(s)	8.742,00

With inside socket – not switchable

Type	Vol. (l)	Art. No.	Pack Qty.	€
IMP180 desktop unit	178	**HCE9.1**	1 unit(s)	6.994,00
IMP400 floor standing unit	381	**HCH0.1**	1 unit(s)	9.325,00

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

CO_2 incubators

CO_2 incubator Midi 40

Thermo.

For users in cell culture who wish to breed small cultures or have only limited space in the laboratory.

- **Operating temperature range from +5 °C above room temperature to 60 °C (in 0.1 °C increments) and CO_2 concentrations up to 20 % (in 0.1% increments)**
- Digital display for easy input of °C, CO_2 content and alarm limits
- Setpoints can be secured using a key-operated switch to prevent unwanted alteration of the operating parameters
- Seam-free interior made of stainless steel (non-corrosive stainless steel, type 304) with four extractable shelves
- Removable water container for a relative humidity of up to 95 %
- Inside door made of safety glass is heated by the outside door to avoid condensation
- To supply the incubator with CO_2, a separate gas cylinder or a central compressed-gas tank is required
- Conditioned water (demineralised/distilled and autoclaved or fully desalinated/distilled and autoclaved) is required for humidification

Technical specifications:

Art. No.	**ETT3.1**
Type	Midi 40
Operating temperature	From +5 °C above room temperature to +60 °C
Vol.	40 l
Inner width	305 mm
Inner depth	355 mm
Inner height	355 mm
Outer width	470 mm
Outer depth	597 mm
Outer height	465 mm
Required input pressure	1.0 bar, 99.5 % by volume medical CO_2 quality
Intake-air filtration	CO_2 filter, PTFE filter 0.3 µm
Temperature variance	±0,4 K
CO2 constancy	±0,10 %
Weight	32 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. four perforated stainless steel trays (W 343 x D 292 mm), water container (Ø 12.7 mm), CO_2 filter and hose set (ID 1.59 mm, OD 6.35 mm, approx. L 0.5 m). Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Vol. (l)	Art. No.	Pack Qty.	€
Midi 40	40	**ETT3.1**	1 unit(s)	4.740,00

CO_2 incubator BB 15

Thermo.

With air jacket heating for constant temperature as well as a second control circuit that assumes control of the set temperature in the case of a fault. The chamber floor is used as water reservoir (an electric suction pump is included in the scope of delivery for changing the water). The large water surface and direct heat transfer from the heated base achieve a faster humidity recovery time.

- **Operating temperature range from 3 °C above room temperature to 55 °C (in 0.1-°C-increments) and CO_2-concentrations up to 20 % (in 0.1-%-increments)**
- Digital display for °C and CO_2 content
- Tube penetration 42 mm in the rear wall allows operation of additional devices
- Stainless steel interior
- Constant moisture at 37 °C approx. 95 % RH
- Additional inside door made of glass, heated outside door
- To supply the incubator with CO_2, a separate gas cylinder or a central compressed-gas tank is required
- Conditioned water (demineralised/distilled and autoclaved or fully desalinated/distilled and autoclaved) is required for humidification

Technical specifications:

Art. No.	**ETT4.1**
Type	BB 15
Operating temperature	From +3 °C above room temperature to +55 °C
Vol.	151 l
Inner width	470 mm
Inner depth	530 mm
Inner height	607 mm
Outer width	637 mm
Outer depth	766 mm
Outer height	867 mm
Required input pressure	0.8–1.0 bar, 99.5 % by volume medical CO_2 quality
Intake-air filtration	CO_2 filter, PTFE filter 0.3 µm, PP filter housing
Max. removable shelves	10
Temporal temp. variance	±0,1 K
Spatial temp. deviation	±0,5 K
CO2 constancy	±0,3 %
Weight	70 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. three perforated sheet inserts (W 423 x D 455 mm), hose set (ID 4 mm, OD 10 mm, approx. L 3 m), CO_2 filter and electric immersion pump. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Vol. (l)	Art. No.	Pack Qty.	€
BB 15	151	**ETT4.1**	1 unit(s)	5.891,00

Drying and heating cabinets

Drying cabinet Solid.Line

Binder.

- APT.line™ pre-heating chamber technology
- Adjustable exhaust air flap
- Controller with timer function (1 min to 99 h)
- Integrated Class 2 temperature limiter (DIN 12880) with visual alarm

Technical specifications:

Art. No.	KCT9.1	KCX1.1	KCX0.1	KCX2.1
Type	ED-S 056	ED-S 115	FD-S 056	FD-S 115
Operating temperature	From +7 °C above room temperature to 250 °C		From +10 °C above room temperature to 250 °C	
Vol.	62 l	118 l	55 l	106 l
Inner width	400 mm	550 mm	400 mm	550 mm
Inner height	440 mm	550 mm	440 mm	550 mm
Inner depth	350 mm	390 mm	310 mm	350 mm
Outer width	614 mm	764 mm	614 mm	764 mm
Outer height	625 mm	735 mm	625 mm	735 mm
Outer depth	580 mm	630 mm	580 mm	630 mm
Max. removable shelves	4	5	4	5
Temporal temp. variance	±0,8 °C		±0,5 °C	
Spatial temp. deviation	±2,8 °C		±2,6 °C	
Weight	41 kg	57 kg	41 kg	57 kg
Mains connection	230 V, 50 Hz			

Delivery incl. 1 chrome-plated insertable grate.

Models: ED-S with natural air circulation

- With natural air circulation (convection)
- **Operating temperature range from +7 °C above room temperature to 250 °C**

Type	Vol. (l)	Art. No.	Pack Qty.	€
ED-S 056	62	**KCT9.1**	1 unit(s)	1.222,30
ED-S 115	118	**KCX1.1**	1 unit(s)	1.524,35

Models: FD-S with ventilation

- With ventilation (fan speed cannot be regulated or switched off)
- **Operating temperature range from +10 °C above room temperature to 250 °C**

Type	Vol. (l)	Art. No.	Pack Qty.	€
FD-S 056	55	**KCX0.1**	1 unit(s)	1.489,95
FD-S 115	106	**KCX2.1**	1 unit(s)	1.943,60

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Drying and heating cabinets

Drying cabinet

Memmert.

Models: UN, UNplus, UF and UFplus

General features:

- Stainless steel interior (1.4301)
- Fully insulated stainless steel door (two-wing from size 450 upwards)
- Fresh air supply by electronically adjustable exhaust air flap
- Textured stainless steel housing
- Model sizes 450 and 750 with moveable and lockable rollers
- Interior depth minus 39 mm for devices with forced air circulation
- Depth plus door handle 56 mm
- Incl. factory calibration certificate valid for +160 °C
- Power supply for models 30 to 260: 230 V, 50/60 Hz, power supply for models 450 and 750: 400 V and 3 x 220 V, n/a 50/60 Hz

Other features:

- German, English, French and Spanish language options
- Digital timer (adjustable from 1 min to 99 d, 23 h) or continuous operation
- “SetpointWAIT” function – process time does not start until the target temperature is reached

Delivery incl. stainless steel grating (models 30 and 55: 1 grate, models 75 to 750: 2 grates). Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Models: UN with natural air circulation (convection)

- **Operating temperature range from 5 °C above room temperature to 300 °C**
  Setting temperature from 20 to 300 °C
  Setting accuracy up to 99.9 °C: 0.1 K, from 100 °C: 0.5
- Graphical single TFT display with touch screen for operation and displaying temperature, program runtime and air flap position
- Integrated data logger with 10-year memory
- With Ethernet communication port for reading out log data
- Protection against overheating

Technical specifications:

Art. No.	TX98.1	TX99.1	TY00.1	TY01.1	TY02.1	TY03.1	TY04.1	TY05.1
Type	UN 30	UN 55	UN 75	UN 110	UN 160	UN 260	UN 450	UN 750
Operating temperature	From 5 °C above room temperature to 300 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	749 l
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Outer depth	434 mm	541 mm		584 mm		684 mm	784 mm	
Max. removable shelves	3	4	6	5	8	9	8	14
Power consumption	1,600 W	2,000 W	2,500 W	2,800 W	3,200 W	3,400 W	5,800 W	7,000 W
Temporal temp. variance	<±0,5 °C							
Spatial temp. deviation	<±2,7 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz						400 V, 3 phases, 50 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
UN 30	32	**TX98.1**	1 unit(s)	1.064,00
UN 55	53	**TX99.1**	1 unit(s)	1.233,00
UN 75	74	**TY00.1**	1 unit(s)	1.504,00
UN 110	108	**TY01.1**	1 unit(s)	1.745,00
UN 160	161	**TY02.1**	1 unit(s)	2.323,00
UN 260	256	**TY03.1**	1 unit(s)	3.075,00
UN 450	449	**TY04.1**	1 unit(s)	4.070,00
UN 750	749	**TY05.1**	1 unit(s)	5.531,00

Drying and heating cabinets

Models: UF with forced air circulation (fan)

- **Operating temperature range from 10 °C above room temperature to 300 °C**
  Setting temperature from 20 to 300 °C
  Setting accuracy up to 99.9 °C: 0.1 K, from 100 °C: 0.5
- Graphical single TFT display with touch screen for operation and displaying temperature, program runtime and air flap position
- Integrated data logger with 10-year memory
- With Ethernet communication port for reading out log data
- Protection against overheating
- Quiet air turbine for air circulation mode (air turbine can be controlled and switched off)

Technical specifications:

Art. No.	TY06.1	TY07.1	TY08.1	TY09.1	TY10.1	TY11.1	TY12.1	TY13.1
Type	UF 30	UF 55	UF 75	UF 110	UF 160	UF 260	UF 450	UF 750
Operating temperature	From 10 °C above room temperature to 300 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Outer depth	434 mm	541 mm		584 mm		684 mm	784 mm	
Max. removable shelves	3	4	6	5	8	9	8	14
Power consumption	1,600 W	2,000 W	2,500 W	2,800 W	3,200 W	3,400 W	5,800 W	7,000 W
Temporal temp. variance	<±0,5 °C							
Spatial temp. deviation	<±2,7 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz						400 V, 3 phases, 50 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
UF 30	32	**TY06.1**	1 unit(s)	1.265,00
UF 55	53	**TY07.1**	1 unit(s)	1.525,00
UF 75	74	**TY08.1**	1 unit(s)	1.804,00
UF 110	108	**TY09.1**	1 unit(s)	2.107,00
UF 160	161	**TY10.1**	1 unit(s)	2.773,00
UF 260	256	**TY11.1**	1 unit(s)	3.536,00
UF 450	449	**TY12.1**	1 unit(s)	4.630,00
UF 750	449	**TY13.1**	1 unit(s)	6.250,00

Drying and heating cabinets

Models: UNplus with natural air circulation (convection)

- **Operating temperature range from 5 °C above room temperature to 300 °C**
  Setting temperature from 20 to 300 °C
  Setting accuracy up to 99.9 °C: 0.1 K, from 100 °C: 0.5
- Two graphical TFT displays with touchscreen for operation and displaying temperature, program runtime, air damper position and graphical display of programme flow
- Integrated data logger with 10-year memory
- **Display of recorded log data (max. 10,000 values correspond to approx. 1 week) directly on the device**
- Application-specific correction of the heat output distribution between the upper and lower heating groups within an adjustment range from -50 % to +50 %
- With Ethernet communication port for reading out log data as well as for transmitting and launching programs and online logging
- Definition of individual min./max. values for protection against excessive/insufficient temperatures
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and weekly programs)**

Technical specifications:

Art. No.	TY14.1	TY15.1	TY16.1	TY17.1	TY18.1	TY19.1	TY20.1	TY21.1
Type	UNplus 30	UNplus 55	UNplus 75	UNplus 110	UNplus 160	UNplus 260	UNplus 450	UNplus 750
Operating temperature	From 5 °C above room temperature to 300 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	749 l
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Outer depth	434 mm	541 mm		584 mm		684 mm	784 mm	
Max. removable shelves	3	4	6	5	8	9	8	14
Power consumption	1,600 W	2,000 W	2,500 W	2,800 W	3,200 W	3,400 W	5,800 W	7,000 W
Temporal temp. variance	<±0,25 °C							
Spatial temp. deviation	<±2,2 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz						400 V, 3 phases, 50 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
UNplus 30	32	**TY14.1**	1 unit(s)	1.772,00
UNplus 55	53	**TY15.1**	1 unit(s)	1.934,00
UNplus 75	74	**TY16.1**	1 unit(s)	2.152,00
UNplus 110	108	**TY17.1**	1 unit(s)	2.467,00
UNplus 160	161	**TY18.1**	1 unit(s)	3.072,00
UNplus 260	256	**TY19.1**	1 unit(s)	3.675,00
UNplus 450	449	**TY20.1**	1 unit(s)	4.737,00
UNplus 750	749	**TY21.1**	1 unit(s)	6.214,00

Drying and heating cabinets

Models: UFplus with forced air circulation (fan)

- **Operating temperature range from 10 °C above room temperature to 300 °C**
  Setting temperature from 20 to 300 °C
  Setting accuracy up to 99.9 °C: 0.1 K, from 100 °C: 0.5
- Two graphical TFT displays with touchscreen for operation and displaying temperature, program runtime, air damper position and graphical display of programme flow
- Integrated data logger with 10-year memory
- **Display of recorded log data (max. 10,000 values correspond to approx. 1 week) directly on the device**
- Application-specific correction of the heat output distribution between the upper and lower heating groups within an adjustment range from -50 % to +50 %
- With Ethernet communication port for reading out log data as well as for transmitting and launching programs and online logging
- Definition of individual min./max. values for protection against excessive/insufficient temperatures
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and weekly programs)**
- Quiet air turbine for air circulation mode (air turbine can be controlled and switched off)

Technical specifications:

Art. No.	**TY22.1**	**TY23.1**	**TY24.1**	**TY25.1**	**TY26.1**	**TY27.1**	**TY28.1**	**TY29.1**
Type	UFplus 30	UFplus 55	UFplus 75	UFplus 110	UFplus 160	UFplus 260	UFplus 450	UFplus 750
Operating temperature	From 10 °C above room temperature to 300 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	749 l
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Outer depth	434 mm	541 mm		584 mm		684 mm	784 mm	
Max. removable shelves	3	4	6	5	8	9	8	14
Power consumption	1,600 W	2,000 W	2,500 W	2,800 W	3,200 W	3,400 W	5,800 W	7,000 W
Temporal temp. variance	<±0,25 °C							
Spatial temp. deviation	<±2,2 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz						400 V, 3 phases, 50 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
UFplus 30	32	**TY22.1**	1 unit(s)	1.870,00
UFplus 55	53	**TY23.1**	1 unit(s)	2.220,00
UFplus 75	74	**TY24.1**	1 unit(s)	2.447,00
UFplus 110	108	**TY25.1**	1 unit(s)	2.823,00
UFplus 160	161	**TY26.1**	1 unit(s)	3.517,00
UFplus 260	256	**TY27.1**	1 unit(s)	4.170,00
UFplus 450	449	**TY28.1**	1 unit(s)	5.321,00
UFplus 750	749	**TY29.1**	1 unit(s)	6.968,00

Drying and heating cabinets

Drying cabinet Heratherm™ protocol series

Thermo.

General features:

- Smooth inner housing and round edges make it easy to clean
- Automatic overheating alarm
- Microprocessor control
- Setting accuracy ±1 K
- RS 232 port
- **Natural convection** for gentle drying and heating with low air turbulence (e.g. powder or film) or **air circulating mode** for rapid drying and heating
- Depth of handle and display (65 mm) not included in depth; adjustable feet (35 mm) not included in height
- Mains connection 230 V, 50 Hz

Delivery incl. 2 removable shelves. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

General Protocol with natural convection

- **Temperature range: 50 to 250 °C**
- Stainless steel interior (1.4016)
- Integrated timer (1 min to 99 h, 59 min)
- Actual temperature display

Technical specifications:

Art. No.	PL56.1	PL57.1	PL58.1
Type	OGS60	OGS100	OGS180
Operating temperature	50 to 250 °C		
Vol.	65 l	105 l	176 l
Inner width	328 mm	438 mm	
Inner height	480 mm	580 mm	680 mm
Inner depth	415 mm	414 mm	589 mm
Outer width	530 mm	640 mm	
Outer height	720 mm	820 mm	920 mm
Outer depth	565 mm		738 mm
Max. removable shelves	13	16	19
Rated power	1,800 W	3,100 W	
Temporal temp. variance	±0,4 °C		
Spatial temp. deviation	±4,4 °C	±4,0 °C	
Weight	42 kg	53 kg	66 kg
Mains connection	230 V, 50 Hz		

Type	Vol. (l)	Art. No.	Pack Qty.	€
OGS60	65	**PL56.1**	1 unit(s)	1.226,00
OGS100	105	**PL57.1**	1 unit(s)	1.773,00
OGS180	176	**PL58.1**	1 unit(s)	2.418,00

General Protocol with air-circulation fan

- **Temperature range: 50 to 250 °C**
- Stainless steel interior (1.4016)
- Integrated timer (1 min to 99 h, 59 min)
- Actual temperature display
- Air-circulation fan: Air turbine cannot be adjusted or switched off

Technical specifications:

Art. No.	PL59.1	PL60.1	PL61.1
Type	OMS60	OMS100	OMS180
Operating temperature	50 to 250 °C		
Vol.	66 l	104 l	179 l
Inner width	354 mm	464 mm	
Inner height	508 mm	608 mm	708 mm
Inner depth	368 mm		543 mm
Outer width	530 mm	640 mm	
Outer height	720 mm	820 mm	920 mm
Outer depth	565 mm		738 mm
Max. removable shelves	13	16	19
Rated power	1,400 W	3,060 W	
Temporal temp. variance	±0,3 °C		
Spatial temp. deviation	±2,8 °C	±2,5 °C	±2,8 °C
Weight	42 kg	53 kg	66 kg
Mains connection	230 V, 50 Hz		

Type	Vol. (l)	Art. No.	Pack Qty.	€
OMS60	66	**PL59.1**	1 unit(s)	1.614,00
OMS100	104	**PL60.1**	1 unit(s)	2.213,00
OMS180	179	**PL61.1**	1 unit(s)	3.044,00

Advanced Protocol with natural convection

- **Temperature range: 50 to 330 °C**
- Stainless steel interior (1.4301)
- Switch on/off after a preset time
- Weekly time setting or real-time control
- Programmable control for temperature ramps and dwell times (memory for 10 programs each with 10 individual steps)
- Bushing (Ø 19 mm) at the back enables sensors to be inserted, e.g. for independent data monitoring
- With varnished outer housing

Technical specifications:

Art. No.	PL62.1	PL63.1	PL64.1
Type	OGH60	OGH100	OGH180
Operating temperature	50 to 330 °C		
Vol.	61 l	99 l	168 l
Inner width	328 mm	438 mm	
Inner height	480 mm	580 mm	680 mm
Inner depth	389 mm		564 mm
Outer width	530 mm	640 mm	
Outer height	720 mm	820 mm	920 mm
Outer depth	565 mm		738 mm
Max. removable shelves	13	16	19
Rated power	1,800 W	3,100 W	
Temporal temp. variance	±0,3 °C		
Spatial temp. deviation	±2,5 °C	±3,0 °C	±2,5 °C
Weight	44 kg	55 kg	69 kg
Mains connection	230 V, 50 Hz		

Type	Vol. (l)	Art. No.	Pack Qty.	€
OGH60	61	**PL62.1**	1 unit(s)	1.846,00
OGH100	99	**PL63.1**	1 unit(s)	2.407,00
OGH180	168	**PL64.1**	1 unit(s)	3.044,00

Drying and heating cabinets

Advanced Protocol with air-circulation fan

- **Temperature range: 50 to 330 °C**
- Stainless steel interior (1.4301)
- Switch on/off after a preset time
- Weekly time setting or real-time control
- Programmable control for temperature ramps and dwell times (memory for 10 programs each with 10 individual steps)
- Bushing (Ø 19 mm) at the back enables sensors to be inserted, e.g. for independent data monitoring
- With varnished outer housing
- Air-circulation fan: Controllable fan speed for application-specific air flow rates (cannot be switched off completely)

Technical specifications:

Art. No.	PL65.1	PL66.1	PL67.1
Type	OMH60	OMH100	OMH180
Operating temperature	50 to 330 °C		
Vol.	62 l	97 l	170 l
Inner width	354 mm	464 mm	
Inner height	508 mm	608 mm	708 mm
Inner depth	343 mm		518 mm
Outer width	530 mm	640 mm	
Outer height	720 mm	820 mm	920 mm
Outer depth	565 mm		738 mm
Max. removable shelves	13	16	19
Rated power	1,400 W	3,060 W	
Temporal temp. variance	±0,2 °C		
Spatial temp. deviation	±1,8 °C	±1,3 °C	±1,8 °C
Weight	44 kg	55 kg	69 kg
Mains connection	230 V, 50 Hz		

Type	Vol. (l)	Art. No.	Pack Qty.	€
OMH60	62	**PL65.1**	1 unit(s)	2.288,00
OMH100	97	**PL66.1**	1 unit(s)	3.036,00
OMH180	170	**PL67.1**	1 unit(s)	3.932,00

Accessories removable shelf kit for Heratherm™ drying cabinets

Thermo.

Removable shelf kit: 1 removable shelf with 2 mounting clips

Suitable for	Art. No.	Pack Qty.	€
OGS60, OGH60	**PL68.1**	1 unit(s)	75,50
OGS100, OGH100	**PL69.1**	1 unit(s)	101,00
OGS180, OGH180	**PL70.1**	1 unit(s)	127,00
OMS60, OMH60	**PL71.1**	1 unit(s)	75,90
OMS100, OMH100	**PL72.1**	1 unit(s)	101,00
OMS180, OMH180	**PL73.1**	1 unit(s)	127,00

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Drying and heating cabinets

Drying cabinet

Binder.

- **Operating temperature from 15 °C above room temperature to 300 °C**
  Setting temperature from 30 to 300 °C; setting accuracy: ±1 °C
- Adjustable air exchange and rear exhaust air pipe Ø 50 mm
- Models with volumes of 400 l or more come with a double-leaf door
- With integrated timer with range from 0 to 99 h
- **Power supply for models 23 to 260: 230 V, 50/60 Hz**
  Power supply for models 400 and 720: 400 V, 50/60 Hz.3 N ~

Delivery incl. 2 chrome-plated grates.

Models: ED with natural convection
With natural air circulation (convection).
Additional USB port for recording data with models ED 56, ED 115 and ED 260.

Technical specifications:

Art. No.	CKA5.1	CKA6.1	CKA7.1	CKA8.1	CKA9.1	CKC0.1
Type	ED 23	ED 56	ED 115	ED 260	ED 400	ED 720
Operating temperature	From +15 °C above room temperature to +300 °C					
Vol.	20 l	57 l	114 l	255 l	400 l	743 l
Inner width	222 mm	360 mm	510 mm	610 mm	1,000 mm	960 mm
Inner height	330 mm	420 mm	530 mm	760 mm	800 mm	1,280 mm
Inner depth	300 mm	380 mm	425 mm	550 mm	520 mm	605 mm
Outer width	435 mm	560 mm	710 mm	810 mm	1,235 mm	1,165 mm
Outer height	495 mm	625 mm	735 mm	965 mm	1,025 mm	1,590 mm
Outer depth	620 mm	640 mm	680 mm	815 mm	860 mm	910 mm
Max. removable shelves	3	4	5	7	10	15
Rated power	800 W	1,050 W	1,250 W	2,250 W	3,400 W	5,000 W
Temporal temp. variance	±0,5 °C	±0,4 °C		±0,8 °C	±0,5 °C	
Spatial temp. deviation	±2,8 °C	±2,3 °C	±1,5 °C	±1,8 °C	±3,0 °C	±3,6 °C
Weight	27 kg	39 kg	54 kg	85 kg	125 kg	161 kg
Mains connection	230 V, 50/60 Hz				400 V, 50/60 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
ED 23	20	**CKA5.1**	1 unit(s)	1.754,40
ED 56	57	**CKA6.1**	1 unit(s)	1.403,95
ED 115	114	**CKA7.1**	1 unit(s)	2.069,40
ED 260	255	**CKA8.1**	1 unit(s)	3.866,80
ED 400	400	**CKA9.1**	1 unit(s)	5.007,35
ED 720	743	**CKC0.1**	1 unit(s)	6.870,35

Models: FD with ventilator
With forced air circulation (fan).
Fan speed cannot be controlled or switched off.
Additional USB port for recording data with models FD 56, FD 115 and FD 260.

Technical specifications:

Art. No.	CKC1.1	CKC2.1	CKC3.1	CKC4.1
Type	FD 23	FD 56	FD 115	FD 260
Operating temperature	From +15 °C above room temperature to +300 °C			
Vol.	20 l	60 l	116 l	259 l
Inner width	222 mm	400 mm	550 mm	650 mm
Inner height	330 mm	440 mm	550 mm	780 mm
Inner depth	300 mm	345 mm	385 mm	515 mm
Outer width	435 mm	560 mm	710 mm	810 mm
Outer height	495 mm	625 mm	735 mm	965 mm
Outer depth	605 mm	640 mm	680 mm	815 mm
Max. removable shelves	3	4	5	7
Rated power	800 W	1,100 W	1,300 W	2,300 W
Temporal temp. variance	±0,3 °C			±0,4 °C
Spatial temp. deviation	±2,5 °C	±1,7 °C		±1,9 °C
Weight	27 kg	39 kg	54 kg	85 kg
Mains connection	230 V, 50/60 Hz			

Type	Vol. (l)	Art. No.	Pack Qty.	€
FD 23	20	**CKC1.1**	1 unit(s)	2.173,65
FD 56	60	**CKC2.1**	1 unit(s)	1.861,90

Drying and heating cabinets

Type	Vol. (l)	Art. No.	Pack Qty.	€
FD 115	116	**CKC3.1**	1 unit(s)	2.562,80
FD 260	259	**CKC4.1**	1 unit(s)	4.241,95

Models: FED with ventilator
With forced air circulation (fan).

- Adjustable fan speed (min. speed 30 %)
- 1 programmable temperature ramp
- RS 422 interface
- Timer function selection:
  – The heater is switched off when the set time expires
  – The set time does not start until the actual value equals the selected target value. The heater is switched off when the time expires.
  - The heater is switched on after the set time expires and remains in continuous operation
- Additional USB port for recording data with models FED 56, FED 115 and FED 260.

Technical specifications:

Art. No.	CKC5.1	CKC6.1	CKC7.1	CKC8.1	CKC9.1
Type	FED 56	FED 115	FED 260	FED 400	FED 720
Operating temperature	From +15 °C above room temperature to +300 °C				
Vol.	60 l	116 l	259 l	400 l	741 l
Inner width	400 mm	550 mm	650 mm	1,000 mm	
Inner height	440 mm	550 mm	780 mm	800 mm	1,200 mm
Inner depth	345 mm	385 mm	515 mm	510 mm	610 mm
Outer width	560 mm	710 mm	810 mm	1,235 mm	1,165 mm
Outer height	625 mm	735 mm	965 mm	1,025 mm	1,590 mm
Outer depth	640 mm	680 mm	815 mm	875 mm	910 mm
Max. removable shelves	4	5	7	10	15
Rated power	1,100 W	1,300 W	2,300 W	3,400 W	5,000 W
Temporal temp. variance	±0,3 °C		±0,4 °C	±0,7 °C	±0,3 °C
Spatial temp. deviation	±1,4 °C	±1,2 °C	±1,6 °C	±3,8 °C	±3,0 °C
Weight	39 kg	54 kg	85 kg	145 kg	162 kg
Mains connection	230 V, 50/60 Hz			400 V, 50/60 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
FED 56	60	**CKC5.1**	1 unit(s)	2.515,50
FED 115	116	**CKC6.1**	1 unit(s)	3.349,70
FED 260	259	**CKC7.1**	1 unit(s)	4.886,95
FED 400	400	**CKC8.1**	1 unit(s)	6.269,40
FED 720	741	**CKC9.1**	1 unit(s)	8.401,15

Accessories grate for incubators and drying ovens for the BD, BF, ED, FD and FED series

Binder.

Grids, chrome plated

Suitable for	Art. No.	Pack Qty.	€
for BD 23, ED 23 and FD 23	**CKE0.1**	1 unit(s)	55,55
for BD 56 and ED 56	**CKE1.1**	1 unit(s)	89,15
for BF 56, FD 56 and FED 56	**ECY1.1**	1 unit(s)	89,15
for BD 115 and ED 115	**CKE2.1**	1 unit(s)	137,30
for BF 115, FD 115 and FED 115	**ECY2.1**	1 unit(s)	137,30
for BD 260 and ED 260	**CKE3.1**	1 unit(s)	251,55
for BF 260, FD 260 and FED 260	**ECY3.1**	1 unit(s)	255,85
for BD 400, BF 400, ED 400 and FED 400	**CKE4.1**	1 unit(s)	283,80
for BD 720 and ED 720	**CKE5.1**	1 unit(s)	308,55
for BF 720 and FED 720	**HPA7.1**	1 unit(s)	308,55

High-capacity drying cabinet Heratherm™

Thermo.

General features:

- Free-standing devices with fixed rollers
- Stainless steel interior
- RS 232 port
- Mains connection 230 V, 50 Hz
- Not including depth of handle and display (65 mm) and height of rollers (108 mm); required clearance to rear panel 120 mm

Technical specifications:

Art. No.	XH32.1	XH33.1	XH34.1	XH35.1
Type	OGS400	OGS750	OMH400	OMH750
Operating temperature	From +10 °C above room temperature to +250 °C			
Vol.	419 l	774 l	396 l	731 l
Inner width	544 mm	1,004 mm	544 mm	1,004 mm
Inner height	1,307 mm		1,335 mm	
Inner depth	590 mm		545 mm	
Outer width	778 mm	1,261 mm	778 mm	1,261 mm
Outer height	1,545 mm			
Outer depth	770 mm			
Max. removable shelves	39			
Rated power	2,400 W	3,000 W	2,400 W	3,000 W
Temporal temp. variance	±0,5 °C		±0,3 °C	±0,4 °C
Spatial temp. deviation	±3,0 °C	±3,7 °C	±2,1 °C	±3,1 °C
Weight	136 kg	182 kg	135 kg	185 kg
Mains connection	230 V, 50 Hz			

Delivery incl. 2 removable shelves. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

General Protocol with natural air circulation

- **Operating temperature range from 10 °C above room temperature to 250 °C**
- With natural convection
- Integrated timer (1 min to 99 h, 59 min)
- Actual temperature display; setting accuracy ±1 K

Type	Vol. (l)	Art. No.	Pack Qty.	€
OGS400	419	**XH32.1**	1 unit(s)	4.208,00
OGS750	774	**XH33.1**	1 unit(s)	5.817,00

Advanced Protocol with ventilator

- **Operating temperature range from 10° C above room temperature to 250 °C**
- Setting accuracy ±1 K
- Mechanical convection – 2-stage fan: Can run fast or slow, but cannot be switched off
- Cable feedthrough (Ø 19 mm), e.g. for fitting sensors
- An audible alarm sounds if the door is accidentally left open
- Switch on/off after a preset time
- Weekly time setting or real-time control
- Programmable control for temperature ramps and dwell times (memory for 10 programs each with 10 individual steps)

Type	Vol. (l)	Art. No.	Pack Qty.	€
OMH400	396	**XH34.1**	1 unit(s)	5.447,00
OMH750	731	**XH35.1**	1 unit(s)	7.179,00

Accessories removable shelf kit Heratherm™ high-capacity wire drying cabinets

Thermo.

Wire removable shelf kit

1 removable shelf with 2 mounting clips.

Suitable for	Art. No.	Pack Qty.	€
OGS400, OMH400	**XH36.1**	1 unit(s)	205,00
OGS750, OMH750	**XH37.1**	1 unit(s)	246,00

High-temperature heating cabinet LHT (high-temperature laboratory oven)

Carbolite Gero.

- For maximum temperatures of 400, 500 or 600 °C depending on device type
- Recovery time of just 10 minutes at 400 or 500 °C after the door has been open for 1 min
- Polished stainless steel inner chamber
- Sturdy powder-coated outer housing
- High-performance recirculating air fan in the inner chamber (cannot be regulated)
- Adjustable digital overheating protection
- PID thermostat with digital display (target/actual temperature display)
- Heating rates up to max. temperature:
  LHT 4/30 = 50 min
  LHT 5/30 = 50 min
  LHT 6/30 = 70 min

Technical specifications:

Art. No.	NP16.1	NP17.1	NP18.1
Type	LHT 4/30	LHT 5/30	LHT 6/30
Operating temperature	Up to max. 400 °C	Up to max. 500 °C	Up to max. 600 °C
Vol.	30 l		
Inner width	300 mm		
Inner height	300 mm		
Inner depth	305 mm		
Outer width	830 mm		
Outer height	570 mm		
Outer depth	570 mm		
Max. removable shelves	2		
Rated power	1,000 W	2,000 W	
Temporal temp. variance	±0,5 °C		
Spatial temp. deviation	±5 °C		
Weight	73 kg		
Mains connection	230 V, 50 Hz		

Delivery incl. 2 grates.

Type	Vol. (l)	Art. No.	Pack Qty.	€
LHT 4/30	30	**NP16.1**	1 unit(s)	5.891,00
LHT 5/30	30	**NP17.1**	1 unit(s)	7.221,85
LHT 6/30	30	**NP18.1**	1 unit(s)	7.899,10

Muffle furnace

Laboratory ovens ELF series

Carbolite Gero.

For temperatures up to 1100 °C.

- General-diffuse heating coils on both side walls
- Furnace chamber comprising vacuum formed fibre insulation
- With abrasion-resistant base plate
- Double-walled housing for low ambient temperatures
- Short heating-up times of approx. 35 min
- Vent (Ø 30 mm)
- Forward hinged door
- PID thermostat with digital display (target/actual temperature display)
- Input of a temperature control profile with 2 segments (heating rate and hold time) using the timer function
- Built-in timer function (runtime: 99 h and 59 min)
- The timer can be operated in 5 different modes, e.g. the timer waits until the set temperature is reached, then begins to count down and on expiration shuts off the heater.
- **Please pay attention to supply voltages**

Technical specifications:

Art. No.	HY65.1	XK56.1	XK57.1
Type	ELF 11/6b	ELF 11/14b	ELF 11/23
Vol.	6 l	14 l	23 l
Max. temperature	1,100 °C		
Inner width	180 mm	220 mm	255 mm
Inner height	165 mm	210 mm	235 mm
Inner depth	200 mm	300 mm	400 mm
Outer width	410 mm	450 mm	505 mm
Outer height	580 mm	630 mm	715 mm
Outer depth	420 mm	520 mm	660 mm
Power consumption	2,000 W	3,000 W	6,100 W
Weight	20 kg	31 kg	52 kg
Mains connection	230 V, single-phase, 50 Hz with shock-proof plug, 16 A fuse		230 V, two-phase, 50 Hz with 16 A CEE plug, 16 A fuse per phase

Type	Vol. (l)	Art. No.	Pack Qty.	€
ELF 11/6b	6	**HY65.1**	1 unit(s)	2.890,70
ELF 11/14b	14	**XK56.1**	1 unit(s)	3.271,25
ELF 11/23	23	**XK57.1**	1 unit(s)	4.006,55

Muffle/ashing furnaces AAF series

Carbolite Gero.

For temperatures up to 1100 °C.

- Ceramic muffles heated from 4 sides for good temperature homogeneity (AAF 11/3 and AAF 11/7), AAF 11/18 model is heated from 2 sides with covered heating elements
- Parallel swing-up doors
- Hot door insulation is always facing away from the user
- Vacuum-formed fibre insulation
- Heating-up time: approx. 100 min
- Preheated air intake for optimal temperature distribution
- Air exchange rate: approx. 5 to 6 air changes per minute
- Exhaust outlet with vent (Ø 50 mm)
- With door contact switch
- PID thermostat with digital display (target/actual temperature display)
- Input of a temperature control profile with 2 segments (heating rate and hold time) using the timer function
- Built-in timer function (runtime: 99 h and 59 min)
- The timer can be operated in 5 different modes, e.g. the timer waits until the set temperature is reached, then begins to count down and on expiration shuts off the heater.
- **Please pay attention to supply voltages**

Technical specifications:

Art. No.	HY89.1	XK54.1	XK55.1
Type	AAF 11/3	AAF 11/7	AAF 11/18
Vol.	3.0 l	6.9 l	18.4 l
Max. temperature	1,100 °C		
Inner width	150 mm	170 mm	196 mm
Inner height	90 mm		235 mm
Inner depth	250 mm	455 mm	400 mm
Outer width	375 mm	430 mm	505 mm
Outer height	585 mm	650 mm	705 mm
Outer depth	485 mm	740 mm	675 mm
Power consumption	2,100 W	3,900 W	7,250 W
Weight	22 kg	63 kg	70 kg
Mains connection	230 V, single-phase, 50 Hz with shock-proof plug, 16 A fuse	230 V, two-phase, 50 Hz with 16 A CEE plug, 16 A fuse per phase	230 V, three-phase, 50 Hz with 16 A CEE plug, 16 A fuse per phase

Delivery incl. inconel bottom trays with handle (AAF 11/3 and AAF 11/7) or Inconel rack with handle for loading with samples on two levels (AAF 11/18).

Type	Vol. (l)	Art. No.	Pack Qty.	€
AAF 11/3	3.0	**HY89.1**	1 unit(s)	3.736,70
AAF 11/7	6.9	**XK54.1**	1 unit(s)	4.645,10
AAF 11/18	18.4	**XK55.1**	1 unit(s)	6.829,50

Vacuum ovens

Vacuum drying cabinet VT series

Thermo.

Areas of application: Pharmacy, biochemistry, cosmetics industry and electronics industry. Ideally suited for gentle and rapid drying and for thermal treatment of temperature-sensitive or easily decomposable substances and electronic components. Drying in the vacuum ensures sensitive samples are at no risk of contamination by particulate matter and the oxidation risk is lower.

General features of all models:

- **Operating temperature from 15 °C above room temperature to +200 °C**
- Max. spatial temperature deviation: ±4 °C (at 200 °C)
- Analogue pressure display
- **Possible ultimate vacuum: 0.01 mbar**
- With internal container made of corrosion-resistant, electropolished stainless steel (1.4571)
- Double-layer safety glass in the door window
- Microprocessor-controlled thermostat
- Digital temperature display
- Shell heating
- Temperature limiter (Protection Class 2 according to DIN 12880)
- In-house vacuum or a vacuum pump is required for operation. Please order the vacuum connection set separately.

Technical specifications:

Art. No.	ATN9.1	Y718.1
Type	VT 6025 Comfort	VT 6025 Standard
Version	With inert gas connection	Without inert gas connection
Vol.	25 l	
Inner width	300 mm	
Inner depth	307 mm	
Inner height	275 mm	
Outer width	480 mm	
Outer depth	450 mm	
Outer height	600 mm	
Max. removable shelves	4	
Rated power	1,300 W	
Connection	Hose nozzle Ø 20 mm for vacuum	
Weight	58 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. 2 removable shelves. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

VT 6025 Standard

Type	Version	Art. No.	Pack Qty.	€
VT 6025 Standard	Without inert gas connection	**Y718.1**	1 unit(s)	5.602,00

VT 6025 Comfort

Inert gas connection (OD Ø 4 mm) with precision valve and over-pressure relief valve for precise discharge of non-flammable, non-toxic gases (VDI 20465).

Type	Version	Art. No.	Pack Qty.	€
VT 6025 Comfort	With inert gas connection	**ATN9.1**	1 unit(s)	6.380,00

Accessories for VT series vacuum drying cabinets

Thermo.

Vacuum connection set

For connection to a vacuum pump for hose with ID 10 mm

Designation	Art. No.	Pack Qty.	€
Vacuum connection set	**Y720.1**	1 unit(s)	239,00

Additional tray

Designation	Art. No.	Pack Qty.	€
Additional tray	**Y719.1**	1 unit(s)	172,00

Vacuum drying cabinet VD series

Binder.

Fast, gentle drying of temperature-sensitive samples.

- **Operating temperature range from 10 °C above room temperature to 220 °C**
- Vacuum adjustable in the range 10 to 1100 mbar (end vacuum 0.01 mbar)
- Controller with digital display of pressure and temperature
- Drying process monitoring with automatic aeration at process end
- Internal data logger, measured values in open format readable via USB (approx. 100,000 entries possible, choice of save interval from 1 to 60 inutes)
- USB and Ethernet interface
- Universal aeration, for use with inert gas or ambient air
- Safety glass
- In-house vacuum or a vacuum pump is required for operation

Technical specifications:

Art. No.	1C6E.1	1C6H.1
Type	VD 23	VD 56
Vol.	24 l	55 l
Inner width	285 mm	400 mm
Inner depth	295 mm	343 mm
Inner height	285 mm	400 mm
Outer width	523 mm	638 mm
Outer depth	413 mm	461 mm
Outer height	698 mm	815 mm
Spatial temp. deviation	±1 K	±1,5 K
Temporal temp. variance	±0,1 K	
Rated power	900 W	1,400 W
Connection	Vacuum with small flange 16 DN mm, Inert gas with flow limiter 3/8 RP″	
Weight	64 kg	95 kg
Mains connection	200–230 V, 50/60 Hz	

Delivery incl. 1 aluminium insert/expansion rack. Please order vacuum connection set for pumps separately.

Type	Art. No.	Pack Qty.	€
VD 23	**1C6E.1**	1 unit(s)	7.317,55
VD 56	**1C6H.1**	1 unit(s)	8.700,00

Accessories for VD series vacuum drying cabinets

Binder.

Vacuum connection set
For connection to a vacuum pump.

Delivery incl. 2.5 m vacuum hose (ID 8 mm), aluminium clamping ring, universal centring ring, small flange with hose nozzle and hose clamps.

Designation	Art. No.	Pack Qty.	€
Vacuum connection set	**HTC0.1**	1 unit(s)	289,20

Electric barrel heaters WODL series

Winkler.

For heating and reducing the viscosity of materials and liquids in barrels and canisters allowing them to be filled into smaller containers or pumped more easily.

Properties:

- Heating directly at the installation location
- Outer sheath made from siliconised glass cloth
- Easy to mount using tension belts with adjustable snap locks
- Temperature range: Room temperature up to 70 °C
- Infinitely variable temperature setting (scale in 10 °C increments)
- Voltage 230, 50/60 Hz

Technical specifications:

Art. No.	LK10.1	LK11.1	LK12.1	LK13.1
Type	WODL-30	WODL-60	WODL-120	WODL-220
Drum	Canister 30 l	Canister 60 l	Canister 120 l	Drums 200-220 l
Total length	1,150 mm	1,350 mm	1,700 mm	1,950 mm
Width	400 mm	460 mm	370 mm	460 mm
Performance	150 W	200 W	220 W	330 W
Cable length	3 m			
Heated length	900 mm	1,100 mm	1,500 mm	2,100 mm
Mains connection	230 V, 50/60 Hz			

Type	Total length (mm)	Performance (W)	Art. No.	Pack Qty.	€
WODL-30	1,150	150	**LK10.1**	1 unit(s)	642,85
WODL-60	1,350	200	**LK11.1**	1 unit(s)	642,85
WODL-120	1,700	220	**LK12.1**	1 unit(s)	725,65
WODL-220	1,950	330	**LK13.1**	1 unit(s)	750,35

Temperature controller T series

Winkler.

For controlled and gentle heating of heating mantles and heating cords.

- LCD graphic display
- Digital display of set and actual temperature
- ABS desktop enclosure with anti-slip feet
- Operation via keypad with multilingual menu control (D, E, F, ES). Can optionally be controlled using WRZF310N remote control from a distance of up to 7 m (if required, please order separately).
- Three-coloured LED for displaying the operating statuses
- Adjustable target value for lower/upper limit
- Password menu protection
- With additional cut-off relay
- Control and operation only in conjunction with an optionally available Pt 100 or K type sensor
- Controller dimensions: W 157 x D 205 x H 100 mm

Technical specifications:

Art. No.	1A2L.1	1A2N.1
Type	T-560	T-570
Measuring range	K type: -200 to +1350 °C Pt 100: -120 to +850 °C	
Resolution	0,1 °C	
Setting accuracy	0,1 °C	
Rated power	2,300 W	1,450 W
Mains connection	250 V, 50/60 Hz	

Model T-560
For Pilz® heating mantles by Winkler with multipole coupling.

Max. current: 10 A.

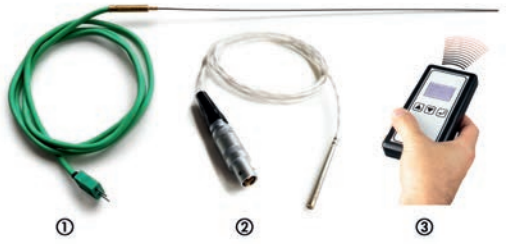
Type	Art. No.	Pack Qty.	€
T-560	**1A2L.1**	1 unit(s)	482,70

Modell T-570
With Schuko socket on the back of the device. Suitable for many heating mantles and heating cords from different manufacturers.

Max. current: 6.3 A.

Type	Art. No.	Pack Qty.	€
T-570	**1A2N.1**	1 unit(s)	482,70

Heating cables, temperature controller



NEW / +

Accessories for T series temperature controller

Winkler.

(1) K-Type temperature gauge for heating mantles
Measuring range -40 to +1000 °C. Sensor length 300 mm, sensor Ø 1.6 mm. Accuracy ±2.5 °C at <333 °C; ±0.75 % of the actual value at >333 °C (max. ±7.5% at 1000 °C).

Type	Art. No.	Pack Qty.	€
K-Type sensor for T series	**1A2X.1**	1 unit(s)	138,70

(2) Temperature gauge Pt 100 for heating cords up to 250 °C
Measuring range -50 to +250 °C. Sensor length 50 mm, sensor Ø 4 mm. Accuracy ±1.55 °C at 250 °C.

Type	Art. No.	Pack Qty.	€
Pt 100 gauge for T series	**1A2P.1**	1 unit(s)	96,25

(2) Pt 100 temperature gauge for heating cords up to 500 °C
Measuring range -50 to +500 °C. Sensor length 35 mm, sensor Ø 5 mm. Accuracy ±2.8 °C at 500 °C.

Type	Art. No.	Pack Qty.	€
Pt 100 sensor for T series up to +500 °C	**1H9C.1**	1 unit(s)	110,75

(3) Infrared remote control WRZF310N
For T series temperature controller. Option to display setpoint and actual value and change the setpoint. Dimensions: 135 x 70 x 24 mm.

Delivery incl. 2 x 1.5 V AA batteries.

Type	Art. No.	Pack Qty.	€
Remote control WRZF310N	**1A2T.1**	1 unit(s)	149,45

NEW / +

Heating cord model WKG00402

Winkler.

With braided resistance wires. Not protected against moisture.

- Suitable for temperatures up to 400 °C
- Min. bending radius >6 mm
- Dimensions approx. Ø 6 mm
- Length of mains connection 2 x 1.0 m
- Mains power 230 V

Heating cords must not be laid overlapping and/or side by side, as otherwise these overheat. Furthermore, the heating strips may only be operated with a temperature regulator.

Delivery without safety plug or multipole coupling, please order separately (multipole coupling for Winkler temperature regulator T-560, safety plug for most temperature regulators from different manufacturers or Winkler temperature regulator T-570).

Total length (m)	Performance (W)	Art. No.	Pack Qty.	€
0.5	75	**1KA5.1**	1 unit(s)	67,75
1.0	150	**1KA6.1**	1 unit(s)	75,25
1.5	225	**1KA7.1**	1 unit(s)	94,60
2.0	300	**1KA8.1**	1 unit(s)	100,00
2.5	375	**1KA9.1**	1 unit(s)	112,90
3.0	450	**1KAA.1**	1 unit(s)	118,25
4.0	600	**1KAC.1**	1 unit(s)	135,45
5.0	750	**1KAE.1**	1 unit(s)	156,95

Heating cables, temperature controller

NEW / +

Heating strip model WBS00202

Winkler.

Tin-plated copper braided resistance wires. Silicon-insulated and protected against moisture.

- Suitable for temperatures up to 200 °C
- Min. bending radius >9 mm
- Dimensions 13 x 5 mm
- Length of mains connection 1.5 m
- Mains power 230 V

Heating strips must not be laid overlapping and/or side by side, as otherwise these overheat. Furthermore, the heating strips may only be operated with a temperature regulator.

Delivery without safety plug or multipole coupling, please order separately (multipole coupling for Winkler temperature regulator T-560, safety plug for most temperature regulators from different manufacturers or Winkler temperature regulator T-570).

With normal heating output

Total length (m)	Performance (W)	Art. No.	Pack Qty.	€
0.9	100	**1KA1.1**	1 unit(s)	153,75
1.8	200	**1KA2.1**	1 unit(s)	189,20
2.7	270	**1KA3.1**	1 unit(s)	235,45
4.0	410	**1KA4.1**	1 unit(s)	293,50

With reduced heating output

Total length (m)	Performance (W)	Art. No.	Pack Qty.	€
0.9	50	**1K9T.1**	1 unit(s)	153,75
1.8	100	**1K9X.1**	1 unit(s)	189,20
2.7	130	**1K9Y.1**	1 unit(s)	235,45
4.0	200	**1KA0.1**	1 unit(s)	293,50

NEW / +

Heating strip model WBG00402

Winkler.

Flexible glass silk external braid. Nickel braided resistance wires. Not protected against moisture. Two heat conductors running in parallel.

- Suitable for temperatures up to 400 °C
- Min. bending radius >15 mm
- Dimensions 35 x 5 mm
- Length of mains connection 0.4 m
- Mains power 230 V

Heating strips must not be laid overlapping and/or side by side, as otherwise these overheat. Furthermore, the heating strips may only be operated with a temperature regulator.

Delivery without safety plug or multipole coupling, please order separately (multipole coupling for Winkler temperature regulator T-560, safety plug for most temperature regulators from different manufacturers or Winkler temperature regulator T-570).

Total length (m)	Performance (W)	Art. No.	Pack Qty.	€
0.5	125	**1K9C.1**	1 unit(s)	110,75
1.0	250	**1K9E.1**	1 unit(s)	120,40
1.5	375	**1K9H.1**	1 unit(s)	136,55
2.0	500	**1K9K.1**	1 unit(s)	148,35
2.5	625	**1K9L.1**	1 unit(s)	175,25
3.0	750	**1K9N.1**	1 unit(s)	204,25
5.0	1250	**1K9P.1**	1 unit(s)	294,55

Heating cables, temperature controller

NEW / +

Installation set safety plug/multipole coupling for heating strips and heating cords

Winkler.

For installation of the safety plug or multipole coupling on heating strips or heating cables. Multipole coupling for Winkler temperature regulator T-560, safety plug for most temperature regulators from different manufacturers or Winkler temperature regulator T-570.

Delivery incl. 30 cm silicon hose for pushing over connection strands.

Type	Art. No.	Pack Qty.	€
Safety plug	**1KAK.1**	1 unit(s)	14,20
Multipole coupling for Winkler temp. regulator T-560	**1KAH.1**	1 unit(s)	18,60

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

NEW / +

Heating mantle Pilz® WHG2H classic series

Winkler.

For operating temperatures of up to 900 °C.

- Heating element made from highly flexible glass silicate yarn for even heat transfer
- With heating zone switch
- Serial-parallel rotary switch, performance selector (Off/25/50/100%)
- Heating mantles 500 to 6000 ml: Base opening Ø 62 mm
- Mounted on support rings or tripods using clamping hooks
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. protective plug with FI function and Schuko socket cable (cable length 1.00 m).

For flask volume (ml)	Heating zones	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
250	2	300	85	**1L9P.1**	1 unit(s)	469,80
500	2	500	105	**1L9T.1**	1 unit(s)	528,90
1000	2	750	131	**1L9X.1**	1 unit(s)	657,90
2000	2	1200	166	**1L9Y.1**	1 unit(s)	923,45
4000	2	1800	207	**1LA0.1**	1 unit(s)	1.108,35
6000	2	2500	236	**1LA1.1**	1 unit(s)	1.349,15

Heating mantles

Heating mantle Pilz® WHG classic series

Winkler.

For operating temperature up to 450 °C.

- Heaters made of highly flexible yarn made of glass for uniform heat transfer and gentle treatment of round flasks
- With heating zone switch
- **Up to 1000 ml with the heating zone switch incorporated in the supply line, more than 2000 ml heating zones in the housing**
- Heating mantles 500 up to 20000 ml: opening the base Ø 60 mm
- Fastening at the support ring or rotary feet using clamping hooks
- Length of the mains cable: 1.5 m
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. protective plug with FI function and Schuko socket cable (cable length 1.00 m).

(1) Model WHG2
For operating temperature up to 450 °C

For flask volume (ml)	Heating zones	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
25	1	40	41	**KH06.1**	1 unit(s)	317,15
50	1	70	51	**KH07.1**	1 unit(s)	356,90
100	2	110	64	**KH08.1**	1 unit(s)	325,75
250	2	200	85	**KH09.1**	1 unit(s)	328,95
500	2	300	105	**KH10.1**	1 unit(s)	338,65
1000	2	450	131	**KH11.1**	1 unit(s)	449,35
2000	2	700	166	**KH12.1**	1 unit(s)	448,30
3000	2	800	185	**KH13.1**	1 unit(s)	516,00
4000	2	1000	207	**KH14.1**	1 unit(s)	560,10
5000	2	1200	223	**KH15.1**	1 unit(s)	693,40
6000	2	1400	236	**KH16.1**	1 unit(s)	777,25
10000	2	2000	279	**KH17.1**	1 unit(s)	1.020,20
20000	2	2800	345	**KH18.1**	1 unit(s)	1.499,65

Accessories tripod for standard heating mantles

Winkler.

Made of stainless steel. For installing standard heating mantles types WHG2, WHG4R and WHG2H.

Suitable for	Ø Internal (mm)	Art. No.	Pack Qty.	€
KH08.1	110	**KH29.1**	1 unit(s)	105,35
KH09.1	140	**KH30.1**	1 unit(s)	139,75
KH10.1	160	**KH31.1**	1 unit(s)	110,75
KH11.1	188	**KH32.1**	1 unit(s)	113,95
KH12.1	222	**KH33.1**	1 unit(s)	117,20
KH13.1	238	**KH34.1**	1 unit(s)	169,85
KH15.1	277	**KH36.1**	1 unit(s)	151,60
KH14.1, KH25.1	261	**KH35.1**	1 unit(s)	136,55
KH16.1, KH26.1	291	**KH37.1**	1 unit(s)	176,30
KH17.1, KH27.1	334	**KH38.1**	1 unit(s)	194,60
KH18.1, KH28.1	430	**KH39.1**	1 unit(s)	234,35

Support rings support rings for standard heating mantles

Winkler.

Made of stainless steel. To fasten the standard heating mantles, types WHG2, WHG4R and WHG2H in stand attachments.

Suitable for	Ø Internal (mm)	Art. No.	Pack Qty.	€
KH06.1	90	**KH40.1**	1 unit(s)	35,50
KH07.1	90	**KH41.1**	1 unit(s)	55,90
KH08.1	110	**KH42.1**	1 unit(s)	38,70
KH09.1	140	**KH43.1**	1 unit(s)	38,70
KH10.1	160	**KH44.1**	1 unit(s)	40,85
KH11.1	188	**KH45.1**	1 unit(s)	41,95
KH12.1	222	**KH46.1**	1 unit(s)	41,95
KH13.1	238	**KH47.1**	1 unit(s)	88,15
KH14.1, KH25.1	261	**KH48.1**	1 unit(s)	49,45

Accessories shockproof plug with multi-pole coupling

Winkler.

For Heating mantles of the WHG and WHLG series.
Without FI function. Use when the operator network is incorporates a residual current circuit breaker system. Cable length 1.0 m.
Voltage 230 V.

Type	Art. No.	Pack Qty.	€
Shockproof plug with multi-pole coupling	**PP37.1**	1 unit(s)	21,00

Heating mantle Pilz® WHLG-Classic-series

Winkler.

For operating temperature up to 450 °C.

- Heaters made of highly flexible yarn made of glass for uniform heat transfer and gentle treatment of round flasks
- Plastic coated metal housing
- With integrated fitting for connecting a stand clamp. Please order stand clamp separately
- Length of the mains cable: 1.5 m
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. protective plug with FI function and Schuko socket cable (cable length 1.00 m).

(1) Model WHLG2 - Heat zone switch
With integrated heat zone switch

For flask volume (ml)	Heating zones	Perfor-mance (W)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	1	50	160	180	**KE87.1**	1 unit(s)	305,30
100	1	100	160	180	**KE88.1**	1 unit(s)	299,95
250	2	150	160	180	**KE89.1**	1 unit(s)	317,15
500	2	200	210	190	**KE90.1**	1 unit(s)	342,95
1000	2	300	210	190	**KE91.1**	1 unit(s)	384,85
2000	2	500	280	220	**KE92.1**	1 unit(s)	392,40
3000	2	600	280	220	**KE93.1**	1 unit(s)	431,10

(2) Model WHLG2/ER - Power controller 0 to 100 %
With power controller for continuously variable adjustment from 0 to 100 %

For flask volume (ml)	Heating zones	Perfor-mance (W)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	1	50	160	180	**KE94.1**	1 unit(s)	337,55
100	1	100	160	180	**KE95.1**	1 unit(s)	338,65
250	2	150	160	180	**KE96.1**	1 unit(s)	389,15
500	2	200	210	190	**KE97.1**	1 unit(s)	358,00
1000	2	300	210	190	**KE98.1**	1 unit(s)	378,40
2000	2	500	280	220	**KE99.1**	1 unit(s)	431,10
3000	2	600	280	220	**KH00.1**	1 unit(s)	469,80

(3) Model WHLSG2/ER2 - Heating tray made of metal and power controller
With overflow-protected heating tray made of metal and power controller for continuously variable adjustment from 0 to 100 %

For flask volume (ml)	Heating zones	Perfor-mance (W)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	2	120	160	180	**KH01.1**	1 unit(s)	488,05
500	2	200	210	190	**KH02.1**	1 unit(s)	503,10
1000	2	300	210	190	**KH03.1**	1 unit(s)	523,55
2000	2	500	280	220	**KH04.1**	1 unit(s)	588,05

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Heating mantles

NEW / +

Heating mantle Pilz® LP2 Protect series

Winkler.

For operating temperatures of up to 450 °C.

- **Heating element protection class I** - protects users against contact voltages in case of wetting with liquid
- **Heating element impervious to fluids** as it is separate from the bottom
- On/off safety switch with protection against accidental activation
- Heating element made of glass silk for rapid heating and a good fit
- Metal housing with plastic coating
- With integrated fitting for connecting a stand clamp. Please order the stand clamp separately.
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. personal protection plug with FI function and Schuko socket cable (cable length 1.00 m).

(1) LP2 model - heat zone switch
With integrated heat zone switch.

For flask volume (ml)	Heating zones	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
50	1	60	51	**1H9L.1**	1 unit(s)	406,35
100	1	90	64	**1H9N.1**	1 unit(s)	408,50
250	2	150	85	**1H9P.1**	1 unit(s)	414,95
500	2	200	105	**1H9T.1**	1 unit(s)	434,30
1000	2	300	131	**1H9X.1**	1 unit(s)	463,35
2000	2	500	166	**1H9Y.1**	1 unit(s)	534,30
3000	2	600	185	**1HA0.1**	1 unit(s)	586,95

(2) LP2ER model - power controller for adjustment from 0 to 100 %
With power controller for continuously variable adjustment from 0 to 100 %.

For flask volume (ml)	Heating zones	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
50	1	60	51	**1HA1.1**	1 unit(s)	460,10
100	1	90	64	**1HA2.1**	1 unit(s)	461,20
250	2	150	85	**1HA3.1**	1 unit(s)	467,65
500	2	200	105	**1HA4.1**	1 unit(s)	487,00
1000	2	300	131	**1HA5.1**	1 unit(s)	516,00
2000	2	500	166	**1HA6.1**	1 unit(s)	586,95
3000	2	600	185	**1HA7.1**	1 unit(s)	640,70

Accessories stand clamp for housing heating mantles Pilz®

Winkler.

To fasten the housing heating mantles, type WHLG2, WHLG2/ER, WHLSG2/ER, LP2, LP2ER and WHLMG3ER in stand attachments. For stands up to Ø 13 mm.

Designation	Art. No.	Pack Qty.	€
Stand clamp	**KH05.1**	1 unit(s)	31,85

NEW / +

Multi-heating mantle Pilz® WHLMG3ER Classic series

Winkler.

For operating temperatures of up to 450 °C.

- Can be used for different flask sizes
- Powder-coated metal housing
- Glass fibre heating elements
- With heating zone switch
- Integrated mechanical power controller, continuously adjustable (0 to 100 %)
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. protective plug with FI function and Schuko socket cable (cable length 1.00 m).

For flask volume (ml)	Heating zones	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
50–250	3	150	51–85	**1LA2.1**	1 unit(s)	423,55
250–1000	3	360	85–131	**1LA3.1**	1 unit(s)	473,00
1000–3000	3	600	131–185	**1LA4.1**	1 unit(s)	554,70

Heating mantles

Heating mantle ITA series

ITA Instruments.

- Max. heating temperature range up to 450 °C
- Heating element protected against escape of fluid
- Infinitely variable temperature control via dial with 10-step scale
- “Chimney effect” for cooling housing outside walls
- LED power indicator during operation
- Housing surface made of ABS
- Version with electro-magnetic stirring function available
- Dimensions: W 192 x D 290 x H 131 mm
- Power supply voltage: 230 V, 50 Hz

(1) Standard version

For flask volume (ml)	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
100	150	64	**HCK2.1**	1 unit(s)	550,40
250	200	85	**HCK3.1**	1 unit(s)	555,80
500	300	105	**HCK4.1**	1 unit(s)	583,75
1000	400	131	**HCK5.1**	1 unit(s)	600,95

(2) Version with magnetic stirrer
Speed range 200 to 800 rpm

For flask volume (ml)	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
100	150	64	**HCK6.1**	1 unit(s)	946,00
250	200	85	**HCK7.1**	1 unit(s)	969,65
500	300	105	**HCK8.1**	1 unit(s)	984,70
1000	400	131	**HCK9.1**	1 unit(s)	1.008,35

Heating mantle Pilz® WHU2ER-Classic-series

Winkler.

For operating temperature up to 450 °C.

- Heating element made of highly flexible glass fibre yarn for even heat distribution and gentle treatment of round flasks
- **With power controller for continuously variable adjustment from 0 to 100 %**
- Plastic coated metal housing
- With integrated fitting for connecting a stand clamp. Please order stand clamp separately
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. protective plug with FI function and Schuko socket cable (cable length 1.00 m).

For flask volume (ml)	Heating zones	Performance (W)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
4000	2	700	288	166	**NP32.1**	1 unit(s)	772,95
5000	2	860	318	166	**NP33.1**	1 unit(s)	891,20
6000	2	1000	318	166	**NP34.1**	1 unit(s)	895,50
10000	2	1400	368	194	**NP35.1**	1 unit(s)	1.020,20
20000	2	2400	438	234	**NP36.1**	1 unit(s)	1.366,35

Melting point measuring units MPM series

For measuring the melting point of powdery substances in glass capillaries.

Equipment features of all models:

- Digital temperature control
- Indirect, non-glare and anti-dazzle illumination of the substance during visual measurement using the magnifier
- Height-adjustable table tripod (360 to 460 mm)
- With USB interface
- Software makes it possible to create a measurement log in PDF format (incl. diagram with transparency progression for the MPM-HV 3 model)

Technical specifications:

Art. No.	HCE5.1
Type	MPM-H 3
Measuring range	+35 to +360 °C
Resolution	0,1 °C
Accuracy	±0,4 °C
Heat-up rate	when quick heating: to 200 °C - approx. 4 min to 350 °C - approx. 8 min when measuring: 1 °C/min
Magnification	with 3-fold magnifying glass
Width	230 mm
Depth	65 mm
Height	260 mm
Weight	6.8 kg
Mains connection	115–230 V, 50 Hz

Delivery incl. 100 melting point capillary tubes, USB cable, software and protective hood.

Semi-automatic/fully automatic multi-function unit MPM-HV 3
For testing a sample.
2 selectable measuring processes (visual or automatic). Fully automatic measurement: Set the required temperature (approx. 3 °C below the expected melting point). Once the preselected temperature is reached, a filled capillary is inserted. Measurement is terminated automatically when melting point is reached.

Semi-automatic MPM-H 3
For simultaneous testing of max. 3 samples.
Measuring process: visual by observation. Once the preselected temperature is reached, a filled capillary is inserted and a visual inspection of the capillary is performed using the magnifier. After the "Start" button is pressed again, the unit continues to heat up at a rate of 1 °C/min. As soon as the sample has melted, the value can be read on the display.

Type	Art. No.	Pack Qty.	€
MPM-H 3	**HCE5.1**	1 unit(s)	1.537,25

Accessories melting point capillary tubes for MPM series

Type	Art. No.	Pack Qty.	€
Melting point tubes, open on one side. Ext.-Ø 1,45 mm, int.-Ø 1,0 mm, length 80 mm	**HCE6.1**	100 unit(s)	10,45

Slide drying bench MH6616

Electrothermal.

To speed up the preparation of slides.
For up to 50 slides (76 x 26 mm). For temperatures from 10 °C above room temperature to 100 °C.

Microscope slides can be placed in various positions:

- On the storage rods
- Leaning against the filing rods
- Layed flat without the storage rods

Technical specifications:

Art. No.	YL72.1
Type	MH6616
Operating temperature	From 10 °C above room temperature to 100 °C
Heating output	150 W
W x D x H, external	390 x 180 x 95 mm
Outer height	95 mm
Weight	1.8 kg
Mains connection	230 V, 50/60 Hz

Type	Heating output (W)	Art. No.	Pack Qty.	€
MH6616	150	**YL72.1**	1 unit(s)	643,00

Paraffin stretching bath MH8517

Electrothermal.

For stretching and drying of cut tissue samples. For use in pathological, histological, chemical and bacteriological laboratories.

- For temperatures from 10 °C above room temperature to 100 °C (setting temperature from 30 to 80 °C)
- Observation and manipulation of specimens through matt black PTFE coating of the aluminium container
- With wide edge for depositing and drying the cuts
- Temperature of 45 °C is reached in approx. 40 min
- With overtemperature protection
- A bath lid is available to protect the water from contamination, please order separatel

Technical specifications:

Art. No.	YL70.1
Type	MH8517
Vol.	2.25 l
Operating temperature	From 10 °C above room temperature to 70 °C
Heating output	240 W
Accuracy	±0,5 °C
Ø Internal	220 mm
Inner height	80 mm
Ø ext.	330 mm
Outer height	140 mm
Weight	2.7 kg
Mains connection	230 V, 50/60 Hz

Type	Vol. (l)	Heating output (W)	Art. No.	Pack Qty.	€
MH8517	2.25	240	**YL70.1**	1 unit(s)	811,00

Tissue flotation bath Hydro H 2 P

Lauda.

For flotation and drying of sectioned tissue samples.

- For temperatures from 25 to 80 °C
- Temperature display by the control thermometer on the edge of the bath
- Temperature can be adjusted using the rotary knob with a temperature scale
- Low-water safety device
- Aluminium bath unit, anodised black

Technical specifications:

Art. No.	1A90.1
Type	H 2 P
Vol.	2 l
Operating temperature	25 to 80 °C
Heating output	300 W
Accuracy	±0,5 °C
Ø Internal	200 mm
Inner height	60 mm
Ø ext.	280 mm
Outer height	100 mm
Weight	2 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. control thermometer with holder.

Type	Vol. (l)	Heating output (W)	Art. No.	Pack Qty.	€
H 2 P	2	300	**1A90.1**	1 unit(s)	478,00

Bath cover for the Hydro H 2 P tissue flotation bath

Lauda.

Protects against dust.

Type	Art. No.	Pack Qty.	€
Bath cover for the H 2 P model flotation bath	**1A91.1**	1 unit(s)	74,70

Ozone generator OZ series

Phönix Instrument.

For local oxidative odour neutralisation and disinfection (elimination of micro-organisms) of surfaces like fixtures, furniture surfaces and walls.

Ozone (O_3) is a strongly oxidising molecule made up of three oxygen atoms. It exists as a gas and very quickly breaks down in the air into normal oxygen (O_2) under standard conditions. Ozone can remove harmful substances in the air.

An integrated timer ensures ozonisation at non-working times without personnel present. With proper application (sufficient ventilation), there are generally no more hazardous substances in the air after cleaning.

- Disinfection of rooms (germs, viruses, bacteria)
- Sanitation of rooms
- Mould spores in the air
- Musty smell
- Memory for 16 programmes - each programme comprises day (d) and On/Off time pair (h:min)

Technical specifications:

Art. No.	1CHY.1	1CK0.1
Type	OZ-10	OZ-30
Power consumption	10 g/h	30 g/h
Performance	130 W	250 W
Area of individual field	36 m²	82 m²
Volume	100 m³	320 m³
Flow rate	150 m³/h	250 m³/h
W x D x H	170 x 380 x 260 mm	220 x 440 x 305 mm
Ambient conditions	0 to 40 °C at 70% RH	
Weight	4 kg	6 kg
Mains connection	220–240 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
OZ-10	**1CHY.1**	1 unit(s)	510,65
OZ-30	**1CK0.1**	1 unit(s)	858,95

Electrical sand baths ST series

Gestigkeit.

With continuously variable temperature control. Temperature range 50 to 300 °C. Robust version for continuous operation. Heating plates made of aluminium alloy with screwed on and sealed stainless steel frame with a usable height of 50 mm. Uniform heat distribution. Housing parts made of stainless steel. Connecting cable 1.7 m.

Technical specifications:

Art. No.	L165.1	L166.1
Type	ST 72	ST 82
Performance	2200 W	2850 W
Width	360 mm	
Depth	360 mm	510 mm
Height	220 mm	
Weight	1400 g	2100 g

Type	Art. No.	Pack Qty.	€
ST 72	**L165.1**	1 unit(s)	1.397,50
ST 82	**L166.1**	1 unit(s)	1.634,00

Rapid incinerator SVR/E

Gestigkeit.

Up to 950 °C with continuously variable temperature control. For individual and series incineration, even of liquid substances Top level has 8 openings, each Ø 34 mm and can accommodate a porcelain crucible up to Ø 50 mm for drying or heating.
Top part and housing made of stainless steel Integrated signal clock up to 120 min with switch setting for continuous operation. Ready for connection with 1.5 meter cable and protective plug.

Technical specifications:

Art. No.	L163.1
Type	SVR/E
Performance	2500 W
Width	450 mm
Depth	180 mm
Height	310 mm
Weight	7000 g
Mains connection	220 V

Type	Art. No.	Pack Qty.	€
SVR/E	**L163.1**	1 unit(s)	1.764,10

Hot plates

Hot plate

Severin.

With continuous temperature adjustment. Indicator lamp. Base plate with heat-resistant coating.

Technical specifications:

Art. No.	P853.1	EC13.1	K705.1	EC14.1
Type	Hot plate, individual		Double hot plate	
Version	Upper part, enamelled white	Upper part, brushed stainless steel	Upper part, enamelled white	Upper part, brushed stainless steel
Performance	1500 W		1500/1000 W	
Heated zone	Ø 180 mm		Ø 180/150 mm	
W x D x H, total	250 x 290 x 85 mm	262 x 285 x 80 mm	500 x 290 x 85 mm	460 x 290 x 77 mm

Type	Version	Art. No.	Pack Qty.	€
Hot plate, individual	Upper part, enamelled white	**P853.1**	1 unit(s)	45,75
Hot plate, individual	Upper part, brushed stainless steel	**EC13.1**	1 unit(s)	46,55
Double hot plate	Upper part, enamelled white	**K705.1**	1 unit(s)	60,10
Double hot plate	Upper part, brushed stainless steel	**EC14.1**	1 unit(s)	69,05

NEW/+

Hot plate RK 501 portable model

Rommelsbacher.

- Housing made of stainless steel and plastic
- Cast iron hot plate
- Continuously adjustable temperature control
- With overheating protection and rubber feet
- Integrated cord retractor

Technical specifications:

Art. No.	1H9K.1
Type	Portable RK 501
Heating output	500 W
Temperature range	to +450 °C
Heated zone	Ø 80 mm
W x D x H, total	140 x 140 x 70 mm
Weight	710 g
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Portable RK 501	**1H9K.1**	1 unit(s)	61,20

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Hot plates

NEW / +

Glass ceramic hot plate CT 1800/E

Rommelsbacher.

- With stainless steel housing
- Schott Ceran® glass ceramic hot plate
- Infinitely adjustable temperature regulation (power control from 7 to 100%; scale with 12 stages)
- Residual heat display, indicator light, overheating protection

Technical specifications:

Art. No.	1HT2.1
Type	CT 1800/E
Heating output	1800 W
Temperature range	to +450 °C
Heated zone	Ø 180 mm
W x D x H, total	305 x 410 x 75 mm
Weight	2,52 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
CT 1800/E	**1HT2.1**	1 unit(s)	178,45

Glass ceramic hot plate CT 2203/TC

Rommelsbacher.

- Brushed stainless steel housing
- Dual circuit heating technology
- Large heating zone can be switched on (Ø 210 mm)
- Heat output 1000 W (Ø 140 mm)
  Heat output 2200 W (Ø 210 mm)
- Schott Ceran® Cooktop
- Heating power is adjustable in 9 steps
- Heating element with particularly short heat-up time
- Control lamp, residual heat display
- Automatic operating time limitation (1 to 10 h depending on the cooking level set)

Technical specifications:

Art. No.	EY75.1
Type	CT 2203/TC
Heating output	1000/2200 W
Temperature range	to +460 °C
Heated zone	Ø 140/Ø 210 mm
W x D x H, total	305 x 410 x 75 mm
Weight	3.2 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
CT 2203/TC	**EY75.1**	1 unit(s)	225,75

Double hot plate CT 3400/E

Rommelsbacher.

- With brushed stainless steel casing and Ceran®-hob
- Stepless energy regulation via retractable rotary toggles
- Heat output 1200 W(1st heating zone: Ø 145 mm)
  Heat output 2200 W (2nd heating zone: selectable Ø 140/210 mm)
- Control lamps, residual heat indicators and overheating protection

Technical specifications:

Art. No.	CHK9.1
Type	CT 3400/E
Heating output	1200/2200 W
Temperature range	to +460 °C
Heated zone	Ø 145/Ø 140/210 mm
W x D x H, total	550 x 310 x 65 mm
Weight	3.7 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
CT 3400/E	**CHK9.1**	1 unit(s)	291,35

Hot plates

Induction hot plate CT 2215/IN

Rommelsbacher.

A magnetic coil generates the heat directly in the bottom of the pot. The cooking surface remains almost cold.
Operation only possible with pots suitable for induction.

- Stainless steel housing
- Schott Ceran®-cooking surface
- Temperature selection in 21 steps from 60 to 260 °C (adjustable in steps of 10 °C)
- Power selection in 9 steps (70/130/180/270/350/500/820/1280/2200 W)
- Electronic regulation via touch-control operating elements
- Time switch up to 99 min
- Pot detection
- Automatic switch-off and signal tone
- Residual heat and operation display

Technical specifications:

Art. No.	NA86.1
Type	CT 2215/IN
Heating output	2200 W
Temperature range	+60 to +260 °C
Heated zone	Ø 80–200 mm
Hotplate material	Schott Ceran®
W x D x H, total	333 x 380 x 65 mm
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
CT 2215/IN	**NA86.1**	1 unit(s)	218,25

Digital hot plate REC

Velp.

- Glass ceramic surface
- Digital display of hot plate target temperature (Setting accuracy in 5 °C increments)
- Hot Top Indicator (hot surface warning)
- Elevated control panel for protection against leaking liquids

Technical specifications:

Art. No.	ACP8.1
Type	REC
Heating output	780 W
Temperature range	+25 to +550 °C
Control accuracy	±10 K
Heated zone	180 x 180 mm
Hotplate material	Glass ceramic
W x D x H, total	203 x 344 x 94 mm
Weight	2.7 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
REC	**ACP8.1**	1 unit(s)	350,45

Cell culture hot plate CultureTemp™ 37 °C

Housing made of PP, hot plate made of aluminium. Improves the viability of cells after removal from the incubator. With digital display and fixed hot plate temperature of 37 °C. Audible timer, adjustable from 1 to 15 mins in 1-minute increments (without influencing the heating; does not switch off when timer runs out). With LED for monitoring the heating function.

Technical specifications:

Art. No.	CHC7.1
Type	CulturTemp™ 37 °C
Operating temperature	37 °C (non-adjustable)
Temperature stability	±1 °C
Heated zone	203 x 178 mm
Hotplate material	Aluminium
W x D x H, total	249 x 254 x 57 mm
Weight	1.1 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
CulturTemp™ 37 °C	**CHC7.1**	1 unit(s)	633,20

Hot plates

Digital heating plate C-MAG HP series

IKA.

General information for all models:

- Footprint made of glass ceramic
- Temperature setting via digital display (LED)
- Digital display of the heating plate target temperature
- Error code display in the event of a fault
- Fixed safety circuit of 550 °C
- Hot Top Indicator (hot surface warning)

Technical specifications:

Art. No.	LN75.1	LN76.1	LN77.1
Type	C-MAG HP 4	C-MAG HP 7	C-MAG HP 10
Heating output	250 W	1000 W	1500 W
Temperature range	+50 to +500 °C		
Control accuracy	±10 K		
Hotplate material	Glass Ceramics		
Footprint	100 x 100 mm	180 x 180 mm	260 x 260 mm
W x D x H, total	150 x 260 x 105 mm	200 x 330 x 105 mm	300 x 415 x 105 mm
Weight	3 kg	5 kg	6 kg
Mains connection	230 V, 50/60 Hz		

Standard version

Type	Art. No.	Pack Qty.	€
C-MAG HP 4	**LN75.1**	1 unit(s)	529,00

Models with contact thermometer connection

Additionally with DIN socket 12878 for the connection of an electronic contact thermometer e.g. ETS-D5 for high-precision temperature control.

Type	Art. No.	Pack Qty.	€
C-MAG HP 7	**LN76.1**	1 unit(s)	582,00
C-MAG HP 10	**LN77.1**	1 unit(s)	795,00

Hot plate US/UC-series

Stuart.

Features:

- Microprocessor-controlled heating element
- Platforms are optionally available in glass ceramic (generally good resistance to chemical attack, high temperature, 120 x 120 mm heated zone) or aluminium (extremely robust, 150 x 150 mm heated zone)
- Temperature control with LED display, colour LEDs make it easier to read current actual temperature
- Safety warning lamp comes on at temperatures above 50 °C

Technical specifications:

Art. No.	PY70.1	PY71.1
Type	US150	UC150
Heating output	700 W	500 W
Temperature range	to 325 °C	to 450 °C
Heated zone	150 x 150 mm	120 x 120 mm
Hotplate material	Aluminium/silicone-coated	Glass ceramic
Footprint	150 x 150 mm	
W x D x H, total	172 x 248 x 120 mm	
Weight	2.2 kg	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
US150	**PY70.1**	1 unit(s)	441,00
UC150	**PY71.1**	1 unit(s)	447,00

Hot plates

Infrared hotplate CR 300

Stuart.

- Chemically resistant ceramic surface
- With safety warning lamp for temperatures above 50 °C
- Efficient infrared heating with 900 W
- Heats 1 litre of water 30 % faster than conventional ceramic heating plates with 1200 W
- For liquid quantities up to 10 l

Technical specifications:

Art. No.	EE52.1
Type	CR 300
Heating output	900 W
Temperature range	+50 to +450 °C
Heated zone	Ø 140 mm
Footprint	300 x 300 mm
W x D x H, total	300 x 365 x 105 mm
Weight	4 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
CR 300	**EE52.1**	1 unit(s)	1.140,00

Hot plate CD/SB-series

Stuart.

With safety warning lamp for temperatures over 50 °C.

Technical specifications:

Art. No.	Y409.1	Y410.1
Type	CB 300	SB 300
Heating output	1200 W	600 W
Temperature range	+50 to +450 °C	+50 to +300 °C
Heated zone	200 x 200 mm	300 x 300 mm
Hotplate material	Ceramic	Aluminium
Footprint	300 x 300 mm	
W x D x H, total	300 x 365 x 105 mm	
Weight	6 kg	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
CB 300	**Y409.1**	1 unit(s)	834,00
SB 300	**Y410.1**	1 unit(s)	821,00

Hot plate CB/SB-series

Stuart.

Large surface for simultaneous heating of multiple samples, for example 30 beakers of 100 ml. With safety warning light at temperatures over +50 °C.

Technical specifications:

Art. No.	Y407.1	Y408.1
Type	CB 500	SB 500
Heating output	2250 W	1500 W
Temperature range	+50 to +375 °C	+50 to +300 °C
Heated zone	450 x 250 mm	500 x 300 mm
Hotplate material	Ceramic	Aluminium
Footprint	500 x 300 mm	
W x D x H, total	520 x 360 x 130 mm	
Weight	12 kg	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
CB 500	**Y407.1**	1 unit(s)	1.108,00
SB 500	**Y408.1**	1 unit(s)	1.066,00

Hot plates

Digital hot plate SD-series

Stuart.

With large surface for simultaneous heating of multiple samples.

- Microprocessor-controlled
- Footprint, model SD 300: 300 x 300 mm
  Footprint, model SD 500: 300 x 500 mm
- Digital display with a display resolution of 1 °C
- Aluminium hot plate ensures even heat distribution
- Temperature fluctuations in the worktop area: ±2 °C

Technical specifications:

Art. No.	AH86.1	AH87.1
Type	SD 300	SD 500
Heating output	600 W	1500 W
Temperature range	+50 to +300 °C	
Display resolution	1 °C	
Temperature stability	±1,5 °C	
Heated zone	300 x 300 mm	300 x 500 mm
W x D x H, total	320 x 365 x 105 mm	520 x 360 x 130 mm
Weight	6 kg	12 kg
Mains connection	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
SD 300	**AH86.1**	1 unit(s)	1.161,00
SD 500	**AH87.1**	1 unit(s)	1.189,00

Hot plate CP 300, acid resistant

Stuart.

Suitable for aggressive liquids, concentrated acids or alkalis, for trace analysis etc.

Features:

- Hot plate housing made of PTFE with ceramic heating surface
- Safety warning lamp for temperatures above 50 °C
- Remote control via separate control unit with PTFE-sheathed connection cable (the control unit can be placed outside the working area)

Technical specifications:

Art. No.	KN92.1
Type	CP 300
Heating output	900 W
Temperature range	to +400 °C
Heated zone	200 x 200 mm
Hotplate material	Ceramic
Footprint	300 x 300 mm
W x D x H, total	320 x 360 x 60 mm
Control line	2000 mm
Weight	11 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
CP 300	**KN92.1**	1 unit(s)	3.773,00

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Magnetic stirrers

Small magnetic stirrer ROTILABO® M 3

ROTH SELECTION.

- For stirring capacities up to 3 l
- Continuously adjustable speed range
- ABS housing

Technical specifications:

Art. No.	AAN1.1
Type	M 3
Number of stirring points	1
Max. stirring capacity (H_2O)	3 l
Speed range	to 1100 rpm
Motor power output	0.6 W
Housing material	ABS
Footprint	130 x 150 mm
W x D x H, total	130 x 150 x 50 mm
Operating temperature	5 to +40 °C at 80 % RH
Weight	400 g
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
M 3	**AAN1.1**	1 unit(s)	84,80

Small magnetic stirrer Topolino

IKA.

For stirring capacities up to 250 ml.

- Continuously adjustable speed range
- Plate made of PP

Technical specifications:

Art. No.	KE48.1
Type	Topolino
Number of stirring points	1
Max. stirring capacity (H_2O)	0.25 l
Speed range	300 to 1800 rpm
Motor power input	1.1 W
Motor power output	0.8 W
Footprint	Ø 80 mm
W x D x H, total	95 x 110 x 40 mm
Operating temperature	+5 to +40 °C at 80 % RH
Weight	300 g

Delivery incl. mains adapter.

Type	Art. No.	Pack Qty.	€
Topolino	**KE48.1**	1 unit(s)	117,00

Small magnetic stirrer MSL 8

Velp.

Robust epoxy-coated steeling casing. Control panel is recessed to protect it against leaking liquids.

Technical specifications:

Art. No.	EHY7.1
Type	MSL 8
Number of stirring points	1
Max. stirring capacity (H_2O)	8 l
Speed range	40 to 1500 rpm
Motor power input	5 W
Footprint	168 x 183 mm
W x D x H, total	168 x 183 x 60 mm
Operating temperature	+5 to +40 °C at 80 % RH
Weight	0,95 kg
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
MSL 8	**EHY7.1**	1 unit(s)	197,80

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Magnetic stirrers

Magnetic stirrers RSM series

Phönix Instrument.

Technical specifications:

Art. No.	XP52.1	XP53.1
Type	RSM-10 B	RSM-01 S
Number of stirring points	1	
Max. stirring capacity (H_2O)	3 l	20 l
Speed range	100 to 1500 rpm	to 1500 rpm
Speed display	LED	
Speed display accuracy	10 rpm	
Motor power input	5 W	30 W
Motor power output	3 W	18 W
Footprint	Ø 135 mm	
W x D x H, total	155 x 215 x 75 mm	160 x 280 x 85 mm
Weight	0.8 kg	2.8 kg
Mains connection	200–240 V, 50/60 Hz	

(1) RSM-10 B model

- Speed adjustment via digital display (LED display)
- ABS housing and platform

Pic.	Type	Art. No.	Pack Qty.	€
(1)	RSM-10 B	**XP52.1**	1 unit(s)	166,65

(2) RSM-01 S model

- With stainless steel platform
- Solid metal housing
- Levelling feet for uneven surfaces

Pic.	Type	Art. No.	Pack Qty.	€
(2)	RSM-01 S	**XP53.1**	1 unit(s)	306,40

Small magnetic stirrer Mini-MR standard

IKA.

For simple stirring applications **up to 1000 ml**. White plate with centring points, ideal for titrations and for observing colour reactions. Polyester foil plate.

Technical specifications:

Art. No.	0863.1
Type	Mini-MR standard
Number of stirring points	1
Max. stirring capacity (H_2O)	1 l
Speed range	to 2500 rpm
Motor power input	3 W
Motor power output	2 W
Footprint	115 x 115 mm
W x D x H, total	115 x 129 x 37 mm
Weight	250 g
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Mini-MR standard	**0863.1**	1 unit(s)	226,00

Small magnetic stirrer Hei-Mix S

Heidolph.

Electronic speed control. With PVDF platform and polyamide housing.

Technical specifications:

Art. No.	EP84.1
Type	Hei-Mix S
Number of stirring points	1
Max. stirring capacity (H_2O)	5 l
Speed range	to 2200 rpm
Connected load	7 W
Footprint	Ø 104 mm
W x D x H, total	126 x 140 x 80 mm
Operating temperature	0 to +40 °C at 80 % RH
Weight	1.2 kg

Type	Art. No.	Pack Qty.	€
Hei-Mix S	**EP84.1**	1 unit(s)	236,00

Magnetic stirrers

Magnetic stirrers lab disc

IKA.

Adjustable reversing mode with change of direction every 30 sec.

- High IP protection (IP 65)
- Flat housing design

Technical specifications:

Art. No.	KX33.1
Type	lab disc
Number of stirring points	1
Max. stirring capacity (H_2O)	0.8 l
Speed range	150 to 1500 rpm
Motor power input	5 W
Motor power output	3 W
Footprint	Ø 100 mm
W x D x H, total	116 x 175 x 12 mm
IP rating	65
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
lab disc	**KX33.1**	1 unit(s)	310,00

Small magnetic stirrer squid series

IKA.

Glass plate, synthetic TPC-ET base.

Technical specifications:

Art. No.	KX28.1	KX23.1
Type	Color squid white	Big squid white
Number of stirring points	1	
Max. stirring capacity (H_2O)	1 l	1.5 l
Speed range	to 2500 rpm	
Speed display	digital	
Motor power input	3 W	
Motor power output	2 W	
Footprint	Ø 115 mm	Ø 160 mm
W x D x H, total	145 x 160 x 45 mm	183 x 203 x 45 mm
Mains connection	100–240 V, 50/60 Hz	

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Color squid white	**KX28.1**	1 unit(s)	340,00
(2)	Big squid white	**KX23.1**	1 unit(s)	340,00

Magnetic stirrer myPlate

IKA.

Users can choose the design of the plate surface themselves. Interchangeable frame makes it easy to replace the underlying photo.

- Digital speed display (set/actual value)
- Plate made of glass

Technical specifications:

Art. No.	KHC4.1
Type	myPlate
Number of stirring points	1
Max. stirring capacity (H_2O)	1.5 l
Speed range	100 to 2500 rpm
Motor power input	4 W
Motor power output	2 W
Setting accuracy	10 min^{-1}
Footprint	Ø 135 mm
W x D x H, total	152 x 164 x 30 mm
Operating temperature	+5 to +40 °C at 80 % RH
Weight	0,5 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. photo paper (can be individually printed, 10 pieces).

Type	Art. No.	Pack Qty.	€
myPlate	**KHC4.1**	1 unit(s)	340,00

NEW / +

Magnetic stirrer Induction stirrer

Heathrow Scientific.

Wear-free induction motor.

- Constant speed even at low speeds
- Magnetic coil technology to keep the plate cool - for stirring temperature-sensitive samples and for work over extended periods of time
- Digital display for speed and timer
- Direction of rotation of the magnetic motor can be adjusted by turning to the left or right
- Adjustable automatic reversal of direction of rotation (1 to 99 cycles)
- ABS plastic housing
- Five-year warranty

Technical specifications:

Art. No.	**1HAA.1**
Type	Induction stirrer
Number of stirring points	1
Max. stirring capacity (H_2O)	3 l
Speed range	10 to 2000 rpm
Speed display	LCD
Timer function	30 sec to 60 min in 1 sec increments or continuous operation
Footprint	165 mm
W x D x H, total	195 x 245 x 75 mm
Operating temperature	2 to 40 °C at 80 % RH
Weight	1,13 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. two cylindrical magnetic bars (Ø 12 mm, L 35 mm) and anti-slip mat made of silicone.

Type	Art. No.	Pack Qty.	€
Induction stirrer	**1HAA.1**	1 unit(s)	347,25

Magnetic stirrers MIX-1 series

2mag.

General information for all models:

- Wear-free magnetic stirrer
- Stainless steel housing
- Soft start for reliable capture/centring and acceleration of the stirring rod

Technical specifications:

Art. No.	**KLH5.1**	**KLH6.1**
Type	Mix 1 eco	Mix 1
Number of stirring points	1	
Max. stirring capacity (H_2O)	3 l	10 l
Speed range	120 to 1400 rpm	100 to 2000 rpm
Power setting	10 W	5/10/15/20 W
W x D x H, total	120 x 120 x 35 mm	180 x 238 x 38 mm
IP rating	65	
Operating temperature	-10 to +50 °C at 80 % RH	
Weight	1,7 kg	4,0 kg
Mains connection	100–240 V, 50/60 Hz	

Model: Mix 1 eco

- Up to 3-litre stirring capacity

Type	Art. No.	Pack Qty.	€
Mix 1 eco	**KLH5.1**	1 unit(s)	381,65

Model: Mix 1

- Up to 10-litre stirring capacity
- Digital display for speed and power setting
- Four-level power setting for high power when stirring large quantities, and reduced power for heat-free continuous operation
- Memory function stores the most recent settings

Type	Art. No.	Pack Qty.	€
Mix 1	**KLH6.1**	1 unit(s)	632,10

Magnetic stirrers

Magnetic stirrer Maxi Direct Digital

Thermo.

- Nonwearing Cimarec stirrer drive
- Stainless steel housing
- Automatic start-up for safe acceleration of the stirring rod
- With digital stirring speed display
- Constant stirring at low speeds of 80 rpm
- A memory function stores the most recent settings
- 5 years warranty

Technical specifications:

Art. No.	LY28.1
Type	Maxi Direct Digital
Number of stirring points	1
Max. stirring capacity (H_2O)	5 l
Speed range	80 to 2000 rpm
Power setting	5/10/15/20 W
W x D x H, total	180 x 215 x 35 mm
IP rating	62
Operating temperature	-10 to +40 °C at 95 % RH
Weight	2500 g

Type	Art. No.	Pack Qty.	€
Maxi Direct Digital	**LY28.1**	1 unit(s)	546,00

Magnetic stirrer SM27 Portable

Stuart.

ABS plastic housing. **Mains or battery operation**, even for use in climate chambers, incubators and in field research. Battery life approx. 600 h.

Technical specifications:

Art. No.	CC53.1
Type	SM27 Portable
Number of stirring points	1
Max. stirring capacity (H_2O)	1.5 l
Speed range	to 1300 rpm
W x D x H, total	150 x 160 x 70 mm
Operating temperature	0 to +40 °C at 80 % RH
Weight	1.3 kg

Delivery incl. 4 Mono 1.5 V batteries. Please order mains adapter separately.

Type	Art. No.	Pack Qty.	€
SM27 Portable	**CC53.1**	1 unit(s)	534,00

Magnetic stirrers C-MAG MS series

IKA.

- Ceramic glass plate
- Elevated control panel for protection against leaking liquids

Technical specifications:

Art. No.	LN38.1	LN40.1
Type	C-MAG MS 4	C-MAG MS 10
Number of stirring points	1	
Max. stirring capacity (H_2O)	5 l	15 l
Speed range	100 to 1500 rpm	
Motor power input	15 W	
Motor power output	1.5 W	
Footprint	100 x 100 mm	260 x 260 mm
W x D x H, total	150 x 260 x 105 mm	300 x 415 x 105 mm
Operating temperature	+5 to +40 °C at 80 % RH	
Weight	3 kg	6 kg
Mains connection	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
C-MAG MS 4	**LN38.1**	1 unit(s)	529,00
C-MAG MS 10	**LN40.1**	1 unit(s)	795,00

Magnetic stirrer Hei-Mix L

Heidolph.

- Heat from the motor is not transferred to the footprint, in order to protect thermolabile substances
- Soft start ensures that samples are handled carefully, speed is slowly increased to the required value
- Sealed housing for longer service life
- Ceramic-coated plate

Technical specifications:

Art. No.	KHE0.1
Type	Hei-Mix L
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	100 to 1400 rpm
Motor power output	20 W
Footprint	Ø 145 mm
W x D x H, total	173 x 277 x 94 mm
Permissible ambient conditions	+5 to +40 °C at 50% RH
Weight	2,9 kg
Mains connection	230 V, 50/60 Hz

KMO 3 basic	**KAA8.1**	1 unit(s)	641,00

Type	Art. No.	Pack Qty.	€
Hei-Mix L	**KHE0.1**	1 unit(s)	620,00

Magnetic stirrers

Magnetic stirrers POWER DIRECT

Thermo.

Powerful magnetic stirrer up to 40 litres stirring capacity. Compact dimensions with a flat design. Far-reaching magnetic field for stirring over a distance of up to 40 mm. Ideal for thick-walled glass bottoms, round flasks or double-walled vessels.

- Stainless steel housing
- Quick stop within 2 sec
- Stirring power can be adjusted to 4 steps (5/10/15/20 watts)
- Digital display for accurate speed adjustment
- Memory function stores the most recent settings
- 5 years warranty

Technical specifications:

Art. No.	Y822.1
Type	POWER DIRECT
Number of stirring points	1
Max. stirring capacity (H_2O)	40 l
Speed range	100 to 2000 rpm
Power setting	5/10/15/20 W
W x D x H, total	240 x 294 x 30 mm
Operating temperature	-10 to +40 °C at 95 % RH
Weight	3 kg

Delivery incl. wide range power supply unit (100–240 V/24 VDC).

Type	Art. No.	Pack Qty.	€
POWER DIRECT	**Y822.1**	1 unit(s)	953,00

Magnetic stirrers MIX-XL series

2mag.

General information for all models:

- Wear-free magnetic stirrer
- Stainless steel housing
- Powerful magnetic coupling for larger distances or thick vessel bottoms
- Soft start for reliable capture/centring and acceleration of the stirring rod
- Memory function stores the most recent settings

Technical specifications:

Art. No.	KLH7.1	KLH8.1
Type	Mix 1 XL	maxMix
Number of stirring points	1	
Max. stirring capacity (H_2O)	40 l	150 l
Speed range	70 to 2000 rpm	100 to 1200 rpm
Power setting	5/10/15/20 W	40 W
W x D x H, total	225 x 280 x 35 mm	265 x 320 x 68 mm
IP rating	64	
Operating temperature	-10 to +50 °C at 80 % RH	
Weight	4,0 kg	9,3 kg
Mains connection	100–240 V, 50/60 Hz	

Model: Mix 1 XL

- Up to 40-litre stirring capacity
- Digital display for speed and power setting
- Four-level power setting for high power when stirring large quantities of viscous media, and reduced power for heat-free continuous operation
- Adjustable interval times for automatically restarting the stirrer after up to 240 seconds (increments of two)
- mixWatch: Safety function for monitoring the magnetic coupling between the magnetic stirrer and the stirring rod

Type	Art. No.	Pack Qty.	€
Mix 1 XL	**KLH7.1**	1 unit(s)	1.170,70

Model: maxMix

- Up to 150-litre stirring capacity
- Digital display for speed

Type	Art. No.	Pack Qty.	€
maxMix	**KLH8.1**	1 unit(s)	2.556,35

Magnetic stirrers

Magnetic stirrers Genie®

Scientific Industries.

For gentle to intensive mixing of low-viscosity liquids. ABS/PC plastic housing. Powerful magnetic stirrer, up to 38 litres stirring capacity.

Technical specifications:

Art. No.	HH66.1	HH67.1
Type	MegaMag Genie®	Digital MegaMag Genie®
Number of stirring points	1	
Max. stirring capacity (H_2O)	38 l	
Speed range	200 to 1300 rpm	
Speed display	Scale	Digital
Speed display accuracy		2 rpm
Timer		1 to 99 min or continuous operation
Footprint	305 x 305 mm	
W x D x H, total	310 x 305 x 130 mm	
Operating temperature	0 to +38 °C at 95 % RH	
Weight	3 kg	

MegaMag Genie® model

Pic.	Type	Art. No.	Pack Qty.	€
(1)	MegaMag Genie®	**HH66.1**	1 unit(s)	868,60

Digital MegaMag Genie® model

With speed and time adjustment (timer function) via digital display. Speed increase in increments of 10 rpm.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Digital MegaMag Genie®	**HH67.1**	1 unit(s)	1.087,90

Magnetic stirrers Genie® programmable

Scientific Industries.

General features of both models:

For gentle mixing (e.g. of cell suspensions) in intermittent mode. Reversing mode can be adjusted for better mixing of the medium.

- Microprocessor-controlled
- Preselectable stirring power (Low, Medium, High) for various stirring applications, e. g. “High” stirring power for viscous liquids
- Interval and reversing modes are available

Four programmes can be selected:

- **Manual mode**
  For stirring without/with change of direction (reversing mode) and timer function (1 sec to 99 hrs).
- **Automatic mode**
  For activating user-defined stirring profiles.
- **Profile mode**
  For programming and storing 4 user-defined stirring profiles. Each stirring profile can store 9 different ramps such as speed, stirring direction (clockwise or anticlockwise), ramp acceleration (from 5 to 300 rpm per sec) and time (including stirring pause).
- **Setup mode**
  For programming manual mode. The programmable elements are as follows: Ramp acceleration from 5 to 300 rpm per sec (i.e. the time required to reach the set speed), stirring power and the duration and pause functions of the automatic direction change (adjustable from 1 sec to 59 mins).

Technical specifications:

Art. No.	AH70.1	CK78.1
Type	MagStir Genie®	MultiMagStir Genie®
Number of stirring points	1	4
Max. stirring capacity (H_2O)	4 l	1 l
Speed range	10 to 1800 rpm	10 to 1200 rpm
Speed accuracy	±0,1 %	
Footprint	Ø 100 mm	Ø 75 mm
Clearance between stirring points		165 mm
W x D x H, total	160 x 200 x 55 mm	325 x 375 x 48 mm
Operating temperature	0 to +38 °C at 95 % RH	
Max. load	5 kg	10 kg
Weight	1.0 kg	3.2 kg

MagStir Genie® model

Type	Art. No.	Pack Qty.	€
MagStir Genie®	**AH70.1**	1 unit(s)	702,00

MultiMagStir Genie® model

With 4 synchronised stirring positions for serial examinations. Suitable for 4 Erlenmeyer flasks or 1000 ml beakers.

Type	Art. No.	Pack Qty.	€
MultiMagStir Genie®	**CK78.1**	1 unit(s)	1.391,05

Magnetic stirrer, remote control option MOBIL 10

Thermo.

For stirring applications in heating chambers, climate chambers and cooling chambers and for built-in systems.

- Easy to clean, robust housing made of POM. For operating temperatures of +5 to +56 °C at 95 RH.
- Can be remotely controlled (corded) with a separate Telemodul 10 M control unit
- Quick stop without drive overrun, for high operational safety, protects glass vessels from breaking
- Continuously adjustable speed
- Easy to clean, robust housing made of POM. For operating temperatures of +5 to +56 °C at 95 RH.

Technical specifications:

Art. No.	EH13.1
Type	MOBIL 10
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	100 to 1000 rpm
Stirring power	10 W
Control line	L 2 m / Ø 4 mm
Housing material	POM
Ø Housing	128 mm
IP rating	66
Operating temperature	+5 to +56 °C at 95 % RH
Weight	0.7 kg

Delivery without Telemodul 10 M control unit, please order separately (required for operation).

Type	Art. No.	Pack Qty.	€
MOBIL 10	**EH13.1**	1 unit(s)	496,00

Accessories control unit Telemodul 10 M for magnetic stirrer MOBIL series

Thermo.

Technical specifications:

Art. No.	EH15.1
Speed constancy	±1 %
Stirring power	10 W
W x D x H, total	63 x 96 x 50 mm
IP rating	20
Permissible ambient conditions	10 to 40 °C at 80% RH
Weight	0.5 kg
Mains connection	230 V, 50/60 Hz

Designation	Art. No.	Pack Qty.	€
Telemodul 10 M	**EH15.1**	1 unit(s)	283,00

Magnetic stirrer, remote control option Cimarec Micro

Thermo.

With induction drive. Compact design for applications with low volumes. Ideal for operation in demanding environments and water baths.

Micro magnetic stirrer:

- High temperature resistance up to 95 °C in water and 120 °C in air
- Hermetically-sealed stainless steel housing, waterproof and dustproof acc. to IP 68
- Can be remotely controlled (corded) with a separate Telemodul 20 C control unit

Telemodul 20 C control unit:

- Graphic display
- Vertical mixing (Shake mode)
- 3 assignable program keys for quick starting routines. The most recent setting is stored automatically
- Three-stage adjustable start-up times for safe acceleration of the magnetic rod
- Intermittent operation with freely selectable stirring times and pause times as well as rotation direction reversal (5 sec to 1 h)
- Four-stage adjustable nominal stirring power (25/50/75/100 %); high power for viscous media, reduced power for long-term heat-free operation
- 5 years warranty

Technical specifications:

Art. No.	LY27.1
Type	Cimarec Micro
Number of stirring points	1
Max. stirring capacity (H_2O)	1 l
Speed range	130 to 1400 rpm
Power setting	2/4/6/8 W
Control line	L 2 m / Ø 4 mm
W x D x H, total	48 x 48 x 16 mm
IP rating	68
Operating temperature in water	0 to +95 °C (100 % RH)
Operating temperature	-10 to +120 °C at 95 % RH
Weight	0.2 kg
Technical specifications for Telemodul 20 C	
Speed constancy	±1 %
Nominal stirring power	20 W
Output voltage	VDC 20
Dimensions (W x D x H)	155 x 165 x 95 mm
Perm. ambient temperature	0 to +40 °C at 80 % RH
Power supply	100-240 V, 50/60 Hz
Weight	0.6 kg

Delivery incl. micro magnetic stirrer and Telemodul 20 C control unit.

Type	Art. No.	Pack Qty.	€
Cimarec Micro	**LY27.1**	1 unit(s)	832,00

Magnetic stirrers

Magnetic stirrer, remote control option Compact 20

Thermo.

For stirring applications directly in water baths (up to +50 °C), heating and cooling chambers, in damp brooding chambers and for built-in systems.

Compact 20 magnetic stirrer:

- Stainless steel housing
- Nonwearing Cimarec inductive drive
- Can be remotely controlled (corded) with a separate Telemodul 20 C control unit
- Hermetically sealed; waterproof according to IP 68

Telemodul 20 C control unit:

- Graphic display
- Vertical mixing (Shake mode)
- 3 assignable program keys for quick starting routines. The most recent setting is stored automatically
- Three-stage adjustable start-up times for safe acceleration of the magnetic rod
- Intermittent operation with freely selectable stirring times and pause times as well as rotation direction reversal (5 sec to 1 h)
- Four-stage adjustable nominal stirring power (25/50/75/100 %); high power for viscous media, reduced power for long-term heat-free operation

Technical specifications:

Art. No.	EH16.1
Type	Compact 20
Number of stirring points	1
Max. stirring capacity (H_2O)	1.5 l
Speed range	130 to 1400 rpm
Control line	2 m / Ø 4 mm
W x D x H, total	120 x 120 x 35 mm
IP rating	68
Operating temperature in water	0 to +50 °C
Operating temperature	-10 to +56 °C at 100 % RH
Weight	1 kg

Technical specifications of Telemodul 20 C:	
Speed constancy	±1 %
Nominal stirring power	20 W
Output voltage	VDC 20
Dimensions (W x D x H)	155 x 165 x 95 mm
Perm. ambient temperature	0 to +40 °C at 80 % RH
Input voltage	100-240 V, 50/60 Hz
Weight	0.6 kg

Delivery incl. Compact 20 magnetic stirrer and Telemodul 20 control unit.

Type	Art. No.	Pack Qty.	€
Compact 20	**EH16.1**	1 unit(s)	841,00

Multi-position magnetic stirrers Digital 6 and 15

Velp.

- Stainless steel plate
- Digital speed display
- Constant speed, even after changes in medium viscosity
- With timer (1 to 900 sec or continuous mode) or adjustable reversing mode with opposite direction of rotation (5 to 900 sec)
- Speed can be adjusted in increments of 10 rpm

Technical specifications:

Art. No.	EHY8.1	EHY9.1
Type	Digital 6	Digital 15
Number of stirring points	6	15
Max. stirring capacity (H_2O)	0.4 l	0.25 l
Speed range	80 to 1500 rpm	
Speed display	LED	
Motor power input	3.6 W	9 W
Motor power output	3 W	8 W
Footprint	Ø 85 mm	Ø 64 mm
Clearance between stirring points	100 mm	74 mm
W x D x H, total	230 x 370 x 52 mm	
Operating temperature	+5 to +40 °C at 80 % RH	
Weight	1.75 kg	2.1 kg
Mains connection	100–240 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
Digital 6	**EHY8.1**	1 unit(s)	757,90
Digital 15	**EHY9.1**	1 unit(s)	1.051,35

Multi-position magnetic stirrers POLY 15

Thermo.

Nonwearing Cimarec stirrer drive. Powder-coated stainless steel housing. Digital display for accurate speed adjustment. Memory function stores the most recent settings.
For up to 15 250 ml beakers or 6 1000 ml Erlenmeyer flasks. 5 years warranty.

Technical specifications:

Art. No.	**X544.1**
Type	POLY 15
Number of stirring points	15
Max. stirring capacity (H_2O)	0.8 l
Speed range	130 to 990 rpm
Stirring power	10 W
W x D x H, total	240 x 420 x 35 mm
Operating temperature	-10 to +40 °C at 95 % RH
Weight	6 kg

Type	Art. No.	Pack Qty.	€
POLY 15	**X544.1**	1 unit(s)	910,00

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Multi-position magnetic stirrers Multipoint series

Thermo.

Features:

- With Cimarec stirrer drive
- Stainless steel housing. Hermetically sealed, **waterproof and dustproof and easy to clean.**
- **Not suitable for use under water**
- Stirring power can be adjusted to 4 steps (5/10/15/20 W); high power for larger stirring capacities and viscous media, reduced power for long-term, heat-free operation.
- **4-digit LED display**
- Memory function stores the most recent settings.
- Multipoint 6, e.g. for 6 1000 ml Erlenmeyer flasks or Multipoint 15, e.g. for 15 250 ml beakers
- 5 years warranty

Technical specifications:

Art. No.	**X176.1**	**X177.1**
Type	Multipoint 6	Multipoint 15
Number of stirring points	6	15
Max. stirring capacity (H_2O)	3 l	
Speed range	80 to 2000 rpm	
Power setting	5/10/15/20 W	
Clearance between stirring points	130 mm	65 mm
W x D x H, total	240 x 420 x 35 mm	
IP rating	64	
Operating temperature	-10 to +56 °C at 100 % RH	
Mains connection	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
Multipoint 6	**X176.1**	1 unit(s)	1.433,00
Multipoint 15	**X177.1**	1 unit(s)	1.795,00

Magnetic stirrers

Multi-position magnetic stirrers RO series

IKA.

Noiseless coil drive technology provides consistent stirring speeds at all stirring positions. This enables the performance of serial examinations under reproducible conditions.

- Digital speed display
- Stainless steel surface
- Stirring positions arranged in-line for optimum use of surface area (1 x 5, 2 x 5 or 3 x 5)
- Adjustable reversing mode with change of direction (adjustable to 30/60/90/120 sec)
- Eco mode for heat-free long-term operation with reduced power (max. speed is limited to 600 rpm)

Technical specifications:

Art. No.	XT33.1	XT34.1	XT35.1
Type	RO 5	RO 10	RO 15
Number of stirring points	5	10	15
Max. stirring capacity (H_2O)	0.4 l		
Max. stirring capacity with larger vessels	2 l	4 l	6 l
Speed range	to 1200 rpm		
Speed display	LED		
Setting accuracy	10 rpm		
Footprint	120 x 470 mm	190 x 470 mm	280 x 470 mm
Clearance between stirring points	90 mm		
W x D x H, total	120 x 570 x 60 mm	190 x 570 x 60 mm	280 x 570 x 60 mm
Weight	3 kg	5 kg	7 kg
Mains connection	100–240 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
RO 5	**XT33.1**	1 unit(s)	1.475,00
RO 10	**XT34.1**	1 unit(s)	1.702,00
RO 15	**XT35.1**	1 unit(s)	2.380,00

Multi-position magnetic stirrer with heater AM4

Velp.

- Four independently controlled stirring/heating positions
- With aluminium hot plates
- Constant speed, even when viscosity changes

Technical specifications:

Art. No.	CKK3.1
Type	AM4
Number of stirring points	4
Max. stirring capacity (H_2O)	15 l
Speed range	50 to 1500 rpm
Speed display	Scales
Temperature range	+50 to +370 °C
Heating output	4 x 600 W
Footprint	Ø 135 mm
Clearance between stirring points	186 mm
W x D x H, total	715 x 246 x 115 mm
Weight	8.6 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
AM4	**CKK3.1**	1 unit(s)	1.500,70

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Heating/magnetic stirrers

Multi-position magnetic stirrer with heater SB 162-3

Stuart.

Features:

- Hot plates with aluminium/silicone alloy for uniform temperature distribution
- Three independently controlled stirring/heating positions
- With separate safety warning lamp for each stirring/heating position; lights up when hot plate temperature exceeds 50 °C

Technical specifications:

Art. No.	KN82.1
Type	SB 162-3
Number of stirring points	3
Max. stirring capacity (H_2O)	15 l
Speed range	100 to 1500 rpm
Speed display	Scales
Temperature range	to 325 °C
Heating output	3 x 700 W
Footprint	160 x 160 mm
W x D x H, total	600 x 270 x 110 mm
Weight	11 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
SB 162-3	**KN82.1**	1 unit(s)	1.513,00

NEW / +

Multi-position magnetic stirrer with heater RSM-03-4KH

Phönix Instrument.

- Four independently controlled stirring/heating positions
- LCD displays show the current temperatures or speeds
- **Integrated contact thermometer with full functionality for direct control of medium temperature using Pt 1000 measuring probe**
- Stainless steel hot plate with ceramic coating
- Overheating protection at 420 °C

Technical specifications:

Art. No.	1K9A.1
Type	RSM-03-4KH
Number of stirring points	4
Max. stirring capacity (H_2O)	3 l
Speed range	200 to 1500 rpm
Speed display	LCD
Motor power output	1.8 W
Operating temperature	Room temperature to +340 °C
Temperature display	LCD
Setting accuracy	1 °C
Control accuracy without sensor	±5 K
Control accuracy with sensor	±1 K
Heating output	4 x 500 W
Footprint	Ø 135 mm
Clearance between stirring points	170 mm
W x D x H, total	700 x 270 x 130 mm
Weight	9,5 kg
Mains connection	200–230 V, 50 Hz

Delivery incl. four Pt 1000 temperature gauges, four stand rods and four clamps.

Type	Art. No.	Pack Qty.	€
RSM-03-4KH	**1K9A.1**	1 unit(s)	1.870,50

Heating/magnetic stirrers

Multi-position magnetic stirrer with heater MULTI-HS series

Velp.

Simultaneous mixing at 6 or 15 stirring positions with identical intensity and homogeneous temperature distribution.

- Digital speed and temperature display
- Aluminium hot plate with protective coating made of ceramic
- **With integrated tempering plate**
- Constant speed, even after changes in medium viscosity
- Safety warning display comes on at temperatures above 50 °C
- Integrated timer operation (1 min to 99 h, 59 mins), with audible signal when the countdown has ended
- Adjustable automatic reversal of direction of rotation (5 sec to 99 min, 59 sec in 1 sec increments)
- Max. medium temperature 70 °C (depending on vessel)

Technical specifications:

Art. No.	1AN5.1	1AN6.1
Type	MULTI-HS 6	MULTI-HS 15
Number of stirring points	6	15
Max. stirring capacity (H_2O)	400 ml	250 ml
Speed range	100 to 1000 rpm	
Speed display	Digital	
Speed display accuracy	5 rpm	
Operating temperature	Room temperature up to 120 °C (setting accuracy ±1 °C)	
Temperature display	Digital	
Heating output	600 W	
Timer function	1 min up to 99 h, 59 min	
Footprint	432 x 223 mm	
Clearance between stirring points	100 mm	74 mm
W x D x H, total	240 x 550 x 65 mm	
Weight	4,7 kg	4,8 kg
Mains connection	230 V, 50/60 Hz	

HS 6 model
With six stirring positions for 400 ml beaker.

Type	Art. No.	Pack Qty.	€
MULTI-HS 6	**1AN5.1**	1 unit(s)	1.583,50

HS 15 model
With 15 stirring positions for 250 ml beaker.

Type	Art. No.	Pack Qty.	€
MULTI-HS 15	**1AN6.1**	1 unit(s)	2.506,90

Multi-position magnetic stirrer with heater RT series

IKA.

Simultaneous mixing at 5, 10 or 15 stirring positions with identical intensity and homogeneous temperature distribution.

- Digital speed and temperature display
- **With integrated tempering plate**
- Stainless steel surface
- Stirring positions arranged in-line for optimum use of surface area (1 x 5, 2 x 5 or 3 x 5)
- Adjustable reversing mode with change of direction (adjustable to 30/60/90/120 sec)
- Eco mode for heat-free long-term operation with reduced power
- Max. medium temperature 70 °C (depending on vessel)
- Speed can be adjusted in increments of 10 rpm

Technical specifications:

Art. No.	XT36.1	XT37.1	XT38.1
Type	RT 5	RT 10	RT 15
Number of stirring points	5	10	15
Max. stirring capacity (H_2O)	0.4 l		
Max. stirring capacity with larger vessels	2 l	4 l	6 l
Speed range	0 to 1000 rpm		
Speed display	LED		
Operating temperature	Ambient temperature up to 120 °C (setting accuracy ±1 °C)		
Temperature display	LED		
Footprint	110 x 495 mm	180 x 495 mm	270 x 495 mm
Clearance between stirring points	90 mm		
W x D x H, total	120 x 610 x 60 mm	190 x 610 x 60 mm	280 x 610 x 60 mm
Weight	4 kg	7.5 kg	10.5 kg
Mains connection	220–240 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
RT 5	**XT36.1**	1 unit(s)	2.499,00
RT 10	**XT37.1**	1 unit(s)	3.299,00
RT 15	**XT38.1**	1 unit(s)	4.149,00

Heating/magnetic stirrers

Heating and magnetic stirrers ROTILABO® MH 15

ROTH SELECTION.

- Aluminium hot plate with protective coating
- With elevated control panel to protect against leaking liquids
- Constant speed, even after changes in medium viscosity
- Front panel with °C and rpm scale

Technical specifications:

Art. No.	AAN2.1
Type	MH 15
Number of stirring points	1
Max. stirring capacity (H_2O)	15 l
Speed range	50 to 1500 rpm
Motor power input	30 W
Motor power output	23 W
Temperature range	50 to 370 °C
Heating output	630 W
Footprint	Ø 135 mm
W x D x H, total	165 x 280 x 115 mm
Weight	2.6 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
MH 15	**AAN2.1**	1 unit(s)	267,70

Heating and magnetic stirrer RH basic 2

IKA.

- Stainless steel hot plate
- Fixed safety circuit, which limits the hot plate temperature to 400 °C

Technical specifications:

Art. No.	Y888.1
Type	RH basic 2
Number of stirring points	1
Max. stirring capacity (H_2O)	10 l
Speed range	100 to 2000 rpm
Motor power input	15 W
Motor power output	2 W
Operating temperature	Ambient temperature to +320 °C
Control accuracy	±15 K
Heating output	400 W
Footprint	Ø 125 mm
W x D x H, total	168 x 220 x 105 mm
Weight	2.4 kg

Type	Art. No.	Pack Qty.	€
RH basic 2	**Y888.1**	1 unit(s)	395,00

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Heating/magnetic stirrers

Heating and magnetic stirrers RSM series

Phönix Instrument.

- Temperature and speed adjustment via digital display (LED display)
- Digital display of nominal and actual temperature
- **Direct connection for Pt 1000 medium temperature sensor** (if required, please order separately)
- Fixed safety circuit of 320 °C
- Platform made of stainless steel or ceramic coated steel (optional)

Technical specifications:

Art. No.	TT78.1	TT79.1
Type	RSM-10HS	RSM-10HP
Number of stirring points	1	
Max. stirring capacity (H_2O)	3 l	
Speed range	200 to 1500 rpm	
Speed display	LED	
Speed display accuracy	20 rpm	
Motor power input	5 W	
Motor power output	3 W	
Hotplate material	Stainless steel	Ceramic-coated steel
Operating temperature	Ambient temperature to +280 °C	
Temperature display	LED	
Control accuracy without sensor	±10 K	
Control accuracy with sensor	±2 K	
Heating output	500 W	
Footprint	Ø 135 mm	
W x D x H, total	155 x 215 x 100 mm	
Weight	1.4 kg	
Mains connection	200–240 V, 50/60 Hz	

Delivery without temperature gauge and stand kit (if required, please order separately).

Type	Art. No.	Pack Qty.	€
RSM-10HS	**TT78.1**	1 unit(s)	278,45
RSM-10HP	**TT79.1**	1 unit(s)	289,20

Heating and magnetic stirrer RSM-14HP

Phönix Instrument.

- Temperature and speed adjustment via digital display (LCD display)
- Digital display of target and actual temperature
- **Integrated contact thermometer with full functionality. Direct connection for Pt 1000 medium temperature sensor** (if required, please order separately)
- Fixed safety circuit of 420 °C

Technical specifications:

Art. No.	KKE5.1
Type	RSM-14HP
Number of stirring points	1
Max. stirring capacity (H_2O)	5 l
Speed range	200 to 1500 rpm
Speed display	LCD
Speed display accuracy	20 rpm
Motor power input	2.4 W
Motor power output	1.8 W
Hotplate material	Ceramic-coated aluminium
Operating temperature	5 °C above room temperature up to +380 °C
Temperature display	LCD
Control accuracy without sensor	±10 K
Control accuracy with sensor	±2 K
Heating output	510 W
Footprint	140 x 140 mm
W x D x H, total	180 x 320 x 108 mm
Mains connection	200–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
RSM-14HP	**KKE5.1**	1 unit(s)	385,95

Accessories for heating and magnetic stirrers RSM-10HS, RSM-10HP and RSM-14HP

Phönix Instrument.

Pt 1000 temperature sensor
Made of V4A. Sensor length 190 mm, Ø 3 mm. Handle 50 mm.

Designation	Art. No.	Pack Qty.	€
Pt 1000 sensor	**TT80.1**	1 unit(s)	80,65

Stand kit
For attaching a single sensor probe.

Delivery incl. M8 stand rod (L 340 mm, Ø 10 mm), holder rod for Pt 1000 sensor (L 160 mm, Ø 10 mm) and clamp.

Designation	Art. No.	Pack Qty.	€
Stand kit	**YK80.1**	1 unit(s)	64,50

Heating/magnetic stirrers

Heating and magnetic stirrers ROTILABO® MH 20 Digital Set with integrated contact thermometer

ROTH SELECTION.

- Temperature and speed setting via digital display
- Integrated contact thermometer with full functionality for direct control of the medium temperature up to 250 °C via Pt 100 sensor (please order accessories for fastening the sensor separately)
- Aluminium hot plate with protective coating made of ceramic
- Constant speed, even after changes in medium viscosity
- A safety warning lamp indicates temperatures above 50 °C
- Adjustable safety circuit for the hot plate temperature (50 to 370 °C)
- Speed can be adjusted in increments of 10 rpm

Technical specifications:

Art. No.	EYE7.1
Type	MH 20 Digital
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	50 to 1500 rpm
Speed display	digital
Temperature range	+50 to +370 °C
Temperature display	digital
Setting accuracy	±5 °C
Adjustment accuracy with measuring probe	±1 °C
Control accuracy without sensor	±10 K
Control accuracy with sensor	±2 K
Heating output	630 W
Footprint	Ø 135 mm
W x D x H, total	165 x 280 x 115 mm
Weight	2.6 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. MH 20 Digital heater and magnetic stirrer and Pt 100 stainless steel temperature measuring sensor, Ø 3 mm, L 250 mm.

Type	Art. No.	Pack Qty.	€
MH 20 Digital	**EYE7.1**	1 unit(s)	465,50

Accessories for MH 20, AREC.X and AREX-6 heating and magnetic stirrer

ROTH SELECTION.

Accessories for fastening the sensor

Designation	Art. No.	Pack Qty.	€
Stand rod	**EYE8.1**	1 unit(s)	35,10
Holder for temperature gauge	**EYE9.1**	1 unit(s)	51,25

NEW / +

Heating and magnetic stirrer AREC series

Velp.

- Digital display of hot plates' target and actual temperature
- Ceramic hot plate, white
- With elevated control panel to protect against leaking liquids
- Safety warnings come on at temperatures above 50 °C

Technical specifications:

Art. No.	1K6H.1	1K6K.1
Type	AREC	AREC.X
Number of stirring points	1	
Max. stirring capacity (H_2O)	15 l	
Speed range	50 to 1500 rpm	
Speed display	Scale	
Operating temperature	Room temperature to +550 °C	
Temperature display	LED	
Setting accuracy	±5 K	
Control accuracy	±10 K	
Control accuracy with sensor		±2 K
Heating output	800 W	
Footprint	180 x 180 mm	
W x D x H, total	203 x 344 x 94 mm	
Weight	3,5 kg	
Mains connection	230 V, 50/60 Hz	

(1) AREC model

- Good heat transfer and stirring power for simple laboratory applications.
- **Without** a connection option for temperature gauge Pt 100

Type	Art. No.	Pack Qty.	€
AREC	**1K6H.1**	1 unit(s)	435,40

(2) AREC.X model full set

- Ideal for temperature-sensitive applications in chemistry, biotech and pharmaceuticals
- Integrated contact thermometer with full functionality, for direct control of the medium temperature up to 250 °C via Pt 100 sensor

Delivery incl. Pt 100 stainless steel temperature gauge (Ø 3 mm, L 250 mm), stand rod and holder for temperature gauge.

Type	Art. No.	Pack Qty.	€
AREC.X	**1K6K.1**	1 unit(s)	603,10

Heating/magnetic stirrers

Heating and magnetic stirrer US/UC-series

Stuart.

Features:

- Microprocessor-controlled heating system
- Platforms are optionally available in glass ceramic (good resistance to chemicals, withstands high temperature, 120 x 120 mm heated zone) or aluminium (very rugged, 150 x 150 mm heated zone)
- A safety warning lamp indicates temperatures above 50 °C

Technical specifications:

Art. No.	PY72.1	CHA5.1	PY73.1	CHA6.1
Type	US152	US152D	UC152	UC152D
Number of stirring points	1			
Max. stirring capacity (H_2O)	15 l			
Speed range	100 to 2000 rpm			
Hotplate material	Aluminium/silicon-coated		Glass ceramic	
Operating temperature	5 °C above ambient temperature up to 325 °C		5 °C above ambient temperature up to 450 °C	
Temperature display	Scale	LED	Scale	LED
Setting accuracy		±5 °C		±5 °C
Control accuracy		±10 °C		±10 °C
Heated zone	150 x 150 mm		120 x 120 mm	
Heating output	700 W		500 W	
Footprint	150 x 150 mm			
W x D x H, total	172 x 248 x 120 mm			
Weight	2.9 kg			
Mains connection	230 V, 50 Hz			

Models with scale

Temperature control with LED display, colour LEDs make it easier to read current actual temperature

Pic.	Type	Art. No.	Pack Qty.	€
(2)	US152	**PY72.1**	1 unit(s)	509,00
(1)	UC152	**PY73.1**	1 unit(s)	547,00

Models with LED display

With digital display of actual temperature. Minimum setting temperature 25 °C.

Pic.	Type	Art. No.	Pack Qty.	€
(3)	US152D	**CHA5.1**	1 unit(s)	585,00
(4)	UC152D	**CHA6.1**	1 unit(s)	601,00

Heating and magnetic stirrer RH series

IKA.

- With adjustable safety circuit for the hot plate temperature, from 50 to 370 °C
- With a socket according to DIN 12878 for connection to an electronic contact thermometer, e.g. ETS-D5 (please order separately, see contact thermometer), to control the medium temperature.

Technical specifications:

Art. No.	XT23.1	XT25.1	XT24.1	XT26.1
Type	RH basic		RH digital	
Number of stirring points	1			
Max. stirring capacity (H_2O)	15 l			
Speed range	50 to 2000 rpm			
Speed display	Scale		LED	
Motor power input	15 W			
Motor power output	2 W			
Hotplate material	Stainless steel	Enamel coating	Stainless steel	Enamel coating
Temperature range	+50 to +320 °C			
Temperature display	Scale		LED	
Setting accuracy			±5 K	
Control accuracy without sensor	±10 K			
Control accuracy with sensor			±0,5 K	
Heating output	600 W			
Footprint	Ø 135 mm			
W x D x H, total	160 x 246 x 90 mm			
Weight	2 kg			
Mains connection	220–240 V, 50/60 Hz			

RH basic models

Delivery without ETS-D5 contact thermometer; please order separately.

Type	Version	Art. No.	Pack Qty.	€
RH basic	With stainless steel hot plate	**XT23.1**	1 unit(s)	567,00
RH basic	With enamel coating	**XT25.1**	1 unit(s)	635,00

RH digital models

- Digital display of temperature and speed
- Error code display
- Easy operation via membrane keypad

Delivery without ETS-D5 contact thermometer; please order separately.

Type	Version	Art. No.	Pack Qty.	€
RH digital	With stainless steel hot plate	**XT24.1**	1 unit(s)	680,00
RH digital	With enamel coating	**XT26.1**	1 unit(s)	741,00

Heating/magnetic stirrers

Heating and magnetic stirrers C-MAG HS series

IKA.

General information for all models:

- Ceramic glass hot plate
- Temperature setting via digital display (LED)
- Digital display of hot plate target temperature
- Error code display in the event of fault
- Fixed safety circuit of 550 °C
- Hot Top Indicator (hot surface warning)

Technical specifications:

Art. No.	LN35.1	LN36.1	LN37.1
Type	C-MAG HS 4	C-MAG HS 7	C-MAG HS 10
Number of stirring points	1		
Max. stirring capacity (H_2O)	5 l	10 l	15 l
Speed range	100 to 1500 rpm		
Speed display	Scale		
Motor power input	15 W		
Motor power output	1.5 W		
Temperature range	+50 to +500 °C		
Control accuracy	±10 K		
Heating output	250 W	1000 W	1500 W
Footprint	100 x 100 mm	180 x 180 mm	260 x 260 mm
W x D x H, total	150 x 260 x 105 mm	220 x 330 x 105 mm	300 x 415 x 105 mm
Weight	3 kg	5 kg	6 kg
Mains connection	230 V, 50/60 Hz		

C-MAG HS 4 model

Type	Art. No.	Pack Qty.	€
C-MAG HS 4	**LN35.1**	1 unit(s)	567,00

Models with contact thermometer connection
Additionally available with DIN-socket 12878 for connecting an electronic contact thermometer, e.g. ETS-D5, for high-precision temperature control.

Type	Art. No.	Pack Qty.	€
C-MAG HS 7	**LN36.1**	1 unit(s)	623,00
C-MAG HS 10	**LN37.1**	1 unit(s)	851,00

Heating and magnetic stirrers C-MAG HS 7 complete set

IKA.

C-MAG HS 7 magnetic stirrer with heater:

- Ceramic glass hot plate
- Temperature setting via digital display (LED)
- Digital display of hot plate target temperature
- Error code display in the event of fault
- Fixed safety circuit of 550 °C
- Hot Top Indicator (hot surface warning)
- Bushing for connecting a contact thermometer ETS-D5

ETS-D5 contact thermometers

- Medium temperature control via actual temperature display. Bushing according to DIN 12878 for connecting a contact thermometer. Temperature control with no medium temperature overshoot.

Technical specifications:

Art. No.	LY79.1
Type	C-MAG HS 7 complete set
Number of stirring points	1
Max. stirring capacity (H_2O)	10 l
Speed range	100 to 1500 rpm
Speed display	Scale
Motor power input	15 W
Motor power output	1.5 W
Temperature range	+50 to +500 °C
Control accuracy	±10 K
Heating output	1000 W
Footprint	180 x 180 mm
W x D x H, total	220 x 330 x 105 mm
Weight	5 kg
Mains connection	230 V, 50/60 Hz

ETS-D5 contact thermometer Technical specifications:

Measuring/control range	-50 to 450 °C
Resolution	0.1 °C
Measurement accuracy	±0.2 K
Setting accuracy	±0.1 K
Control deviation	±0.5 K
Dimensions (W x D x H)	82 x 22 x 83 mm

Delivery incl. C-MAG HS 7 heater and magnetic stirrer, ETS-D5 contact thermometer incl. Pt 1000 stainless steel measuring probe, stand rod, holder rod and clamp.

Type	Art. No.	Pack Qty.	€
C-MAG HS 7 complete set	**LY79.1**	1 unit(s)	965,00

Heating/magnetic stirrers

Heating and magnetic stirrer digital complete set AREX-6

Velp.

- Hot plate made of aluminium with ceramic coating
- Clear white LED display with icons for easy identification and navigation through the menus
- Temperature and speed setting via digital display
- Integrated contact thermometer with full functionality, for direct control of the medium temperature up to 250 °C via Pt 100 sensor
- Timer function – switches the stirring and heating function off on expiration of the countdown
- Adjustable reversing mode with change of direction (from 5 sec to 99 min, in 1 sec increments)
- Independent safety circuits protect the device in the event of overtemperature
- Adjustable max. temperature limit
- Probe Detector Alarm: Detects if the temperature gauge is not immersed in the medium
- Resistant cast housing (IP 42)
- Constant speed, even after changes in medium viscosity
- Speed can be adjusted in increments of 5 rpm

Technical specifications:

Art. No.	HLN1.1
Type	AREX-6 Digital
Max. stirring capacity (H_2O)	20 l
Speed range	30 to 1700 rpm
Speed display	digital
Operating temperature	Room temperature to +370 °C
Temperature display	digital
Setting accuracy	1 °C
Control accuracy without sensor	±10 K
Control accuracy with sensor	±1 K
Heating output	600 W
Timer function	1 to 99 min in 1-min increments
Footprint	Ø 135 mm
W x D x H, total	160 x 280 x 105 mm
IP rating	42
Weight	2.6 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. Pt 100 stainless steel temperature measuring sensor (Ø 3 mm, L 250 mm), stand rod and holder for temperature gauge.

Type	Art. No.	Pack Qty.	€
AREX-6 Digital	**HLN1.1**	1 unit(s)	722,40

Accessories for MH 20, AREC.X and AREX-6 heating and magnetic stirrer

ROTH SELECTION.

Accessories for fastening the sensor

Designation	Art. No.	Pack Qty.	€
Stand rod	**EYE8.1**	1 unit(s)	35,10
Holder for temperature gauge	**EYE9.1**	1 unit(s)	51,25

Replacement stainless steel Pt 100 temperature measuring sensor, Ø 3 mm, L 250 mm

Designation	Art. No.	Pack Qty.	€
Replacement stainless steel Pt 100 temperature measuring sensor, Ø 3 mm, L 250 mm	**EYH0.1**	1 unit(s)	113,20

Accessories for heating and magnetic stirrer

Velp.

Temperature measuring sensor, glass-coated Pt 100, Ø 5 mm, L 250 mm

Designation	Art. No.	Pack Qty.	€
Temperature measuring sensor, glass-coated Pt 100, Ø 5 mm, L 250 mm	**HLN2.1**	1 unit(s)	173,10

Silicone protective hood

Designation	Art. No.	Pack Qty.	€
Silicone protective hood for AREX-6 Digital	**HLN3.1**	1 unit(s)	28,20

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Heating/magnetic stirrers

Heating and magnetic stirrer C-MAG HS-Digital series

IKA.

- Ceramic glass hot plate
- Large LCD display for simultaneous display of the actual and target temperatures for the hot plate (actual temperature display when temperature gauge is connected with a resolution of 0.1 °C)
- Can be directly connected to Pt 1000.60 medium temperature sensor
- **Integrated contact thermometer with full functionality**
- Error code display in the event of fault
- Hot surface warning
- Fixed safety circuit for hot plate temperature at 550 °C

Technical specifications:

Art. No.	XT59.1	XT60.1	XT61.1
Type	HS 4 digital	HS 7 digital	HS 10 digital
Number of stirring points	1		
Max. stirring capacity (H_2O)	5 l	10 l	15 l
Speed range	100 to 1500 rpm		
Speed display	Scale		
Motor power input	15 W		
Motor power output	1.5 W		
Temperature range	+50 to +500 °C		
Temperature display	LCD		
Setting accuracy	±1 K		
Control accuracy without sensor	±10 K		
Control accuracy with sensor	±0,5 K		
Heating output	250 W	1000 W	1500 W
Footprint	100 x 100 mm	180 x 180 mm	260 x 260 mm
W x D x H, total	150 x 260 x 105 mm	215 x 330 x 105 mm	300 x 415 x 105 mm
Weight	3 kg	5 kg	6 kg
Mains connection	230 V, 50/60 Hz		

Delivery incl. Pt 1000.60 stainless steel temperature gauge.

Type	Art. No.	Pack Qty.	€
HS 4 digital	**XT59.1**	1 unit(s)	707,00
HS 7 digital	**XT60.1**	1 unit(s)	827,00
HS 10 digital	**XT61.1**	1 unit(s)	991,00

Accessories for heating and magnetic stirrer

IKA.

For fastening a Pt 1000 measuring probe

Designation	Art. No.	Pack Qty.	€
Stand rod	**A315.1**	1 unit(s)	69,00
Clamp	**A316.1**	1 unit(s)	33,00
Holder rod	**HA16.1**	1 unit(s)	30,00

Heating and magnetic stirrers MR Hei-Standard

Heidolph.

Features:

- Heating output 800 W
- Stirring capacities up to 20 l
- Hot plate made of silumin with ceramic coating
- Independent safety circuit switches off the heating at 25 °C over the preset hot plate temperature with a separate circuit
- Residual heat warning

Technical specifications:

Art. No.	HA08.1
Type	MR Hei-Standard
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	100 to 1400 rpm
Speed accuracy	±2 %
Operating temperature	Room temperature to +300 °C
Setting accuracy	±5 K
Control accuracy	±5 K
Heating output	800 W
Footprint	Ø 145 mm
W x D x H, total	173 x 277 x 94 mm
Weight	2.6 kg

Type	Art. No.	Pack Qty.	€
MR Hei-Standard	**HA08.1**	1 unit(s)	678,00

Heating/magnetic stirrers

Heating and magnetic stirrers MR Hei series

Heidolph.

- Digital display of hot plate target temperature and target speed
- Heating output 800 W
- Stirring capacities up to 20 l
- Hot plate made of silumin with ceramic coating
- Independent safety circuit switches off the heating at 25 °C over the preset hot plate temperature with a separate circuit
- **Direct connection facility for PT 100 medium temperature sensor** (please order the desired temperature measuring sensor and the accessories for attaching the measuring probe separately, the packages with Art. No. 1ATN.1 and 1ATP.1 include the accessories)
- Integrated contact thermometer with full functionality
- Residual heat warning

Technical specifications:

Art. No.	HA10.1	1ATN.1	HCK1.1	1ATP.1
Type	Hei-Tec	Hei-Tec Silver 1 package	Hei-Connect	Hei-Connect Silver 2 package
Number of stirring points	1			
Max. stirring capacity (H_2O)	20 l			
Speed range	100 to 1400 rpm			
Speed accuracy	±2 %			
Operating temperature	Ambient temperature to 300 °C			
Setting accuracy	±1 K			
Control accuracy without sensor	±5 K			
Control accuracy with sensor	±1 K			
Heating output	800 W			
Footprint	Ø 145 mm			
W x D x H, total	173 x 277 x 94 mm			
Weight	2.6 kg			

Hei-Tec model

Delivery without temperature gauge (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Hei-Tec	**HA10.1**	1 unit(s)	769,00

Hei-Tec Silver 1 package

Delivery incl. Hei-Tec heating and magnetic stirrer, Pt 1000 (V4A) temperature sensor and holder for Pt 1000 (contains supporting rod and holder with cable duct).

Type	Art. No.	Pack Qty.	€
Hei-Tec Silver 1 package	**1ATN.1**	1 unit(s)	952,00

Hei-Connect model

- With RS 232 interface for process documentation and reproducible results
- With timer function (1 to 999 min)

Delivery without temperature gauge (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Hei-Connect	**HCK1.1**	1 unit(s)	1.175,00

Hei-Connect Silver 2 package

- With RS 232 interface for process documentation and reproducible results
- With timer function (1 to 999 min)

Delivery incl. Hei-Connect heater and magnetic stirrer, Pt 1000 (V4A) temperature sensor, holder for Pt 1000 (contains supporting rod and holder with cable duct) and RS 232 interface cable.

Type	Art. No.	Pack Qty.	€
Hei-Connect Silver 2 package	**1ATP.1**	1 unit(s)	1.344,00

Accessories for MR Hei-Tec, MR Hei-Connect and MR Hei-End heating and magnetic stirrers

Heidolph.

Pt 1000 temperature measuring sensor made of V4A

Designation	Art. No.	Pack Qty.	€
PT 1000 sensor V4A	**T041.1**	1 unit(s)	128,00

PT 1000 temperature measuring sensor with glass coating

Designation	Art. No.	Pack Qty.	€
Pt 1000 with glass coating	**T042.1**	1 unit(s)	190,00

Stand kit

For attaching a single sensor probe.

Delivery incl. M10 stand rod (L 425 mm, Ø 13 mm) and holder with cable terminal strip (L 85 mm)

Designation	Art. No.	Pack Qty.	€
Stand kit	**ALN8.1**	1 unit(s)	117,00

Heating/magnetic stirrers

Heating and magnetic stirrer RCT basic *safety control*

IKA.

- Temperature and speed setting via digital display
- The set safety temperature is shown on a digital display
- Hot Top indicator (hot surface warning)
- Adjustable safety circuit for the hot plate temperature (50 to 360 °C)
- Aluminium hot plate
- **Can be directly connected to PT 1000 medium temperature sensor**. (Please order accessories for fastening the sensor separately).
- Integrated contact thermometer with full functionality
- DIN socket 12878 for connection to an electronic contact thermometer, e.g. ETS-D5 for accurate temperature control (please order separately, see contact thermometer). Control accuracy with ETS-D5: ±0.5 K.

Technical specifications:

Art. No.	EY83.1
Type	RCT basic safety control
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	50 to 1500 rpm
Speed display	digital
Motor power input	16 W
Motor power output	9 W
Temperature range	to 310 °C
Temperature display	digital
Setting accuracy	±1 K
Control accuracy without sensor	±10 K
Control accuracy with sensor	PT 1000: ±1 K ETS-D5: ±0,5 K
Heating output	600 W
Footprint	Ø 135 mm
W x D x H, total	160 x 270 x 85 mm
Weight	2.5 kg

Delivery incl. protective hood and PT 1000 temperature gauge.

Type	Art. No.	Pack Qty.	€
RCT basic safety control	**EY83.1**	1 unit(s)	827,00

Accessories for heating and magnetic stirrer

IKA.

For fastening a Pt 1000 measuring probe

Designation	Art. No.	Pack Qty.	€
Stand rod	**A315.1**	1 unit(s)	69,00
Clamp	**A316.1**	1 unit(s)	33,00
Holder rod	**HA16.1**	1 unit(s)	30,00

Heating and magnetic stirrer RCT series

IKA.

- Aluminium hot plate
- Clear display incl. target/actual value display for temperature and speed
- Housing surface made of toughened glass for optimum cleaning and chemical resistance
- **Integrated contact thermometer with full functionality, for direct control of the medium temperature**
- „Sensor in medium“ detection
- Adjustable safety circuit (50 to 360 °C)
- **Integrated timer function**
- Adjustable automatic reversal of direction of rotation (10 sec to 10 min) and pause time (3 sec to 5 min)
- **Direction of rotation of the magnetic motor can be adjusted by turning to the left or right**
- Hot surface warning
- USB/RS 232 interface

Technical specifications:

Art. No.	HPA5.1	1A33.1
Type	RCT digital	RCT 5 digital
Number of stirring points	1	
Max. stirring capacity (H_2O)	20 l	
Speed range	50 to 1500 rpm	
Speed display	LCD	
Operating temperature	Ambient temperature to +310 °C	
Temperature display	LCD	
Setting accuracy	1 °C	
Control accuracy without sensor	±5 K	
Control accuracy with sensor	±0,5 K	
Heating output	600 W	850 W
Timer function	99 h, 99 min and 59 sec	
Footprint	Ø 135 mm	137 x 137 mm
W x D x H, total	160 x 270 x 85 mm	
Weight	2,4 kg	2,6 kg
Mains connection	220–230 V, 50/60 Hz	

Delivery incl. Pt 1000.60 stainless steel temperature measuring sensor (Ø 3 mm, L 230 mm).

RCT digital
With round footprint made of aluminium. Heat output 600 W.

Type	Art. No.	Pack Qty.	€
RCT digital	**HPA5.1**	1 unit(s)	966,00

Heating/magnetic stirrers

RCT 5 digital
With rectangular base made of white, coated ceramic. Heat output 850 W.

Type	Art. No.	Pack Qty.	€
RCT 5 digital	**1A33.1**	1 unit(s)	991,00

Accessories for heating and magnetic stirrer

IKA.

For fastening a Pt 1000 measuring probe

Designation	Art. No.	Pack Qty.	€
Stand rod	**A315.1**	1 unit(s)	69,00
Clamp	**A316.1**	1 unit(s)	33,00
Holder rod	**HA16.1**	1 unit(s)	30,00

Heating and magnetic stirrer with large CB/SB series hot plate

Stuart.

Features:

- Hot plate is available in chemical-resistant ceramic or robust aluminium
- Safety warning lamp comes on at temperatures above 50 °C

Technical specifications:

Art. No.	KN93.1	KN94.1
Type	CB 302	SB 302
Number of stirring points	1	
Max. stirring capacity (H_2O)	15 l	
Speed range	100 to 1500 rpm	
Speed display	Scale	
Hotplate material	Ceramic	Aluminium
Operating temperature	Room temperature to +450 °C	Room temperature to +300 °C
Heated zone	200 x 200 mm	300 x 300 mm
Heating output	1200 W	600 W
Footprint	300 x 300 mm	
W x D x H, total	300 x 365 x 105 mm	
Weight	7 kg	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
CB 302	**KN93.1**	1 unit(s)	1.078,00
SB 302	**KN94.1**	1 unit(s)	1.095,00

Heating and magnetic stirrers RET control-visc

IKA.

Type:

- Time and speed indication via digital display
- Clear TFT display for easy navigation through menus
- Temperature display resolution 0.01 °C
- Can be connected to Pt 100.70 temperature measuring sensor
- **Integrated contact thermometer with full functionality**
- Timer and countdown function
- Detached magnet detection, intermittent operation
- USB and RS 232 interface to control and document the magnetic stirrer

pH function:

- With integrated pH electrode connection (BNC socket)
- Measuring range 0 to 14 pH; resolution 0.01 pH; accuracy ±0.1 pH
- Delivery without pH single-rod measuring cell (please order separately; a large selection of pH electrodes with BNC connectors can be found in the "Measuring devices" section)

Integrated weighing function:

- Max. weighing range 5000 g, readability 1 g
- Linearity ±1 g

Technical specifications:

Art. No.	XT54.1	XT55.1
Type	RET control-visc	
Number of stirring points	1	
Max. stirring capacity (H_2O)	20 l	
Speed range	50 to 1700 rpm	
Speed display	TFT	
Motor power input	16 W	
Motor power output	9 W	
Hotplate material	stainless steel hot plate	enamel hot plate
Operating temperature	Room temperature to +340 °C	
Temperature display	TFT	
Setting accuracy	±0,1 K	
Control accuracy with sensor	±0,2 K	
Heating output	600 W	
Footprint	Ø 135 mm	
W x D x H, total	160 x 270 x 85 mm	
Mains connection	220–240 V, 50/60 Hz	

Delivery incl. PT 100.70 stainless steel temperature gauge and type H 104 protective hood.

RET control-visc

Type	Version	Art. No.	Pack Qty.	€
RET control-visc	with stainless steel hot plate	**XT54.1**	1 unit(s)	1.641,00
RET control-visc	with enamel hot plate	**XT55.1**	1 unit(s)	1.693,00

Accessories for RET control heater and magnetic stirrer

IKA.

For fastening a Pt 1000 measuring probe

Designation	Art. No.	Pack Qty.	€
Stand rod	**A315.1**	1 unit(s)	69,00
Clamp	**A316.1**	1 unit(s)	33,00
Holder rod	**HA16.1**	1 unit(s)	30,00

Contact thermometer ETS-D5

IKA.

- For all magnetic stirrers with contact thermometer connection according to DIN 12878
- Temperature control with no medium temperature overshoot
- Various control types (= operating modes) can be selected

Technical specifications:

Art. No.	**EY84.1**
Type	ETS-D5
Temperature range	-50 to +450 °C
Setting accuracy	0,1 K
Resolution	0,1 °C
Measurement accuracy	±0,2 K
Control deviation	±0,5 K
W x D x H, total	82 x 22 x 83 mm
Mains connection	230 V, 50 Hz

Delivery incl. Pt 1000 type H 67.60 stainless steel measuring probe (L 260 mm, Ø 3 mm) and connection cable. Please order accessories for fastening the contact thermometer separately.

Type	Art. No.	Pack Qty.	€
ETS-D5	**EY84.1**	1 unit(s)	385,00

Accessories for ETS-D5 contact thermometer

IKA.

Designation	Art. No.	Pack Qty.	€
Replacement Pt 1000 measuring probe type H 62.51, L 260 mm x Ø 3 mm	**K855.1**	1 unit(s)	193,00
Measuring probe, glass-coated, L 260 mm x Ø 6 mm	**K856.1**	1 unit(s)	283,00
Extension cable, L 1 mm	**K859.1**	1 unit(s)	196,00

Accessories for heating and magnetic stirrer

IKA.

For fastening a Pt 1000 measuring probe

Designation	Art. No.	Pack Qty.	€
Stand rod	**A315.1**	1 unit(s)	69,00
Clamp	**A316.1**	1 unit(s)	33,00
Holder rod	**HA16.1**	1 unit(s)	30,00

A 121 °C

Magnetic bars ROTILABO® Economy

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Similar to cylindrical magnetic bar, but with rounded edges to intensify the stirring effect even at low speeds.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
3	12	**XA17.1**	10 unit(s)	12,20
8	25	**XA18.1**	10 unit(s)	16,30
8	40	**XA19.1**	10 unit(s)	18,80
8	50	**XA20.1**	10 unit(s)	24,60

A 121 °C

Magnetic bars ROTILABO® Micro

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

For very small vessels.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
1.5	8	**PK70.1**	10 unit(s)	14,60
1.5	15	**PK74.1**	10 unit(s)	24,00
2	2	**PK65.1**	10 unit(s)	16,50
2	5	**0955.1**	1 unit(s)	2,50
2	5	**0955.2**	10 unit(s)	19,70
2	7	**0973.1**	1 unit(s)	2,15
2	7	**0973.2**	10 unit(s)	16,30
3	3	**PK66.1**	10 unit(s)	18,90
3	6	**PK68.1**	10 unit(s)	12,55
3	8	**PK71.1**	10 unit(s)	15,70
3	10	**PK72.1**	10 unit(s)	15,05
3	13	**PK73.1**	10 unit(s)	15,90
3	20	**PK75.1**	10 unit(s)	27,10
3	30	**PK76.1**	10 unit(s)	30,05

Magnetic rods and accessories

121 °C

Magnetic bars ROTILABO® triangular

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
6	12	**1661.1**	1 unit(s)	3,00
8	20	**1662.1**	1 unit(s)	4,25
8	25	**5069.1**	1 unit(s)	3,30
9	35	**4557.1**	1 unit(s)	4,45
12	50	**1842.1**	1 unit(s)	5,50
14	25	**4551.1**	1 unit(s)	4,80
14	40	**1825.1**	1 unit(s)	4,95
14	55	**1843.1**	1 unit(s)	6,25
14	80	**1844.1**	1 unit(s)	8,25

121 °C

Magnetic bars ROTILABO® with centre ring

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.
Cylindrical.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
3	8	**1489.1**	1 unit(s)	2,90
3	8	**1489.2**	10 unit(s)	23,30
4.5	12	**1490.1**	1 unit(s)	2,90
4.5	12	**1490.2**	10 unit(s)	24,50
4.5	15	**1491.1**	1 unit(s)	3,00
4.5	15	**1491.2**	10 unit(s)	23,25
6	20	**1500.1**	1 unit(s)	3,00
6	20	**1500.2**	10 unit(s)	23,40
6	25	**1553.1**	1 unit(s)	3,10
6	25	**1553.2**	10 unit(s)	26,65
6	30	**1555.1**	1 unit(s)	3,35
6	30	**1555.2**	10 unit(s)	27,85
6	35	**1556.1**	1 unit(s)	3,40
8	40	**1600.1**	1 unit(s)	4,25
8	45	**1610.1**	1 unit(s)	4,45
8	50	**1613.1**	1 unit(s)	5,05
10	60	**1614.1**	1 unit(s)	5,70
10	70	**1659.1**	1 unit(s)	6,95

121 °C

Magnetic bars ROTILABO® cylindrical

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
3	6	**AKP1.1**	1 unit(s)	2,70
3	6	**AKP1.2**	10 unit(s)	21,25
3	8	**0989.1**	1 unit(s)	2,50
3	8	**0989.2**	10 unit(s)	19,10
4.5	12	**0999.1**	1 unit(s)	2,15
4.5	12	**0999.2**	10 unit(s)	15,05
4.5	15	**1204.1**	1 unit(s)	2,30
4.5	15	**1204.2**	10 unit(s)	13,65
5	25	**AKP8.1**	1 unit(s)	3,30
5	25	**AKP8.2**	10 unit(s)	27,00
6	10	**0994.1**	1 unit(s)	2,40
6	10	**0994.2**	10 unit(s)	16,15
6	13	**AKP2.1**	1 unit(s)	2,90
6	13	**AKP2.2**	10 unit(s)	23,55
6	15	**AKP5.1**	1 unit(s)	2,75
6	15	**AKP5.2**	10 unit(s)	22,40
6	20	**AKP6.1**	1 unit(s)	2,80
6	20	**AKP6.2**	10 unit(s)	23,15
6	25	**2152.1**	1 unit(s)	2,70
6	25	**2152.2**	10 unit(s)	21,15
6	30	**2153.1**	1 unit(s)	3,00
6	30	**2153.2**	10 unit(s)	23,50
6	35	**1292.1**	1 unit(s)	3,20
6	35	**1292.2**	10 unit(s)	24,95
7	20	**AKP7.1**	1 unit(s)	3,20
7	20	**AKP7.2**	10 unit(s)	25,80
7	30	**AKT0.1**	1 unit(s)	3,45
7	30	**AKT0.2**	10 unit(s)	27,25
7	40	**AKT2.1**	1 unit(s)	3,80
7	40	**AKT2.2**	10 unit(s)	30,05
8	13	**AKP3.1**	1 unit(s)	3,50
8	13	**AKP3.2**	10 unit(s)	28,15
8	20	**1237.1**	1 unit(s)	2,85
8	20	**1237.2**	10 unit(s)	18,30
8	25	**AKP9.1**	1 unit(s)	3,50
8	25	**AKP9.2**	10 unit(s)	28,35
8	30	**AKT1.1**	1 unit(s)	3,80
8	30	**AKT1.2**	10 unit(s)	30,85
8	40	**1306.1**	1 unit(s)	3,30
8	40	**1306.2**	10 unit(s)	25,30
8	45	**1309.1**	1 unit(s)	3,80
8	45	**1309.2**	10 unit(s)	30,35
8	50	**1482.1**	1 unit(s)	4,50
8	50	**1482.2**	10 unit(s)	36,20
10	60	**1486.1**	1 unit(s)	5,60
10	60	**1486.2**	10 unit(s)	44,00
10	70	**AKT3.1**	1 unit(s)	6,95
10	70	**AKT3.2**	10 unit(s)	61,85
10	80	**1487.1**	1 unit(s)	7,90
10	80	**1487.2**	10 unit(s)	62,00
12	55	**1484.1**	1 unit(s)	10,55
12	120	**1488.1**	1 unit(s)	28,35

Magnetic rods and accessories

A 121 °C

Magnetic bars ROTILABO® elliptical

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	10	**NK66.1**	1 unit(s)	4,55
6	15	**NK67.1**	1 unit(s)	4,25
10	20	**1848.1**	1 unit(s)	3,50
10	25	**NK68.1**	1 unit(s)	6,05
10	30	**NK69.1**	1 unit(s)	7,45
12	25	**1849.1**	1 unit(s)	4,00
13	40	**NK71.1**	1 unit(s)	10,50
16	30	**1853.1**	1 unit(s)	5,05
16	35	**1895.1**	1 unit(s)	5,90
20	40	**1896.1**	1 unit(s)	7,50
20	50	**1897.1**	1 unit(s)	9,65
20	64	**1909.1**	1 unit(s)	12,60
20	70	**1928.1**	1 unit(s)	14,90

A 121 °C

Magnetic bars ROTILABO® glass-coated

ROTH SELECTION. borosilicate glass-coated. Autoclavable: Yes.

Cylindrical. Smooth surface offering universal chemical resistance. Temperature stable up to 350 °C.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	6	**PK60.1**	10 unit(s)	50,35
5	12	**PK61.1**	10 unit(s)	55,45
6	25	**PK62.1**	10 unit(s)	58,00
8	45	**PK63.1**	10 unit(s)	62,60
8	60	**PK64.1**	10 unit(s)	67,00

A 121 °C

Magnetic bars KOMET

Thermo. PTFE-coated. Autoclavable: Yes.

Super-strong magnetic stirring rods. More than three times higher torque than conventional stirrers. For viscous media, high torques up to 2000 rpm and larger distances between the stirring rod and the magnetic stirrer. PTFE coated.

Type	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
KOMET 15	9	15	**Y823.1**	1 unit(s)	28,75
KOMET 30	12	29	**Y824.1**	1 unit(s)	43,05
KOMET 50	21	50	**Y825.1**	1 unit(s)	58,05
KOMET 90	24	90	**Y826.1**	1 unit(s)	204,00

A 121 °C

Magnetic bars ROTILABO® dumbbell-shaped

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Exceptional stirring effect thanks to side stabilising sliding disc.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
8	35	**1943.1**	1 unit(s)	14,55
8	55	**1957.1**	1 unit(s)	15,95

Magnetic rods and accessories

121 °C

Magnetic bars ROTILABO® for test tubes

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	6	**LT59.1**	1 unit(s)	3,40
10	6	**LT60.1**	1 unit(s)	3,55
20	10	**LT61.1**	1 unit(s)	4,00
30	12	**LT62.1**	1 unit(s)	5,00

121 °C

Magnetic bars ROTILABO® tablet-shaped

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Designation	Art. No.	Pack Qty.	€
Tablet stirring magnet Ø 22 mm, H 15 mm	**3003.1**	1 unit(s)	10,05
Tablet stirring magnet Ø 30 mm, H 12 mm	**4490.1**	1 unit(s)	10,90
Tablet stirring magnet Ø 40 mm, H 14 mm	**4517.1**	1 unit(s)	20,75

121 °C

Magnetic bars ROTILABO® cross-shaped

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.
All-purpose magnetic bar with stable rotation position.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	5	**XA21.1**	10 unit(s)	27,45
20	8	**XA22.1**	10 unit(s)	34,75
25	9	**XA23.1**	10 unit(s)	39,90
30	10	**XA24.1**	10 unit(s)	47,10
38	11	**XA25.1**	5 unit(s)	31,40
50	15	**XA26.1**	5 unit(s)	59,20
60	20	**XA27.1**	5 unit(s)	84,20

121 °C

Magnetic bars ROTILABO® special

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Spherical

Type	Ø (mm)	Art. No.	Pack Qty.	€
Ball-shaped magnet	12	**LT63.1**	1 unit(s)	4,20

Ball-shaped stirring magnet

Type	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Ball-shaped stirring magnet	9	6	**LT64.1**	1 unit(s)	3,00

A 121 °C

Magnetic bars ROTILABO® coloured

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.
In various colours.

Colour	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
red	2	5	**A937.1**	1 unit(s)	4,50
red	2	7	**A938.1**	1 unit(s)	4,80
red	3	10	**A939.1**	1 unit(s)	4,90
red	3	13	**A940.1**	1 unit(s)	5,30
blue	2	5	**A945.1**	1 unit(s)	4,50
blue	2	7	**A946.1**	1 unit(s)	4,75
blue	3	10	**A947.1**	1 unit(s)	4,85
blue	3	13	**A948.1**	1 unit(s)	5,30
yellow	2	5	**A941.1**	1 unit(s)	4,50
yellow	2	7	**A942.1**	1 unit(s)	4,80
yellow	3	10	**A943.1**	1 unit(s)	4,85
yellow	3	13	**A944.1**	1 unit(s)	5,35

A 121 °C

Magnetic bars ROTILABO® with centre ring

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.
In various colours.

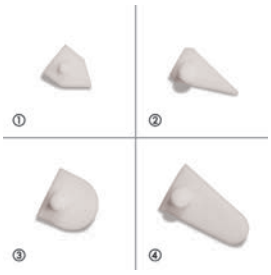
Colour	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
red	8	13	**A950.1**	1 unit(s)	4,95
red	8	15	**A951.1**	1 unit(s)	5,55
red	8	22	**A952.1**	1 unit(s)	6,20
red	8	25	**A953.1**	1 unit(s)	6,65
red	8	38	**A954.1**	1 unit(s)	7,45
red	8	51	**A955.1**	1 unit(s)	7,90
red	13	75	**A956.1**	1 unit(s)	15,45
blue	8	13	**A966.1**	1 unit(s)	4,95
blue	8	15	**A967.1**	1 unit(s)	5,55
blue	8	22	**A968.1**	1 unit(s)	6,20
blue	8	25	**A969.1**	1 unit(s)	6,65
blue	8	38	**A189.1**	1 unit(s)	7,45
blue	8	51	**A190.1**	1 unit(s)	7,90
blue	13	75	**A191.1**	1 unit(s)	15,50
yellow	8	13	**A958.1**	1 unit(s)	4,95
yellow	8	15	**A959.1**	1 unit(s)	5,55
yellow	8	22	**A960.1**	1 unit(s)	6,20
yellow	8	25	**A961.1**	1 unit(s)	6,65
yellow	8	38	**A962.1**	1 unit(s)	7,45
yellow	8	51	**A963.1**	1 unit(s)	7,90
yellow	13	75	**A964.1**	1 unit(s)	15,50

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices



A 121 °C

Magnetic bars ROTILABO® wing-shaped

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

For effective stirring, e.g. in test tubes, centrifuge tubes, reaction vials etc. Temperature stable from -200 to +250 °C.

Pic.	Type	Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
(1)	triangular	Tube-Ø 6–7 mm	5.5	9	**YH15.1**	10 unit(s)	41,75
(1)	triangular	Tube-Ø 9–10 mm	8	11	**YH16.1**	10 unit(s)	42,80
(2)	triangular, long	Tube-Ø 11–12 mm	10	16	**YH17.1**	10 unit(s)	49,25
(3)	round	Tube-Ø	13	10	**YH18.1**	10 unit(s)	44,20
(4)	round, long	Tube-Ø	13	20	**YH19.1**	10 unit(s)	54,10

Magnetic bar set ROTILABO® # 1

ROTH SELECTION. PTFE-coated.

10-piece set of the most commonly used sizes. PTFE-coated magnetic stirring rod, cylindrical. Packed in a single storage box made of polystyrene (pocket-sized).
Dimensions: L 120 x W 93 x D 12 mm.

Contents:

Length (mm)	Ø (mm)	Number
15	4.5	1
20	7	2
25	6	2
30	6	1
40	8	2
50	8	2

Type	Art. No.	Pack Qty.	€
Set I	**C267.1**	1 set	32,60

Magnetic bar set ROTILABO® # 2

ROTH SELECTION. PTFE-coated.

PTFE-coated magnetic stirring bars, cylindrical. **18 pieces, sorted** in a practical storage box, dimensions: L 187 x W 97 x D 32 mm. Collection of the most common sizes.

Contents:

Length (mm)	Ø (mm)	Number
10	6	2
15	6	2
20	7	2
25	8	2
30	8	2
40	8	2
50	8	2
60	10	2
80	10	2

Type	Art. No.	Pack Qty.	€
Set II	**X171.1**	1 set	58,10

A 121 °C

Magnetic bar set ROTILABO® # 3 with turbomagnet

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

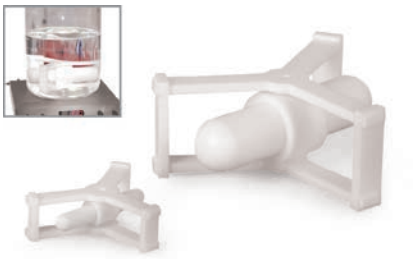
Cylindrical. Samarium-cobalt magnet with strong magnetic field compared to conventional solenoid. Identified by a black marking (chemically inert). **14 pieces, the most common sizes, sorted**, in a practical storage box. Dimensions: L 187 x W 97 x D 32 mm.

Contents:

Length (mm)	Ø (mm)	Number
8	3	2
12	4.5	2
20	6	2
25	6	2
30	6	2
40	8	2
50	8	1
60	10	1

Type	Art. No.	Pack Qty.	€
Set III	**PK77.1**	1 set	94,05

Magnetic rods and accessories



A 121 °C

Magnetic bars Beakerliner

Bohlender. PTFE-coated. Autoclavable: Yes.

With guide cage. PTFE-encased magnetic core mounted axially in a PTFE guide cage. No shear action of the magnetic stirring bar on the bottom of the beaker, smooth running in beakers, even on an uneven base.

Suitable for	Ø (mm)	Height (mm)	Stirring rod	Art. No.	Pack Qty.	€
Beaker, low form, 250, 400 ml	67	21	Ø 8 x L 50	**TA88.1**	1 unit(s)	125,55
Beaker, low form, 600, 800, 1000 ml	74	29	Ø 9 x L 60	**TA89.1**	1 unit(s)	146,50
Beaker, low form, 2000 ml	103	32	Ø 10 x L 80	**TA90.1**	1 unit(s)	210,70

Magnetic bar remover ROTILABO®

ROTH SELECTION.

In different designs and dimensions. With powerful permanent magnet. Very helpful for finding lost magnetic bars or “fishing them out” of liquids.

Material	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
PP	10	350	**E452.1**	1 unit(s)	13,25
PP	10	450	**E453.1**	1 unit(s)	14,55
PTFE	10	150	**E448.1**	1 unit(s)	16,40
PTFE	10	250	**E449.1**	1 unit(s)	17,65
PTFE	10	350	**E450.1**	1 unit(s)	21,40
PTFE	10	450	**E451.1**	1 unit(s)	22,60

Stir bar catcher

Material: PS.

With powerful permanent magnet. For retention of magnetic bars and easy transfer of solutions. Suitable for magnetic bars with max. length 80 mm. Dimensions: L 87 x W 28 x H 42 mm.

Material	Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
PS	87	42	**YC30.1**	1 unit(s)	26,15

A 121 °C

Stirring bars ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

For stirring different specimens.

Made of flexible PTFE

Material: PTFE flexible. With spade-shaped ends.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	8	**EX96.1**	1 unit(s)	6,10
200	8	**EX97.1**	1 unit(s)	6,85
250	8	**EX98.1**	1 unit(s)	7,75
300	8	**EX99.1**	1 unit(s)	9,05

Made of PTFE with stainless steel core

Material: PTFE with stainless steel core. Bendable acc. to use. Bend remains permanently. Round ends.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	6	**EY00.1**	1 unit(s)	8,50
200	6	**EY01.1**	1 unit(s)	9,25
250	6	**EY02.1**	1 unit(s)	9,75
300	6	**EY03.1**	1 unit(s)	12,50
350	6	**EY04.1**	1 unit(s)	14,20
400	6	**EY05.1**	1 unit(s)	15,70

Magnetic rods and accessories

Stirring spatulas

ROTH SELECTION. Material: PP.

For stirring different specimens. Rod Ø 6 mm.

Total length (mm)	Art. No.	Pack Qty.	€
244	**TT16.1**	10 unit(s)	11,65

Stirring bars

For grinding, stirring and mixing test material. Suitable for small and large quantities.

(1) M 100d model
Two-step selector switch: 7000 rpm and 10,000 rpm.
Dimensions: Overall length 320 mm, protective hood Ø 58 mm, weight 850 g.
Power supply 230 V, 50 Hz. Output 120 W.
With multifunction blade and wall bracket.

Type	Art. No.	Pack Qty.	€
M 100d	**8290.1**	1 unit(s)	137,10

(2) P 200 model
Suitable for liquid volumes from 1 l to 20 l. Two-step selector switch: 12,000 rpm and 17,000 rpm. Power supply 230 V, 50 Hz. Output 200 W.

Type	Art. No.	Pack Qty.	€
P 200	**C527.1**	1 unit(s)	231,15

Agitators ROTI®Speed

For universal use, e.g. for stirring even the smallest samples in reaction vials etc.

- Ergonomic pen handle
- High-quality steel spring chuck and quality ball bearings for perfectly smooth operation.
- Locking button enables easy changing of tools
- **Infinitely variable speed from 5000 rpm to 20000 rpm**
- Powerful motor for constant torque
- Length 220 mm, weight 230 g
- Complete with power supply unit in portable case

Delivery without stirring tool, please order separately.

Type	Art. No.	Pack Qty.	€
ROTI®-Speed	**N372.1**	1 unit(s)	104,50

Accessories ROTI®Speed stainless steel tools

Carl ROTH.

High-performance stirring tool
For mixing and suspending samples. Provides effective mixing. Streamlined design. Stirrer shafts-Ø 3 mm.

Pic.	Total length (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
(1)	90	7	**N373.1**	1 unit(s)	43,65
(2)	98	11	**N539.1**	1 unit(s)	44,20

Micropistil type stirring tool
Conical micropistil for applications in 1.5 ml reaction vials. Stirrer shafts-Ø 3 mm. Cone shrinks from 8 to 2.5 mm, cone length 15 mm.

Pic.	Total length (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
(3)	98	8	**EX63.1**	1 unit(s)	42,90

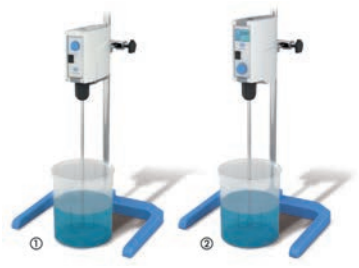
Accessories additional tools for ROTI®-Speed agitators

ROTH SELECTION.

Combined set, 13-piece. Suitable for ROTI®-Speed stirrer. For cutting, separating, milling, polishing and drilling.

Set contents:
1 ball-shaped fine cutter, 2.3 mm,
1 cylindrical fine cutter, 2.3 mm,
1 ball-shaped white corundum abrasive pencil, 5.0 mm and 1 cone-shaped white corundum abrasive pencil, 5.0 mm,
1 micro drill, 1.0 and 2.3 mm,
5 cutting discs, Ø 22 mm,
1 saw blade, Ø 22 and
1 tool holder, Ø 2.35 mm.

Pic.	Designation	Art. No.	Pack Qty.	€
(4)	Combined set, 13-piece	**YY99.1**	1 set	16,40



Laboratory stirrers

Velp.

Technical specifications:

Art. No.	ACP3.1	ACP4.1
Type	ES	DLS
Max. stirring capacity (H_2O)	15 l	25 l
Max. viscosity	1,000 mPas	25,000 mPas
Max. torque	15 Ncm	40 Ncm
Motor power input	45 W	180 W
Motor power output	30 W	120 W
Speed range	50 to 1300 rpm	50 to 2000 rpm
Speed display	Scale	LCD
Ø Extension arm	13 mm	
Extension arm length	150 mm	
W x D x H	80 x 160 x 200 mm	80 x 215 x 196 mm
Weight	1.3 kg	2.5 kg
Mains connection	80–260 V, 50/60 Hz	

Delivery without stirring tool, stand and boss head, please order separately – see stirrer accessories.

(1) ES model

- For simple stirring applications
- Clamping range of chuck 1 to 10 mm
- Push-through stirring tool

Pic.	Type	Art. No.	Pack Qty.	€
(1)	ES	**ACP3.1**	1 unit(s)	536,45

(2) DLS model

- Electronic control for constant speed even after change in medium viscosity
- Digital display of nominal and actual speed
- Integrated timer function (adjustable to 999 min, 59 sec)
- Clamping range of chuck 1 to 10 mm
- Push-through stirring tool

Pic.	Type	Art. No.	Pack Qty.	€
(2)	DLS	**ACP4.1**	1 unit(s)	917,00

Laboratory stirrers RSO series

Phönix Instrument.

Technical specifications:

Art. No.	TA74.1	TA75.1	TA76.1
Type	RSO-20A analogue	RSO-20D digital	RSO-40A analogue
Max. stirring capacity (H_2O)	20 l		40 l
Max. viscosity	10,000 mPas		50,000 mPas
Max. torque	30 Ncm		60 Ncm
Motor power input	70 W		130 W
Motor power output	50 W		100 W
Speed range	50 to 2200 rpm		
Speed deviation during load change		±3 rpm	
Speed display	LED	LCD	LED
Torque display	No	Yes	No
Ø Extension arm	16 mm		
Extension arm length	200 mm		
Port		RS 232	
W x D x H	83 x 186 x 220 mm		
Weight	2.5 kg		3.5 kg
Mains connection	100–240 V, 50/60 Hz		

Delivery without stirring tool, stand and boss head (please order separately).

(1) Analogue stirrer

For stirring capacities up to 20/40 l. With digital LED speed display. Extremely quiet running. Speed continuously adjustable up to 2200 rpm. Stirring tools can be inserted. Clamping range of chuck 0.5 to 10 mm.

Type	Art. No.	Pack Qty.	€
RSO-20A analogue	**TA74.1**	1 unit(s)	661,15
RSO-40A analogue	**TA76.1**	1 unit(s)	989,00

(2) Digital/electronic stirrer

For stirring capacities up to 20 l as well as constant speed at changing medium viscosity. With LCD speed display. Display of nominal and actual speed or trend torque display. RS 232 port. Soft starting. Stirring tools can be inserted. Clamping range of chuck 0.5 to 10 mm.

Type	Art. No.	Pack Qty.	€
RSO-20D digital	**TA75.1**	1 unit(s)	880,45

Agitators

Accessories stand set for laboratory stirrers

Phönix Instrument.

With locknut to additionally secure the stand rod and prevent accidental removal. Clamping range of clamp for stand and extension arm: 4 to 24 mm. Max. weight load 5 kg. Dimensions: W 200 mm x D 310 mm x H 800 mm.

Delivery incl. stand plate, stand rod, clamp and immersion limiters to prevent accidental piercing to the vessel base.

Designation	Art. No.	Pack Qty.	€
Stand set	**TA77.1**	1 unit(s)	209,65

Electronic laboratory stirrers NANOSTAR 7.5 digital

IKA.

Space-saving, compact stirrer with processor-controlled speed.

- Digital speed display
- Continuously adjustable speed via rotary knob
- Constant torque over the entire speed range
- Push-through stirrer shafts
- Clamping range of chuck 0.5 to 8.2 mm

Technical specifications:

Art. No.	1EH4.1
Type	NANOSTAR 7.5 digital
Max. stirring capacity (H_2O)	5 l
Max. viscosity	4,000 mPas
Max. torque	7.5 Ncm
Motor power input	32 W
Motor power output	22 W
Speed range	50 to 2000 rpm
Speed display	LED
Ø Extension arm	13 mm
Extension arm length	160 mm
W x D x H	53 x 130 x 147 mm
Weight	0,8 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. R 300 stirrer shaft protection. Without stirring tool, stand and boss head please order separately - (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
NANOSTAR 7.5 digital	**1EH4.1**	1 unit(s)	813,00

Electronic laboratory stirrers Hei-TORQUE Core

Heidolph.

Suitable for low- to medium-viscosity media. Digital target/actual speed display. Timer function (1 sec to 99 h, 59 min and 59 sec). "Max button" for short-term operation at maximum speed. "Quick-Chuck" with clamping range from 0.5 to 10.5 mm.

Technical specifications:

Art. No.	KAY6.1
Type	Hei-TORQUE Core
Max. stirring capacity (H_2O)	25 l
Max. viscosity	10,000 mPas
Max. torque	40 Ncm
Motor power input	105 W
Motor power output	75 W
Speed range	20 to 2000 rpm
Speed display	TFT display, monochrome, 2"
Ø Extension arm	13 mm
Extension arm length	160 mm
W x D x H	70 x 195 x 281.5 mm
Weight	2,3 g
Mains connection	100–240 V, 50/60 Hz

Delivery without stirring tool, stand and boss head please order separately – (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
Hei-TORQUE Core	**KAY6.1**	1 unit(s)	918,00

Electronic laboratory stirrers EUROSTAR 20 series

IKA.

Constant speed through microprocessor control. An electronic safety circuit ensures that the device is switched off in the event of a fault or overload. Continuous matching of target and actual speed, to automatically correct any discrepancies. For constant speed, even after changes in medium viscosity.

- Digital speed display
- Continuously adjustable speed
- Push-through stirrer shafts
- Clamping range of chuck: 0.5 to 10 mm (EUROSTAR 20 digital only)
- EUROSTAR 20 high speed digital: Drive shaft with tapered seat for supplied R 6000 precision stirrer (L 280 mm, max. immersion depth 220 mm). Special precision stirrer is separately available.

Technical specifications:

Art. No.	XT16.1	XT17.1
Type	EUROSTAR 20 digital	EUROSTAR 20 high speed digital
Max. stirring capacity (H_2O)	15 l	20 l
Max. viscosity	10,000 mPas	
Max. torque	20 Ncm	
Motor power input	56 W	171 W
Motor power output	44 W	133 W
Speed range	30 to 2000 rpm	150 to 6000 rpm
Speed display	LED	
Ø Extension arm	16 mm	
Extension arm length	220 mm	
W x D x H	86 x 208 x 248 mm	86 x 208 x 325 mm
Weight	4.4 kg	5.3 kg
Mains connection	230 V, 50/60 Hz	

Delivery without please order stirring tool, stand and boss head separately (see stirrer accessories).

Pic.	Type	Art. No.	Pack Qty.	€
(1)	EUROSTAR 20 digital	**XT16.1**	1 unit(s)	1.027,00
(2)	EUROSTAR 20 high speed digital	**XT17.1**	1 unit(s)	2.093,00

Accessories special precision stirrer for laboratory stirrers EUROSTAR 20 high speed digital

IKA.

Only suitable for use with precision stirrer shaft R 6000 of the EUROSTAR 20 high speed digital. Max. speed 6,000 rpm.

Designation	Art. No.	Pack Qty.	€
Dissolver stirrer, Ø Stirrers42 mm	**AHK7.1**	1 unit(s)	283,00
Propeller stirrers, Ø Stirrers 55 mm	**AHK5.1**	1 unit(s)	253,00
Propeller stirrers, Ø Stirrers 45 mm	**AHK6.1**	1 unit(s)	204,00

Accessories Quick-action chuck for laboratory stirrers EUROSTAR 20 digital and 40/60/100/200

IKA.

Stirring tool can be replaced without chuck key.
Not suitable for EUROSTAR 20 high speed digital.

Designation	Art. No.	Pack Qty.	€
Quick-action chuck for EUROSTAR series	**XT18.1**	1 unit(s)	78,00

Electronic laboratory stirrers MICROSTAR series

IKA.

Constant speed over the entire speed range.

- Digital speed display
- Continuously adjustable speed
- Push-through stirrer shafts
- Clamping range of chuck 0.5 to 8,2 mm

Technical specifications:

Art. No.	KAK5.1	KAK6.1	KAK7.1
Type	MICROSTAR 7.5 digital	MICROSTAR 15 digital	MICROSTAR 30 digital
Max. stirring capacity (H_2O)	5 l	10 l	20 l
Max. viscosity	4,000 mPas	8,000 mPas	20,000 mPas
Max. torque	7.5 Ncm	15 Ncm	30 Ncm
Motor power input	32 W		
Motor power output	22 W		
Speed range	50 to 2000 rpm	50 to 1000 rpm	50 to 500 rpm
Speed display	LED		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
W x D x H	60 x 173 x 126 mm		
Weight	1,18 kg	1,26 kg	
Mains connection	100–240 V, 50/60 Hz		

Delivery without stirring tool, stand and boss head please order separately - (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
MICROSTAR 7.5 digital	**KAK5.1**	1 unit(s)	881,00
MICROSTAR 15 digital	**KAK6.1**	1 unit(s)	947,00
MICROSTAR 30 digital	**KAK7.1**	1 unit(s)	991,00

Agitators

Electronic laboratory stirrers MINISTAR series

IKA.

Constant speed over the entire speed range.

- Digital speed display
- Continuously adjustable speed
- Push-through stirrer shafts
- Clamping range of chuck 0.5 to 8,2 mm

Technical specifications:

Art. No.	KAK8.1	KAK9.1	KAL0.1
Type	MINISTAR 20 digital	MINISTAR 40 digital	MINISTAR 80 digital
Max. stirring capacity (H_2O)	15 l	25 l	50 l
Max. viscosity	10,000 mPas	30,000 mPas	60,000 mPas
Max. torque	20 Ncm	40 Ncm	80 Ncm
Motor power input	60 W		
Motor power output	46 W		
Speed range	50 to 2000 rpm	50 to 1000 rpm	50 to 500 rpm
Speed display	LED		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
W x D x H	70 x 193 x 148 mm		
Weight	1,56 kg	1,72 kg	
Mains connection	100–240 V, 50/60 Hz		

Delivery without stirring tool, stand and boss head please order separately - (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
MINISTAR 20 digital	**KAK8.1**	1 unit(s)	947,00
MINISTAR 40 digital	**KAK9.1**	1 unit(s)	1.058,00
MINISTAR 80 digital	**KAL0.1**	1 unit(s)	1.168,00

Electronic laboratory stirrers RW 20 digital

IKA.

For stirring capacities up to 20 l. Robust, slimline stirrer **with digital display**. Two speed ranges for universal use, 60 to 2000 rpm. Clamping range of chuck 0.5 to 10 mm. Push-through stirring tool.

Technical specifications:

Art. No.	EY86.1
Type	RW 20 digital
Max. stirring capacity (H_2O)	20 l
Max. viscosity	10,000 mPas
Max. torque	150 Ncm
Motor power input	70 W
Motor power output	35 W
Speed range	60 to 500 rpm
Speed range II	240 to 2000 rpm
Speed display	digital
Ø Extension arm	13 mm
Extension arm length	160 mm
W x D x H	88 x 212 x 294 mm
Weight	3.1 kg
Mains connection	230 V, 50 Hz

Delivery without please order stirring tool, stand and boss head separately – see stirrer accessories.

Type	Art. No.	Pack Qty.	€
RW 20 digital	**EY86.1**	1 unit(s)	1.283,00

Electronic laboratory stirrers Hei-TORQUE Value series

Heidolph.

For constant speed, even after changes in medium viscosity. Glass display with touch elements. Safety-oriented start/stop function (slide for start/stop). Protection class IP 54.

- Digital display of nominal/actual speed
- Continuously adjustable speed
- Push-through stirrer shafts
- Display of torque trend to detect changes in viscosity (using symbols)
- Clamping range of chuck 2.5 to 12.5 mm
- Quick-Chuck

Technical specifications:

Art. No.	CLT1.1	CLT2.1	CLT3.1
Type	Value 100	Value 200	Value 400
Max. stirring capacity (H_2O)	50 l		100 l
Max. viscosity	60,000 mPas	100,000 mPas	250,000 mPas
Max. torque	100 Ncm	200 Ncm	400 Ncm
Motor power input	90 W	120 W	150 W
Motor power output	50 W	80 W	90 W
Speed range	10 to 2000 rpm		100 to 400 rpm
Speed range II			20 to 2000 rpm
Speed display	digital monochrome 2.4″		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
W x D x H	86 x 257 x 241 mm		93 x 257 x 241 mm
Weight	4.1 kg	5.0 kg	5.2 kg
Mains connection	230 V, 50/60 Hz		

Delivery without stirring tool, stand and boss head, please order separately.

Type	Art. No.	Pack Qty.	€
Value 100	**CLT1.1**	1 unit(s)	1.502,00
Value 200	**CLT2.1**	1 unit(s)	1.910,00
Value 400	**CLT3.1**	1 unit(s)	2.402,00

Electronic laboratory stirrers Hei-TORQUE Precision series

Heidolph.

For constant speed, even after changes in medium viscosity. Glass display with touch elements. Safety-oriented start/stop function (slide for start/stop). Protection class IP 54.

- Digital display for
  - Countdown function (adjustable from 1 min to 24 h)
  - Storage of 7 favourites (combination of countdown and speed)
  - Ramp function with up to 7 steps
  - Graphical display of process sequence
  - Time
- Continuously adjustable speed
- Plain text torque display with value (resolution 0.1 N cm)
- Push-through stirrer shafts
- USB interface
- Quick-Chuck with clamping range from 2.5 to 12.5 mm

Technical specifications:

Art. No.	CPK0.1	CPK1.1	CPK2.1
Type	Precision 100	Precision 200	Precision 400
Max. stirring capacity (H_2O)	50 l		100 l
Max. viscosity	60,000 mPas	100,000 mPas	250,000 mPas
Max. torque	100 Ncm	200 Ncm	400 Ncm
Motor power input	90 W	120 W	150 W
Motor power output	50 W	80 W	90 W
Speed range	10 to 2000 rpm		100 to 400 rpm
Speed range II			20 to 2000 rpm
Speed display	digital colour 3.2″		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
Weight	4.1 kg	5.0 kg	5.2 kg
Mains connection	230 V, 50 Hz		

Delivery without stirring tool, stand and boss head, please order separately.

Precision models with change of direction
Anticlockwise stirring is also possible.

Type	Art. No.	Pack Qty.	€
Precision 100	**CPK0.1**	1 unit(s)	1.764,00
Precision 200	**CPK1.1**	1 unit(s)	2.101,00

Precision 400 models

Type	Art. No.	Pack Qty.	€
Precision 400	**CPK2.1**	1 unit(s)	2.726,00

Electronic laboratory stirrers EUROSTAR digital series

IKA.

Constant speed through microprocessor control. An electronic safety circuit ensures that the device is switched off in the event of a fault or overload. Continuous matching of target and actual speed, to automatically correct any discrepancies. For constant speed, even after changes in medium viscosity.

- Digital speed display
- Continuously adjustable speed
- Push-through stirrer shafts
- Clamping range of chuck 0.5 to 10 mm

Technical specifications:

Art. No.	XT19.1	XT20.1	XT21.1	XT22.1
Type	EUROSTAR 40 digital	EUROSTAR 60 digital	EUROSTAR 100 digital	EUROSTAR 200 digital
Max. stirring capacity (H_2O)	25 l	40 l	100 l	
Max. viscosity	30,000 mPas	50,000 mPas	70,000 mPas	100,000 mPas
Max. torque	40 Ncm	60 Ncm	100 Ncm	200 Ncm
Motor power input	112 W	168 W	174 W	121 W
Motor power output	87 W	132 W	142 W	99 W
Speed range	30 to 2000 rpm		30 to 1400 rpm	6 to 400 rpm
Speed range II				30 to 2000 rpm
Speed display	LED			
Ø Extension arm	16 mm			
Extension arm length	220 mm			
W x D x H	86 x 208 x 248 mm			91 x 209 x 274 mm
Weight	4.4 kg			4.6 kg
Mains connection	230 V, 50/60 Hz			

Delivery without stirring tool, stand and boss head, please order separately – see stirrer accessories.

Type	Art. No.	Pack Qty.	€
EUROSTAR 40 digital	**XT19.1**	1 unit(s)	1.248,00
EUROSTAR 60 digital	**XT20.1**	1 unit(s)	1.497,00
EUROSTAR 100 digital	**XT21.1**	1 unit(s)	2.138,00
EUROSTAR 200 digital	**XT22.1**	1 unit(s)	2.832,00

Accessories Quick-action chuck for laboratory stirrers EUROSTAR 20 digital and 40/60/100/200

IKA.

Stirring tool can be replaced without chuck key.
Not suitable for EUROSTAR 20 high speed digital.

Designation	Art. No.	Pack Qty.	€
Quick-action chuck for EUROSTAR series	**XT18.1**	1 unit(s)	78,00

Electronic laboratory stirrers MICROSTAR control series

IKA.

For stirring and mixing low viscosity liquids. Compact design with high-end features.

- Vibration detection with automatic stop in the event of stirring tool imbalance
- Torque measurement or temperature measurement with indication on the display - when the temperature sensor is plugged in, the torque or temperature display can be selected during operation
- Integrated temperature measurement using a measuring probe (-10 °C to 350 °C, accuracy of ±1.35 °C)
- With timer function up to a max. of 6000 min
- Microprocessor control for constant speed, even with changes in viscosity
- Push-through stirrer shafts
- USB interface and Bluetooth functionality
- Clamping range of chuck 0.5 to 8.2 mm

Technical specifications:

Art. No.	1EH1.1	1EH2.1	1EH3.1
Type	MICROSTAR 7.5 control	MICROSTAR 15 control	MICROSTAR 30 control
Max. stirring capacity (H_2O)	5 l	10 l	20 l
Max. viscosity	4,000 mPas	8,000 mPas	20,000 mPas
Max. torque	7.5 Ncm	15 Ncm	30 Ncm
Motor power input	32 W		
Motor power output	22 W		
Speed range	30 to 2000 rpm	30 to 1000 rpm	50 to 500 rpm
Speed display	LCD		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
W x D x H	60 x 136 x 173 mm		
Weight	1,7 kg	1,26 kg	
Mains connection	100–240 V, 50/60 Hz		

Delivery incl. Pt 1000 H 67.60 temperature measuring sensor and R 300 stirrer shaft protection. Stirring tool, stand and boss head please order separately - (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
MICROSTAR 7.5 control	**1EH1.1**	1 unit(s)	1.212,00
MICROSTAR 15 control	**1EH2.1**	1 unit(s)	1.278,00
MICROSTAR 30 control	**1EH3.1**	1 unit(s)	1.322,00

Electronic laboratory stirrers MINISTAR control series

IKA.

For stirring and mixing low to medium viscosity liquids. Compact design with high-end features.

- Vibration detection with automatic stop in the event of stirring tool imbalance
- Torque measurement with indication on the display
- Temperature measurement with indication on the display when the temperature sensor is plugged in (-10 °C to 350 °C, accuracy of ±1.35 °C)
- With timer function up to a max. of 6000 min
- Microprocessor control for constant speed, even with changes in viscosity
- Push-through stirrer shafts
- USB interface and Bluetooth functionality
- Clamping range of chuck 0.5 to 8.2 mm

Technical specifications:

Art. No.	1EH5.1	1EH6.1	1EH7.1
Type	MINISTAR 20 control	MINISTAR 40 control	MINISTAR 80 control
Max. stirring capacity (H_2O)	15 l	25 l	50 l
Max. viscosity	10,000 mPas	30,000 mPas	60,000 mPas
Max. torque	20 Ncm	40 Ncm	80 Ncm
Motor power input	60 W		
Motor power output	46 W		
Speed range	50 to 2000 rpm	30 to 1000 rpm	30 to 500 rpm
Speed display	LCD		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
W x D x H	70 x 154 x 193 mm		
Weight	1,56 kg	1,72 kg	
Mains connection	100–240 V, 50/60 Hz		

Delivery incl. Pt 1000 H 67.60 temperature measuring sensor and R 300 stirrer shaft protection. Stirring tool, stand and boss head please order separately - (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
MINISTAR 20 control	**1EH5.1**	1 unit(s)	1.278,00
MINISTAR 40 control	**1EH6.1**	1 unit(s)	1.388,00
MINISTAR 80 control	**1EH7.1**	1 unit(s)	1.498,00

Electronic laboratory stirrers EUROSTAR 60/100 control

IKA.

With detachable remote control and digital TFT display. Constant speed through microprocessor control. **Integrated torque trend display** measures the viscosity changes in the sample. Electronic safety circuit to switch off the device in the event of a fault or overload. Continuous matching of target and actual speed, to automatically correct any discrepancies. For constant speed, even after changes in medium viscosity.

- Programmable functions, e.g. Start/Stop function (adjustable to 9 h, 59 min, 59 sec)
- **Integrated temperature measurement (a temperature gauge is required to display the temperature. Please order separately)**
- Interval mode (adjustable to 59 min, 59 sec)
- Timer (adjustable to 99 h, 59 min, 59 sec)
- Infinitely adjustable speeds
- Push-through stirrer shafts
- With RS 232 and USB interface
- Clamping range of chuck 0.5 to 10 mm

Technical specifications:

Art. No.	XT44.1	XT45.1
Type	EUROSTAR 60 control	EUROSTAR 100 control
Max. stirring capacity (H_2O)	40 l	100 l
Max. viscosity	50,000 mPas	70,000 mPas
Max. torque	60 Ncm	100 Ncm
Motor power input	168 W	174 W
Motor power output	131 W	142 W
Speed range	30 to 2000 rpm	30 to 1300 rpm
Speed display	TFT	
Opposite direction of rotation	No	Yes
Ø Extension arm	16 mm	
Extension arm length	220 mm	
W x D x H	86 x 230 x 267 mm	
Mains connection	230 V, 50/60 Hz	

Delivery incl. please order stirring tool, stand and boss head separately – see stirrer accessories.

Type	Art. No.	Pack Qty.	€
EUROSTAR 60 control	**XT44.1**	1 unit(s)	2.293,00
EUROSTAR 100 control	**XT45.1**	1 unit(s)	2.900,00

Agitator accessories

H-tripod S2 series

Heidolph. Material: Stainless steel V2A.

The support rod is additionally secured with a nut which prevents it from being unscrewed accidentally. With levelling screw to compensate for unevenness. Max. weight load: 4 kg.

(1) Standard
Tripod rods-Ø 25 mm.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
S2	345	420	700	**TL67.1**	1 unit(s)	262,00
S2 XXL	345	420	1,000	**TL68.1**	1 unit(s)	296,00

(2) Tele
With extendable tripod rod from 725 to 1025 mm.
Support rods-Ø 32 mm.

Type	Width (mm)	Depth (mm)	Height-adjustability (mm)	Art. No.	Pack Qty.	€
Tele S2	345	420	725–1025	**TL69.1**	1 unit(s)	598,00

Accessories clamp for H stands S2 series

Heidolph. Material: Stainless steel V2A, cast aluminium.

Suitable for	Art. No.	Pack Qty.	€
Rod Ø 13-32 mm	**TL70.1**	1 unit(s)	109,00

Plate stands

IKA. Material: Stainless steel, tripod plate epoxy coated, rubber pad.

With slip-resistant foil on the plate. The support rod is additionally secured with a nut under the plate which prevents it from being unscrewed accidentally. Support rod-Ø: 16 mm. Max. weight load: 5 kg.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R 1825	200	316	560	**CC13.1**	1 unit(s)	281,00
R 1826	200	316	800	**CC14.1**	1 unit(s)	309,00
R 1827	200	316	1,000	**CC15.1**	1 unit(s)	330,00

H-stand

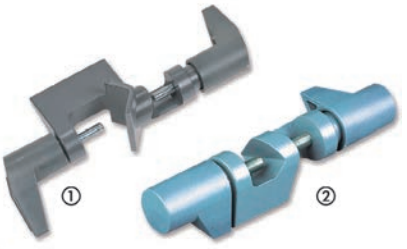
IKA.

Suitable for larger, heavy devices and structures such as stirrers. Tilt-resistant thanks to H-base. With balance screw to compensate for uneven surfaces on the laboratory table.
Support rods-Ø: 34 mm. Max. weight load: 10 kg.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R 2722	460	420	1,010	**CC16.1**	1 unit(s)	675,00

Height-adjustable
With compression sprung telescopic support rod for smoothly moving heavy devices or structures up and down. Lifting height: 390 mm.

Type	Width (mm)	Depth (mm)	Height-adjustability (mm)	Art. No.	Pack Qty.	€
R 2723	460	420	620-1010	**CC17.1**	1 unit(s)	1.251,00



Clamps

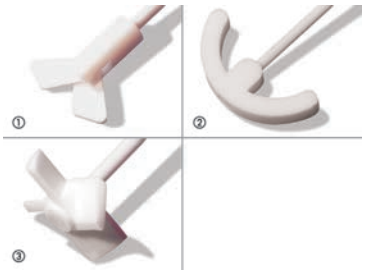
IKA. Material: Aluminium (cast).

R 270
Suitable for tripod type R 2722, R 2723.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Tripod rods Ø 25-36 mm, extension arms Ø 5-21 mm	**CC18.1**	1 unit(s)	116,00

R 182
Suitable for tripod type R 1825, R 1826, R 1827.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(2)	Tripod rods Ø 6-12 mm, extension arms Ø 6-16 mm	**CY92.1**	1 unit(s)	88,00



A 121 °C

Stirring blades ROTILABO® ECO

ROTH SELECTION. Material: Stainless steel, coated with PTFE. Autoclavable: Yes.

Chemically inert and non-breakable. Temperature stable from -200 °C to +250 °C. Shaft Ø 6 mm.

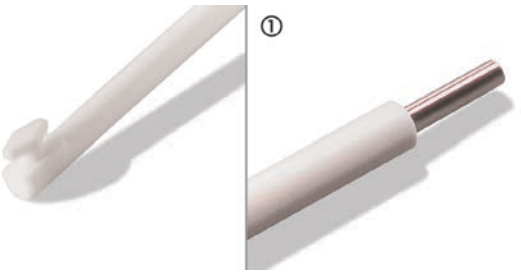
Pic.	Designation	Wavelength (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
(1)	Centrifugal	300	40	**YT25.1**	1 unit(s)	71,95
(1)	Centrifugal	400	40	**YT26.1**	1 unit(s)	73,25
(1)	Centrifugal	500	50	**YT27.1**	1 unit(s)	74,40
(2)	Armature	300	80	**YT28.1**	1 unit(s)	58,10
(2)	Armature	400	80	**YT29.1**	1 unit(s)	58,80
(2)	Armature	500	80	**YT30.1**	1 unit(s)	59,35
(3)	Propeller	300	40	**YT31.1**	1 unit(s)	68,60
(3)	Propeller	400	40	**YT32.1**	1 unit(s)	71,30
(3)	Propeller	500	50	**YT33.1**	1 unit(s)	75,25

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee



A 121 °C

Stirring blades ROTILABO®

ROTH SELECTION. Material: Stainless steel, coated with PTFE. Autoclavable: Yes.

Please order matching stirrer blades separately (Art. No. YT20.1ff). Temperature stable from –200 to +250 °C.

Standard

Wavelength (mm)	Ø Shaft (mm)	Art. No.	Pack Qty.	€
300	6	**YT08.1**	1 unit(s)	41,15
300	8	**YT11.1**	1 unit(s)	43,60
400	6	**YT09.1**	1 unit(s)	42,00
400	8	**YT12.1**	1 unit(s)	54,35
500	6	**YT10.1**	1 unit(s)	43,60
500	8	**YT13.1**	1 unit(s)	55,40
550	9.5	**YT14.1**	1 unit(s)	56,30
650	9.5	**YT15.1**	1 unit(s)	56,80

(1) With renewed clamp Ø 6.35 mm (length 50 mm)
for easy clamping of the stirrer shafts.

Wavelength (mm)	Ø Shaft (mm)	Art. No.	Pack Qty.	€
650	9.5	**YT16.1**	1 unit(s)	58,05
650	10	**YT18.1**	1 unit(s)	66,95
750	9.5	**YT17.1**	1 unit(s)	59,80
750	10	**YT19.1**	1 unit(s)	68,35

A 121 °C

Stirrer blade ROTILABO® with smooth ends

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Suitable for ROTILABO® stirrer shafts made of stainless steel (Art. No. YT08.1ff). Borehole Ø 6.5 mm, Blade thickness 3.2 mm. Temperature stable from -200 to +250 °C.

Suitable for	Width (mm)	Total length (mm)	Art. No.	Pack Qty.	€
round bottom flask 250 ml	25	65	**YT20.1**	5 unit(s)	25,05
round bottom flask 500 ml	25	75	**YT21.1**	5 unit(s)	26,35
round bottom flask 2000 ml	25	105	**YT22.1**	5 unit(s)	29,75
round bottom flask 4000 ml	25	125	**YT23.1**	5 unit(s)	31,25
round bottom flask 6000 ml	25	150	**YT24.1**	5 unit(s)	34,55

Agitator accessories

Stirring blades made of stainless steel

Bohlender. Material: Stainless steel, coated with PTFE.

The stirrer unit is made entirely of PTFE. A stainless steel core provides the required hold in the clamping ring of the stirrer. The stirrer unit is firmly anchored to the shaft: it is not loosened by continued turning of the medium after the stirrer has been turned off. Since the materials to be turned only have contact with PTFE, the stirrer shafts are virtually resistant to chemicals and allow high application temperatures. **The dimensions of the stirrer shafts match the (KPG) glass stirrer shafts and are therefore interchangeable at any time. With tapered collet, for easier clamping of stirrer shafts.**

Crescent

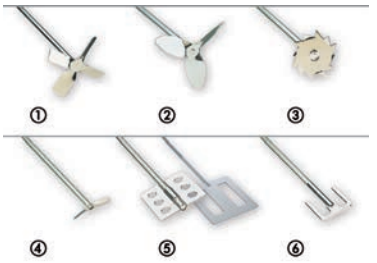
Dimensions	Ø Shaft (mm)	Ø Clamping (mm)	Total length (mm)	Art. No.	Pack Qty.	€
Sheet: 90 x 24 x 3 mm	8	6.5	450	**K072.1**	1 unit(s)	170,95
Sheet: 90 x 24 x 3 mm	8	6.5	600	**K073.1**	1 unit(s)	190,30
Sheet: 90 x 24 x 3 mm	10	8	450	**K074.1**	1 unit(s)	174,15
Sheet: 90 x 24 x 3 mm	10	8	600	**K075.1**	1 unit(s)	203,20
Sheet: 125 x 35 x 3.5 mm	16	14	800	**K076.1**	1 unit(s)	301,00

Propeller

Dimensions	Ø Shaft (mm)	Ø Clamping (mm)	Total length (mm)	Art. No.	Pack Qty.	€
Sheet Ø 50 mm	6	4.7	450	**K077.1**	1 unit(s)	162,35
Sheet Ø 75 mm	8	6.5	450	**K078.1**	1 unit(s)	249,40
Sheet Ø 75 mm	10	8.0	450	**K079.1**	1 unit(s)	270,90

Armature

Dimensions	Ø Shaft (mm)	Ø Clamping (mm)	Total length (mm)	Art. No.	Pack Qty.	€
Sheet: 60 x 40 mm	8	6.5	360	**K080.1**	1 unit(s)	207,50
Sheet: 100 x 60 mm	8	6.5	600	**K081.1**	1 unit(s)	250,50



Stirring blades

IKA.

for laboratory stirrers. Material stainless steel, anchor stirrer (Art. No. Y443.1 and Y444.1) and propeller stirrer (Art. No. A328.1) made of fine cast metal. Choice depends on use, viscosity and amount of medium.

(1) Propeller, 4-winged

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
350	8	50	2,000	**0867.1**	1 unit(s)	146,00
540	8	100	800	**Y436.1**	1 unit(s)	180,00
800	13	150	600	**Y437.1**	1 unit(s)	635,00

(2) Propeller, 3-winged

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
350	8	45	2,000	**A328.1**	1 unit(s)	294,00
550	10	140	800	**Y438.1**	1 unit(s)	294,00
800	10	140	400	**Y439.1**	1 unit(s)	351,00

(3) Dissolver stirrer

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
350	8	80	2,000	**A322.1**	1 unit(s)	261,00

(4) Centrifugal stirrers

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
350	8	60/15	2,000	**A324.1**	1 unit(s)	165,00
550	8	100/24	800	**Y440.1**	1 unit(s)	220,00

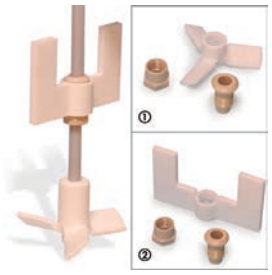
(5) Paddle stirrers

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
550	8	70	800	**Y441.1**	1 unit(s)	176,00
550	10	150	800	**Y442.1**	1 unit(s)	351,00

(6) Anchor stirrers

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
350	8	45	1,000	**Y443.1**	1 unit(s)	375,00
350	8	90	1,000	**Y444.1**	1 unit(s)	453,00

Agitator accessories



Accessories additional wings for stirrer shafts

Bohlender. Material: PTFE, PEEK Compound.

For fastening stirrer shafts made of PTFE with metal core, glass or metal. The height and also the turning position of the additional wings can be firmly positioned freely using a clamp fastener. Temperature stable from -200 °C to +250 °C, without load.

Delivery incl. fork wrench.

(1) Propeller additional wings, 3-winged

Suitable for	Dimensions	Art. No.	Pack Qty.	€
Shaft-Ø 8 mm	Sheet: Ø 75 mm	**CK98.1**	1 unit(s)	106,60
Shaft-Ø 10 mm	Sheet: Ø 75 mm	**CK99.1**	1 unit(s)	100,85

(2) Anchor additional wings

Suitable for	Dimensions	Art. No.	Pack Qty.	€
Shaft-Ø 8 mm	Sheet: 60 x 40 mm	**CT00.1**	1 unit(s)	95,50
Shaft-Ø 8 mm	Sheet: 100 x 60 mm	**CT01.1**	1 unit(s)	137,20
Shaft-Ø 10 mm	Sheet: 80 x 50 mm	**CT02.1**	1 unit(s)	102,45
Shaft-Ø 10 mm	Sheet: 100 x 60 mm	**CT03.1**	1 unit(s)	130,55

DURAN WHEATON KIMBLE

KPG stirrer shaft

DWK Life Sciences. Material: DURAN® glass.

Stirrer contact surface (L 160 mm) ground and polished.

(1) Type WG 10 with propeller stirrer, 4-winged
Suitable for Flasks with neck Ø inner min. 60 mm

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
320	10	58	**NL72.1**	1 unit(s)	70,95
370	10	58	**NL73.1**	1 unit(s)	70,95

(2) Type WS 10 with centrifugal stirrer with movable spread wings
Suitable for Flasks with neck Ø inner min. 25 mm

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
320	10	57	**NL76.1**	1 unit(s)	72,30
370	10	57	**NL77.1**	1 unit(s)	72,30
410	10	57	**NL78.1**	1 unit(s)	76,70
440	10	57	**NL79.1**	1 unit(s)	76,70

KPG stirrer with side stirrer blade

Material: DURAN® glass Stirring blade and safety screw made of PTFE.

For NS 29/32. Length of the ground and polished KPG-stirrer contact surface 160 mm. Drive pin Ø 8 x L 40 mm. Shaft Ø 10 mm.

Suitable for	Wavelength (mm)	Dimensions	Art. No.	Pack Qty.	€
Round bottom flask 100 ml	310	Blade: 50 x 18 x 3 mm	**KL66.1**	1 unit(s)	87,00
Round bottom flask 250/500 ml	310	Blade 68 x 24 x 3 mm	**KL67.1**	1 unit(s)	88,70
Round bottom flask 1000/2000/ 3000 ml	390	Blade 75 x 24 x 3 mm	**KL68.1**	1 unit(s)	90,30
Round bottom flask 4000/5000 ml	480	Blade 125 x 24 x 3 mm	**KL69.1**	1 unit(s)	118,25

KPG stirrer with movable wings

Material: DURAN® glass Stirring blade made of PTFE.

With ground and polished shaft and coupling pin. for NS 29/32. Drive pinjournal Ø 8 x L 40 mm. Shaft Ø 10 mm.

Suitable for	Wavelength (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
Round bottom flask 100/250 ml	310	50	**KL71.1**	1 unit(s)	80,65
Round bottom flask 500 ml	310	90	**KL72.1**	1 unit(s)	81,70
Round bottom flask 1000 ml	400	90	**KL73.1**	1 unit(s)	81,70
Round bottom flask 2000/3000 ml	460	90	**KL74.1**	1 unit(s)	81,70
Round bottom flask 4000/5000 ml	520	90	**KL75.1**	1 unit(s)	82,80

Agitator accessories

Accessories for KPG stirrer

Material: DURAN® glass.

(1) KPG bearing bushing (stirrer plug)
Core: NS 29/32. Stirrer contact surface ground and polished

Ø Nominal (mm)	Standard ground glass joint core	Total length (mm)	Art. No.	Pack Qty.	€
10	29/32	125	**KX58.1**	1 unit(s)	56,45

(2) KPG stirrer shaft
Stirrer contact surface ground and polished.

Ø Nominal (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	240	**KX59.1**	1 unit(s)	36,45

DURAN
WHEATON
KIMBLE

KPG bearing bushing

DWK Life Sciences. Material: DURAN® glass.

Model HQ 10
Running surface ground and polished, above the grinding core. With core NS 29/32.

Pic.	Type	Tread	Total length (mm)	Art. No.	Pack Qty.	€
(1)	HQ 10	Ø 10 x L 75 mm	170	**NL68.1**	1 unit(s)	63,05

Model HT 10
Stirrer contact surface ground and polished, below the ground joint. With ground glass cone 29/32 and glycerine reservoir.

Pic.	Type	Tread	Total length (mm)	Art. No.	Pack Qty.	€
(2)	HT 10	Ø 10 x L 75 mm	120	**NL69.1**	1 unit(s)	96,80

Glass stirrer clutch flexible

For stirring tasks in gas equipment with KPG-stirrers. To compensate for assembly inaccuracies. Obviates the need for exact alignment of the stirrer motor and stirrer shaft. As an elastic connection between laboratory stirrer and stirrer shaft. For motor shafts with chuck clamping range from 8 to 10 mm and stirring blades with shaft-Ø 8 to 10 mm.

Type	Art. No.	Pack Qty.	€
Flexible glass stirrer clutch	**KL60.1**	1 unit(s)	115,05

Stirrer coupling Globe

Bohlender. Material: POM.

For balancing the misalignment of axes between the stirrer and the stirrer shaft. Ideal for glass and metal stirrers. Power transmission of up to 300 Ncm. Max. speed ranges of up to 1200 rpm. Temperature stable from -20 to +110 °C. Clamping ring connection for easy assembly. Max. axial offset 10 mm. For stirrers with a chuck clamping range of 10 mm (Ø stirrer shaft for 8 mm stirrer and L 85 mm).

Suitable for	Art. No.	Pack Qty.	€
Stirrer opening at bottom, Ø 6.5 and 10 mm	**KHE5.1**	1 unit(s)	134,40
Stirrer opening at bottom, Ø 8.5 and 10 mm	**KHE6.1**	1 unit(s)	119,95

Agitator accessories

Universal stirrer plug

Material: Borosilicate glass, guide sleeve, disc set and pressure screw made of PTFE.

for round flasks. Extensively chemical resistant and temperature stable. Reliably tight, even after long-term use. For use without lubricant.

Ø Shaft (mm)	Standard ground glass joint core	Total length (mm)	Art. No.	Pack Qty.	€
8	29	140	**1793.1**	1 unit(s)	217,15
10	29	140	**1794.1**	1 unit(s)	217,15
8	45	140	**1791.1**	1 unit(s)	217,15
10	45	140	**1792.1**	1 unit(s)	217,15

DURAN WHEATON KIMBLE

KPG stirrer plug HB 10

DWK Life Sciences. Material: DURAN® glass.

Stirrer guide (GL 32 threaded tube with ground glass cone) with matching stirrer socket. Stirrer contact surface ground and polished, Ø 10 mm x L 75 mm. GL screw cap with O-ring allows the stirrer shaft to be sealed.

Standard ground glass joint core	Art. No.	Pack Qty.	€
24/29	**NL70.1**	1 unit(s)	61,00
29/32	**NL71.1**	1 unit(s)	62,70

PTFE standard ground stirring plug

Bohlender. Material: PTFE, screw cap GL 25 made of PPS.

Guide for stainless steel, glass and PTFE stirrer shafts. Embossed ring seals on the PTFE ground glass cone to fit ground glass sleeve. With special seal made of PTFE and FPM O-ring. Proportioned pressure of the GL screw cap on the O-ring provides a proper seal against the stirrer shaft. Temperature stable from -50 °C to +250 °C.

Suitable for	Standard ground glass joint core	Total length (mm)	Art. No.	Pack Qty.	€
Shaft-Ø 8 mm	19/26	65	**CKN9.1**	1 unit(s)	50,10
Shaft-Ø 8 mm	24/29	69	**CKP0.1**	1 unit(s)	55,45
Shaft-Ø 8 mm	29/32	74	**CKP2.1**	1 unit(s)	51,80
Shaft-Ø 10 mm	24/29	70	**CKP1.1**	1 unit(s)	66,15
Shaft-Ø 10 mm	29/32	72	**CKP3.1**	1 unit(s)	49,95
Shaft-Ø 10 mm	45/40	80	**CKP4.1**	1 unit(s)	69,45

Clutch for laboratory stirrer assembly

Material: PTFE.

Corrosion-proof. With shaft-part made of elastic polyamide. Prevents cuts, ensures proper working even at high speeds over long-term use. Shaft shoulder: Ø 5-8 mm. Shaft-part: Ø 7 mm, length 120 mm.

Type	Art. No.	Pack Qty.	€
Clutch for laboratory stirrer assembly	**2939.1**	1 unit(s)	101,60

Flocculation units

Rotational viscometer ROTAVISC Complete

IKA.

For determining the viscosity of liquids. 4.3″ TFT display with intuitive menu guidance. Digital spirit level supports the correct set-up of the start-up condition. Five user-defined “ramp” profiles can be set. Accuracy for Newtonian and non-Newtonian liquids is ±1 % of the measuring range, the reproducibility is ±0.2 %. Speed is infinitely adjustable. Also with graph function. RS 232 and USB interface. Connection for external Pt 100 temperature measuring sensor.

Technical specifications:

Art. No.	KHC5.1	KHC6.1
Type	lo-vi Complete	me-vi Complete
Measuring range	1-6,000,000 mPas	100-40,000,000 mPas
Accuracy	1 %	
Speed range	0,01 to 200 rpm	
Speed accuracy	± 0,01 rpm	
Timer	0.017 to 6000 min or continuous operation	
Temperature resolution	0.1 K	
Height-adjustability	200 mm	
W x D x H	351 x 372 x 629 mm	
Weight	7,1 kg	
Mains connection	100–240 V, 50/60 Hz	

ROTAVISC lo-vi Complete
Viscosity measuring range of 1 to 6,000,000 mPa·s.

Delivery incl. standard spindle set (SP 1 to SP 4), protective bracket, temperature sensor, quick coupling, hook coupling and ROTASTAND stand.

Type	Art. No.	Pack Qty.	€
lo-vi Complete	**KHC5.1**	1 unit(s)	3.396,00

ROTAVISC me-vi Complete
Viscosity measuring range of 100 to 40,000,000 mPa·s.

Delivery incl. standard spindle set (SP 7 to SP 12), protective bracket, temperature sensor, quick coupling, hook coupling and ROTASTAND stand.

Type	Art. No.	Pack Qty.	€
me-vi Complete	**KHC6.1**	1 unit(s)	3.396,00

Flock tester ET-series

Tintometer.

For various applications, e.g. for testing the effectiveness of flocculants and precipitants.

Technical specifications:

Art. No.	YC36.1	YC37.1	YC38.1
Type	ET 730	ET 740	ET 750
Number of stirring points	4		6
Speed	20-40-50-100-120 rpm	10–300 rpm	
Timer	0 to 30 min / continuous operation	0 to 999 min / 0 to 99 h / continuous operation	
W x D x H	250 x 320 x 250 mm	645 x 347 x 260 mm	935 x 347 x 260 mm
Weight	4.9 kg	13 kg	17 kg
Mains connection	100–240 V, 50/60 Hz		

Model ET 730, analogue

- Accommodates 4 low form beakers up to 1000 ml in size
- Portable, for mobile use
- Stirring points are arranged in a circle around a lamp
- Switchable centre column light (OFF/ON)
- Speed and time adjustment by rotary knob
- Height adjustment of the stirrer blades during operation

Delivery incl. 12 V adapter (for the cigarette lighter) and mains adapter.

Type	Art. No.	Pack Qty.	€
ET 730	**YC36.1**	1 unit(s)	1.502,25

Model ET-series, digital

- Accommodates 4/6 low or high form beakers up to 1000 ml in size
- Illuminated back panel for glare-free sample observation
- Switchable backlight (OFF/ON)
- Continuously variable stirring speed
- Digital rpm and timer display
- Height adjustment of the stirrer blades during operation

Delivery incl. mains adapter.

Type	Art. No.	Pack Qty.	€
ET 740	**YC37.1**	1 unit(s)	2.088,20
ET 750	**YC38.1**	1 unit(s)	2.472,00

Flocculation units

Flocculation unit Flocculator SW6

Stuart.

For reproducible analysis of flocculation conditions during sewage water treatment.

- **For simultaneous treatment of six samples in beakers up to 1000 ml**
- Uniform adjustable stirring speed for similar conditions at all sampling areas
- Digital display of speed and running time
- **With timer function**
  An audible signal indicates the end of the set time and all stirring units are switched off. The timer then counts the minutes from when the stirrer blades stop.
- Height adjustment of the stainless steel stirrer blades during operation
- The device has an illuminated base and a black back wall for anti-glare and high-contrast sample monitoring
- **Memory function saves 2 combinations of rpm and time parameters**
- A set-up for simultaneous addition of reagents and flocculators is also available

Technical specifications:

Art. No.	CA98.1
Type	SW6
Number of stirring points	6
Speed range	25 to 250 rpm
Timer function	0 to 99 mins/continuous operation
Performance	200 W
W x D x H	750 x 210 x 460 mm
Weight	17 kg
Mains connection	230 V, 50 Hz

Delivery without beakers, please order separately.

Type	Art. No.	Pack Qty.	€
SW6	**CA98.1**	1 unit(s)	3.328,00

Accessories supply device for Flocculator SW6

Stuart.

Designation	Art. No.	Pack Qty.	€
Supply device	**CA99.1**	1 unit(s)	225,00

Dispersion unit ULTRA-TURRAX® T 10 basic

IKA.

For use and hand-held or floor-mounted device.

- **For volumes from 0.5 to 100 ml**
- Continuous speed adjustment
- Quick-release coupling for easy dispenser tool changing
- Plastic disposable dispersion tools for PCR analysis available (please contact our sales department)

Technical specifications:

Art. No.	EH01.1
Type	T 10 basic ULTRA-TURRAX®
Motor power input	125 W
Motor power output	75 W
Speed range	8000 to 30000 rpm
Speed display	Scale
W x D x H	56 x 66 x 178 mm
Weight	0.5 kg

Delivery incl. storage box and arm lever R 200. Please order dispersion tool, sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 10 basic ULTRA-TURRAX®	**EH01.1**	1 unit(s)	1.300,00

Dispersion tool ULTRA-TURRAX® for T 10 basic

IKA.

Made of stainless steel. Tool change and dismantling for cleaning purposes without additional tool.

Technical specifications:

Art. No.	EH03.1	EH02.1	EH04.1
Type	S 10 N - 8 G	S 10 N - 5 G	S 10 N - 10 G
Working range	1 to 50 ml	0.5 to 10 ml	1 to 100 ml
Ø Stator	8 mm	5 mm	10 mm
Ø Rotor	6.1 mm	3.8 mm	7.6 mm
Gap width between stator and rotor	0.25 mm	0.1 mm	0.2 mm
Immersion depth	20–95 mm	20–75 mm	20–100 mm
Materials in contact with product	PTFE, AISI 316L		
Temperature range	to +180 °C		
Approx. emulsion fineness	1–10 µm		
Approx. suspension fineness	5–25 µm		

Type	Art. No.	Pack Qty.	€
S 10 N - 8 G	**EH03.1**	1 unit(s)	1.235,00
S 10 N - 5 G	**EH02.1**	1 unit(s)	1.235,00
S 10 N - 10 G	**EH04.1**	1 unit(s)	1.235,00

Accessories for dispenser T 10 basic

IKA.

Small stand R 104
W 242 x T 355 mm, rod Ø 10 mm, stand rod height 370 mm

Designation	Art. No.	Pack Qty.	€
Small stand R 104	**EH05.1**	1 unit(s)	163,00

Dispersion unit ULTRA-TURRAX® complete set T 18 digital

IKA.

High-speed dispenser. A further speed range allows working at high circumference speeds.

ULTRA-TURRAX® T 18 digital dispersion unit:

- With digital speed display
- Compact, narrow shape

Technical specifications:

Art. No.	XX04.1
Type	T 18 digital ULTRA-TURRAX® complete set
Motor power input	500 W
Motor power output	300 W
Speed range	3000 to 25000 rpm
Speed display	LED
Speed adjustment	Continuously variable
W x D x H	87 x 106 x 271 mm
IP rating	20
Weight	2.5 kg
Mains connection	220–240 V, 50/60 Hz

Dispenser tool S 18 N-19 G

Technical data:

Working range	10 to 1500 ml
Ø stator	19 mm
Ø rotor	12.7 mm
Materials in contact with product	PTFE, AISI 316L

Delivery incl. ULTRA-TURRAX® T18 digital, extension rod and dispenser tool S 18 N - 19 G. Please order sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 18 digital ULTRA-TURRAX® complete set	**XX04.1**	1 unit(s)	2.155,00

Dispersion tool ULTRA-TURRAX® for dispenser T 18 digital

IKA.

Technical specifications:

Art. No.	T598.1
Working range	1 to 100 ml
Ø Stator	10 mm
Ø Rotor	7.5 mm
Materials in contact with product	PTFE, AISI 316L

Dispenser tool S 18 N - 10 G

Designation	Art. No.	Pack Qty.	€
S 18 N - 10 G	**T598.1**	1 unit(s)	1.065,00

Dispersion unit ULTRA-TURRAX® T 25 digital

IKA.

High-performance dispenser with wide range of applications.
Applications:
Production of emulsions and dispersion, homogenisation of waste water sample and sample preparation.

- Processing volume (H_2O): 1 to 2000 ml
- Continuous speed adjustment
- **With digital speed display**

Technical specifications:

Art. No.	AN58.1
Type	T 25 digital ULTRA-TURRAX®
Motor power input	700 W
Motor power output	500 W
Speed range	3000 to 25000 rpm
Speed display	Digital
W x D x H	87 x 106 x 271 mm
Weight	2.5 kg
Mains connection	220–240 V, 50/60 Hz

Delivery incl. extension rod (L 175 x Ø 13 mm). Please order dispersion tool, sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 25 digital ULTRA-TURRAX®	**AN58.1**	1 unit(s)	2.155,00

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Dispersion unit ULTRA-TURRAX® T 25 easy clean digital

IKA.

Application:

Homogenising samples, emulsifying cosmetics or suspending paints.

- Processing volume (H_2O): 1 to 2000 ml
- Brushless motor with low noise level
- Continuous speed adjustment
- With digital speed display
- Integrated timer function (max. 1 s to 99:59 h)
- Special tools available for quick and easy cleaning of the dispersion tools (only S 25 EC-C-18G-ST)
- USB port

Technical specifications:

Art. No.	HYK7.1
Type	T 25 easy clean ULTRA-TURRAX®
Motor power input	500 W
Motor power output	400 W
Speed range	3000 to 25000 rpm
Speed display	LED
W x D x H	89 x 161 x 270 mm
Weight	4,5 kg
Mains connection	220–240 V, 50/60 Hz

Delivery incl. extension rod (L 175 x Ø 13 mm). Please order dispersion tool, sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 25 easy clean ULTRA-TURRAX®	**HYK7.1**	1 unit(s)	2.120,00

Dispersion tool ULTRA-TURRAX® for T 25 easy clean digital

IKA.

Special tool for easier and faster cleaning of the dispersion tool.

Technical specifications:

Art. No.	HYK8.1
Type	S 25 EC-C-18 G-ST
Working range	10 to 1500 ml
Ø Stator	18 mm
Ø Rotor	13.4 mm
Gap width between stator and rotor	0.25 mm
Immersion depth	35-150 mm
Materials in contact with product	AISI 316L Ceramic
Temperature range	to +180 °C
Approx. emulsion fineness	1-10 µm
Approx. suspension fineness	10-50 µm

Type	Art. No.	Pack Qty.	€
S 25 EC-C-18 G-ST	**HYK8.1**	1 unit(s)	1.362,00

Dispersion tool ULTRA-TURRAX® for T 25 digital and T 25 easy clean digital

IKA.

Technical specifications:

Art. No.	AN59.1	AN60.1	AN61.1
Type	S 25 N - 8 G	S 25 N - 18 G	S 25 N - 25 G
Working range	1 to 50 ml	10 to 1500 ml	50 to 2000 ml
Ø Stator	8 mm	18 mm	25 mm
Ø Rotor	6.1 mm	12.7 mm	17 mm
Gap width between stator and rotor	0.25 mm	0.3 mm	0.5 mm
Immersion depth	27–85 mm	40–165 mm	
Materials in contact with product	PTFE, AISI 316L		
Temperature range	to +180 °C		
Approx. emulsion fineness	1–10 µm		
Approx. suspension fineness	10–50 µm		15–50 µm

Type	Art. No.	Pack Qty.	€
S 25 N - 8 G	**AN59.1**	1 unit(s)	1.469,00
S 25 N - 18 G	**AN60.1**	1 unit(s)	1.102,00
S 25 N - 25 G	**AN61.1**	1 unit(s)	1.409,00

NEW / +

High-performance dispersion unit ULTRA-TURRAX® T 50 digital

IKA.

Application

Producing emulsions and dispersions.

- Processing volume (H_2O): 0.25 to 20 l
- Constant speed even when viscosity changes
- With digital speed display

Technical specifications:

Art. No.	KNK5.1
Type	T 50 digital Ultra-Turrax®
Motor power input	1,100 W
Motor power output	700 W
Speed range	600 to 10000 rpm
Speed display	LED
W x D x H	115 x 355 x 139 mm
Weight	5,85 kg
Mains connection	220–240 V, 50/60 Hz

Delivery incl. extension rod (L 220 x Ø 16 mm). Please order dispersion tool, sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 50 digital Ultra-Turrax®	**KNK5.1**	1 unit(s)	3.431,00

NEW / +

Dispersion tool for ULTRA-TURRAX® T 50 digital

IKA.

Technical specifications:

Art. No.	KNK6.1	KNK7.1	KNK8.1
Type	S 50 N - G 45 F	S 50 N - G 45 M	S 50 N - G 45 G
Working range	0.25 to 10 l	0.5 to 15 l	0.5 to 20 l
Ø Stator	45 mm		
Ø Rotor	40 mm	40.5 mm	36 mm
Gap width between stator and rotor	0.5 mm	0.25 mm	0.5 mm
Materials in contact with product	PTFE, AISI 316L		
Temperature range	to +180 °C		
Approx. emulsion fineness	10-30 µm	25-50 µm	40-100 µm
Approx. suspension fineness	1-10 µm	5-20 µm	10-30 µm

Pic.	Type	Art. No.	Pack Qty.	€
(1)	S 50 N - G 45 F	**KNK6.1**	1 unit(s)	3.318,00
(2)	S 50 N - G 45 M	**KNK7.1**	1 unit(s)	3.161,00
(3)	S 50 N - G 45 G	**KNK8.1**	1 unit(s)	2.874,00

Cell disruption/homogenisation devices

Ultrasonic disintegrator UP series

Hielscher.

- Small, compact ultrasonic processors
- Applications: Disintegration or homogenisation of liquids, dispersion, cell disintegration
- With pulse mode for temperature-sensitive samples
- For use as hand-held or stand unit (please order stand separately)

Technical specifications:

Art. No.	Y509.1	Y510.1
Type	UP50H	UP100H
For max. volume	200 ml	500 ml
Performance	50 W	100 W
Working frequency	30 kHz	
Power output control	Amplitude 20 to 100 %, continuously adjustable	
Pulse range	10–100 %/s	
Length	50 mm	
Width	130 mm	
Height	180 mm	
IP rating	40	
Weight	0.8 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. basic unit with travelling case and stand holder for stands rod Ø 16 mm, without sonotrode (please order separately).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
UP50H	**Y509.1**	1 unit(s)	2.795,00
UP100H	**Y510.1**	1 unit(s)	3.257,25

Sonotrode for ultrasonic disintegrators UP50H and UP100H

Hielscher.

Made of titanium. Length 80 mm.

Technical specifications:

Art. No.	Y512.1	Y513.1	Y514.1	Y515.1
Type	MS1	MS2	MS3	MS7
Sample quantity	0,1–5 ml	2–50 ml	5–200 ml	20–500 ml
Length	80 mm			
Outer tip Ø	1 mm	2 mm	3 mm	7 mm
Immersion depth	5 mm	30 mm		

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
MS1	**Y512.1**	1 unit(s)	393,45
MS2	**Y513.1**	1 unit(s)	322,50
MS3	**Y514.1**	1 unit(s)	322,50
MS7	**Y515.1**	1 unit(s)	258,00

Ultrasonic disintegrator UP200Ht digital

Hielscher.

Applications: sample preparation, homogenisation, dispersion, disagglomeration (e.g. nanoparticles), emulsification, analysis and cell disruption, extraction, degassing and sonochemistry.

- Use as hand-held device or mounted on a stand
- Colour touch display and digital setting and monitoring functions
- Amplitude or power output control
- Countdown function: 0.1 s to 99 d
- Automatic data storage on integrated SD card reader in 100 ms cycles; records amplitude, power output, time and temperature
- Temperature range monitoring: acoustic irradiation is interrupted if the medium temperature is above or below the setpoint
- Temperature display (with connected probe): -50 to +200 °C
- Operation and monitoring via LAN cable, i.e. a browser can be used for display and remote control (no need to install software on PC)
- With LED sample illuminator
- Protection against dry running

Technical specifications:

Art. No.	YH05.1
Type	Ultrasonic disintegrator UP200Ht
Performance	200 W
Working frequency	26 kHz
Power output control	Amplitude 20 to 100 %, continuously adjustable
Pulse range	10,0–100,0 %/s
Length	190 mm
Width	90 mm
Height	300 mm
Weight	1.4 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. carry case, boom arm (L 200 x Ø 12 mm), cross clamp, 3 m network cable, 1 GB SD/USB combo card and temperature sensor Pt 100. Please order sonotrodes and stand separately.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Ultrasonic disintegrator UP200Ht	**YH05.1**	1 unit(s)	4.052,75

Cell disruption/homogenisation devices

Sonotrode for Ultrasonic disintegrator UP200Ht digital

Hielscher.

Sonotrodes
Made of titanium.

Technical specifications:

Art. No.	YH06.1	YH07.1	YH08.1
Type	S26d2	S26d7	S26d14
Sample quantity	2–50 ml	20–500 ml	50–1000 ml
Length	120 mm	95 mm	80 mm
Outer tip Ø	2 mm	7 mm	14 mm

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
S26d2	**YH06.1**	1 unit(s)	347,25
S26d7	**YH07.1**	1 unit(s)	347,25
S26d14	**YH08.1**	1 unit(s)	370,90

Accessories stand for ultrasonic disintegrators UP50H, UP100H and 200Ht digital

Hielscher.

Stand
Made of stainless steel. Footplate L 300 x B 150 mm. Stand rod height 600 mm. Rod-Ø 16 mm.

Designation	Art. No.	Pack Qty.	€
Stand for UP50H, UP100H and UP200Ht	**Y525.1**	1 unit(s)	247,25

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Ultrasonic disintegrator SONOPULS series

Bandelin.

Applications: Cell disruption, homogenisation, emulsifying, suspension, process acceleration and, sonochemistry and de-gasing.

- LED display for pulsation, time as well as actual value display of the amplitude
- Ultrasonic operation modes: Continuous or pulsating (for temperature-sensitive
- samples); pulse range 10 to 100 %, can be saved
- Continuous operation or timer operation (adjustable 1 s bis 99 min; can be saved)

Technical specifications:

Art. No.	HC85.1	HC86.1
Type	HD 2070 set	HD 2200 set
For max. volume	50 ml	900 ml
Performance	70 W	200 W
Working frequency	20 kHz	
Power output control	Amplitude 10 to 100 %	
Pulse range	10–100 %	
Mains connection	230 V, 50/60 Hz	

In vitro diagnostic medical device according to IVDD

Complete sets Model HD 2070

Delivery incl. generator, ultrasonic transformer, graduated horn SH 70 G and micro tip MS 73, Ø 3 mm. Please order support frame separately.

Type	Art. No.	Pack Qty.	€
HD 2070 set	**HC85.1**	1 unit(s)	3.063,75

Complete set Model HD 2200

Delivery incl. generator, ultrasonic transformer, booster horn SH 213 G and titanium plate TT 13, Ø 13 mm. Please order support frame separately.

Type	Art. No.	Pack Qty.	€
HD 2200 set	**HC86.1**	1 unit(s)	3.731,35

Cell disruption/homogenisation devices

Sonotrode for ultrasonic disintegrators HD 2070 and HD 2200

Bandelin.

Technical specifications:

Art. No.	HC87.1	HC88.1	HC89.1	HC90.1
Type	Microtip MS 72	Microtip MS 73	Cone tip KE 76	Titanium plate TT 13
Sample quantity	HD 2070: 1 - 25 m HD 2200: 2 - 30 ml	HD 2070: 2 - 50 ml HD 2200: 50 - 90 ml	HD 2070: 8 - 100 ml HD 2200: 10 - 350 ml	HD 2070: 10 - 200 ml HD 2200: 20 - 900 ml
Length	191 mm	175 mm	135 mm	5 mm
Outer tip Ø	2 mm	3 mm	6 mm	13 mm

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
Microtip MS 72	**HC87.1**	1 unit(s)	239,75
Microtip MS 73	**HC88.1**	1 unit(s)	167,70
Cone tip KE 76	**HC89.1**	1 unit(s)	184,90
Titanium plate TT 13	**HC90.1**	1 unit(s)	78,50

Accessories support frame set HG 40 for ultrasonic disintegrators SONOPULS HD 2070 and HD 2200

Bandelin.

Made of stainless steel. For fastening the ultrasonic transformer. With clamp.

Designation	Art. No.	Pack Qty.	€
Support frame set HG 40	**HC93.1**	1 unit(s)	904,10

Cell disruptors Genie® Disruptor

Scientific Industries.

Suitable for a variety of homogenizations of yeast cells, bacteria, tissue and cell resuspensions using glass beads (please order separately).

Technical specifications:

Art. No.	AH30.1	PA66.1
Type	Disruptor Genie® Analog	Disruptor Genie® Digital
Speed	2850 rpm	1000–2850 rpm
Speed display		Digital
Time setting from	0 min	
Time setting up to	15 min	99 min
Timer display	Scale	
Length	165 mm	
Width	122 mm	
Height	190 mm	
Weight	4.5 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. TurboMix® attachment and holder for 12 reaction vials 1.5/2.0 ml. Beads please order separately.

Model analogue

- With fixed set speed
- Timer: 0 to 15 minutes or continuous operation

Type	Art. No.	Pack Qty.	€
Disruptor Genie® Analog	**AH30.1**	1 unit(s)	803,05

Model Digital

- With variable speed control
- Timer: 0 to 99 min or continuous operation
- After 10 min, the mixer switches to “Sleep” mode

Type	Art. No.	Pack Qty.	€
Disruptor Genie® Digital	**PA66.1**	1 unit(s)	922,35

Cell disruption/homogenisation devices

Disruptor Bead Beater

For rapid, efficient and safe cell disintegration.
Method of operationA fast running impeller wheel accelerates the movement of small beads in a specially formed vessel to a very high speed. The system is completely hermetically sealed and allows no air to enter into the sample, preventing harmful aerosols from forming. The unit is easy-to-use and maintenance
free. The beads precipitate within a few seconds and can be reused.

- Up to a max. sample volume of 100 g (moist weight) in 200 ml medium
- Ideal for sensitive proteins and enzymes

Delivery incl. 350 ml PC vessel.
Glass beads please order separately.

Designation	Art. No.	Pack Qty.	€
BeadBeater®	**N025.1**	1 unit(s)	1.354,50

Accessories vessels for Bead Beater®

Replacement vessels

Designation	Art. No.	Pack Qty.	€
PC replacement vessel 350 ml	**N026.1**	1 unit(s)	105,00
Stainless steel vessel 350 ml	**N027.1**	1 unit(s)	293,50

Additional vessels

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	PC vessel with stainless steel guide bushing 15 ml	**EN04.1**	1 unit(s)	396,70
(2)	PC vessel with stainless steel guide bushing 50 ml	**EN05.1**	1 unit(s)	396,70

Accessories Beads for BeadBeater®

Glass beads
2.5 g/cm³.

Ø Ball (mm)	Art. No.	Pack Qty.	€
0,1	**N029.1**	450 g	67,60
0,5	**N030.1**	450 g	67,60
1,0	**N031.1**	450 g	67,60
2,7	**N032.1**	450 g	67,60

Zirconia/glass beads
3.7 g/cm³.

Ø Ball (mm)	Art. No.	Pack Qty.	€
0,1	**N033.1**	450 g	97,70
0,5	**N034.1**	450 g	97,70
1,0	**N035.1**	450 g	97,70
2,3	**N036.1**	450 g	97,70

Zirconia beads
5.5 g/cm³.

Ø Ball (mm)	Art. No.	Pack Qty.	€
0,7	**N037.1**	450 g	191,35
1,0	**N038.1**	450 g	191,35
2,0	**N039.1**	450 g	191,35

Stainless steel beads
7.9 g/cm³.

Ø Ball (mm)	Art. No.	Pack Qty.	€
1,5	**P329.1**	45 g	97,50

Lab blenders Bag Mixer® 400 series

Interscience.

The BagMixer® ensures safe and easy separation of bacteria from solid samples. A sterile plastic bag is added together with the closed sample and a diluent into the BagMixer®. For most samples 30 to 60 seconds mixing is sufficient. The filtrate can then be removed with a pipette and analysed immediately without any danger of changing or contamination.. Housing and mixing chamber are made of rustproof stainless steel.

Technical specifications:

Art. No.	KL16.1	T211.1	KL17.1
Type	Bag Mixer® 400 P	Bag Mixer® 400 W	Bag Mixer® 400 CC
Sample quantity	50-400 ml		
Length	420 mm		
Width	260 mm		
Height	265 mm		
Weight	16.5 kg		
Mains connection	110/240 V, 50/60 Hz		

Model 400 P

- With stainless steel cap
- Fixed speed (8 beats/s)
- Adjustable mixing time: 30 to 210 minutes or continuous operation

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Bag Mixer® 400 P	**KL16.1**	1 unit(s)	1.773,75

Model 400 W

- With window flap made of armour plate glass
- Fixed speed (8 beats/s)
- Adjustable mixing time: 30 to 210 minutes or continuous operation
- **Delivery incl.** drip pan

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Bag Mixer® 400 W	**T211.1**	1 unit(s)	2.365,00

Model 400 CC

- Window flap made of armour plate glass
- LCD display indicates mixing time and speed
- Variable speed setting: 4, 6, 8 or 10 strokes/s
- Adjustable mixing time: 1 sec to 1 h with count-down display
- or continuous operation
- With additional indicator display for mixing blade intensity
- Distance between mixing blades and door can be adjusted
- **Delivery incl.** drip pan

Pic.	Type	Art. No.	Pack Qty.	€
(3)	Bag Mixer® 400 CC	**KL17.1**	1 unit(s)	3.216,40

Cell disruption/homogenisation devices

Accessories rack made of stainless steel for homogeniser Bag Mixer®

Interscience.

The stainless rack can only be used with the sealing clips (please order separately).

Designation	Art. No.	Pack Qty.	€
(4) Rack made of stainless steel for 10 bags	**T213.1**	1 unit(s)	164,50

Lab blenders Bag Mixer®

Interscience.

Effective mixing of solid or liquid samples in laboratory blender bag.
Optimal micro-organism extraction.
Sample material is quickly prepared for analysis without complex cleaning.

General information for all models:

- **For reaction vials from 50 to 400 ml**
- Digital display of speed and time
- Adjustable mixing intensity
- Removable pedals
- 4 adjustable speeds: 4, 6, 8, 10 impacts/s
- Adjustable mixing time: 1 to 59 minutes or continuous operation
- LightCode System: colour LED light under the door indicates the mixing status (green: mixing operation finished; orange: active mixing operation)
- LED interior light
- Integrated drip pan
- Low noise (approx. 48 dB)

Technical specifications:

Art. No.	CEC0.1	CEC1.1
Type	Bag Mixer® 400 S	Bag Mixer® 400 SW
Sample quantity	50–400 ml	
Length	370 mm	
Width	290 mm	
Weight	26 kg	
Mains connection	110–240 V, 50/60 Hz	

Model S
Standard version.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Bag Mixer® 400 S	**CEC0.1**	1 unit(s)	3.806,60

Model SW

- Window flap with double glazing
- LiquidSensor: mixing stops immediately and automatically if a leak is detected by the sensor

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Bag Mixer® 400 SW	**CEC1.1**	1 unit(s)	4.670,90

Accessories BagOpen® homogenizing bag stand

Interscience.

For opening and holding bags.
For individual 400 ml bags. Self-adhesive pads adhere to the outer walls of the bag and to the side walls of the stand and hold the bag open. Reduces the risk of sample contamination.

Delivery incl. 2 adhesive pads.

Width (mm)	Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
80	150	250	**XX17.1**	1 unit(s)	125,75

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Lab blenders Stomacher® 400 circulator

Seward.

Ideal for extracting, mixing or dispersing.
Capacity 80 to 400 ml. The Stomacher® 400 circulator is indispensable in the laboratory when preparing and blending food samples and other substances for analysis.
The sample and diluent are placed into the unit in a sealed plastic bag. The bag is held securely in the unit during treatment. There is practically no risk of contact between the sample and unit. This eliminates any danger of contamination.
With regard to hygiene, security and general efficiency the Stomacher® 400 circulator brings enormous benefits compared to other units, which must be cleaned or even sterilized after use. Processing takes only 30 seconds for most substances.

Operating principle
Two reciprocating paddles beat against the bag repeatedly and press its contents against the door. This quiet and yet powerful movement distributes the sample quickly so that the extraction of soluble substances and the detection of even deep-seated micro-organisms is easier than when using standard blending processes.
The sample can be removed from the bag with a pipette after blending. The Stomacher® 400 circulator is ready for use again immediately.

Special characteristics:

- Control panel with keyboard and LCD display
- Count-down display indicates the processing time
- User-defined speed and time setting
  - 3 programs can be stored for easier operation
  - Setting options:
  1.) Paddle speed rpm 200/low, 230/normal, 260/high)
  2.) Time (from 1 s to 99 min and 59 s)
- Durable and robust aluminium casing

Technical specifications:

Art. No.	H453.1
Type	Stomacher® 400 circulator
Sample quantity	80–400 ml
Length	335 mm
Width	350 mm
Height	280 mm
Weight	23 kg
Mains connection	220 V, 50 Hz

Delivery incl. 1000 standard homogenizing bags (W 177 x H 305 mm).

Type	Art. No.	Pack Qty.	€
Stomacher® 400 circulator	**H453.1**	1 unit(s)	5.072,95

Analysis mill A 10 basic

IKA.

For shredding hard, brittle, but also soft and fibrous materials. Integrated cooling water connections (for hoses with an inner Ø 8 mm). Replaceable stainless steel beater. Operation only possible with closed lid.

- Digital timer (can be set to between 1 s and 5 mins) that shows the comminuting time
- Interval function (if the timer function has been activated, the equipment runs for 15 s and then stops for 1 s, repeating this pattern until the set time has elapsed)
- Max. processing grain size:
  6 mm for impact grinding
  10 mm for cutting grinding
- Max. switch-on duration.: 5 min ON / 10 min OFF

Technical specifications:

Art. No.	EEA9.1
Type	A 10 basic
Usable volume	50 ml
Motor power input	300 W
Motor power output	240 W
Max. duty time	Short-term operation (KB 5/10): 5 min ON / 10 min OFF
Maximum speed	25,000 rpm
Max. circumferential speed	70 m/s
Grinding chamber can be cooled by	Water: yes Dry ice: yes Liquid nitrogen: no
W x D x H, total	130 x 145 x 250 mm
Weight	2.9 kg
Mains connection	220–240 V, 50/60 Hz

Delivery incl. stainless steel beater type A 10.1 (stainless steel 1.4034) suitable for most brittle materials up to a Mohs hardness of 5 and A 10.4 grinding chamber reducer (stainless steel 1.4301) for small sample material volumes.

Type	Art. No.	Pack Qty.	€
A 10 basic	**EEA9.1**	1 unit(s)	1.983,00

Accessories for A 10 basic analysis mill

IKA.

(2) Carbide beater type A 10.3
Made of tungsten carbide for relatively hard materials up to Mohs hardness 9.

Designation	Art. No.	Pack Qty.	€
Carbide beater type A 10.3	**EEC0.1**	1 unit(s)	275,00

(3) Star-shaped cutter type A 10.2
For fibrous materials such as paper and plant material, as well as plastics, including. material with low specific weight.

Designation	Art. No.	Pack Qty.	€
Star-shaped cutter type A 10.2	**EEC1.1**	1 unit(s)	143,00

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Analysis mill A11 basic

IKA.

Batch mill with two grinding processes:

- **Impact milling of hard, brittle grinding material with a stainless steel beater up to max. Mohs' hardness scale 6** (beater is included in delivery)
- **Blade milling of soft, fibrous grinding material with a cutting knife** (not included in delivery)

Moist and sticky process materials can be ground by adding water. The standard grinding beaker (Art. No. T537.1) is suitable for embrittling grinding material with liquid nitrogen directly in the grinding chamber.

Technical specifications:

Art. No.	T534.1
Type	A11 basic
Usable volume	80 ml
Motor power input	300 W
Motor power output	160 W
On-load speed	19,500 rpm
Max. duty time	Short time operation (KB 1/10): 1 min ON / 10 min OFF
Idle speed	28000 rpm
Max. circumferential speed	53 m/s
W x D x H, total	85 x 85 x 240 mm
IP rating	43
Weight	1.5 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. standard grinding beaker made of ETFE, fibre-glass reinforced with stainless steel inlet (AISI 316L), effective volume 80 ml and stainless steel beater.

Type	Art. No.	Pack Qty.	€
A11 basic	**T534.1**	1 unit(s)	2.382,00

Accessories for A11 basic analysis mill

IKA.

Cutting blade
Made of stainless steel AISI 440B.

Designation	Art. No.	Pack Qty.	€
Cutting blade	**T539.1**	1 unit(s)	176,00

Beater for grinding material up to 9 Mohs
Made of stainless steel AISI 440B.

Designation	Art. No.	Pack Qty.	€
Beater for grinding material up to 9 Mohs	**T536.1**	1 unit(s)	220,00

Funnel
Prevents splashing when filling liquid nitrogen into standard 80 ml grinding beaker.

Designation	Art. No.	Pack Qty.	€
Funnel	**Y974.1**	1 unit(s)	242,00

250 ml grinding beaker
Made of PC with stainless steel inlet. Effective volume 250 ml. Not suitable for N_2 cooling, only to be used with double beater (Art. No. Y975.1).

Designation	Art. No.	Pack Qty.	€
250 ml grinding beaker	**T535.1**	1 unit(s)	595,00

Double beater
Made of titanium. Max. Mohs hardness 3, only to be used for 250 ml grinding beaker (Art. No. T535.1).

Designation	Art. No.	Pack Qty.	€
Double beater	**Y975.1**	1 unit(s)	473,00

Batch mill/mixer MultiDrive basic

IKA.

For hard, soft or fibrous samples. A variety of vessels are available for a wide range of grinding tasks. Suitable for pre-grinding through to fine grinding. With intermittent operation for pre-grinding hard samples or for thorough mixing.

Technical specifications:

Art. No.	KHT0.1
Type	MultiDrive basic
Motor power input	1,000 W
Motor power output	800 W
Max. duty time	Short time operation (KB 5/10): 5 min ON / 10 min OFF
Minimum speed	3,000 rpm
Maximum speed	20,000 rpm
Speed accuracy	± 5 %
W x D x H, total	300 x 250 x 450 mm
Weight	10 kg
Mains connection	220–240 V, 50/60 Hz

Delivery without grinding and mixing vessels, please order separately.

Type	Art. No.	Pack Qty.	€
MultiDrive basic	**KHT0.1**	1 unit(s)	3.409,00

Accessories for MultiDrive basic batch mill/mixer

IKA.

(1) MultiDrive BL 2000
Effective volume 2000 ml. Vessel with mixing tool for wet grinding of samples such as meat, sausage, soya beans, silage, vegetables, etc. All parts can be cleaned in a dishwasher. Mixing tool can be disassembled. Max. mixture hardness 5 Mohs. Max. mixture particle size 20 mm. Beater/blade material: Stainless steel 1.4304.

Dimensions: W 180 x D 200 x H 280 mm.

Delivery incl. stainless steel standard mixing tool.

Designation	Art. No.	Pack Qty.	€
MultiDrive BL 2000	**KHT1.1**	1 unit(s)	606,00

(2) MultiDrive MI 250
Effective volume 250 ml. Vessel with beater for dry grinding of samples such as wood, animal feed, frozen products, plastic, etc. Grinding chamber must be cleaned by hand. Detachable beater. Max. mixture hardness 5 Mohs. Max. mixture particle size 7 mm. Beater, blade and grinding chamber made of stainless steel. Grinding chamber can be cooled with water, suitable for hoses with Ø 6.25 x 1.5 mm.

Dimensions: W 180 x D 200 x H 280 mm.

Delivery incl. stainless steel standard beater.

Designation	Art. No.	Pack Qty.	€
MultiDrive MI 250	**KHT2.1**	1 unit(s)	776,00

(3) MultiDrive MI 400
Effective volume 400 ml. Vessel with beater for dry grinding of samples such as wood, animal feed, frozen products, plastic, etc. Grinding chamber must be cleaned by hand. Detachable beater. Max. mixture hardness 5 Mohs. Max. mixture particle size 7 mm. Beater, blade and grinding chamber made of stainless steel. Grinding chamber can be cooled with water, suitable for hoses with Ø 6.25 x 1.5 mm.

Dimensions: W 180 x D 200 x H 280 mm.

Delivery incl. stainless steel standard beater.

Designation	Art. No.	Pack Qty.	€
MultiDrive MI 400	**KHT3.1**	1 unit(s)	906,00

(4) Star-shaped blade
For fibrous materials such as paper and plant material.

Designation	Art. No.	Pack Qty.	€
MI 250.2 star-shaped blade for MultiDrive MI 250	**KHT4.1**	1 unit(s)	155,00
MI 400.2 star-shaped blade for MultiDrive MI 400	**KHT5.1**	1 unit(s)	176,00

(5) Carbide beater
Made of carbide for harder materials up to Mohs hardness 9.

Designation	Art. No.	Pack Qty.	€
MI 250.3 carbide beater for MultiDrive MI 250	**KHT6.1**	1 unit(s)	330,00
MI 400.3 carbide beater for MultiDrive MI 400	**KHT7.1**	1 unit(s)	363,00

Universal blenders

Severin.

Features:

- Power approx. 260 Watt
- Polystyrene container 650 ml
- Maximum speed approx. 3900 rpm
- Pulse switch
- Stainless steel blade
- Rubber anti-slip protection

Type	Art. No.	Pack Qty.	€
Universal blenders	**Y384.1**	1 unit(s)	41,05

Stand mixer

Severin.

For simple mixing and emulsifying tasks.

Features:

- Removable mixing attachment 1,5 l made of glass with removable drip tray
- Capacity approx. 550 W
- Two speed settings with additional pulse mode option
- Lid with opening for refilling
- Removable stainless steel blade
- Dimensions: W 210 mm x D 180 mm x H 402 mm
- Cord wind

Type	Art. No.	Pack Qty.	€
Stand mixer	**X477.1**	1 unit(s)	70,15

Universal mixers RBB pro

For blending, mixing and emulsifying.

Features:

- 3 settable speeds (4000/8000/14000 rpm)
- **Power consumption 550 W**
- Stainless steel motor housing, chrome plated
- Safety control: motor only runs lid is attached
- With soft start feature (prevents liquids from splashing up after switching on)
- With overload/overheating protection
- With pulse function, for stirring briefly
- Blending beaker is impact resistant and dishwasher safe, capacity 2 l
- Dimensions total: H 493 mm, Ø 190 mm
- Dimensions of mixer attachments: H 265 x W 182 mm
- Mains connection: 230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Universal mixer with polycarbonate cup	**PT04.1**	1 unit(s)	990,10
Universal mixer with stainless steel bowl	**PT05.1**	1 unit(s)	1.219,05

Laboratory universal mixer with sound-proofing hood RMBL

For blending, mixing and emulsifying.

Features:

- 6 speed settings
- Version with protective hood for noise reduction and increased safety in the laboratory
- 12 storable cycles for automatic processing (max. cycle duration 30 min, time is determined by current mixing operation)
- Pulse function
- Stainless steel motor base
- Thermal circuit breaker

Technical specifications:

Art. No.	CYX5.1
Type	RMBL
Speed settings	1300/3500/6000/8700/12000/16000 rpm
Motor power input	900 W
W x D x H, total	225 x 265 x 495 mm
Weight	10 kg
Mains connection	230 V, 50 Hz

Delivery incl. sound-proofing hood.
Without mixing attachment, please order required mixing attachment separately.

Type	Art. No.	Pack Qty.	€
RMBL	**CYX5.1**	1 unit(s)	1.745,80

Mixer attachments for universal mixers RMBL

With stainless steel cutting attachment, laboratory type
For ultra fine processing and low quantities.

Type	Art. No.	Pack Qty.	€
Glass attachment 125 ml	**CYX6.1**	1 unit(s)	318,20
Glass attachment 250 ml	**CYX7.1**	1 unit(s)	339,70
Glass attachment 500 ml	**CYX8.1**	1 unit(s)	482,70
Glass attachment 1,000 ml	**CYX9.1**	1 unit(s)	528,90

With stainless steel cutting attachment, High-Power type
4 blades shaped for optimal stirring, intensive and quick processing, as well as crushing ice cubes.

Type	Art. No.	Pack Qty.	€
Polycarbonate cover 2,000 ml	**CYY0.1**	1 unit(s)	211,80
Stainless steel attachment 2,000 ml	**CYY1.1**	1 unit(s)	434,30

Universal mixers GK 900 W

For thorough blending, mixing and emulsifying.

Features:

- Infinitely adjustable from 1000 to 17 000 rpm
- **Power consumption 900 W**
- Die cast zinc motor housing, chrome-plated
- With soft start feature (prevents liquids from splashing up after switching on)
- Safety control: motor only runs lid is attached
- With overload and overheating protection
- Motor block dimensions: height 226 mm, Ø 190 mm
- Power supply: 230 V, 50/60 Hz

Selection of four different mixing beakers:

- 4 l polycarbonate attachment. Dimensions: W 300 x H 280 mm
- 2 l polycarbonate attachment. Dimensions: W 240 x H 280 mm
- 4 l stainless steel attachment. Dimensions: W 290 x H 300 mm
- 2 l stainless steel attachment. Dimensions: W 230 x H 280 mm

Type	Art. No.	Pack Qty.	€
Universal mixer with polycarbonate beaker 2 l	**CYX3.1**	1 unit(s)	1.363,10
Universal mixer with polycarbonate beaker 4 l	**X534.1**	1 unit(s)	1.540,50
Universalmixer with stainless steel beaker 2 l	**X535.1**	1 unit(s)	1.540,50
Universalmixer with stainless steel beaker 4 l	**CYX4.1**	1 unit(s)	1.798,50

Test tube shakers lab dancer

IKA.

To mix small sample sizes using the touch function.

- For small containers with Ø of up to 30 mm, such as test tubes, centrifuge tubes and reaction vials
- With fixed speed setting of 2800 rpm

Technical specifications:

Art. No.	AN62.1
Type	lab dancer
Movement type	circular vibrating
Speed	2800 rpm
Shaking amplitude (stroke)	4,5 mm
Max. shaken volume	1 test tube 50 ml
Motor power input	1.2 W
Motor power output	0.8 W
W x D x H	100 x 110 x 70 mm
Weight	0.55 kg

Delivery incl. 12 V plug-in power supply.

Type	Art. No.	Pack Qty.	€
lab dancer	**AN62.1**	1 unit(s)	220,00

Test tube shakers Hula Dancer series

IKA.

For mixing small sample sizes in small containers such as test tubes and reaction vials, etc. using a touch function. Circular vibrating shaking motion. With robust housing.

Technical specifications:

Art. No.	KHC7.1	KHC8.1
Type	basic	digital
Movement type	circular vibrating	
Speed range	2800 rpm	1200 to 2800 rpm
Shaking amplitude (stroke)	4,5 mm	
Speed display	fixed	speed-adjustable in 9 increments
W x D x H	123 x 123 x 42 mm	
Weight	0,7 kg	
Mains connection	100–240 V, 50/60 Hz	

(1) Hula Dancer basic
Fixed speed setting of 2800 rpm.

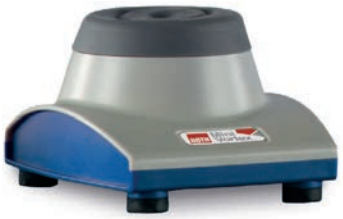
Type	Art. No.	Pack Qty.	€
basic	**KHC7.1**	1 unit(s)	320,00

(2) Hula Dancer digital
Speed-adjustable in nine increments.

With digital display of the relevant speed level.

Type	Art. No.	Pack Qty.	€
digital	**KHC8.1**	1 unit(s)	374,00

Vortexers, small shakers



Test tube shakers ROTILABO® Mini Vortex

ROTH SELECTION. Material: ABS, Silicone.

Specially designed for low space requirements and mixing small sample sizes by means of a touch function.

- For small containers with a Ø of up to 30 mm such as test tubes, centrifuge tubes, reaction vials, etc.
- With fixed speed setting of 4500 rpm
- Quiet operation with good mixing effect
- 5 years warranty

Technical specifications:

Art. No.	HXH6.1
Type	ROTILABO® Mini Vortex
Movement type	circular vibrating
Speed	4500 rpm
Shaking amplitude (stroke)	6 mm
W x D x H	110 x 75 x 130 mm
Weight	0,9 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 12 V plug-in power supply and two standard silicone attachments.

Type	Art. No.	Pack Qty.	€
ROTILABO® Mini Vortex	**HXH6.1**	1 unit(s)	115,40

Vortexer with stirring attachment ROTILABO®

ROTH SELECTION.

For reaction vials 1.5 ml. Suitable for every vortexer or test tube shaker with a rubber plate or test tube holder. Large shaft with a fixed, round plate for mounting reaction vials. Reaction vials are protected against falling out by a second, adjustable plate. Shaft length 165 mm, with ball handle (Ø 25 mm) on the upper end.

Type	Art. No.	Pack Qty.	€
for 8 reaction vessels	**L660.1**	1 unit(s)	138,70
for 20 reaction vessels	**L661.1**	1 unit(s)	155,90

Test tube shakers RS series

Phönix Instrument.

General information on both models

For mixing small sample sizes in test tubes, centrifuge tubes, reaction vials, etc.

- Touch or continuous operation
- Robust housing design
- Slip-resistant silicon feet

Technical specifications:

Art. No.	PX87.1	PX88.1
Type	RS-VF-10	RS-VA-10
Movement type	circular vibrating	
Speed range		0 to 2500 rpm
Speed	2500 rpm	
Shaking amplitude (stroke)	4 mm	
W x D x H	127 x 130 x 160 mm	
Weight	3.5 kg	
Mains connection	220–230 V, 50 Hz	

Delivery incl. standard attachment for test tubes and small vessels.

Model: RS-VF 10
With fixed speed setting of 2500 rpm

Type	Art. No.	Pack Qty.	€
RS-VF-10	**PX87.1**	1 unit(s)	149,20

Model: RS-VA 10
with variable speed control from 0 to 2500 rpm

Type	Art. No.	Pack Qty.	€
RS-VA-10	**PX88.1**	1 unit(s)	198,90

Accessories single-hand attachment large, for RS series test tube shakers

Phönix Instrument.

For single-handed shaking of Erlenmeyer flasks, bottles, etc.
With rubber mat (Ø 99 mm).

Designation	Art. No.	Pack Qty.	€
Single-hand attachment, large	**PX89.1**	1 unit(s)	34,40

Vortexers, small shakers

Test tube shakers with ZX4 infrared sensor

Velp.

- IR sensor mode or continuous operation can be chosen
- When the contactless IR sensor is activated, the test tube shaker starts the typical vortex movement at the previously set speed as soon as a sample tube is detected in the immediate vicinity
- Robust housing design with slip-resistant feet

Technical specifications:

Art. No.	ACN9.1
Type	ZX4
Movement type	circular vibrating
Speed range	0 to 3000 rpm
Shaking amplitude (stroke)	4,5 mm
W x D x H	150 x 165 x 130 mm
Weight	2.7 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. standard attachment for test tubes and small vessels.

Type	Art. No.	Pack Qty.	€
ZX4	**ACN9.1**	1 unit(s)	194,60

Accessories for ZX4 series test tube shaker

Velp.

(1) Attachment for 19 x 1.5/2.0 ml reaction vials

Designation	Art. No.	Pack Qty.	€
Attachment for reaction vials	**ACP0.1**	1 unit(s)	42,80

(2) Attachment for 5 sample tubes Ø 16 mm

Designation	Art. No.	Pack Qty.	€
Attachment for 5 sample tubes	**ACP1.1**	1 unit(s)	42,80

(3) Attachment for 4 x 50 ml centrifuge tubes (29 mm)

Designation	Art. No.	Pack Qty.	€
Attachment for 4 centrifuge tubes	**ACP2.1**	1 unit(s)	51,25

Test tube shakers Vortex Mixer with multifunctional attachment

Heathrow Scientific.

Suitable for continuous or intermittent operation, with touch function, activated by applying pressure to the shaker attachment.

- With multifunctional attachment for six different vial types and a microtiter plate:
  2 x 50 ml centrifuge tubes (horizontal fitting)
  2 x 15 ml centrifuge tubes (horizontal fitting)
  4 x 1.5/2.0 ml reaction vials (vertical fitting)
  6 x 0.5 ml reaction vials (vertical fitting)
  24 x 0.2 ml reaction vials (vertical fitting)
  2 x 5 ml reaction vials (horizontal fitting)
  1 x microtiter plate
- A standard attachment for single-handed shaking of test tubes and vials is also integrated in the multifunctional platform
- Speed adjustment in three stages
- Attachment can be removed for cleaning
- 5 years warranty

Technical specifications:

Art. No.	CNH7.1
Type	Multi Vortex Mixer
Movement type	circular vibrating
Speed	1000/2000/3000 rpm
Shaking amplitude (stroke)	3,7 mm
W x D x H	171 x 190 x 197 mm
Weight	4 kg
Mains connection	220–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Multi Vortex Mixer	**CNH7.1**	1 unit(s)	263,40

Vortexers, small shakers

Test tube shakers Genie® Vortex 1

Scientific Industries.

- Sturdy design with high stability
- For rapid, intensive mixing of samples
- Device starts at maximum speed when the attachment is pressed down, reducing the vortex time

Technical specifications:

Art. No.	AH32.1
Type	Genie® 1
Movement type	circular vibrating
Speed	2700 rpm
W x D x H	122 x 165 x 190 mm
Permissible ambient conditions	0 to +38 °C at 95% RH
Weight	4 kg
Mains connection	230–240 V, 50 Hz

Delivery incl. standard attachment (inside Ø 25 mm) for single-handed shaking of test tubes, sample tubes and reaction vials.

Type	Art. No.	Pack Qty.	€
Genie® 1	**AH32.1**	1 unit(s)	335,40

Accessories for Vortex-Genie® series

Scientific Industries.

Shaker dish

Designation	Art. No.	Pack Qty.	€
Shaker dish, Ø15 cm	**P509.1**	1 unit(s)	54,25

Replacement shaker dish, Ø 75 mm

Designation	Art. No.	Pack Qty.	€
Replacement shaker dish, Ø 75 mm	**P507.1**	1 unit(s)	37,15

Angular dish

Designation	Art. No.	Pack Qty.	€
Angular dish	**P512.1**	1 unit(s)	138,55

Test tube shakers REAX series

Heidolph.

Compact and powerful. High safety standard thanks to comparably strong pressure housing. The special design prevents fluid splashes from penetrating. Practical switching between intermittent and continuous operation.

Technical specifications:

Art. No.	L952.1	L953.1
Type	REAX top	REAX control
Movement type	circular vibrating	
Shaking frequency	0–2500 rpm	
Shaking amplitude (stroke)	5 mm	
Control accuracy	–	±2 %
Motor power input	42 W	
W x D x H	134 x 172 x 105 mm	
IP rating	22	
Permissible ambient conditions	+5 to +40 °C at 85% RH	
Weight	3.3 kg	

Delivery incl. small mounting plate for tubes up to Ø 20 mm.

Pic.	Type	Art. No.	Pack Qty.	€
	REAX top	**L952.1**	1 unit(s)	316,00
(1)	REAX control	**L953.1**	1 unit(s)	455,00

Accessories for REAX series test tube shakers

Heidolph.

(2) Mounting plate, large

For flasks up to 50 ml.

Designation	Art. No.	Pack Qty.	€
Mounting plate, large	**L954.1**	1 unit(s)	29,00

(3) Supporting rod with vessel holder

For securing test tubes or flasks during continuous operation.
Supporting rod made of V2A, length 210 mm.

Designation	Art. No.	Pack Qty.	€
Supporting rod with vessel holder	**H826.1**	1 unit(s)	80,00

(4) 10 holding rack

For max. 10 reaction vials (Ø 10 mm, L 60 mm).

Designation	Art. No.	Pack Qty.	€
10 holding rack	**L955.1**	1 unit(s)	33,00

Test tube shakers Genie® Vortex Mixer series

Scientific Industries.

Robust and reliable shaking devices for rapid mixing and shaking of samples.

- Numerous accessories, such as attachments for test tubes, beakers, reaction vials, etc.
- Attachments are easy to change thanks to the snap-lock closure

Technical specifications:

Art. No.	P505.1	X561.1	HH64.1	PK04.1
Type	Vortex-Genie® 2	Vortex-Genie® 2T	Digital Vortex-Genie® 2	Digital Vortex-Genie® 2 Pulse
Movement type	circular vibrating			
Speed range	600 to 2700 rpm		500 to 2850 rpm	
Speed display	Scale		Digital	
Timer display	No	Scale Intermittent operation: 1 to 60 s Hands-free mode: 1 to 60 min	Digital Intermittent operation: 1 to 99 s Hands-free mode: 1 to 99 min	
W x D x H	122 x 165 x 165 mm			
Permissible ambient conditions	0 to +38 °C at 95 % RH			
Weight	4 kg			
Mains connection	230 V, 50/60 Hz			

Delivery incl. standard attachment (inside Ø 25 mm) and shaking tray (Ø 75 mm).

(1) Model: Vortex-Genie® 2
Intermittent operation (with automatic start, triggered by pressing the attachment) or continuous operation is possible.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Vortex-Genie® 2	**P505.1**	1 unit(s)	348,30

(2) Model: Vortex-Genie® 2T with integrated timer
Setting options: 1 to 60 s (intermittent operation), 1 to 60 min (hands-free mode) or continuous operation.

Type	Art. No.	Pack Qty.	€
Vortex-Genie® 2T	**X561.1**	1 unit(s)	461,20

(3) Model: Vortex-Genie® 2 Digital
With speed and time adjustment (timer function) via digital display. Setting options: 1 to 99 s (intermittent operation), 1 to 99 min (hands-free mode) or continuous operation. After not being used for 10 minutes, the mixer switches to „sleep“ mode. Speed increase in increments of 10 rpm.

Type	Art. No.	Pack Qty.	€
Digital Vortex-Genie® 2	**HH64.1**	1 unit(s)	497,75

(4) Model: Digital Vortex-Genie® 2 Pulse
Like the Digital Vortex-Genie® 2 with additional functions (but without the touch function):

- Programmable pulse function for various applications
- Depending on the selected pulse and pause duration, either a rapid and vigorous mixing of samples or an intermittent mixing function results. Interval programming is suitable for, for example, temperature-sensitive samples, which should be held in suspension and not warmed up.
- Pulse and pause duration (on/off) is adjustable from 0.1 s to 99 min

Type	Art. No.	Pack Qty.	€
Digital Vortex-Genie® 2 Pulse	**PK04.1**	1 unit(s)	539,65

Accessories for Vortex-Genie® series

Scientific Industries.

(1) TurboMix attachment
For simultaneous shaking of 12 x 1.5/2.0 ml reaction vials. Suitable for cell disintegration with glass beads. Highly efficient mixing.

Designation	Art. No.	Pack Qty.	€
TurboMix® attachment	**P517.1**	1 unit(s)	312,85

(2) Replacement standard attachment
For single-handed shaking of test tubes.

Designation	Art. No.	Pack Qty.	€
Replacement standard attachment	**P506.1**	1 unit(s)	37,15

(3) Rubber plate for shaking dish (Ø 75 mm)
For single-handed shaking of beakers, Erlenmeyer flasks, bottles, etc.

Delivery without shaker dish. A shaker dish (Ø 75 mm) is required for operation. Please order separately.

Designation	Art. No.	Pack Qty.	€
Replacement rubber plate with indents	**P508.1**	1 unit(s)	37,15

Vortexers, small shakers

Accessories for Vortex-Genie® series

Scientific Industries.

(4) Attachment for reaction vials
For shaking and mixing samples in reaction vials.

Delivery without shaker dish. The shaker dish of Ø 15 cm is required for set-up. Please order separately.

Designation	Art. No.	Pack Qty.	€
Attachment for reaction vials	**P510.1**	1 unit(s)	32,90

(5) Attachment for microtiter plates
For shaking and mixing cell cultures and other samples in microtiter plates.

Delivery without shaker dish. The shaker dish of Ø 15 cm is required for set-up. Please order separately.

Designation	Art. No.	Pack Qty.	€
Attachment for microtiter plates	**P511.1**	1 unit(s)	33,80

(6) Elastic bands for fastening beakers, flasks, etc.
For shaking and mixing samples in beakers, Erlenmeyer flasks, bottles, etc. Vessels are secured by the elastic bands.

Delivery without angular dish. The angular dish is required for set-up. Please order separately.

Designation	Art. No.	Pack Qty.	€
Elastic bands	**P513.1**	2 unit(s)	10,70

(7) Attachments for test tubes
For simultaneous shaking of multiple test tubes.

Delivery without angular dish. The angular dish is required for set-up. Please order separately.

Designation	Art. No.	Pack Qty.	€
Attachment for 12 test tubes of 9–16 mm	**P514.1**	1 unit(s)	19,15
Attachment for 8 test tubes of 14–29 mm	**P515.1**	1 unit(s)	24,75
Attachment for 4 test tubes of 29–37 mm	**P516.1**	1 unit(s)	18,85

(8) Attachment for centrifuge tubes/reaction vials
For shaking and mixing samples in centrifuge tubes/reaction vials.

Designation	Art. No.	Pack Qty.	€
Attachment for 12 centrifuge tubes of 15 ml (Ø 17 x L 120 mm)	**LY19.1**	1 unit(s)	180,60
Attachment for 6 centrifuge tubes of 50 ml (Ø 30 x L 115 mm)	**LY20.1**	1 unit(s)	163,40
Attachment for 6 centrifuge tubes of 50 ml, 6 centrifuge tubes of 15 ml and 12 reaction vials of 1.5/2.0 ml	**XX95.1**	1 unit(s)	204,25

(9) Horizontal attachment for 24 reaction vials, 1.5/2.0 ml

Designation	Art. No.	Pack Qty.	€
Horizontal attachment for 24 reaction vials, 1.5/2.0 ml	**1ALA.1**	1 unit(s)	202,10

Accessories for Vortex-Genie® series

Scientific Industries.

Shaker dish

Designation	Art. No.	Pack Qty.	€
Shaker dish, Ø15 cm	**P509.1**	1 unit(s)	54,25

Replacement shaker dish, Ø 75 mm

Designation	Art. No.	Pack Qty.	€
Replacement shaker dish, Ø 75 mm	**P507.1**	1 unit(s)	37,15

Angular dish

Designation	Art. No.	Pack Qty.	€
Angular dish	**P512.1**	1 unit(s)	138,55

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Test tube shakers Vortex 2

IKA.

For short-term operation (touch function) or continuous operation.

- Stable thanks to sturdy zinc die-cast housing
- Attachments click into place
- Numerous accessories, e.g. attachments for reaction vials, microtitration plates, etc.

Technical specifications:

Art. No.	EHP7.1
Type	Vortex 2
Movement type	circular vibrating
Speed range	500 to 2500 rpm
Shaking amplitude (stroke)	4 mm
W x D x H	120 x 140 x 138 mm
Weight	3.9 kg
Mains connection	220–240/115/100 V, 50/60 Hz

Delivery incl. VG 3.1 standard attachment.

Type	Art. No.	Pack Qty.	€
Vortex 2	**EHP7.1**	1 unit(s)	261,00

Test tube shakers Vortex Genius 3

IKA.

Suitable for use over short periods (touch function), activated by applying pressure to the shaker attachment, or for continuous operation.

- Continuous speed adjustment
- Variety of accessories, e.g. attachments for test tubes, reaction vials, etc. (please order separately)
- Attachments simply click into place

Technical specifications:

Art. No.	EE34.1
Type	Vortex Genius 3
Movement type	circular vibrating
Speed range	500 to 2500 rpm
Shaking amplitude (stroke)	4 mm
W x D x H	127 x 149 x 136 mm

Delivery incl. standard attachment for test tubes and small vessels.

Type	Art. No.	Pack Qty.	€
Vortex Genius 3	**EE34.1**	1 unit(s)	408,00

Accessories for Vortex 2 and Genius 3 test tube shakers

IKA.

(1) VG 3.1 replacement standard attachment

Designation	Art. No.	Pack Qty.	€
VG 3.1 standard attachment	**EE35.1**	1 unit(s)	11,80

(2) VG 3.2 single-hand attachment

For single-handed shaking of Erlenmeyer flasks, bottles, etc. With rubber insert (Ø 88 mm).

Designation	Art. No.	Pack Qty.	€
VG 3.2 single-hand attachment	**EE36.1**	1 unit(s)	25,00

(3) VG 3.3 universal attachment

For mounting different inserts for test tubes and microtiter plates, etc. Please order separately. See accessories for VG 3.3 universal attachment.

Designation	Art. No.	Pack Qty.	€
VG 3.3 universal attachment	**EE37.1**	1 unit(s)	27,00

Accessories for VG 3.3 universal attachment

IKA.

(4) Test tube inserts

Designation	Art. No.	Pack Qty.	€
for 54 x 1.5/2.0 ml reaction vials (type: VG 3.31)	**EE38.1**	1 unit(s)	65,00
for 18 test tubes Ø 10 mm (type: VG 3.32)	**EE39.1**	1 unit(s)	34,00
for 12 test tubes Ø 12 mm (type: VG 3.33)	**EE40.1**	1 unit(s)	34,00
for 8 test tubes Ø 16 mm (type: VG 3.34)	**EE41.1**	1 unit(s)	34,00
for 8 test tubes Ø 20 mm (type: VG 3.35)	**EE42.1**	1 unit(s)	34,00

(5) VG 3.36 Erlenmeyer flask tightening strap

Tightening strap for 1 Erlenmeyer-/round-bottom flask of 100 to 250 ml.

Designation	Art. No.	Pack Qty.	€
VG 3.36 Erlenmeyer tightening strap	**EE43.1**	1 unit(s)	34,00

(6) VG 3.37 microtiter plate insert

VG 3.37 microtiter plate insert, for 1 microtiter plate.

Designation	Art. No.	Pack Qty.	€
VG 3.37 microtiter plate insert	**EE44.1**	1 unit(s)	34,00

Shakers RS series

Phönix Instrument.

Suitable for agitating five Petri dishes, with optional attachment for Erlenmeyer flasks.

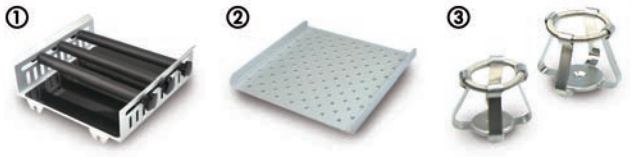
- Max. load capacity: 3 kg
- Continuous speed adjustment

Technical specifications:

Art. No.	CAX8.1	CAX9.1
Type	RS-OS 5	RS-LS 5
Movement type	circular	back and forth
Speed range	0 to 200 rpm	
Shaking amplitude (stroke)	20 mm	
Shaking surface area	240 x 240 mm	
W x D x H	245 x 310 x 125 mm	
Loading capacity	3 kg	
Permissible ambient conditions	+4 to +40 °C at 80 % RH	
Weight	3.1 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. tray top with 6 fixing bands.

Type	Art. No.	Pack Qty.	€
RS-OS 5	**CAX8.1**	1 unit(s)	499,90
RS-LS 5	**CAX9.1**	1 unit(s)	499,90



Accessories for RS series platform shakers

Phönix Instrument.

(1) Universal attachment
Loading options: E.g. 6 x 250 ml Erlenmeyer flasks.

Delivery incl. 3 adjustable tension rollers.

Designation	Art. No.	Pack Qty.	€
Universal attachment	**CAY0.1**	1 unit(s)	145,15

(2) Spring clip attachment
For shaking of Erlenmeyer flasks. With holes for individual placement of spring clips.

Delivery without spring clips, please order separately.

Designation	Art. No.	Pack Qty.	€
Spring clip attachment	**CAY1.1**	1 unit(s)	145,15

Accessories spring clip for RS series attachment

Phönix Instrument.

(3)

Designation	Art. No.	Pack Qty.	€
Spring clip for 25 ml flasks (max. 18)	**CAY2.1**	1 unit(s)	28,95
Spring clip for 50 ml flasks (max. 18)	**CAY3.1**	1 unit(s)	31,10
Spring clip for 100 ml flasks (max. 9)	**CAY4.1**	1 unit(s)	31,10
Spring clip for 250 ml flasks (max. 6)	**CAY5.1**	1 unit(s)	40,75
Spring clip for 500 ml flasks (max. 4)	**CAY6.1**	1 unit(s)	43,70

Shakers Orbital digital

Heathrow Scientific.

- Circular movement
- Plates, petri dishes, glass flasks and culture bottles can be secured flexibly using elastic bands
- Digital display of speed and operating time
- Electronic speed control with soft start-up
- Loading options: E.g. 9 x 250 ml Erlenmeyer flasks or 4 x 500 ml Erlenmeyer flasks or 4 x 1000 ml Erlenmeyer flasks or 16 x 250 ml beakers or 4 x 1000 ml beakers
- 5 years warranty

Technical specifications:

Art. No.	PY67.1
Type	Digital orbital shaker
Movement type	circular
Speed range	20 to 300 rpm
Shaking amplitude (stroke)	19 mm
Timer	1 min to 49 h or continuous operation
Shaking surface area	279 x 279 mm
W x D x H	314 x 312 x 197 mm
Loading capacity	4.5 kg
Permissible ambient conditions	+2 to +40 °C at 80% RH
Mains connection	100–240 V, 50/60 Hz

Delivery incl. platform with rubber mat and 8 elastic bands.

Type	Art. No.	Pack Qty.	€
Digital orbital shaker	**PY67.1**	1 unit(s)	848,20

Shakers Genie® Mini-100 Orbital

Scientific Industries.

- Max. load capacity: 3 kg
- Continuous speed adjustment
- Can be expanded to three levels with additional platforms, please order separately

Technical specifications:

Art. No.	HHP1.1
Type	Mini-100 Orbital-Genie®
Movement type	circular
Speed range	20 to 100 rpm
Shaking amplitude (stroke)	19 mm
Shaking surface area	290 x 290 mm
W x D x H	350 x 350 x 90 mm
Permissible ambient conditions	0 to +38 °C at 95% RH
Weight	3.5 kg
Mains connection	230 V, 50 Hz

Delivery incl. tray top and anti-slip mat.

Type	Art. No.	Pack Qty.	€
Mini-100 Orbital-Genie®	**HHP1.1**	1 unit(s)	944,95

Accessories platform for Genie® Mini-100 Orbital shaker

Scientific Industries.

Can be expanded with additional platforms as a second and third level. Dimensions: Shaker surface 290 x 290 mm. Dimensions: W 318 mm x D 318 mm x H 114 mm. Weight 1.3 kg.

Designation	Art. No.	Pack Qty.	€
Attachment system for Genie® Mini-100 Orbital	**HHP2.1**	1 unit(s)	187,05

Shakers Hei-MIX series

Heidolph.

Shaking devices for universal use.

- Type of movement: Circular, vibrating
- Continuous speed adjustment
- Speed display: Scale
- With overheating protection
- Minimum self-heating
- Maintenance-free motors

Technical specifications:

Art. No.	H831.1	H832.1
Type	Tritamax 100	Vibramax 100
Movement type	circular vibrating	
Speed range	150 to 1350 rpm	
Orbit	1.5 mm	3 mm
Timer	0 to 120 min or continuous operation	
Motor power input	15 W	
Shaking surface area	220 x 220 mm	
W x D x H	245 x 310 x 125 mm	
Loading capacity	2 kg	
IP rating	30	
Weight	5.5 kg	
Mains connection	230–240 V, 50/60 Hz	

(1) Titramax 100
The special holders can hold up to four microtiter plates with a size of 85 x 128 mm.

Type	Art. No.	Pack Qty.	€
Tritamax 100	**H831.1**	1 unit(s)	956,00

(2) Vibramax 100
An attachment with two adjustable tension rollers is available as an accessory (please order separately).

Delivery incl. rubber pad with edge bead.

Type	Art. No.	Pack Qty.	€
Vibramax 100	**H832.1**	1 unit(s)	982,00

Shakers KS 130 basic complete set

IKA.

Suitable for mixing liquids in various vessels using different attachments.

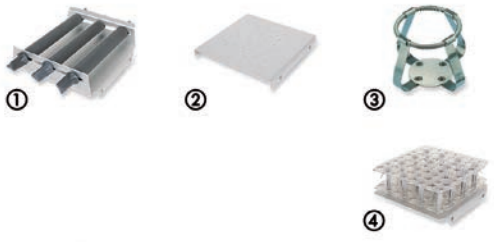
- Circular movement
- Speed display: 10-LED display bar with scale in graduations of 80 rpm
  Time adjustment: 10-LED display bar with scale in increments of 5 min
- Max. shaking weight up to 2 kg

Technical specifications:

Art. No.	PA19.1
Type	KS 130 basic
Movement type	circular
Speed range	80 to 800 rpm
Shaking amplitude (stroke)	4 mm
Timer	5 to 50 min or continuous operation
W x D x H	270 x 316 x 98 mm
Loading capacity	2 kg
Permissible ambient conditions	+5 to +50 °C at 80% RH
Weight	8.8 kg

Delivery incl. AS 130.3 tray top (mounting surface: W 340 x D 220 mm) for culture bottles and petri dishes, with integrated anti-slip mat.

Type	Art. No.	Pack Qty.	€
KS 130 basic	**PA19.1**	1 unit(s)	1.810,00



Accessories and attachment systems for KS 130 basic shaker

IKA.

(1) AS 130.1 universal attachment
Suitable for use with all types of vessels thanks to infinitely adjustable clamping rollers. Mounting surface 220 x 220 mm.

Delivery incl. 3 tension rollers.

Designation	Art. No.	Pack Qty.	€
AS 130.1 universal attachment	**PA23.1**	1 unit(s)	356,00

(2) AS 130.2 fixing clip attachment
Suitable for shaking of e.g. round-bottom flasks, volumetric flasks and Erlenmeyer flasks. Dimensions: W 230 x D 230 x H 24 mm.
Max. number:
20 fixing clips for 25 ml flasks or
12 fixing clips for 50 ml flasks or
12 fixing clips for 100 ml flasks or
4 fixing clips for 200/250 ml flasks or
4 fixing clips for 500 ml flasks

Delivery without fixing clips (3), please order separately.

Designation	Art. No.	Pack Qty.	€
AS 130.2 fixing clip attachment	**PA24.1**	1 unit(s)	107,00

(3) Fixing clips

Designation	Art. No.	Pack Qty.	€
Fixing clips for 25 ml flasks	**X185.1**	1 unit(s)	26,00
Fixing clips for 50 ml flasks	**X186.1**	1 unit(s)	26,00
Fixing clips for 100 ml flasks	**X187.1**	1 unit(s)	26,00
Fixing clips for 200/250 ml flasks	**X188.1**	1 unit(s)	50,00
Fixing clips for 500 ml flasks	**X189.1**	1 unit(s)	50,00
Fixing clips for 1000 ml flasks	**PA26.1**	1 unit(s)	50,00

(4) AS 130.4 test tube attachment
For intensive shaking of, for example, small tubes, test tubes and centrifuge tubes. For 64 sample tubes with Ø 10 to 16 mm. Minimum sample tube height: 80 mm.
Dimensions: W 200 x D 230 x H 95 mm.

Designation	Art. No.	Pack Qty.	€
AS 130.4 test tube attachment	**PA25.1**	1 unit(s)	240,00

Shakers Rotamax 120

Heidolph.

Suitable for agitating five petri dishes, with optional attachment for Erlenmeyer flasks up to 1000 ml.

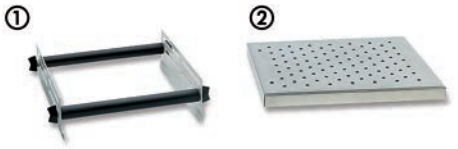
- Max. load capacity: 2 kg
- Continuous speed adjustment
- Speed display with scale

Technical specifications:

Art. No.	LY47.1
Type	Rotamax 120
Movement type	Circular
Speed range	20 to 300 rpm
Shaking amplitude (stroke)	20 mm
Timer	0 to 120 min or continuous operation
Shaking surface area	220 x 220 mm
W x D x H	245 x 310 x 125 mm
Loading capacity	2 kg
Permissible ambient conditions	0 to +50 °C at 80 % RH
Weight	5.5 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. slip-resistant rubber mat with raised edge.

Type	Art. No.	Pack Qty.	€
Rotamax 120	**LY47.1**	1 unit(s)	1.073,00



Accessories for Rotamax 120 platform shaker

Heidolph.

(1) Universal attachment
With two adjustable tension rollers.

Designation	Art. No.	Pack Qty.	€
Universal attachment for Vibramax 100 and Rotamax 120, with two adjustable tension rollers	**H833.1**	1 unit(s)	122,00

Additional tension roller compatible with the universal attachment.

Designation	Art. No.	Pack Qty.	€
Additional tension roller for the Rotamax 120 universal attachment	**LY48.1**	1 unit(s)	36,00

(2) Spring clip attachment for Tablar 100 perforated board
For shaking of Erlenmeyer flasks. With holes for individual placement of spring clips.
Maximum number:
16 spring clips for 25 ml flasks or
16 spring clips for 50 ml flasks or
8 spring clips for 100 ml flasks or
5 spring clips for 250 ml flasks or
3 spring clips for 500 ml flasks or
2 spring clips for 1000 ml flasks

Delivery without spring clips (3), please order separately.

Designation	Art. No.	Pack Qty.	€
Spring clip attachment for Tablar 100 perforated board	**LY49.1**	1 unit(s)	75,00

Accessories spring clip for Tablar 100 and 2000

Heidolph.

Designation	Art. No.	Pack Qty.	€
Spring clip for 25 ml flasks	**HL12.1**	1 unit(s)	19,20
Spring clip for 50 ml flasks	**HL13.1**	1 unit(s)	22,00
Spring clip for 100 ml flasks	**HL14.1**	1 unit(s)	25,00
Spring clip for 250 ml flasks	**HL15.1**	1 unit(s)	31,00
Spring clip for 500 ml flasks	**HL16.1**	1 unit(s)	34,00
Spring clip for 1000 ml flasks	**HL17.1**	1 unit(s)	40,00
Spring clip for 2000 ml flasks	**KA43.1**	1 unit(s)	59,00

Shakers Vibrax® VXR basic

IKA.

Features:

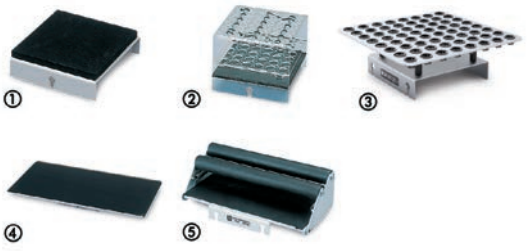
- Circular movement
- Continuous speed adjustment
- Speed display with scale
- Max. load capacity: 2 kg
- Suitable for continuous operation

Technical specifications:

Art. No.	Y517.1
Type	VXR basic Vibrax®
Movement type	circular
Speed range	0 to 2200 rpm
Shaking amplitude (stroke)	4 mm
Motor power input	35 W
Motor power output	13.2 W
W x D x H	157 x 247 x 130 mm
Loading capacity	2 kg
Weight	5.7 kg

Delivery without attachment, please order separately.

Type	Art. No.	Pack Qty.	€
VXR basic Vibrax®	**Y517.1**	1 unit(s)	1.598,00



Accessories for shaker Vibrax® VXR basic

IKA.

(1) VX 1 single-hand attachment
For shaking individual, non-fixed vessels of 1–250 ml.
Dimensions: W 130 x D 135 x H 40 mm. Weight 160 g.

Designation	Art. No.	Pack Qty.	€
VX 1 single-hand attachment	**Y518.1**	1 unit(s)	102,00

(2) VX 2 test tube attachment
For up to 36 test tubes or centrifuge tubes of Ø 16 mm.
Dimensions: W 140 x D 145 x H 115 mm. Weight 300 g.

Designation	Art. No.	Pack Qty.	€
VX 2 test tube attachment	**Y519.1**	1 unit(s)	420,00

(3) VX 2E reaction vial attachment
For intensive shaking of up to 64 reaction vials of 1.5 ml.
Dimensions: W 210 x D 210 x H 39 mm. Weight 368 g.

Designation	Art. No.	Pack Qty.	€
VX 2E reaction vial attachment	**Y520.1**	1 unit(s)	408,00

(4) VX 7 tray top
For gentle shaking, for example of culture flasks and petri dishes.
Dimensions: W 410 x D 210 x H 40 mm. Weight 740 g.

Designation	Art. No.	Pack Qty.	€
VX 7 tray top	**Y521.1**	1 unit(s)	297,00

(5) VX 8 universal attachment
For quick and secure clamping of e.g. 2 x 500 ml Erlenmeyer flasks.
Clamping range 25 to 135 mm.
Minimum vessel height: 80 mm. Dimensions: W 265 x D 136 x H 60 mm.
Weight 760 g.

Designation	Art. No.	Pack Qty.	€
VX 8 universal attachment	**Y522.1**	1 unit(s)	713,00

Shakers Hei-MIX series

Heidolph.

Infinitely variable speed. With timer, or can be set to continuous operation. Different attachments can be fitted as necessary.

Technical specifications:

Art. No.	H834.1	H835.1	H836.1	H837.1
Type	UNIMAX 1010	PROMAX 1020	DUOMAX 1030	POLYMAX 1040
Movement type	Circular	Back and forward	See-saw	Wobbling
Speed range	30 to 500 rpm	30 to 250 rpm	2 to 50 rpm	
Shaking amplitude (stroke)	10 mm	32 mm		
Angle			5 °	
Speed display	Digital		Scale	
Timer display	Digital (0–999 min)		Timer (0–120 min)	
Shaking surface area	258 x 290 mm			
W x D x H	320 x 375 x 125 mm		320 x 375 x 185 mm	320 x 375 x 195 mm
Loading capacity	5 kg			
Weight	8 kg			
Mains connection	230–240 V, 50/60 Hz			

Delivery incl. rubber support with raised edge. Suitable for operation with an incubator (compatible with incubator 1000, Art. No. H844.1).

(1) UNIMAX 1010 orbital shaker
Rotating (circular) movement. Digital display. Operated using a membrane keyboard. Set the shaking frequency using a rotary switch.

Type	Art. No.	Pack Qty.	€
UNIMAX 1010	**H834.1**	1 unit(s)	1.620,00

(2) PROMAX 1020 back and forward shaker
Back and forward movement. Digital display. Operated using a membrane keyboard. Set the shaking frequency using a rotary switch.

Type	Art. No.	Pack Qty.	€
PROMAX 1020	**H835.1**	1 unit(s)	1.599,00

(3) DUOMAX 1030 gyratory shaker
See-saw motion, 5° inclination angle. Operated using a rotary switch.

Type	Art. No.	Pack Qty.	€
DUOMAX 1030	**H836.1**	1 unit(s)	1.529,00

(4) POLYMAX 1040 wobble shaker
Three-dimensional wobbling movement, 5° inclination angle. Operated using a rotary switch.

Type	Art. No.	Pack Qty.	€
POLYMAX 1040	**H837.1**	1 unit(s)	1.532,00

Accessories attachment for UNIMAX 1010, PROMAX 1020, DUOMAX 1030 and POLYMAX 1040 shakers

Heidolph.

Designation	Art. No.	Pack Qty.	€
Attachment for 14 x 50 ml Erlenmeyer flasks	**H838.1**	1 unit(s)	202,00
Attachment for 9 x 100 ml Erlenmeyer flasks	**H839.1**	1 unit(s)	185,00
Attachment for 5 x 250 ml Erlenmeyer flasks	**H840.1**	1 unit(s)	166,00
Attachment for 4 x 500 ml Erlenmeyer flasks	**KA78.1**	1 unit(s)	164,00
Attachment for 2 x 1000 ml Erlenmeyer flasks	**KA79.1**	1 unit(s)	153,00
Universal attachment with two tension rollers	**H841.1**	1 unit(s)	248,00
Attachment for 4 x 50 or 100 ml separating funnels	**H842.1**	1 unit(s)	276,00

Incubator 1000 for shakers of 5 kg class

Heidolph.

Properties:

- Fast heat up, no condensation develops in the system
- Ideal for large-volume for high vessels, such as Erlenmeyer flasks up to 1000 ml
- Compatible with Unimax 1010, Promax 1020, Duomax 1030 and Polymax 1040 shakers (please order separately)
- Foldable hood
- Electronic temperature control with two-digit display of setpoint and actual value
- Electric convection heater with fan

Technical specifications:

Art. No.	H844.1
Type	Incubator 1000
Operating temperature	+5 °C above room temperature up to +65 °C
Accuracy	±2 K (to 50 °C) ±4 K (from 50 to 65 °C)
W x D x H, external	546 x 394 x 267 mm
Heating output	300 W
Mains connection	230–240 V, 50/60 Hz

Delivery incl. heating module with incubation hood, please order desired shaker separately.

Type	Art. No.	Pack Qty.	€
Incubator 1000	**H844.1**	1 unit(s)	1.823,00

Shakers Multi Reax

Heidolph.

Properties:

- Digital speed display
- Type of movement: Circular, vibrating
- With overheating protection
- With holder for 26 vessels, Ø 10 to 16 mm, max. length 160 mm and holder for 12 vessels, Ø 16 to 32 mm, max. length 120 mm

Technical specifications:

Art. No.	Y359.1
Type	Multi Reax
Movement type	circular vibrating
Speed range	150 to 2000 rpm
Shaking amplitude (stroke)	3 mm
Speed display	Digital
Timer	0 to 999 min or continuous operation
Motor power input	50 W
W x D x H	270 x 410 x 172 mm
Permissible ambient conditions	0 to +50 °C at 80% RH
Weight	9.8 kg
Mains connection	230–240 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Multi Reax	**Y359.1**	1 unit(s)	1.412,00

Shaker KM 2 series

Edmund Bühler.

Technical specifications:

Art. No.	L646.1	H696.1
Type	KM 2	KM 2 battery with power supply unit/charger
Movement type	circular	
Speed range	30 to 220 rpm	
Shaking amplitude (stroke)	20 mm	
Timer	0 to 99 h, 59 min or continuous operation	
Shaking surface area	200 x 295 mm	
W x D x H	250 x 415 x 145 mm	
Loading capacity	2 kg	
Permissible ambient conditions	+4 to +45 °C at 95% RH	
Weight	10 kg	

Delivery incl. basic unit with swinging attachment and finely scored mat.

(1) KM 2 Standard

- Space-saving orbital shaker
- LED display to set the speed and operating time
- Robust, sturdy housing

Type	Art. No.	Pack Qty.	€
KM 2	**L646.1**	1 unit(s)	1.622,20

(2) KM 2, battery-powered

- Circular shaking movement
- LED display to set the speed and operating time, as well as a visualisation of the charging status
- Suitable for **use in cooling cabinets and incubators** thanks to the low heat emission
- Rechargeable battery allows operation without mains connection (minimum running time with maximum load: 40 hours).
- The battery can be recharged or set to continuous operation with a power supply unit/charging device. The power supply unit must be placed outside of the cooling cabinet/incubator.

Type	Art. No.	Pack Qty.	€
KM 2 battery with power supply unit/charger	**H696.1**	1 unit(s)	2.104,85

Accessories for cordless KM 2, KM 2 and KM CO_2 shakers

Edmund Bühler.

(3) Universal board

For individual placement of spring clips. L 300 mm x W 356 mm.
Max. Number per board:
29 fixing clips for 25 ml flasks or
27 fixing clips for 50 ml flasks or
24 fixing clips for 100 ml flasks or
12 fixing clips 250 ml flasks or
8 fixing clips 500 ml flasks or
5 fixing clips 1000 ml flasks or
2 fixing clips 2000 ml flasks

Delivery without spring clips (please order separately; see shaker accessories).

Designation	Art. No.	Pack Qty.	€
Universal board	**L647.1**	1 unit(s)	233,30

KM tension roller

For securely fastening upright vessels to the KM 2 cordless and KM 2. Loading options, e.g. 2 x 1000 ml Erlenmeyer flasks or 9 x 100 ml Erlenmeyer flasks. The KM tension roller is fixed to the edge of the shaker swivel plate with star-shaped grip screws.

Designation	Art. No.	Pack Qty.	€
KM tension roller	**T519.1**	1 unit(s)	51,95

Combi-shaker KL 2

Edmund Bühler.

Practical small shaker which can be switched between **circular and back and forward movements** at any time.

- **Loading capacity: 2 kg**
- Infinitely adjustable, electronic control
- Optional accessories available: Tension roller, clamping roller and spring roller – see shaker accessories
- Loading options, e.g. 4 x 500 ml Erlenmeyer flasks or 2 x 1000 ml Erlenmeyer flasks

Technical specifications:

Art. No.	P436.1
Type	KL 2
Speed range	30 to 420 rpm
Shaking amplitude (stroke)	8 mm
Timer	0 to 120 min or continuous operation
Shaking surface area	300 x 300 mm
W x D x H	355 x 455 x 195 mm
Weight	12.5 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. rack attachment with three tension rollers h and finely scored mat.

Type	Art. No.	Pack Qty.	€
KL 2	**P436.1**	1 unit(s)	1.918,90

Flask shaker SF1

Stuart.

Simulates an intensive hand movement.

- For max .8 Erlenmeyer flasks or 500 ml screw top bottles
- Sturdy design with four vibration-absorbing feet
- Speed: 8-800 oscillations/min

Technical specifications:

Art. No.	EP81.1
Type	SF 1
Shaking amplitude (stroke)	1,5 mm
Timer	10 to 60 min or continuous operation
W x D x H	780 x 270 x 240 mm
Loading capacity	3 kg
Weight	8.3 kg
Mains connection	230 V, 50 Hz

Delivery incl. clamps.

Type	Art. No.	Pack Qty.	€
SF 1	**EP81.1**	1 unit(s)	1.983,00

Shakers Hei-Mix series

Heidolph.

Use different attachments to mix liquids in Erlenmeyer flasks, staining jars and petri dishes.

- Digital speed display
- **Large platform for holding numerous samples. Shaking surface: W 390 x D 340 mm**

Technical specifications:

Art. No.	HL06.1	HL07.1	HL08.1
Type	Unimax 2010	Promax 2020	Polymax 2040
Movement type	circular	back and forth	staggering
Speed range	20 to 400 rpm		2,5 to 50 rpm
Shaking amplitude (stroke)	20 mm		
Angle			5 °
Speed display	digital		
Timer	0 to 120 min or continuous operation		
Shaking surface area	390 x 340 mm		
W x D x H	426 x 455 x 135 mm		426 x 455 x 208 mm
Loading capacity	10 kg		
Permissible ambient conditions	0 to +50 °C at 80% RH		
Weight	16 kg		
Mains connection	230–240 V, 50 Hz		

Delivery incl. rubber support with raised edge.

Type	Art. No.	Pack Qty.	€
Unimax 2010	**HL06.1**	1 unit(s)	2.320,00
Promax 2020	**HL07.1**	1 unit(s)	2.411,00
Polymax 2040	**HL08.1**	1 unit(s)	2.532,00

Accessories and attachment systems for laboratory shakers Hei-Mix series

Heidolph.

(2) Base frame for tension rollers
Used together with tension rollers for fastening a variety of vessels.

Delivery without tension rollers, please order separately.

Designation	Art. No.	Pack Qty.	€
Base frame for tension rollers	**HL09.1**	1 unit(s)	168,00

(3) Tension roller for base frame
Used together with the base frame for fastening a variety of upright vessels. Loading options: E.g. 20 x 100 ml Erlenmeyer flasks or 9 x 500 ml Erlenmeyer flasks. Please order at least two pieces.

Designation	Art. No.	Pack Qty.	€
Tension roller for base frame	**HL10.1**	1 unit(s)	57,00

(4) Universal board 2000
For shaking of Erlenmeyer flasks. With holes for individual placement of spring clips.
Max. number per board:
36 fixing clips for 25 ml flasks or
36 fixing clips for 50 ml flasks or
23 fixing clips for 100 ml flasks or
12 fixing clips for 250 ml flasks or
9 fixing clips for 500 ml flasks or
5 fixing clips for 1000 ml flasks or
3 fixing clips for 2000 ml flasks

Delivery without spring clips, please order separately.

Designation	Art. No.	Pack Qty.	€
Universal board 2000	**HL11.1**	1 unit(s)	172,00

Accessories spring clip for Tablar 100 and 2000

Heidolph.

Designation	Art. No.	Pack Qty.	€
Spring clip for 25 ml flasks	**HL12.1**	1 unit(s)	19,20
Spring clip for 50 ml flasks	**HL13.1**	1 unit(s)	22,00
Spring clip for 100 ml flasks	**HL14.1**	1 unit(s)	25,00
Spring clip for 250 ml flasks	**HL15.1**	1 unit(s)	31,00
Spring clip for 500 ml flasks	**HL16.1**	1 unit(s)	34,00
Spring clip for 1000 ml flasks	**HL17.1**	1 unit(s)	40,00
Spring clip for 2000 ml flasks	**KA43.1**	1 unit(s)	59,00

Shaker KS series

Edmund Bühler.

Technical specifications:

Art. No.	P432.1	L490.1	P433.1	L491.1
Type	KS 15 A		KS 15 B	KS 15 B control
Movement type	circular		back and forth	
Speed range	30 to 420 rpm			
Shaking amplitude (stroke)	17 mm			
Speed display		Digital		Digital
W x D x H	510 x 490 x 150 mm			
Loading capacity	15 kg			
Weight	22 kg			
Mains connection	230 V, 50/60 Hz			

Delivery without attachment, please order separately. Can be used with TH 15 incubation hood as a shake incubator (please order separately, Art. No. L492.1, see shaker accessories).

Models: KS Standard

- KS 15 A: Circular motion
- KS 15 B: Back/forward motion
- Without digital display

Type	Art. No.	Pack Qty.	€
KS 15 A	**P432.1**	1 unit(s)	1.986,60
KS 15 B	**P433.1**	1 unit(s)	2.054,35

Models: KS control

- KS 15 A control: Circular movement
- KS 15 B control: Back/forward movement
- With digital display of target and actual speed
- Preset function for the most recently selected setting, and programming of variable sequential programmes (shaking frequency and operating time)

Type	Art. No.	Pack Qty.	€
KS 15 A	**L490.1**	1 unit(s)	2.936,90
KS 15 B control	**L491.1**	1 unit(s)	3.010,00

Accessories platform for KS series shakers

Edmund Bühler.

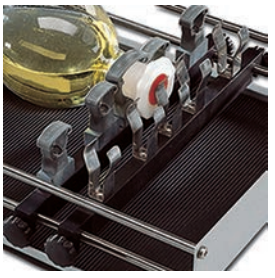
Combifix KS standard attachment
Rack attachment with three tension rollers and finely scored rubber mat. Shaking surface 400 x 275 mm. For secure fastening of upright vessels. Loading options: E.g. 20 x 100 ml Erlenmeyer flasks or 2 x 2000 ml Erlenmeyer flasks. Can also be used for other vessels with additional rollers (see shaker accessories).

Designation	Art. No.	Pack Qty.	€
Combifix KS standard attachment	**T497.1**	1 unit(s)	404,20

KS universal board
Coated board with holes for individual placement of spring clips or test tube racks. Shaking surface 430 x 300 mm. Loading options: E.g. 15 x 250 ml Erlenmeyer flasks or 5 x 1000 ml Erlenmeyer flasks.

Delivery without spring clips, please order separately (see shaker accessories).

Designation	Art. No.	Pack Qty.	€
KS universal board	**P434.1**	1 unit(s)	264,45



Accessories spring roller / clamping roller

Edmund Bühler.

Suitable for

- KS 15A/B compact shaker (L490.1, L491.1, P432.1, P433.1)
- KL2 combi-shaker (P436.1)
- KS standard attachment (T497.1)

Both rollers are required for fixing separating funnels.

Designation	Art. No.	Pack Qty.	€
Clamping roller	**L669.1**	1 unit(s)	129,00
Spring roller	**L670.1**	1 unit(s)	113,45

Accessories test tube rack made of stainless steel

Edmund Bühler. Material: Stainless steel.

Can be secured to rack attachments using tension rollers h. Possible to secure to universal boards in combination with a swivel base (please order separately). The inclination angle of the rack can be adjusted using the swivel base.

Delivery without swivel base. Required for fastening to universal boards.

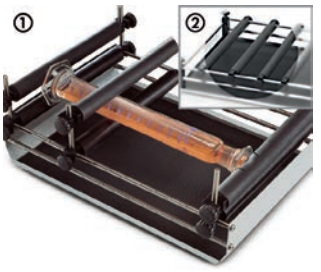
Type	Art. No.	Pack Qty.	€
for 68 test tubes Ø 14 mm	**T498.1**	1 unit(s)	75,60
for 44 test tubes Ø 16 mm	**T499.1**	1 unit(s)	75,60
for 44 test tubes Ø 18 mm	**T500.1**	1 unit(s)	75,60
for 14 sample/centrifuge tubes Ø 30 mm	**AH14.1**	1 unit(s)	89,90

Accessories spring clip

Edmund Bühler.

For fastening Erlenmeyer flasks to the universal boards.

Designation	Art. No.	Pack Qty.	€
for 10 ml Erlenmeyer flasks	**L648.1**	1 unit(s)	17,75
for 25 ml Erlenmeyer flasks	**L649.1**	1 unit(s)	18,95
for 50 ml Erlenmeyer flasks	**L650.1**	1 unit(s)	20,00
for 100 ml Erlenmeyer flasks	**L651.1**	1 unit(s)	24,00
for 250 ml Erlenmeyer flasks	**L652.1**	1 unit(s)	30,10
for 500 ml Erlenmeyer flasks	**L653.1**	1 unit(s)	35,40
for 1000 ml Erlenmeyer flasks	**L654.1**	1 unit(s)	38,95
for 2000 ml Erlenmeyer flasks	**L655.1**	1 unit(s)	52,80



Accessories tension roller h/v

Edmund Bühler.

Suitable for

KS 15A/B compact shaker (L490.1, L491.1, P432.1, P433.1), KL2 combi-shaker (P436.1) and KS standard attachment (T497.1)

Tension rollers h

For fastening all flat-bottomed vessels, such as Erlenmeyer flasks, beakers, test tube racks, etc.

Tension rollers v

Used in combination with tension rollers h, to fasten horizontal vessels or to support tall vessels from the side. Maximum distance between the rollers: 60 mm.

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	Tension roller v	**L668.1**	1 unit(s)	94,85
(2)	Tension roller h	**P435.1**	1 unit(s)	76,45

Incubation hood TH 15

Edmund Bühler.

Suitable for:

- KS 15A/B compact shaker (L490.1, L491.1, P432.1, P433.1)
- Microtritation plates shaker TiMix 5 (T490.1, T491.1, T492.1)

Technical specifications:

Art. No.	L492.1
Type	Incubation hood TH 15
Operating temperature	+5 °C above room temperature up to +50 °C
Accuracy	±1 % of adjusting value
W x D x H, external	510 x 460 x 470 mm
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Incubation hood TH 15	**L492.1**	1 unit(s)	3.531,40

Shakers SM series

Edmund Bühler.

Desktop shakers for high loading in continuous operation.

- All necessary parameters are set with rotary knobs
- Electronic speed control with soft start-up
- Constant speed/operation even with different loads

Together with the TH 30 incubation hood, can be used as a shaking incubator (please order incubation hood separately).

Technical specifications:

Art. No.	AH15.1	AH16.1	AH17.1
Type	Model: A	Modell B	Modell C
Movement type	circular	back and forth	circular / back and forth
Speed range	15 to 300 rpm		
Shaking amplitude (stroke)	26 mm	30 mm	26 mm
Timer	0 to 120 min or continuous operation		
W x D x H	680 x 615 x 160 mm		
Loading capacity	30 kg		
Permissible ambient conditions	5 to 50 °C at 85 % RH		
Weight	32 kg		
Mains connection	230 V, 50/60 Hz		

Delivery incl. basic unit inclusive swivel plate and rubber mat. Without rack attachment, please order the required rack attachment separately.

Universal SM series model: SM 30 A
With circular shaking movement.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Model: A	**AH15.1**	1 unit(s)	3.192,75

Universal SM series model: SM 30 B
With back and forward shaking movement (horizontal).

Type	Art. No.	Pack Qty.	€
Modell B	**AH16.1**	1 unit(s)	3.259,40

Universal SM series model: SM 30 C
Can be switched between circular or back and forward movement.

Type	Art. No.	Pack Qty.	€
Modell C	**AH17.1**	1 unit(s)	4.226,90

Accessories platform for SM 30 universal shaker

Edmund Bühler.

Combifix SM rack attachment, set A
Rack with 5 tension rollers h. For secure mounting of various upright vessels. Loading options: E.g. 6 x 2000 ml Erlenmeyer flasks or 20 x 250 ml Erlenmeyer flasks. Platform size: W 560 x D 400 mm.

Designation	Art. No.	Pack Qty.	€
Combifix SM, set A	**AH18.1**	1 unit(s)	449,35

(2) Combifix SM rack attachment, set B
Rack with 4 tension rollers h and 4 tension rollers v. For clamping horizontal vessels between tension rollers or for tall vessels. Distance between the h + v rollers: Max. 60 mm. Loading options: E.g. 6 x 2000 ml or 12 x 500 ml Erlenmeyer flasks.

Designation	Art. No.	Pack Qty.	€
Combifix SM, set B	**AH19.1**	1 unit(s)	560,10

(3) SM universal board
Coated board with holes for individual placement of spring clips and test tube racks. Loading options: E.g. 11 x 1000 ml or 23 x 250 ml Erlenmeyer flasks.

Delivery without spring clips and test tube rack, please order separately (see shaker accessories).

Designation	Art. No.	Pack Qty.	€
SM universal board	**AH20.1**	1 unit(s)	301,00

Incubation hood TH 30

Edmund Bühler.

Temperature control chambers with standard and UV lighting. Combined with the SM shakers, it can be used either as a complete shaker incubator, or as an independent unit. A socket for smaller devices is mounted inside the hood.

Standard features:

- Coated metal housing with 3 windows
- The front door opens upwards
- Safety switch-off of UV light and automatic shaker stop when the front door is opened (when combined with universal shakers SM 30)
- Lighting: Standard lighting 15 W and UV lighting 15 W
- Hood height sufficient for 2 l Erlenmeyer flasks

Technical specifications:

Art. No.	AH21.1
Type	Incubation hood TH 30
Operating temperature	+5 °C above room temperature up to +50 °C
Accuracy	±1 % of adjusting value
W x D x H, interior	660 x 540 x 430 mm
W x D x H, external	680 x 610 x 560 mm
Weight	33 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Incubation hood TH 30	**AH21.1**	1 unit(s)	4.490,30

Accessories for incubation hood TH 30

Edmund Bühler.

Option for temperature range expandable up to 60 °C
Installation of an additional heater to achieve temperatures of max. 60 °C. **Please order with first order, if required.**

Designation	Art. No.	Pack Qty.	€
Temperature range expandable up to 60 °C	**AH22.1**	1 unit(s)	282,75

Cooling device for TH 30
Installation of cooling coil and connecting sleeves for connection of an external cooling device (circulating cooler etc. Please order separately). Depending on the cooling capacity of the cooling device, temperatures of approx. 5 °C below room temperature can be achieved. **Please order with first order, if required.**

Designation	Art. No.	Pack Qty.	€
Cooling device for TH 30	**AH23.1**	1 unit(s)	646,10

CO_2-resistant orbital shaker KM CO_2

Edmund Bühler.

Features:

- Circular movement
- High-grade materials and stainless steel components especially for CO_2 concentrations of up to 20 % and humidity of up to 95 % RH
- External control unit (corded, length 2.0 m, Ø 12 mm) with LED display for speed (resolution 5 rpm) and operating time (resolution 1 min). Control unit can be fastened to magnetic surfaces.
- Low heat emission

Technical specifications:

Art. No.	**ENE2.1**
Type	KM CO_2
Movement type	circular
Speed range	30 to 220 rpm
Shaking amplitude (stroke)	20 mm
Timer	0 to 99 h, 59 min or continuous operation
Shaking surface area	200 x 295 mm
W x D x H	230 x 340 x 145 mm
Loading capacity	2 kg
Permissible ambient conditions	4 to 45 °C at 95% RH 0 to 20% (CO_2 concentration)
Weight	7.6 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. external control unit and basic attachment with rubber mat.

Type	Art. No.	Pack Qty.	€
KM CO_2	**ENE2.1**	1 unit(s)	2.646,65

Accessories for cordless KM 2, KM 2 and KM CO_2 shakers

Edmund Bühler.

(3) Universal board
For individual placement of spring clips. L 300 mm x W 356 mm. Max. Number per board:
29 fixing clips for 25 ml flasks or
27 fixing clips for 50 ml flasks or
24 fixing clips for 100 ml flasks or
12 fixing clips 250 ml flasks or
8 fixing clips 500 ml flasks or
5 fixing clips 1000 ml flasks or
2 fixing clips 2000 ml flasks

Delivery without spring clips (please order separately; see shaker accessories).

Designation	Art. No.	Pack Qty.	€
Universal board	**L647.1**	1 unit(s)	233,30

KM tension roller
For securely fastening upright vessels to the KM 2 cordless and KM 2. Loading options, e.g. 2 x 1000 ml Erlenmeyer flasks or 9 x 100 ml Erlenmeyer flasks. The KM tension roller is fixed to the edge of the shaker swivel plate with star-shaped grip screws.

Designation	Art. No.	Pack Qty.	€
KM tension roller	**T519.1**	1 unit(s)	51,95

Shakers with accessories

CO_2-resistant orbital shaker

Thermo.

Features:

- Circular movement
- Protects specially treated mechanical components against CO_2 concentrations of up to 20 % and humidity of up to 95 %
- External control unit (corded length 2.0 m, Ø 6 mm) with LED display for speed (resolution 1 rpm) and operating time (resolution 1 min)
- Low-maintenance magnetic drive
- Minimal heat emission, does not affect the conditions inside the CO_2 incubator
- Stainless steel construction for protection against corrosive CO_2 gas
- Control device dimensions: (W x D x H): 95 x 158 x 26 mm

Technical specifications:

Art. No.	CXT3.1
Type	CO_2 orbital shaker
Movement type	Circular
Speed range	30 to 300 rpm
Shaking amplitude (stroke)	19 mm
Timer	0 to 99 h, 59 min or continuous operation
W x D x H	360 x 300 x 96 mm
Loading capacity	6 kg
Permissible ambient conditions	4 to 60 °C at 95 % RH 0 to 20% (CO_2 concentration)
Weight	13 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. external control unit. Not including universal aluminium board and fixing clips, please order separately.

Type	Art. No.	Pack Qty.	€
CO_2 orbital shaker	**CXT3.1**	1 unit(s)	3.305,00

Accessories universal aluminium board for CO_2-resistant orbital shaker

Thermo.

For shaking of Erlenmeyer flasks. With holes for individual placement of spring clips.

Delivery without clamps, please order separately.

Designation	Art. No.	Pack Qty.	€
Universal aluminium board	**CXT4.1**	1 unit(s)	237,00

Accessories for CO_2-resistant orbital shaker

Thermo.

Fixing clips

Designation	Art. No.	Pack Qty.	€
for 50 ml flasks (max. 30)	**CXT5.1**	1 unit(s)	11,35
for 100 ml flasks (max. 15)	**CXT6.1**	1 unit(s)	12,00
for 150 ml flasks (max. 15)	**CXT7.1**	1 unit(s)	15,50
for 200 ml flasks (max. 15)	**CXT8.1**	1 unit(s)	18,45
for 250 ml flasks (max. 15)	**CXT9.1**	1 unit(s)	17,95
for 500 ml flasks (max. 9)	**CXX0.1**	1 unit(s)	25,90
for 1000 ml flasks (max. 6)	**CXX1.1**	1 unit(s)	40,50
for 2000 ml flasks (max. 4)	**CXX2.1**	1 unit(s)	59,30
for 3000 ml flasks (max. 2)	**CXX3.1**	1 unit(s)	74,10
for 5000 ml flasks (max. 1)	**CXX4.1**	1 unit(s)	98,50

Test tube racks for 40 tubes with Ø 16 mm (max. 2)
Variable inclination angle. Dimensions: L 285 x W 125 x H 175 mm.

Designation	Art. No.	Pack Qty.	€
For 40 tubes with Ø 16 mm (max. 2)	**CXX5.1**	1 unit(s)	94,70

Shakers with accessories

Shakers Genie® Multi Vortex

Scientific Industries.

Robust and reliable shaking device for mixing and shaking of samples in Erlenmeyer flasks or vials.

Properties:

- Digital display of speed and time
- Speed increase in increments of 10 rpm
- Robust metal case
- Stable at high speed thanks to adjustable feet with high vibration damping
- Loading options: E.g. max. 6 x 250 ml Erlenmeyer flasks or 2 x multi-racks, each for 12 sample tubes (max. tube Ø 10–29 mm, length min. 85 mm)
- After not being used for 10 minutes, the mixer switches to “Sleep” mode

Technical specifications:

Art. No.	LX88.1
Type	Multi Vortex-Genie®
Movement type	circular vibrating
Speed range	250 to 950 rpm
Shaking amplitude (stroke)	4 mm
Speed display	Digital
Timer	1 to 99 min or continuous operation
Shaking surface area	238 x 264 mm
W x D x H	310 x 270 x 195 mm
Loading capacity	4 kg
Permissible ambient conditions	0 to +38 °C at 90 % RH
Weight	11.3 kg
Mains connection	230 V, 50 Hz

Delivery incl. platform with clamp/tension rollers (for securely attaching upright vessels) and 2 multi-racks.

Type	Art. No.	Pack Qty.	€
Multi Vortex-Genie®	**LX88.1**	1 unit(s)	2.381,15

Shakers Varioshake VS-8 series

Lauda.

Properties:

- Max. shaking weight 8 kg
- Operation via timer or continuous operation
- Constant speed, load-independent

Technical specifications:

Art. No.	1CXY.1	1CXT.1	1CY0.1	1CXX.1
Type	VS 8 O	VS 8 OE	VS 8 B	VS 8 BE
Movement type	circular		back and forward	
Speed range	20 to 500 rpm		20 to 300 rpm	
Shaking amplitude (stroke)	10 mm		20 mm	
Speed display	Digital	Analogue	Digital	Analogue
Timer	1 min to 99:59 h or continuous operation	Up to 60 min or continuous operation	1 min to 99:59 h or continuous operation	Up to 60 min or continuous operation
Shaking surface area	330 x 330 mm			
W x D x H	350 x 355 x 160 mm	350 x 375 x 160 mm	350 x 355 x 160 mm	350 x 375 x 160 mm
Loading capacity	8 kg			
Permissible ambient conditions	10 to 60 °C at 70 % RH	10 to 50 °C at 70 % RH	10 to 60 °C at 70 % RH	10 to 50 °C at 70 % RH
Weight	13 kg			
Mains connection	230 V, 50/60 Hz			

Delivery incl. shaking table, but without attachment and accessories (please order separately).

Analogue control

- Analogue rotary controls for setting speed and operating time
- Electronic speed control with operation by rotary knobs

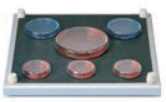
Type	Art. No.	Pack Qty.	€
VS 8 OE	**1CXT.1**	1 unit(s)	1.070,00
VS 8 BE	**1CXX.1**	1 unit(s)	1.070,00

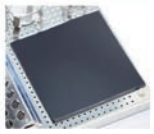
Digital control

- Shaking frequency display and setting, digitally via LC display, in increments of 1 rpm
- Display of target and actual values for shaking frequency and time via two LC displays
- Storage of last operating parameters
- Soft start

Type	Art. No.	Pack Qty.	€
VS 8 O	**1CXY.1**	1 unit(s)	1.230,00
VS 8 B	**1CY0.1**	1 unit(s)	1.280,00

Shakers with accessories





Accessories for Varioshake VS-8 series shakers

Lauda.

Universal attachment
For secure fastening of various shaking objects between rubber-clad tension rollers. Tension rollers can be fixed at three different heights (25, 45 or 65 mm).

Delivery incl. four rubber-clad tension rollers.

Type	Art. No.	Pack Qty.	€
Universal attachment	**1CY1.1**	1 unit(s)	359,00

Slip-proof support
For slow movement e.g. of nutrient solutions in Petri dishes with a shaking speed of up to 50 rpm. L 330 x W 330 mm.

Type	Art. No.	Pack Qty.	€
Slip-proof support	**1CY2.1**	1 unit(s)	62,30

Adhesive mat for Varioshake VS-8 series shakers and VS 60 OI
Highly adhesive special mat for easy fastening of a huge variety of vessels. Shaking speed up to approx. 250 rpm (depending on shape and weight of the vessel and shaking amplitude level). Can be cut to size, L 200 x W 200 mm.

Type	Art. No.	Pack Qty.	€
Adhesive mat	**1CY3.1**	1 unit(s)	83,50

Shakers Varioshake VS-15 series

Lauda.

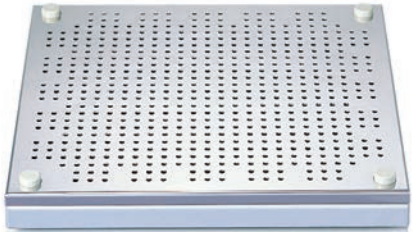
- Shaking frequency display and setting, digitally via LC display, in increments of 1 rpm
- Display of target and actual values for shaking frequency and time via two LC displays
- Max. shaking weight 15 kg
- Operation via timer or continuous operation
- Storage of last operating parameters
- Constant speed, load-independent

Technical specifications:

Art. No.	1CY7.1	1CY6.1
Type	VS 15 B	VS 15 O
Movement type	Back and forward	Circular
Speed range	20 to 300 rpm	
Shaking amplitude (stroke)	30 mm	
Speed display	Digital	
Timer	1 min to 99:59 h or continuous operation	
Shaking surface area	450 x 450 mm	
W x D x H	480 x 487 x 160 mm	
Loading capacity	15 kg	
Permissible ambient conditions	10 to 50 °C at 70 % RH	
Weight	19,5 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. shaking table, but without attachment and accessories (please order separately).

Type	Art. No.	Pack Qty.	€
VS 15 O	**1CY6.1**	1 unit(s)	1.700,00
VS 15 B	**1CY7.1**	1 unit(s)	1.700,00



Accessories spring clip attachment for Varioshake VS-15 series and VS 60 OI

Lauda.

For shaking of Erlenmeyer flasks.
With hole pattern for fastening clips for Erlenmeyer flasks.
Max. number per board:
79 fixing clips for 25 ml flasks or
49 fixing clips for 50 ml flasks or
36 fixing clips for 100 ml flasks or
22 fixing clips for 200 ml flasks or
16 fixing clips for 250/300 ml flasks or
12 fixing clips for 500 ml flasks or
9 fixing clips for 1000 ml flasks or
4 fixing clips for 2000 ml flasks

Delivery without spring clips, please order separately.

Type	Art. No.	Pack Qty.	€
Universal board	**1CY8.1**	1 unit(s)	148,00

Accessories spring clip

Lauda.

For fastening Erlenmeyer flasks on the spring clip attachment and shaking tray.

Designation	Art. No.	Pack Qty.	€
Clamp for 25 ml Erlenmeyer flasks	**1CY9.1**	1 unit(s)	18,30
Clamp for 50 ml Erlenmeyer flasks	**1CYA.1**	1 unit(s)	21,40
Clamp for 100 ml Erlenmeyer flasks	**1CYC.1**	1 unit(s)	21,90
Clamp for 200 ml Erlenmeyer flasks	**1CYE.1**	1 unit(s)	22,60
Clamp for 500 ml Erlenmeyer flasks	**1CYK.1**	1 unit(s)	25,60
Clamp for 1000 ml Erlenmeyer flasks	**1CYL.1**	1 unit(s)	41,20
Clamp for 2000 ml Erlenmeyer flasks	**1CYN.1**	1 unit(s)	55,90
Clamp for 250/300 ml Erlenmeyer flasks	**1CYH.1**	1 unit(s)	24,80

Microtiter shakers Genie® Pulse

Scientific Industries.

Specially designed for small sample sizes in microtiter plates.

- Circular movement
- High speed for optimal mixing
- Digital display of speed and operating time
- Choice of standard shake mode or pulse mode
- Depending on the selected pulse and pause duration, rapid and vigorous mixing or an intermittent mixing function is available
- Pulse and pause duration (on/off) is adjustable from 0.1 s to 99 min

Technical specifications:

Art. No.	XP69.1	1A02.1
Type	Digital MicroPlate Genie® Pulse	Digital Multi-MicroPlate Genie® Pulse
Suitable for	1 microtiter plate	Four microtiter plates (eight MT plates with optional attachment)
Speed range	500 to 2850 rpm	
Speed display	Digital	
Shaking amplitude (stroke)	1 mm	
Timer	1 to 99 min or continuous operation	
Timer display	Digital	
W x D x H	165 x 165 x 165 mm	240 x 335 x 165 mm
Weight	2.75 kg	
Mains connection	230 V, 50/60 Hz	

Model: Digital MicroPlate Genie® Pulse
For strong shaking of one microtiter plate

Type	Art. No.	Pack Qty.	€
Digital MicroPlate Genie® Pulse	**XP69.1**	1 unit(s)	894,40

Digital Multi-MicroPlate Genie® Pulse model
For four microtiter plates.

Type	Art. No.	Pack Qty.	€
Digital Multi-MicroPlate Genie® Pulse	**1A02.1**	1 unit(s)	963,20

Accessories additional essay for Genie™ Multi-MicroPlate Pulse

Scientific Industries.

For 4 additional microtiter plates. As second level on the standard attachment. Only to be used in combination with the Multi-MicroPlate Genie™ Pulse.

Designation	Art. No.	Pack Qty.	€
Additional attachment for Multi-MicroPlate Genie™ Pulse	**EH54.1**	1 unit(s)	168,80

Shakers for microtitre plates

Magnet shaker Monoshake

Thermo.

For shaking liquids in microtiter plates.

- Space-saving external dimensions
- Circular movement
- Shaker platform self-positions to centric zero position
- Housing material: Nickel-plated aluminium/brass
- Zero position accuracy: ±0.1 mm

Technical specifications:

Art. No.	X826.1
Type	Monoshake
Suitable for	1 microtiter plate
Speed range	100 to 2000 rpm
Shaking amplitude (stroke)	2 mm
W x D x H	146 x 103 x 47 mm
Permissible ambient conditions	+5 to +40 °C at 95 % RH
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Monoshake	**X826.1**	1 unit(s)	963,00

Microtiter shakers digital

Thermo.

- For strong shaking of four microtiter plates
- Digital display of speed and operating time

Technical specifications:

Art. No.	1APX.1
Type	Digital microtiter shaker
Speed range	150 to 1200 rpm
Speed display	LED
Shaking amplitude (stroke)	2,5 mm
Timer	0.1 min to 99 h, 59 min or continuous operation
Shaking surface area	235 x 275 mm
W x D x H	260 x 383 x 145 mm
Loading capacity	1 kg
Permissible ambient conditions	5 to 40 °C at 85 % RH
Weight	15 kg
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Digital microtiter shaker	**1APX.1**	1 unit(s)	790,00

Microtiter shakers TiMix series

Edmund Bühler.

Options: With attachment for **8** or **16 microtiter plates**. Can be used with different attachments for various applications. Adjustable mass compensation ensures stability under different loads. Thermostatic control of the samples is possible by attaching the TH 15 incubation hood (please order separately).

Technical specifications:

Art. No.	T490.1	T491.1
Type	TiMix 5	TiMix 5 control
Suitable for	8/16 microtiter plates (please order attachments separately)	
Speed range	100 to 1400 rpm	
Shaking amplitude (stroke)	3 mm	
Timer	0 to 120 min or continuous operation	1 min to 30 h or continuous operation
Shaking surface area	400 x 300 mm	
W x D x H	460 x 470 x 188 mm	
Loading capacity	5 kg	
Weight	18 kg	

Delivery incl. basic unit without attachment, please order separately.

Model: TiMix 5
High speed for best possible mixing of small sample sizes.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	TiMix 5	**T490.1**	1 unit(s)	2.400,50

Model: TiMix 5 control
With digital display showing target and actual speed, preset function for the most recent settings and the option to programme variable sequences (shaking frequency/duration).

Pic.	Type	Art. No.	Pack Qty.	€
(2)	TiMix 5 control	**T491.1**	1 unit(s)	3.563,65

Accessories and attachment systems for TiMix 5 microtiter shakers

Edmund Bühler.

(3) TiMix 5 standard attachment
For 8 microtiter plates or for Microwell-, Deepwell- and other plates in microtiterplate format.

Designation	Art. No.	Pack Qty.	€
TiMix 5 standard attachment	**T493.1**	1 unit(s)	295,65

(4) TiMix 5 expansion tray
For further 8 platesas a second level on the TiMix 5 standard attachment. Complete with attachment material.

Designation	Art. No.	Pack Qty.	€
TiMix 5 expansion tray	**T494.1**	1 unit(s)	326,80

Shakers for microtitre plates

(5) Attachment with clamping bushings for microtiter plates
For 8 standard microtiter plates.

Designation	Art. No.	Pack Qty.	€
Attachment with clamping bushings	**T495.1**	1 unit(s)	465,50

Attachment with large clamping bushings for two microtiter plates
Directly above one another.

Designation	Art. No.	Pack Qty.	€
Attachment with large clamping bushings	**T496.1**	1 unit(s)	528,90

Microtiter shakers SSM5 and SSL5

Stuart.

- A combination of high speed and low amplitude produces the vibration shaking action required to mix small quantities
- Digital display of speed and operating time
- Reaction vial holders are optionally available as accessories (please order separately). A maximum of two racks can be attached to one device
- Speed can be controlled in increments of 10 rpm

Technical specifications:

Art. No.	YH91.1	YH92.1
Type	SSM5	SSL5
Suitable for	4 microtiter plates	8 Microtiter plates
Speed range	250 to 1250 rpm	
Speed display	LED	
Shaking amplitude (stroke)	1,5 mm	
Timer	1 to 9999 min or continuous operation	
Timer display	LED	
Shaking surface area	220 x 220 mm	306 x 306 mm
W x D x H	240 x 300 x 160 mm	360 x 420 x 160 mm
Loading capacity	1 kg	2 kg
Permissible ambient conditions	4 to 40 °C at 80 % RH	
Mains connection	230 V, 50 Hz	

Delivery incl. anti-slip mat.

Type	Art. No.	Pack Qty.	€
SSM5	**YH91.1**	1 unit(s)	1.228,00
SSL5	**YH92.1**	1 unit(s)	2.180,00

Accessories holder for SSM5 and SSL5 microtiter shakers

Stuart.

Designation	Art. No.	Pack Qty.	€
Holder for 50 x 1.5 ml reaction vials	**YH93.1**	1 unit(s)	150,00
Holder for 50 x 0.5 ml reaction vials	**YH94.1**	1 unit(s)	142,00
Holder for 50 x 0.2 ml reaction vials	**YH95.1**	1 unit(s)	158,00

Incubation shaker for microlitre plates

Ohaus.

For immunoassays and hybridizations.

- **For 4 standard for microlitre plates**
- LED display for temperature, speed and time
- Timer with acoustic alarm
- Setpoint memory: display of set value
- Soft start
- Available with standard lid or with opaque lid for light-sensitive samples

Technical specifications:

Art. No.	HTA4.1	HTA5.1
Type	With transparent lid	With opaque lid
Operating temperature	±5 °C **above** room temperature up to 65 °C	
Set temperature from	5 °C	
Set temperature up to	65 °C	
Temperature constancy	± 0,5 °C (37 °C)	
Resolution	1 °C	
Speed range	100 to 1200 rpm	
Shaking amplitude (stroke)	3 mm	
Timer	1 to 9999 min or continuous operation	
W x D x H, external	279 x 432 x 197 mm	
Weight	13,6 kg	
Mains connection	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
With transparent lid	**HTA4.1**	1 unit(s)	1.965,00
With opaque lid	**HTA5.1**	1 unit(s)	1.965,00

Incubation shakers

Small incubation shaker

Ohaus.

For cell cultures, bacteria suspensions and hybridizations.

- LED display for temperature, speed and time
- Timer with acoustic alarm
- Setpoint memory: display of last value set
- Soft start

Technical specifications:

Art. No.	HTC1.1
Type	Small incubation shaker
Movement type	Circular
Operating temperature	+5 °C **above** ambient temperature up to 65 °C
Set temperature from	5 °C
Set temperature up to	65 °C
Temperature constancy	± 0,5 °C (37 °C)
Resolution	1 °C
Speed range	100 to 1200 rpm
Shaking amplitude (stroke)	3 mm
Timer	1 to 9999 min or continuous operation
Shaking surface area	197 x 279 mm
W x D x H, interior	211 x 287 x 145 mm
W x D x H, external	279 x 432 x 270 mm
Weight	13,6 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. universal attachment for fastening retaining clips for Erlenmeyer flasks (please order retaining clips separately).

Type	Art. No.	Pack Qty.	€
Small incubation shaker	**HTC1.1**	1 unit(s)	2.235,00

Accessories clamps for small incubation shakers

Ohaus.

Designation	Art. No.	Pack Qty.	€
Clamps for flasks 25 ml (max. 20)	**HTC2.1**	1 unit(s)	25,60
Clamps for flasks 50 ml (max. 15)	**HTC3.1**	1 unit(s)	26,60
Clamps for flasks 125 ml (max. 8)	**HTC4.1**	1 unit(s)	26,60
Clamps for flasks 250 ml (max. 5)	**HTC5.1**	1 unit(s)	30,40

Incubation shaker 2D/3D

Ohaus.

For hybridization processes, cell cultures, blotting techniques and colouring/dying of gels.

- LED display for temperature, speed/inclination angle and time
- Timer with acoustic alarm
- Inclination angle adjusts electronically (even when device is in operation)
- Setpoint memory: display of last value set
- Soft start

Technical specifications:

Art. No.	HTC6.1	HTC7.1
Type	Thermo-Shake 2D	Thermo-Shake 3D
Movement type	Rocking motion	Wobbling motion
Operating temperature	+5 °C **above** ambient temperature up to 65 °C	
Set temperature from	5 °C	
Set temperature up to	65 °C	
Temperature constancy	± 0,5 °C (37 °C)	
Resolution	1 °C	
Speed range	1 to 50 rpm	1 to 30 rpm
Tilt angle	0 – 15 °	0 – 20 °
Timer	1 to 9999 min or continuous operation	
Shaking surface area	191 x 254 mm	184 x 235 mm
W x D x H, interior	197 x 273 x 97 mm	197 x 273 x 86 mm
W x D x H, external	279 x 432 x 297 mm	
Weight	10 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. base tray with universal mat.

Type	Art. No.	Pack Qty.	€
Thermo-Shake 2D	**HTC6.1**	1 unit(s)	2.560,00
Thermo-Shake 3D	**HTC7.1**	1 unit(s)	2.815,00

Accessories studded mat for incubation shaker 2D

Ohaus.

Studded mats for test tubes

Designation	Art. No.	Pack Qty.	€
Studded mat for Thermo-Shake 2D	**HTC8.1**	1 unit(s)	37,40

Incubation shakers

Incubation shaker Genie® Mini-Temp-Shaker 300

Scientific Industries.

For shaking and temperature control of samples.

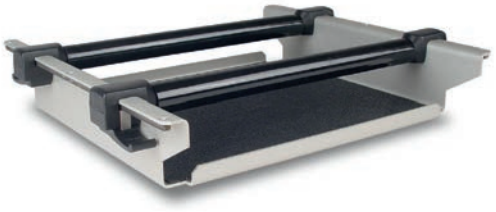
- Circular movement
- Digital display of speed and temperature
- Heating mantle can be tilted back, to the left or to the right for placement or removed completely for cleaning. Also with door flap for removing and placing individual vessels.

Technical specifications:

Art. No.	1CA7.1
Type	Genie® Temp-Shaker 300
Movement type	circular
Operating temperature	5 °C above room temperature up to 75 °C
Set temperature from	28 °C
Set temperature up to	75 °C
Temperature constancy	±1 °C
Resolution	1 °C
Speed range	35 to 300 rpm
Shaking amplitude (stroke)	19 mm
Shaking surface area	315 x 315 mm
Loading capacity	3 kg
W x D x H, external	480 x 450 x 500 mm
Permissible ambient conditions	0 to 38 °C at 95 % rel. humidity
Weight	9 kg
Mains connection	230 V, 50 Hz

Delivery incl. platform with adhesive mat.

Type	Art. No.	Pack Qty.	€
Genie® Temp-Shaker 300	**1CA7.1**	1 unit(s)	3.708,75



Accessories universal attachment for Genie® Mini-Temp-Shaker 300

Scientific Industries.

Suitable for use with all types of vessels thanks to infinitely adjustable tension rollers and safe securement of different vessels. Loading option, e.g. 6 x 500 ml Erlenmeyer flasks with one optional tension roller available to order.

Delivery incl. 2 tension rollers. If more tension rollers are required, please order separately.

Designation	Art. No.	Pack Qty.	€
Universal attachment for Genie® Temp-Shaker 300	**1CA8.1**	1 unit(s)	645,00

Accessories tension roller for Genie® Mini-Temp-Shaker universal attachment

Scientific Industries.

Additional tension roller compatible with the Genie® Temp-Shaker 300 universal attachment.

Designation	Art. No.	Pack Qty.	€
Tension roller for Genie® Temp-Shaker universal attachment	**1CA9.1**	1 unit(s)	207,50

Incubation shaker KS 3000 i control

IKA.

For shaking, mixing and temperature control of samples.

- LED display for speed and heating setting, as well as temperature
- With RS 232 and USB interface
- Additional Pt 1000.60 temperature probe for temperature control directly within samples (included)
- Remark on outside dimensions: required floor space 600 x 600 mm

Technical specifications:

Art. No.	XT43.1
Type	KS 3000 i control
Movement type	circular
Operating temperature	+5 °C above room temperature up to +80 °C
Temperature constancy	±0,1 K
Resolution	0,1 °C
Accuracy	±0.5 K (with prober)
Speed range	10 to 500 rpm
Shaking amplitude (stroke)	20 mm
Timer	1 min to 999 h or continuous operation
W x D x H, interior	330 x 330 x 260 mm
W x D x H, external	465 x 695 x 430 mm
Heating output	1000 W
Mains connection	230 V, 50/60 Hz

Delivery without rack attachment, if desired, please order separately.

Type	Art. No.	Pack Qty.	€
KS 3000 i control	**XT43.1**	1 unit(s)	5.405,00

Accessories attachment system for incubation shakers KS 3000 i control

IKA.

(1) Universal attachment AS 260.1
Suitable for use with all types of vessels thanks to infinitely adjustable clamping rollers. Mounting surface 320 x 320 mm. Variable loading options, e.g. 8 x 250 ml Erlenmeyer flasks or 15 x 100 ml Erlenmeyer flasks.

Delivery incl. 4 tension rollers.

Designation	Art. No.	Pack Qty.	€
Universal attachment AS 260.1	**X182.1**	1 unit(s)	594,00

(2) Clamp holder AS 260.2
Suitable for shaking round-bottom flasks, volumetric flasks and Erlenmeyer flasks, etc. Dimensions W 330 x D 330 x H 24 mm.
Max. number:
31 clamps for 25 ml flasks or
23 clamps for 50 ml flasks or
23 clamps for 100 ml flasks or
11 clamps for 200/250 ml flasks or
9 clamps for 500 ml flasks or
5 clamps for 1000 ml flasks

Delivery without clamps, please order separately.

Designation	Art. No.	Pack Qty.	€
Clamp attachment AS 260.2	**X184.1**	1 unit(s)	154,00

(3) Fixing clips

Designation	Art. No.	Pack Qty.	€
Fixing clips for 25 ml flasks	**X185.1**	1 unit(s)	26,00
Fixing clips for 50 ml flasks	**X186.1**	1 unit(s)	26,00
Fixing clips for 100 ml flasks	**X187.1**	1 unit(s)	26,00
Fixing clips for 200/250 ml flasks	**X188.1**	1 unit(s)	50,00
Fixing clips for 500 ml flasks	**X189.1**	1 unit(s)	50,00
Fixing clips for 1000 ml flasks	**PA26.1**	1 unit(s)	50,00

(3) Dish attachment AS 260.3
For gentle movement of cell cultures or clamping rollers in Petri dishes, for example. Mounting surface: 320 x 320 mm.

Designation	Art. No.	Pack Qty.	€
Dish attachment AS 260.3	**X183.1**	1 unit(s)	129,00

Incubation shaker KS 4000 i control

IKA.

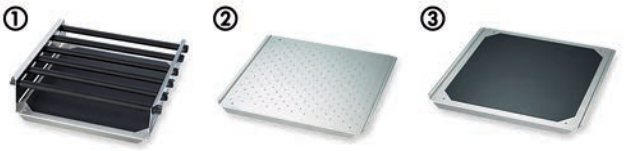
- LED display for speed and heating setting, as well as temperature
- Integrated PID temperature control
- With RS 232 interface
- Socket for use of an additional PT 1000.60 temperature probe in the working area (included)
- Remark on outside diameters: required floor space 600 x 600 mm

Technical specifications:

Art. No.	KH89.1
Type	KS 4000 i control
Movement type	circular
Operating temperature	+5 °C above room temperature up to +80 °C
Temperature constancy	±0,1 K
Resolution	0,1 °C
Accuracy	±0,5 K
Speed range	10 to 500 rpm
Shaking amplitude (stroke)	20 mm
Timer	1 min to 999 h or continuous operation
Loading capacity	20 kg
W x D x H, interior	430 x 430 x 280 mm
W x D x H, external	580 x 750 x 520 mm
Heating output	1000 W
Mains connection	230 V, 50/60 Hz

Delivery without rack attachment, if desired, please order separately.

Type	Art. No.	Pack Qty.	€
KS 4000 i control	**KH89.1**	1 unit(s)	6.541,00



Accessories top attachment system for incubation shakers KS 4000 i control

IKA.

(1) AS 4000.1 universal attachment
Attachment frame with continuously adjustable clamping rollers for universal adaptation to any vessel. Mounting surface 380 x 410 mm. Loading options: e.g. 2 x 2000 ml Erlenmeyer flasks or 9 x 500 ml Erlenmeyer flasks.

Delivery incl. 6 tension rollers.

Designation	Art. No.	Pack Qty.	€
Universal attachment AS 260.1	**KH90.1**	1 unit(s)	949,00

Incubation shakers

(2) Clamp holder AS 4000.2
For shaking Erlenmeyer flasks and bottles with a circular cross-section.
Max. number:
55 clamps for 25 ml flasks or
48 clamps for 50 ml flasks or
25 clamps for 100 ml flasks or
16 clamps for 250 ml flasks or
12 clamps for 500 ml flasks or
7 clamps for 1000 ml flasks

Delivery without clamps, please order separately.

Designation	Art. No.	Pack Qty.	€
AS 4000.2 clamp holder	**KH91.1**	1 unit(s)	792,00

(3) Dish attachment AS 4000.3
For soft shaking of cell cultures or culture medium in Petri dishes.
Mounting surface 430 x 430 mm.

Designation	Art. No.	Pack Qty.	€
Dish attachment AS 260.3	**KH92.1**	1 unit(s)	208,00

Incubation shaker SI-500

Stuart.

For temperature control and simultaneous shaking and mixing of samples.

- Digital LED display for speed, timer and temperature
- Smoke-coloured acrylic glazing
- With removable platform for easy removal and insertion of samples
- With timer: when the set time expires, shaking stops ad the temperature is maintained
- Air circulation for smooth heating of samples
- With USB interface to record the temperature characteristics
- Loading options:e.g. 12 x 250 ml Erlenmeyer flasks or 9 x 500 ml Erlenmeyer flasks or 6 x 1000 ml Erlenmeyer flasks
- Alternatively, a maximum of 4 reaction vials and/or centrifuge tube racks can be fastened. Inclination adjustable by 30°. Reaction vial and/or centrifuge tube racks, please order separately.

Technical specifications:

Art. No.	**KA99.1**
Type	SI-500
Movement type	circular
Operating temperature	+5 °C above room temperature up to +60 °C
Temperature constancy	±0,5 °C
Resolution	0,1 °C
Speed range	30 to 300 rpm
Shaking amplitude (stroke)	16 mm
Timer	1 s to 9 d
Shaking surface area	335 x 335 mm
Loading capacity	10 kg
W x D x H, interior	422 x 408 x 250 mm
W x D x H, external	450 x 474 x 522 mm
Heating output	250 W
Weight	30 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. platform system with 4 tension rollers and USB cable.

Type	Art. No.	Pack Qty.	€
SI-500	**KA99.1**	1 unit(s)	5.626,00

Accessories frame made of stainless steel for shaker SI-500

Stuart.

Designation	Art. No.	Pack Qty.	€
for 64 x 1.5 ml reaction vials	**KC00.1**	1 unit(s)	410,00
for 25 centrifuge tubes 15 ml	**KC01.1**	1 unit(s)	410,00
for 12 centrifuge tubes 50 ml	**KC02.1**	1 unit(s)	410,00

Incubation shaker MaxQ Digital 4000 set

Thermo.

- Digital display for speed, time and temperature on three individual displays
- Visual/audible signals alert you to temperature and speed deviation
- Automatic unbalanced load sensor stops the device if increased vibration is detected. An acoustic/visual alarm is issued at the same time.
- Soft start feature prevents sudden starts and stops
- **Clamp starter kit** comprising
  1 x 250-ml-, 1 x 500-ml-, 1 x 1000-ml- and 1 x 2000-ml flask clamps

Technical specifications:

Art. No.	**LY29.1**
Type	MaxQ Digital 4000 set
Movement type	Circular
Operating temperature	+10 °C above room temperature up to +80 °C
Temperature constancy	±0,1 °C
Resolution	0,1 °C
Speed range	15 to 500 rpm
Shaking amplitude (stroke)	19 mm
Timer	0.1 min to 999.9 h or continuous operation
Loading capacity	22.7 kg
W x D x H, interior	533 x 508 x 330 mm
W x D x H, external	572 x 813 x 559 mm
Heating output	1000 W
Weight	75.8 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. universal tray (457 x 457 mm), clamp starter kit (clamps for flasks from 125 to 2000 ml) and microtiter plate clamp.

Type	Art. No.	Pack Qty.	€
MaxQ Digital 4000 set	**LY29.1**	1 unit(s)	9.588,00

Accessories for MaxQ Digital 4000

Thermo.

Additional holding clamps

Designation	Art. No.	Pack Qty.	€
for 10 ml flasks (max. 113)	**LY31.1**	1 unit(s)	26,00
for 25 ml flasks (max. 64)	**LY32.1**	1 unit(s)	28,40
for 50 ml flasks (max. 32)	**LY33.1**	1 unit(s)	30,20
for 125 ml flasks (max. 32)	**LY34.1**	1 unit(s)	28,70
for 250 ml flasks (max. 16)	**LY35.1**	1 unit(s)	34,70
for 300 ml flasks (max. 16)	**LY36.1**	1 unit(s)	37,70
for 500 ml flasks (max. 16)	**LY37.1**	1 unit(s)	40,10
for 1000 ml flasks (max. 9)	**LY38.1**	1 unit(s)	50,70
for 2000 ml flasks (max. 6)	**LY39.1**	1 unit(s)	64,10
for microtritation/deepwell plate (max. 10)	**LY30.1**	1 unit(s)	30,00

Sample tube rack

Variable inclination angle.
Dimensions Art. No. LY40.1: L 248 x W 127 x H 70 mm.
Dimensions Art. No. LY41.1: L 248 x W 110 x H 82 mm.

Designation	Art. No.	Pack Qty.	€
for 72 tubes Ø from 14 to 17 mm (max. 4)	**LY40.1**	1 unit(s)	293,00
for 24 tubes Ø from 26 to 30 mm (max. 4)	**LY41.1**	1 unit(s)	292,00

Incubation shaker Varioshake VS 60 OI

Lauda.

For applications such as homogenisation, incubation, fermentation or chemical and biochemical reactions. With temperatures up to 70 °C and switchable circular movement.

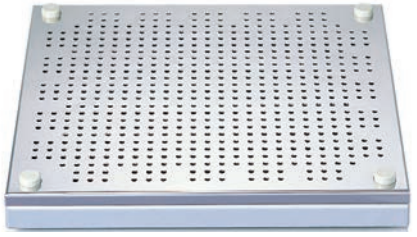
- Digital temperature and shaking frequency setting via LED display, in increments of 0.1 °C/1 rpm
- Timer, microprocessor-controlled, with remaining time display and acoustic signal at end of process
- Limits for overheating and insufficient temperature alarm (visual and audible) adjustable
- Constant speed, load-independent
- Foldable acrylic glass cover
- Switching off the shaking motion and the heating when the doors are opened
- Integrated cooling coil for applications below room temperature

Technical specifications:

Art. No.	1EHY.1
Type	VS 60 OI
Movement type	circular
Operating temperature	8 °C above room temperature up to +70 °C
Temperature constancy	±0,2 K
Resolution	0,1 °C
Speed range	20 to 250 rpm
Shaking amplitude (stroke)	30 mm
Timer	1 min to 999 h or continuous operation
Shaking surface area	450 x 450 mm
Loading capacity	12 kg
W x D x H, interior	450 x 450 x 338 mm
W x D x H, external	559 x 687 x 628 mm
Weight	41,5 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. shaking table, but without attachment and accessories (please order separately).

Type	Art. No.	Pack Qty.	€
VS 60 OI	**1EHY.1**	1 unit(s)	6.430,00



Accessories spring clip attachment for Varioshake VS-15 series and VS 60 OI

Lauda.

For shaking of Erlenmeyer flasks.
With hole pattern for fastening clips for Erlenmeyer flasks.
Max. number per board:
79 fixing clips for 25 ml flasks or
49 fixing clips for 50 ml flasks or
36 fixing clips for 100 ml flasks or
22 fixing clips for 200 ml flasks or
16 fixing clips for 250/300 ml flasks or
12 fixing clips for 500 ml flasks or
9 fixing clips for 1000 ml flasks or
4 fixing clips for 2000 ml flasks

Delivery without spring clips, please order separately.

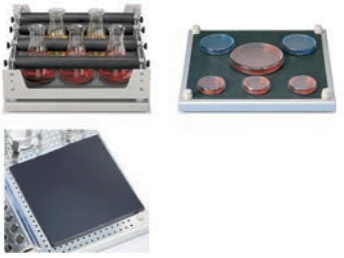
Type	Art. No.	Pack Qty.	€
Universal board	**1CY8.1**	1 unit(s)	148,00

Accessories spring clip

Lauda.

For fastening Erlenmeyer flasks on the spring clip attachment and shaking tray.

Designation	Art. No.	Pack Qty.	€
Clamp for 25 ml Erlenmeyer flasks	**1CY9.1**	1 unit(s)	18,30
Clamp for 50 ml Erlenmeyer flasks	**1CYA.1**	1 unit(s)	21,40
Clamp for 100 ml Erlenmeyer flasks	**1CYC.1**	1 unit(s)	21,90
Clamp for 200 ml Erlenmeyer flasks	**1CYE.1**	1 unit(s)	22,60
Clamp for 500 ml Erlenmeyer flasks	**1CYK.1**	1 unit(s)	25,60
Clamp for 1000 ml Erlenmeyer flasks	**1CYL.1**	1 unit(s)	41,20
Clamp for 2000 ml Erlenmeyer flasks	**1CYN.1**	1 unit(s)	55,90
Clamp for 250/300 ml Erlenmeyer flasks	**1CYH.1**	1 unit(s)	24,80



Accessories for Varioshake VS-8 series shakers

Lauda.

Adhesive mat for Varioshake VS-8 series shakers and VS 60 OI
Highly adhesive special mat for easy fastening of a huge variety of vessels. Shaking speed up to approx. 250 rpm (depending on shape and weight of the vessel and shaking amplitude level). Can be cut to size, L 200 x W 200 mm.

Type	Art. No.	Pack Qty.	€
Adhesive mat	**1CY3.1**	1 unit(s)	83,50

Tilt/roller mixer RS-TR series

Phönix Instrument.

Simultaneous rolling and tilting movement for thorough mixing of samples, e.g. in centrifuge tubes and sample tubes. For vessel Ø max. 100 mm.

Technical specifications:

Art. No.	XK30.1	XK31.1
Type	RS-TR 05	RS-TR 10
Number of rollers	6	
Speed range	0 to 70 rpm	10 to 70 rpm
Speed display		LCD
Timer		1 min to 1199 min or continuous operation
Timer display		LCD
Roller length	280 mm	
Roller Ø	30 mm	
W x D x H	260 x 490 x 120 mm	
Permissible ambient conditions	5 to 40 °C at 80 % rel. humidity	
Weight	5,1 kg	5.5 kg
Mains connection	100–240 V, 50/60 Hz	

Model RS-TR 05
Variable speed control from 0 to 70 rpm via analogue rotary knob with scales.

Type	Art. No.	Pack Qty.	€
RS-TR 05	**XK30.1**	1 unit(s)	435,40

Model RS-TR 10
Speed control from 10 to 70 rpm with illuminated LCD display for setting time and speed.

Type	Art. No.	Pack Qty.	€
RS-TR 10	**XK31.1**	1 unit(s)	768,65

Mixing units

Tilt/roller mixer SRT series

Stuart.

Thorough mixing results due to simultaneous roll/tilt motion.

- With collecting tray
- Rollers are easily removable to accommodate larger vessels with Ø max. 100 mm
- Removable side panels prevent tubes from falling out accidentally during operation

Two model variants with different number of rollers and speed available.

Technical specifications:

Art. No.	HA31.1	HA32.1	HA30.1	HA33.1
Type	SRT 9	SRT 6D	SRT 6	SRT 9D
Number of rollers	9	6		9
Speed range		5 to 60 rpm		5 to 60 rpm
Speed	33 rpm		33 rpm	
Speed display		digital		digital
Shaking amplitude (stroke)	16 mm			
Timer		1 s to 90 min or 1 min to 9 h		1 s to 90 min or 1 min to 9 h
Roller length	340 mm			
Roller Ø	30 mm			
W x D x H	565 x 360 x 110 mm	565 x 240 x 110 mm		565 x 360 x 110 mm
Permissible ambient conditions	4 to 60 °C at 80 % rel. humidity			
Weight	6.9 kg	5.1 kg		6.9 kg
Mains connection	230 V, 50 Hz			

Models standard

With fixed speed of 33 rpm.

Pic.	Type	Art. No.	Pack Qty.	€
	SRT 9	**HA31.1**	1 unit(s)	1.300,00
(1)	SRT 6	**HA30.1**	1 unit(s)	1.071,00

Digital models

With variable speed control from 5 to 60 rpm, digital speed display and timer function.

Pic.	Type	Art. No.	Pack Qty.	€
	SRT 6D	**HA32.1**	1 unit(s)	1.381,00
(2)	SRT 9D	**HA33.1**	1 unit(s)	1.636,00

Tilt/roller mixer Roller series

IKA.

Simultaneous rolling and tilting movement. Rollers are easily removable to accommodate larger vessels with Ø max. 185 mm.

Two models are available with different number of roller and speeds:

Technical specifications:

Art. No.	XT39.1	XT40.1	XT41.1	XT42.1
Type	6 basic	10 basic	6 digital	10 digital
Number of rollers	6	10	6	10
Speed range			5 to 80 rpm	
Speed	30 rpm			
Speed display			LED	
Timer			1 s to 99 h or continuous operation	1 s to 99.9 h or continuous operation
Roller length	325 mm			
Roller Ø	32 mm			
W x D x H	240 x 545 x 115 mm	380 x 545 x 115 mm	240 x 545 x 115 mm	380 x 545 x 115 mm
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity			
Weight	4 kg	6 kg	4 kg	6 kg
Mains connection	100–240 V, 50/60 Hz			

Delivery incl. side protection plates (prevents tube disengagement at the sides).

Basic model

With fixed speed of 30 rpm

Type	Art. No.	Pack Qty.	€
6 basic	**XT39.1**	1 unit(s)	1.488,00
10 basic	**XT40.1**	1 unit(s)	1.818,00

Model Digital

With variable speed control from 5 to 80 rpm, digital speed display and timer function.

Type	Art. No.	Pack Qty.	€
6 digital	**XT41.1**	1 unit(s)	1.542,00
10 digital	**XT42.1**	1 unit(s)	1.873,00

Tilt/roller mixer RM 2

Edmund Bühler.

Gentle tilting and rolling movement for complete mixing. For all standard tube sizes, bottles and other cylindrical vessels up to Ø 80 mm. LED display for speed and operating time. Powder-coated metal housing. Removable rollers and collecting tray. Speed range can be adjusted in 5° increments.

Technical specifications:

Art. No.	HYK6.1
Type	RM 2
Movement type	Tilt and roll motion
Number of rollers	6
Speed range	5 to 80 rpm
Speed display	LED
Timer	0 to 99 h, 59 min or continuous operation
Roller length	300 mm
Roller Ø	32 mm
W x D x H	244 x 465 x 115 mm
Permissible ambient conditions	5 to 45 °C at 85% RH
Weight	7,3 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 6 plastic roller and collecting tray.

Type	Art. No.	Pack Qty.	€
RM 2	**HYK6.1**	1 unit(s)	2.388,65

Accessories overhead attachment for rolling mixers RM 2

Edmund Bühler.

With 12 slots for 50-ml Falcon® centrifuge tubes (slot Ø 29.5 mm) for gently rotating overhead mixing.

Designation	Art. No.	Pack Qty.	€
Overhead attachment	**KAX7.1**	1 unit(s)	295,65

Cell culture roller mixer Small bottle

DWK Life Sciences.

Capacity: 2 positions. Suitable for bottles with Ø 108 to 121 mm. Both outer rollers can be moved to the inside so that bottles with Ø 75 mm can also be accommodated. Each tier is designed to hold at least 2 bottles.

- With optional accessories, expandable to 6 positions with 2 additional tiers.
- Speed range depends on the bottle Ø:
  Speed range for bottles with max. Ø 110 mm: 0.1 to 3.8 rpm

Technical specifications:

Art. No.	EPX8.1
Type	Small bottle
Max. bottle dimensions	Ø 108 to 121 mm, max. L 290 mm
Speed range	0,1 to 3,8 rpm
W x D x H	320 x 325 x 180 mm
Permissible ambient conditions	10 to 40 °C at 80 % RH
Weight	8.2 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. standard roller system for 2 bottles. Expansions kit for additional flasks, please order separately.

Type	Art. No.	Pack Qty.	€
Small bottle	**EPX8.1**	1 unit(s)	1.858,70

Accessories extension kit (tiers) for Small-Bottle roller mixers

DWK Life Sciences.

For extension with max. 2 additional platforms as 2nd and 3rd tiers. Each tier must be ordered separately.

Designation	Art. No.	Pack Qty.	€
Extension kit	**EPX9.1**	1 unit(s)	574,05

Cell culture roller mixer Mini-bottle

DWK Life Sciences.

Capacity: 4 positions. Specially designed for mixing and stirring small quantities in bottles. For serum bottles (from 30 ml), media bottles (100 to 125 ml) and culture tubes (38 x 200 mm). Each tier is designed to hold at least 4 bottles.

- With optional accessories, expandable to 12 positions with 2 additional tiers.
- Speed range depends on the bottle Ø:
  speed range for bottles with max. Ø 38 mm: 3 to 45 rpm
  speed range for bottles with max. Ø 60 mm: 2 to 30 rpm

Technical specifications:

Art. No.	EPX7.1
Type	Mini-bottle
Max. bottle dimensions	Ø 38 to 60 mm, max. L 240 mm
W x D x H	320 x 325 x 180 mm
Permissible ambient conditions	10 to 40 °C at 80% RH
Weight	8 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. standard roller system for 4 bottles. Expansions kit for additional flasks, please order separately.

Type	Art. No.	Pack Qty.	€
Mini-bottle	**EPX7.1**	1 unit(s)	2.196,25

Accessories extension kit (tiers) for Mini-Bottle roller mixers

DWK Life Sciences.

For extension with max. 2 additional platforms as 2nd and 3rd tiers. Each tier must be ordered separately.

Designation	Art. No.	Pack Qty.	€
Extension kit	**EYH1.1**	1 unit(s)	755,75

Rocker and 3D shakers RS series

Phönix Instrument.

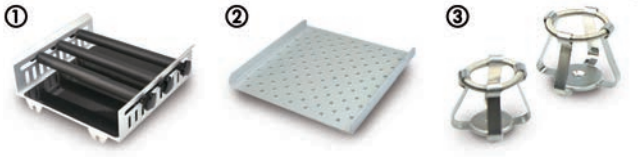
- Continuous speed adjustment
- With optional tray for Erlenmeyer flasks or with additional universal tray for adaptation to all types of vial through infinitely adjustable clamping rolls (please order desired tray separately)

Technical specifications:

Art. No.	HEH4.1	HEH5.1
Type	RS-RS 5	RS-DS 5
Movement type	seesaw	circular 3D rocking movement
Speed range	to 80 rpm	
Tilt angle	7 °	
Shaking surface area	240 x 240 mm	
W x D x H	270 x 330 x 110 mm	
Loading capacity	3 kg	
Permissible ambient conditions	4 to 40 °C at 80 % RH	
Weight	2.9 kg	3.2 kg
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. tray top with 6 fixing bands.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	RS-RS 5	**HEH4.1**	1 unit(s)	521,40
(2)	RS-DS 5	**HEH5.1**	1 unit(s)	521,40



Accessories for RS series platform shakers

Phönix Instrument.

(1) Universal attachment
Loading options: E.g. 6 x 250 ml Erlenmeyer flasks.

Delivery incl. 3 adjustable tension rollers.

Designation	Art. No.	Pack Qty.	€
Universal attachment	**CAY0.1**	1 unit(s)	145,15

(2) Spring clip attachment
For shaking of Erlenmeyer flasks. With holes for individual placement of spring clips.

Delivery without spring clips, please order separately.

Designation	Art. No.	Pack Qty.	€
Spring clip attachment	**CAY1.1**	1 unit(s)	145,15

(3)

Designation	Art. No.	Pack Qty.	€
Spring clip for 25 ml flasks (max. 18)	**CAY2.1**	1 unit(s)	28,95
Spring clip for 50 ml flasks (max. 18)	**CAY3.1**	1 unit(s)	31,10
Spring clip for 100 ml flasks (max. 9)	**CAY4.1**	1 unit(s)	31,10
Spring clip for 250 ml flasks (max. 6)	**CAY5.1**	1 unit(s)	40,75
Spring clip for 500 ml flasks (max. 4)	**CAY6.1**	1 unit(s)	43,70

NEW / +

Rocker shakers digital Tube Rocker

Thermo.

For gentle mixing of samples in standard tubes or centrifuge tubes by means of tilting movement.

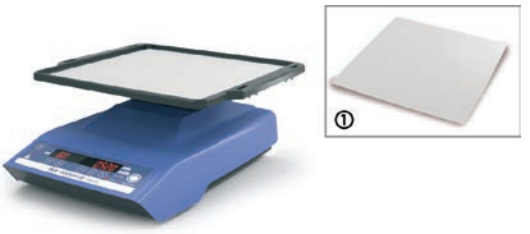
- Digital speed and tilt display
- Electronically adjustable tilt angle
- Studded rubber mat can be removed for cleaning
- For 16 tubes, Ø 10 to 20 mm or 7 tubes, Ø 22 to 30 mm

Technical specifications:

Art. No.	1L97.1
Type	Digital Tube Rocker
Movement type	See-saw
Speed range	2 to 40 rpm
Tilt angle	1–48 °
Shaking surface area	330 x 140 mm
W x D x H	411 x 144 x 146 mm
Permissible ambient conditions	5 to 40 °C at 85% RH
Weight	3,4 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. studded mat for tubes.

Type	Art. No.	Pack Qty.	€
Digital Tube Rocker	**1L97.1**	1 unit(s)	742,00



Rocker shakers Rocker 2D series

IKA.

Various attachments for different applications. Suitable for Petri dishes, culture bottles and sample tubes .

Technical specifications:

Art. No.	XT46.1	XT47.1
Type	Rocker 2D Basic	Rocker 2D digital
Movement type	seesaw	
Speed range	5 to 80 rpm	
Speed display	LED	
Tilt angle	8 °	0–15 °
Timer		1 s to 99.9 h or continuous operation
Timer display		LED
Shaking surface area	240 x 240 mm	
W x D x H	280 x 330 x 150 mm	
Loading capacity	2 kg	
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity	
Weight	2.2 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. basic tray, (1) anti-slip universal mat for fixing culture bottles, Petri dishes, etc.

Model 2D basic

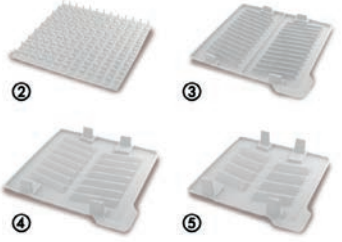
- With digital speed display
- Fixed tilt angle

Type	Art. No.	Pack Qty.	€
Rocker 2D Basic	**XT46.1**	1 unit(s)	881,00

Model 2D digital

- With digital speed and time display
- Manually adjustable tilt angle

Type	Art. No.	Pack Qty.	€
Rocker 2D digital	**XT47.1**	1 unit(s)	937,00



Accessories attachment for shaker Rocker series

IKA.

Pic.	Designation	Art. No.	Pack Qty.	€
(2)	Studded mat for tubes	**CHH3.1**	1 unit(s)	24,00
(3)	Attachment for 28 x 5 ml (Ø 12 mm) sample tubes	**XT48.1**	1 unit(s)	38,00
(4)	Attachment for 16 x 15 ml (Ø 16 mm) sample tubes	**XT49.1**	1 unit(s)	38,00
(5)	Attachment for 10 x 50 ml (Ø 28 mm) sample tubes	**XT50.1**	1 unit(s)	38,00

Accessories expansion tray for shaker Rocker series

IKA.

Further platform as 2nd. tier fixable to base tray. Please order desired attachment/mat separately.

Designation	Art. No.	Pack Qty.	€
Expansion tray for rocker series	**XT51.1**	1 unit(s)	69,00

Rocker shaker 2D Digital Rocker

Thermo.

For protein synthesis, ELISA, gel colouring and discolouration, antibody colouring and hybridisation.

- Digital speed and time display
- Capacity for 6 x 96-well plates
- Inclination angle can be electronically adjusted from 1 to 15°

Technical specifications:

Art. No.	1AT5.1
Type	2D Digital Rocker
Movement type	seesaw
Speed range	1 to 70 rpm
Speed display	LED
Tilt angle	1–15 °
Timer	1 min to 99 h, 59 min or continuous operation
Shaking surface area	282 x 322 mm
W x D x H	292 x 390 x 206 mm
Loading capacity	3 kg
Permissible ambient conditions	5 to 40 °C at 85 % RH
Weight	13,5 g
Mains connection	100–240 V, 50/60 Hz

Delivery incl. dimpled rubber mat.

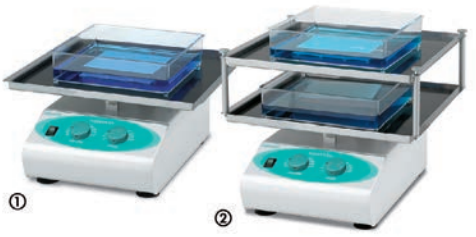
Type	Art. No.	Pack Qty.	€
2D Digital Rocker	**1AT5.1**	1 unit(s)	886,00

Accessories universal mat for 2D Digital Rocker

Thermo.

Smooth, slip-resistant surface for dishes, culture bottles and bags. Dimensions W 282 x D 322 mm.

Type	Art. No.	Pack Qty.	€
Universal mat for 2D Digital Rocker	**1AT6.1**	1 unit(s)	34,60



Rocker shakers ProBlot 25/25 XL series

Labnet International.

For dying, beaching and washing gels, DNA extraction as well as hybridisation.

- Gentle, linear rocking motion
- Inclination is fixed
- With anti-slip rubber pad
- With timer (0-120 min)

Technical specifications:

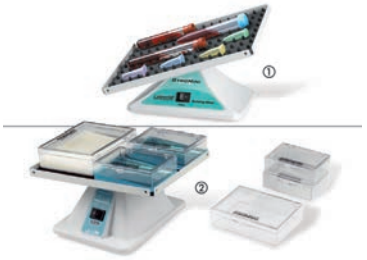
Art. No.	LX35.1	LX36.1	LX37.1	LX38.1
Type	ProBlot 25	ProBlot 25 D, 2 tiers	ProBlot 25 XL	ProBlot 25 XL D, 2 tiers
Version	Standard	2 platforms	Standard	2 platforms
Movement type	seesaw			
Speed range	10 to 120 rpm			
Tilt angle	7 °			
Timer	0 to 120 min or continuous operation			
Shaking surface area	260 x 200 mm		300 x 300 mm	
Level distance		90 mm		90 mm
W x D x H	290 x 320 x 145 mm		325 x 360 x 145 mm	
Loading capacity	5 kg			
Permissible ambient conditions	4 to 40 °C at 80 % RH			
Weight	6 kg			
Mains connection	230 V, 50/60 Hz			

Platform 260 x 200 mm

Pic.	Type	Art. No.	Pack Qty.	€
(1)	ProBlot 25	**LX35.1**	1 unit(s)	955,70
(2)	ProBlot 25 D, 2 tiers	**LX36.1**	1 unit(s)	1.020,20

Platform 300 x 300 mm

Type	Art. No.	Pack Qty.	€
ProBlot 25 XL	**LX37.1**	1 unit(s)	1.069,65
ProBlot 25 XL D, 2 tiers	**LX38.1**	1 unit(s)	1.177,15



3D rocker shaker Mini series

Labnet International.

General information for all models:

- Space-saving design with small footprint
- Speed and tilt angle are preset

Technical specifications:

Art. No.	ET51.1	NP21.1
Type	GyroMini™	Enduro MiniMix™
Movement type	circular 3D rocking movement	
Speed	20 rpm	
Tilt angle	20 °	5 °
Shaking surface area	240 x 170 mm	
W x D x H	240 x 170 x 150 mm	
Loading capacity	0.8 kg	
Permissible ambient conditions	4 to 40 °C at 80 % RH	
Weight	0.88 kg	
Mains connection	230 V, 50 Hz	

(1) Model 3D rocker shaker GyroMini™
For test tubes. For gentle blending of samples, e.g. in blood vials or centrifuge tubes.

Loading options: 60 reaction vials 1.5/2.0 ml or 16 centrifuge tubes 15 ml or 8 centrifuge tubes 50 ml or 20 Standard-blood vials 7 ml.

Delivery incl. removable studded mat.

Type	Art. No.	Pack Qty.	€
GyroMini™	**ET51.1**	1 unit(s)	585,90

(2) Model 3D rocker shaker Enduro MiniMix™
For sensitive gels and blots. The smaller tilt angle prevents gels/blots from drying out and/or breaking.

Delivery incl. anti-slip rubber mat and 2 large blotting boxes.

Type	Art. No.	Pack Qty.	€
Enduro MiniMix™	**NP21.1**	1 unit(s)	514,95

Accessories blotting boxes for 3D rocker shaker Enduro MiniMix™

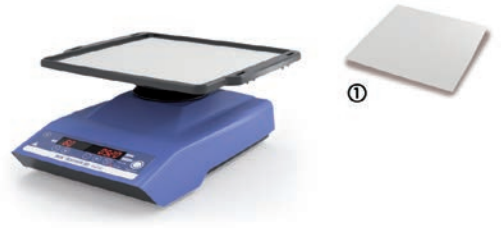
Labnet International.

Blotting box, large
Dimensions: L 117 mm x W 89 mm. For 6-10 ml of solution.

Designation	Art. No.	Pack Qty.	€
Blotting box, large	**NP22.1**	10 unit(s)	127,95

Blotting box, small
Dimensions: L 91 mm x W 66 mm. For 3-5 ml of solution.

Designation	Art. No.	Pack Qty.	€
Blotting box, small	**NP23.1**	10 unit(s)	115,05



Wobble shakers Rocker 3D series

IKA.

Various attachments for different applications. Ideal for motion with low foaming, DNA extraction as well as staining and bleaching.

Technical specifications:

Art. No.	XT52.1	XT53.1
Type	Rocker 3D basic	Rocker 3D digital
Movement type	circular 3D rocking movement	
Speed range		5 to 80 rpm
Speed	30 rpm	
Speed display		LED
Tilt angle	8 °	0–15 °
Timer		1 s to 99.9 h or continuous operation
Timer display		LED
Shaking surface area	240 x 240 mm	
W x D x H	280 x 330 x 165 mm	280 x 330 x 185 mm
Loading capacity	2 kg	
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity	
Weight	2.2 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. basic tray, anti-slip universal mat (1) for fixing culture bottles, Petri dishes, etc.

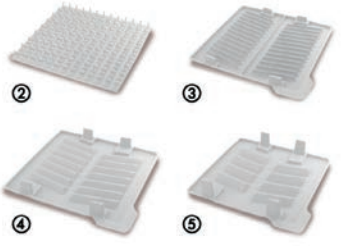
Model 3D basic
Tilt angle and speed are fixed.

Type	Art. No.	Pack Qty.	€
Rocker 3D basic	**XT52.1**	1 unit(s)	937,00

Model 3D digital

- With digital speed and time display
- Manually adjustable tilt angle

Type	Art. No.	Pack Qty.	€
Rocker 3D digital	**XT53.1**	1 unit(s)	991,00



Accessories attachment for shaker Rocker series

IKA.

Pic.	Designation	Art. No.	Pack Qty.	€
(2)	Studded mat for tubes	**CHH3.1**	1 unit(s)	24,00
(3)	Attachment for 28 x 5 ml (Ø 12 mm) sample tubes	**XT48.1**	1 unit(s)	38,00
(4)	Attachment for 16 x 15 ml (Ø 16 mm) sample tubes	**XT49.1**	1 unit(s)	38,00
(5)	Attachment for 10 x 50 ml (Ø 28 mm) sample tubes	**XT50.1**	1 unit(s)	38,00

Accessories expansion tray for shaker Rocker series

IKA.

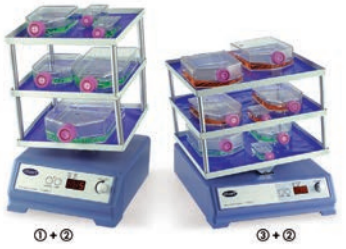
Further platform as 2nd. tier fixable to base tray. Please order desired attachment/mat separately.

Designation	Art. No.	Pack Qty.	€
Expansion tray for rocker series	**XT51.1**	1 unit(s)	69,00

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results



3D rocker shaker

Stuart.

With orbital 3D rocking motion. For DNA extraction, for dying and bleaching of gels, for particularly low foaming.

General information for all models:

- Soft rocking motion
- Digital LED display for speed and timer
- Manually adjustable tilt angle
- Optionally extendible to 3 tiers with additional platforms (see figure; please order separately)

Technical specifications:

Art. No.	AT53.1	EP82.1
Type	SSM3	SSL3
Movement type	circular 3D rocking movement	
Speed range	5 to 70 rpm	
Tilt angle	3–12 °	
Timer	0 to 999 min or continuous operation	
Shaking surface area	235 x 235 mm	335 x 335 mm
W x D x H	240 x 300 x 165 mm	360 x 420 x 170 mm
Loading capacity	3 kg	10 kg
Permissible ambient conditions	4 to 40 °C at 80 % RH	
Weight	5 kg	10 kg
Mains connection	230 V, 50/60 Hz	

Delivery incl. 1 platform with integrated anti-slip mat.

(1) Model SSM3

- Mini platform for low number of samples
- Shaking area W 235 x D 235 mm
- Space-saving design

Type	Art. No.	Pack Qty.	€
SSM3	**AT53.1**	1 unit(s)	1.041,00

(3) Model SSL3

- Large platform to accommodate numerous samples
- Shaking area W 335 x D 335 mm

Type	Art. No.	Pack Qty.	€
SSL3	**EP82.1**	1 unit(s)	1.420,00

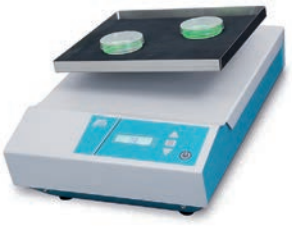
Accessories attachment system for 3D rocker shaker

Stuart.

Delivery incl. 8 fastening rods.

(2) For 3D mini rocke shakers
With two additional platforms as 2nd and 3rd floor. Quick to assemble without tools.

Designation	Art. No.	Pack Qty.	€
for SSM3	**AT54.1**	1 unit(s)	270,00
for SSL3	**EP83.1**	1 unit(s)	344,00



3D rocker shaker TL 2

Edmund Bühler.

Powder-coated metal housing. With slow three-dimensional movement for even, gentle mixing. For homogeneous mixing in culture bottles and Petri dishes or flasks. Ideal e.g. for breeding cell cultures and DNA extractions. LED display for setting the speed and operating time.

Technical specifications:

Art. No.	HYK4.1
Type	TL 2 3D rocker shaker
Movement type	circular 3D rocking movement
Speed	1–22 rpm
Speed display	LED
Timer	0 to 99 h, 59 min or continuous operation
Shaking surface area	220 x 220 mm
W x D x H	250 x 415 x 118 mm
Loading capacity	2 kg
Permissible ambient conditions	5 to 45 °C at 85 % RH
Weight	9,1 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. basic unit, including vibration plate with rubber anti-slip mat.

Type	Art. No.	Pack Qty.	€
TL 2 3D rocker shaker	**HYK4.1**	1 unit(s)	1.953,30

Accessories expansion tray for TL 2 3D rocking shaker

Edmund Bühler.

Can be expanded with an additional platform as a second level. Height 80 mm.

Delivery incl. finely scored rubber mat.

Designation	Art. No.	Pack Qty.	€
Expansion tray for TL 2 3D laboratory rocking shaker	**HYK5.1**	1 unit(s)	137,60

Rotator Tube revolver for sample tubes

Thermo.

For mixing samples in test tubes.

- With LED speed display
- Turntable can be positioned at any angle (exception: turntable for 50 ml centrifuge tubes can only be positioned horizontally or vertically)
- Turntable are easy to replace
- Overhead mixing function with activateable agitation mode (additional shaking every 40° during every second rotation cycle)
- Max. 4 turntables can be attached at once (exception: only 1 turntable can be attached for 50 ml centrifuge tubes)

Technical specifications:

Art. No.	ATX1.1
Type	Tube revolver
Speed range	10 to 40 rpm
W x D x H, external	225 x 154 x 195 mm
Permissible ambient conditions	4 to 60 °C at 80 % rel. humidity
Weight	1.2 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 2 turntables for 7 centrifuge tubes 15 ml, 2 turntables for 7 blood collection tubes 5/7 ml, 2 turntables for 15 reaction vials 1.5/2.0 ml, 2 turntables for 21 reaction vials 0.5/0.8 ml and 1 turntable for 6 centrifuge tubes 50 ml.

Type	Art. No.	Pack Qty.	€
Tube revolver	**ATX1.1**	1 unit(s)	400,00

Accessories turntables for rotator tube revolvers

Thermo.

Designation	Art. No.	Pack Qty.	€
7 centrifuge tubes 15 ml (Ø 16-17 mm)	**ATX2.1**	2 unit(s)	11,70
7 blood collection vials 5/7 ml (Ø 12-13 mm)	**ATX3.1**	2 unit(s)	11,70
15 reaction vials 1.5/2.0 ml (Ø 10-11 mm)	**ATX4.1**	2 unit(s)	11,70
21 reaction vials 0.5/0.8 ml (Ø 7.5-8.5 mm)	**ATX5.1**	2 unit(s)	11,70
6 reaction vials 50 ml (Ø 28-29 mm)	**ATX6.1**	1 unit(s)	17,40

Overhead mixers, rotators

Rotator Revolver mixer for test and sample tubes

Labnet International.

For a variety of mixing tasks in microbiology, biochemistry and histochemistry.

- Sample containers can be positioned horizontally and vertically, as well as in any inner e position
- Both halves of the particular rotary module can be arranged separately
- With fixed speed of 20 rpm
- Gentle vertical mixing for applications such as hybridisation (rolling mixing motion); vertically positioned tubes for overhead mixing of blood sample tubes for example
- Rotary module halves can be fixed without tools

Technical specifications:

Art. No.	PP49.1
Type	Revolver mixer
Speed	20 rpm
W x D x H, external	239 x 127 x 225 mm
Permissible ambient conditions	4 to 65 °C at 80 % rel. humidity
Weight	2 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. rotary module for 36 reaction vials 1.5/2.0 ml. Additionally desired rotary modules, please order separately.

Type	Art. No.	Pack Qty.	€
Revolver mixer	**PP49.1**	1 unit(s)	504,20

Accessories turntables for rotator revolver mixer

Labnet International.

Designation	Art. No.	Pack Qty.	€
10 centrifuge tubes 15 ml and 16 for blood sample tubes 5/7 ml	**PP50.1**	1 unit(s)	64,40
6 centrifuge tubes 50 ml	**PP51.1**	1 unit(s)	62,25

Overhead rotor RS-RR 5

Phönix Instrument.

With soft rotating overhead mixing function for reaction vials and other test tubes / centrifuge vials.

- Analogue variable speed adjustment
- Adjustable screw feet
- Max. load:
  34 reaction vials 1.5/2.0 ml
  22 centrifuge tubes 15 ml
  16 centrifuge tubes 50 ml

Technical specifications:

Art. No.	CHA4.1
Type	RS-RR 5
Speed range	0 to 80 rpm
W x D x H, external	530 x 150 x 190 mm
Weight	1.7 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 36 clips (12 clips each for reaction tubes 1.5/2.0 ml and 12 clips each for centrifuge tubes 15/50 ml).

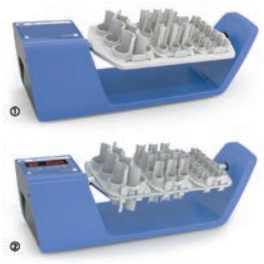
Type	Art. No.	Pack Qty.	€
RS-RR 5	**CHA4.1**	1 unit(s)	517,10

Accessories fastening clip for rotator RS-RR 5

Phönix Instrument.

Designation	Art. No.	Pack Qty.	€
Reaction vessels 1,5/2,0 ml (Ø 11 mm)	**CHA1.1**	12 unit(s)	24,65
Centrifuge tubes 15 ml (Ø 17 mm)	**CHA2.1**	12 unit(s)	24,65
Centrifuge tubes 50 ml (Ø 29 mm)	**CHA3.1**	12 unit(s)	24,65

Overhead mixers, rotators



Overhead mixer Trayster series

IKA.

For a wide variety of mixing tasks in microbiology. For blending samples in reaction vials, sample tubes and blood vials. Suitable for separation and mixing of powdery and liquid samples. With soft rotating overhead mixing function.

Technical specifications:

Art. No.	ANE5.1	ANE6.1
Type	Trayster basic	Trayster digital
Speed range		5 to 80 rpm
Speed	20 rpm	
Speed display		LED
Timer		1 s to 99 h or continuous operation
Timer display		LED
W x D x H, external	460 x 160 x 150 mm	
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity	
Weight	1.7 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. standard tray to accommodate at total of 3 inserts. Without inserts, please order separately.

Basic model

With fixed speed

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Trayster basic	**ANE5.1**	1 unit(s)	881,00

Model Digital

With infinitely adjustable speed and timer function

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Trayster digital	**ANE6.1**	1 unit(s)	937,00

Accessories inserts for standard tray Trayster series

IKA.

Designation	Art. No.	Pack Qty.	€
24 reaction vessels 1.5/2.0 ml (Ø 11 mm)	**ANE7.1**	1 unit(s)	45,00
12 centrifuge tubes 15 ml (Ø 17 mm)	**ANE9.1**	1 unit(s)	45,00
6 centrifuge tubes 50 ml (Ø 29 mm)	**ANH0.1**	1 unit(s)	45,00
24 test tubes 5 ml (Ø 12 mm)	**ANE8.1**	1 unit(s)	45,00

Rotator RS-RD 5

Phönix Instrument.

For soft and gentle mixing of samples in various tubes/vials.

- Analogue variable speed adjustment
- Adjustable screw feet
- Fixed 90° rotation angle

- Max. loading options:
  48 reaction vials 1.5/2.0 ml
  8 centrifuge tubes 15 ml
  8 centrifuge tubes 50 ml

Technical specifications:

Art. No.	CHA0.1
Type	RS-RD 5
Speed range	0 to 80 rpm
W x D x H, external	220 x 300 x 310 mm
Weight	2 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 36 clips (12 clips each for reaction tubes 1.5/2.0 ml and 12 clips each for centrifuge tubes 15/50 ml).

Type	Art. No.	Pack Qty.	€
RS-RD 5	**CHA0.1**	1 unit(s)	514,95

Accessories fastening clip for rotator RS-RR 5

Phönix Instrument.

Designation	Art. No.	Pack Qty.	€
Reaction vessels 1,5/2,0 ml (Ø 11 mm)	**CHA1.1**	12 unit(s)	24,65
Centrifuge tubes 15 ml (Ø 17 mm)	**CHA2.1**	12 unit(s)	24,65
Centrifuge tubes 50 ml (Ø 29 mm)	**CHA3.1**	12 unit(s)	24,65

Overhead mixers, rotators

Rotator Loopster series

IKA.

Suitable for soft separation and mixing of powdery and liquid samples. Freely adjustable rotary angle (0 to 90°). Different attachments enable units to be used for a variety of applications.

Technical specifications:

Art. No.	ANH1.1	ANH2.1
Type	Loopster basic	Loopster digital
Speed range		5 to 80 rpm
Speed	20 rpm	
Speed display		LED
Timer		1 s to 99 h or continuous operation
Timer display		LED
W x D x H, external	300 x 300 x 360 mm	
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity	
Weight	3 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery without turntables. Please order required turntable separately.

Basic model
With fixed set speed.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Loopster basic	**ANH1.1**	1 unit(s)	793,00

Model Digital
With infinitely adjustable speed, digital timer function and speed display.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Loopster digital	**ANH2.1**	1 unit(s)	851,00

Accessories standard turntable for Rotator Loopster series

IKA.

Designation	Art. No.	Pack Qty.	€
48 reaction vessels 1.5/2.0 ml (Ø 11 mm)	**ANH3.1**	1 unit(s)	206,00
24 test tubes 5 ml (Ø 12 mm)	**ANH4.1**	1 unit(s)	147,00
20 centrifuge tubes 15 ml (Ø 17 mm)	**ANH5.1**	1 unit(s)	147,00
12 test tubes 30 ml (Ø 25 mm)	**ANH6.1**	1 unit(s)	147,00
12 centrifuge tubes 50 ml (Ø 29 mm)	**ANH7.1**	1 unit(s)	147,00

Accessories universal turntable for rotator Loopster series

IKA.

Individually configurable. Fastening clips are required for attaching test tubes. Please order separately.
Max. loading options:
36 reaction vials 1.5/2.0 ml
24 sample tubes 5 ml (Ø 12 mm)
12 centrifuge tubes 15 ml
8 sample tubes 30 ml (Ø 15 mm)l
8 centrifuge tubes 50 ml

Designation	Art. No.	Pack Qty.	€
Universal turntable	**ANH8.1**	1 unit(s)	126,00

Accessories fastening clip for universal turntables

IKA.

Designation	Art. No.	Pack Qty.	€
Reaction vials 1.5/2.0 ml (Ø 11 mm)	**ANH9.1**	12 unit(s)	38,00
Sample tubes 5 ml (Ø 12 mm)	**ANK0.1**	12 unit(s)	38,00
Centrifuge tubes 15 ml (Ø 17 mm)	**ANK1.1**	12 unit(s)	38,00
Sample tubes 30 ml (Ø 25 mm)	**ANK2.1**	12 unit(s)	38,00
Centrifuge tubes 50 ml (Ø 29 mm)	**ANK3.1**	12 unit(s)	38,00

Rotator SB series

Stuart.

For gentle blending of samples, such as culture tubes, blood vials and reaction vials, for example.

- Turntables available for different vessels
- Freely adjustable angle of rotation

Technical specifications:

Art. No.	Y549.1	Y550.1
Type	SB 2	SB 3
Speed range		2 to 40 rpm
Speed	20 rpm	
Speed display		digital
Timer		1 to 999 min
W x D x H, external	200 x 270 x 240 mm	
Permissible ambient conditions	4 to 60 °C at 80 % rel. humidity	
Weight	3.2 kg	
Mains connection	230 V, 50 Hz	

Delivery incl. basic unit without turntable.
Please order required turntables separately.

Model SB 2
With fixed set speed

Type	Art. No.	Pack Qty.	€
SB 2	**Y549.1**	1 unit(s)	509,00

Model SB 3
With variable speed control, digital speed display and timer function

Type	Art. No.	Pack Qty.	€
SB 3	**Y550.1**	1 unit(s)	741,00

Accessories turntables for rotators SB 2 and SB 3

Stuart.

Designation	Art. No.	Pack Qty.	€
40 reaction vials 1,5/2,0 ml	**Y551.1**	1 unit(s)	256,00
20 sample vials Ø 9-20 mm	**Y552.1**	1 unit(s)	256,00
12 centrifuge tubes 50 ml	**Y553.1**	1 unit(s)	256,00
63 culture tubes Ø 12 mm	**Y554.1**	1 unit(s)	340,00
63 culture tubes Ø 16 mm	**Y555.1**	1 unit(s)	278,00

Accessories double holder for 2 turntables

Stuart.

Allows the simultaneous use of 2 turntables.
Please order required turntable separately.

Designation	Art. No.	Pack Qty.	€
Double holder	**XK80.1**	1 unit(s)	126,65

Rotator Genie®

Scientific Industries.

Overhead rotator for mixing specimens in reaction vials, culture tubes, test tubes etc.

- Easy, tool-free platform replacement
- The platforms can be loaded from both sides (assuming they are loaded evenly)

Technical specifications:

Art. No.	PH63.1	PH64.1
Type	With standard platform	With magnetic platform
Speed range	5 to 35 rpm	
Shaking surface area	260 x 260 mm	292 x 292 mm
W x D x H, external	400 x 290 x 400 mm	
Weight	5.2 kg	
Mains connection	230 V, 50/60 Hz	

Model with standard platform
(1) with rubber bands for versatile fastening of a variety of vials and tubes with max. diameter from 85 mm. Fastening clamps in the middle of the platform to adjust the length of the bands.

(2) The standard platform attaches variably to the mixer at an angle of 90°. Various mixing actions are possible thanks to the flexible attachment system and different tube placements.

Delivery incl. 8 rubber bands.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	With standard platform	**PH63.1**	1 unit(s)	1.047,05

(3) Model with magnetic platform
Mounts for tubes and other specimens can be attached to the magnetic plate (please order mounts separately).

Pic.	Type	Art. No.	Pack Qty.	€
(3)	With magnetic platform	**PH64.1**	1 unit(s)	1.085,75

Accessories additional platforms for Rotator Genie®

Scientific Industries.

Designation	Art. No.	Pack Qty.	€
Standard platform with 8 rubber straps	**PH65.1**	1 unit(s)	222,55
Magnetic platform	**PH66.1**	1 unit(s)	260,15

Accessories for Rotator Genie®, Roto-Shake Genie® and Enviro-Genie®

Scientific Industries.

Designation	Art. No.	Pack Qty.	€
Holder with 12 clips for tubes-Ø from 10 to 13 mm	**P519.1**	6 unit(s)	217,15
Holder with 6 clips for tubes-Ø from 15 to 17 mm	**P520.1**	6 unit(s)	217,15
Holder with 3 clips for tubes-Ø from 28 to 30 mm	**P521.1**	6 unit(s)	217,15
Magnetic strip for bags, 75 x 75 mm	**P522.1**	16 unit(s)	94,60

Rotators with accessories

Multifunction mixer Genie® Roto-Shake

Scientific Industries.

The universally applicable shaker with rocking, rotational and shaking motion. Depending on the positioning
of the vials, different mixing movements can be attained: rotating, tilting/shaking, tilting/rotating, tilting/rolling, rotating/rolling as well as a combination of these movements. The moving part consists of a double-sided, magnetic stainless steel plate 34 x 20 cm.
Easy to operate, **change-over from rotating to tilting movement as with a single hand movement.** Holders for vials with a diameter of 10 to 13 mm, 15 to 17 mm, or 28 to 30 mm or magnetic strips for holding the bags 75 x 75 mm can be placed on the magnetic plates.

Technical specifications:

Art. No.	P518.1
Type	Roto-Shake Genie®
Rotating	5 - 35 rpm
Tilting	10 to 70 cycles per min
Vibrating angle	±10 °
Shaking surface area	340 x 200 mm
W x D x H, external	508 x 252 x 267 mm
Permissible ambient conditions	0 to 38 °C at 85% RH
Weight	11.8 kg

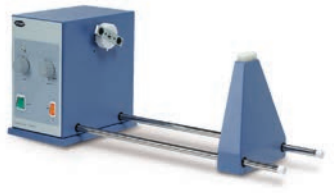
Delivery incl. 1 multifunction mixer Roto-Shake Genie®, 1 holder with 12 clips for tubes-Ø 10 to 13 mm, 1 holder with 6 clips for tubes-Ø 15 to 17 mm, 1 holder with 3 clips for tubes-Ø 28 to 30 mm, 4 magnetic strips for 2 bags 75 x 75 mm, 1 shaker platform (203 x 305 mm) with anti-slip mat for Petri dishes, etc.

Type	Art. No.	Pack Qty.	€
Roto-Shake Genie®	**P518.1**	1 unit(s)	1.539,40

Accessories for Rotator Genie®, Roto-Shake Genie® and Enviro-Genie®

Scientific Industries.

Designation	Art. No.	Pack Qty.	€
Holder with 12 clips for tubes-Ø from 10 to 13 mm	**P519.1**	6 unit(s)	217,15
Holder with 6 clips for tubes-Ø from 15 to 17 mm	**P520.1**	6 unit(s)	217,15
Holder with 3 clips for tubes-Ø from 28 to 30 mm	**P521.1**	6 unit(s)	217,15
Magnetic strip for bags, 75 x 75 mm	**P522.1**	16 unit(s)	94,60



Rotator STR 4

Stuart.

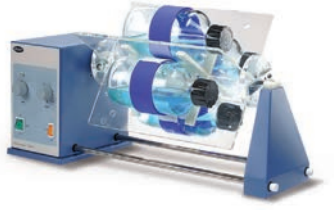
Supplied with various rotary modules for different applications.

Technical specifications:

Art. No.	X466.1
Type	STR 4
Rotation speed	6–60 rpm
Timer	10 to 60 min or continuous operation
W x D x H, external	650 x 250 x 250 mm
Weight	6.4 kg
Mains connection	230 V, 50 Hz

Delivery incl. basic unit without rotary module. Please order rotary module separately.

Type	Art. No.	Pack Qty.	€
STR 4	**X466.1**	1 unit(s)	1.431,00



Accessories rotary module for containers for rotator STR4

Stuart.

For fastening 4 containers (bottles, cans) with an adjustable velcro-fastener belts.

- With 4-fold partitioned holders made of acrylic glass.
- Maximum container dimensions: length 300 mm, Ø 120 mm
- Maximum load: 5000 g

Designation	Art. No.	Pack Qty.	€
Container rotary module	**X472.1**	1 unit(s)	531,00

Rotators with accessories

Accessories sample tubes rotary module for rotator STR4

Stuart.

Four different clip holders can be attached to the clip-holders.

Delivery incl. rotary module without clip holders, please order separately.

Designation	Art. No.	Pack Qty.	€
Rotary module for sample tubes	**X467.1**	1 unit(s)	476,00

Accessories clip holder for samples tubes rotary module

Stuart.

Designation	Art. No.	Pack Qty.	€
For 12 tubes Ø 12 mm	**X468.1**	1 pair	197,00
For 10 tubes Ø 16 mm	**X469.1**	1 pair	186,00
For 8 tubes Ø 19 mm	**X470.1**	1 pair	166,00
For 7 tubes Ø 24 mm	**X471.1**	1 pair	186,00

Accessories rotary module for reaction vials for rotator STR4

Stuart.

Comprises 4 racks each for 60 x 15 ml reaction vials.

Designation	Art. No.	Pack Qty.	€
Rotary module for reaction vials	**X473.1**	1 unit(s)	1.059,00

Multifunction mixer Enviro Genie® temperature-controllable

Scientific Industries.

Mixing, stirring and tempering units for 5 different applications: **cooling – incubating – rotating – tilting/shaking – stirring**

- Easy-to-read digital display
- With large window for viewing the samples
- **Change-over from rotating to tilting movement as with a single hand movement**
- Holders for vials and other vessels, e.g. for blood and sample vials, centrifuge tubes, tissue culture bottles, staining vessels, sample bags can be placed on the magnetic platform
- **Temperature range adjustable from +4 to +75 °C**
- Visual and acoustic alarm for temperature and time
- Programmable timer function (up to 96 mins)
- **Two magnetic stirrers are integrated in the incubator**, reverse mode is possible. Max. stirring quantity per platform: 1 litre. Platform-Ø: 90 mm each.
- RS 232 port

Technical specifications:

Art. No.	AH71.1
Type	Enviro-Genie®
Rotating	1–35 rpm
Tilting	2–70 cycles per min
Stirring	1–2000 rpm
Temperature range	+4 to +75 °C
Resolution	0,1 °C
Accuracy	±0,2 °C
W x D x H, interior	362 x 254 x 260 mm
W x D x H, external	622 x 495 x 368 mm
Vol.	24 l
Loading capacity	4.5 kg
Weight	36 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. 1 multifunction mixer Enviro-Genie®, 1 double-sided magnetic platform (200 x 340 mm), 1 holder with 12 clips for tubes-Ø 10 bis 13 mm, 1 holder with 6 clips for tubes-Ø 15 bis 17 mm, 1 holder with 3 clips for tubes-Ø 29 bis 32 mm, 4 magnetic strips for 2 bags 15.3 x 15,3 cm, 1 wire rack, 1 shaking tray (203 x 305 mm).

Type	Art. No.	Pack Qty.	€
Enviro-Genie®	**AH71.1**	1 unit(s)	7.529,30

Rotators with accessories

Overhead mixer REAX 2

Heidolph.

Can be used for a variety of applications. With electronically controlled rotational speed. Two different holder can be connected. **Holder 1** for mixing up to 20 test tubes Ø 10-18 mm, please order separately.

Technical specifications:

Art. No.	**H827.1**
Type	REAX 2
Speed range	20 to 100 rpm
W x D x H, external	510 x 180 x 235 mm
IP rating	21
Permissible ambient conditions	0 to 40 °C at 80% RH
Weight	5.2 kg
Mains connection	230 V, 50 Hz

Delivery incl. universal holder to fasten sealed vessels or test tube racks. Infinitely adjustable height between 45 and 160 mm.

Type	Art. No.	Pack Qty.	€
REAX 2	**H827.1**	1 unit(s)	1.437,00

Accessories holder 1 for overhead mixer REAX 2

Heidolph.

For fasting up to 20 test tubes with Ø 10-18 mm.

Designation	Art. No.	Pack Qty.	€
Holder 1	**H828.1**	1 unit(s)	328,00

Overhead mixer REAX 20 series

Heidolph.

Enables overhead rotation of vessels of different sizes and properties. Suitable for mixing cylinders and wide neck bottles with a length of 160 to 270 mm and diameter up to 136 mm. Ideal for water, sewage water and mud analysis in accordance with DIN 36414. Infinitely adjustable speed range.

Technical specifications:

Art. No.	**KH64.1**	**H830.1**	**KH65.1**
Type	REAX 20/4	REAX 20/8	REAX 20/12
Intake capacity	4 bottle(s)	8 bottle(s)	12 bottle(s)
Speed range	1 to 16 rpm		
W x D x H, external	490 x 520 x 465 mm	770 x 520 x 465 mm	1050 x 520 x 465 mm
Permissible ambient conditions	0 to 40 °C at 80 % RH		
Weight	23 kg	28 kg	33 kg
Mains connection	230 V, 50 Hz		

Delivery incl. holder for 2 l bottles.

Type	Intake capacity (bottle(s))	Art. No.	Pack Qty.	€
REAX 20/4	4	**KH64.1**	1 unit(s)	2.951,00
REAX 20/8	8	**H830.1**	1 unit(s)	3.319,00
REAX 20/12	12	**KH65.1**	1 unit(s)	3.776,00

Accessories fastening set for overhead mixer REAX 20 series

Heidolph.

Designation	Art. No.	Pack Qty.	€
Fastening set for 4 x 1.0 bottles	**KH66.1**	1 set	55,00
Fastening set for 4 x 0.5 l bottles	**KH67.1**	1 set	77,00

Microlitre centrifuges

Mini centrifuge ROTILABO®

Carl ROTH.

With insert for **6 reaction vials** 1.5/2.0 ml. Maximum speed **6000 min**$^{-1}$ (equivalent to 2000 x g). **Small, compact and powerful. Start and stop** is controlled via an **additional switch**.
With transparent polycarbonate lid. The centrifuge is delivered with adapter for 0.5 ml reaction vials. Dimensions: H 120 x W 130 x D 150 mm. Weight 494 g. power connection 220 V, 50/60 Hz.

Delivery incl. adapter for 0.5 ml reaction vials.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Mini-centrifuge with standard rotor	**T464.1**	1 unit(s)	229,00

Mini centrifuge ROTILABO® with butterfly rotor

Carl ROTH.

With insert for PCR vessel strips from 2 x 8 reaction vials à 200 µl per strip. Maximum speed **6000 rpm** (equivalent to 2000 x g). **Small, compact and powerful. Start and stop** is controlled via an **additional switch**. With transparent polycarbonate lid. Dimensions: H 120 x W 130 x D 150 mm. Weight 494 g. power connection 220 V, 50/60 Hz.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Mini centrifuge with butterfly rotor	**T465.1**	1 unit(s)	239,75

Mini centrifuge with Rotor slides

Labnet International.

For fast slide drying, e.gB. for microarray examinations. Suitable for microarray slides 25 x 76 x 1 mm. Dries microarray substrate in less than 10 s.

- Rotor capacity: 2 slides
- Liquid is retained in the slide cassettes
- Cassettes can be removed for cleaning or replaced when necessary
- Max. speed 4,000 rpm (500 to 850 x g)
- Space-saving, compact unit (Ø 127 mm)

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Mini centrifuge	**AH48.1**	1 unit(s)	643,95

Mini centrifuge ROTILABO® Uni-fuge

Carl ROTH.

- Replaceable rotor system (effortless insertion and removal of the rotors included in delivery)
- **Start and stop is controlled via an additional switch**
- Small, compact and powerful
- With transparent PC lid

Technical specifications:

Art. No.	**CX73.1**
Type	Uni-Fuge
Max. capacity	6 x 1.5/2.0 ml reaction vials
Max. speed (in microlitre rotor)	6,000 rpm
Maximum RCF	2000 x g
W x D x H	130 x 150 x 120 mm
Weight	494 g
Mains connection	220 V, 50/60 Hz

Delivery incl. standard rotor for reaction vials 6 x 1.5/2.0 ml, adapter for reaction vials 0.5 ml and one rotor for PCR® vessel strips with 2 x 8 reaction vials à 200 µl per strip.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Uni-Fuge	**CX73.1**	1 unit(s)	239,75

Microlitre centrifuges

Mini centrifuge mini G

IKA.

- Max. capacity: 8 x 1.5/2.0 ml reaction vials
- Rotor interchangeable without tools
- **Digital display for operating time (adjustable from 1 to 99 min)**

Technical specifications:

Art. No.	XT15.1
Type	mini G
Max. capacity	8 x 1.5/2.0 ml reaction vials
Max. speed (in microlitre rotor)	6,000 rpm
Maximum RCF	2000 x g
W x D x H	155 x 175 x 105 mm
Mains connection	230 V, 50/60 Hz

Delivery incl. standard rotor for reaction vials 8 x 1.5/2.0 ml and one rotor for PCR® vessel strips with 4 x 8 reaction vials à 200 µl per strip and adapters for reaction vials 0.5/0.4/0.2 ml.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
mini G	**XT15.1**	1 unit(s)	335,00

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

NEW / +

Mini centrifuge Sprout® Plus

Heathrow Scientific.

- Max. capacity: 6 x 1.5/2.0 ml reaction vials
- Rotor can be replaced without tools
- Power button for start/stop
- ABS housing
- Five-year warranty

Technical specifications:

Art. No.	1HAC.1	1HAE.1
Type	Green Sprout	Blue Sprout
Max. capacity	6 x 1.5/2.0 ml reaction vials	
Maximum speed	6,000 rpm	
Maximum RCF	2000 x g	
W x D x H	109 x 153 x 128 mm	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. standard rotor for 6 x 1.5/2.0 ml reaction vials, rotor for PCR® tube strips with 2 x 8 reaction vials of 200 µl per strip, adapters for 0.5/0.2 ml reaction vials, rotor storage box and reaction vial stands with 16 slots.

Not a medical device / Not an IVD product

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Green Sprout	**1HAC.1**	1 unit(s)	276,30
(2)	Blue Sprout	**1HAE.1**	1 unit(s)	276,30

Microlitre centrifuges

Microlitre centrifuge ROTILABO® Gusto®

ROTH SELECTION.

- Max. capacity: 12 x 1.5/2.0 ml reaction vials
- Digital display of speed and running time
- Actual status display during operation
- Pulse button for short spin
- Optional display of rpm or x g
- Rotor changing without tools
- 5 years warranty

Technical specifications:

Art. No.	**XP51.1**
Type	Gusto®
Max. capacity	12 x 1.5/2.0 ml reaction vials
Max. speed (in microlitre rotor)	12,500 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	9800 x g
Minimum speed	500 rpm
Timer function	1 s to 30 min, adjustable in increments of 1 s per short cycle
W x D x H	171 x 203 x 114 mm
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 12-place microlitre rotor with lid, PCR® tube strip rotor for 4 x 8 tube strips à 200 µl per strip and 12 adaptors for 0.5 and 0.2 ml reaction vials.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Gusto®	**XP51.1**	1 unit(s)	778,30

Microlitre centrifuge MagFuge® with magnetic stirrer

Heathrow Scientific.

2-in-1 centrifuge. For twelve 1.5/2.0 ml reaction vials or for six 5 ml reaction vials, with integrated magnetic stirrer for stirring capacities up to max. 3 l.

- Digital display of speed and running time
- With imbalance switch-off and safety cover lock
- Magnetic stirrer rotor can be set to rotate clockwise or anti-clockwise
- Rotor changing without tools
- 5 years warranty

Technical specifications:

Art. No.	**KHC9.1**
Type	MagFuge®
Max. capacity	12 x 1.5/2.0 ml reaction vials or 6 x 5 ml reaction vials
Maximum speed	12,500 rpm
Additional data	Speed adjustable in increments of 25 rpm
Maximum RCF	9783 x g
Minimum speed	500 rpm
Timer function	30 sec to 60 min in 5 sec increments
W x D x H	180 x 235 x 120 mm
Weight	1,85 g
Mains connection	100–240 V, 50/60 Hz

Magnetic stirrer technical specifications:

Max. stirring capacity (H_2O)	3 l
Speed	50 to 2500 min^{-1}
Magnetic stirrer plate	Ø 130 mm
Magnetic stirrer operating time	30 sec to 60 min in 5 sec increments or continuous operation

Delivery incl. microlitre rotor for 12 x 1.5/2.0 ml reaction vials, rotor for 6 x 5 ml reaction vials, rotor for magnetic stirrer function, 12 adapters for 0.2/0.5 ml reaction vials, 2 x silicone mats for the magnetic stirrer rotor, 2 x magnetic bars (L 40 x Ø 12).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
MagFuge®	**KHC9.1**	1 unit(s)	918,05

Microlitre centrifuges

Microlitre centrifuge CD-2012 high speed

Phönix Instrument.

Features:

- Max. capacity: 12 x 1.5/2.0 ml reaction vials
- Illuminated display of speed and running time
- Optional display of rpm or x g
- Impulse button for short spinning of samples

Technical specifications:

Art. No.	HEA7.1
Type	CD-2012 high speed
Max. speed (in microlitre rotor)	15,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	15100 x g
Minimum speed	500 rpm
Timer function	30 s to 99 min, adjustable in steps of 1 s / continuous operation / short cycle
W x D x H	260 x 140 x 250 mm
Weight	6 kg
Mains connection	100–240 V, 50/60 Hz

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
CD-2012 high speed	**HEA7.1**	1 unit(s)	876,15

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Microlitre centrifuge G-L

IKA.

- Max. capacity 12 x 1.5/2.0 ml reaction vials
- Display of speed and operating time
- Optional display of rpm or x g
- Nine programme memory locations
- Tool-free rotor replacement
- Unbalance sensor, quick stop

Technical specifications:

Art. No.	KEE7.1
Type	Microlitre centrifuge G-L
Max. speed (in microlitre rotor)	15,700 rpm
Additional data	Adjustable in increments of 100
Maximum RCF	16 500 x g
Minimum speed	800 rpm
Timer function	20 s to 99 min/short cycle (pulse key)
W x D x H	200 x 280 x 140 mm
Weight	3,9 kg
Mains connection	220–230 V, 50/60 Hz

Delivery incl. metal rotor with lid for 12 x 1.5/2.0 ml vials.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Microlitre centrifuge G-L	**KEE7.1**	1 unit(s)	999,00

Accessories for microlitre centrifuge G-L

IKA.

Rotor and lid for 2 x 8 PCR strips suitable for microlitre centrifuge G-L

Designation	Art. No.	Pack Qty.	€
Rotor and lid for 2 x 8 PCR strips à 200 µl per strip	**KEE8.1**	1 unit(s)	213,00

Adaptor sleeves for 0.5 ml reaction vials suitable for microlitre centrifuge G-L

Designation	Art. No.	Pack Qty.	€
Adaptor sleeves for 0.5 ml reaction vials	**KEE9.1**	6 unit(s)	9,70

Adaptor sleeves for 0.2 ml reaction vials suitable for microlitre centrifuge G-L

Designation	Art. No.	Pack Qty.	€
Adaptor sleeves for 0.2 ml reaction vials	**KEH0.1**	6 unit(s)	9,70

Microlitre centrifuges

Microlitre centrifuge MIKRO 185

Hettich.

Sample preparation for molecular biological applications, as well as in the PCR laboratory and much more.

- Max. capacity 24 x 1.5/2.0 ml reaction vials
- Adjustment of centrifuging time, rpm or RCF by means of membrane keyboard

Technical specifications:

Art. No.	**ANP9.1**
Type	MIKRO 185
Max. capacity	24 x 1.5/2.0 ml reaction vials
Max. speed (in microlitre rotor)	14,000 rpm
Additional data	Speed can be adjusted in increments of 10 rpm
Maximum RCF	18845 x g
Minimum speed	500 rpm
Timer function	1 to 99 min / continuous duty / short cycle (pulse key)
W x D x H	261 x 353 x 228 mm
Weight	11 kg
Mains connection	200–240 V, 50/60 Hz

Delivery without microlitre rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
MIKRO 185	**ANP9.1**	1 unit(s)	1.342,70

Accessories microlitre rotor for centrifuge MIKRO 185

Hettich.

24-tube microlitre rotor (45°) type 1226

- For Reaction vials 24 x 1.5/2.0 ml
- Max. speed 14,000 rpm, max. RZB 18845 x g

Delivery incl. lid with bio-seal, phenol-resistant and autoclavable.

Designation	Art. No.	Pack Qty.	€
24-fold microlitre rotor type 1226	**ANT0.1**	1 unit(s)	358,00

12-tube microlitre rotor (45°) type 1252

- For Reaction vials 12 x 1.5/2.0 ml
- Max. speed 14,000 rpm, max. RZB 15558 x g

Delivery incl. lid.

Designation	Art. No.	Pack Qty.	€
12-fold microlitre rotor type 1252	**ANT1.1**	1 unit(s)	281,65

18-tube microlitre rotor (45°) for Spin Column Kits type 1213

- For Mikro Spin Column Kits 18 x 1.5/2.0 ml (micro vials with filter insert)
- Max. speed 14,000 rpm, max. RZB 16654 x g

Delivery incl. lid type 1246 with bio-seal.

Designation	Art. No.	Pack Qty.	€
18-fold microlitre rotor type 1213	**ANT2.1**	1 unit(s)	488,05

Microlitre centrifuges

NEW / +

Microlitre centrifuge CD-3124R cooled

Phönix Instrument.

- **Max. capacity: 24 x 1.5/2.0 ml reaction vials**
- Continuously adjustable from -20 to +40 °C
- Pre-cooling system
- Nine programme memory locations
- Optional display of rpm or x g
- Selection of nine acceleration profiles and nine braking profiles
- Backlit LCD display
- Safety: Locking lid, speed monitoring system and overheating protection

Technical specifications:

Art. No.	**1H4H.1**
Type	CD-3124R
Max. capacity	24 x 1.5/2.0 ml reaction vials
Max. speed (in microlitre rotor)	15,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	21380 x g
Minimum speed	200 rpm
Timer function	30 s to 99 min./continuous operation/pulse key
W x D x H	340 x 560 x 290 mm
Temperature adjustment range	-20 - +40 °C
Weight	30 kg
Mains connection	220–240 V, 50 Hz

Not a medical device / Not an IVD product

Delivery incl. 24-fold microlitre rotor, 1.5/2.0 ml, made of aluminium and aerosol-tight lid.

Type	Art. No.	Pack Qty.	€
CD-3124R	**1H4H.1**	1 unit(s)	3.870,00

NEW / +

Accessories rotor for microlitre centrifuge CD-3124R

Phönix Instrument.

(1) 12-fold microlitre rotor for 5 ml reaction vials
Increases the number of separated nucleic acid samples. For 5 ml reaction vials with max. Ø 17.5 x H 63 mm.

Delivery incl. aerosol-tight lid.

Designation	Art. No.	Pack Qty.	€
12-fold microlitre rotor for 5 ml reaction vials	**1H4N.1**	1 unit(s)	297,80

(2) 36-fold angle rotor for 0.5 ml reaction vials
Increased throughput for smaller reaction vials.

Delivery incl. aerosol-tight lid.

Designation	Art. No.	Pack Qty.	€
36-fold angle rotor for 0.5 ml reaction vials	**1H4P.1**	1 unit(s)	297,80

(3) 4 x 8 PCR rotor tube strips, w. 200 µl p.strip
Centrifugation of PCR tube strips, max. 4 x 8 reaction vials with 200 µl per strip in one run.

Delivery incl. aerosol-tight lid.

Designation	Art. No.	Pack Qty.	€
4 x 8 PCR rotor tube strips, with 200 µl per strip	**1H4T.1**	1 unit(s)	661,15

Accessories adapter for microlitre centrifuge CD-2012 and CR-3124R

Phönix Instrument.

Designation	Art. No.	Pack Qty.	€
for reaction vials 0.2 ml	**HEA8.1**	24 unit(s)	52,70
for reaction vials 0.5 ml	**HEA9.1**	24 unit(s)	52,70

Microlitre centrifuges

Microlitre centrifuge

Thermo.

General information for all models:

- **Max. capacity: 24 x 1.5/2.0 ml reaction vials**
- Available as 17 000 x g- and 21 100 x g version
- Optional display of rpm or x g
- Speed increase in increments of 100
- Various sets available with different rotors, e.g. a two-row rotor for holding 18 x 1.5/2.0 ml and 18 x 0.5 ml reaction vials

Technical specifications:

Art. No.	HE09.1	HE10.1	HE11.1	HE12.1	HE13.1	HE14.1
Type	Pico® 17	Fresco® 17	Pico® 21	Fresco® 21	Pico® 21 set	Fresco® 21 set
Max. capacity	24 x 1.5/2.0 ml reaction vials					
Max. speed (in microlitre rotor)	13,300 rpm		14,800 rpm			
Additional data	Speed can be adjusted in increments of 100 rpm					
Maximum RCF	17000 x g		21100 x g			
Minimum speed	300 rpm					
Timer function	1 to 99 min / continuous operation / Quick Run					
W x D x H	225 x 352 x 243 mm	300 x 445 x 295 mm	243 x 352 x 243 mm	330 x 445 x 295 mm	225 x 352 x 243	330 x 445 x 295
Temperature adjustment range		-9 - +40 °C		-9 - +40 °C		-9 - +40 °C
Mains connection	230 V, 50/60 Hz					

In vitro diagnostic medical device according to IVDD

Standard - air-cooled or without cooling function

Delivery incl. 24 x 1.5/2.0 ml rotor with aerosol-tight ClickSeal lid.

Type	Art. No.	Pack Qty.	€
Pico® 17	**HE09.1**	1 unit(s)	1.997,00
Pico® 21	**HE11.1**	1 unit(s)	2.529,00

Cooling centrifuges

- Cooled microlitre centrifuge, adjustable in increments of 1 °C
- With standstill cooling

Delivery incl. 24 x 1.5/2.0 ml rotor with aerosol-tight ClickSeal lid.

Type	Art. No.	Pack Qty.	€
Fresco® 17	**HE10.1**	1 unit(s)	4.818,00
Fresco® 21	**HE12.1**	1 unit(s)	5.387,00

Sets with 2 rotors
Pico: Air-cooled or without cooling function
Fresco: with cooling function, adjustable in increments of 1 °C

Delivery incl. 24 x 1.5/2.0 ml rotor with aerosol-tight ClickSeal lid and two-tier 18 x 0.5 ml and 18 x 1.5/2.0 ml rotor with screw lid.

Type	Art. No.	Pack Qty.	€
Pico® 21 set	**HE13.1**	1 unit(s)	2.980,00
Fresco® 21 set	**HE14.1**	1 unit(s)	6.007,00

Accessories adapter sleeves for centrifuge Pico®, Fresco® and STR1/R Plus

Thermo.

Designation	Art. No.	Pack Qty.	€
Adapter sleeves for reaction vials 0.4 ml/0.25 ml	**X119.1**	24 unit(s)	187,00
Adaptor sleeves for 0.2 ml reaction vials	**X121.1**	24 unit(s)	186,00
Adaptor sleeves for 0.5 ml reaction vials	**X118.1**	24 unit(s)	186,00

Accessories microlitre rotor 10-fold for 5 ml reaction vials suitable for centrifuge Pico® and Fresco®

Thermo.

Designation	Art. No.	Pack Qty.	€
10-place microlitre rotor for 5 ml reaction tubes with aerosol-tight ClickSeal lid	**HAA9.1**	1 unit(s)	586,00

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com

All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Microlitre centrifuges

Microlitre centrifuge MIKRO series

Hettich.

General information for all models:

- **Max. capacity: 24 x 1.5/2.0 ml reaction vials**
- Motorised lid lock
- Parameter entry via foil keyboard
- Actual status display during operation
- Pulse button for short spin
- Open-lid button
- RZB button
- Safety: lid catch, emergency unlock, motor overheating protection and unbalance switch-off

Technical specifications:

Art. No.	AA69.1	AA70.1
Type	MIKRO 200 classic	MIKRO 200 R cooled
Max. capacity	24 x 1.5/2.0 ml reaction vials	
Max. speed (in microlitre rotor)	15,000 rpm	
Additional data	Speed can be adjusted in increments of 100 rpm	
Maximum RCF	21382 x g	
Minimum speed	500 rpm	
Timer function	1 to 99 min / permanent / brief operation	
W x D x H	275 x 344 x 260 mm	281 x 553 x 260 mm
Temperature adjustment range		-10 - +40 °C
Min. temperature at max. speed		+4 °C
Weight	11.5 kg	28.5 kg
Mains connection	220–240 V, 50/60 Hz	

Delivery without rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Model MIKRO 200 classic, non-cooled

Air-cooled or without cooling function:

Type	Art. No.	Pack Qty.	€
MIKRO 200 classic	**AA69.1**	1 unit(s)	1.961,90

Model MIKRO 200 R cooled

- With cooling functions
- Infinitely adjustable from -10 to +40 °C in increments of 1 °C
- Pre-cooling function (to +4 °C in 10 to 5 min
- Stand-by cooling maintains the desired temperature
- Automatic switch-off of cooling when the lid is opened or after a selectable time

Type	Art. No.	Pack Qty.	€
MIKRO 200 R cooled	**AA70.1**	1 unit(s)	4.783,75

Accessories for centrifuges MIKRO 200/200 R

Hettich.

Angle rotor for max. 24 reaction vials 1.5/2.0 ml
50°-angle.

Delivery incl. aerosol-tight lid (autoclavable).

Designation	Art. No.	Pack Qty.	€
Angle rotor for 24 x 1.5/2.0 ml	**AA71.1**	1 unit(s)	340,80

For centrifuges MIKRO 185 and MIKRO 200/200 R adapter sleeves

Designation	Art. No.	Pack Qty.	€
Adaptor sleeves for 0.2 ml reaction vials	**AA67.1**	6 unit(s)	11,30
Adaptor sleeves for 0.5 ml reaction vials	**Y059.1**	6 unit(s)	11,30

For centrifuges MIKRO 185 and MIKRO 200/200 R adapter sleeves for reaction vials 1.5 ml, conical
Positive reduction, recommended for high-speed centrifuging.

Designation	Art. No.	Pack Qty.	€
Adaptor sleeve, tapered, for 1.5 ml vials	**AA68.1**	6 unit(s)	13,45

Benchtop centrifuge MIKRO series

Hettich.

General information for all models:

- 9 braking and start-up ramps as well as unbraked run-out possible
- Memory capacity for 10 programs
- Automatic rotor detection
- Optional display of rpm or x g when entering the rotor radius
- Window for viewing in the lid
- Metal housing
- Safety features: Emergency unlocking device, motor overheating
- protection, unbalance switch-off

Technical specifications:

Art. No.	LE07.1	LE08.1
Type	MIKRO 220 classic	MIKRO 220 R cooled
Max. speed (in microlitre rotor)	18,000 rpm	
Additional data	Speed can be adjusted in increments of 10 rpm	
Maximum RCF	31514 x g	
Minimum speed	500 rpm	
Minimum RCF	24 x g	
Timer function	1 to 99 min / continuous operation / pulse button	
W x D x H	330 x 420 x 313 mm	330 x 650 x 313 mm
Temperature adjustment range		-20 - +40 °C
Weight	21 kg	42 kg
Mains connection	220–240 V, 50/60 Hz	

Delivery without rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Model MIKRO 220 classic, non-cooled

- Air-cooled or without cooling function

Type	Art. No.	Pack Qty.	€
MIKRO 220 classic	**LE07.1**	1 unit(s)	2.986,35

Model MIKRO 220 R, cooled

- Cooled centrifuge
- Infinitely adjustable from –20 to +40 °C in increments of 1 °C
- Precool function

Type	Art. No.	Pack Qty.	€
MIKRO 220 R cooled	**LE08.1**	1 unit(s)	5.408,35

Accessories for centrifuge MIKRO 220 / 220 R

Hettich.

(1) 24-fold microlitre rotor type 1195-A

- Max. capacity 24 x 1.5/2.0 ml reaction vials
- High output: max. 18,000 rpm, max. RZB 31514 x g

Delivery incl. lid.

Designation	Art. No.	Pack Qty.	€
24-fold microlitre rotor type 1195-A	**LE09.1**	1 unit(s)	468,70

(2) 30-tube microlitre rotor type 1189-A

- Max. capacity 30 x 1.5/2.0 ml reaction vials
- High output: max. 14,000 rpm, max. RZB 21255 x g

Delivery incl. lid.

Designation	Art. No.	Pack Qty.	€
30-tube microlitre rotor type 1189-A	**LE10.1**	1 unit(s)	585,90

(3) 6-fold tubes angle rotor type 1016 (only for MIKRO 220 R, Art. No. LE08.1)

- **Rotor only suitable for MIKRO 220 R (Art. No. LE08.1)**
- Max. capacity 3 x 50 ml
- Max. speed 6,000 rpm, max. RZB 3783 x g

Delivery without adapter for tubes, please order separately.

Designation	Art. No.	Pack Qty.	€
6-fold tubes angle motor	**LE13.1**	1 unit(s)	604,15

Accessories adapter for angle rotor of centrifuges MIKRO 220/220R and EBA 280 suitable for rotor type 1016 and type 1137

Hettich.

Technical specifications:

Art. No.	LE14.1	LE15.1	LE16.1
Nominal volume	15 ml		50 ml
Required number of adapters per rotor	6		3
Max. vessels per adapter	6 unit(s)		3 unit(s)
Max. vessel length	100 mm	120 mm	115 mm
Max. vessel Ø	17 mm		29 mm
Bottom shape	round	conical	
Additional data	Standard	Type Falcon®	

Designation	Art. No.	Pack Qty.	€
Adapter for 15 ml standard test tubes	**LE14.1**	1 unit(s)	36,05
Adapter for 15-ml tubes type Falcon®	**LE15.1**	1 unit(s)	36,05
Adapter for 50-ml tubes type Falcon®	**LE16.1**	1 unit(s)	36,05

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

PCR/haematocrit centrifuges

PCR plate centrifuge C1000

Labnet International.

For 2 PCR plates in 96-well format.

- Suitable for skirted, non-skirted or semi-skirted plates (with/without half frame)
- To prevent soiling inside the rotor, only PCR plates that have been hot-laminated or sealed with film should be used
- PCR plates are inserted vertically into the rotor
- Fast centrifugation of droplets or condensate

Technical specifications:

Art. No.	PP33.1
Type	C1000
Max. capacity	2 PCR plates
Maximum speed	2,500 rpm
Maximum RCF	500 x g
W x D x H	190 x 210 x 183 mm
Weight	1,5 kg
Mains connection	230 V, 50/60 Hz

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
C1000	**PP33.1**	1 unit(s)	762,20

Accessories adapter for strips and small PCR plates suitable for centrifuge C1000

Labnet International.

The adapter's dimensions are identical to those of a 96 well standard PCR plate. Suitable for PCR tubes 0.2 ml, 8x PCR reaction vials, 12x PCR reaction vials, 24-well PCR plates and 48-well PCR plates.

Designation	Art. No.	Pack Qty.	€
Adapter for strips	**TA20.1**	2 unit(s)	67,20

Haematocrit centrifuge 200

Hettich.

For determining the percentage by volume of erythrocytes in blood. Haematocrit determination for diagnostic purposes and drug testing.

- For 24 standard capillary tubes
- Each capillary has its own chamber and is cushioned by holding trays at the outer rim
- Adjustment of time and speed
- Remaining runtime and rotational speed are shown on the display
- Safety: Lid locking and holding, imbalance switch-off

Technical specifications:

Art. No.	ANX2.1
Type	Haematocrit centrifuge 200
Maximum speed	13,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	16060 x g
Minimum speed	500 rpm
Timer function	1 to 99 min / continuous duty / short cycle (pulse key)
W x D x H	262 x 352 x 228 mm
Weight	10 kg
Mains connection	208–240 V, 50/60 Hz

Delivery incl. 24-station haematocrit rotor with lid and integrated evaluation disc.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
Haematocrit centrifuge 200	**ANX2.1**	1 unit(s)	2.047,90

Manual centrifuge

Hettich.

To accommodate a 4-place oscillating rotor for 15 ml centrifuge tubes. With clamping device (max. span width approx. 40 mm) for attaching the centrifuge to lab desktops, etc.

Technical specifications:

Art. No.	EE90.1
Type	Manual centrifuge
Max. capacity	4 x 15 ml
Max. vessel length	125 mm
Max. vessel Ø	17 mm
Maximum speed	3,000 rpm
Maximum RCF	1076 x g
W x D x H	140 x 175 x 285 mm
Weight	0.9 kg

Delivery without oscillating rotor, please order separately.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Manual centrifuge	**EE90.1**	1 unit(s)	155,90

NEW / +

Small centrifuges CD-0506

Phönix Instrument.

With 6-slot angle rotor (54°) for centrifuging 1.5/2.0 ml reaction vials, 15 ml standard test tubes and 15 ml centrifuge tubes (Falcon®).

- Background-lit LCD display
- Displays centrifugation time, in rpm or x g
- Memory for two programmes, easy start with direct access keys
- Safety: Locking lid, rotation speed control

For use of the following types of vessel:

- 6 x 1.5/2.0 ml reaction vials (Ø 11 x L 41 mm)
- 6 x 5 ml reaction vials (Ø 15 x L 60 mm)
- 6 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 6 x 15 ml centrifuge tubes, Falcon® (Ø 17 x L 120 mm)
- 6 x 2.7-4.3 ml blood vials (Ø 13 x L 75 mm)
- 6 x 4.5-4.9 ml blood vials (Ø 11 x L 92 mm, Ø 13 x L 90 mm)
- 6 x 9-10 ml blood vials (Ø 16 x L 92 mm)
- 6 x 7.5-10 ml blood vials (Ø 15/16 x L 92 mm)
- 6 x 9.5-10 ml urine test tubes (Ø 15 x L 100 mm)

Technical specifications:

Art. No.	1L9E.1
Type	CD-0506
Maximum speed	5,000 rpm
Additional data	Speed can be adjusted in increments of 10 rpm
Maximum RCF	2600 x g
Minimum speed	300 rpm
Timer function	30 s to 99 mins / continuous operation function / short cycle (pulse key)
W x D x H	240 x 300 x 180 mm
Weight	5,2 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 6-slot angle rotor and adapter set (sleeve inner Ø 12 mm, H 35 mm) and sleeve inner Ø 13 mm, H 60 mm.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
CD-0506	**1L9E.1**	1 unit(s)	387,00

Centrifuges

Small centrifuge CD-0412

Phönix Instrument.

With 12-slot angle rotor (45°) for centrifuging blood sample vessels, urine test tubes and centrifuge tubes (type Falcon®).

- Illuminated display
- Displays centrifugation time, in rpm or x g
- The timer starts once the selected speed is reached
- Safety: Cover lock, speed monitoring system and protection against overheating

For use of the following types of vessel:

- 12 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 6 x 15 ml centrifuge tubes, type Falcon® (Ø 17 x L 120 mm)
- 12 x 2.7-4.3 ml blood vials (Ø 13 x L 75 mm)
- 12 x 4.5-4.9 ml blood vials (Ø 11 x L 92 mm, Ø 13 x L 90 mm)
- 12 x 7.5-10 ml blood vials (Ø 15/16 x L 92 mm)
- 12 x 9-10 ml blood vials (Ø 16 x L 92 mm)
- 12 x 9.5-10 ml urine test tubes (Ø 15 x L 100 mm)

Technical specifications:

Art. No.	EEE2.1
Type	CD-0412
Maximum speed	4,500 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	2490 x g
Minimum speed	300 rpm
Timer function	30 s to 99 mins / continuous run function /short cycle (pulse key)
W x D x H	140 x 255 x 245 mm
Weight	6.7 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 12-fold angle rotor, adapter set (sleeve inner Ø 16 mm, H 80 mm) and spaces (H 21 mm).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
CD-0412	**EEE2.1**	1 unit(s)	770,80

Small centrifuges CD-0412-50 for 15-/50-ml tubes

Phönix Instrument.

With 6-slot combination angle rotor (54°) for centrifuging 6 x 15 or 6 x 50 ml Falcon® tubes.

- LCD display for showing the speed or RCF value and time
- The timer starts once the selected speed is reached
- Diagnosis programme for monitoring all functions

Technical specifications:

Art. No.	KEC8.1
Type	CD-0412-50
Maximum speed	4,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	1800 x g
Minimum speed	300 rpm
Timer function	0.5 s to 99 min/continuous run function/short cycle
W x D x H	300 x 350 x 200 mm
Weight	6 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 6-fold angle rotor (54°).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
CD-0412-50	**KEC8.1**	1 unit(s)	989,00

Small centrifuges EBA series

Hettich.

For centrifugation of blood and urine samples, clarification of water and soil samples, etc.

General information for all models:

- Lid can be opened at the touch of a button
- Housing and lid made of impact resistant plastic, metal lid inner
- Overheating protection
- **With 8-tube angle rotor**

For use of the following types of vessel:

- 8 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 4 x 15 ml centrifuge tubes, type Falcon (Ø 17 x L 120 mm)
- 4 x 8 ml urine test tubes (Ø 16 x L 125 mm)
- 8 x 7.5-10 ml blood sample vessels (Ø 15/16 x L 92 mm)
- 8 x 4.5-4.9 ml blood sample vessels (Ø 11 x L 92 mm, Ø 13 x L 90 mm)
- 8 x 10 ml blood sample vessels (Ø 15 x L 102 mm)

Technical specifications:

Art. No.	ANT4.1	ANT5.1
Type	EBA 200	EBA 200 S
Maximum speed	6,000 rpm	8,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm	
Maximum RCF	3461 x g	6153 x g
Minimum speed	500 rpm	
Timer function	1 to 99 min / continuous duty / short cycle (pulse key)	
W x D x H	262 x 352 x 228 mm	
Weight	8 kg	10 kg
Mains connection	208–240 V, 50/60 Hz	

Delivery incl. 8-fold angle rotor for max. capacity 8 x 15 ml.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
EBA 200	**ANT4.1**	1 unit(s)	1.176,05
EBA 200 S	**ANT5.1**	1 unit(s)	2.184,40

Accessories adapter for centrifuge EBA 200 and 200 S

Hettich.

Designation	Art. No.	Pack Qty.	€
Adapter type 1054-A for 5/6-ml vessels (Ø 12 x L 75/82 mm)	**ANT6.1**	1 unit(s)	17,20

Small centrifuges EBA 270

Hettich.

With 6-slot oscillating rotor for centrifuging blood sample vessels, urine test tubes and standard centrifuge tubes.

- Variable speed and cycle time
- Display of parameters during centrifugation
- "Open lid" key for one-touch opening
- Safety: lid lock, emergency lid lock release, imbalance switch-off and metal lid
- Stainless steel centrifuging chamber

For use of the following types of vessel:

- 15 ml standard test tubes (Ø 17 x L 100 mm)
- 5/6 ml standard test tubes (Ø 12 x L 75/82 mm)
- 2.6-2.9 blood sample vessels (Ø 13 x L 65 mm), 2.7-3 m (Ø 11 x L 66 mm)
- 4-5.5 ml blood sample vessels (Ø 15 x L 75 mm), 4.5-5 ml (Ø 11 x L 92 mm), 4.9 ml (Ø 13 x L 90 mm), 7.5-8.5 ml (Ø 15 x L 92 mm), 9-10 ml (Ø 16 x L 92 mm), 10 ml (Ø 15 x L 102 mm)
- Urine test tubes 1.6-5 ml (Ø 13 x L 75 mm), 4.5-7 ml (Ø 13 x L 100 mm), 4-7 ml (Ø 16 x L 75 mm), 8.5-10 ml (Ø 16 x L 100 mm)

Technical specifications:

Art. No.	PH35.1
Type	EBA 270
Maximum speed	4,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	2254 x g
Minimum speed	500 rpm
Timer function	1-99 mins / continuous operation / short cycle (pulse key)
W x D x H	326 x 389 x 239 mm
Weight	13 kg
Mains connection	208–240 V, 50/60 Hz

Delivery incl. 6-fold oscillating rotor (90°), 6 sleeves with hole Ø 17.5 x L 80 mm and 6 sleeves with hole Ø 17.5 x L 50 mm.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
EBA 270	**PH35.1**	1 unit(s)	1.266,35

Centrifuges

Small centrifuges Medifuge with 2-in-1 hybrid rotor

Thermo.

With eight-slot hybrid rotor for centrifuging blood sample vessels, urine test tubes and standard centrifuge tubes. Depending on whether fixed-angle buckets (45°) or swing-out buckets (90 °C) are used in the rotor, various types of centrifugation are possible. Mixed bucket configurations (fixed-angle and swing-out buckets) are also possible.

- Centrifugation time, variably adjustable in rpm or x g
- Memory for four programs with one-touch button
- Three braking profiles – standard, soft and brake off
- Max. RZB 3114 x g (fixed angle bucket)
  max. RZB 3490 x g (swing-out bucket)

For use of the following types of vessel:

Fixed angle buckets, max. 3114 x g:

- 8 x 15 ml centrifuge tubes, Falcon type (Ø 17 x L 120 mm)
- 8 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 8 x 6/12/15 ml glass tubes (Ø 12/16 x L 100/125 mm)
- 8 x 1.2-4.3 ml blood vials (Ø 8-13 x L 66/75 mm)
- 8 x 4.5-4.9 ml blood vials (Ø 11 x L 92 mm/Ø 13 x L 90 mm)
- 8 x 7.5-10 ml blood vials (Ø 15/16 x L 92 mm)
- 8 x 9-10 ml blood vials (Ø 16 x L 92 mm)
- 8 x 9.5-10 ml urine test tubes (Ø 15 x L 100 mm)

Swing-out buckets, max. 3490 x g

- 8 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 8 x 6/12/15 ml glass tubes (Ø 12/16 x L 100 mm)
- 8 x 1.2-4.3 ml blood vials (Ø 8-13 x L 66/75 mm)
- 8 x 4.5-4.9 ml blood vials (Ø 11 x L 92 mm, Ø 13 x L 90 mm)
- 8 x 7.5-10 ml blood vials (Ø 15/16 x L 92 mm)
- 8 x 9-10 ml blood vials (Ø 16 x L 92 mm)
- 8 x 9.5-10 ml urine test tubes (Ø 15 x L 100 mm)

Technical specifications:

Art. No.	EEE1.1
Type	Medifuge
Maximum speed	4,900 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	3114/3490 x g
Minimum speed	300 rpm
Timer function	1-99 mins / continuous operation / short cycle (pulse key)
W x D x H	241 x 325 x 450 mm
Weight	15.5 kg
Mains connection	220–230 V, 50/60 Hz

Delivery incl. DualSpin™ rotor with fixed-angle and swing-out bucket set (each with 8 fixed-angle and swing-out buckets) and adapter set for various vessels.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
Medifuge	**EEE1.1**	1 unit(s)	1.262,00

Benchtop centrifuge Frontier FC 5706

Ohaus.

For sample preparation and sedimentation of cells, yeasts, bacteria, etc.

- Optional display of rpm or x g
- Backlit LCD display
- Depending on the rotor, suitable for max. 6 x 50 ml centrifuge tubes of type Falcon® or 12 x 15 ml standard tubes
- Lid with locking system
- Unbalance sensor

Technical specifications:

Art. No.	HNP6.1
Type	FC 5706
Maximum speed	6,000 rpm
Additional data	Speed can be adjusted in increments of 50 rpm
Maximum RCF	4427 x g
Minimum speed	200 rpm
Timer function	10 to 99 h, 99 min or continuous operation
W x D x H	291 x 392 x 266 mm
Weight	10,5 kg
Mains connection	230 V, 50/60 Hz

Delivery without rotor, please order separately.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
FC 5706	**HNP6.1**	1 unit(s)	1.385,00

Accessories angle rotor 12-fold (32°) type 1520 for centrifuge Frontier FC 5706

Ohaus.

For 12 standard test tubes 15 ml with round base (Ø 17 x L 100 mm, max. RZB 4427 x g) or with optional adapter for reaction vials.

Designation	Art. No.	Pack Qty.	€
12-fold angle rotor, type 1520	**HNP7.1**	1 unit(s)	307,00

Accessories adapter for 12-fold angle rotor type 1520

Ohaus.

Technical specifications:

Art. No.	HNP8.1	HNP9.1	HNT0.1
Nominal volume	7 ml	5 ml	1.5 ml
Required number of adapters per rotor	12		
Max. vessel length	100 mm	75 mm	42 mm
Max. vessel Ø	13 mm		11 mm
Maximum RCF	4265 x g	3621 x g	3058 x g

Designation	Art. No.	Pack Qty.	€
Adapter for 7 ml vessels	**HNP8.1**	2 unit(s)	45,20
Adapter for 5 ml reaction vials	**HNP9.1**	2 unit(s)	39,60
Adapter for 1.5/2.0 ml reaction vials	**HNT0.1**	6 unit(s)	73,50

Accessories angle rotor 6-fold (40°) type 5015 for centrifuge Frontier FC 5706

Ohaus.

For 6 centrifuge tubes 50 ml type Falcon® (Ø 30 x L 115 mm, max. RZB 4427 x g) or with optional adapter for 15-ml centrifuge tubes type Falcon®.

Designation	Art. No.	Pack Qty.	€
6-fold angle rotor, type 5015	**HNT1.1**	1 unit(s)	545,00

Accessories adapter for 6-fold angle rotor type 5015

Ohaus.

Technical specifications:

Art. No.	HNT2.1	HNT3.1	HNT4.1
Nominal volume	30 ml	15 ml	
Required number of adapters per rotor	6		
Max. vessel length	100 mm	105 mm	120 mm
Max. vessel Ø	25 mm	17 mm	
Bottom shape	round		conical
Additional data			Tubes type Falcon®
Maximum RCF	4306 x g	4225 x g	4185 x g

Designation	Art. No.	Pack Qty.	€
Adapter for 30 ml vessels	**HNT2.1**	2 unit(s)	92,60
Adapter for 15 ml standard test tubes	**HNT3.1**	2 unit(s)	92,60
Adapter for 15 ml tubes type Falcon®	**HNT4.1**	2 unit(s)	64,40

Benchtop centrifuge Rotofix 32 A

Hettich.

For die sample preparation in research and industrial laboratories.

Features:

- Actual status display during operation
- Window for viewing in the lid
- Automatic rotor detection
- Optional display of rpm or x g
- Metal housing and metal lid are covered with an impact/scratch-resistant coating
- Safety: lid locking device and tumbler, unbalance switch-off, emergency unlocking device

Technical specifications:

Art. No.	EC34.1
Type	Rotofix 32 A
Maximum speed	6,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	4146 x g
Minimum speed	500 rpm
Timer function	1 to 99 min / continuous operation / pulse button
W x D x H	366 x 430 x 257 mm
Weight	25 kg

Delivery without rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
Rotofix 32 A	**EC34.1**	1 unit(s)	2.041,45

Accessories rotor for benchtop centrifuge Rotofix 32 A

Hettich.

(1) 12-fold angle rotor type 1613 for tubes 15 ml
For 12 standard test tubes 15 ml with round base (Ø 17 x L 100 mm) or 6 centrifuge tubes 15 ml (Ø 17 x L 120 mm) with conical base shape.
Max. speed 6,000 rpm, max. RZB 4146 x g

Designation	Art. No.	Pack Qty.	€
12-fold angle rotor, type 1613	**EC35.1**	1 unit(s)	327,90

(3) 4-fold oscillating rotor type 1624 (90°) for tube beakers
For fastening 4 tube beakers.
Max. speed 4,000 rpm, max. RZB 2308 x g.

Delivery without tube beakers, please order separately.

Designation	Art. No.	Pack Qty.	€
4-fold angle rotor, type 1624	**EC38.1**	1 unit(s)	362,30

Accessories for benchtop centrifuges Rotofix 32 A and Universal 320

Hettich.

Technical specifications:

Art. No.	EC36.1
Max. speed (in microlitre rotor)	4,000 rpm
Maximum RCF	2469 x g

(2) 8-fold oscillating rotor type 1617 (45°) for centrifuge tubes 50 ml

Additional adapters are required for centrifuge tubes 50 ml with conical base (29 x L 115 mm).
Max. speed 4,000 rpm, max. RZB 2469 x g (for Rotofix 32 A),
max. speed 5,000 rpm, max. RZB 3875 x g (for Universal 320/320R).

Delivery without adapter for centrifuge tubes 15 ml (Ø 17 x L 120 mm), please order separately.

Designation	Art. No.	Pack Qty.	€
8-fold angle rotor, type 1617	**EC36.1**	1 unit(s)	641,80

Accessories tube beakers for standard test tubes 15 ml

Hettich.

Suitable for rotor type 1624. For centrifuging standard test tubes 15 ml (Ø 17 x L 100 mm) with round base. Number of vessels: 4 Vessels per beaker, 16 vessels per rotor. 4 tube beakers are required for operation with oscillating rotor type 1624.

Designation	Art. No.	Pack Qty.	€
Tube beaker for rotor type 1624	**EC39.1**	1 unit(s)	37,65

Accessories adapter for centrifuge tubes 15 ml to rotor type 1670 from centrifuge Rotofix 32 A and Universal 320

Hettich.

Designation	Art. No.	Pack Qty.	€
Adapter for centrifuge tubes 15 ml to rotor type 1670	**EC37.1**	1 unit(s)	23,65

Small centrifuges EBA 280

Hettich.

Centrifugation of water and soil samples as well as sedimentation of cells, yeasts, bacteria, etc.

- Programmable control system with 10 memory slots
- Adjustment of centrifuging time, rpm or RCF
- Input of start and stop times in increments from 1 to 9
- Safety: lid locking and holding, emergency lid lock release

Technical specifications:

Art. No.	ANT7.1
Type	EBA 280
Max. speed (in microlitre rotor)	6,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	3703 x g
Minimum speed	500 rpm
W x D x H	326 x 389 x 242 mm
Weight	11 kg
Mains connection	200–240 V, 50/60 Hz

Delivery without rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
EBA 280	**ANT7.1**	1 unit(s)	2.395,10

Accessories angle rotor 6-fold (35°) type 1137 for centrifuge EBA 280

Hettich.

- Max. capacity 6 x 50 ml
- Max. speed 6000 rpm, max. RCF 3703 x g
- Rotor is suitable for 6 standard test tubes 50 ml (Ø 34 x L 100 mm) without adapter
- If adapters for standard Falcon®- or Oak-Ridge tubes are required, please order separately

Designation	Art. No.	Pack Qty.	€
6-tube angle rotor (35°) type 1137	**ANT8.1**	1 unit(s)	583,75

Accessories adapter for angle rotor of centrifuges MIKRO 220/220R and EBA 280 suitable for rotor type 1016 and type 1137

Hettich.

Technical specifications:

Art. No.	LE14.1	LE15.1	LE16.1
Nominal volume	15 ml		50 ml
Required number of adapters per rotor	6		3
Max. vessels per adapter	6 unit(s)		3 unit(s)
Max. vessel length	100 mm	120 mm	115 mm
Max. vessel Ø	17 mm		29 mm
Bottom shape	round	conical	
Additional data	Standard	Type Falcon®	

Designation	Art. No.	Pack Qty.	€
Adapter for 15 ml standard test tubes	**LE14.1**	1 unit(s)	36,05
Adapter for 15-ml tubes type Falcon®	**LE15.1**	1 unit(s)	36,05
Adapter for 50-ml tubes type Falcon®	**LE16.1**	1 unit(s)	36,05

Accessories adapter for 6-fold angle rotor type 1137

Hettich.

Technical specifications:

Art. No.	ANT9.1	ANX0.1	ANX1.1
Nominal volume	7 ml	25 ml	50 ml
Required number of adapters per rotor	6		
Max. vessels per adapter	18 unit(s)	6 unit(s)	
Max. vessel length	100 mm		107 mm
Max. vessel Ø	12 mm	24 mm	29 mm
Bottom shape	round		
Additional data	Standard	Type Oak-Ridge	

Designation	Art. No.	Pack Qty.	€
Adaptor for 7 ml standard test tubes	**ANT9.1**	1 unit(s)	36,05
Adaptor for 25 ml standard test tubes and for 30 ml tubes of type Oak-Ridge	**ANX0.1**	1 unit(s)	36,05
Adaptor for 50 ml tubes of type Oak-Ridge	**ANX1.1**	1 unit(s)	36,05

Benchtop centrifuge Universal series

Hettich.

General information for all models:

- Short start-up and braking times
- 9 braking and start-up ramps as well as unbraked run-out possible
- Memory capacity for 10 programs
- Automatic rotor detection
- Optional display of rpm or x g when entering the rotor radius
- Simple rotor change
- Window for viewing in the lid
- Metal housing
- Safety features: Emergency unlocking device, motor overheating protection, unbalance switch-off

Technical specifications:

Art. No.	EC40.1	EC41.1
Type	Universal 320 classic	Universal 320 R cooled
Max. speed (in microlitre rotor)	16,000 rpm	
Additional data	Speed can be adjusted in increments of 10 rpm	
Maximum RCF	24900 x g	
Minimum speed	500 rpm	
Minimum RCF	24 x g	
Timer function	1 to 99 min / continuous operation / pulse button	
W x D x H	401 x 529 x 346 mm	407 x 698 x 346 mm
Temperature adjustment range		-20 to +40 °C
Weight	29 kg	52 kg
Mains connection	220–240 V, 50/60 Hz	

Delivery without rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Model Universal 320 classic, non-cooled

- Air-cooled or without cooling function

Type	Art. No.	Pack Qty.	€
Universal 320 classic	**EC40.1**	1 unit(s)	3.269,10

Model Universal 320 R, cooled

- With cooling functions
- Temperature infinitely adjustable from -20 to +40 °C in increments of 1 °C
- Precool function

Type	Art. No.	Pack Qty.	€
Universal 320 R cooled	**EC41.1**	1 unit(s)	6.194,15

Centrifuges with accessories

Accessories for Universal 320 / 320 R

Hettich.

(1) Microlitre rotor type 1552

- Max. capacity 24 x 1.5/2.0 ml
- High output: max. 15,000 rpm, max. RZB 24900 x g

Designation	Art. No.	Pack Qty.	€
Microlitre rotor type 1552	**EC42.1**	1 unit(s)	725,65

(2) 8-fold oscillating rotor type 1617 (45°) for centrifuge tubes 50 ml

Additional adapters are required for centrifuge tubes 50 ml with conical base (29 x L 115 mm).
Max. speed 4,000 rpm, max. RZB 2469 x g (for Rotofix 32 A),
max. speed 5,000 rpm, max. RZB 3875 x g (for Universal 320/320R).

Delivery without adapter for centrifuge tubes 15 ml (Ø 17 x L 120 mm), please order separately.

Designation	Art. No.	Pack Qty.	€
8-fold angle rotor, type 1617	**EC36.1**	1 unit(s)	641,80

Designation	Art. No.	Pack Qty.	€
Adapter for centrifuge tubes 15 ml to rotor type 1670	**EC37.1**	1 unit(s)	23,65

(3) 2-fold oscillating rotor for microtritation plates type 1460/1453

- Incl. 2 hangers for 8 microlitre plates (L 128 x W 86 x H 15 mm)
- Max. speed 4,000 rpm, max. RZB 2218 x g

Designation	Art. No.	Pack Qty.	€
2-fold oscillating rotor type 1460/1453	**EC43.1**	1 unit(s)	1.236,25

(4) 4-fold oscillating rotor type 1494 (90°) for tubes

- Max. capacity 4 x 50 ml
- Max. speed 5,000 rpm, max. RZB 4165 x g

Delivery without insertion beaker and adapter for tubes, please order separately. 4 round cups and adaptors are required for operation are required for operation.

Designation	Art. No.	Pack Qty.	€
4-fold oscillating rotor type 1494	**EC44.1**	1 unit(s)	534,30

Designation	Art. No.	Pack Qty.	€
Insert beaker type 1427 for rotor type 1494	**EC45.1**	1 unit(s)	190,30

Accessories adapter for insert beakers type 1427

Hettich.

Technical specifications:

Art. No.	EE32.1	EC46.1	EC47.1
Nominal volume	15 ml		50 ml
Number of vessels per rotor	24	4	
Max. vessels per adapter	6 unit(s)	1 unit(s)	
Max. vessel length	100 mm	120 mm	115 mm
Max. vessel Ø	17 mm		29 mm
Bottom shape	round	conical	
Additional data	Standard	Type Falcon®	

For insert beakers

Designation	Art. No.	Pack Qty.	€
Adapter for 15 ml vessels	**EE32.1**	1 unit(s)	64,50
Adapter for 15 ml vessels type Falcon®	**EC46.1**	1 unit(s)	83,85
Adapter for 50 ml vessels type Falcon®	**EC47.1**	1 unit(s)	132,25

Centrifuges with accessories

Benchtop centrifuge Megafuge 8 series

Thermo.

General information for all models:

- 2 profiles configurable for fast or gentle acceleration and deceleration times
- Optional display of revolutions in rpm or x g
- Safe rotor-changing at the touch of a button (without additional tools) for quick changeover between various applications and easy cleaning
- 3 program memory with one-touch key, with naming option
- Direct, brushless induction motor
- Illuminated display
- Text messages in various languages: German, English, French, Spanish, Russian, Italian and Dutch
- **Annual inspection acc. to BGR 500 recommended**

Technical specifications:

Art. No.	NN26.1	APT4.1
Type	Medifuge 8	Megafuge 8R
Max. speed (in microlitre rotor)	14,000 rpm	
Additional data	Speed can be adjusted in increments of 100 rpm	
Maximum RCF	21693 x g	
Minimum speed	300 rpm	
Minimum RCF	10 x g	
Timer function	9 h, 99 min / continuous operation / Quick-Run	
W x D x H	460 x 480 x 310 mm	370 x 670 x 320 mm
Temperature adjustment range		-10 - +40 °C
Weight	35 kg	71 kg
Mains connection	230 V, 50/60 Hz	

Delivery without rotor, please order separately. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

In vitro diagnostic medical device according to IVDD

Model Megafuge 8, non-cooled

- Air-cooled or without cooling function

Type	Art. No.	Pack Qty.	€
Medifuge 8	**NN26.1**	1 unit(s)	2.480,00

Model Megafuge 8 R, cooled

- With cooling functions
- Infinitely adjustable from -10 to +40 °C in increments of 1 °C
- Precool function

Type	Art. No.	Pack Qty.	€
Megafuge 8R	**APT4.1**	1 unit(s)	5.548,00

Accessories for centrifuge Megafuge® 8/8R

Thermo.

(1) Oscillating rotor TX-150 (90°) - cell culture kit
For centrifuging 15-ml or 50-ml vessels of type Falcon®.

- Max. capacity 8 x 50 ml
- Max. speed 4,500 rpm, max. RZB 3260 x g

Delivery incl. 4 oval beakers suitable for 8 vials 50 ml type Falcon® (no adapter necessary) and 8 adapter for vials 15 ml type Falcon®.

Designation	Art. No.	Pack Qty.	€
Oscillating rotor TX-150, cell culture kit	**NN27.1**	1 unit(s)	2.373,00

(2) 30-fold microlitre rotor MicroClick (45°) for 30 x 1.5/2 ml reaction vials

- Max. capacity 30 x 1.5/2.0 ml
- Max. speed 14,000 rpm, max. RZB 21693 x g

Delivery incl. aerosol-tight lid.

Designation	Art. No.	Pack Qty.	€
MicroClick microlitre rotor	**NN28.1**	1 unit(s)	1.200,00

(3) Microtitration plate rotor M-10

- For 4 standard microtritation plates or 2 Midi-Deepwell plates
- Max. speed 4,400 rpm, max. RZB 2576 x g
- **An M-10 rotor and two open carriers are required for operation (please order both products separately)**

Designation	Art. No.	Pack Qty.	€
Microtitration plate rotor M-10	**NN31.1**	1 unit(s)	1.332,00

Accessories Open carrier for microtritation plate rotor of centrifuge Megafuge® 8/8R

Thermo.

Designation	Art. No.	Pack Qty.	€
Open carrier	**NN32.1**	2 unit(s)	747,00

(4) Fixed angle rotor HIGHConic III (45°)

- Max. capacity 6 x 50 ml
- Max. speed 8700 min^{-1}, max. RZB 10155 x g
- **Rotor is suitable for 50 ml vials of the type Falcon® without adaptor**

Delivery incl. aerosol-tight screw lid.

Designation	Art. No.	Pack Qty.	€
Fixed angle rotor HIGHConic III	**NN33.1**	1 unit(s)	2.001,00

Accessories adapter for fixed angle rotor HIGHConic III

Thermo.

Technical specifications:

Art. No.	NN34.1	NN35.1	NN36.1
Nominal volume	15 ml	16 ml	1.5 ml
Required number of adapters per rotor	6		
Number of vessels per rotor	6		12
Max. vessel length	123 mm		11 mm
Max. vessel Ø	17 mm	18 mm	40 mm
Bottom shape	conical	round	conical
Additional data	Type Falcon®	Standard	Reaction vials

Designation	Art. No.	Pack Qty.	€
Adapter for 15-ml vessels, type Falcon®	**NN34.1**	2 unit(s)	230,00
Adaptor for 16 ml round bottom tubes	**NN35.1**	2 unit(s)	131,00
Adapter for 1.5/2.0 ml reaction vials	**NN36.1**	2 unit(s)	131,00

Benchtop centrifuge ST1 Plus series

Thermo.

General information for all models:

- 6 program presets with speed buttons
- Multilingual display of programming steps, run conditions, alarms and servicing information
- Selection of 9 acceleration profiles and 10 braking profiles
- Optional display of revolutions in rpm or x g
- **Easy, toolless** insertion and exchange of the rotors with only one press of a button
- **Electronic** imbalance detection
- Motor-operated lid lock
- **Annual inspection acc. to BGR 500 recommended**

Technical specifications:

Art. No.	XP77.1	XP78.1
Type	ST1 Plus	ST1R Plus
Max. speed (in microlitre rotor)	15,200 rpm	
Additional data	Speed can be adjusted in increments of 100 rpm	
Maximum RCF	25830 x g	
Minimum speed	300 rpm	
Minimum RCF	17 x g	
Adjustment range		-10 to +40 °C
Timer function	1 min to 9 h, 99 min / continuous operation / Quick-Run	
W x D x H	445 x 660 x 364 mm	625 x 660 x 364 mm
Weight	61 kg	94 kg
Mains connection	230 V, 50/60 Hz	

Delivery without rotor, please order separately. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Not a medical device / Not an IVD product

Model ST1 Plus, non-cooled

- Air-cooled or without cooling function

Type	Art. No.	Pack Qty.	€
ST1 Plus	**XP77.1**	1 unit(s)	4.240,00

Model ST1R Plus, cooled

- With cooling functions
- Infinitely adjustable from -10 to +40 °C in increments of 1 °C
- Precool function

Type	Art. No.	Pack Qty.	€
ST1R Plus	**XP78.1**	1 unit(s)	7.155,00

Centrifuges with accessories

Accessories oscillating rotor TX-400 (90°) for ST1/ ST1R Plus

Thermo.

- Max. capacity 4 x 400 ml
- Max. speed 5,000 rpm RZB 4696 x g

Delivery without round beaker, lid and adapter for tubes (please order separately). 4 round cups and 4 adaptors are required for operation.

Designation	Art. No.	Pack Qty.	€
Oscillating rotor TX-400	**XP79.1**	1 unit(s)	1.561,00

Accessories for oscillating rotor TX-400 to centrifuge STR1/R Plus

Thermo.

Designation	Art. No.	Pack Qty.	€
Round cup for TX-400	**XP80.1**	4 unit(s)	1.398,00
ClickSeal lid for round cups	**XP81.1**	4 unit(s)	387,00

Accessories adapter for round beaker suitable for oscillating rotor TX-400

Thermo.

Technical specifications:

Art. No.	XP82.1	XP83.1	XP84.1	XP85.1
Nominal volume	15 ml	50 ml	25 ml	250 ml
Required number of adapters per rotor	4			
Number of vessels per rotor	36	16	12	4
Max. vessel length	121 mm	116 mm	110 mm	135 mm
Max. vessel Ø	17 mm	29.5 mm	25 mm	62 mm
Bottom shape	conical		round	
Additional data	Type Falcon®		Universal tubes	Oak-Ridge bottles

Designation	Art. No.	Pack Qty.	€
Adapter for 15-ml vessels, type Falcon®	**XP82.1**	4 unit(s)	392,00
Adapter for 50-ml vessels type Falcon®	**XP83.1**	4 unit(s)	392,00
Adaptor for 25 ml universal tubes	**XP84.1**	4 unit(s)	416,00
Adaptor for 250 ml Oak Ridge bottle	**XP85.1**	4 unit(s)	393,00

Accessories for benchtop centrifuge STR1/R Plus

Thermo.

(1) 30-fold angle rotor for reaction vials Mikro 1.5/2.0 ml

- **Aerosol tight**
- Max. capacity 30 x 1.5/2.0 ml
- High output: max. 15,200 rpm max. RZB 25830 x g

Delivery incl. aerosol-tight lid.

Designation	Art. No.	Pack Qty.	€
Microlitre rotor type 30 x 2	**XP86.1**	1 unit(s)	1.171,00

(2) Microtitration plate rotor M-20

- For 2 x 3 standard microtitration plates or 2 x 1 deepwell plates
- Max. speed 4,000 rpm, max. RZB 2272 x g
- Max. H 65 mm

Delivery incl. 2 supports and 2 adaptors, but without lid (if a lid is required, an additional support set with lid must be ordered separately).

Designation	Art. No.	Pack Qty.	€
Microtitration plate rotor M-20	**XP89.1**	1 unit(s)	1.713,00

Accessories aerosol-tight carrier set with lid for Microtritation plate rotor M-20 suitable for centrifuge STR1/R Plus

Thermo.

Microtritation plates max. H 45 mm.

Designation	Art. No.	Pack Qty.	€
Aerosol-tight support set	**XP90.1**	2 unit(s)	969,00

Cleaning, Care & Aids

Adhesive- and isolation tapes 1577
Adhesives 1575
Anti-static spray 1550
APIEZON®-lubricants and waxes 1572
Bench-Top protection paper 1559
Boiling chips 1581
Brushes, cleaning utensils 1562
Casting resins, epoxides 1576
Cleaning agents
(floor, glass and stainless steel) 1544
Cleaning wipes 1552
Descaler 1546
Disinfectants for instruments 1533
Disinfecting agents 1533
Disinfecting agents for surfaces 1535
Floor mops 1565
Gasleak detectors 1579
Glasbeads/Beads® 1582
Heating bath fluids 1580
Label remover 1547
Magnesia scoops and rods 1581
neodisher® for laboratory dishwashers 1526
Office cleaning agents 1551
Preservatives (wood, metal, etc.) 1575
RBS® for laboratory dishwashers 1523
Release agents 1574
Sealing agents 1574
Sealing agents / greases 1568
Solvents 1547
Sprays 1548
Ultrasonic baths and accessories 1498
Ultrasonic cleaners 1516
Universal cleaners RBS® 1518
Vacuum cleaners 1567
Water bath preservatives 1544
Wipes / cellulose tissues 1554

Ultrasonic baths

Ultrasonic cleaning unit Mini

Emag.

For cleaning spectacles, instruments and other small parts. Plastic housing with vibration tank made of 1.4301 stainless steel.

- Timer (1, 3, 5, 7 or 9 min selectable)
- Operating frequency approx. 42 kHz

Technical specifications:

Art. No.	EXH1.1
Type	Mini 0.5 l ultrasonic cleaning unit
Vol.	0.5 l
Inner tub length	160 mm
Inner tub width	90 mm
Inner tub height	50 mm
Inner basket length	140 mm
Inner basket width	70 mm
Inner basket height	40 mm
Outer length	193 mm
Outer width	120 mm
Outer height	123 mm
Operating frequency	42 kHz
Peak ultrasonic output	40 W
Mains connection	220–240 V, 50/60 Hz

Delivery incl. plastic lid and basket.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Mini 0.5 l ultrasonic cleaning unit	0.5	193	120	123	**EXH1.1**	1 unit(s)	73,65

Ultrasonic cleaning unit Mini with heating

Emag.

For cleaning small parts. Housing and vibration tank made of 1.4301 stainless steel.

- Timer for 1 to 15 minutes or continuous operation
- Heating is adjustable up to approx. 80 °C
- Operating frequency approx. 45 kHz

Technical specifications:

Art. No.	CLL5.1
Type	Mini 0.8 l ultrasonic cleaning unit with heater
Vol.	0.8 l
Inner tub length	180 mm
Inner tub width	90 mm
Inner tub height	50 mm
Inner basket length	178 mm
Inner basket width	85 mm
Inner basket height	40 mm
Outer length	200 mm
Outer width	110 mm
Outer height	160 mm
Operating frequency	45 kHz
Peak ultrasonic output	60 W
Heating output	120 W
Mains connection	220–240 V, 50/60 Hz

Delivery incl. stainless steel lid and basket.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Mini 0.8 l ultrasonic cleaning unit with heater	0.8	200	110	160	**CLL5.1**	1 unit(s)	199,95

Ultrasonic baths

Ultrasonic cleaning unit H-series

Emag.

Compact universal cleaning units for cleaning laboratory utensils and for speeding up dissolution.
Housing and vibration tank made of 1.4301 stainless steel.

Features:

- Timer for 1 to 60 minutes or continuous operation
- Heating is adjustable up to approx. 80 °C
- Operating frequency approx. 45 kHz
- Models H 30 to H 120 with drain valve

Technical specifications:

Art. No.	CPK5.1	CPK6.1	CPK7.1	CPK8.1	CPK9.1
Type	H 22	H 30	H 40	H 60	H 120
Vol.	1.65 l	2.6 l	3.55 l	5.3 l	9 l
Inner tub length	240 mm		300 mm		500 mm
Inner tub width	140 mm		150 mm		135 mm
Inner tub height	65 mm	100 mm		150 mm	
Inner basket length	220 mm		280 mm	285 mm	480 mm
Inner basket width	120 mm		140 mm		120 mm
Inner basket height	50 mm	60 mm	85 mm	135 mm	
Outer length	300 mm		330 mm		600 mm
Outer width	170 mm	165 mm	175 mm		165 mm
Outer height	225 mm			290 mm	355 mm
Operating frequency	45 kHz				
Peak ultrasonic output	120 W	180 W	240 W		300 W
Heating output	150 W	180 W	200 W	250 W	350 W
Outlet valve	No	Yes			
Mains connection	220–240 V, 50/60 Hz				

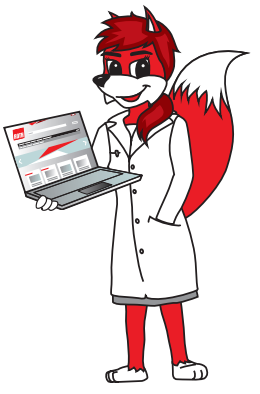
Delivery incl. stainless steel lid and basket.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
H 22	1.65	300	170	225	**CPK5.1**	1 unit(s)	323,60
H 30	2.6	300	165	225	**CPK6.1**	1 unit(s)	464,40
H 40	3.55	330	175	225	**CPK7.1**	1 unit(s)	566,55
H 60	5.3	330	175	290	**CPK8.1**	1 unit(s)	683,70
H 120	9	600	165	355	**CPK9.1**	1 unit(s)	1.047,05

Immerse yourself ...
... into the ROTH product world!

Learn more in the ROTH webshop www.carlroth.com



All product information and much more available around the clock!

- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Subscribe to our newsletter to make sure you don't miss anything
- Application-specific subject areas and special product compilations

Ultrasonic baths

Ultrasonic cleaning unit D-series

Emag.

High-performance universal cleaning units with digital display for cleaning laboratory utensils, allowing faster dissolution and degassing of fluids.
Housing and vibration tank made of 1.4301 stainless steel.

Features:

- Timer for 1 to 30 minutes or continuous operation
- Heating is adjustable up to approx. 80 °C
- Power control 50/100%
- Sweep technology
- Degas function
- Operating frequency approx. 40 kHz
- Models D 30 to D 280 with drain valve

Technical specifications:

Art. No.	CPL1.1	CPL2.1	CPL3.1	CPL5.1	CPL6.1
Type	D 30	D 40	D 60	D 130	D 280
Vol.	2.6 l	3.55 l	5.3 l	13.0 l	28.0 l
Inner tub length	240 mm	300 mm			500 mm
Inner tub width	140 mm	150 mm		240 mm	300 mm
Inner tub height	100 mm		150 mm	200 mm	
Inner basket length	220 mm	280 mm			480 mm
Inner basket width	120 mm	140 mm	135 mm	225 mm	290 mm
Inner basket height	85 mm		135 mm	180 mm	190 mm
Outer length	265 mm	330 mm			530 mm
Outer width	165 mm	175 mm		270 mm	330 mm
Outer height	225 mm		290 mm	355 mm	360 mm
Operating frequency	40 kHz				
Peak ultrasonic output	160 W		240 W	400 W	640 W
Heating output	120 W			200 W	300 W
Outlet valve	Yes				
Mains connection	220–240 V, 50/60 Hz				

Delivery incl. stainless steel lid and basket.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
D 30	2.6	265	165	225	**CPL1.1**	1 unit(s)	623,50
D 40	3.55	330	175	225	**CPL2.1**	1 unit(s)	799,80
D 60	5.3	330	175	290	**CPL3.1**	1 unit(s)	900,85
D 130	13.0	330	270	355	**CPL5.1**	1 unit(s)	1.785,60
D 280	28.0	530	330	360	**CPL6.1**	1 unit(s)	2.203,75

Ultrasonic baths

Ultrasonic cleaning unit SONOREX

Bandelin.

- Robust stainless steel housing
- Unit frequency 35 kHz
- Protected against drips and splashes
- For the intensive and gentle cleaning of glassware, metal parts, electronic components, instruments, etc.
- For degassing liquids
- For accelerating slurry processes
- Purpose when using in the medical sector: Cleaning instruments
- For manufacturing emulsions

Delivery without basket and lid (optional), please order separately.

Medical device class I MDD

(1) SONOREX SUPER, without heating

- Timer 1 to 15 min or continuous operation

Technical specifications:

Art. No.	P390.1	P392.1	P398.1	P399.1	P401.1
Type	RK 31	RK 52	RK 106	RK 156	RK 510
Vol.	0.9 l	1.8 l	5.6 l	6.0 l	9.7 l
Inner tub length	190 mm	150 mm		500 mm	300 mm
Inner tub width	85 mm	140 mm		140 mm	240 mm
Ø Internal			240 mm		
Inner tub height	60 mm	100 mm	130 mm	100 mm	150 mm
Outer length	205 mm	175 mm		530 mm	325 mm
Outer width	100 mm	165 mm		165 mm	265 mm
Ø ext.			265 mm		
Outer height	155 mm	225 mm	270 mm	245 mm	305 mm
Operating frequency	35 kHz				
Peak ultrasonic output	240 W		480 W		640 W
Effective HF power	30 W	60 W	120 W		160 W
Outlet valve	No		Yes		
Mains connection	230 V, 50/60 Hz				

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
RK 31	0.9	205	100	155	**P390.1**	1 unit(s)	364,45
RK 52	1.8	175	165	225	**P392.1**	1 unit(s)	634,25
RK 106	5.6			270	**P398.1**	1 unit(s)	1.077,15
RK 156	6.0	530	165	245	**P399.1**	1 unit(s)	1.269,60
RK 510	9.7	325	265	305	**P401.1**	1 unit(s)	1.269,60

SONOREX SUPER, with heating

- Timer for 1 to 15 minutes or continuous operation
- Type "H" devices with heating 30–80 °C, can be set in 5 °C increments (except for type RK 31 H: Heating fixed at 65 °C, cannot be adjusted)

Technical specifications:

Art. No.	P391.1	P393.1	P394.1	P395.1	P396.1	P397.1	P400.1	P402.1	P403.1	P404.1	P405.1
Type	RK 31 H	RK 52 H	RK 100 H	RK 102 H	RK 103 H	RK 255 H	RK 156 BH	RK 510 H	RK 514 H	RK 514 BH	RK 1028 H
Vol.	0.9 l	1.8 l	3.0 l		4.0 l	5.5 l	9.0 l	9.7 l	13.5 l	18.7 l	28.0 l
Inner tub length	190 mm	150 mm	240 mm			300 mm	500 mm	300 mm	325 mm		500 mm
Inner tub width	85 mm	140 mm				150 mm	140 mm	240 mm	300 mm		
Inner tub height	60 mm	100 mm			150 mm					200 mm	
Outer length	205 mm	175 mm	260 mm			325 mm	530 mm	325 mm	355 mm		535 mm
Outer width	100 mm	165 mm	160 mm			175 mm	165 mm	265 mm	325 mm		
Outer height	155 mm	225 mm	250 mm		310 mm	305 mm	300 mm	305 mm		385 mm	400 mm
Operating frequency	35 kHz										
Peak ultrasonic output	240 W		320 W	480 W	640 W		860 W	640 W	860 W		1,200 W
Effective HF power	30 W	60 W	80 W	120 W	160 W		215 W	160 W	215 W		300 W
Outlet valve	No			Yes							
Mains connection	230 V, 50/60 Hz										

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
RK 31 H	0.9	205	100	155	**P391.1**	1 unit(s)	427,85
RK 52 H	1.8	175	165	225	**P393.1**	1 unit(s)	808,40
RK 100 H	3.0	260	160	250	**P394.1**	1 unit(s)	852,50
RK 102 H	3.0	260	160	250	**P395.1**	1 unit(s)	1.215,85

Ultrasonic baths

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
RK 103 H	4.0	260	160	310	**P396.1**	1 unit(s)	1.239,50
RK 255 H	5.5	325	175	305	**P397.1**	1 unit(s)	1.395,35
RK 156 BH	9.0	530	165	300	**P400.1**	1 unit(s)	1.709,25
RK 510 H	9.7	325	265	305	**P402.1**	1 unit(s)	1.565,20
RK 514 H	13.5	355	325	305	**P403.1**	1 unit(s)	2.140,35
RK 514 BH	18.7	355	325	385	**P404.1**	1 unit(s)	2.210,20
RK 1028 H	28.0	535	325	400	**P405.1**	1 unit(s)	2.884,25

SONOREX DIGITEC, without heating

- Membrane keyboard with clear symbols
- Timer 1 to 30 min or continuous operation
- Degas - Function switchable

Technical specifications:

Art. No.	HE28.1	HE30.1	HE32.1	HE36.1	HE37.1	HE39.1	HE41.1	HE43.1	HE46.1
Type	DT 31	DT 52	DT 100	DT 106	DT 156	DT 255	DT 510	DT 514	DT 1028
Vol.	0.9 l	1.8 l	3 l	5.6 l	6 l	5.5 l	9.7 l	13.5 l	28.0 l
Inner tub length	190 mm	150 mm	240 mm		500 mm	300 mm		325 mm	500 mm
Inner tub width	85 mm	140 mm			140 mm	150 mm	240 mm	300 mm	
Ø Internal				240 mm					
Inner tub height	60 mm	100 mm		130 mm	100 mm	150 mm			200 mm
Outer length	205 mm	175 mm	260 mm		530 mm	325 mm		355 mm	535 mm
Outer width	100 mm	165 mm	160 mm		165 mm	175 mm	265 mm	325 mm	
Ø ext.				265 mm					
Outer height	170 mm	230 mm	250 mm	270 mm	245 mm	295 mm	305 mm		400 mm
Operating frequency	35 kHz								
Peak ultrasonic output	240 W		320 W	480 W	640 W			860 W	1,200 W
Effective HF power	30 W	60 W	80 W	120 W	160 W			215 W	300 W
Outlet valve	No			Yes					
Mains connection	230 V, 50/60 Hz								

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
DT 31	0.9	205	100	170	**HE28.1**	1 unit(s)	445,05
DT 52	1.8	175	165	230	**HE30.1**	1 unit(s)	640,70
DT 100	3	260	160	250	**HE32.1**	1 unit(s)	713,80
DT 106	5.6			270	**HE36.1**	1 unit(s)	1.091,15
DT 156	6	530	165	245	**HE37.1**	1 unit(s)	1.283,55
DT 255	5.5	325	175	295	**HE39.1**	1 unit(s)	1.158,85
DT 510	9.7	325	265	305	**HE41.1**	1 unit(s)	1.283,55
DT 514	13.5	355	325	305	**HE43.1**	1 unit(s)	1.839,35
DT 1028	28.0	535	325	400	**HE46.1**	1 unit(s)	2.502,60

Ultrasonic baths

(2) SONOREX DIGITEC, with heating

- Membrane keyboard with clear symbols
- Timer for 1 to 30 minutes or continuous operation
- Type "H" devices with heating 20–80 °C, can be adjusted in 5 °C increments
- Safety switch-off after 12 hours
- LED display for temperature and heating phase
- Warning LED for excess temperature
- Degas function can be activated

Technical specifications:

Art. No.	HE29.1	HE31.1	HE33.1	HE34.1	HE35.1	HE38.1	HE40.1	HE42.1	HE44.1	HE45.1	HE47.1
Type	DT 31 H	DT 52 H	DT 100 H	DT 102 H	DT 103 H	DT 156 BH	DT 255 H	DT 510 H	DT 514 H	DT 514 BH	DT 1028 H
Vol.	0.9 l	1.8 l	3 l		4 l	9 l	5.5 l	9.7 l	13.5 l	18.7 l	28.0 l
Inner tub length	190 mm	150 mm	240 mm			500 mm	300 mm		325 mm		500 mm
Inner tub width	85 mm	140 mm					150 mm	240 mm	300 mm		
Inner tub height	60 mm	100 mm			150 mm					200 mm	
Outer length	205 mm	175 mm	260 mm			530 mm	325 mm		355 mm		535 mm
Outer width	100 mm	165 mm	160 mm			165 mm	175 mm	265 mm	325 mm		
Outer height	170 mm	230 mm	250 mm		310 mm	300 mm	295 mm	305 mm		385 mm	400 mm
Operating frequency	35 kHz										
Peak ultrasonic output	240 W		320 W	480 W	640 W	860 W	640 W		860 W		1,200 W
Effective HF power	30 W	60 W	80 W	120 W	160 W	215 W	160 W		215 W		300 W
Outlet valve	No			Yes							
Mains connection	230 V, 50/60 Hz										

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
DT 31 H	0.9	205	100	170	**HE29.1**	1 unit(s)	508,50
DT 52 H	1.8	175	165	230	**HE31.1**	1 unit(s)	814,85
DT 100 H	3	260	160	250	**HE33.1**	1 unit(s)	858,95
DT 102 H	3	260	160	250	**HE34.1**	1 unit(s)	1.228,75
DT 103 H	4	260	160	310	**HE35.1**	1 unit(s)	1.252,40
DT 156 BH	9	530	165	300	**HE38.1**	1 unit(s)	1.727,55
DT 255 H	5.5	325	175	295	**HE40.1**	1 unit(s)	1.408,25
DT 510 H	9.7	325	265	305	**HE42.1**	1 unit(s)	1.579,20
DT 514 H	13.5	355	325	305	**HE44.1**	1 unit(s)	2.152,15
DT 514 BH	18.7	355	325	385	**HE45.1**	1 unit(s)	2.222,05
DT 1028 H	28.0	535	325	400	**HE47.1**	1 unit(s)	2.898,20

Accessories lid for SONOREX ultrasonic cleaning unit

Bandelin. Material: Stainless steel.

For SONOREX ultrasonic compact baths. Noise-inhibiting and serves as evaporation protection.
Purpose when using in the medical sector:
Accessories for cleaning instruments.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Lid	RK/DT 31, RK/DT 31 H	**P406.1**	1 unit(s)	23,65
Lid	RK/DT 52, RK/DT 52 H	**P407.1**	1 unit(s)	44,10
Lid	DT 100, RK/DT 100 H, RK/DT102 H, RK/DT 103 H	**P408.1**	1 unit(s)	44,10
Lid	DT 255, RK/DT 255 H	**P411.1**	1 unit(s)	54,85
Lid	RK/DT 106	**P412.1**	1 unit(s)	69,90
Lid	RK/DT 156, RK/DT 156 BH	**P413.1**	1 unit(s)	76,35
Lid	RK/DT 510, RK/DT 510 H	**P415.1**	1 unit(s)	64,50
Lid	RK/DT 514, RK/DT 514 H, RK/DT 514 BH	**P416.1**	1 unit(s)	75,25
Lid	DT 1028, RK/DT 1028 H	**P418.1**	1 unit(s)	86,00

Accessories insertion basket for SONOREX ultrasonic cleaning unit

Bandelin. Material: Stainless steel.

Dimensions without handles.
Purpose when using in the medical sector:
Accessories for cleaning instruments.

Medical device class I MDD

Suitable for	Inner basket length (mm)	Inner basket width (mm)	Inner basket height (mm)	Ø Internal	Art. No.	Pack Qty.	€
RK/DT 31, RK/DT 31 H	170	65	50		**P419.1**	1 unit(s)	44,10
RK/DT 52, RK/DT 52 H	120	110	40		**P420.1**	1 unit(s)	58,05
DT 100, RK/DT 100 H, RK/DT102 H	200	110	40		**P421.1**	1 unit(s)	68,80
RK/DT 103 H	200	110	40		**P423.1**	1 unit(s)	74,20
DT 255, RK/DT 255 H	260	110	40		**P424.1**	1 unit(s)	81,70
RK/DT 106			50	215	**P425.1**	1 unit(s)	130,10
RK/DT 156	460	100	50		**P426.1**	1 unit(s)	220,40
RK/DT 156 BH	460	100	50		**P427.1**	1 unit(s)	222,55
RK/DT 510, RK/DT 510 H	250	195	50		**P428.1**	1 unit(s)	195,65
DT 514, RK/DT 514 H	275	245	50		**P429.1**	1 unit(s)	216,10
RK/DT 514 BH	275	245	50		**P430.1**	1 unit(s)	219,30
DT 1028, RK/DT 1028 H	455	245	50		**P431.1**	1 unit(s)	282,75

Ultrasonic cleaning unit Elmasonic Select

Elma. Material: Stainless steel Housing and cleaning bath.

Powerful, digital ultrasonic device for intensive cleaning of lab utensils and industrial components made of glass, plastic or metal. With five different ultrasonic modes for needs-based sound field distribution in the ultrasonic bath.

Features:

- **eco mode:** Gentle cleaning for quieter operation, with sweep mode performed at somewhat lower intensity
- **sweep mode:** Uniform cleaning through uniform sound field distribution in the ultrasonic bath
- **pulse mode:** Removal of even stubborn dirt with pulsing sound field distribution
- **dynamic mode:** Combination of sweep and pulse ultrasonic modes for increasing overall cleaning performance
- **degas mode:** Fast degassing of cleaning fluid and for special applications in the laboratory field

NEW / +

General information for all models:

- Working frequency: 37 kHz
- Digital control panel with membrane keyboard that can be wiped off, and easy-to-read display
- Four memory spaces for cleaning programmes, can be called up by speed dial
- Auto-start function for temperature-controlled start of cleaning
- Preselection of cleaning time: Cleaning duration adjustable between one minute and six hours
- Electronic temperature control in increments of 5 °C, adjustable from +25 to +80 °C (switchable to °F)
- Adjustable limit temperature from +40 to +60 °C (switchable to °F)
- Visual and audible feedbacks, e.g. at the end of cleaning or upon reaching the limit temperature
- Dry-running safety mechanism (not for Elmasonic Select 500 and 900)
- Automatic safety switch-off after eight hours

Range of applications:

- Cleaning: Removes stubborn dirt caused by resins, oils, grease, pastes for sanding and polishing, metal chips and fluxes
- Sample preparation: Homogenising, dispersing, emulsifying and lysing
- For degassing liquids and HPLC solvents

Delivery incl. plastic cover. For Select 500 and 900 devices incl. stainless steel cover and for Select 500 SD and 900 SD devices incl. sound insulation cover. Delivery without basket, please order separately.

Not a medical device / Not an IVD product

Ultrasonic baths

Technical specifications:

Art. No.	1HYC.1	1HYE.1	1HYH.1	1HYK.1	1HYL.1	1HYN.1	1HYP.1	1HYT.1	1HYX.1	1HYY.1	1K01.1	1K00.1	1K02.1
Type	Select 30	Select 40	Select 60	Select 80	Select 100	Select 120	Select 150	Select 180	Select 300	Select 500	Select 900	Select 500 SD	Select 900 SD
Vol.	1.6 l	2.9 l	4.3 l	6.8 l		10.0 l	8.7 l	14.2 l	22.0 l	40.3 l	63.7 l	40.3 l	63.7 l
Inner tub length	220 mm	215 mm	275 mm	475 mm	280 mm	300 mm	485 mm	300 mm	475 mm	500 mm	600 mm	500 mm	600 mm
Inner tub width	120 mm	115 mm	125 mm	110 mm	220 mm	215 mm	280 mm	370 mm	270 mm	330 mm	500 mm	330 mm	500 mm
Inner tub height	65 mm	115 mm				165 mm	65 mm	165 mm		235 mm	200 mm	235 mm	200 mm
Outer length	305 mm		370 mm	570 mm	380 mm		575 mm	405 mm	575 mm	770 mm	870 mm	770 mm	870 mm
Outer width	170 mm		210 mm	195 mm	300 mm		360 mm			425 mm	595 mm	510 mm	640 mm
Outer height	230 mm	280 mm	275 mm	280 mm		330 mm	230 mm	330 mm		505 mm		975 mm	1,145 mm
Operating frequency	37 kHz												
Peak ultrasonic output	480 W		600 W			800 W	1,200 W	800 W	1,200 W	1,920 W	3,840 W	1,920 W	3,840 W
Effective HF power	120 W		150 W			200 W	300 W	200 W	300 W	480 W	960 W	480 W	960 W
Heating output	200 W		400 W	600 W	400 W	800 W			1200 W	1600 W	2000 W	1600 W	2000 W
Power consumption	320 W		550 W	750 W	550 W	1,000 W	1,100 W	1,000 W	1,500 W	2,080 W	2,960 W	2,080 W	2,960 W
Outlet valve	No		Yes										
Weight	3,6 kg	3,8 kg	5,2 kg	6,9 kg	6,2 kg	7,7 kg	8,8 kg	10,2 kg	12,2 kg	30,4 kg	43,4 kg	34,7 kg	49,3 kg
Mains connection	220–240 V												

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Select 30	1.6	305	170	230	**1HYC.1**	1 unit(s)	671,90
Select 40	2.9	305	170	280	**1HYE.1**	1 unit(s)	1.005,15
Select 60	4.3	370	210	275	**1HYH.1**	1 unit(s)	1.182,50
Select 80	6.8	570	195	280	**1HYK.1**	1 unit(s)	1.376,00
Select 100	6.8	380	300	280	**1HYL.1**	1 unit(s)	1.408,25
Select 120	10.0	380	300	330	**1HYN.1**	1 unit(s)	1.811,40
Select 150	8.7	575	360	230	**1HYP.1**	1 unit(s)	1.913,50
Select 180	14.2	405	360	330	**1HYT.1**	1 unit(s)	1.983,40
Select 300	22.0	575	360	330	**1HYX.1**	1 unit(s)	2.472,50
Select 500	40.3	770	425	505	**1HYY.1**	1 unit(s)	3.257,25
Select 500 SD	40.3	770	510	975	**1K00.1**	1 unit(s)	3.622,75
Select 900	63.7	870	595	505	**1K01.1**	1 unit(s)	5.009,50
Select 900 SD	63.7	870	640	1,145	**1K02.1**	1 unit(s)	5.493,25

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Ultrasonic baths

Ultrasonic cleaning unit Elmasonic EASY

Elma. Material: Stainless steel Housing, cleaning bath made of cavitation resistant stainless steel.

- For simple cleaning tasks and sample preparation in laboratories
- **Permanent sweep function** ensures even removal of contamination
- Additional **pulse function** enables the ultrasonic power to be increased by up to 20 %
- Continuous operation or brief operation adjustable between 1 and 30 minutes using the rotary switch
- H-models with dry-run-safe heating, temperature can be adjusted between 30 and 80 °C
  in 5 °C increments using the rotary switch
- Adjustable limit temperature with visual warning signal if it is exceeded
- Automatic safety switch-off after 8 hours of continuous operation or when the bath temperature reaches 90 °C

Delivery incl. lid. Without basket, please order separately.

Not a medical device / Not an IVD product

Technical specifications:

Art. No.	KHA3.1	KHA5.1	KHA4.1	KHA6.1	KHA7.1	KHA8.1	KHA9.1	KHC0.1	KHC1.1	KHC2.1	KHC3.1
Type	EASY 10	EASY 20	EASY 10H	EASY 20H	EASY 30H	EASY 40H	EASY 60H	EASY 100H	EASY 120H	EASY 180H	EASY 300H
Vol.	0.8 l	1.75 l	0.8 l	1.75 l	2.75 l	4.25 l	5.75 l	9.5 l	12.75 l	18 l	28 l
Inner tub length	190 mm	137 mm	190 mm	137 mm	225 mm	220 mm	281 mm		276 mm	303 mm	477 mm
Inner tub width	85 mm	123 mm	85 mm	123 mm	124 mm	118 mm	132 mm	222 mm	216 mm	273 mm	274 mm
Inner tub height	59 mm	99 mm	59 mm	99 mm		149 mm			199 mm		
Outer length	206 mm	176 mm	206 mm	176 mm	264 mm	263 mm	341 mm	339 mm	342 mm	371 mm	544 mm
Outer width	120 mm	176 mm	120 mm	175 mm	176 mm		196 mm	281 mm	285 mm	347 mm	374 mm
Outer height	182 mm	219 mm	182 mm	219 mm		269 mm		272 mm	322 mm		
Operating frequency	37 kHz										
Peak ultrasonic output	240 W	280 W	240 W	280 W	320 W	560 W	600 W		800 W		1,200 W
Effective HF power	30 W	35 W	30 W	35 W	80 W	140 W	150 W		200 W		300 W
Heating output				120 W	200 W		400 W		800 W		1200 W
Outlet valve	No						Yes				
Weight	2,0 kg	2,1 kg	2,0 kg	2,1 kg	3,3 kg	4,0 kg	5,1 kg	5,9 kg	7,5 kg	8,5 kg	11,0 kg
Mains connection	220–240 V										

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
EASY 10	0.8	206	120	182	**KHA3.1**	1 unit(s)	301,00
EASY 20	1.75	176	176	219	**KHA5.1**	1 unit(s)	360,15
EASY 10H	0.8	206	120	182	**KHA4.1**	1 unit(s)	365,50
EASY 20H	1.75	176	175	219	**KHA6.1**	1 unit(s)	435,40
EASY 30H	2.75	264	176	219	**KHA7.1**	1 unit(s)	467,65
EASY 40H	4.25	263	176	269	**KHA8.1**	1 unit(s)	688,00
EASY 60H	5.75	341	196	269	**KHA9.1**	1 unit(s)	806,25
EASY 100H	9.5	339	281	272	**KHC0.1**	1 unit(s)	962,15
EASY 120H	12.75	342	285	322	**KHC1.1**	1 unit(s)	1.247,00
EASY 180H	18	371	347	322	**KHC2.1**	1 unit(s)	1.359,90
EASY 300H	28	544	374	322	**KHC3.1**	1 unit(s)	1.709,25

Ultrasonic baths

Ultrasonic cleaning unit Elmasonic S

Elma.

For intensive cleaning of laboratory instruments made of glass, plastic and metal. Suitable for degassing HPLC solvents and carbonated beverage samples.

- Working frequency 37 kHz
- Housing made of stainless steel
- **Sweep function:** Continuous change of frequency guarantees fast and even cleaning
- **Degas function:** For degassing cleaning solutions and liquids
- Timer for 0 to 30 minutes and continuous operation, safety switch-off after 12 hours
- With fast drainage from model S 30
- H-models with dry-run-safe heating, continuously adjustable from 30–80 °C
- **Auto-Start function:** Ultrasonic cleaning starts once the preselected cleaning temperature has been reached
- LED displays for ultrasound function and heating

Delivery without basket and lid (optional), please order separately. S 10 and S 10 H ultrasonic cleaning units are delivered with the lids included.

Not a medical device / Not an IVD product

Without heating

Technical specifications:

Art. No.	CC84.1	CC86.1	CC88.1	CC90.1	CC92.1	CC94.1	CC96.1	CC98.1
Type	S10	S 15	S 30	S 40	S 60	S 70	S 80	S 180
Vol.	0.8 l	1.75 l	2.75 l	4.25 l	5.75 l	6.9 l	9.4 l	18.0 l
Inner tub length	190 mm	151 mm	240 mm		300 mm	505 mm		327 mm
Inner tub width	85 mm	137 mm			151 mm	137 mm		300 mm
Inner tub height	60 mm	100 mm		150 mm		100 mm	150 mm	200 mm
Outer length	206 mm	175 mm	300 mm		365 mm	564 mm		390 mm
Outer width	116 mm	180 mm	179 mm		186 mm	179 mm		340 mm
Outer height	178 mm	212 mm	214 mm	264 mm		214 mm	264 mm	321 mm
Operating frequency	37 kHz							
Peak ultrasonic output	240 W	280 W	320 W	560 W	600 W			800 W
Effective HF power	30 W	35 W	80 W	140 W	150 W			200 W
Outlet valve	No		Yes					
Mains connection	220–240 V, 50/60 Hz							

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
S10	0.8	206	116	178	**CC84.1**	1 unit(s)	301,00
S 15	1.75	175	180	212	**CC86.1**	1 unit(s)	537,50
S 30	2.75	300	179	214	**CC88.1**	1 unit(s)	607,40
S 40	4.25	300	179	264	**CC90.1**	1 unit(s)	870,75
S 60	5.75	365	186	264	**CC92.1**	1 unit(s)	1.005,15
S 70	6.9	564	179	214	**CC94.1**	1 unit(s)	1.161,00
S 80	9.4	564	179	264	**CC96.1**	1 unit(s)	1.263,15
S 180	18.0	390	340	321	**CC98.1**	1 unit(s)	1.720,00

Ultrasonic baths

With heating

Technical specifications:

Art. No.	CC85.1	CC87.1	CC89.1	CC91.1	CC93.1	CC95.1	CC97.1	CC99.1
Type	S 10 H	S 15 H	S 30 H	S 40 H	S 60 H	S 70 H	S 80 H	S 180 H
Vol.	0.8 l	1.75 l	2.75 l	4.25 l	5.75 l	6.9 l	9.4 l	18.0 l
Inner tub length	190 mm	151 mm	240 mm		300 mm	505 mm		327 mm
Inner tub width	85 mm	137 mm			151 mm	137 mm		300 mm
Inner tub height	60 mm	100 mm		150 mm		100 mm	150 mm	200 mm
Outer length	206 mm	175 mm	300 mm		365 mm	564 mm		390 mm
Outer width	116 mm	180 mm	179 mm		186 mm	179 mm		340 mm
Outer height	178 mm	212 mm	214 mm	264 mm		214 mm	264 mm	321 mm
Operating frequency	37 kHz							
Peak ultrasonic output	240 W	280 W	320 W	560 W	600 W			800 W
Effective HF power	30 W	35 W	80 W	140 W	150 W			200 W
Heating output	60 W		200 W		400 W	600 W		800 W
Outlet valve	No		Yes					
Mains connection	220–240 V, 50/60 Hz							

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
S 10 H	0.8	206	116	178	**CC85.1**	1 unit(s)	365,50
S 15 H	1.75	175	180	212	**CC87.1**	1 unit(s)	634,25
S 30 H	2.75	300	179	214	**CC89.1**	1 unit(s)	671,90
S 40 H	4.25	300	179	264	**CC91.1**	1 unit(s)	1.005,15
S 60 H	5.75	365	186	264	**CC93.1**	1 unit(s)	1.182,50
S 70 H	6.9	564	179	214	**CC95.1**	1 unit(s)	1.263,15
S 80 H	9.4	564	179	264	**CC97.1**	1 unit(s)	1.462,00
S 180 H	18.0	390	340	321	**CC99.1**	1 unit(s)	1.983,40

Accessories insertion basket for Elmasonic S, P and EASY ultrasonic cleaning units

Elma. Material: Stainless steel 1.4301, Electro-polished.
Handles with heat-insulating coating.

NEW / +

Not a medical device / Not an IVD product

Version	Suitable for	Inner length (mm)	Inner width (mm)	Inner height (mm)	Art. No.	Pack Qty.	€
Insertion basket	Select 150	455	250	45	**1K1H.1**	1 unit(s)	193,50
Insertion basket	Select 500	460	300	195	**1K1K.1**	1 unit(s)	306,40
Insertion basket	Select 900	545	460	190	**1K1L.1**	1 unit(s)	403,15
Insertion basket	S 10 / S 10H, EASY 10 / 10H	177	73	30	**CE06.1**	1 unit(s)	38,70
Insertion basket	S 15 / S 15H, EASY 20 / 20H	112	103	50	**CE07.1**	1 unit(s)	43,00
Insertion basket	S 30 / S 30H, P 30H, EASY 30H, Select 30	198	106	50	**CE08.1**	1 unit(s)	49,45
Insertion basket	S 40 / S 40H, EASY 40H, Select 40	190	105	75	**CE09.1**	1 unit(s)	55,90
Insertion basket	S 60 / S 60H, P 60H, EASY 60H, Select 60	255	115	75	**CE10.1**	1 unit(s)	69,90
Insertion basket	S 70 / S 70H, P 70H	465	106	50	**CE11.1**	1 unit(s)	166,65
Insertion basket	S 80 / S 80H, Select 80	455	106	75	**CE12.1**	1 unit(s)	129,00
Insertion basket	EASY 100H, Select 100	255	200	75	**KHA2.1**	1 unit(s)	150,50
Insertion basket	S 120 / S 120H, P 120H, EASY 120H, Select 120	250	190	115	**LX86.1**	1 unit(s)	150,50
Insertion basket	S 180 / S 180H, P 180H, EASY 180H, Select 180	280	250	115	**CE13.1**	1 unit(s)	172,00
Insertion basket	P 300H, EASY 300H, Select 300	455	250	115	**LX87.1**	1 unit(s)	193,50

Ultrasonic baths

Ultrasonic cleaning unit Elmasonic P

Elma.

- Stainless steel vibration tank and housing
- Digital LED display for clear indication of frequency, output, actual and nominal temperatures and timer
- 3/8″ drainage valve on back of unit (operated at the side)
- Ultrasonic frequency is switchable between 37 kHz (basic cleaning, mixing, dissolving) and 80 kHz (mild cleaning, low noise)
- Ultrasonic intensity is adjustable from 30% (for sensitive surfaces) to 100% in increments of 10%
- Automatic frequency switch-over for simultaneous coarse and fine cleaning
- **Sweep function** for optimised sound field distribution
- **Pulse function** for intensification of ultrasonic cleaning power by up to 20%
- (Auto-)**Degas function** for quick degassing
- Temperature-controlled ultrasonic cleaning
- Heating that is safe to run dry, adjustable from 30 to 80 °C in increments of 10 °C
- Automatic safety switch-off at a bath temperature of 90 °C or after more than 12 hours of continuous operation

Technical specifications:

Art. No.	LX70.1	LX71.1	LX72.1	LX73.1	LX74.1	LX75.1
Type	P 30H	P 60H	P 70H	P 120H	P 180H	P 300H
Vol.	2.75 l	5.75 l	6.9 l	12.75 l	18.0 l	28.0 l
Inner tub length	240 mm	300 mm	505 mm	300 mm	327 mm	505 mm
Inner tub width	137 mm	151 mm	137 mm	240 mm	300 mm	
Inner tub height	100 mm	150 mm	100 mm	200 mm		
Outer length	300 mm	365 mm	568 mm	365 mm	390 mm	568 mm
Outer width	179 mm	186 mm	179 mm	278 mm	340 mm	
Outer height	221 mm	271 mm	221 mm	321 mm		
Operating frequency	37 kHz/80 kHz					
Peak ultrasonic output	400 W	600 W	880 W	1,320 W		1,520 W
Effective HF power	100 W	150 W	220 W	330 W		380 W
Heating output	200 W	400 W	600 W	800 W		1200 W
Outlet valve	Yes					

Delivery without basket and lid (optional), please order separately.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
P 30H	2.75	300	179	221	**LX70.1**	1 unit(s)	994,40
P 60H	5.75	365	186	271	**LX71.1**	1 unit(s)	1.365,25
P 70H	6.9	568	179	221	**LX72.1**	1 unit(s)	1.456,65
P 120H	12.75	365	278	321	**LX73.1**	1 unit(s)	2.064,00
P 180H	18.0	390	340	321	**LX74.1**	1 unit(s)	2.279,00
P 300H	28.0	568	340	321	**LX75.1**	1 unit(s)	2.644,50

Accessories lid for Elmasonic S and P ultrasonic cleaning units

Elma. Material: Plastic.

Noise-inhibiting. Usable as a drip tray.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Lid	S 15 / S 15H	**CE01.1**	1 unit(s)	19,90
Lid	S 30 / S 30H / S 40 / S 40H / P 30H	**CE02.1**	1 unit(s)	22,60
Lid	S 60 / S 60H / P60 H	**CE03.1**	1 unit(s)	27,95
Lid	S 70 / S 70H / S 80 / S 80H / P 70 H	**CE04.1**	1 unit(s)	36,55
Lid	P 120H	**LX84.1**	1 unit(s)	36,55
Lid	S 180 / S 180H / P 180H	**CE05.1**	1 unit(s)	38,70
Lid	P 300H	**LX85.1**	1 unit(s)	45,15

Accessories insert tub for Elmasonic S, P and xtra ultrasonic cleaning units

Elma. Material: Plastic.
Tub with small holes in the base.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Insert tub	S 15, S 15H	**C309.1**	1 unit(s)	18,85
Insert tub	S 30, S 30H, P 30 H, xtra	**0613.1**	1 unit(s)	21,00
Insert tub	S 40, S 40H	**C310.1**	1 unit(s)	21,00

Accessories insert lid

Elma. Material: Stainless steel.

Not a medical device / Not an IVD product

Version	Suitable for	Ø Hole (mm)	Art. No.	Pack Qty.	€
for 2 beakers	S 30, S 30H, S 40, S 40H, P 30 H	95	**H557.1**	1 unit(s)	32,25

Accessories immersion basket

Elma.
Can be used with all types of device.

Not a medical device / Not an IVD product

(1) Polyethylene
Material: PE.

Version	Inner basket height (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
PE immersion basket	40	74	**H558.1**	1 unit(s)	16,15

(2) Stainless steel, mesh size 0.8 mm
Material: Stainless steel.

Version	Inner basket height (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
Immersion basket made of stainless steel	60	59	**H559.1**	1 unit(s)	48,40

Ultrasonic baths

Ultrasonic cleaning unit Elmasonic S 50 R

Elma.

Ultrasonic cleaning unit for cleaning test sieves, HPLC solvent degassing and sample preparation. With microprocessor-controlled ultrasound modes and special programmes for routine laboratory applications and cleaning tasks.

- **Sieve cleaning function**:
  strong cleaning pulses ensure optimal sieve cleaning
- **Degas/(autodegas) function**:
  efficient and noise-reduced degassing of HPLC solvents and carbonated beverage samples
- **Sample preparation function:**
  for routine tasks such as mixing, dissolving, dispersing and cleaning
- Short-time operation between 1 and 30 minutes or continuous operation, adjustable using rotary switch
- LED display of set cleaning time and remaining cleaning time
- Cleaning tank made of cavitation-resistant stainless steel
- Can be connected to laboratory stand for noise-reduced operation
- Plastic carry handles

Technical specifications:

Art. No.	YE61.1
Type	Elmasonic S 50 R
Vol.	5 l
Max. volume	5.3 l
Ø Internal	240 mm
Inner tub height	130 mm
Ø ext.	260 mm
Outer height	350 mm
Operating frequency	37 kHz
Peak ultrasonic output	600 W
Effective HF power	150 W
Power consumption	150 W
Weight	5 kg

Delivery without basket and accessories, please order separately.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer height (mm)	Art. No.	Pack Qty.	€
Elmasonic S 50 R	5	350	**YE61.1**	1 unit(s)	919,15

Accessories for Elmasonic S 50 R ultrasonic cleaning unit

Elma.

Not a medical device / Not an IVD product

Lid
Material: PP. Blue, noise-inhibiting.

Version	Art. No.	Pack Qty.	€
Lid	**YE62.1**	1 unit(s)	28,50

(1) Perforated lid
Material: PP. Blue. Opening Ø 97 mm. Perforated lid in combination with rubber ring suitable for 600 ml beakers (low form) and 1000 ml beakers (high form).

Delivery without rubber ring, please order separately.

Version	Art. No.	Pack Qty.	€
Perforated lid	**YE63.1**	1 unit(s)	28,50

Rubber ring
Material: Rubber.

Version	Art. No.	Pack Qty.	€
Rubber ring	**YE64.1**	1 unit(s)	3,55

(2) Sieve holder for laboratory sieves
Material: Stainless steel 1.4301. Suitable for laboratory sieve Ø of 100 and 200 mm.

Version	Suitable for	Art. No.	Pack Qty.	€
Sieve holder for laboratory sieves	Laboratory sieve Ø of 100 and 200 mm	**YE65.1**	1 unit(s)	64,50

(3) Insertion basket
Material: Stainless steel. Basket inner dimensions: Ø 220 x H 70 mm. Mesh size 10 x 10 mm. Handles with heat-insulating coating.

Version	Inner basket height (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
Insertion basket	70	220	**YE66.1**	1 unit(s)	87,10

Set of fixtures for glass flasks for HPLC degassing

Delivery incl. three-finger clamp, fastening sleeve and stand rod (length 600 mm).

Version	Art. No.	Pack Qty.	€
Set of fixtures for glass flasks for HPLC degassing	**YE67.1**	1 unit(s)	75,25

Noise protection box for ultrasonic cleaning units

Elma.

Noise protection box for ultrasonic cleaning units to reduce typical cavitation noises by approx. 20 dBA and reduce subjective noises by 75%. Cover made of Plexiglas so that the unit function and fill level can be seen. Integrated air extraction to remove steam from the box can be manually activated. This allows the box to be used directly at work stations in chemical laboratories, dental laboratories and workshops.

Technical specifications:

Art. No.	YP19.1	YP20.1
Type	Noise protection box M	Noise protection box L
Suitable for	S 10, S 15, S 30, P 30, S 40, S 60, P 60	S 90, S 100, S 120, P 120, S 130, X-tra 30, X-tra 50, X-tra 70, Transsonic TI-H-5
Inner length	380 mm	440 mm
Inner width	240 mm	310 mm
Inner height	315 mm	480 mm
Outer length	465 mm	530 mm
Outer width	415 mm	490 mm
Outer height	360 mm	530 mm
Power consumption	18 W	
Weight	12.6 kg	15.2 kg
Mains connection	230 V, 50 Hz	

Delivery without ultrasonic cleaning unit, please order separately.

Not a medical device / Not an IVD product

Type	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Noise protection box L	530	490	530	**YP20.1**	1 unit(s)	795,50
Noise protection box M	465	415	360	**YP19.1**	1 unit(s)	741,75

Ultrasonic baths

Ultrasonic cleaning unit Elmasonic xtra TT

Elma.

Powerful ultrasonic baths with permanently integrated sweep function for uniform cleaning. Vibration tank made of cavitation-resistant stainless steel. With LED display for ultrasonic and heating function.

- Ultrasonic frequency 37 kHz
- Permanently integrated sweep function for uniform distribution of the ultrasonic power in the entire cleaning bath
- Switchable dynamics function enhances the ultrasonic peak performance and improves the cleaning effect
- Permanent operation of brief operation adjustable between 1 and 30 minutes
- Temperature selectable from 30–80 °C in increments of 5 °C
- Adjustable limit temperature, LED warning display if exceeded
- Auto-start function: Ultrasonic cleaning starts automatically when the preselected temperature is reached
- 3/8″ drain ball valve
- Heating that is safe to run dry
- Automatic safety switch-off after 8 hours continuous operation or 90 °C bath temperature
- Removable power cable with rubber connector

Technical specifications:

Art. No.	**HHH7.1**	**HHH8.1**	**HHH9.1**	**HHK0.1**
Type	xtra TT 30 H	xtra TT 60 H	xtra TT 120 H	xtra TT 200 H
Vol.	2 l	5 l	10 l	13 l
Max. volume	3 l	6.5 l	14 l	18 l
Inner tub length	240 mm	300 mm		320 mm
Inner tub width	130 mm	150 mm	240 mm	280 mm
Inner tub height	100 mm	150 mm	200 mm	
Inner basket length	196 mm	257 mm	262 mm	280 mm
Inner basket width	112 mm	132 mm	222 mm	250 mm
Inner basket height	49 mm	74 mm	114 mm	
Loading capacity	1 kg	3 kg	7 kg	8 kg
Outer length	360 mm	420 mm	440 mm	420 mm
Outer width	230 mm	250 mm	340 mm	390 mm
Outer height	250 mm	300 mm	350 mm	330 mm
Operating frequency	37 kHz			
Effective HF power	140 W	150 W	200 W	300 W
Heating output	200 W	400 W	800 W	1200 W
Outlet valve	Yes			
Weight	6 kg	10 kg	11 kg	13 kg
Mains connection	220–240 V, 50/60 Hz			

Delivery incl. lid. Basket not included. Please order separately.

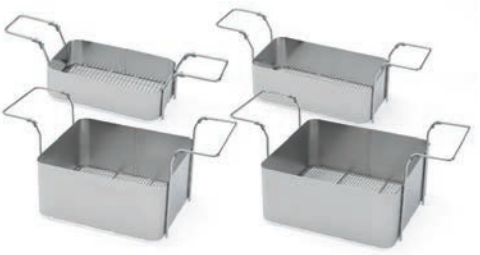
Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
xtra TT 30 H	2	360	230	250	**HHH7.1**	1 unit(s)	935,25
xtra TT 60 H	5	420	250	300	**HHH8.1**	1 unit(s)	1.257,75
xtra TT 120 H	10	440	340	350	**HHH9.1**	1 unit(s)	1.902,75
xtra TT 200 H	13	420	390	330	**HHK0.1**	1 unit(s)	2.203,75

Accessories insertion basket for Elmasonic xtra TT ultrasonic cleaning units

Elma. Material: Stainless steel.

Mesh size 6 x 1 mm.



Not a medical device / Not an IVD product

Version	Suitable for	Inner basket length (mm)	Inner basket width (mm)	Inner basket height (mm)	Art. No.	Pack Qty.	€
Insertion basket	xtra TT 30 H	196	112	49	**HHK1.1**	1 unit(s)	87,10
Insertion basket	xtra TT 60 H	257	132	74	**HHK2.1**	1 unit(s)	118,25
Insertion basket	xtra TT 120 H	262	222	114	**HHK3.1**	1 unit(s)	145,15
Insertion basket	xtra TT 200 H	280	250	114	**HHK4.1**	1 unit(s)	177,40

Ultrasonic cleaning unit Transsonic TI-H

Elma. Material: Stainless steel.

- **Multi-frequency bath:** Frequencies (35/130 kHz) can be switched over for intensive cleaning and gentle cleaning of sensitive surfaces
- Stainless steel shell. Vibration tank made of 1.5 mm strong special stainless steel, extremely robust and hard wearing
- **Degas function** for rapid, effective degassing
- **Sweep function** for optimised sound field distribution
- Outlet on back of housing, electrical control via push-button
- With heating, adjustable from 30–80 °C

Technical specifications:

Art. No.	T712.1	T713.1	T714.1	T715.1
Type	TI-H-5	TI-H-10	TI-H-15	TI-H-20
Vol.	3.5 l	8.6 l	12.2 l	16.8 l
Inner tub length	240 mm	300 mm		330 mm
Inner tub width	130 mm	240 mm		300 mm
Inner tub height	150 mm		200 mm	
Outer length	340 mm	400 mm		430 mm
Outer width	300 mm	415 mm		470 mm
Outer height	370 mm		420 mm	
Operating frequency	35/130 kHz			
Peak ultrasonic output	400 W	800 W		1,000 W

Delivery without basket and lid (optional), please order separately.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
TI-H-5	3.5	340	300	370	**T712.1**	1 unit(s)	2.031,75
TI-H-10	8.6	400	415	370	**T713.1**	1 unit(s)	2.279,00
TI-H-15	12.2	400	415	420	**T714.1**	1 unit(s)	2.547,75
TI-H-20	16.8	430	470	420	**T715.1**	1 unit(s)	2.676,75

Accessories lid for Transsonic TI-H ultrasonic cleaning units

Elma. Material: Stainless steel.
For Transsonic TI-H ultrasonic cleaning units.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Lid	TI-H-5	**T716.1**	1 unit(s)	40,85
Lid	TI-H-10	**T717.1**	1 unit(s)	46,80
Lid	TI-H-15	**T718.1**	1 unit(s)	46,80
Lid	TI-H-20	**T719.1**	1 unit(s)	52,15

Accessories insertion basket for Transsonic TI-H ultrasonic cleaning units

Elma. Material: Stainless steel.
For Transsonic TI-H ultrasonic cleaning unit.

Not a medical device / Not an IVD product

Version	Suitable for	Inner basket length (mm)	Inner basket width (mm)	Inner basket height (mm)	Art. No.	Pack Qty.	€
Insertion basket	TI-H-5	200	100	90	**T720.1**	1 unit(s)	129,00
Insertion basket	TI-H-10	260	210	90	**T721.1**	1 unit(s)	182,75
Insertion basket	TI-H-15	260	210	135	**T722.1**	1 unit(s)	182,75
Insertion basket	TI-H-20	290	270	135	**T723.1**	1 unit(s)	204,25

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Ultrasonic pipette cleaner SONOREX PR 140 DH

Bandelin.

Ultrasonic pipette cleaner to gently clean volumetric glass or plastic devices up to a length of 755 mm.

- Short cleaning times
- Timer (1, 2, 3, 4, 5, 10, 15, 30 minutes or continuous operation)
- Particularly robust thanks to the V4A (1.4571) stainless steel tank
- Drop handles for easier transportation
- Ball valve means that it can be emptied quickly and easily
- Model PR 140 DH with optional heating (can be adjusted from 20 to 80 °C) to increase the cleaning effect, e.g. in the case of grease residues and stubborn soiling

Number of pipettes to be cleaned in the pipette basket:
Ø 9 mm – approx. 90 pcs; Ø 10.7 mm – approx. 55 pcs; Ø 14 mm – approx. 35 pcs; Ø 20.0 mm – approx. 15 pcs; Ø 29 mm – approx. 10 pcs.

Technical specifications:

Art. No.	ECY0.1
Type	PR 140 DH
Volume range	9–18 l
Inner tub length	150 mm
Inner tub width	150 mm
Inner tub height	895 mm
Outer length	330 mm
Outer width	330 mm
Outer height	1,003 mm
Operating frequency	35 kHz
Peak ultrasonic output	860 W
Effective HF power	200 W
Heating output	700 W
Outlet valve	Yes
Weight	19.7 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. stainless steel lid and PE pipette basket (inner dimensions: Ø x H 120 x 275 mm).

Not a medical device / Not an IVD product

Type	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
PR 140 DH	330	330	1,003	**ECY0.1**	1 unit(s)	3.957,10

Ultrasonic cleaners ULTRASONOL® 7

Carl ROTH.

Gentle on materials, this special cleaner assists and intensifies the ultrasonic cleaning process.

- Also suitable for sensitive objects and materials. Non-irritating and non-toxic.
- Non-flammable, non-gassing, biodegradable
- Liquid concentrate pH 7

Use 2–10% in water. Reaction time approx. 10 min; after washing, rinse thoroughly and dry.

Technical specifications:

Art. No.	5356.1	5356.2	5356.4
Intended purpose	for ultrasonic baths		
Delivery form	Concentrated liquid		
pH range	neutral		
Free from chlorine	Yes		
Dosing	2-10% in water		

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
ULTRASONOL® 7	**5356.1**	1 l	16,30
ULTRASONOL® 7	**5356.2**	5 l	62,00
ULTRASONOL® 7	**5356.4**	20 kg	184,90

Ultrasonic cleaners

Ultrasonic cleaners ULTRASONOL® 11

Carl ROTH.

This highly effective special cleaner assists and intensifies the ultrasonic cleaning process.

- Removes distillation residues, tars, resins, Canada balsam, adhesives, silicones, greases, oils and similar contaminants
- Non-flammable, non-gassing, biodegradable
- Liquid concentrate pH 12.9

Use 2–10% in water. Reaction time 1 to 10 min; after washing, rinse thoroughly and dry.

Technical specifications:

Art. No.	5354.1	5354.2
Intended purpose	for ultrasonic baths	
Delivery form	Concentrated liquid	
Dosing	2-10% in water	

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
ULTRASONOL® 11	**5354.1**	1 l	14,75
ULTRASONOL® 11	**5354.2**	5 l	61,10

Ultrasonic cleaners EC 10

Elma.

Alkaline universal cleaning concentrate. For thorough ultrasonic and immersion cleaning of alkali-resistant cleaning goods and medical products such as laboratory, medical and dental instruments made of stainless steel, steel, ceramic, glass, plastic and rubber.
Removes blood, saliva, proteins, tissue and bone residues as well as greases, oils and pastes for sanding and polishing.
Dosing: 5% in water in ultrasonic and immersion baths, higher dosages (up to 10%) can be used for heavy contamination.

Danger H290-H315-H318

Medical device class I

Type	Art. No.	Pack Qty.	€
EC 10 ultrasonic cleaner	**CC48.1**	1 l	17,20

Ultrasonic cleaners Elma clean 70

Elma.

Alkaline, universal cleaning concentrate.
For cleaning laboratory equipment and materials made of glass, ceramic, alkaline-resistant plastic, rubber (e.g. respiratory protection masks), metal and light metal. Removes oils, greases, dust, soot and other organic contaminations.
Dispensing: 1–5% in water at 20–80 °C; 5–10% in water in an immersion bath without ultrasound.

Danger H315-H318

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Elma clean 70 ultrasonic cleaner	**CC46.1**	1 l	15,05

Ultrasonic cleaners Elma clean 75

Elma.

Cleaning concentrate containing ammonia for cleaning jewellery and for use in laboratories and workshops. Removes dirt particles, greases, oils, skin residues and sanding/polishing/lapping residues. Helps brighten precious and non-ferrous metals. Can corrode zinc and aluminium as well as light metal alloys.
Dispensing: 5–10% in water; 15% in water in an immersion bath without ultrasound.

Danger H315-H318-H336-H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Elma clean 75 ultrasonic cleaner	**CC47.1**	1 l	16,70

Ultrasonic cleaners

Ultrasonic cleaners Elma clean 65

Elma.

Gentle neutral cleaner with corrosion inhibitor.
For workpieces made of sensitive materials,such as glass, plastic, rubber as well as metal. Removes fingerprints, dust, pigments, light greases and oils.
Dispensing: 2–5% in water at 20–80 °C.

Danger H318

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Elma clean 65 ultrasonic cleaner	**CC45.1**	1 l	15,05

Ultrasonic cleaners EC 60

Elma.

Acidic cleaning concentrate for ultrasonic and immersion cleaning. Suitable for acidic deep-cleaning of medical instruments and workpieces made of stainless steel, metal, ceramic, glass and plastic. Also suitable for laboratory equipment. Removes metal oxides and mineral contamination such as limescale, rust, tarnished areas and other deposits, mineral oils and greases. Also suitable for removing acid soluble cements.
Not suitable for light metals.
Dosing: 1-10% in water at 40-70 °C; 3% in water in an immersion bath without ultrasound.

Danger H290-H314

Medical device class I

Type	Art. No.	Pack Qty.	€
EC 60 ultrasonic cleaner	**CC44.1**	1 l	24,75

RBS® universal cleaners

- Effective cleaning of laboratory glassware, plastics, porcelain, ceramics, crystal, stainless steel, etc. in laboratories (analysis, monitoring, research and development), universities, institutes, industry etc.
- Effective against grease, oils, salts, limescale, proteins, radioactive contamination and other chemical and biological residues.
- Suitable for manual cleaning, dishwashers and ultrasound baths or for automatic cleaning in immersion bath

Laboratory cleaning agent RBS 25

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate for cleaning by hand as well as immersion bath and ultrasonic bath cleaning.
Cleans and degreases surfaces and objects made of glass, ceramic, porcelain, plastic and stainless steel. Also suitable for industrial applications (processing of electronic components, wafers, lenses, etc.).

- pH value in concentration for use 2%: approx. 11.9
- Density 1.094 g/ml
- Foaming

Concentration for use: 20 ml per litre of water. Temperatures up to approx. 50 °C accelerate the cleaning process. Items to be cleaned should remain in the immersion bath for at least 3 hours.
Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	**AL89.1**
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths
Delivery form	Concentrated liquid
pH range	alkaline
Ingredients	Sodium hydroxide, sodium hypochlorite solution, surfactants, phosphates
Dosing	2% in water

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS 25	**AL89.1**	5 l	66,05

RBS® universal cleaners

Laboratory cleaning agent RBS 35

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate for cleaning by hand for normal levels of dirt as well as immersion bath and ultrasonic bath cleaning. Also suitable for use with hard water.
Cleans and degreases all non-corrosive materials and surfaces. Also suitable for industrial cleaning and degreasing of metals, electronic components, wafers, lenses, etc. Rinses off trace-free.

- pH value in concentration for use 2%: approx. 11.5
- Density 1.07 g/ml
- Slightly foaming

Concentration for use: 20 ml per litre of water; increase the dosage for stubborn dirt.
Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	9238.1	9238.2	9238.4
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths		
Delivery form	Concentrated liquid		
pH range	alkaline		
Ingredients	Sodium hydroxide, tetrapotassium diphosphate, sodium carbonate, sodium hypochlorite solution, surfactants		
Dosing	2% in water		

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS 35	**9238.1**	1 l	18,10
RBS 35	**9238.2**	5 l	74,25
RBS 35	**9238.4**	20 kg	207,50

Laboratory cleaning agent RBS 50

Carl ROTH.

Highly alkaline liquid laboratory cleaning concentrate. Suitable for universal cleaning by hand, immersion bath and ultrasonic bath cleaning as well as laboratory dishwashers. Even works on stubborn dirt.
Cleans and degreases all non-corrosive materials and surfaces. Also removes problematic substances such as radioactive residues, Canada balsam, silicones, etc. For industrial applications to treat metal parts, lenses, electronic components, etc.
Rinses off trace-free.

- pH pure product: 13.5
- Density 1.244 g/ml
- Non foaming
- Also suitable for use with hard water

Concentration for use:
For manual and automatic cleaning: 10 ml per litre of water.
Cleaning in dishwashers and ultrasonic baths:
3-5 ml per litre of water. Dishwasher cleaning particularly effective in combination with RBS NA 2 and/or RBS R 60.
Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	9232.1	9232.2	9232.4
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths, for laboratory dishwashers		
Delivery form	Concentrated liquid		
pH range	highly alkaline		
Ingredients	Tetrapotassium diphosphate, sodium hydroxide, sodium hypochlorite solution, mineral salts		
Dosing	3–10% in water		

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS 50	**9232.1**	1 l	22,70
RBS 50	**9232.2**	5 l	103,95
RBS 50	**9232.4**	20 kg	292,40

Laboratory cleaning agent RBS Neutral T

Carl ROTH.

Neutral liquid laboratory cleaning concentrate for manual or automatic cleaning. Also suitable for sensitive materials and surfaces. Non-corrosive. No harmful effects on culture growth, therefore also suitable for use in microbiology and tissue culture.

- Free from chlorine
- pH-neutral cleaning solution
- Density 1.072 g/ml
- Slightly foaming
- Biodegradable

Concentration for use: 4 to 6 % v/v depending on amount of dirt. Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	0180.1	0180.2
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath	
Delivery form	Concentrated liquid	
pH range	neutral	
Ingredients	Surfactants, isotridecanol, ethylene glycol monophenyl ether, phosphates	
Free from chlorine	Yes	
Dosing	4–6% in water	

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS Neutral T	**0180.1**	1 l	18,25
RBS Neutral T	**0180.2**	5 l	68,50

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Laboratory cleaning agent RBS IND 470

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate for decontaminating radioactive residues (tested for ^{99}Mo, ^{192}Ir, ^{131}I). Also removes greases, silicone oils, carbonates, metal particles, dust and organic substances. Suitable for automatic or manual ultrasound cleaning of objects, containers and surfaces made of glass, stainless steel and plastic.

- Halogen free (Cl; I; Br; F < 20 µg/g) and phosphate free (P < 5 µg/g)
- pH pure product: 14.0
- Density at 20 °C: 1.06
- Slightly foaming
- Also suitable for use with hard water

Concentration for use: 2% v/v for normal contamination, temperatures up to approx. 50 °C accelerate the cleaning process. Soak parts to be decontaminated in a 10% solution at 60 °C for at least 6 hours. Rinse thoroughly with deionised water. Unsuitable for corrodible metals.

Technical specifications:

Art. No.	TA00.1	TA00.2
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths	
Delivery form	Concentrated liquid	
pH range	alkaline	
Ingredients	Potassium hydroxide, isotridecanol, surfactants	
Phosphate-free	Yes	
Dosing	2–10% in water	

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS IND 470	**TA00.1**	5 l	56,50
RBS IND 470	**TA00.2**	20 kg	169,85

RBS® universal cleaners

Laboratory cleaning agent RBS pF T

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate for manual or automatic cleaning in analytical labs.
Equalises water hardness. Rinses off trace-free.

- Phosphate-free
- pH value in concentration for use 2%: approx. 11.8
- Density 1.072 g/ml
- Slightly foaming
- Also suitable for use with hard water
- Biodegradable

Concentration for use: 20 ml per litre of water; increase the dosage for stubborn dirt.
Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	**9243.1**	**9243.2**	**9243.4**
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath		
Delivery form	Concentrated liquid		
pH range	alkaline		
Ingredients	Tetrasodium salt, sodium hydroxide, sodium carbonate, sodium hypochlorite solution, surfactants		
Phosphate-free	Yes		
Dosing	2% in water		

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS pF T	**9243.1**	1 l	17,55
RBS pF T	**9243.2**	5 l	72,65
RBS pF T	**9243.4**	20 kg	232,20

Laboratory cleaning agent RBS T 115

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate with excellent emulsifying and wetting properties. For self and manual cleaning or use in ultrasonic baths. Strongly recommended for laboratory glass, quartz, porcelain or plastics. Removes organic and inorganic substances such as fats, proteins, distillation residues and biological contaminants. Reduces water hardness and counteracts scaling. Free from phosphates and therefore suitable for use in analytical labs. Biodegradable.

- Phosphate-free
- pH of a 2% cleaning solution: 11.7
- Density at 20 °C: 1.08
- Slightly foaming
- Also suitable for use with hard water

Concentration for use: 2% v/v (higher concentrations can be used to remove stubborn dirt). Temperatures up to approx. 50 °C accelerate the cleaning process. Rinse thoroughly with deionised water. Unsuitable for mildly corroding metals and sensitive materials.

Technical specifications:

Art. No.	**LY18.1**
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths
Delivery form	Concentrated liquid
pH range	alkaline
Ingredients	Tetrasodium salt, sodium hydroxide, sodium carbonate, sodium hypochlorite solution, surfactants
Phosphate-free	Yes
Dosing	2% in water

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS T 115	**LY18.1**	5 l	43,50

Laboratory cleaning agent RBS T 105

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate. For self and manual cleaning or use in ultrasonic baths. Suitable for laboratory glassware, stainless steel, porcelain and plastics. Removes organic and biological substances, such as greases, distillation residues, proteins and cell cultures. Reduces water hardness and counteracts scaling. Rinses off easily without leaving a residue.

- pH value of cleaning solution (2%): 11.8
  pH value, concentrate: 13.3
- Density at 20 °C: 1.12
- Foaming
- Also suitable for use with hard water

Concentration for use: 2% v/v, higher concentrations can be used to remove stubborn dirt. Temperatures up to approx. 50 °C accelerate the cleaning process.
Rinse thoroughly with deionised water. Unsuitable for corrodible metals.

Technical specifications:

Art. No.	**PY99.1**
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths
Delivery form	Concentrated liquid
pH range	alkaline
Ingredients	Tetrapotassium diphosphate, surfactants, sodium hypochlorite solution
Dosing	2% in water

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS T 105	**PY99.1**	5 l	41,05

Laboratory cleaning agent RBS T 230

Carl ROTH.

Neutral liquid laboratory cleaning concentrate for cleaning sensitive materials, such as volumetric glassware, aluminium, zinc, tin, PS or PC. Non-corrosive and fully biodegradable. Self-acting (no mechanical cleaning required). Also suitable for use in microbiology as it has no harmful effects on culture growth.

- Chlorine- and oxidant-free
- pH-neutral cleaning solution
- Density at 20 °C: 1.07
- Non-corrosive, non-toxic and non-irritant
- Slightly foaming
- Also suitable for use with hard water

Concentration for use: 4 to 6% v/v, i.e. 40 to 60 ml RBS T 230 per litre of water depending on contamination. Objects should be fully immersed for cleaning.
Exposure time: 2 to 12 hours. Temperatures up to approx. 60 °C accelerate the cleaning process. Lightly brush or rinse off stubborn dirt prior to use. Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	**LY17.1**
Intended purpose	for automatic cleaning in immersion bath, for ultrasonic baths
Delivery form	Concentrated liquid
pH range	neutral
Ingredients	Surfactants, isotridecanol, ethylene glycol monophenyl ether, phosphates
Free from chlorine	Yes
Free from oxidising agents	Yes
Dosing	4–6% in water

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS T 230	**LY17.1**	5 l	41,35

RBS® universal cleaners

Laboratory cleaning agent RBS T 305

Carl ROTH.

Acidic liquid laboratory cleaning concentrate for manual cleaning. Particularly well suited to the removal of grease, oils, limescale residues, metal oxides, salts and inorganic residues from glass, ceramic, porcelain and non-corrosive stainless steel and surfaces and acid-resistant plastics. Also for cleaning floors, workbenches and animal cages. Apply the cleaning solution, allow it to act; if necessary, brush off and rinse thoroughly with water.

- Free from chlorine
- pH value in concentration for use: 1.5 to 1.2
- Density 1.40 g/ml
- Foaming
- Biodegradable
- Also suitable for use with hard water

Concentration for use: 2 to 5% v/v depending on amount of dirt.

Technical specifications:

Art. No.	KT39.1
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Phosphoric acid, isotridecanol, surfactants
Free from chlorine	Yes
Dosing	2–5% in water

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS T 305	**KT39.1**	5 l	53,40

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Laboratory cleaning agent RBS A 285 SOLID pF

Carl ROTH.

Powder-based, alkaline high-performance cleaner for laboratory dishwashers. Suitable for laboratory glassware, stainless steel, porcelain and alkali-resistant plastics. Removes greases, oils, distillation residues and other organic and mineral substances. Rinses off trace-free.

- Free from phosphates, EDTA and NTA
- pH value in concentration for use 0.3%: 11.4
- Surfactants, biodegradable
- Also suitable for use with hard water

Concentration for use: 0.1% m/v, in the case of stubborn dirt or hard water, the concentration can be increased to 3 g per litre. Temperatures between 50 and 95 °C accelerate the cleaning process. Particularly effective in combination with RBS A 375 and/or RBS R 60 pF. Rinse with deionized water.

Technical specifications:

Art. No.	HNY8.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	highly alkaline
Ingredients	Anionic and non-ionic surfactants, carbonates, silicates, sodium hydroxide
Phosphate-free	Yes
Dosing	0.1–3% in water

Danger H315-H318-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS A 285 SOLID pF	**HNY8.1**	4.5 kg	54,35

RBS® universal cleaners

Laboratory cleaning agent RBS A 375

Carl ROTH.

Liquid, acidic pre-rinse and neutralisation agent for laboratory dishwashers. Removes limescale deposits, hydroxides and many other residues from glass, plastic, porcelain, ceramic, crystal, stainless steel, etc.
Prewash: Removes stubborn dirt and stains, increasing the effectiveness of alkaline high-performance cleaning concentrates.
Rinsing: Neutralises alkaline cleaning concentrate residues after the main cleaning cycle and protects the garment and machine from limescale deposits.

- Free from surfactants, chlorine and phosphates
- Rinses off easily without leaving a residue
- Also suitable for use with hard water
- Non foaming
- pH value (0.5%): 2.6

Concentration for use: 0.2% (in the case of stubborn dirt/stains or hard water, the concentration can be increased up to 0.5%). Rinse with deionised water to ensure residue-free results.
Particularly effective in combination with RBS 50.

Technical specifications:

Art. No.	TK44.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Citric acid, lactic acid
Free from chlorine	Yes
Phosphate-free	Yes
Free from tensides	Yes
Dosing	0.2–0.5% in water

Danger H315-H318

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS A 375	**TK44.1**	5 l	48,70

Laboratory cleaning agent RBS NA 2

Carl ROTH.

Liquid, acidic pre-rinse and neutralisation agent for laboratory dishwashers.
Prewash: Removes stubborn dirt such as carbonates, hydroxides, salts and organic bases. Enhances the performance of alkaline main wash cycle detergents.
Rinsing: Neutralises alkaline detergent residues and prevent limescale deposits on the parts cleaned and in the dishwasher.

- Free from surfactants and chlorine
- pH value in concentration for use: 2.2 to 1.8
- Density 1.378 g/ml
- Non foaming

Concentration for use: 0.2 to 0.5% v/v. Particularly effective in combination with RBS SOLID, RBS B 210 T or RBS 50. Rinse with deionised water.

Technical specifications:

Art. No.	AL93.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Phosphoric acid
Free from chlorine	Yes
Free from tensides	Yes
Dosing	0.2–0.5% in water

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS NA 2	**AL93.1**	5 l	62,35

RBS® universal cleaners

Laboratory cleaning agent RBS R 60

Carl ROTH.

Liquid, slightly acidic neutralisation agent for laboratory dishwashers. Neutralises alkaline detergent residues and prevent limescale deposits on the parts cleaned and in the dishwasher. Accelerates the drying process and produces a glossy finish.

- Free from chlorine
- pH value in concentration for use: 6.3 to 3.6
- Density 1.016 g/ml
- Non foaming

Concentration for use: 0.1 to 0.3% v/v. Particularly effective in combination with RBS 50 or RBS SOLID. Rinse with deionised water.

Technical specifications:

Art. No.	AL94.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Surfactants, sodium cumene sulfonate, 2-Propanol, phosphoric acid
Free from chlorine	Yes
Dosing	0.1–0.3% in water

Warning H226-H290-H315-H319-H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS R 60	**AL94.1**	5 l	62,35

Laboratory cleaning agent RBS R 60 pF

Carl ROTH.

Liquid, slightly acidic neutralisation agent for laboratory dishwashers. Neutralises alkaline detergent residues and prevent limescale deposits on the parts cleaned and in the dishwasher. Accelerates the drying process and produces a glossy finish. Free from phosphates and therefore suitable for use in analytical labs.

- Free from phosphates and chlorine
- pH value in concentration for use: 6.5 to 4.4
- Density 1.015 g/ml
- Non foaming

Concentration for use: 0.1 to 0.3% v/v. Rinse with deionized water.

Technical specifications:

Art. No.	AL96.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Surfactants, sodium cumene sulfonate, 2-Propanol, citric acid, amidosulphonic acid
Free from chlorine	Yes
Phosphate-free	Yes
Dosing	0.1–0.3% in water

Warning H226-H315-H319-H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS R 60 pF	**AL96.1**	5 l	74,10

Cleaner neodisher®, cleaning agents

Dishwasher cleaner neodisher® LaboClean A8

Dr. Weigert.

Alkaline intensive cleanser (powder) with extraordinary cleaning power and high soil carrying capacity. **Surfactant-free**.
For mechanical cleaning. Removes blood, serum, food residues, pharmaceuticals, colours, paint, gelatine and other organic residues. Not suitable for aluminium and light metal alloys.

Technical specifications:

Art. No.	N330.1	N330.2	N330.3
Intended purpose	for laboratory dishwashers		
Delivery form	Powder		
pH range	alkaline		
Ingredients	Phosphates, disodium metasilicate, sodium hydroxide, sodium carbonate and dichloroisocyanurate		
Free from tensides	Yes		

Danger H290-H314-H335-H411-EUH031

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean A8	**N330.1**	1 kg	14,30
neodisher® LaboClean A8	**N330.2**	10 kg	98,40
neodisher® LaboClean A8	**N330.3**	25 kg	234,35

Dishwasher cleaner neodisher® LaboClean UW

Dr. Weigert.

Mild, alkaline cleaning agent (powder), protects the material. **Phosphate-free.**
For mechanical cleaning of laboratory glassware and other utensils in water laboratories, serological institutes and in the phosphates industry. Removes anorganic and organic contamination. Reduced efficiency with hard water .

Technical specifications:

Art. No.	Y222.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	mildly alkaline
Ingredients	Disodium metasilicate, sodium carbonate, nitrilotriacetate, sodium perborate
Phosphate-free	Yes

Danger H314-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean UW	**Y222.1**	10 kg	126,85

Dishwasher cleaner neodisher® LaboClean GK

Dr. Weigert.

Mildly alkaline cleaner (powder). Free of surfactants and surface-active substances.
For mechanical cleaning of plastics and glassware for cell and tissue cultures in the area of microbiology, virology and nuclear medicine, as well as in isotope laboratories. Removes nutrient media, cell culture and tissue residues, radioactive contaminations, organic colour and pigment contaminations. Easy to rinse.

Technical specifications:

Art. No.	N331.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	mildly alkaline
Ingredients	Trisodium phosphate, dichloroisocyanurate
Free from tensides	Yes

Warning H315-H319-H335-H411-EUH031

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean GK	**N331.1**	10 kg	130,10

Dishwasher cleaner neodisher® LaboClean PLM

Dr. Weigert.

Mildly alkaline defoaming cleaner (powder) for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing blood, protein, oils, ointments, cream bases and felt-tip pen markings. **Free of chlorine and oxidants.**

Technical specifications:

Art. No.	CLP2.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	mildly alkaline
Ingredients	Sodium carbonate, disodium metasilicate, surfactants
Free from chlorine	Yes
Free from oxidising agents	Yes

Danger H314-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean PLM	**CLP2.1**	10 kg	145,15

Cleaner neodisher®, cleaning agents

Dishwasher cleaner neodisher® LaboClean LA

Dr. Weigert.

Highly alkaline intensive cleaner (powder) with a highly emulsifying, dispersing and defoaming action for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing greases, oils, resins, paraffin wax and organic dyes. **Chlorine-free.** Also suitable for use with hard water.

Technical specifications:

Art. No.	CLP1.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	highly alkaline
Ingredients	Sodium hydroxide, disodium metasilicate
Free from chlorine	Yes

Danger H290-H314-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean LA	**CLP1.1**	3 kg	46,05

Dishwasher cleaner neodisher® LaboClean F

Dr. Weigert.

Highly alkaline intensive cleaner (powder) with high cleaning power for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing greases, oils, paraffin wax, resins, organic dyes and felt-tip pen markings. Good complexing and dispersing effect. **Free of phosphates, chlorine and surfactants.**

Technical specifications:

Art. No.	CLN9.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	highly alkaline
Ingredients	Sodium hydroxide, disodium metasilicate, sodium carbonate
Free from chlorine	Yes
Phosphate-free	Yes
Free from tensides	Yes

Danger H290-H314-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean F	**CLN9.1**	3 kg	44,65

Cleaning agents neodisher® PM 5

Dr. Weigert.

Mildly alkaline cleaner (powder) for manual and automatic cleaning of laboratory glassware and surgical instruments in an immersion bath. High cleaning power for blood and protein, food leftovers as well as inorganic and organic residues. Material tolerant and easily rinsed off.

Technical specifications:

Art. No.	CLP5.1
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath
Delivery form	Powder
pH range	mildly alkaline
Ingredients	Phosphates, sodium carbonate, surfactants
CE marking	Yes

Warning H315-H319

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® PM 5	**CLP5.1**	3 kg	92,15

Dishwasher cleaner neodisher® MA

Dr. Weigert.

Mildly alkaline cleaner (powder) with defoaming properties. **Free of chlorine and oxidising additives.**
For mechanical cleaning of surgical instruments, medical utensils, laboratory glassware and babies' bottles. Removes residues of blood, protein and food. Excellent cleaning properties and very gentle on materials. Suitable for all water hardness levels.

Technical specifications:

Art. No.	AA59.1	AA59.2
Intended purpose	for laboratory dishwashers	
Delivery form	Powder	
pH range	mildly alkaline	
Ingredients	Phosphates, disodium metasilicate, nonionic surfactant	
Free from chlorine	Yes	
Free from oxidising agents	Yes	
CE marking	Yes	

Danger H314-H335

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® MA	**AA59.1**	1 kg	17,60
neodisher® MA	**AA59.2**	10 kg	117,20

Cleaner neodisher®, cleaning agents

Cleaning agents neodisher® LM 2

Dr. Weigert.

Mildly alkaline cleaner (liquid concentrate) for use in immersion and ultrasonic baths as well as for manual cleaning. Removes organic residues such as blood and protein from laboratory glassware, surgical instruments and objects made of ceramic, stainless steel and plastics. Easy to rinse off and low-foaming, ideal for cleaning pipettes. **Chlorine-free.**

Technical specifications:

Art. No.	CLP3.1
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths
Delivery form	Concentrated liquid
pH range	mildly alkaline
Ingredients	Potassium hydroxide, surfactants, phosphates
Free from chlorine	Yes
CE marking	Yes

Warning H315-H319-EUH208

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® LM 2	**CLP3.1**	10 l	165,55

Cleaning agents neodisher® LM 3

Dr. Weigert.

Alkaline universal cleaner (liquid). Free of phosphates, free of chlorine and low-foaming.
For mechanical and manual cleaning and use in immersion baths. Removes all anorganic and organic residues, blood-, protein and food remains, as well as radioactive substances. Also for pre-cleaning laboratory glassware and for cleaning pipettes and viscometers. Not suitable for aluminium and light metal alloys.

Technical specifications:

Art. No.	Y223.1	Y223.2
Intended purpose	for laboratory dishwashers, for manual cleaning, for automatic cleaning in immersion bath	
Delivery form	Concentrated liquid	
pH range	alkaline	
Ingredients	Potassium hydroxide, nitrilotriacetate, amphoteric surfactants	
Free from chlorine	Yes	
Phosphate-free	Yes	

Danger H290-H314-EUH208

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LM 3	**Y223.1**	1 l	19,60
neodisher® LM 3	**Y223.2**	10 l	153,75

Cleaning agents neodisher® LM 10

Dr. Weigert.

Alkaline cleaner with oxidising action (liquid concentrate) for manual cleaning of laboratory glassware in an immersion bath. For decontamination of radioactively contaminated objects and removal of stubborn organic residues.
Surfactant- and foam-free, therefore also suitable for pre-washing glassware before main wash cycle. No intermediate rinsing required.

Technical specifications:

Art. No.	CLP4.1
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath
Delivery form	Concentrated liquid
pH range	alkaline
Ingredients	Potassium hydroxide, phosphates, sodium hydroxide
Free from tensides	Yes

Danger H290-H314-H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LM 10	**CLP4.1**	10 l	170,95

Dishwasher cleaner neodisher® LaboClean FM

Dr. Weigert.

Alkaline intensive cleaner (liquid concentrate) with a highly emulsifying and dispersing action for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing oils, greases, resins, paraffin wax and organic dyes. **Free of phosphates, chlorine and oxidants.** Also suitable for use with hard water.

Technical specifications:

Art. No.	CLP0.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	alkaline
Ingredients	Sodium hydroxide, surfactants
Free from chlorine	Yes
Phosphate-free	Yes
Free from oxidising agents	Yes

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean FM	**CLP0.1**	5 l	68,00

Cleaner neodisher®, cleaning agents

Dishwasher cleaner neodisher® LaboClean FLA

Dr. Weigert.

Alkaline intensive cleanser (liquid) with extraordinary cleaning power and high soil carrying capacity. **Free of surfactants, chlorine, phosphorous compounds and oxidising agents.**
For mechanical cleaning. Removes stubborn, oil-based residues and other organic dirt. Reduced efficiency with hard water. Not suitable for aluminium and light metal alloys.

Technical specifications:

Art. No.	N333.1	N333.2	N333.3
Intended purpose	for laboratory dishwashers		
Delivery form	Concentrated liquid		
pH range	alkaline		
Ingredients	Polycarboxylate, potassium hydroxide, sodium nitrilotri-acetate		
Free from chlorine	Yes		
Phosphate-free	Yes		
Free from oxidising agents	Yes		
Free from tensides	Yes		

Danger H290-H302-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean FLA	**N333.1**	5 l	54,85
neodisher® LaboClean FLA	**N333.2**	10 l	102,10
neodisher® LaboClean FLA	**N333.3**	25 kg	181,70

Dishwasher cleaner neodisher® LaboClean FT

Dr. Weigert.

Alkaline cleaner (liquid). Oxidising, **surfactant-free.**
Particularly effective for residue-free cleaning of pharmacy glassware, infusion flasks, glassware for cell and tissue cultures, as well as in the area of microbiology, virology and nuclear medicine. Removes residual nutrient media, blood, protein, radioactive contamination, residues of tissue cultures and cell layers as well as other organic residues. Reduced efficiency with hard water.

Technical specifications:

Art. No.	N334.1	N334.3
Intended purpose	for laboratory dishwashers	
Delivery form	Concentrated liquid	
pH range	alkaline	
Ingredients	Phosphates, potassium hydroxide, sodium hypochlorite	
Free from tensides	Yes	

Danger H290-H314-H410-EUH031

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean FT	**N334.1**	12 kg	115,05
neodisher® LaboClean FT	**N334.3**	25 kg	227,90

Dishwasher cleaner neodisher® FA

Dr. Weigert.

Alkaline cleaner (liquid) – free of surfactants, chlorine and oxidising additives.
For mechanical cleaning of surgical instruments, medical utensils, laboratory glassware and babies' bottles. Removes blood, protein and nutrient media as well as gelatine. Very good cleaning action and very gentle on materials (colour changes might occur with titanium).

Technical specifications:

Art. No.	N332.1	N332.3
Intended purpose	for laboratory dishwashers	
Delivery form	Concentrated liquid	
pH range	alkaline	
Ingredients	Phosphates, disodium and potassium metasilicate	
Free from chlorine	Yes	
Free from oxidising agents	Yes	
Free from tensides	Yes	
CE marking	Yes	

Danger H290-H314

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® FA	**N332.1**	5 l	62,10
neodisher® FA	**N332.3**	25 kg	196,75

Dishwasher cleaner neodisher® DuoClean

Dr. Weigert.

Heavily alkaline intensive cleaner (liquid). Free of phosphates, silicates and oxidants.
For mechanical cleaning of surgical instruments made of stainless steel and other alkali-resistant surfaces. High cleaning action for removing blood protein and stubborn OP residues, even for other particularly adhesive dirt.

Technical specifications:

Art. No.	KP95.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	highly alkaline
Ingredients	Sodium hydroxide, amphoteric surfactants
Phosphate-free	Yes
Free from oxidising agents	Yes
CE marking	Yes

Danger H290-H314

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® DuoClean	**KP95.1**	5 l	63,10

Cleaner neodisher®, cleaning agents

Dishwasher cleaner neodisher® N

Dr. Weigert.

Acidic neutralisation and cleaning agent (liquid). Surfactant-free. For mechanical cleaning of laboratory glass and surgical instruments. Ideal for neutralising carried over alkaline residue in first rinsing or for acidic pre-cleaning. Removes limescale and other acid-soluble residue. Easy to rinse. Not suitable for anodised aluminium, non-ferrous metals and acidsensitive plastics.

Technical specifications:

Art. No.	N335.1	N335.2	N335.3	N335.4
Intended purpose	for laboratory dishwashers			
Delivery form	Concentrated liquid			
pH range	acidic			
Ingredients	Phosphoric acid			
Free from tensides	Yes			
CE marking	Yes			

Danger H290-H314

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® N	**N335.1**	1 l	22,20
neodisher® N	**N335.2**	5 l	91,30
neodisher® N	**N335.3**	12 kg	138,70
neodisher® N	**N335.4**	25 kg	268,75

Dishwasher cleaner neodisher® TS

Dr. Weigert.

Acidic neutralising and clear rinsing agent for mechanical cleaning in food-processing plants and in livestock stalls. Prevents scaling, improves and accelerates drying. Suitable for objects made of glass, stainless steel, aluminium and plastics such as polycarbonate and polyetherimide.

Technical specifications:

Art. No.	CLP7.2
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Citric acid, phosphates, surfactants

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® TS	**CLP7.2**	10 l	109,65

Dishwasher cleaner neodisher® PolyKlar

Dr. Weigert.

Acidic clear rinsing agent (liquid) for the mechanical treatment of animal cages. Ideal for polycarbonate, polysulfone, polyphenylsulfone and polyetherimide. Adjusted for acidity. Neutralises alkaline residues and prevents corrosion of polycarbonate and polysulfone during the subsequent autoclaving process. Prevents the formation of stress cracks after autoclaving. Improves and accelerates drying. **Surfactant-free.**

Technical specifications:

Art. No.	CLP6.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Citric acid, polycarboxylate
Free from tensides	Yes

H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® PolyKlar	**CLP6.1**	10 l	129,00

Dishwasher cleaner neodisher® Z

Dr. Weigert.

Acidic neutralisation and cleaning agent (liquid). Free of surfactants, phosphates and nitrogen. For mechanical cleaning of laboratory glass and surgical instruments. Ideal for neutralising carried over alkaline residue in first rinsing or for acidic pre-cleaning. Removes limescale and other acid-soluble residue. Especially gentle on materials. Not suitable for anodised aluminium and non-ferrous metals.

Technical specifications:

Art. No.	N336.1	N336.2
Intended purpose	for laboratory dishwashers	
Delivery form	Concentrated liquid	
pH range	acidic	
Ingredients	Citric acid	
Phosphate-free	Yes	
Free from tensides	Yes	
CE marking	Yes	

Warning H319

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® Z	**N336.1**	1 l	17,15
neodisher® Z	**N336.2**	5 l	71,70

Cleaner neodisher®, cleaning agents

Dishwasher cleaner neodisher® EM cleaner additive

Dr. Weigert.

Liquid, **emulsifying and dispersing additive** to intensify the cleaning power of cleaning agents during mechanical cleaning of laboratory glassware and laboratory utensils. Suitable for removing stubborn residues of solids, paraffin wax, oils and greases. With defoaming action. Also suitable for use with hard water.

Technical specifications:

Art. No.	CLN8.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	neutral
Ingredients	Surfactants

H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® EM	**CLN8.1**	5 l	140,85

Dishwasher cleaner neodisher® anti-foaming agent S cleaner additive

Dr. Weigert.

Neutral liquid concentrate based on emulsified silicone oil, designed to hinder the formation of foam in dishwashers.
Can be used to remove foaming residues, such as surfactants, proteins and soaps including all neodisher® cleaning agents for pre-wash and main wash cycles. High effectiveness even at low temperatures.
Dispensing: Depending on the type and quantity of foaming impurities 0.05–0.1 ml/l using suitable dispensing devices or manually.

Technical specifications:

Art. No.	YC39.1	YC39.2
Intended purpose	for laboratory dishwashers	
Delivery form	Concentrated liquid	
pH range	neutral	
Ingredients	Emulsified silicone oils	
Phosphate-free	Yes	
CE marking	Yes	

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® anti-foaming agent S	**YC39.1**	1 l	37,20
neodisher® anti-foaming agent S	**YC39.2**	10 l	339,70

Dishwasher cleaner

Becker Chemie.

Intensive cleaner (powder) for all conventional dishwashers. Suitable for objects made of glass, metal, plastic, porcelain. Removes stubborn dirt, reduces limescale.
Dispensing dependent on water hardness: 1–2 g/l fresh water up to 8 °dH, 2–3 g/l fresh water from 9 °dH.

Danger H302-H314-H335-H412-EUH206

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Dishwasher cleaner	**N047.1**	5 kg	24,15

Dishwasher cleaner clear rinsing agent

Becker Chemie.

Low-foaming clear rinsing agent with citric acid for removing limescale. For all conventional dishwashers. Fully effective even when machine loads contain different items, such as porcelain, plastic, metal.
Dispensing dependent on water hardness: 0.5–0.8 ml/l fresh water at 8 °dH, 0.9–1.0 ml/l fresh water from 9 °dH.

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Clear rinsing agent	**N048.1**	1 l	6,40

Cleaner neodisher®, cleaning agents

Dishwasher cleaner dishwasher salt

Becker Chemie.

High-purity dishwasher salt for dishwashers. Effective water softening, protects dishes and machine from scale deposits. Completely soluble.

Not a medical device / Not an IVD product

Fine grained, 0.1–1.6 mm

Type	Art. No.	Pack Qty.	€
Fine grained	**N049.1**	2 kg	7,75

Coarse grained, 1.0–6.5 mm

Type	Art. No.	Pack Qty.	€
Coarse grained	**NH60.1**	2 kg	12,60

Our ROTH-Service

Personal, expert advice and many advantages for you

Find out more at **www.carlroth.com**

- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee

Universal cleaner Mucasol®

Schülke & Mayr.

Liquid, alkaline high-performance concentrate for manual cleaning for the immersion and ultrasonic bath and suitable for cleaning by wiping. Effectively removes blood, protein, oil, grease, silicone, tar, wax, tap grease, resin and distillation residues. Multi-purpose quick cleaner for laboratory equipment and instruments made of glass, porcelain, plastic, rubber and metal.

- **Chlorine- and caustic alkali-free**
- Concentrate pH value: approx. 12.3
- Density: approx. 1.43 g/cm³

Working concentration

In an ultrasonic bath: 0.2–2%, in an immersion bath: 0.7–3%.

Directions for use

Exposure time: 10–30 min. Longer exposure times should be avoided on surfaces made of zinc and non-anodised aluminium.
An optimised cleaning result is achieved by heating the working solution. To avoid protein denaturation, select a temperature of < 45 °C.
After cleaning, rinse the objects thoroughly with deionised water to completely remove cleaning solution residues.

Technical specifications:

Art. No.	1A3L.1	1A3L.2
Intended purpose	for manual cleaning, for ultrasonic baths, for automatic cleaning in immersion bath	
Delivery form	Concentrated liquid	
pH range	alkaline	
Ingredients	> 30% phosphates, < 5% anionic surfactants, < 5% amphoteric surfactants	
Free from chlorine	Yes	
Phosphate-free	No	
Free from tensides	No	
CE marking	Yes	
Dosing	One litre of a 2% working solution is equal to 980 ml of water and 20 ml of Mucasol®.	

Danger H290-H318

Medical device class I MDD

Type	Packaging type	Art. No.	Pack Qty.	€
Mucasol®	Bottle	**1A3L.1**	2 l	87,00
Mucasol®	Canister	**1A3L.2**	5 l	162,35

Instrument disinfectants

Instrument disinfectant Korsolex® extra

BODE Chemie.

Aldehyde instrument disinfectant based on aldehydes and quaternary ammonium compounds. For thermolabile and thermostable instruments, e.g. in endoscopy. Suitable for glass, ceramic, stainless steel, non-ferrous heavy metal, aluminium, plastic, hard plastic, silicone, rubber, hard rubber, latex and porcelain.
VAH- and IHO-listed.
Spectrum of activity: Bactericidal, levurocidal, fungicidal, tuberculocidal, mycobactericidal, partially virucidal (incl. HBV, HIV, HCV), virucidal. Also effective against germs resistant to antibiotics and Helicobacter pylori within the framework of VAH-concentrations. Economical operating concentration of 1–4%. Can be used in stainless steel ultrasonic baths.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	Y863.1	Y863.2
Delivery form	Concentrated liquid	
Ingredients	Aldehyde, quaternary ammonium compounds	
Bactericide	Yes	
Partially virucidal	Yes	
Virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO	
Dosing	1–4%	

Danger H226-H302+H332-H315-H317-H318-H334-H341-H350-H410-EUH071

Medical device class IIb MDD

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Korsolex® extra	Bottle	**Y863.1**	2 l	n. a.
Korsolex® extra	Canister	**Y863.2**	5 l	n. a.

Instrument disinfectant Korsolex® basic

BODE Chemie.

Aldehyde disinfectant for thermolabile and thermostable instruments based on glutaral and (ethylenedioxy)dimethanol. Can be used in the dipping method and for all standard circulation methods from the semi-automatic through to the fully automatic type in the cold method. Also suitable for ultrasonic disinfection.
Spectrum of activity: Bactericidal, levurocidal, fungicidal, tuberculocidal, mycobactericidal, sporicidal, partially virucidal (incl. HBV, HIV, HCV), virucidal. Also effective against SARS-coronavirus, germs resistant to antibiotics and Helicobacter pylori within the framework of VAH-concentrations.
Concentration for use: 1 to 5%.
VAH-, IHO- and RKI-listed.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	AK41.1	AK41.2
Delivery form	Concentrated liquid	
Ingredients	Glutaral, (ethylenedioxy)dimethanol	
Bactericide	Yes	
Partially virucidal	Yes	
Virucidal	Yes	
Fungicide	Yes	
Sporicide	Yes	
CE marking	Yes	
Listing	VAH, RKI, IHO	
Dosing	1–5%	

Danger H302+H332-H314-H317-H334-H341-H350-H411-EUH071

Medical device class IIb MDD

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Korsolex® basic	Bottle	**AK41.1**	2 l	n. a.
Korsolex® basic	Canister	**AK41.2**	5 l	n. a.

Instrument disinfectants

NEW / +

Instrument disinfectant Bomix® plus

BODE Chemie.

An aldehyde-free instrument disinfectant with excellent cleaning properties based on a quaternary ammonium compound (N,N-Di-decyl-N-methyl-poly(oxyethyl)ammonium propionate). Wide material compatibility, e.g. for flexible endoscopes and latex and silicone combinations. Pleasant odour.
Applications
For the manual treatment of thermolabile and thermostable instruments in the dipping method and for performing coarse and brush cleaning of endoscopes. Can be used in ultrasonic baths. It can even be used to treat surgical instruments that have been heavily contaminated with protein. If you thoroughly rinse the instruments with water after using Bomix® plus, compatibility with products based on aldehydes and peracetic acid is guaranteed for high-level disinfection.
Spectrum of activity: Bactericidal, yeasticidal, limited bactericidal activity (incl. HBV, HIV, HCV), effective against rotaviruses and polyomaviruses.
Listing: VAH and IHO.
Concentration for use: 0.5-2.0%.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	1H91.1	1H91.2
Delivery form	Concentrated liquid	
Ingredients	N,N-Didecyl-N-methyl-poly(oxyethyl)ammonium propionate	
Bactericide	Yes	
Partially virucidal	Yes	
CE marking	Yes	
Listing	VAH, IHO	
Dosing	0.5 - 2.0%	

Danger H314-H410

Medical device class IIb MDD

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Bomix® plus	Bottle	**1H91.1**	2 l	n. a.
Bomix® plus	Canister	**1H91.2**	5 l	n. a.

Instrument disinfectant Helipur® H plus N

B. Braun.

Alcohol- and aldehyde-based **formaldehyde-free instrument disinfectant**. Also suitable for heat-sensitive materials and instruments, such as flexible endoscopes and anesthesiology accessories.
Spectrum of activity: Bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and virucidal, adeno-, polyoma-, rota- and polivirus.
Listing: VAH, IHO and DGHM. Can be used in ultrasonic baths. Exceptionally economical usage concentration (1–1.5%) and short exposure time (15–30 min).
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	LK27.1	LK27.2
Delivery form	Concentrated liquid	
Ingredients	Alcohol, aldehyde	
Bactericide	Yes	
Partially virucidal	Yes	
Virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO, DGHM	
Dosing	1–1.5%	

Danger H302+H332-H314-H317-H334-H412-EUH071

Medical device class IIb

Type	Packaging type	Art. No.	Pack Qty.	€
Helipur® H plus N	Bottle	**LK27.1**	1 l	23,60
Helipur® H plus N	Canister	**LK27.2**	5 l	104,10

Surface disinfectants

Surface disinfectant Meliseptol®

B. Braun.

Ready-to-use alcohol-based fast-acting disinfectant without additional active substances. Also suitable for hard-to-reach surfaces and objects, for wiping or spraying.
Spectrum of activity: Bactericidal (incl. MRSA, TbB and mycobacteria), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against rotavirus, adenovirus and noroviruses.
Listing: VAH, IHO and DGHM.
Short reaction time of 1 min.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	EAA6.1	EAA6.2	EAA6.3
Delivery form	Ready-to-use liquid		
Ingredients	Alcohol		
Bactericide	Yes		
Partially virucidal	Yes		
Fungicide	Yes		
CE marking	Yes		
Listing	VAH, IHO, DGHM		

Warning H226

Medical device class IIa MDD

Type	Packaging type	Art. No.	Pack Qty.	€
Meliseptol®	Spray bottle (with spray head)	**EAA6.1**	250 ml	7,50
Meliseptol®	Bottle (without spray pump)	**EAA6.2**	1 l	14,15
Meliseptol®	Canister	**EAA6.3**	5 l	55,15

Surface disinfectant Meliseptol® rapid

B. Braun.

Aldehyde- and alkylamine-free alcohol-based fast-acting disinfectant. Also suitable for hard-to-reach surfaces and objects, for wiping or spraying.
Spectrum of activity: Bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and virucidal (incl. noroviruses).
Listing: VAH, IHO and DGHM. Ready to use. Very fast acting, reaction time of 1 minute; 10 minutes for virucidal efficacy.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	LK31.1	LK31.2	LK31.3
Delivery form	Ready-to-use liquid		
Ingredients	Alcohol		
Bactericide	Yes		
Partially virucidal	Yes		
Fungicide	Yes		
CE marking	Yes		
Listing	VAH, IHO, DGHM		

Danger H226-H318-H336

Medical device class IIa MDD

Type	Packaging type	Art. No.	Pack Qty.	€
Meliseptol® rapid	Spray bottle (with spray head)	**LK31.1**	250 ml	7,85
Meliseptol® rapid	Bottle (without spray pump)	**LK31.2**	1 l	14,80
Meliseptol® rapid	Canister	**LK31.3**	5 l	54,25

Surface disinfectant Meliseptol® Foam pure

B. Braun.

Ready-to-use disinfectant foam based on propane-1-ol- and didecyldimethylammonium chloride for **quick disinfection of medical devices and sensitive surfaces**.
No aerosol formation during spraying, also suitable for use in the food industry. Good compatibility, even with alcohol-sensitive materials such as acrylic glass, examination tables, vaginal probes and ultrasound probes.
Aldehyde-, amine- and fragrance-free, odourless.
Spectrum of activity: Bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against rotavirus, polyomavirus, norovirus and avian influenza.
Listing: VAH, IHO and DGHM. Rated „very good" in dermatological tests. Short reaction time ≤5 min.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	XP56.1	XP56.2
Delivery form	Ready-to-use liquid	
Ingredients	Propane-1-ol, didecyldimethylammonium chloride	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO, DGHM	

Danger H226-H318

Medical device class IIa MDD

Type	Packaging type	Art. No.	Pack Qty.	€
Meliseptol® Foam pure	Foam sprayer bottle	**XP56.1**	750 ml	13,90
Meliseptol® Foam pure	Canister	**XP56.2**	5 l	52,00

Fleece wipe rolls B. Braun Wipes

B. Braun.

For B. Braun Wipes fleece wipe dispenser systems, Mini 0.7 l and Standard 2.5 l. Absorbent and lint-free fleece wipes made of 100% PET.

Technical specifications:

Art. No.	CAT5.1	CAT2.1	CAT3.1
Delivery form	Wiping cloths for soaking		

Delivery without fleece wipe dispenser, please order separately.

Not a medical device / Not an IVD product

For fleece wipe dispenser system Mini

Version	Art. No.	Pack Qty.	€
Fleece Mini ECO with 60 wipes, 15 x 20 cm	**CAT5.1**	1 unit(s)	7,50

For standard fleece wipe dispenser system

Version	Art. No.	Pack Qty.	€
Fleece roll with 100 wipes, 19 x 36 cm	**CAT2.1**	1 unit(s)	23,60
Fleece roll ECO with 120 wipes, 19 x 36 cm	**CAT3.1**	1 unit(s)	15,40

Surface disinfectant neoform K sprint

Dr. Weigert.

Ready-to-use fast-acting disinfectant based on propane-1-ol and ethanol for quick disinfection of surfaces and equipment in the food industry. Also suitable for use in refrigerated areas.
Spectrum of activity: Bactericidal, fungicidal, limited virucidal efficacy and effective against noroviruses. Dries without leaving any residue, no additional rinsing needed. DVG and IHO listed.
Use disinfectants with care. Always read the label and the product information before use.

Technical specifications:

Art. No.	CLP9.1	CLP9.2
Delivery form	Ready-to-use liquid	
Ingredients	Propane-1-ol, ethanol	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
Listing	DVG, IHO	

Warning H226-H319-H336

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
neoform K sprint	Spray bottle	**CLP9.1**	750 ml	18,10
neoform K sprint	Canister	**CLP9.2**	10 l	163,40

Surface disinfectants

Surface disinfectant neoform K plus

Dr. Weigert.

Disinfectant (liquid concentrate) based on didecyldimethyl ammonium chloride and N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine. For combined cleaning and disinfection of surfaces and objects in the food industry. Excellent cleaning performance and safe disinfection.
Spectrum of activity: Bactericidal, yeasticidal, limited virucidal efficacy. Fragrance and colourant-free.
Use disinfectants with care. Always read the labelling and product information before use!

Technical specifications:

Art. No.	CLP8.1	CLP8.2
Delivery form	Concentrated liquid	
Ingredients	Didecyldimethyl ammonium chloride, N-(3-aminopropy-l)-N-dodecylpropane-1,3-diamine	
Bactericide	Yes	
Partially virucidal	Yes	
Dosing	0.5–4.0%	

Danger H302-H315-H318-H410

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
neoform K plus	Bottle	**CLP8.1**	2 l	24,55
neoform K plus	Canister	**CLP8.2**	10 l	96,35

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Surface disinfectant Bacillol® AF

BODE Chemie.

Ready-to-use aldehyde- and fragrance-free fast-acting disinfectant based on propane-1-ol, propane-2-ol and ethanol. Excellent wetting, fast acting and drying, leaves no visible residue.
Applications: For rapid disinfection of alcohol-resistant surfaces by wiping or spraying, if rapid effect and residue-free drying are required, e.g.
Spectrum of activity: Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, limited virucidal (incl. HBV, HIV, HCV), adenovirus, murine norovirus, polyomavirus and rotavirus.
Listing: VAH, DVG, IHO, RKI. Ready to use. Reaction time: 1 min or longer.
Use disinfectants with care. Always read the labelling and product information before use.

- In sensitive areas with direct product contact (class C/D cleanrooms)
- If medical equipment and inventory falls under the Medical Products Act (acc. to MPG)
- In hospitals and nursing homes (acc. to BPD)
- In canteens and in the foodstuffs industry (acc. to BPD)

Technical specifications:

Art. No.	PY18.1	PY18.2
Delivery form	Ready-to-use liquid	
Ingredients	Propane-1-ol, propane-2-ol, ethanol	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, DVG, IHO, RKI	

Danger H226-H318-H336

Medical device class IIa MDD

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Bacillol® AF	Bottle	**PY18.1**	1 l	n. a.
Bacillol® AF	Canister	**PY18.2**	5 l	n. a.

Surface disinfectant Bacillol® 30 Foam

BODE Chemie.

Ready-to-use fast-acting alcohol-based disinfectant for sensitive surfaces. Particularly gentle on materials, also suitable for sensitive materials such as Plexiglas®, Makrolon® and Polysulfon. User-friendly application in a handy spray bottle with foam spray head for optimal wetting.
Spectrum of activity: Bactericidal, yeasticidal, limited virucidal efficacy (incl. HBV, HIV, HCV), and effective against murine norovirus, polyomavirus and rotavirus.
Applications: For fast-acting disinfection of sensitive plastic surfaces, medical inventory and surfaces in hospitals, medical practices and laboratories. Also suitable for disinfection of displays, keyboards and control panels of mobile and stationary communication devices.
Listing: VAH, IHO.
Active substances: Ethanol, propane-2-ol, propane-1-ol and N-Alkyl-aminopropylglycine.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	ANY8.1	ANY8.2
Delivery form	Ready-to-use liquid	
Ingredients	Ethanol, propane-2-ol, propane-1-ol, N-alkylamino-propyl-glycine	
Bactericide	Yes	
Partially virucidal	Yes	
CE marking	Yes	
Listing	VAH, IHO	

Warning H226-H319-H336

Medical device class IIa MDD

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Bacillol® 30 Foam	Foam sprayer bottle	**ANY8.1**	750 ml	n. a.
Bacillol® 30 Foam	Canister	**ANY8.2**	5 l	n. a.

Surface disinfectant Kohrsolin® FF

BODE Chemie.

Surface disinfectant based on glutaral, benzyl-C12-18-alkyl-dimethyl ammonium chloride and didecyldimethyl ammonium chloride. Formaldehyde-free. Suitable for disinfection of all washable surfaces and objects by wet wiping. Low use concentrations (0.25 up to 4%), good material compatibility, environmentally friendly. Drying of the used solution almost residue-free.
VAH and IHO listed. **Spectrum of activity:** Bactericidal, yeasticidal, fungicidal, tuberculocidal, limited virucidal efficacy (incl. HBV, HIV, HCV), virucidal, MNV, adenovirus, polyomavirus and rotavirus and effective against Clostridium difficile spores.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	L301.1	L301.2
Delivery form	Concentrated liquid	
Ingredients	Glutaral, Benzyl-C12-18-alkyl-dimethyl ammonium chloride, didecyldimethyl ammonium chloride	
Bactericide	Yes	
Partially virucidal	Yes	
Virucidal	Yes	
Fungicide	Yes	
Listing	VAH, IHO	
Dosing	0.25–4.0%	

Danger H302+H332-H315-H317-H318-H334-H410-EUH071

Medical device class IIa MDD

ID: 0482

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
Kohrsolin® FF	Bag	40 ml	**L301.1**	125 unit(s)	n. a.
Kohrsolin® FF	Canister		**L301.2**	5 l	n. a.

Accessories measuring beaker for disinfectant concentrates

BODE Chemie.

With scale to produce working solutions. Volume 250 ml.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
Measuring beakers	**AK05.1**	1 unit(s)	3,35

NEW / +

Surface disinfectant Mikrobac® forte

BODE Chemie.

Aldehyde-free surface disinfectant based on quaternary ammonium compounds (Benzyl-C12-18-alkyldimethyl ammonium chloride) and amines (N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine). For universal use, very high material compatibility, good cleaning performance and odourless. Suitable for disinfection by wet wiping. The drying of the working solution leaves little residue.
Applications:
Washable medical equipment and inventory that fall under the German Medical Devices Act (acc. to MPG). Washable surfaces (acc. to BPR), e.g. work surfaces in hospitals, medical and dental practices, nursing and retirement homes, ambulances, medical laboratories and medical suppliers. In canteens and in the foodstuffs industry (acc. to BPR).
Spectrum of activity: Bactericidal, yeasticidal, tuberculocidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against adenovirus, polyomavirus, rotavirus and norovirus.
Listing: VAH, IHO and list of tested cleaning agents for ceramic tiling and cladding in swimming pools (RK list).
Concentration for use: 0.25-4.0%.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	1H90.1	1H90.2
Delivery form	Concentrated liquid	
Ingredients	Benzyl-C12-18-alkyldimethyl ammonium chloride, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	
Bactericide	Yes	
Partially virucidal	Yes	
CE marking	Yes	
Listing	VAH, IHO	
Dosing	0.25 - 4.0%	

Danger H302-H314-H410

Medical device class IIa MDD

ID: 0482

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
Mikrobac® forte	Bag	20 ml	**1H90.1**	250 unit(s)	n. a.
Mikrobac® forte	Canister	5 l	**1H90.2**	5 l	n. a.

Fleece wipe dispenser system BODE X-Wipes

BODE Chemie.

Universal fleece wipe dispenser system for filling with any moist BODE surface disinfectants.
Absorbent and tear-resistant fleece wipes made of 100 % PET (60 g/m²) guarantee optimal distribution of the substances.
Applications:
For disinfecting surfaces in areas where the highest level of hygiene, economy and user benefit is required. Suitable for pre-cleaning and disinfection of non-soakable medical instruments and endoscopes.

- Colour sealing cap for easier differentiation between products in use
- Smooth surfaces and 3-part lid system protect against contamination or evaporation of the solution
- Minimal processing required before use of fleece roll in the foil bag, bag can be filled directly with application solution
- Shelf life of application solution: approx. 28 days

Delivery without wipes, please order separately.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
Wipe dispenser with blue lid	**CAT6.1**	1 unit(s)	n. a.
Wipe dispenser with green lid	**CAT8.1**	1 unit(s)	n. a.
Wipe dispenser with red lid	**CAT7.1**	1 unit(s)	n. a.

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range

All information available around the clock!

- Detailed product information
- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices

Surface disinfectants

Disinfection wipes Bacillol® tissues

BODE Chemie.

Ready-to-use fast-acting disinfectant wipes for surfaces. Based on propanol. Fragrance-and aldehyde-free. Suitable for all alcohol-insensitive surfaces, smaller surfaces, inventory and instruments. Good wetting and fast drying without streaks, even in hard-to-reach places. Skin-friendly. Takes effect after only 30 seconds (in accordance with new standard methods of the VAH).
VAH and IHO listed.
Spectrum of activity: Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, limited virucidal efficacy (incl. HBV, HIV, HCV), adenovirus, norovirus, MNV, polyomavirus and rotavirus.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	KC11.1	KC12.1
Delivery form	Wiping cloths, pre-soaked	
Ingredients	Propanol	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO	

Warning H226-H319

Medical device class IIa MDD

ID: 0482

Dispenser box

Packaging type	Pack.	Art. No.	Pack Qty.	€
Dispenser box	100 wipes	**KC11.1**	1 unit(s)	n. a.

Refill pack for Bacillol® Tissues

Packaging type	Pack.	Art. No.	Pack Qty.	€
Refill	100 wipes	**KC12.1**	1 unit(s)	n. a.

Disinfection wipes Meliseptol® wipes sensitive

B. Braun.

Ready-to-use, fast-acting disinfectant wipes for medical products and sensitive surfaces. Soft, non-linting fleece prevents scratching. Very good compatibility, even with alcohol-sensitive materials such as acrylic glass, Makrolon®, silicone rubber, latex and rubber as well as examination tables, vaginal probes and ultrasound probes. Aldehyde-, amine-, colourant- and fragrance-free, odourless.
Impregnating fluid based on propane-1-ol and didecyldimethylammonium chloride.
Spectrum of activity: Bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against rotavirus, polyomavirus, norovirus and avian influenza.
Listing: VAH, IHO and DGHM. Rated „very good“ in dermatological tests. Short reaction time ≤5 min.
Wipe dimensions: 152 x 200 mm.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	XP57.1	XP57.2
Delivery form	Wiping cloths, pre-soaked	
Ingredients	Propane-1-ol, didecyldimethylammonium chloride	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO, DGHM	

Danger H318

Medical device class IIa MDD

Packaging type	Pack.	Art. No.	Pack Qty.	€
Dispenser box	60 wipes	**XP57.1**	1 unit(s)	15,75
Refill	60 wipes	**XP57.2**	1 unit(s)	11,10

Surface disinfectants

Disinfection wipes Meliseptol® HBV wipes

B. Braun.

Ready-to-use fast-acting disinfection wipes for easy disinfection of alcohol-resistant surfaces. Alcohol-based impregnating fluid, aldehyde- and alkylamine-free. Hygienic removal of single tissues by means of practical dispenser box, dermatologically tested.
Spectrum of activity: Bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and virucidal (incl. noroviruses).
Listing: VAH, IHO and DGHM. Ready to use.
Very fast acting, reaction time 1 min; for virucidal activity 10 min., wipe dimensions: 145 x 200 mm.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	XP58.1	XP58.2
Delivery form	Wiping cloths, pre-soaked	
Ingredients	Alcohol	
Bactericide	Yes	
Partially virucidal	Yes	
Virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO, DGHM	

Danger H226-H318-H336

Medical device class IIa MDD

Packaging type	Pack.	Art. No.	Pack Qty.	€
Dispenser box	100 wipes	**XP58.1**	1 unit(s)	11,80
Refill	100 wipes	**XP58.2**	1 unit(s)	8,55

Disinfection wipes Bacillol® AF tissues

BODE Chemie.

Alcoholic fast-acting disinfectant wipes with a broad spectrum of activity for simple disinfection of alcohol-insensitive surfaces in canteens and in the foodstuffs industry according to the BPD: Surfaces in the kitchen and food industries as well as in sensitive areas with direct product contact; surfaces in healthcare facilities and surfaces of non-invasive medical devices.
Spectrum of activity: Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, limited virucidal (incl. HBV, HIV, HCV, adenovirus, polyomavirus, rotavirus and murine norovirus).
Use disinfectants with care. Always read the labelling and product information before use.

- With **Bacillol® AF** pre-saturated ready-to-use disinfectant wipes
- Rapid and comprehensive action
- Aldehyde-, colourant- and fragrance-free
- Safe and easy removal of individual tissues from resealable flow pack thanks to practical tissue-folding system
- High-quality tear-resistant and absorbent PET fleece, wipe size 180 x 200 mm
- Good wetting and fast drying

Technical specifications:

Art. No.	AHC1.1
Delivery form	Wiping cloths, pre-soaked
Ingredients	Propane-1-ol, propane-2-ol, ethanol
Bactericide	Yes
Partially virucidal	Yes
Fungicide	Yes

Warning H226-H319

Medical device class IIa MDD

ID: 0482

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	80 wipes	**AHC1.1**	1 unit(s)	n. a.

Disinfection wipes Bacillol® 30 tissues

BODE Chemie.

Gentle disinfectant wipes for quick disinfection of sensitive surfaces in the food industry, in sensitive areas with direct product contact, in healthcare establishments and on medical equipment and inventory. Also suitable for disinfection of displays, keyboards and control panels on sensitive equipment.
Spectrum of activity: Bactericidal, yeasticidal, limited bactericidal activity (incl. HBV, HIV, HCV, polyomavirus, rotavirus and murine norovirus).
Use disinfectants with care. Always read the labelling and product information before use.

- With **Bacillol® 30 Foam** pre-saturated ready-to-use disinfectant wipes
- Rapid and comprehensive action
- Aldehyde-, colourant- and fragrance-free
- Material compatibility tested for PC, PS, Plexiglas®, Latex and artificial leather (examination tables etc.)
- Safe and easy removal of individual tissues from resealable flow pack thanks to practical tissue-folding system
- High-quality tear-resistant and absorbent PET fleece, wipe size 180 x 200 mm
- Good wetting and fast drying

Technical specifications:

Art. No.	ANY9.1
Delivery form	Wiping cloths, pre-soaked
Ingredients	Ethanol, propane-2-ol, propane-1-ol, N-alkylamino-propyl-glycine
Bactericide	Yes
Partially virucidal	Yes

Warning H226-H319

Medical device class IIa MDD

ID: 0482

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	80 wipes	**ANY9.1**	1 unit(s)	n. a.

Disinfection wipes Kohrsolin® FF tissues

BODE Chemie.

Disinfectant wipes containing aldehyde for prophylactic cleaning surface disinfection.
Applications: For washable surfaces of medical equipment and inventory, in hygiene-relevant areas of the pharmaceutical industry, cosmetics industry and in laboratories.
Spectrum of activity: Bactericidal, yeasticidal, fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against murine norovirus, adenovirus, polyomavirus and rotavirus.
Use disinfectants with care. Always read the labelling and product information before use.

- With **Kohrsolin® FF** pre-saturated ready-to-use disinfectant wipes
- Formaldehyde-free
- Very good material compatibility
- Safe and easy removal of individual tissues from resealable flow pack thanks to practical tissue-folding system
- High-quality tear-resistant and absorbent PET fleece, wipe size 180 x 200 mm
- Good wetting and cleaning, low residue

Technical specifications:

Art. No.	APA1.1
Delivery form	Wiping cloths, pre-soaked
Ingredients	Glutaral, Benzyl-C12-18-alkyl-dimethyl ammonium chloride, didecyldimethyl ammonium chloride
Bactericide	Yes
Partially virucidal	Yes
Fungicide	Yes

Medical device class IIa MDD

ID: 0482

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	80 wipes	**APA1.1**	1 unit(s)	n. a.

Accessories flow pack wall holders from BODE Chemie

BODE Chemie.

Made of stainless steel. For safe storage of Mikrobac® Tissues, Kohrsolin® FF and Kohrsolin® extra Tissues as well as Bacillol® 30 and Bacillol® AF Tissues. Easy removal of wipes with one hand avoids contamination.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
Flow pack wall holders	**APA4.1**	1 unit(s)	55,30

Surface disinfectants

Disinfection wipes Mikrobac® tissues

BODE Chemie.

Gentle alcohol- and aldehyde-free disinfectant wipes for quick disinfection of sensitive, alcohol-resistant medical devices and work surfaces in hospitals, medical practices, nursing homes and laboratories.
Spectrum of activity: Bactericidal, yeasticidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against murine norovirus, adenovirus, polyomavirus and rotavirus.
Active substances: Didecyldimethylammonium chloride and Benzyl-C12-18-alkyldimethyl ammonium chloride.
Use disinfectants with care. Always read the labelling and product information before use.

- Act fast
- Alcohol-, aldehyde-, colourant- and fragrance-free
- Very good material compatibility
- Safe and easy removal of individual tissues from resealable flow pack thanks to practical tissue-folding system
- High-quality tear-resistant and absorbent PET fleece
- Good wetting and cleaning

Technical specifications:

Art. No.	APA2.1	APA3.1
Delivery form	Wiping cloths, pre-soaked	
Ingredients	Didecyldimethylammonium chloride, Benzyl-C12-18-alkyldimethyl ammonium chloride	
Bactericide	Yes	
Partially virucidal	Yes	

H412

Medical device class IIa MDD

ID: 0482

Mikrobac® Tissues
Wipe size 180 x 200 mm For comfortable disinfection of smaller surfaces, range approx. 1 m².

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	80 wipes	**APA2.1**	1 unit(s)	n. a.

Mikrobac® Tissues XXL
Wipe size 250 x 380 mm. For complete disinfection of larger surfaces, range approx. 2 m².

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	40 wipes	**APA3.1**	1 unit(s)	n. a.

Disinfection tub

BODE Chemie. Material: PVC.
High-quality disinfection tubs for safe preparation of disinfection and cleaning solutions for manual treatment of instruments.

- Basket insert enables the user to remove instruments by hand without coming into direct contact with the disinfectant and allows instruments to be drip-dried before use
- Moulded handles in the tub and basket ensure safe handling
- Resistant to all BODE cleaning agents and disinfectants
- Temperature stable up to +59 °C
- 30-litre tub with drain cock

Delivery incl. lid and basket insert.

Not a medical device / Not an IVD product

Vol. (l)	Outer length (mm)	Outer width (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
3	300	200	110	White lid with slit	**APT0.1**	1 unit(s)	64,55
5	550	200	120	Transparent lid	**APT1.1**	1 unit(s)	86,65
10	390	290	170	Transparent lid	**APT2.1**	1 unit(s)	97,30
30	615	400	220	Transparent lid	**APT3.1**	1 unit(s)	203,20

Water bath preservatives

Water bath preservative AKASOLV Aqua Care

With blue colour indicator.
For preventing the formation of algae, fungi and bacteria in water baths and thermostat circuits. If the blue coloration disappears and/or after three months at the latest, a new water bath solution must be prepared. Low usage concentration (0.1%): 100 ml of concentrate is sufficient for 100 l of demineralised water. Application temperature max. 70 °C.
Use biocidal products with care. Always read the label and the product information before use.

Warning H319-H412-EUH208

Type	Art. No.	Pack Qty.	€
AKASOLV Aqua Care	**KAC5.1**	100 ml	n. a.

Water bath preservative AKASOLV Aqua Care CF

No colour indicator.
For preventing the formation of algae, fungi and bacteria in water baths and thermostat circuits. Depending on contamination and/or after three months at the latest, prepare a new water bath. Low usage concentration (0.1%): 100 ml of concentrate is sufficient for 100 l of demineralised water. Application temperature max. 70 °C.
Use biocidal products with care. Always read the label and the product information before use.

Warning H319-H412-EUH208

Type	Art. No.	Pack Qty.	€
AKASOLV Aqua Care CF	**KAC4.1**	100 ml	n. a.

Water purifier Micropur®

Based on silver ions. Kills bacteria in water tanks and -containers and keeps water free from germs, algae and odours.
Use biocidal products with care. Always read the label and the product information before use.

Warning H410

Micropur® standard tablets, one for every 1 litre of water

Type	Art. No.	Pack Qty.	€
Micropur® standard tablets	**0591.1**	100 unit(s)	n. a.

Micropur® large tablets, one for every 10 litres of water

Type	Art. No.	Pack Qty.	€
Micropur® large tablets	**0593.1**	40 unit(s)	n. a.

Cleaning agents SMA 11 washing up liquid

Extremely versatile, cleans fast and thoroughly. High foam properties, with citrus scent.
Usage: 20–50 ml per 10 l water.

Warning H317

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
SMA 11 washing up liquid	**PY16.1**	1 l	n. a.
SMA 11 washing up liquid	**PY16.2**	10 l	n. a.

NEW / +

Gloss finish cleaner Dismofix® G

BODE Chemie.

A low-foaming gloss finish cleaner based on non-ionic surfactants and alcohol.
Applications: Suitable for manual and mechanical cleaning of all waterproof materials and surfaces. For streak-free cleaning of sensitive surfaces, such as glass, mirrors, stainless steel, plastic and ceramic. For daily maintenance cleaning of all coated floors. For mechanical cleaning of treated floors with automatic cleaning systems and cleaning dissipative floor coverings.
Concentration for use: Manual 0.5%, mechanical 1.0%. Intermediate cleaning with a rotary floor machine 10%.

Technical specifications:

Art. No.	1H92.1	1H92.2
Delivery form	Concentrated liquid	
Ingredients	Non-ionic surfactants, alcohol, fragrances, auxiliary agents	
Dosing	0.5 - 10%	

EUH208

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
Dismofix® G	Bottle	**1H92.1**	1 l	n. a.
Dismofix® G	Canister	**1H92.2**	5 l	n. a.

Cleaning agents SMA 1 all-purpose cleaner

Surfactant and lemon based, with ammonium chloride. Quick and thorough cleaning of all washable surfaces and floors, removes coarse dirt and greasy films. Gentle on materials, kind to the skin, pleasant scent.

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
SMA 1 all-purpose cleaner	**PY17.1**	1 l	n. a.
SMA 1 all-purpose cleaner	**PY17.2**	10 l	n. a.

Cleaning agents Neutral cleaner G530

Buzil.

Surfactant-based. For manual cleaning of all water-resistant materials and surfaces. High grease-dissolving power, high foam activity. Cleaned objects dry quickly and streak-free, no additional drying by hand needed. Gentle on materials, kind to the skin, pleasant scent. Suitable for use in foodstuffs processing businesses, also ideal as a dishwashing detergent. Tried and tested in car washes and industry.

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Neutral cleaner G530	**PY15.1**	1 l	6,85
Neutral cleaner G530	**PY15.2**	10 l	49,45

Cleaning agents Concentryl activeFoam foam cleaner

Becker Chemie.

Alkaline degreaser for the food sector. Active foam thoroughly removes all grease and oil from stainless steel, glass and other alkaline-resistant surfaces.

Danger H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Concentryl ActiveFoam foam cleaner	**NH50.1**	1 l	10,70

Cleaning agents stainless steel care PRO127

For the care and protection of all washable metal objects. Removes greasy films, dust, streaks, water marks and fingerprints. Leaves behind glossy, streak-free surfaces, protects against re-soiling. Easy application.
Note: Not to be used on hot surfaces.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Stainless steel care PRO127	**PY19.1**	500 ml	n. a.

NEW / +

Citric acid

Carl ROTH.

For descaling. Odourless, non-toxic, gentle on materials, biodegradable. For use, dilute 10–100 g citric acid in 1 litre of cold water depending on contamination.
Do not use in the food sector.

Technical specifications:

Art. No.	1818.1	1818.2
Delivery form	Granulate	
Dosing	10-100 g per litre of water	

Warning H319-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Citric acid	**1818.1**	1 kg	18,20
Citric acid	**1818.2**	50 kg	332,20

Descaler

Carl ROTH.

For removing limescale. Ingredients: 83% formic acid, inhibitors and colourants. Biodegradable. Do not use in the food sector. For use, dilute approx. 50 ml descaler in 1 litre of water.

Technical specifications:

Art. No.	0023.1
Delivery form	Concentrated liquid
Dosing	approx. 50 ml per litre of water

Danger H290-H302+H332-H314-EUH071

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Descaler	**0023.1**	500 ml	10,65

Cleaning agents

Methylated spirits

Berkel.

Denatured ethyl alcohol. Suitable for use as a detergent, a fuel additive and an antifreeze agent.

Danger H225-H319

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
Methylated spirits	Bottle	**AL30.1**	1 l	10,25
Methylated spirits	Canister	**AL30.2**	10 l	67,65
Methylated spirits	Canister	**AL30.3**	20 l	123,55

Universal solvents ROTISOL®

Carl ROTH.

Universal alcoholic solvent, extraction agent, mobile phase and elution medium (denatured), for dehydrating in histology, recrystallisation, etc. Mixable with water.
Composition:
Anhydrous ethanol ~99% · acetone ~5% · methyl ethyl ketone ~1% · Flp 12 °C · Kp 56-80 °C · D ~0.79 · Highly flammable.

Danger H225-H319-EUH066

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Rotisol®	**7917.3**	1 l	25,30
Rotisol®	**7917.1**	2.5 l	42,90
Rotisol®	**7917.2**	25 l	238,55

Cleaning agents ROTIPLASTICLEAN® plastic cleaner

Carl ROTH.

Anti-static. Suitable for plastic housings, laboratory equipment, furniture and flooring. Cleans, protects against brittleness and prevents static charge.

Warning H226-H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
ROTIPLASTICLEAN® plastic cleaner	**1953.1**	500 ml	23,55

Cleaning agents cable cleaners

Carl ROTH.

For cleaning and degreasing stripped cables.
Not suitable for plastic cables.

Danger H226-H304-H315-H317-H411

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Cable cleaners	**5235.1**	1 l	27,45

Cleaning agents label remover

Carl ROTH.

100% plant-based. Application: Dab onto label, allow it to work for a short while, dab label again if necessary, remove label. Use label remover to wipe off any adhesive residues.

Danger H226-H304-H315-H317-H411

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Label remover	**2958.1**	1 l	26,80

Cleaning sprays

Cleaning agents silvosol stain remover

Primus Beier.

Removes stains of silver nitrate, developing agent or iodine from surfaces and textiles. Is dabbed on (undiluted).

Warning H290-H351-H361d-H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Silvosol stain remover	**0047.1**	250 ml	20,75
Silvosol stain remover	**0047.2**	1 l	43,65

Cleaning spray SOLVENT 50 SUPER label remover

CRC.

With NSF certificate, specifically for the foodstuff, animal feed and packaging industries. NSF K3-certified for use in foodstuff-related industries.

Propellant: CO_2.

Danger H222-H229-H315-H317-H319-H336-H411
Delivery incl. Detachable dosing brush.

Type	Packaging type	Art. No.	Pack Qty.	€
SOLVENT 50 SUPER label remover	Aerosol	**KL91.1**	200 ml	13,25

Cleaning spray label remover 130

CRC.

Quickly and effectively removes self-adhesive labels. Suitable for housings, cladding, print rollers, glass, ceramics, non-porous materials.

Propellant: Propane gas.

Danger H222-H229-H315-H317-H336-H410

Type	Packaging type	Art. No.	Pack Qty.	€
Label remover 130	Aerosol	**P530.1**	200 ml	10,65

Cleaning spray Multischaum 77

CRC.

Universal foam cleaner.
Contains highly active ingredients for powerful and gentle cleaning of all glass, ceramic, paint, metal and plastic surfaces. The cleaning foam is very stable and does not run off on vertical surfaces. With antistatic effect.

Propellant: Propane/butane.

Danger H222-H229-H319-EUH208

Type	Packaging type	Art. No.	Pack Qty.	€
Multischaum 77	Aerosol	**YK87.1**	400 ml	n. a.

Cleaning sprays

Cleaning spray Inox Kleen

CRC.

Special aqueous cleaning and care foam for stainless steel, aluminium and chrome.
Registered acc. to NSF A7/C1 for use in foodstuff technology. Removes dirt, fingerprints and water stains quickly. Leaves an even glossy finish after cleaning. An extremely thin, water-repellent protective film provides long-lasting shine.

Propellant: Propane/butane.

Warning H229-H319-EUH208

Type	Packaging type	Art. No.	Pack Qty.	€
Inox Kleen	Aerosol	**YK85.1**	500 ml	13,60

Cleaning spray cold cleaner

CRC.

For cold cleaning and degreasing. Fast, residue-free evaporation. Removes grease, oil, tar, wax, etc. Suitable for machine parts, electric motors, switches, relays, etc.

Propellant: CO_2.

Danger H222-H229-H315-H336-H411

Type	Packaging type	Art. No.	Pack Qty.	€
Cold cleaner	Aerosol	**P529.1**	400 ml	12,80

NEW / +

Compressed air spray 67

CRC.

Compressed-gas cleaner based on pure, liquefied, non-flammable gas. For fast and residue-free removal of dust, loose dirt and any dry contamination. Attachable spray tube enables targeted cleaning.

- Medium strength spraying pressure, very economical and easy to use on delicate components.
- Dry and oil-free, leaves no residue
- Non-flammable according to Directive 2008/47/EC
- Low global warming potential (GWP = 7), no ozone-depleting effect
- Compatible with all common materials in electronics

Propellant: Hydrofluoroolefin (HFO).

Application examples:

- Cleaning of electronic components, e. g. circuit boards
- Also suitable for use on delicate components such as lenses or precision instruments
- Cleaning of laboratory equipment, communication electronics or data processing equipment

Warning H229
Delivery incl. spray tube.

Type	Packaging type	Art. No.	Pack Qty.	€
Compressed air spray 67	Aerosol	**1LET.1**	200 ml	n. a.
Compressed air spray 67	Aerosol	**1LET.2**	400 ml	n. a.

Compressed air spray 67 SUPER

CRC.

Based on pure liquefied gas with low global warming potential (GWP = 7). The dry, oil-free compressed gas leaves no residue, is non-flammable acc. to Directive 2008/47/EC and can also be used on live equipment. The spray can is fitted with a special convenient spray nozzle for effective, precise blowing-out of dust and dirt.
Application: For removing dust and dirt in electronics and precision mechanics. Also suitable for use on sensitive components such as lenses and sensors.
Propellant: Hydrofluoroolefin (HFO).

Warning H229
Delivery incl. convenient spray nozzle with wide coverage area and spray tube guide

Type	Packaging type	Art. No.	Pack Qty.	€
Compressed air spray 67 SUPER	Aerosol	**KEC9.1**	200 ml	25,95

Cleaning sprays

Compressed air spray 360

CRC.

This dry, oil-free compressed gas, with low global warming potential (GWP = 7), leaves no residue and is non-flammable according to Directive 2008/47/EC. This spray can with detachable tube is equipped with a 360° nozzle that can be used for spraying regardless of position, as well as for cleaning in any can position.

Application examples:

- Blowing out dust and dirt in electronics and precision mechanics
- Particularly suitable for angled or hard-to-reach areas

Propellant: Hydrofluoroolefin (HFO).

Warning H229
Delivery incl. spray tube for targeted application.

Type	Packaging type	Art. No.	Pack Qty.	€
Compressed air spray 360	Aerosol	**HXH4.1**	200 ml	19,90

Compressed air spray High pressure 67

CRC.

With an extra-strong spray jet.
This dry, oil-free compressed gas leaves no residue and is non-flammable according to Directive 2008/47/EC. With low global warming potential (GWP = 7). The spray can with detachable spray tube allows dust and dirt to be blown out in a targeted manner. The extra-strong spray system generates a high spraying pressure and is therefore particularly suitable for removing stubborn dirt over large surfaces.

Application examples:

- Blowing out stubborn dust and dirt deposits in electronics and precision mechanics
- The high spraying pressure is ideal for cleaning large surfaces in control cabinets, plants and machines

Propellant: Hydrofluoroolefin (HFO).

Warning H229
Delivery incl. spray tube for targeted application.

Type	Packaging type	Art. No.	Pack Qty.	€
High-pressure compressed air spray 67	Aerosol	**HXH5.1**	340 ml	28,20

Cold spray 75 SUPER

CRC.

Highly purified cooling agent for the highest demands with extra-strong cooling effect down to -45 °C. Low global warming potential (GWP = 7). Non-flammable according to Directive 2008/47/EC; for use on live equipment, the ambient temperature should be below 28 °C. In combination with the Dual Action spray system, it provides an extra-strong cooling effect. The convenient Dual Action spray system has a wide coverage area and a long folding spray tube for precise application, even in hard-to-reach areas. Suitable for fast, effective cooling of surfaces and components. For thermal troubleshooting on electronic components, to avoid overheating during soldering, for checking thermostats and thermal sensors and for cold-shrinking small metal components.

Propellant: Hydrofluoroolefin (HFO).

Warning H229
Delivery incl. spray tube for targeted application.

Type	Packaging type	Art. No.	Pack Qty.	€
Cold spray 75 SUPER	Aerosol	**KEC7.1**	200 ml	25,50

Antistatic spray

CRC.

Prevents electrostatic charge and dust attraction. Suitable for plastics, screens, EDP systems, housings, telephones, floorings, seat covers, polished metal parts, wooden surfaces, etc.

Propellant: Propane gas.

Danger H222-H229-H319-H336

Type	Packaging type	Art. No.	Pack Qty.	€
Antistatic spray	Aerosol	**P531.1**	200 ml	8,65

Office cleaners

Office cleaner cleansing foam for TFT screens

CRC.

Special gentle cleaner for TFT screens and LCD displays. The resistant active foam cleans without solvents such as alcohol, petroleum ether or ammonia.

Propellant: Propane/butane.

Warning H229-EUH208

Version	Pack.	Packaging type	Art. No.	Pack Qty.	€
Cleansing foam	200 ml	Aerosol	**KL90.1**	1 unit(s)	10,50

Office cleaner Cleaning pen

Due to the adhesive power of the tip, the pen removes impurities sticking to smaller glass surfaces such as objective, ocular and camera lenses. The tip can be cleaned with water. Total length 12 cm.

Version	Art. No.	Pack Qty.	€
Cleaning pen	**AK15.1**	1 unit(s)	13,50

Office cleaner cleaning wipes for TFT screens

Duotuch screen cleaner: The moist cleaning wipe provides streak-free, effective cleaning of all TFT, CRT and LCD monitors, and all notebooks and handhelds. The dry cloth guarantees gentle cleaning of the screen surface.
Pack contains 10 moist wipes and 10 dry wipes.

Version	Art. No.	Pack Qty.	€
Cleaning wipes for TFT screens	**KL92.1**	1 set	3,45

Office cleaner moist cleaning wipes

Surface cleaning wipes with alcohol. Made of pulp rayon fleece. For streak-free and antistatic cleaning of office equipment such as keyboards, fax machines, copiers, telephones and other smooth surfaces. 100 wipes in refillable dispenser with aluminium freshness seal. Dispenser dimensions: Ø 85 mm, H 190 mm. Wipe size 13.8 x 22 cm.
Note: Not suitable for TFT monitors.

Warning H226-H319

Dispenser with moist cleaning wipes

Version	Art. No.	Pack Qty.	€
Dispenser box containing 100 wipes	**E170.1**	1 pack(s)	5,65

Refill pack for dispenser box

Version	Art. No.	Pack Qty.	€
Refill pack containing 100 wipes	**E171.1**	1 pack(s)	4,75

Discover our ROTH webshop!

The detailed ROTH product world
... **www.carlroth.com**

- Optimised, detailed search functions
- Faster order workflow
- Improved order tracking
- User-friendly
- Detailed product details and additional information

Wipes and laboratory pads

Reusable wipes Polytex® wet wipes

Material: PP.

Made of 100% PP. Low-lint, absorbent, washable, tear-proof and solvent-resistant.

Colour	Length (cm)	Width (cm)	Pack.	Art. No.	Pack Qty.	€
blue	40	42	1 x 35 wipes	**EH09.3**	35 unit(s)	7,50
blue	40	42	12 x 35 wipes	**EH09.2**	420 unit(s)	75,15

Reusable wipes All-purpose cloths

Material: Viscose.

All-purpose cleaning cloths for damp and wet cleaning of all water-resistant surfaces. Very absorbent, durable and resistant to cleaning agents, washable up to 95 °C.

Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
white, blue	35	40	**HCA1.1**	20 unit(s)	16,35

Dishcloths ROTILABO®

ROTH SELECTION. Material: Cotton.

Robust, low-lint, fast-drying and absorbent. With hanging loop. Suitable for foodstuffs.

Pic.	Type	Surface weight (g/m²)	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
(1)	Dishcloth	210	70	50	**YX97.1**	1 unit(s)	3,30
(2)	Glass cloth	210	60	45	**YX98.1**	1 unit(s)	4,45
(3)	Kitchen towel	110	100	50	**YX99.1**	1 unit(s)	3,35

Reusable cloths microfibre cloths

Material: Microfibre made of 80% polyester and 20% polyamide.

Knitted microfibre cloths with high cleaning performance. Washable up to 95 °C.

Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
blue	36	36	**HCA2.1**	5 unit(s)	8,55

Reusable cloths microfibre cloths

Material: Microfibre made of 85% polyester and 15% polyamide.

Soft, long-lasting microfibre cloths with low surface friction. High cleaning performance, dirt, grease and dust particles are lifted and held inside the cloth. Washable up to 95 °C.

Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
yellow	40	40	**HCA3.1**	5 unit(s)	37,50
green	40	40	**HCA4.1**	5 unit(s)	37,50
pink	40	40	**HCA5.1**	5 unit(s)	37,50
blue	40	40	**HCA6.1**	5 unit(s)	37,50

Reusable wipes antistatic wipes

Material: Microfibre, with dissipative component.

The highly conductive component in the fabric safely dissipates electrical charge carriers. The ultra-soft microfibres gently remove dust and dirt of all kinds from filmstrips, electronic circuit boards, CDs, monitors, scanner glass and plastic. Washable at 40 °C.

Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
25	45	**AK11.1**	1 unit(s)	15,55

Wipes and laboratory pads

Disposable wipes KIMTECH® Pure W4

Kimberly-Clark. Material: PP.

1-ply, low-lint, soft and extremely absorbent. **Suitable for use in clean rooms of ISO classes 4 and above** as well as for dry-cleaning of critical devices and surfaces in the pharmaceutical, biotechnology, medical appliance manufacturing and food processing industries.

- Resistant to acids, bases and solvents
- Thermally bonded polypropylene fibres without adhesive or binders
- Particularly smooth-cut edges
- Double-pouch packaging

Type	Ply	Colour	Length (mm)	Width (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7646	1-ply	white	228	228	Bag	1 x 100 cloths	**HYL0.1**	100 unit(s)	24,15
7646	1-ply	white	228	228	Bag	5 x 100 cloths	**HYL0.2**	500 unit(s)	97,60
7605, quarter-folded	1-ply	white	305	305	Bag	1 x 100 cloths	**HYL1.1**	100 unit(s)	54,65
7605, quarter-folded	1-ply	white	305	305	Bag	5 x 100 cloths	**HYL1.2**	500 unit(s)	231,15

Reusable wipes KIMTECH® Pure

Kimberly-Clark. Material: PP.

Lint-free, soft and highly absorbent. Thickness 70 µm. For absorbing acids, bases, solvents, oils and aqueous solutions. **Suitable for use in clean rooms of ISO class 7 and higher.**

Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
white	38	35	Bag	1 x 35 cloths	**0393.3**	35 unit(s)	18,60
white	38	35	Bag	12 x 35 cloths	**0393.4**	420 unit(s)	188,15

Wipes WYPALL® pre-moistened

Kimberly-Clark.

Wipes pre-soaked with solvent-free cleaning solution, made of textured KIMTECH Pure® (100% polypropylene), with a rough cloth side for scrubbing contamination and a soft side for cleaning and wiping down. 50 wipes in a portable and sealable dispenser box with central dispensing hole. Wipe size 27 x 27 cm.
Dispenser box dimensions: Ø 11 cm, height 19.5 cm.

Application

Efficiently removes the most stubborn grease residues, dirt and lubricants from hands, machines and tools.

Type	Ply	Colour	Packaging type	Pack.	Art. No.	Pack Qty.	€
7772	1-ply	green	Dispenser box	1 x 50 wipes	**KKK2.1**	1 unit(s)	24,40
7772	1-ply	green	Dispenser box	6 x 50 wipes	**KKK2.2**	1 pack(s)	133,25

Wipes and laboratory pads

Reusable wipes WYPALL® X70

Kimberly-Clark. Material: Cellulose, Plastic.

Made of HYDROKNIT* (cellulose fibres (87%) embedded in spunbond non-woven fabric (13% synthetic fibres)). 1-ply. High absorbency, tear resistance and durability (wet and dry).

- Cleaning cloth for multiple use
- For easy and medium wiping applications, particularly in areas where absorbency is crucial
- Resistant to most solvents, reduces residues and enables spilled liquids, e.g. oil and water, to be wiped up quickly
- For cleaning surfaces, tools and machines
- Suitable for contact with foodstuffs

NEW / +

Folded wipes

Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8296	1-ply	white	42.6	28.2	Box	1 x 200 wipes	**1H50.1**	200 unit(s)	55,10

Pre-perforated wipes on a roll

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8348	1-ply	white	34	31.5	37	Roll	870 wipes	**1H51.1**	1 unit(s)	168,80

Reusable wipes WYPALL® X90

Kimberly-Clark. Material: Cellulose, Plastic.

Made of HYDROKNIT* (cellulose fibres (68%) embedded in spunbond non-woven fabric (38% synthetic fibres)). 2-ply. Extremely absorbent, tear-proof and durable (when wet or dry), resistant to most solvents, low-residue, for quick cleaning. Pre-perforated cloths. Cloth size 32 x 30 cm.

- For wiping up spilled liquids such as oil or water
- For removing oil, grease, dirt and solvents from surfaces and tools
- For cleaning small parts or difficult-to-reach areas in machines
- Suitable for contact with foodstuffs

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
12889	2-ply	blue	32	30	33	Roll	450 wipes	**HYK9.1**	1 unit(s)	111,10

Disposable wipes WYPALL® L10 EXTRA +

Kimberly-Clark. Material: Cellulose.

Made of 100% recycled cellulose, 1-ply. Special AIRFLEX® texture for higher absorption capacity. Highly absorbent, for water and oil. Tearproof. Pre-perforated wipes.

- For medium-duty cleaning work, such as polishing glass and cleaning surfaces or tools
- Suitable for contact with foodstuffs

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7241	1-ply	white	38	33	32	Roll	1000 wipes	**1APN.1**	1 unit(s)	38,35

Wipes and laboratory pads

Disposable wipes WYPALL® L20 Essential

Kimberly-Clark. Material: Cellulose recycled.

Made of 100% recycled cellulose, 2-ply, versatile, voluminous and absorbent. Features high tear resistance, even when wet. Pre-perforated cloths. Cloth size 38 x 35 cm.

- Ideal for day-to-day cleaning tasks such as wiping up spilled water and sprayed cleaning fluid
- For removing dirt and dust, and polishing glass and smooth surfaces
- For drying and cleaning tools and hands
- Suitable for contact with foodstuffs

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7356	2-ply	blue	38	35	39	Roll	1000 cloths	**1A00.1**	1 unit(s)	28,10

Disposable wipes WYPALL® L20 EXTRA

Kimberly-Clark. Material: Cellulose.

Made of 27% recycled cellulose, 2-ply. Special AIRFLEX® texture for higher absorption capacity. Highly absorbent, for water and oil. Tearproof. Pre-perforated cloths.

- Ideal for medium-duty cleaning work, such as polishing glass and cleaning surfaces or tools
- Suitable for contact with foodstuffs

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7248	2-ply	white	38	23.5	32	Roll	1000 tissues	**1APL.1**	1 unit(s)	31,15

Disposable wipes WYPALL® L40

Kimberly-Clark. Material: Cellulose, Latex.

Voluminous wipes made of textile-like, extra-soft AIRFLEX® material (made of a cellulose/latex mixture), 1-ply. With extremely high tear resistance even when wet. Outstanding water and oil absorbency, for fast absorption of large quantities of liquid.

Quarter-folded wipes

Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7471	1-ply	white	31.7	33	Bag	18 x 56 wipes	**NH08.1**	1,008 unit(s)	192,45

Roll of pre-perforated wipes

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7452	1-ply	white	31.5	34	41	Roll	1 x 750 wipes	**NH09.1**	1 unit(s)	166,65

Disposable wipes WYPALL® L30 ULTRA+

Kimberly-Clark. Material: Cellulose.

Voluminous wipes made of textile-like, extra-soft AIRFLEX® material (100% recycled cellulose), 3-ply.
With extremely high tear resistance even when wet. Outstanding water and oil absorbency, for fast absorption of large quantities of liquid. For particularly demanding wiping applications.

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7425	3-ply	blue	38	23.5	39	Roll	750 wipes	**NH10.1**	1 unit(s)	63,30
7426	3-ply	blue	38	37	39	Roll	670 wipes	**NH11.1**	1 unit(s)	81,40

Wipes and laboratory pads

Disposable tissues ROTIZELL® Tissues

ROTH SELECTION. Material: Cellulose.

2-ply, made of 100% chlorine-free bleached cellulose.
Extra-soft, absorbent, lint-free. Tissue size 21 x 20 cm.

Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2-ply	white	21	20	Box	25 x 150 cloths	**0087.2**	3,750 unit(s)	51,10

Disposable wipes ROTIZELL® T

ROTH SELECTION. Material: Paper.

Quality household paper, 2-ply, white. Very absorbent and soft.
50 perforated wipes on a roll, core Ø 43 mm, wipe size L 23 x W 26 cm.
Suitable for use with commercial wall dispensers.

Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2-ply	white	23	26	Roll	32 x 50 cloths	**0264.2**	32 unit(s)	47,00

Roll holder ROTILABO®

ROTH SELECTION.

With plastic base and roll-stop device for fixing the roll to tear off sheets.
The roll is placed 2 cm above the work surface and is therefore kept dry.
Easy roll replacement.

Type	Art. No.	Pack Qty.	€
ROTILABO® roll holder	**K879.1**	1 unit(s)	25,00

Disposable wipes tissue

ROTH SELECTION. Material: Cellulose.

Made of 100% cellulose, 2-ply. 9000 sheets, with point-to-point embossing. Suitable for single-sheet paper dispenser mini (Art. No. EE84.1).

Ply	Colour	Length (cm)	Width (cm)	Pack.	Art. No.	Pack Qty.	€
2-ply	white	18	11	36 x 250 cloths	**EE85.1**	9,000 unit(s)	56,45

Single-sheet paper dispenser mini

ROTH SELECTION. Material: Plastic.

For wall mounting.

- Hygienic single tissue removal
- Easy filling
- Viewing slot for fill level check

Delivery incl. mounting accessories, **delivery without** tissue paper (Art. No. EE85.1), please order separately.

W x D x H (cm)	Art. No.	Pack Qty.	€
16 x 13.5 x 31	**EE84.1**	1 unit(s)	34,30

Wipes and laboratory pads

Disposable wipes KIMTECH® Science lab wipes

Kimberly-Clark. Material: Cellulose.

- 2-ply
- Made of 100% pure cellulose, chlorine-free bleached
- Extra absorbent and soft
- Suitable for use with solvents and chemicals
- Low-lint, suitable for sensitive cleaning areas
- Ideal for wiping up smaller amounts of liquid and cleaning pipettes and slides

Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7557	2-ply	white	20	21	Box	1 x 100 wipes	**X213.1**	100 unit(s)	5,50
7557	2-ply	white	20	21	Box	24 x 100 wipes	**X213.3**	2,400 unit(s)	92,15
7558	2-ply	white	20	20.5	Box	1 x 200 wipes	**P502.1**	200 unit(s)	8,25
7558	2-ply	white	20	20.5	Box	15 x 200 wipes	**P502.4**	3,000 unit(s)	94,55

Disposable wipes KIMTECH® Science precision wipes

Kimberly-Clark. Material: Cellulose.

- 1-ply
- Made of specially treated, low-lint and absorbent cellulose fibres (100 % fresh cellulose)
- For precise wiping action in sensitive fields of application
- For cleaning electronic components and contacts, optical lenses and slides
- Easy removal from the dispenser box

Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7551	1-ply	white	30.4	30.4	Box	15 x 198 wipes	**AA63.2**	2,970 unit(s)	210,70
7552	1-ply	white	21.3	11.4	Box	1 x 280 wipes	**AA64.1**	280 unit(s)	8,20
7552	1-ply	white	21.3	11.4	Box	30 x 280 wipes	**AA64.2**	8,400 unit(s)	178,45
7557	1-ply	white	30.4	30.4	Box	1 x 198 wipes	**AA63.1**	198 unit(s)	18,85

Disposable wipes KC Professional

Kimberly-Clark. Material: Cellulose.

Type 28648. Disposable cleaning wipes with central dispenser, suitable for rough surfaces. Pre-perforated wipes, wipe size 32 x 31 cm.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
1-ply	white	32	31	20	Roll	6 x 60 wipes	**CLT0.1**	6 unit(s)	203,20

Wipes and laboratory pads

Disposable wipes ROTIZELL®

ROTH SELECTION. Material: Cellulose.
On large rolls.

XL2 1500
Made of soft cellulose. Highly absorbent and tear-resistant, suitable for water and oil. Pre-perforated tissues, 26.5 x 38 cm, white.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2-ply	white	38	26.5	39	Roll	2 x 1500 cloths	**AN56.1**	2 unit(s)	90,10

XXL2 Blue
Made of cellulose. Highly absorbent and tear-resistant, ideal for absorbing dust, grease and oils. Pre-perforated tissues, 38 x 38 cm, blue.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2-ply	blue	38	38	29	Roll	2 x 1000 cloths	**4695.1**	2 unit(s)	95,65

XXL3 1000
Made of cellulose. Highly absorbent and tear-resistant, ideal for absorbing dust, grease and oils. Pre-perforated tissues, 38 x 38 cm, white.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3-ply	white	38	38	39	Roll	1 x 1000 cloths	**AN57.1**	1 unit(s)	66,50

L3 Blue
Made of cellulose. Highly absorbent and tear-resistant, ideal for absorbing dust, grease and oils. Pre-perforated wipes, 22 x 38 cm, blue.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3-ply	blue	38	22	39	Roll	2 x 1000 cloths	**A972.1**	2 unit(s)	89,45

Absorptive crepe tissue S
Made of recycled cellulose. High absorbency. Tissue size: 24 x 38 cm, light grey.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
4-ply	light grey	38	24	35	Roll	2 x 1250 cloths	**1997.1**	2 unit(s)	66,15

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Wipes and laboratory pads

Roll-off stand ROTIZELL®

ROTH SELECTION.

With tear bar and holder for waste bags.
Max. roll width 42 cm.

W x D x H (mm)	Art. No.	Pack Qty.	€
480 x 640 x 1040	**0273.1**	1 unit(s)	98,15

Roll-off stand ROTIZELL®

ROTH SELECTION.

Silver, with tear bar. Max. roll width 34 cm.

W x D x H (mm)	Art. No.	Pack Qty.	€
440 x 380 x 970	**1798.1**	1 unit(s)	52,70

Wall-mounted roll holder

ROTH SELECTION.

Robust design. With tear bar and holder for refuse sacks (120 l).
Max. roll width 42 cm.

W x D x H	Art. No.	Pack Qty.	€
49 x 27 x 58	**AH00.1**	1 unit(s)	75,95

Absorbent paper ROTILABO®

ROTH SELECTION. Material: Cellulose, PE.

Benchtop protective paper
Absorbent white paper, coated on one side with waterproof PE. As a work support to protect laboratory benches or line cupboards and drawers. Protects surfaces from chemicals, dirt and contamination. Also suitable for analytical and isotope laboratories.

Sheets. Absorbency approx. 250–280 g/m²

Colour	Surface weight (g/m²)	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
white	144	60	48	**1941.1**	100 unit(s)	200,00

Roll. Absorbency approx. 250–280 g/m²

Colour	Surface weight (g/m²)	Length (m)	Width (cm)	Art. No.	Pack Qty.	€
white	144	100	48	**1959.1**	1 roll(s)	294,00
white	144	100	60	**1006.1**	1 roll(s)	356,00

Sheets. Absorbency approx. 170 g/m²

Colour	Surface weight (g/m²)	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
white	125	52	42	**HY90.1**	100 unit(s)	83,10
white	125	57	46	**HY91.1**	100 unit(s)	89,95
white	125	60	50	**HY92.1**	100 unit(s)	120,75

Roll. Absorbency approx. 170 g/m²

Colour	Surface weight (g/m²)	Length (m)	Width (cm)	Art. No.	Pack Qty.	€
white	125	50	49	**HY93.1**	1 roll(s)	120,55
white	125	50	60	**HY94.1**	1 roll(s)	144,55
white	125	50	92	**HY95.1**	1 roll(s)	193,50

Sheets. Absorbency approx. 200 g/m²

Colour	Surface weight (g/m²)	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
white	225	57	46	**HY96.1**	50 unit(s)	90,20
white	225	60	50	**HY97.1**	50 unit(s)	82,35

Roll. Absorbency approx. 200 g/m²

Colour	Surface weight (g/m²)	Length (m)	Width (cm)	Art. No.	Pack Qty.	€
white	225	50	49	**HY98.1**	1 roll(s)	227,90
white	225	50	60	**HY99.1**	1 roll(s)	277,35
white	225	50	92	**KA00.1**	1 roll(s)	391,30

Joseph paper sheets ROTILABO®

ROTH SELECTION.

Low-lint fine-grade paper for cleaning and drying. Highly absorbent. Surface weight 25 g/m².

Type	Surface weight (g/m²)	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
Folded	25	35	35	**XP42.1**	500 unit(s)	70,65
Single	25	15	15	**XP41.1**	200 unit(s)	8,65

Disposable wipes ROTIZELL® layered cellulose

ROTH SELECTION. Material: Paper recycled.

Absorbent and tear-proof, made of 100% recycling paper, wipe size 40 x 60 cm.

Creped single ply, light grey

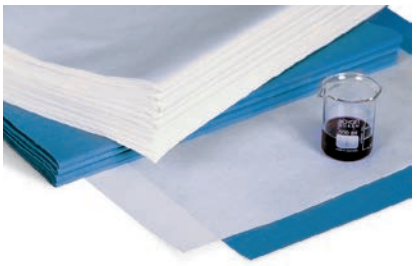
Ply	Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
1-ply	light grey	60	40	**1745.1**	5 kg	23,55
1-ply	light grey	60	40	**1745.2**	15 kg	58,60

Creped single ply, high bleached

Ply	Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
1-ply	white	60	40	**X859.1**	5 kg	46,15
1-ply	white	60	40	**X859.2**	15 kg	125,75

4-ply with horseshoe print, high bleached

Ply	Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
4-ply	white	60	40	**1746.1**	5 kg	64,75



Filter papers ROTILABO®

ROTH SELECTION.

Qualitative filter papers made from 100% cellulose. High absorbency. Standard filter paper with a smooth surface for analysis. Larger sizes are ideal as surface protection paper or working surface. Colour: White.

Type 600

Weight: 64 g/m². Thickness: 0.15 mm. Retention range: 10–20 µm.

Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
600	420	520	10–20	**XP43.1**	500 unit(s)	87,35
600	500	500	10–20	**XP44.1**	500 unit(s)	104,05
600	600	600	10–20	**XP45.1**	500 unit(s)	143,60

Type 601

Weight: 73 g/m². Thickness: 0.16 mm. Retention range: 5–13 µm.

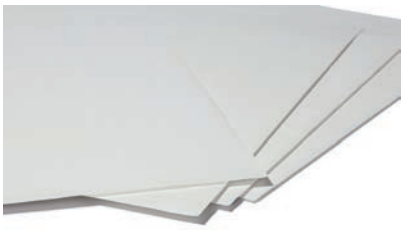
Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
601	450	450	5–13	**XP46.1**	500 unit(s)	242,95
601	460	570	5–13	**XP47.1**	100 unit(s)	55,80

Type 122

Weight: 73 g/m². Thickness: 0.17 mm. Retention range: 17–30 µm.

Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
122	520	520	17–30	**XP48.1**	500 unit(s)	229,00
122	600	600	17–30	**XP49.1**	500 unit(s)	267,70

Wipes and laboratory pads



Filter papers

Macherey-Nagel.

Alpha cellulose content approx. 95%. Format 58 x 58 cm.

Type: MN 713 medium filtration speed
Technical filter paper for general laboratory work.

Weight: 70 g/m². Filtration time: 20 s. Thickness: 0.15 mm.

Type	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
MN 713	58	58	**HPL1.1**	100 unit(s)	84,00

Type: MN 615 medium filtration speed
Qualitative standard paper for various applications. Weight: 70 g/m².
Filtration time: 22 s. Ash content: 0.1%. Retention range: 4–12 µm.
Thickness: 0.16 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 615	58	58	4-12	**HPL2.1**	100 unit(s)	140,00

Type: MN 617 fast filtration speed
Qualitative filter paper for quick filtering of coarse deposits.
Weight: 85 g/m². Filtration time: 9 s. Ash content: 0.1%.
Retention range: 7–12 µm. Thickness 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 617	58	58	7-12	**HPL3.1**	100 unit(s)	206,00

Type: MN 640 w fast filtration speed, ash-less
Quantitative filter paper for quick filtering of coarse deposits.
Weight: 85 g/m². Filtration time: 9 s. Ash content: < 0.01%.
Retention range: 7–12 µm. Thickness: 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
640 w	58	58	7-12 µm	**HPL4.1**	100 unit(s)	520,00

Type: MN 640 m medium filtration speed, ash-less
Quantitative standard paper for various applications. Weight: 85 g/m².
Filtration time: 27 s. Ash content: < 0.01%. Retention range: 4–12 µm.
Thickness: 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
Type: MN 640 m	58	58	4-12	**HPL5.1**	100 unit(s)	520,00

Type: MN 640 d low filtration speed, ash-less
Quantitative filter paper for fine and very fine deposits. Weight: 85 g/m².
Filtration time: 140 s. Ash content: < 0.01%. Retention range: 2–4 µm.
Thickness: 0.17 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 640 d	58	58	2-4	**HPL6.1**	100 unit(s)	520,00

Reusable cloths sponge wipes

Material: Cellulose, Cotton.

Made of approx. 70% cellulose and approx. 30% cotton. Universal, environmentally friendly wet-wipe cloth for efficient cleaning. Absorbent, soft and low-lint, washable up to 90 °C.

Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
blue	20	18	**HCA8.1**	10 unit(s)	8,80
yellow	20	18	**HCA9.1**	10 unit(s)	8,80
red	20	18	**HCC0.1**	10 unit(s)	8,80

Reusable wipes fleece dishcloths

Composition: 30% cotton, 25% viscose, 20% polypropylene, 15% polyester and 10% other fibres. For wet and dry cleaning. Tear-proof, soft and absorbent. Washable up to 60 °C.

Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
35	35	**HCC1.1**	25 unit(s)	13,95

Cotton wool

Material: Cotton.

Made of 100% cotton. For filtration and cleaning purposes.

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
perforated	Bag	14 x 80 g	**0571.1**	1,100 g	25,30
unperforated	Bag	7 x 100 g	**PE40.1**	700 g	13,95

Cleaning sponges and brushes

Scrub sponge

With abrasive fleece for removal of stubborn dirt on hard-wearing surfaces. Washable up to 40 °C. Dimensions: L 95 x W 70 x H 45 mm.

Version	Art. No.	Pack Qty.	€
Scrub sponge	**HCA7.1**	6 unit(s)	4,10

Scrub sponge Scotch-Brite™ Delicate

3M.

For gentle cleaning of sensitive surfaces, such as glass, ceramic, porcelain and chrome. Absorbent and non-scratch.
Two sided: Cleaning fleece/natural sponge. Dimensions: L 90 x W 70 x H 40 mm.

Version	Art. No.	Pack Qty.	€
Scrub sponge	**TT83.1**	6 unit(s)	11,80

Spiral scourer

3M. Material: Stainless steel, rustproof.

For the removal of stubborn dirt.

Version	Art. No.	Pack Qty.	€
Spiral scourer	**EE55.1**	12 unit(s)	11,40

Dish washing brush set ROTILABO®

ROTH SELECTION. Material: Plastic break-proof, with nylon bristles.

Set includes 12 x dish washing brushes: 6 x with round brush head, 6 x with elongated brush head and tough scouring bristles at the tip. Brush length 280 mm, weight approx. 50 g.

Version	Art. No.	Pack Qty.	€
Dish washing brush set	**0667.1**	1 set	34,05

Cleaning brush ROTILABO®

ROTH SELECTION. Material: PE (foam), Scratch-free.

Especially for cleaning laboratory glass and plastic containers. Made of soft, scratch-resistant PE foam. Does not absorb liquids and is considerably more hard-wearing than standard brush materials.

Flexible for vessels with narrow necks

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	20	410	**Y111.1**	1 unit(s)	14,65

Round head for tall vessels

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(2)	55	425	**EEH7.1**	1 unit(s)	14,65
(3)	70	480	**Y109.1**	1 unit(s)	14,05

Round head for medium-size vessels

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(4)	55	340	**EEH8.1**	1 unit(s)	14,25

Round head for small vessels

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(5)	50	230	**EEH9.1**	1 unit(s)	13,05
(6)	60	250	**Y110.1**	1 unit(s)	13,50

Special brush with bristles for cleaning test tubes and particularly narrow vessels

Flexible to adapt to the shape of the vessel.

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(7)	20	220	**Y112.1**	1 unit(s)	9,00

Cleaning brush ROTILABO®

ROTH SELECTION.

Made of natural bristles with wool head or all-wool.
Galvanised twisted-in wire.

Brush made with natural fibres with wool head

Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
5	85	280	**XK58.1**	5 unit(s)	13,75
8	85	280	**XK59.1**	5 unit(s)	13,10
10	60	230	**XK60.1**	5 unit(s)	12,75
12	85	280	**XK61.1**	5 unit(s)	12,85
15	85	280	**XK62.1**	5 unit(s)	12,75
20	105	270	**XK63.1**	5 unit(s)	13,20
30	115	270	**XK64.1**	5 unit(s)	19,90
40	130	520	**XK66.1**	1 unit(s)	7,00
50	150	320	**XK67.1**	1 unit(s)	5,85
60	145	520	**XK69.1**	1 unit(s)	7,90

Wool brush

Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
35	100	330	**XK65.1**	1 unit(s)	8,80
55	140	390	**XK68.1**	1 unit(s)	9,00

ROTH SELECTION

Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Cleaning brush ROTILABO®

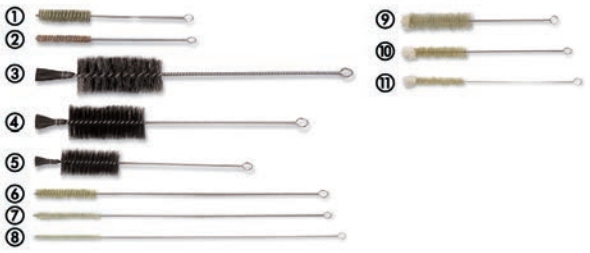
ROTH SELECTION. Material: Nylon.

Ø Brush (mm)	Brush length (mm)	Total length (mm)	Version	Art. No.	Pack Qty.	€
2	60	300	Chrome-nickel twisted-in wire	**XK71.1**	5 unit(s)	16,95
3	100	300	Chrome-nickel twisted-in wire	**XK72.1**	5 unit(s)	13,55
4	100	300	Galvanised twisted-in wire	**XK73.1**	5 unit(s)	13,85
5	100	300	Galvanised twisted-in wire	**XK74.1**	5 unit(s)	13,85
8	100	300	Galvanised twisted-in wire	**XK75.1**	5 unit(s)	13,95
10	100	300	Galvanised twisted-in wire	**XK76.1**	5 unit(s)	13,95
20	100	300	Galvanised twisted-in wire	**XK77.1**	5 unit(s)	15,10
30	100	300	Galvanised twisted-in wire	**XK78.1**	5 unit(s)	16,15
50	100	300	Galvanised twisted-in wire	**XK79.1**	5 unit(s)	19,70

Cleaning brush ROTILABO® with joint

ROTH SELECTION. Material: Wood with natural bristles.
With wooden handle.

Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
50	440	**XK70.1**	1 unit(s)	22,00



Cleaning brush ROTILABO®

ROTH SELECTION.

Bristle materials:
1: Brass 0.15
2: Bronze 0.15
3: Natural fibre/nylon
4 to 5: Horsehair
6 to 11: Pig bristles
9, 10 and 11: With wool head

Pic.	Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	25	100	300	**2018.1**	5 unit(s)	44,15
(10)	20	80	270	**2009.1**	10 unit(s)	21,30
(11)	15	70	280	**2019.1**	10 unit(s)	21,05
(2)	15	100	300	**2023.1**	5 unit(s)	41,40
(3)	80	150	500	**2017.1**	5 unit(s)	70,05
(4)	63	120	480	**1850.1**	5 unit(s)	38,50
(5)	50	85	370	**2013.1**	10 unit(s)	47,80
(6)	18	100	500	**1202.1**	10 unit(s)	29,55
(7)	12	100	500	**2003.1**	10 unit(s)	29,20
(8)	6	100	500	**2002.1**	10 unit(s)	28,90
(9)	30	115	270	**2011.1**	10 unit(s)	23,05

Cleaning brush ROTILABO® product range

ROTH SELECTION.

Bristle materials:
1: Brass 0.15
2: Bronze 0.15
3: Natural fibre/nylon
4 to 5: Horsehair
6 to 11: Pig bristles
9, 10 and 11: With wool head

Version	Art. No.	Pack Qty.	€
Brushes set 8: 1 each of type 1, 2, 3, 4, 5, 9, 10, 11	**2027.1**	1 set	58,45
Brushes set 12: 4 each of type 6, 7, 8	**2006.1**	1 set	46,20

Scrubbing brush ROTILABO®

ROTH SELECTION. Material: Wood, PP-bristles.

S-shape.

Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
210	70	35	**ET48.1**	5 unit(s)	12,85

Cleaning brush ROTILABO® special

ROTH SELECTION. Material: PE (foam).

With bristles and PE-foam head. Ergonomically shaped, wide, flat handle for easily twisting the brush. For cleaning laboratory glass and plastic containers. Specially designed for wide-neck barrels, beakers and cylinders.

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	50	385	**EEK0.1**	1 unit(s)	12,40
(2)	50	500	**EEK1.1**	1 unit(s)	14,65

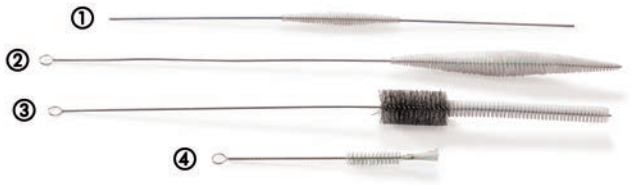
Hose/burette brush ROTILABO®

ROTH SELECTION.

With undyed pig bristles, hard-wearing, highly resistant to chemicals, heat resistant up to approx. 150 °C.

Pic.	Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	12	150	1,000	**KE66.1**	5 unit(s)	25,05
(2)	15	150	1,000	**KE67.1**	5 unit(s)	26,50
(3)	30	150	1,000	**KE68.1**	5 unit(s)	27,10

Brushes



Pipette brush ROTILABO®

ROTH SELECTION.

With undyed natural bristles. Hard-wearing, highly resistant to chemicals, heat resistant to approx. 150 °C.

Pic.	Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	5/10/5	100	400	**KE62.1**	5 unit(s)	25,40
(2)	4/20/4	190	490	**KE63.1**	5 unit(s)	31,50
(3)	12/25	180	450	**KE64.1**	5 unit(s)	26,95
(4)	10	70	160	**KE65.1**	5 unit(s)	14,60

Hose brush ROTILABO®

ROTH SELECTION. Material: Nylon.

With Nylon bristles, abrasion-proof and highly resistant to chemicals, heat resistant to approx. 100 °C.

Pic.	Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	6	60	1,180	**KE69.1**	2 unit(s)	21,10
(2)	8	150	2,500	**KE70.1**	2 unit(s)	30,40
(3)	9	150	1,500	**KE71.1**	2 unit(s)	20,50
(4)	16	150	1,500	**KE72.1**	2 unit(s)	20,70

Pipe cleaners

Material: Cotton with stiff wire.

Conical, Ø 1.5–6 mm. Length approx. 170 mm. Ideal for cleaning small, hard-to-reach areas such as nozzles, bores, connectors, taps, pipettes and tubes.

Total length (mm)	Art. No.	Pack Qty.	€
170	**YC35.1**	80 unit(s)	6,40

Antistatic brush

Made with natural and synthetic fibres. Conductive fibres free surfaces such as glass panes, plastics and electronic components from electrical charge carriers and dust particles. Max. 65 °C, washable.

Width (mm)	Art. No.	Pack Qty.	€
20	**AK12.1**	1 unit(s)	22,10
30	**AK37.1**	1 unit(s)	43,40
60	**AK14.1**	1 unit(s)	56,15

Floor mop PROFI

Leifheit.

With convenient foot control and changeable mop heads for universal use on all floor surfaces. Aluminium handle with hanging loop and non-slip grip. Flexible, flat-folding 360-degree swivel head enables effective cleaning in a wavy line. Wiping width 420 mm.

Delivery incl. PROFI micro duo mop head.

Version	Art. No.	Pack Qty.	€
Aluminium handle 140 cm	**XP59.1**	1 unit(s)	54,30
Telescopic handle 80–135 cm	**XP60.1**	1 unit(s)	54,30

Mop wringer PROFI Evo

Leifheit. Material: PP.

Capacity: 8 litres. Sturdy foot-operated mop wringer allows cleaning without bending down, using force or coming into contact with dirty water.
The mop wringer can be stowed inside the bucket for space-saving storage. With sturdy carry handle and two built-in castors for easy transport. Ideal for use in combination with PROFI floor mops.

Version	Art. No.	Pack Qty.	€
PROFI Evo mop wringer	**XP64.1**	1 unit(s)	91,40

Mops and sweeping sets

Mop head for PROFI floor mop

Leifheit.

PROFI micro duo
Optimum dirt pick-up thanks to duo-fibre system. Suitable for all floor types. Washable at 60 °C.

Pic.	Version	Art. No.	Pack Qty.	€
(1)	PROFI micro duo mop heads	**XP61.1**	1 unit(s)	23,65

PROFI cotton plus
With cotton, ideal for tiles and stone floors. Removes even coarse dirt. Washable at 60 °C.

Pic.	Version	Art. No.	Pack Qty.	€
(2)	PROFI cotton plus mop heads	**XP62.1**	1 unit(s)	23,65

PROFI static plus
For dry cleaning. Attracts dust and hairs using static electricity. Washable at 40 °C.

Pic.	Version	Art. No.	Pack Qty.	€
(3)	PROFI static plus mop heads	**XP63.1**	1 unit(s)	23,65

Window wiper Powerslide

Leifheit. Material: ABS.

For streak-free cleaning of smooth surfaces. Movable joint reduces wrist strain. Locking mechanism on handle to control wiping angle. Wiper width 280 mm.

Version	Art. No.	Pack Qty.	€
Powerslide window wiper	**XP65.1**	1 unit(s)	12,80

Brush and dustpan set

Leifheit. Material: PP.

Ergonomic non-slip handle. With special bristles and flexible rubber lip for easy collection of dirt. Large dirt chamber for safe transport.

Version	Art. No.	Pack Qty.	€
Brush and dustpan set	**XP66.1**	1 unit(s)	16,10

Brush and dustpan set ROTILABO®

ROTH SELECTION. Material: PP, Bristles made of polymex.

Square. Dustpan with brush comb and lip. L 330 x W 195 x H 90 mm.

Version	Length (mm)	Art. No.	Pack Qty.	€
Brush set	330	**ET50.1**	1 unit(s)	6,80

All-purpose vacuum cleaners

Floor vacuum cleaner bagless

Bosch.

- SmartSensor control: Sensor-controlled power monitoring with an LED signal for perfect cleaning results
- QuattroPower System: High-performance technology for excellent cleaning with low energy consumption
- SilenceSound System™: For an especially quite operating noise
- Fully automatic SelfClean system: Avoids contact with dust when cleaning the filter
- Intelligent SelfClean system: Automatic self-cleaning of the integrated filter system
- Washable HEPA hygiene filter: Suitable for allergy sufferers
- Telescopic tube with clip lock
- Electronic suction power regulation with rotary control
- Ergonomic premium handle for effortless vacuuming
- Easy to switch off and put away
- Automatic cable retraction system
- 4 swivel castors

Technical specifications:

Art. No.	KCY8.1
Type	Floor vacuum cleaner
Energy efficiency class	A
Dust emission class	A
Hard floor surface cleaning class	A
Carpet flooring cleaning class	C
Vol.	3 l
Cable length	8 m
Operating radius	11 m
Sound power level	66 db
Power consumption	700 W
L x W x H	470 x 310 x 320 mm
Weight	6,7 kg
Mains connection	220–240 V, 50 Hz

Delivery incl. 1 x switchable roller nozzle, 1 x hard floor surface nozzle, 1 x upholstery nozzle, 1 x crevice nozzle, 1 x furniture brush.

Type	Art. No.	Pack Qty.	€
Floor vacuum cleaner	**KCY8.1**	1 unit(s)	424,65

Multi-purpose vacuum cleaners NSG uClean 1432 ST

Electrostar.

For dry and wet cleaning.
Suitable for dust, coarse dirt particles and water. Container volume 32 l, of which dust 28 l, water 21 l. max. airflow 69 l/s.

Features:

- 32 l impact resistant special plastic container
- Water level detection
- Carry handle with hose reel and connector fixture
- Storage depots for accessories
- 2 swivel castors
- Parking aid

Technical specifications:

Art. No.	X247.1
Type	NSG uClean 1432 ST
Vol.	32 l
Cable length	8 m
Vacuum	259 mbar
Power consumption	1,400 W
IP rating	24
L x W x H	420 x 390 x 640 mm
Weight	9.3 kg

Delivery incl. 1 suction hose (Ø 4.9 cm, 1.75 m), 2 suction pipes (length 50 cm), 1 floor nozzle (width 36 cm), 1 coarse dirt nozzle, 1 crevice nozzle (length 16 cm), 1 fleece filter bag, 1 foam filter for extracting water and 1 dust filter cartridge.

Type	Art. No.	Pack Qty.	€
NSG uClean 1432 ST	**X247.1**	1 unit(s)	368,75

Pneumatic blow gun

Made of anodised aluminium. Robust construction. With short nozzle for thin jet. Working pressure up to 15 bar. Equipped with lever valve, connecting piece for pressure tubing with an inner width of 7 mm and integrated suspension eye.

Technical specifications:

Art. No.	5454.1
Type	Pneumatic blow gun
Weight	165 g

Type	Art. No.	Pack Qty.	€
Pneumatic blow gun	**5454.1**	1 unit(s)	20,35

All-purpose vacuum cleaners

Wet and dry battery-operated vacuum cleaner

Fakir.

Cordless vacuum cleaner for wet and dry dirt. Capacity for dry dirt 400 ml, for liquids 250 ml. Dust container is easy to empty, washable filter. With lithium-ion battery, charging dock and charge indicator light. Power consumption: 7,4 V; 2Ah. Operating time up to 23 min.

Technical specifications:

Art. No.	HNP5.1
Type	Wet and dry battery-operated vacuum cleaner
L x W x H	410 x 115 x 128 mm
Weight	985 g
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 1 x crevice nozzle, 1 x upholstery brush, 1 x liquids nozzle, 1 x charging dock with accessories deposit for wall mounting.

Type	Art. No.	Pack Qty.	€
Wet and dry battery-operated vacuum cleaner	**HNP5.1**	1 unit(s)	84,60

Pneumatic vacuum gun

For fine dust extraction with NW 10 connection for pressure tubing to fit pneumatic system or pressurised gas cylinder (nitrogen, air, argon). If necessary, the easy-to-empty needle-felt dust bag can be disposed of together with its contents. Put together, the suction pipe and nozzle are approx. 20 cm long and can be rotated continuously. The inlet slot has a clear width of 70 x 5 mm. For air pressure up to approx. 6 bar, suction volume 700 l/min., vacuum 40 kPa (0.4 bar).

Technical specifications:

Art. No.	5776.1
Type	Pneumatic vacuum gun
Weight	700 g

Type	Art. No.	Pack Qty.	€
Pneumatic vacuum gun	**5776.1**	1 unit(s)	290,25

Silicone grease ROTISILON®

Carl ROTH.

Technical specifications:

Art. No.	0830.1	0830.2	0836.1	0836.2	8537.1
Type	ROTISILON® A		ROTISILON® B		ROTISILON® C/D
Application temperature from	-48 °C		-45 °C		-40 °C
Application temperature up to	+150 °C		+180 °C		+200 °C

A

Grinding grease and lubricant for rubber on glass, liquid, applicable from -48 to +150 °C.

Type	Packaging type	Art. No.	Pack Qty.	€
ROTISILON® A	Bottle	**0830.1**	250 ml	21,40
ROTISILON® A	Bottle	**0830.2**	1 l	70,85

B

Universal grease, especially as tap grease, vaseline-like, transparent, applicable from -45 to +180 °C.

Type	Packaging type	Art. No.	Pack Qty.	€
ROTISILON® B	Can	**0836.1**	250 g	32,15
ROTISILON® B	Can	**0836.2**	1 kg	107,00

C/D

For normal vacuum (water jet pump), ointment shaped, transparent, applicable from -40 to +200 °C.

Type	Packaging type	Art. No.	Pack Qty.	€
ROTISILON® C/D	Can	**8537.1**	100 g	27,85

Grinding greases

Grinding grease KWS

Carl ROTH.

For vacuum, high-vacuum and backflow distillation.
Silicone-free, acid- and base-resistant. For greasing ground glass joints, can be used between -40 and +200 °C. Steam pressure 10^{-5} mbar. Excellent adhesion, viscosity and releasing properties.

Technical specifications:

Art. No.	0930.2	0930.1
Type	KWS grinding grease	
Application temperature from	-40 °C	
Application temperature up to	+200 °C	
Steam pressure	10^{-5} mbar	

Type	Packaging type	Art. No.	Pack Qty.	€
KWS grinding grease	Can	**0930.2**	50 g	31,15
KWS grinding grease	Can	**0930.1**	100 g	54,50

Vaseline

For greasing ground joints, desiccators, stopcocks, etc. Silicone-free. Density approx. 0.8 g/cm³, melting point approx. 52 °C.

Technical specifications:

Art. No.	E746.1
Type	Vaseline
Melting point	52 °C
Density	0.8 g/cm³

Type	Packaging type	Art. No.	Pack Qty.	€
Vaseline	Tube	**E746.1**	100 g	4,35

Silicone paste KORASILON®

For use as grinding paste, sealing paste, lubricant and protective paste. Moisture repellent. Also suitable as a sealant for electrical appliances, as a lubricant paste for cooling units and as a mould release agent. Temperature resistant in the range -50 to +200 °C.

Technical specifications:

Art. No.	0857.1	0855.1	0856.1
Type	high viscosity	low viscosity	medium viscosity

Low viscosity

Type	Packaging type	Art. No.	Pack Qty.	€
low viscosity	Tube	**0855.1**	35 g	7,15

Medium viscosity

Type	Packaging type	Art. No.	Pack Qty.	€
medium viscosity	Tube	**0856.1**	35 g	7,15

High viscosity

Type	Packaging type	Art. No.	Pack Qty.	€
high viscosity	Tube	**0857.1**	35 g	7,15

Range of silicon pastes KORASILON®

Consisting of 2 tubes each low viscosity, medium viscosity and high viscosity.

Technical specifications:

Art. No.	0858.1
Type	Range of KORASILON® pastes

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
Range of KORASILON® pastes	Tube	6 x 35 g	**0858.1**	1 set	31,15

Grinding greases

Silicone paste KORASILON® M-S 2

For use as a slip agent, lubricant and release agent for ground joints, apparatus, seals, valves, cables and wires, etc. Suitable for use as an assembly aid and as a protective and sealing paste. Colourless, odourless, non-toxic, hydrophobic, resistant to salt water and hot steam. Good electrical insulation, inert to many chemicals and resistant to micro-organisms.
Compliant with German BfR Recommendation XV. Silicone. Compliant with FDA 178.3570 „Lubricants with incidental food contact".
With NSF-H1 approval. Temperature stable between -40 and +200 °C.

Technical specifications:

Art. No.	APA7.1	APA6.1
Type	M-S 2-200	M-S 2-270

M-S 2-270, medium viscosity

Type	Packaging type	Art. No.	Pack Qty.	€
M-S 2-270	Tube	**APA6.1**	35 g	11,35

M-S 2-200, high viscosity

Type	Packaging type	Art. No.	Pack Qty.	€
M-S 2-200	Tube	**APA7.1**	35 g	11,35

Grinding grease water-soluble

Buddeberg.

Transparent grinding grease, washes off with water. Vacuum-proof up to 10^{-3} mbar. Can be used between -30 and +200 °C without change in consistency. Does not resinify. Biodegradable.

Technical specifications:

Art. No.	E691.1
Type	Grinding grease
Application temperature from	-30 °C
Application temperature up to	+200 °C

Type	Packaging type	Art. No.	Pack Qty.	€
Grinding grease	Tube	**E691.1**	80 g	31,10

NEW / +

Silicone-free laboratory grease glisseal N

Borer Chemie.

Vacuum-resistant, silicone-free laboratory grease for sealing and lubricating fixed and rotating glass joints and for lubricating plastic and metal connections.

- Vacuum-resistant
- Colour: Transparent
- Excellent temperature stability, permanently smooth consistency between -40 and +200 °C, temporarily up to 300 °C (in the absence of air)
- No drop point
- Chemically resistant to most acids, bases and gases
- Insoluble in water and low molecular weight mono- or polyhydric alcohols

Technical specifications:

Art. No.	1L7T.1
Type	glisseal N
Application temperature from	-40 °C
Application temperature up to	+200 °C
Steam pressure	2.7 x 10^{-5} mbar
Density	0.9 g/cm³

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
glisseal N	Tube	**1L7T.1**	60 g	37,10

Grinding greases

NEW / +

Silicone-free laboratory grease glisseal HV

Borer Chemie.

Highly vacuum-resistant, silicone-free laboratory grease for sealing and lubricating fixed and rotating glass joints and for lubricating plastic and metal connections.

- Highly vacuum-resistant
- Colour: Dark brown
- Excellent temperature stability, permanently smooth consistency between -40 and +220 °C, temporarily up to 320 °C (in the absence of air)
- No drop point
- Chemically resistant to most acids, bases and gases
- Insoluble in water and low molecular weight mono- or polyhydric alcohols

Technical specifications:

Art. No.	1L7X.1
Type	glisseal HV
Application temperature from	-40 °C
Application temperature up to	+220 °C
Steam pressure	0.27 x 10^{-5} mbar
Density	0.9 g/cm³

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
glisseal HV	Tube	**1L7X.1**	60 g	37,55

High-temperature vacuum lubricant APIEZON® PFPE 501

M+I Materials.

Chemically inert lubricant, slip and sealing agent based on perfluoro-polyether and PTFE. Can be used between -15 and +250 °C.

- Extremely resistant to solvents and aggressive chemicals (including halogens, nitric acid, as well as gaseous and liquid oxygen)
- High load-carrying capacity, as well as excellent lubricating properties thanks to film-forming, highly dense perfluoropolyether structure
- Non-flammable, not poisonous
- Versatile; protects, lubricates and seals bearings, valves, gears, threads, O-rings, seals, etc.

Technical specifications:

Art. No.	YT61.1
Type	APIEZON® PFPE 501
Application temperature from	-15 °C
Application temperature up to	+250 °C
Steam pressure	1.3 x 10^{-12} torr
Density	2.003 g/cm³

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® PFPE 501	Tube	**YT61.1**	100 g	378,40

PTFE paste

Carl ROTH.

For sealing threads and ground joints. High viscosity, good lubricating properties, excellent electrical insulation. Chemically inert. Can be used between -30 and +290 °C.

Technical specifications:

Art. No.	0124.1
Type	PTFE paste
Application temperature from	-30 °C
Application temperature up to	+290 °C

Type	Packaging type	Art. No.	Pack Qty.	€
PTFE paste	Can	**0124.1**	100 g	150,00

Vacuum grease APIEZON®

M+I Materials.

Excellent lubricating and gettering properties and extremely low steam pressures.

- Chemically inert
- Silicone-free
- Non-toxic
- Temperature stable
- Usable for 10 years

❄❄❄

Technical specifications:

Art. No.	C986.1	C987.1	1686.1	1682.1	1683.1	1684.1	1685.1
Type	APIEZON® AP 100	APIEZON® AP 101	APIEZON® H	APIEZON® L	APIEZON® M	APIEZON® N	APIEZON® T
Melting point	+47 °C	> +200 °C	> +250 °C	+47 °C	+44 °C	+43 °C	+125 °C
Application temperature from	+10 °C	-40 °C	-10 °C	+10 °C		-269 °C	+10 °C
Application temperature up to	+30 °C	+180 °C	+240 °C	+30 °C			+120 °C
Steam pressure	7 x 10^{-11} torr	<1 x 10^{-5} torr	1,7 x 10^{-9} torr	7 x 10^{-11} torr	1,7 x 10^{-9} torr	6 x 10^{-10} torr	4,6 x 10^{-9} torr

APIEZON® AP 100

Suitable for high vacuums, resistant to acids, bases and corrosive gases. Effectively prevents ground glass joints and polished glass connections seizing.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® AP 100	Tube	**C986.1**	50 g	356,90

APIEZON® AP 101

High-performance lubricant for a wide temperature range. For medium vacuum.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® AP 101	Tube	**C987.1**	50 g	174,15

APIEZON® H

Versatile grease for very high temperatures. Rather than melting at high temperatures, becomes firmer at temperatures above 40 °C.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® H	Tube	**1686.1**	25 g	332,20

APIEZON® L

Additive-free special grease for high vacuums with high absorption capacity for other hydrocarbons. High resistance to radiation. Also suitable for use as a stationary phase in gas chromatography. Halogen-free.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® L	Tube	**1682.1**	50 g	349,40

APIEZON® M

All-purpose lubricant, similar to L, but with a higher wax content. Halogen-free.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® M	Tube	**1683.1**	100 g	280,60

APIEZON® N

High-vacuum lubricant for cryogenic applications with consistency-improving additive, making it tougher. Halogen-free.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® N	Tube	**1684.1**	25 g	370,90

APIEZON® T

All-purpose lubricant. For medium vacuum. Halogen-free.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® T	Tube	**1685.1**	25 g	318,20

Lubricants and sealants

Waxes and sealing agent APIEZON®

M+I Materials.

APIEZON® waxes W, W 40, W 100
Provide lasting, high-vacuum sealing, excellent gettering properties and low vapour pressures. Resistant to acids such as hydrofluoric acid, nitric acid and acetic acid. Can be removed with hydrocarbons and chlorinated hydrocarbons.

APIEZON® Q compound
For sealing joints and filling cracks. Especially suitable for vacuum technology when extremely low vapour pressures are not required. Waterproof.

Technical specifications:

Art. No.	AL06.1	AL06.2	AL07.1	AL08.1	AL09.1
Type	APIEZON® W		APIEZON® W 40	APIEZON® W 100	APIEZON® Q compound
Melting point	80–90 °C		40–50 °C	50–60 °C	40–50 °C
Application temperature from	-10 °C				
Application temperature up to	+75 °C		+35 °C	+45 °C	+30 °C
Steam pressure	4,5 x 10^{-9} torr		6 x 10^{-8} torr	4,5 x 10^{-9} torr	1 x 10^{-4} torr

APIEZON® W
Sealing agent for seams which can heat up during operation.

Type	Pack.	Art. No.	Pack Qty.	€
APIEZON® W	Block	**AL06.1**	1,000 g	283,80
APIEZON® W	Stick	**AL06.2**	20 g	18,75

APIEZON® W 40
Sealant can be poured into or around a joint.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® W 40	Can	**AL07.1**	250 g	344,00

APIEZON® W 100
The soft wax reduces the risk of cracking under vibrational stress.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® W 100	Can	**AL08.1**	250 g	344,00

APIEZON® Q compound
Versatile sealing agent for vacuum technology.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® Q compound	Can	**AL09.1**	1 kg	344,00

Special oil Ballistol®

Ballistol.

Pure, mildly alkaline special oil with cleaning, conserving, protecting, regenerating, impregnating, lubricating and disinfecting properties. Low surface tension, wets even the smallest cracks and gaps. Free from chlorinated hydrocarbons, environmentally friendly and biodegradable. Also suitable for use on wood and leather. Dermatologically tested and approved for parts coming into contact with product in the foodstuffs industry.

Technical specifications:

Art. No.	AA74.1	AA74.2	AA75.1
Type	Ballistol® oil		Ballistol®-spray

Ballistol® oil

Type	Packaging type	Art. No.	Pack Qty.	€
Ballistol® oil	Bottle	**AA74.1**	50 ml	4,85
Ballistol® oil	Bottle	**AA74.2**	500 ml	21,40

Ballistol®-spray

Propellant: Propane/butane/hexane:

Danger H222-H229

Type	Packaging type	Art. No.	Pack Qty.	€
Ballistol®-spray	Aerosol	**AA75.1**	200 ml	9,95

PTFE spray Sprayflon

Saint-Gobain.

Multi-purpose PTFE lubricant, slip and release agent with extremely low friction coefficient. Resistant against water, oil and aggressive media. Anti-adhesive, dirt-repellent, prevents freezing and is temperature stable up to +260 °C. Free from grease and silicone.
Propellant: Propane/butane.

Technical specifications:

Art. No.	K007.1
Type	Sprayflon

Danger H222-H229-H319

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
Sprayflon	Aerosol	300 ml	**K007.1**	1 unit(s)	17,95

Silicone spray KORASILON® release agent M

Silicone-based mould release agent for duromers and thermoplastic materials. With high, long-lasting release capacity. Its extremely thin spray film is easy to apply and provides improved lubricity, surface gloss and scratch resistance.
Heat resistant up to approx. 150 °C, leaves no residues on hot surfaces.
Propellant: butane/pentane/propane/isobutane

Technical specifications:

Art. No.	0895.1
Type	KORASILON® release agent M

Danger H222-H229-H315-H336-H411

Type	Packaging type	Art. No.	Pack Qty.	€
KORASILON® release agent M	Aerosol	**0895.1**	400 ml	10,05

PTFE flat sealing tape

Material: PTFE.

Self-adhesive, for pipe connections and other surfaces. Soft, easily adaptable, smoothes out irregularities. Temperature range: -240 to +270 °C. Pressure range: up to 120 bar. Vacuum leakage rate for helium: 1.3 x 10^3 mbar/s at 20 N/m^2 Surface pressure.
Width 3.0 mm, 1.5 mm thick.

Technical specifications:

Art. No.	0801.1
Type	PTFE flat sealing tape
Application temperature from	-240 °C
Application temperature up to	+270 °C

Type	Art. No.	Pack Qty.	€
PTFE flat sealing tape	**0801.1**	2.5 m	43,95

Acrylic resin Paraloid™ B-72

Carl ROTH.

Transparent, light-resistant thermoplastic acrylic resin for preserving samples, and for coating and sealing wood, stone, metals and other materials. The coating is permanently stable and non-yellowing. Compatible with cellulose, silicone, PVC, and many other plastics and metals. Resistant to water and many chemicals. Dissolves in toluene or ethyl acetate. Can be applied with a brush, spray gun or in an immersion bath. Hardens by air drying or heat exposure (approx. 30 min. at 150 °C).

Technical specifications:

Art. No.	**9639.1**	**9639.2**
Type	Paraloid acrylic resin™	

Type	Art. No.	Pack Qty.	€
Paraloid acrylic resin™	**9639.1**	1 kg	73,00
Paraloid acrylic resin™	**9639.2**	5 kg	209,65

Zaponlack

Carl ROTH.

Fast-drying clear varnish based on nitrocellulose. Crystal clear, for sealing copper or brass against oxidation, and for fixing paper, wood, glass, leather, etc. Apply by brushing, spraying or dipping.

Technical specifications:

Art. No.	**6804.1**
Type	Zaponlack

Danger H225-H315-H318-H336-H412

Type	Art. No.	Pack Qty.	€
Zaponlack	**6804.1**	500 ml	48,30

Urea hydrogen peroxide

Carl ROTH.

Readily soluble oxidising agent. Tablet Ø 12 mm, weight 1.0 g. Mass percentage of H_2O_2 at least 35%, mass percentage of active oxygen at least 16.5%. Use as bleaching or fixing agent in the laboratory sector.

Danger H272-H315-H318-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Urea hydrogen peroxide	**7641.1**	500 g	46,15

Instant glue CA221

Ethyl cyanoacrylate based single-component instant glue for plastics, metals and porcelain. The adhesive bonds are to a large degree temperature- and chemical-resistant. Not suitable for permanent contact with water. Starts to harden in less than 1 minute and cures fully after 8–10 hours. Storage temp. +10 °C. Shelf life approx. six months.

Technical specifications:

Art. No.	**0258.1**
Type	CA 221

Warning H315-H319-H335

CA 221

Type	Art. No.	Pack Qty.	€
CA 221	**0258.1**	10 ml	6,85

One-component silicone rubber

For gluing, sealing, and coating. Highly chemical-resistant, UV/ozone-resistant. Polymerises at room temperature due to the air humidity to form a permanently elastic rubber.

Technical specifications:

Art. No.	E046.1	2024.1
Type	Scrintec® 600	Scrintec® 901

600 oxime cross-linking

Paste-like, transparent. Temperature-resistant from -50 to +180 °C.

Spec. weight 1.02 g/cm³, Shore hardness 20°.

Warning H317-EUH208

Type	Pack.	Art. No.	Pack Qty.	€
Scrintec® 600	85 ml	**E046.1**	1 tube	17,00

901 acetic acid cross-linking

Fluid, opaque red. Temperature-resistant from -60 to +250 °C.

Spec. weight 1.20 g/cm³, Shore hardness 35°.

Warning H315

Type	Pack.	Art. No.	Pack Qty.	€
Scrintec® 901	85 ml	**2024.1**	1 tube	17,75

One-component adhesive filler Autostic FC8

One-component adhesive filler for connecting, sealing, coating or gluing ceramics, glass, quartz crystal, metal, etc.
Max. usage temperature +1000 °C, non-flammable. Ready to use, viscosity 3000 MPa. Setting occurs at room temperature or can be accelerated by heating at up to 90 °C. Depending on temperature, humidity and the properties of the material to be glued as well as the required layer thickness, setting is complete after 36–48 h.

Technical specifications:

Art. No.	0279.1
Type	Autostic FC8

Type	Art. No.	Pack Qty.	€
Autostic FC8	**0279.1**	500 g	79,55

NEW / +

Epoxy systems

Carl ROTH.

For connecting metal, ceramic or plastics to each other or to other parts of the same material. For pouring out columns in these materials.

Technical specifications:

Art. No.	2545.2	2530.1	2545.1	2551.1	2551.2
Type	G2 cast resin	B1 adhesive	G2 cast resin	H2 hardener	

Araldit® B 1 adhesive

Epoxy-based, low viscosity, transparent. For connecting metal parts and filling hollow spaces. Hardens with Hardener H 2 (mixed in a ratio of 100:8 by weight).

Warning H315-H317-H319-H411-EUH205

Type	Art. No.	Pack Qty.	€
B1 adhesive	**2530.1**	500 g	96,65

Araldit® G 2 cast resin

Epoxy resin, low viscosity. Suitable for pouring in and embedding electronic components. Hardens at room temperature with Hardener H 2 (mixed in a ratio of 10:1 by weight).

Warning H315-H317-H319-H411-EUH205

Type	Art. No.	Pack Qty.	€
G2 cast resin	**2545.2**	1 kg	93,45
G2 cast resin	**2545.1**	500 g	52,15

Aradur® H 2 hardener

Liquid.

Danger H302+H312-H314-H317-H412

Type	Art. No.	Pack Qty.	€
H2 hardener	**2551.1**	100 g	21,00
H2 hardener	**2551.2**	500 g	78,40

Two-component adhesive Araldite® Rapid

With an epoxy resin base. Suitable for many materials with the exception of PP, PE, PTFE, PVC and Acryl. Fast-setting, heat-resistant up to +100 °C, resistant to alcohol, water, petrol, mineral oils and similar substances, mixing 1:1. Process of setting starts after five minutes, will support itself after another 15 minutes and is fully stable after 8–10 hours. Kit contains 15 ml each of component A and B.

Technical specifications:

Art. No.	**3131.1**
Type	Araldite® Rapid

Warning H315-H317-H319-H411

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
Araldite® Rapid	Tube	2 x 15 ml of each component A and B	**3131.1**	2 pack(s)	59,05

Two-component sealing resin Metaflux®

Two-component epoxy resin for quick repair of metal, porcelain, wood and stone, for sealing pipes and tanks, and for filling out irregularities and holes. Also ideal under water. Hardens within three hours at 20 °C. Heat-resistant up to +200 °C, suitable for mechanical processing. Compressive strength 7840 N/cm², tensile strength 2940 N/cm². Mixture 1:1.

Technical specifications:

Art. No.	**1279.1**
Type	Metaflux®

Warning H315-H317-H319-H412-EUH205

Type	Art. No.	Pack Qty.	€
Metaflux®	**1279.1**	400 g	40,80

Hot glue gun Gluematic 5000

Steinel.

Cordless hot glue gun with extremely high melting capacity.

- Very short heating times
- Glue is heated automatically when the unit is placed onto the charging dock
- Electronic temperature control using state-of-the-art PTC heating technology
- Continuous operation with power cable possible
- Energy-saving standby mode
- Mechanical glue stick feeder for speedy, well-metred working
- Replaceable glue nozzles

Technical specifications:

Art. No.	**PE36.1**
Type	Hot glue gun
Length	185 mm
Width	32 mm
Height	180 mm
Weight	330 g
Performance	120/500 W
Warm-up period	3–5 min
Melt temperature	210–220 °C
Delivery rate	22 g/min

Delivery incl. charger with drip protection, short nozzle Ø 2.0 mm, long nozzle Ø 2.8 mm, five Ultra Power glue sticks, power cable.

Type	Art. No.	Pack Qty.	€
Hot glue gun	**PE36.1**	1 unit(s)	74,45

Electrical insulating tape

Material: PVC, high-gloss.

Tape made of high-gloss **PVC**, synthetic rubber adhesive. Temperature-resistant from -10 to 105 °C. Resistant to moisture, oil, diluted acids and bases, as well as UV radiation. Penetration resistance 40 kV/mm. Good adhesive force and high flexibility, elongation at break ≥ 160%, tear strength 18.0 N/mm². Width 19 mm, thickness 0.19 mm, roll length 20 m, weight 100 g.

Technical specifications:

Art. No.	**1256.1**
Type	Electrical insulating tape
Width	19 mm
Thickn.	0,18 mm

Type	Pack.	Art. No.	Pack Qty.	€
Electrical insulating tape	20 m	**1256.1**	1 roll(s)	6,45

Adhesive tape tesaband® Premium

Fabric tape, 25 mm wide. Wear- and tear-resistant. Good adhesion even on rough surfaces. Labellable. Temperature-resistant up to +130 °C.

Technical specifications:

Art. No.	**1263.2**
Type	tesaband® Premium adhesive tape
Width	25 mm

Type	Pack.	Art. No.	Pack Qty.	€
tesaband® Premium adhesive tape	25 m	**1263.2**	1 roll(s)	26,15

Adhesive tape Scotch Mount 4032

Material: PU.

Double-sided adhesive foam tape. For fixing down surfaces to prevent slipping, or as an adhesive tape for boards, posters, etc. Slightly tensile, good adhesion, and easy to remove. Width 25 mm, thickness 0.8 mm.

Technical specifications:

Art. No.	**1283.1**
Type	Scotch Mount 4032
Width	25 mm
Thickn.	0,8 mm

Type	Pack.	Art. No.	Pack Qty.	€
Scotch Mount 4032	11 m	**1283.1**	1 roll(s)	30,25

PTFE thread sealing tape

ROTH SELECTION. Material: PTFE.

Protects, seals and secures all types of thread. Highly flexible, usable from -190 to +260 °C. Chemically inert. Tape width 12 mm, thickness 0.08 mm. Roll length 12 m.

Technical specifications:

Art. No.	**1715.1**
Type	PTFE thread sealing tape
Application temperature from	-190 °C
Application temperature up to	+260 °C

Type	Pack.	Art. No.	Pack Qty.	€
PTFE thread sealing tape	3 x 12 m	**1715.1**	3 roll(s)	5,75

O-ringset Loctite®

Ideal for making different sized O-ring seals. Work pack with approx. 20 g special glue, cutter, 1 m elastic bands each with Ø 1,6; 2,4; 3,0; 5,7 and 8,4 mm and instructions. Drying time for rings approx.10 min.

Technical specifications:

Art. No.	**1725.1**
Type	O-ringset Loctite®

Type	Art. No.	Pack Qty.	€
O-ringset Loctite®	**1725.1**	1 set	95,95

Adhesive tape Velcro strip

Easily removable, consists of a hook-and-loop component with self-adhesive back. Fastener is closed by gently pressing hooks into the loops, which is ideal for applications where a high amount of opening and closing is expected. Approx. thickness when closed 2.5 mm. Length 230 cm, width 25.4 mm.

Technical specifications:

Art. No.	**K956.1**
Type	Velcro strip
Width	25.4 mm
Thickn.	2,5 mm

Type	Pack.	Art. No.	Pack Qty.	€
Velcro strip	2,3 m	**K956.1**	1 roll(s)	46,75

Adhesive tape Snap-fastening strip

Self-adhesive, flexible. Adhesion based on the interlocking of semi-spherical heads (62 heads/cm²). Provides extremely secure and resilient connections to most materials, with a high level of permanent adhesive power. Approx. thickness when closed 5.8 mm. Length 230 cm, width 25.4 mm.

Technical specifications:

Art. No.	**0295.1**
Type	Snap-fastening strip
Width	25.4 mm
Thickn.	5,8 mm

Type	Pack.	Art. No.	Pack Qty.	€
Snap-fastening strip	2,3 m	**0295.1**	1 roll(s)	39,65

Heat protection foil

Material: Aluminium.

Self-adhesive, made of 0.05 mm thick aluminium foil, for adhering window panes and other smooth surfaces, 50 cm wide. Temperature stable up to +80 °C.

Type	Pack.	Art. No.	Pack Qty.	€
Heat protection foil	5 m	**0193.1**	1 roll(s)	26,35

Gas-leak tester Roth

Carl ROTH.

Special liquid for detecting even the smallest of leaks in tubing or hollow spaces that are subject to gas or air pressure. Non-toxic, non-flammable, non-corrosive. Suitable for compressed air, butane, natural gas, town gas, propane, CO_2, O_2, N_2, H_2 and ammonia. Spray onto areas with suspected leaks. If there is a leak, foam bubbles will form.

Packaging type	Pack.	Art. No.	Pack Qty.	€
Spray bottle	500 ml	**2686.1**	1 unit(s)	18,45

Leak finder spray ECO

CRC.

For reliable location of leaks on gas pipes and compressed air systems. Produces easily visible foam bubbles at the site of leaks. Suitable for e.g. natural gas, propane, butane, acetylene, nitrogen, carbon dioxide, refrigerant and oxygen. Compatible with plastics and metals, non-corrosive. DVGW-tested in accordance with DIN EN 14291:NG-5170AS0069 and with NSF-P1 registration for food technology.

Propellant: N_2O.

Warning H229-H319-EUH208

Packaging type	Pack.	Art. No.	Pack Qty.	€
Aerosol	500 ml	**HAN3.1**	1 unit(s)	10,75

Heating bath fluid ROTITHERM® H 250

Carl ROTH.

Silicone oil for heating baths. Colour: Colourless.

- Density at 0 °C: 1.05 g/cm³
- Density at 23 °C: 0.90 g/cm³
- Heat stability: +250 °C
- Coefficient of thermal conductivity W/ (m x K): 0.131
- Flash point: > 295 °C
- Combustion point: > 360 °C
- Pour point: -65 °C
- Vapour pressure:
  at +20 °C: ~1.33 x 10^{-4} N/m (10^{-6} Torr)
  at +150 °C: ~1.33 x 10^{-2} N/m (10^{-4} Torr)
- Kinematic viscosity:
  at +20 °C: 200 mm² s^{-1} (cSt)
  at +100 °C: 34 mm² s^{-1} (cSt)

Type	Art. No.	Pack Qty.	€
ROTITHERM® H 250	**1670.1**	1 l	155,90
ROTITHERM® H 250	**1670.2**	10 l	1.343,75

NEW / +

Heating bath fluid ROTITHERM® M 220

Carl ROTH.

Silicone oil for heating baths. Colour: Brown.

- Density at 0 °C: 1.00 g/cm³
- Density at 23 °C: 0.85 g/cm³
- Heat stability: +220 °C
- Coefficient of thermal conductivity W/ (m x K): 0.170
- Flash point: > 320 °C
- Combustion point: > 360 °C
- Pour point: < -50 °C
- Vapour pressure:
  at +20 °C: ~10^{-4} mbar
  at +150 °C: ~10^{-2} mbar
- Kinematic viscosity:
  at +20 °C: 1000 mm² s^{-1} (cSt)
  at +100 °C: 300 mm² s^{-1} (cSt)

Type	Art. No.	Pack Qty.	€
ROTITHERM® M 220	**0991.1**	1 l	59,05
ROTITHERM® M 220	**0991.2**	5 l	256,95

Heating bath fluid ROTITHERM® M 150

Carl ROTH.

Silicone oil for heating baths. Colour: Colourless.

- Density at 0 °C: 1.00 g/cm³
- Density at 23 °C: 0.85 g/cm³
- Heat stability: +150 °C
- Coefficient of thermal conductivity W/ (m x K): 0.163
- Flash point: > 310 °C
- Combustion point: > 370 °C
- Pour point: < -50 °C
- Vapour pressure:
  10^{-5} to 10^{-4} mbar from +25 °C to +175 °C
- Kinematic viscosity:
  at +25 °C: 100 mm² s^{-1} (cSt)
  at +100 °C: 32 mm² s^{-1} (cSt)

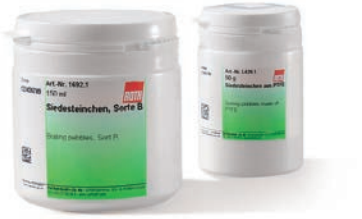
Type	Art. No.	Pack Qty.	€
ROTITHERM® M 150	**0990.1**	1 l	53,65
ROTITHERM® M 150	**0990.2**	5 l	224,70

Floating balls

Material: PP.

Made of **PP**. Reduce evaporation, quick temperature loss and bad-smelling or corrosive vapours. Resistant to many acids, bases, solvents and mineral oils. Temperature stable up to +100 °C.

Ø Ball (mm)	Art. No.	Pack Qty.	€
20	**A753.2**	1,000 unit(s)	106,65



Boiling pebbles

ROTH SELECTION.

Reduce boiling delay and guarantee even distillation of low-viscosity liquids.

Type A
For normal distillation. Clay-bonded natural stone product primarily made of quartz grains. Low traces of iron present.

- Suitable for vacuum distillation
- Grain size approx. 5–8 mm
- 75 g = approx. 1000 items

Type	Art. No.	Pack Qty.	€
Type A	**1691.1**	75 g	17,60

Type B
For analytical purposes. Natural, alkaline clay silicate, without zeolite.

- Grain size up to approx. 5 mm
- 80 g = 1700 items

Type	Art. No.	Pack Qty.	€
Type B	**1692.1**	80 g	19,55

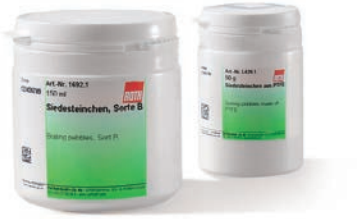
Boiling pebbles made of PTFE

ROTH SELECTION. Material: PTFE.

Unevenly shaped granulate, prevents uncontrolled overheating of solutions when heating volatile liquids. Resistant and inert to most aggressive chemicals (acids, bases, hydrocarbons).

- Does not leave scratches or powder residue on glass
- Maximum use temperature +260 °C
- Grain size 1 to 5 mm.

Type	Art. No.	Pack Qty.	€
Boiling pebbles made of PTFE	**L429.1**	50 g	10,30



Boiling pebbles Resistant

ROTH SELECTION.

For preparation and analysis work in biochemistry, biotechnology, microbiology, microanalytics, etc. Can be used for vacuum and high-vacuum distillation, even in very small amounts of liquid.
No abrasion, no absorption of solvents, start working again after every interruption. Can even be used in strong acids, bases, aggressive solvents and oxidants.

- Can be sterilised by annealing
- Grain size approx. 3–4 mm
- 50 g = 1785 items

Type	Art. No.	Pack Qty.	€
Resistant boiling pebbles	**H751.1**	50 g	32,40

Magnesia scoops

ROTH SELECTION.

For annealing and incineration of samples, as well as for the production of oxygen melts for the detection of chromium, manganese, etc. and for bead tests.

Dimensions: Length 100 mm x width 9 mm.

Type	Art. No.	Pack Qty.	€
Magnesia scoops	**6537.1**	25 unit(s)	24,20

Magnesia rods

ROTH SELECTION.

For flame colouration when detecting sodium, etc. For producing borax beads when detecting cobalt. For bead tests.

Dimensions: Ø 1.5 x length 140 mm.

Type	Art. No.	Pack Qty.	€
Magnesia rods	**6543.1**	25 unit(s)	27,45

Glass beads

ROTH SELECTION. Material: Soda-lime glass.

- Bulk weight 1.46–1.51 kg/l depending on size
- Refractive index 1.5188
- Specific weight approx. 2.5 g/cm³

Chemical composition: SiO_2 72.3%; Na_2O 13.3%; CaO 8.9%; MgO 4.0%; other 1.5%.

0,25 - 0,5 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
0,25 - 0,5	**A553.1**	1 kg	31,75

0,75 - 1,0 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
0,75 - 1,0	**A554.1**	1 kg	31,75

1,25 - 1,65 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
1,25 - 1,65	**A555.1**	1 kg	31,75

1,7 - 2,1 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
1,7 - 2,1	**A556.1**	1 kg	31,75

2,85 - 3,45 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
2,85 - 3,45	**A557.1**	1 kg	31,75

Glass beads

ROTH SELECTION. Material: Soda-lime glass.

Glass beads made of highly pure soda-lime glass. Manufactured using a special process that enables the production of beads with extremely high roundness in sizes from 4 mm upwards.
Use as agitating beads and mixing beads for aerosol sprays, as valve balls for bottle seals. Thanks to their high degree of purity, the glass balls are also suitable for use as grinding and dispersion balls for wet grinding of pigments, agrochemicals and biological or other preparations.

- Very smooth surface
- Low proportion of air bubbles
- Refractive index 1.5159
- Specific weight approx. 2.5 g/cm³

Chemical composition: SiO_2 68.1%; Na_2O 15.0%; CaO 8.3%; MgO 2.5%; Al_2O_3 3.3%; other 2.80%.

4 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
4 ± 0,3	**HH55.1**	1 kg	31,75

5 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
5 ± 0,3	**HH56.1**	1 kg	31,75

10 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
10 ± 0,5	**HH57.1**	1 kg	31,75

14 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
14 ± 0,5	**HH58.1**	1 kg	31,75

20 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
20 ± 0,5	**HH59.1**	1 kg	91,30

Chemical resistance of plastics

Chemicals at 20 °C	MF	ETFE	PA	PC	HDPE	LDPE	PMMA	POM	PP	PS	PTFE/ FEP	PVC	SAN	PMP	PVDF
Acetaldehyde		❍	❍	–	❍	❍	–	❍	–	–	●	–	–	❍	–
Acetic Acid, glacial	❍	❍	–	–	❍	❍	–	–	❍		●			❍	❍
Acetone	●	❍	●	–	●	❍	–	●	●	–	●	–	–	❍	–
Acetonitrile		●	●	–	●	●	–	❍	–	–	●	–		–	❍
Acetylene (Ethine)		●	●	●	●	●		●	●		●		–		●
Aluminum Chloride, saturated			–	❍	●	●	●	–	●		●	❍	●		●
Ammonia, pure		●		–	●	●	❍		●	❍	●		❍	❍	–
Ammonium Chloride, solid	●		●	●	●	●	●	❍	●		●				●
Aqua Regia	–	●	–	–	–	–		–	–	–	●	–	–	❍	–
Ascorbic Acid, water solution		●	❍	❍	●	●		❍	●		●				●
Benzaldehyde		❍	–	–	❍	❍	–	●	❍	–	●	–	❍	●	❍
Benzine	●	●	●	❍	❍	–	❍	●	–	–	●	❍	–	❍	●
Benzoic Acid, saturated		●	–	–	●	●	●	❍	❍	❍	●	●	●	●	●
Benzol	●	●	❍	–	–	–	–	❍	–	–	●	–	–	❍	●
Calcium Chloride, water solution		●	●	●	●	●	●	❍	●	●	●	●	●	●	●
Carbon Tetrachloride (TETRA)	●	●	–	–	–	–		❍	–	–	●	–	–	–	❍
Chlorine 97 %			–	–	–	–	❍	–	–	–	●	–	–	–	●
Chlorine, water solution		●	–	–	❍	–	❍	–	–	–	●	❍	❍	–	●
Chlorobenzene		●	–	–	–	–	–	●	–	–	●	–	–	–	●
Chloroform (Trichloromethane)	●	❍	–	–	–	–	–	–	–	–	●	–	–	–	❍
Copper(II) Chloride, saturated			–	●	❍	●		❍	❍		●	●		●	❍
Cyclohexane	●	●	●	❍	–	–	❍	●	–	–	●	❍	❍	–	●
Decahydronaphtalene		●	●	–	❍	–	–	●	–	–	●	❍	–	–	❍
Dichloromethane (Methylene Chloride)		❍	–	–	–	–		❍	–	–	●	–	–	–	❍
Diethyl Ether		●	●	–	–	–	–	●	–	–	●	–	–	–	❍
Dimethyl Formamide (DMF)		❍	●	–	●	❍		●	●	–	●	–	–	●	–
Dimethyl Phtalate (DMP)			❍	–	–	❍		❍	❍	–	●	–	–		❍
Dimethylsulfoxide (DMSO)		●	❍	–	●	●		●	●	●	●	–		●	–
1,4-Dioxane		●	●	–	❍	❍	–	●	❍	–	●	–	–	❍	–
Ethanol 96 %	●	●	●	❍	●	●	–	●	●	–	●	❍	❍	●	●
Ethyl Acetate	●	●	●	–	❍	–		●	❍	–	●	–	–	–	–
Ethylene Chloride		●	–	–	❍	❍		●	–	–	●	–	–	–	●
Ethylene Glycol	●	●	❍	❍	●	●	❍	●	●	●	●	❍	●	●	●
Ethylenediaminetetraacetic Acid (EDTA)		●	❍	❍	●	●		●	●		●				●
Fluorinated Alcanes (FKW)		●	❍	❍		–		❍	❍	–	●				–
Fluorine		❍	–	–	–	–		–	–	–	❍	❍	–	–	❍
Formaldehyde 40 %		●	❍	●	●	❍	●	●	●	–	●	❍	–	●	●
Formic Acid 98 %	●	●	–	–	●	●	–	–	❍	–	●	❍	–	❍	❍
Glycerine	●	●	●	❍	●	●	●	●	●	●	●	❍	●	●	●
Haloalkanes (FCKW)			❍	❍				●	❍	–	●				❍
n-Heptane		●	●	●	❍	–	●	●	❍	–	●		●	❍	●
n-Hexane		●	●	❍	❍	–		●	❍	–	●		●	–	●
Hydrobromic Acid 50 %		●	–	–	●	●		–	●	–	●	❍		–	❍
Hydrochloric Acid, concentrated	–	●	–	–	●	●		–	●	❍	●	❍	❍	●	●
Hydrofluoric Acid, concentrated	–		–	–				–	❍		●				●
Hydrogen Chloride, gasious			–	–	●			–	●		●	❍			●
Hydrogen Peroxide 90 %	–	●	–	●	●	●	–	–	●	●	●	❍		●	–
Mercury		●	●	●	●	●		●	●	●	●	❍	●	●	●
Methanol		●	❍	–	●	●	–	●	●	–	●	❍	–	●	●
Methyl Ethyl Ketone (MEK)		❍	●	–	❍	–	–	●	❍	–	●	–	–	–	–
Methyl Methacrylate			❍	–				❍	❍	–	●	–		–	❍
Oleum (fuming Sulfuric Acid)			–	–	–	–	–	–	–	–	●	–		–	–
Oxalic Acid		●	–	●	●	●	●	–	●	●	●	●	●	●	❍
Oxygen			❍	●	❍	❍		●	❍	●	●	●			●
Perchloric Acid 70 %		●	–	–	❍	–		–	–	❍	●	–		❍	❍
Petroleum Ether			●	–	❍	❍		●	❍	–	●	❍	❍	●	❍
Phenol		●	–	–	❍	❍	–	–	●	–	●	–	–	●	●
Phosphoric Acid 85 %	–	●	–	●	●	●	❍	–	●	●	●	●	●	●	●
Phosphoryl Chloride			–	–	❍	❍		–	❍		●	–			–
Potassium Hydroxide, concentrated	–	●	●	–	●	●	●	❍	●	❍	●	●	❍	●	–
Potassium Permanganate		●	–	●	❍	●	❍	●	●	❍	●	❍	❍	●	●
Pyridine		●	●	–	❍	❍		●	❍	–	●	–	–	❍	–
Salicylic Acid, saturated		●	●	●	●	●		–	●	●	●	❍	●	●	●
Silver Nitrate, water solution			●	●	●			●	●		●				●
Sodium Hydroxide, concentrated	–		❍	–	●	●	●		●		●				–
Sodium Thiosulfate		●	●		●	●		●	●		●		●		●
Sulfuric Acid 95 %		●	–	–	–	–	–	–	–	–	●	❍	–	❍	●
Tetrahydrofuran (THF)	●	❍	●	–	–	–	–	●	–	–	●	–	–	–	–
Thionyl Chloride		●	–	–	–	–		❍	–	–	●	–	–	–	–
Tincture of Iodine		●	–	–	❍	❍	–	●	●	❍	●	–	❍	●	●
Toluene		●	●	–	❍	❍	–	–	❍	–	●	–	–	❍	●
Trichloroacetic Acid (TCA)			–	–	❍	–		–	●	–	●	–			❍
Trichloroethylene (TRI)		●	–	–	–	–		–	–	–	●	–	–	–	●
Urea	●	●	●	●	●	●	●	●	●	●	●	❍	●	●	●
Xylene		●	●	–	–	–	–	●	–	–	●	–	–	–	●

● resistent
❍ conditionally resistent
– not resistent

All values given in this table refer to plastic raw material and can only be regarded as guidelines. As the chemical resistance may vary with different conditions of manufacturing or environmental influences, suitability tests by the user are highly recommanded.
No legal claims can be derived from this information; nor do we accept any liability for it.

Information on brands, purities and applications

▷	see
>	more than
<	less than
min	minimum
max	maximum
µm	0,001 mm
~	approximate
$[\alpha]_D^{20}$	specific rotation
+4 °C	storage in refrigerating room/refrigerator
-20 °C	storage in deep-freeze room/freezer
®	registered symbol, registered trade mark
	GHS01 exploding bomb
	GHS02 flame
	GHS03 flame over circle
	GHS04 gas cylinder
	GHS05 corrosion
	GHS06 skull and crossbones
	GHS07 exclamation mark
	GHS08 health hazard
	GHS09 environment
Å	Ångström = 10^{-10} m
abs	absolute
ACS	American Chemical Society
ADR	European agreement on international road transport of hazardous goods
Amp.	ampoule
aq	water
art.	artificial
asym.	asymmetrical
awg	hazardous to water in general (see WGK)
BP	British Pharmacopoeia
bp	boiling point, boiling range
c	amount-of-substance concentration
CAS	Chemical Abstract Service
CAS No	unique numeric identifier for chemicals
CELLPURE®	suitable for cell culture
C.I. No	colour index number
conc.	concentrated
cP	centipoise
cryst.	crystallised
cSt	centistokes
D	density
DAB	Deutsches Arzneibuch (German Pharmacopoeia)
DAC	Deutscher Arzneimittel-Codex (German Drugs Codex)
dec.	decomposition
dist.	distilled
DIN	German Industrial Standards
EN	European Norm or European Standard
EC no	the official number of a chemical substance that is commercially available within the EC
ERD	empfohlenes Retestdatum (recommended retest date)
extra pure	suitable for laboratory use
FCC	Food chemical codex
FIP	Fédération Internationale Pharmaceutique
flp	flash point
g	gram or gramme
GC	gas chromatography
(GC)	content defined by gas chromatography
H	Hazard statement acc. to regulation (EC) No 1272/2008 (CLP, GHS)
HPLC	high performance liquid chromatography
IE	Internationale Einheit (international unit)
ISO	International Organization for Standardization
IU	international unit
IVD	*In-vitro* diagnostics
JP	Japanese Pharmacopoeia
kg	kilogram or kilogramme
KU	Kilo unit
l, ltr	litre
Lit.	literature
LSC	liquid scintillation counting
lyophil.	lyophilised (readily soluble form)
M or mol/l	molarity, amount-of-substance concentration
M	molecular weight or molar mass
m%	percentage by mass
mg	milligram or milligramme
ml	mililitre
Mol.%	molar percent
MP	Medical product
mp	melting point, melting range
MU	Mega unit
nat.	natural
n_D	refractive index
nwg	non-hazardous to water (see WGK)

Abbreviations and Symbols

P	Precautionary statement acc. to regulation (EC) No 1272/2008 (CLP, GHS)
Pa s	Pascal second
p.a.	pro analysi = for analytical purposes
PEPTIPURE®	suitable for peptide synthesis
Pestilyse®	solvent, suitable for residue analysis (environmental, water and food analysis)
pH	pH value
pK_a	pK_a value
pharma.	pharmaceutical quality, for pharmaceutical purposes
Ph.Eur.	European Pharmacopoeia
ppb	parts per billion = 1 µg per kg
ppm	parts per million = 0,0001 %, 1 mg per kg
ppt	parts per trillion = 1 ng per kg
prim.	primary
PUFFERAN®	can be used as buffer
pulv.	pulverised
pure	suitable for synthesis and laboratory use
rect.	rectification
redist.	redistilled
resubl.	resublimated
ROTICHROM®	suitable as reference substance in chromatography
ROTICHROM® CHR	chromatographically pure reference substances that are chromatographically (HPLC, GC, etc.) tested for their purity and are supplied without a chromatogram
ROTICHROM® CHR_{TLC}	compound in this catalogue is designated asbeing thin-layer chromatographically pure (CHR_{TLC}) if no impurities can be detected under experimental conditions with 20 µg sample
ROTICHROM® ~CHR_{TLC}	for products with impurities which under our conditions, (see CHR_{TLC}), allow the main compound to be designated; such products can be identified as being „approximately thin-layer chromatographically pure“ (~CHR_{TLC})
ROTICHROM® GC	reference substance for gas chromatography, delivered with GC chromatogram
ROTICHROM® HPLC	reference substance for HPLC, delivered with HPLC chromatogram
ROTICHROM® TLC	reference substance for thin-layer chromatography, delivered with thin-layer chromatogram
ROTICUBE®	combi-box of 5 litre or 10 litre, consisting of a stable outer card box with inner bag made of PE; comes with stopcock
ROTIDRY®	dried solvents, filled under protective gas
ROTIPHORESE®	product is suitable for electrophoresis
ROTIPURAN®	highly pure product, suitable for analysis
ROTISOLV®	solvent tested for specific applications (e.g. HPLC, LC-MS, GC, Head-Space)
ROTITAINER®	stackable containers that are convenient to handle. Matching safety pumps are available
sec.	secondary
SOLVAGREEN®	solvents and products that comply with the principles of green chemistry and are either obtained from renewable resources or are considered to be less environmentally hazardous than traditional solvents
stab.	stabilised
subl.	sublimated
sym.	symmetrical
synth.	synthetic
techn.	technical quality. Products with the purity designation *„technicum“* feature a different content. They are generally mass produced and may have a slightly foreign odour and colour. They are used for general technical purposes.
tert.	tertiary; standard for thin-layer chromatograhy (TLC)
TLC	thin layer chromatography
U	unit
USP	United States Pharmacopoeia
WGK	Wassergefährdungsklasse, German Water Hazard Class (on the basis of the Ordinance on facilities for handling substances that are hazardous to water, AwSV)
WGK 1	generally hazardous to waters
WGK 2	clearly hazardous to waters
WGK 3	severe hazardous to waters
wt.% or wt%	percentage by weight

Classification & Labelling acc. to (EC) 1272/2008

Hazard Pictograms

The hazard pictogram on the designation label indicates the main hazard arising from a substance. If there are several hazardous qualitiies, several symbols are necessary.

Each pictogram is allocated a hazard designation and coding that do **not** appear on the designation label.

GHS01
exploding bomb

GHS02
flame

GHS03
flame over circle

GHS04
gas cylinder

GHS05
corrosion

GHS06
skull and crossbones

GHS07
exclamation mark

GHS08
health hazard

GHS09
environment

Hazard Statements H Codes

Hazard statements for physical hazards

H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H202	Explosive, severe projection hazard.
H203	Explosive; fire, blast or projection hazard.
H204	Fire or projection hazard.
H205	May mass explode in fire.
H206	Fire, blast or projection hazard; increased risk of explosion if desensitising agent is reduced.
H207	Fire or projection hazard; increased risk of explosion if desensitising agent is reduced.
H208	Fire hazard; increased risk of explosion if desensitising agent is reduced.
H220	Extremely flammable gas.
H221	Flammable gas.
H222	Extremely flammable aerosol.
H223	Flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H229	Pressurised container: May burst if heated.
H230	May react explosively even in the absence of air.
H231	May react explosively even in the absence of air at elevated pressure and/or temperature.
H232	May ignite spontaneously if exposed to air.
H240	Heating may cause an explosion.
H241	Heating may cause a fire or explosion.
H242	Heating may cause a fire.
H250	Catches fire spontaneously if exposed to air.
H251	Self-heating; may catch fire.
H252	Self-heating in large quantities; may catch fire.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H261	In contact with water releases flammable gases.
H270	May cause or intensify fire; oxidiser.
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H280	Contains gas under pressure; may explode if heated.
H281	Contains refrigerated gas; may cause cryogenic burns or injury.
H290	May be corrosive to metals.

Hazard statements for health hazards

H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H350i	May cause cancer by inhalation.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H360F	May damage fertility.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
H361d	Suspected of damaging the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H362	May cause harm to breast-fed children.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H300+H310	Fatal if swallowed or in contact with skin.
H300+H330	Fatal if swallowed or if inhaled.
H310+H330	Fatal in contact with skin or if inhaled.
H300+H310 +H330	Fatal if swallowed, in contact with skin or if inhaled.
H301+H311	Toxic if swallowed or in contact with skin.
H301+H331	Toxic if swallowed or if inhaled.
H311+H331	Toxic in contact with skin or if inhaled.
H301+H311 +H331	Toxic if swallowed, in contact with skin or if inhaled.
H302+H312	Harmful if swallowed or in contact with skin.
H302+H332	Harmful if swallowed or if inhaled.
H312+H332	Harmful in contact with skin or if inhaled.
H302+H312+ H332	Harmful if swallowed, in contact with skin or if inhaled.

Hazard statements for environmental hazards

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
H420	Harms public health and the environment by destroying ozone in the upper atmosphere.

Supplemental Hazard Information H Codes

EUH014	Reacts violently with water.
EUH018	In use may form flammable/explosive vapour-air mixture.
EUH019	May form explosive peroxides.
EUH029	Contact with water liberates toxic gas.
EUH031	Contact with acids liberates toxic gas.
EUH032	Contact with acids liberates very toxic gas.
EUH044	Risk of explosion if heated under confinement.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH070	Toxic by eye contact.
EUH071	Corrosive to the respiratory tract.
EUH201	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.
EUH201A	Warning! Contains lead.
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.
EUH203	Contains chromium (VI). May produce an allergic reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).
EUH207	Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer. Comply with the safety instructions.
EUH208	Contains (name of sensitising substance). May produce an allergic reaction.
EUH209	Can become highly flammable in use.
EUH209A	Can become flammable in use.
EUH210	Safety data sheet available on request.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Hazard classes and categories

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Explosive	Unstable explosives	Unst. Expl.	GHS01	Danger	H200	Unstable explosives.
	Divisions 1.1	Expl. 1.1			H201	Explosive; mass explosion hazard.
	Divisions 1.2	Expl. 1.2			H202	Explosive, severe projection hazard.
	Divisions 1.3	Expl. 1.3			H203	Explosive; fire, blast or projection hazard.
	Divisions 1.4	Expl. 1.4		Warning	H204	Fire or projection hazard.
	Divisions 1.5	Expl. 1.5	No pictogram	Danger	H205	May mass explode in fire.
	Divisions 1.6	Expl. 1.6	No pictogram, no signal word, no hazard statement			
Flammable gas	Category 1	Flam. gas 1	GHS02	Danger	H220	Extremely flammable gas.
	Category 2	Flam. gas 2	No pictogram	Warning	H221	Flammable gas.
Flammable aerosol	Category 1	Flam. aerosol 1	GHS02	Danger	H222	Extremely flammable aerosol.
	Category 2	Flam. aerosol 2		Warning	H223	Flammable aerosol.
Oxidising gas	Category 1	Ox. gas 1	GHS03	Danger	H270	May cause or intensify fire; oxidiser
Gas under pressure	Compressed gas	Press. gas	GHS04	Warning	H280	Contains gas under pressure; may explode if heated.
	Dissolved gas					
	Liquefied gas				H281	Contains refrigerated gas; may cause cryogenic burns or injury.
	Refrigerated liquefied gas					
Flammable liquid	Category 1	Flam. Liq. 1	GHS02	Danger	H224	Extremely flammable liquid and vapour.
	Category 2	Flam. Liq. 2			H225	Highly flammable liquid and vapour.
	Category 3	Flam. Liq. 3		Warning	H226	Flammable liquid and vapour.
Flammable solid	Category 1	Flam. Sol. 1		Danger	H228	Flammable solid.
	Category 2	Flam. Sol. 2		Warning		

Classification & Labelling acc. to (EC) 1272/2008

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Self-reactive substance or mixture **Organic peroxide**	Type A	Self-react. A Org. Perox. A	 GHS01	Danger	H240	Heating may cause an explosion.
	Type B	Self-react. B Org. Perox. B	 GHS01 + GHS02		H241	Heating may cause a fire or explosion.
	Type C and D	Self-react. CD Org. Perox. CD	 GHS02	Danger	H242	Heating may cause a fire.
	Type E and F	Self-react. EF Org. Perox. EF		Warning		
	Type G	Self-react. G Org. Perox. G	No pictogram, no signal word, no hazard statement			
Pyrophoric liquid	Category 1	Pyr. Liq. 1	 GHS02	Danger	H250	Catches fire spontaneously if exposed to air.
Pyrophoric solid	Category 1	Pyr. Sol. 1				
Self-heating substance or mixture	Category 1	Self-heat. 1		Danger	H251	Self-heating; may catch fire.
	Category 2	Self-heat. 2		Warning	H252	Self-heating in large quantities; may catch fire.
Substance or mixture which in contact with water emits flammable gas	Category 1	Water-react. 1		Danger	H260	In contact with water releases flammable gases which may ignite spontaneously.
	Category 2	Water-react. 2		Danger	H261	In contact with water releases flammable gases.
	Category 3	Water-react. 3		Warning		
Oxidising liquid **Oxidising solid**	Category 1	Ox. Liq. 1 Ox. Sol. 1	 GHS03	Danger	H271	May cause fire or explosion; strong oxidiser.
	Category 2	Ox. Liq. 2 Ox. Sol. 2		Danger	H272	May intensify fire; oxidiser.
	Category 3	Ox. Liq. 3 Ox. Sol. 3		Warning		
Substance or mixture corrosive to metals	Category 1	Met. Corr. 1	 GHS05	Warning	H290	May be corrosive to metals.
Desensitised explosive substances/ mixtures	Category 1	Desen. Expl. 1	 GHS02	Danger	H206	Fire, blast or projection hazard; increased risk of explosion if desensitising agent is reduced.
	Category 2	Desen. Expl. 2		Danger	H207	Fire or projection hazard; increased risk of explosion if desensitising agent is reduced.
	Category 3	Desen. Expl. 3		Warning		
	Category 4	Desen. Expl. 4		Warning	H208	Fire hazard; increased risk of explosion if desensitising agent is reduced.
Acute toxicity	Category 1	Acute Tox. 1	 GHS06	Danger	H300 H310 H330	Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled.
	Category 2	Acute Tox. 2				
	Category 3	Acute Tox. 3			H301 H311 H331	Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.
	Category 4	Acute Tox. 4	 GHS07	Warning	H302 H312 H332	Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Skin corrosion/ irritation	Category 1A	Skin Corr. 1A	GHS05	Danger	H314	Causes severe skin burns and eye damage.
	Category 1B	Skin Corr. 1B				
	Category 1C	Skin Corr. 1C				
	Category 2	Skin Irrit. 2	GHS07	Warning	H315	Causes skin irritation.
Serious eye damage/eye irritation	Category 1	Eye Dam. 1	GHS05	Danger	H318	Causes serious eye damage.
	Category 2	Eye Irrit. 2	GHS07	Warning	H319	Causes serious eye irritation.
Respiratory sensitization	Category 1 Category 1A Category 1B	Resp. Sens. 1 Resp. Sens. 1A Resp. Sens. 1B	GHS05	Danger	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization	Category 1 Category 1A Category 1B	Skin Sens. 1 Skin Sens. 1A Skin Sens. 1B	GHS07	Warning	H317	May cause an allergic skin reaction.
Germ cell mutagenicity	Category 1A	Muta. 1A	GHS08	Danger	H340	May cause genetic defects. (*)
	Category 1B	Muta. 1B				
	Category 2	Muta. 2		Warning	H341	Suspected of causing genetic defects. (*)
Carcinogenicity	Category 1A	Carc. 1A		Danger	H350 H350i	May cause cancer. (*) May cause cancer by inhalation.
	Category 1B	Carc. 1B				
	Category 2	Carc. 2		Warning	H351	Suspected of causing cancer. (*)
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					
Reproductive toxicity	Category 1A	Repr. 1A	GHS08	Danger	H360 H360F H360D H360FD	May damage fertility or the unborn child. (*) May damage fertility. (*) May damage the unborn child. (*) May damage fertility. May damage the unborn child. (*)
	Category 1B	Repr. 1B				
	Category 2	Repr. 2		Warning	H361 H361f H361d H361fd	Suspected of damaging fertility or the unborn child. (*) Suspected of damaging fertility. (*) Suspected of damaging the unborn child. (*) Suspected of damaging fertility. Suspected of damaging the unborn child. (*)
	Additional category for effects on or via lactation	Lact.	No pictogram	No signal word	H362	May cause harm to breast-fed children.
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					

Classification & Labelling acc. to (EC) 1272/2008

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Specific target organ toxicity – single exposure	Category 1	STOT SE 1	GHS08	Danger	H370	Causes damage to organs. (*)
	Category 2	STOT SE 2		Warning	H371	May cause damage to organs. (*)
	Category 3	STOT SE 3	GHS07	Warning	H335	May cause respiratory irritation.
					H336	May cause drowsiness or dizziness.
Specific target organ toxicity – repeated exposure	Category 1	STOT RE 1	GHS08	Danger	H372	Causes damage to organs through prolonged or repeated exposure. (*)
	Category 2	STOT RE 2		Warning	H373	May cause damage to organs through prolonged or repeated exposure. (*)
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					
Aspiration hazard	Category 1	Asp. Tox. 1	GHS08	Danger	H304	May be fatal if swallowed and enters airways.
Acute aquatic hazard	Acute 1	Aquatic Acute 1	GHS09	Warning	H400	Very toxic to aquatic life.
Long-term aquatic hazard	Chronic 1	Aquatic Chronic 1		Warning	H410	Very toxic to aquatic life with long lasting effects.
	Chronic 2	Aquatic Chronic 2		No signal word	H411	Toxic to aquatic life with long lasting effects.
	Chronic 3	Aquatic Chronic 3	No pictogram	No signal word	H412	Harmful to aquatic life with long lasting effects.
	Chronic 4	Aquatic Chronic 3			H413	May cause long lasting harmful effects to aquatic life.
Hazardous for the ozone layer	Category 1	Ozone 1	GHS07	Warning	H420	Harms public health and the environment by destroying ozone in the upper atmosphere.

General Information & Index

Sales and delivery terms and conditions 1594

Numerical Index 1596

Alphabetical Index 1626

Impressum. 1636

Terms and Conditions of Sale and Delivery

These Terms and Conditions of Sale and Delivery also apply for all future deliveries.

1. Validity for future business transactions – Validity of contrary General Terms and Conditions – Validity for companies only

1.1. Our Terms and Conditions of Sale and Delivery apply exclusively. They shall also apply to all future deliveries, even when no special reference is made thereto. We do not accept any contrary terms and conditions or those terms and conditions of the customer which differ from our Terms and Conditions of Delivery, even if the contract is performed unconditionally, unless we have expressly agreed to the validity thereof in writing or in text form.
1.2. Our Terms and Conditions of Sale shall only apply to entrepreneurs (Section 14 German Civil Code [BGB]), legal persons governed by public law or a separate legal entity under public law.

2. Quotes, formation of contract, delivery item

2.1. Our quotes are subject to change and are non-binding unless they have been explicitly declared binding or include a specific period of acceptance.
2.2. The ordering of goods by the customer shall be deemed to be a binding contractual offer. Orders are only binding for us if we confirm them in writing or in text form within two weeks, or if we fulfil them within two weeks through shipment of the ordered goods.
2.3. The legal relationship between the customer and us shall be governed exclusively by the contract, which has been entered into in writing or in text form, including these general Terms and Conditions of Sale and Delivery. Verbal agreements made by us before the contract is formed are not legally binding and verbal understandings between the parties are superseded by the contract that is formed in writing or in text form, unless it is expressly stated therein that such agreements will continue to apply.
2.4. Amendments and modifications to the agreements made, including these general Terms and Conditions of Sale and Delivery, must be made in writing or in text form in order to be valid. With the exception of managing directors and holders of commercial powers of attorney, our employees are not authorised to make verbal agreements which are contrary to the cited provisions.
2.5. The information we provide on the item to be supplied (e.g. weights, dimensions, quantities and functional values), as well as our representations of the item to be supplied, are only approximations, unless use for the purpose intended by the contract requires full conformity and specific characteristics have been agreed. Unless identified as such, these are not guaranteed physical characteristics, rather descriptions or characterisations of the product. Deviations that are customary in the trade and deviations that are the result of legal provisions are permissible provided that they do not impair usability for the contractually agreed purpose. Refer below to Item 10 of these Terms and Conditions.

3. Prices, price adjustments, electronic invoicing

3.1. Our prices are quoted "ex works" from Karlsruhe plus packaging, tariffs where export shipments are concerned, statutory VAT, fees and other public duties.
3.2. We reserve the right to amend our listed prices upon which the contract is based accordingly if cost reductions or increases arise as a result of tariff agreements, or if the price of materials increases after the contract is concluded. These shall be verified to the customer upon request. A price adjustment shall not be effected in cases where delivery is made as contractually stipulated within four months of conclusion of the contract.
3.3. We provide an electronic invoice in compliance with data protection legislation. This presumes the formation of a separate agreement.

4. Payment terms and conditions, payment arrears

4.1. To avoid accounting errors and the resulting erroneous issue of dunning notices, we rely on receiving the correct invoice number, invoice date and individual invoiced amounts with incoming payments. This data can be found on all of our invoices. If the payer is not the same as the invoice recipient, the name stated on the relevant invoice must also be given when the payment is made. If we receive payments without this information, we cannot guarantee that payments will be assigned correctly.
4.2. The invoiced amounts become payable upon receipt of the goods. Unless otherwise specified in writing or in text form, they are payable within thirty days without any deduction. In the event that the date on which the invoice or an equivalent payment schedule was received is disputed, the customer is considered to be in default 30 days after receipt of the goods at the latest, according to Section 286(4) German Civil Code [BGB]. The date of receipt of payment is decisive. Otherwise, the statutory regulations on defaults of payment apply.
4.3. For payment within eight days from date of invoice, a 2% discount shall be granted. The precondition for any discount shall be the settlement of all other customer payables arising from the business relationship with us that are older than 30 days.
4.4. For new customers, we reserve the right to require that payment be made prior to delivery or by cash on delivery.

5. Off-setting, retention

The off-setting of counter-demands by the customer or the retention of payment due to such demands shall only be permissible if such demands are indisputable, or if their validity has been legally established.

6. Shipping, packaging, transfer of risk

6.1. The shipping method and the packaging shall be subject to our due discretion in compliance with the statutory provisions if no other agreement has been made.
6.2. The risk of accidental loss or incidental deterioration of the delivered goods is, at the latest, transferred to the customer upon handover of the goods to the forwarding agent, the carrier, or any other third party charged with the task of performing shipment (applicable from commencement of loading). This also applies in the case of partial deliveries, and with respect to each partial delivery.
6.3. The shipment is only insured against theft, breakage, transport, fire and water damage or other insurable risks at the express request of the customer and at the customer's expense.

7. Delivery time

7.1. The promised delivery periods and dates are only binding for us if we have confirmed them in writing or in text form. The delivery dates indicated on our website during the ordering process or in our catalogue do not constitute such confirmation. Compliance with our delivery obligation requires the timely and proper fulfilment of the customer's obligations. The delivery dates and deadlines refer to the time at which the goods are made available for handover upon collection by the forwarding agent, carrier, or other third party assigned to transport the goods.
7.2. We cannot be held liable should a delivery prove impossible or in the case of delays in delivery due to force majeure or other events that were unforeseeable on signing of the contract (e.g. fire, explosion, strikes, lawful lockout, complications in procuring materials or energy, war, unrest, epidemics or pandemics where a risk level of "moderate" or above has been defined by the Robert Koch Institute, government rejection or renunciation of import and export licences, shortage of raw materials and/or other products and/or constituent parts), and for which we are not accountable. We reserve the right to withdraw from the contract if such occurrences substantially complicate delivery or make delivery impossible, and if the disruption is not merely of a temporary nature. If the disruption is of a temporary nature, delivery times shall be extended to take account of the period of disruption and a reasonable start-up period. We shall notify the customer of the start and end of such circumstances as promptly as possible. If such a delay makes acceptance of delivery unreasonable for the customer, the customer shall be entitled to withdraw from the contract by issuing immediate notice in writing or in text form.
7.3. If we are in default of delivery or performance, or are unable to carry out delivery or performance, for any reason whatsoever, our liability is limited to the extent set out in Item 13 of these Terms and Conditions of Sale and Delivery.
7.4. We cannot be held liable for the impossibility of, or delay in, performance of delivery obligations if, and to the extent that, such an impossibility or delay arises from circumstances caused by the customer, in particular if the customer fails to comply with public law obligations in connection with the European Regulations on Chemical Substances (REACH) or with other mandatory provisions.

8. Partial deliveries

8.1. In the absence of any special agreement, we may provide partial deliveries if
– the partial delivery can be used by the customer in the context of the contractually agreed intended use,
– delivery of the remaining goods is ensured and
– this causes no extensive additional effort or additional costs to the customer.
8.2. A partial delivery made under these conditions is considered a complete delivery with regard to the agreed delivery date.

9. Default of acceptance

Should the customer be in default of acceptance or culpably in breach of other duties to cooperate, we shall be entitled to charge for the resulting damages, including any additional costs incurred. In this case, the risk of accidental loss or incidental deterioration of the purchased goods also passes over to the customer at such time as the customer falls into default of acceptance, provided that our delivery obligation has already been met with regard to the goods to be delivered.

10. Intended use of the goods, obligations of the customer, liability

10.1. If we have made a pledge for certain products to effect delivery contingent upon their intended use, the customer shall be liable for any and all disadvantages which we may suffer as a result of incorrect statements made. In the case of toxins and other substances which may only be used within the scope of legal or official provisions, the customer's order shall also serve as a statement that these substances shall be used for a purpose permissible under the foregoing terms and conditions. The customer shall observe all the applicable statutory provisions when handling or using the substances, mixtures and products supplied by us. Private persons cannot be supplied with chemicals.
10.2. Information given concerning the usability of goods does not constitute any assurance or guarantee of suitability for such use. Relevant identified uses according to Regulation (EC) No. 1907/2006 (REACH Regulation) in the applicable version do not represent a contractual guarantee of any characteristic nor a use stipulated in the contract.
10.3. Our products shall be checked by the user with respect to their specific suitability, particularly prior to use for medical purposes, food and beverage processing, plant cultivation and similar applications. This applies in particular to natural substances, which are always subject to slight variation in content. We therefore cannot assume any liability for any such use.
10.4. Where a product comes with specific conditions for use provided by us or the manufacturer, e.g. as per the product datasheet, these must be complied with. We expressly accept no liability for any use to the contrary. Product datasheets are available via our homepage or can be requested from us directly.
10.5. Insofar as we provide the customer with advice – be this verbally, in writing or as a result of tests – such advice is provided to the best of our knowledge but without liability on our part, and does not release the customer from the obligation to check the delivered goods with respect to their suitability for the intended processes and purposes. The application, use and processing of goods is carried out beyond the scope of our control and is therefore the sole responsibility of the customer.

11. REACH clause

If the customer notifies us of a use according to Article 37.2 of the Regulation (EC) No.1907/2006 dated 5th August 2021 (Regulation (EC) No. 2021/1297) of the European Parliament and the Council for the Registration, Evaluation, Approval and Control of chemical substances (REACH Regulation) which requires updating of the registration or the chemical safety report or results in another obligation according to the REACH Regulation, the customer shall reimburse us all expenses for which evidence is provided. Art. 53 of the REACH Regulation remains unaffected. We shall not be liable for delays in delivery caused by the notification of this form of use and performance of the applicable obligations as stipulated by the REACH Regulation. If, for reasons of health and safety or environmental protection, or due to other mandatory provisions, we are unable to consider this use an identified use and should the customer, against our advice, intend to use the goods in the manner which we have advised against, we shall be entitled to withdraw from the contract.

12. Claims for defects, compensation

12.1. Claims for defects are subject to the prerequisite that the customer has properly performed their duties to examine and give notice of defects according to Section 377 German Commercial Code [HGB].
12.2. Rejected goods must no longer be used without our explicit prior written consent. Where notification of defects is justified, we undertake to bear the costs of all expenses required for rectification of the defects, in particular transportation, travel, labour and material costs. This shall not apply insofar as the expenses increase as a result of the delivery item being subsequently delivered to a location that differs from the one specified in the contract. The buyer's rights according to Section 439(3) German Civil Code [BGB] shall not be restricted as a result.
12.3. Insofar as we are liable for a defect in goods purchased from us, we are entitled to correct the defect or replace the relevant product at our discretion and within a reasonable period of time. The place of subsequent performance is our registered office (Karlsruhe, Germany). If this subsequent performance or replacement delivery fails, i.e. if it is impossible, unreasonable, rejected or unreasonably delayed, the customer shall be entitled to withdraw from the contract or to reduce the purchase price by a reasonable amount, where statutory requirements are present.
12.4. If a defect is attributable to us, the customer is entitled to claim for compensation exclusively according to the following provisions.
12.5. In the case that an essential contractual obligation is culpably breached (a material obligation), where statutory requirements are present, we shall be liable for compensation, but only limited to the foreseeable damages typically incurred, unless otherwise specified below. Material obligations are those which must be fulfilled as part of the proper execution of the contract in the first instance, the fulfilment of which the buyer may rely on and which if breached would jeopardise the achievement of the purpose of the contract.
12.6. The customer is entitled to assert claims for compensation against us, without restriction, according to the statutory provisions and at the statutory rate, if these are attributable to us, one of our legal representatives or vicarious agents and are based on
– a culpable loss of life, physical injury or damage to health, or
– an intentional or grossly negligent breach of duty, or
– the German Product Liability Act [Produkthaftungsgesetz], or
– a breach of a duty arising from an assumption of procurement risk or warranty.
12.7. Any further claims to compensation against us, our legal representatives or vicarious agents are excluded, regardless of their legal basis.
12.8. Section 478 German Civil Code [BGB] remains unaffected by the above provisions.
12.9. The bases of claims relating to data protection law are not covered by this limitations of liability clause.

13. Limitation period

13.1. Claims on the part of the buyer concerning material defects shall become time-barred after one year, unless
a) the goods supplied by us include an item which has been used for a building in accordance with its normal use and has caused a defect in the latter, or
b) the defect was maliciously concealed or is based on an intentional breach of duty by us or our legal representatives or vicarious agents, or
c) they relate to a culpable loss of life, physical injury or damage to health, or
d) they relate to claims based on a warranty or procurement risk assumed by us, or
e) they relate to claims to compensation (with the limitation of Item 13.2.).
The statutory limitation period applies in the cases above.
13.2. Claims to compensation which are based on refused subsequent performance are subject to a shortened limitation period of one year if subsequent performance has not been requested within the period shortened to a year for claims concerning material defects.
13.3. The statutory limitation periods also apply in the event of claims according to Section 445a German Civil Code [BGB] if the last contract in the supply chain is a consumer goods contract in the meaning of Section 474 German Civil Code [BGB].

14. Withdrawal by the customer

If the purchased item is defective, the legal right of the purchaser to withdraw from the contract shall not be subject to our culpability. In all other cases, the customer shall only be entitled to withdraw in the event that we are in breach of obligations for which we are accountable.

15. Return of defect-free goods

Insofar as we accept the return of defect-free goods, this shall only apply to new goods in original packaging. We are entitled to charge the customer any third-party costs which we incur as a result of the return up to 25% of the list price of the goods.

16. Consequences of deterioration in the financial circumstances of the customer

16.1. In the case of payment arrears and justified doubts concerning the solvency or creditworthiness of the customer, we are – irrespective of our other rights – authorised to request guarantees or advance payments for outstanding deliveries and set all claims arising from the business relationship to payable immediately.
16.2. We may withdraw from the contract in the event that we become aware of the suspension of payments, the opening of insolvency or judicial settlement proceedings, the refusal of insolvency due to lack of assets, bill protests or cheque protests or any other tangible indications that the financial circumstances of the customer have deteriorated.

17. Retention of title

17.1. The retention of title agreed to hereinafter serves to safeguard all existing and future claims that we may have against the customer as a result of the supply relationship between the two parties.
17.2. We, the seller, shall retain the right to ownership of the goods delivered to the customer until full payment has been made for all secured receivables. The goods and any goods taking their place and subject to retention of title under the following provisions shall hereinafter be referred to as "Reserved Goods".
17.3. The customer shall ensure the safekeeping of the Reserved Goods on our behalf at no charge.
17.4. The customer shall be entitled to process and resell the Reserved Goods in normal business transactions until such time as a claim is made against them. It is not permitted to pledge Reserved Goods or to use Reserved Goods as collateral.
17.5. If the Reserved Goods are processed by the customer, it is agreed that they will be processed in our name and for our account and that we will acquire direct title to them or – if they are processed together with items from more than one owner or the value of the processed item is greater than the value of the Reserved Goods – we will acquire (partial) joint ownership of the newly-created item. In the event that we do not acquire such title to goods, the customer shall herewith transfer future ownership or, to the extent specified above, joint ownership of the newly-created item to us as a security. If the Reserved Goods are compounded or inseparably combined with other items to form a single item and if one of the other items is considered the main item, then, insofar as the main item belongs to us, we shall transfer the co-ownership of the single item proportionally to the customer in the ratio stated in sentence 1.
17.6. In the event of the resale of Reserved Goods, the customer shall, by way of a security, herewith transfer to us the resulting accounts receivable from the buyer or our pro rata share in the case of joint ownership. The same shall apply to any other claims that take the place of Reserved Goods or otherwise accrue with respect to Reserved Goods, such as insurance claims or claims arising from unauthorised actions in case of loss or irreparable damage. We hereby authorise the customer on a revocable basis to collect receivables assigned to us on its own behalf. We shall only be entitled to revoke this authorisation for collection in the event that a claim is made.
17.7. In the event that third parties lay claim to the Reserved Goods, particularly through seizure, the customer shall without delay inform them of our ownership and notify us in writing, so that we can take action to enable assertion of our ownership rights. Unless the third party is in a position to reimburse us for legal expenses and out-of-court settlement costs, the customer shall be liable for our loss.
17.8. We undertake to release the Reserved Goods as well as any goods or claims superseding the Reserved Goods should their value exceed the amount of the secured receivables by more than 50%. The selection of the securities subsequently to be released shall be incumbent upon us.
17.9. Should we withdraw from a contract due to a breach of contract on behalf of the customer, particularly with regard to delayed payment (enforcement event), then we shall be entitled to demand that the Reserved Goods be returned.

18. Export control clause

18.1. When transferring our goods or services performed by us to third parties, the customer undertakes to observe and comply with the relevant applicable national and international legal regulations with regard to export control. This includes, but is not limited to, compliance with legal regulations governing export control in the European Union, the United States of America and the Federal Republic of Germany.
18.2. Prior to transferring our goods or services performed by us to third parties, the customer undertakes to ensure by means of suitable checks and measures that such transfer or provision does not constitute a violation of embargo regulations, including but not limited to those applicable in the European Union and the United States of America, also taking into account any anti-circumvention provisions.
18.3. The customer also undertakes to observe the provisions of European and US sanctions lists with regards to any business activities with organisations, individuals and companies listed therein. The customer also undertakes to guarantee that the use or transfer of our goods and services does not serve any military or arms-related purposes that are prohibited or require authorisation, unless the necessary authorisations have been granted.
18.4. If deemed necessary as a result of any checks, the customer is obligated, upon request and without delay, to provide us with all information regarding the end use, end recipient and intended use of our supplied goods and services.
18.5. The customer shall fully indemnify us against all claims asserted by the recipient as a result of the failure to comply with the above legal obligations regarding export control and undertakes to compensate us for the losses and expenses arising from such claims.

19. Information on brands and other industrial property rights

The goods we supply may be subject to intellectual property rights such as brands, utility models or other industrial property rights. Please contact the relevant manufacturer or owner for information on brands and other industrial property rights. We are happy to help you in this process.

20. Use of customer data, data protection

On this subject, we refer to our following data protection notice and to our Privacy Policy Statement, which you can access on our website at
https://www.carlroth.com/en/en/Datenschutzerklaerung

21. Place of performance, place of jurisdiction, choice of law

21.1. Unless specified otherwise in the order confirmation, the place of performance for all obligations arising from the contractual relationship is Karlsruhe, Germany.
21.2. The exclusive place of jurisdiction for all disputes arising from the contract is, if the customer is a merchant, a legal person governed by public law or a separate legal entity under public law, the competent court for our head office. However, we are also entitled to bring action against the customer in their domicile court. Peremptory legal provisions concerning the exclusive place of jurisdiction for disputes shall not be affected by this provision.
21.3. The laws of the Federal Republic of Germany exclusively govern the relationship between us and our customer. The United Nations Convention of 11th April 1980 on the International Sale of Goods (CISG) does not apply.

Carl Roth GmbH + Co. KG

Numerical Index

Art. No.	Page
0023	1546
0024	914
0029	848
0033	1017
0047	1548
0053	548
0055	982
0056	547
0057	547
0058	547
0059	547
0060	551
0062	727
0065	331
0068	915
0084	953
0087	1556
0092	778
0093	778
0116	1285
0117	1285
0124	1571
0130	1025
0138	918
0141	918
0143	918
0145	918
0147	918
0148	918
0157	129
0162	251
0164	251
0166	251
0167	251
0168	251
0169	251
0180	1520
0181	963
0182	963
0185	297
0191	1275
0192	389
0193	1579
0196	389
0204	977
0205	977
0213	524
0232	975
0245	856
0251	624
0258	1575
0264	1556
0265	846
0266	847
0270	507
0273	1559
0279	1576
0280	507
0284	507
0285	507
0286	507
0288	507
0289	507
0290	507
0295	1579
0296	431
0297	431
0298	431
0328	43
0329	43
0330	43
0343	602
0354	602
0375	192
0376	192
0377	194
0382	1042
0384	997
0385	997
0386	1273
0387	627
0388	627
0389	627
0390	627
0393	1553
0395	112
0396	113
0398	1040
0403	335
0407	1037
0408	1037
0411	982
0421	225
0422	225
0425	104
0426	1143
0440	377
0441	377
0442	379
0443	376
0444	376
0455	932
0483	314
0484	388
0486	108
0489	131
0490	131
0491	131
0497	932
0498	932
0499	169
0500	169
0503	311
0504	479
0505	1040
0506	1039
0514	915
0515	947
0516	188
0519	1144
0522	268
0525	936
0526	936
0543	862
0544	129
0549	1156
0557	915
0571	1561
0572	135
0573	135
0574	294
0575	294
0576	294
0577	294
0578	294
0579	294
0580	294
0581	1035
0583	250
0584	250
0585	250
0586	250
0587	250
0588	250
0589	250
0591	1544
0593	1544
0594	250
0598	946
0599	413
0606	413
0607	413
0613	1510
0615	413
0616	413
0619	1284
0630	949
0631	949
0635	848
0638	382
0639	382
0640	382
0645	110
0653	789
0654	789
0655	789
0656	442
0657	440
0661	386
0667	1562
0668	1029
0674	583
0675	583
0676	583
0677	583
0678	583
0679	583
0680	583
0681	583
0685	796
0686	796
0687	796
0688	796
0690	416
0692	226
0693	226
0694	226
0695	226
0703	293
0704	293
0705	293
0706	293
0707	787
0708	446
0709	446
0744	963
0745	921
0750	994
0751	994
0757	15
0758	15
0768	15
0771	604
0772	189
0773	1236
0777	1274
0778	189
0779	15
0780	15
0782	189
0784	594
0785	594
0788	132, 988
0789	132, 988
0790	132, 988
0799	189
0801	1574
0802	1273
0813	1036
0820	242
0821	1033
0823	788
0824	197
0826	1040
0827	1040
0828	388
0829	502
0830	1568
0833	388
0836	1568
0837	1035
0847	506
0850	1040
0855	1569
0856	1569
0857	1569
0858	1569
0863	1372
0867	1411
0869	1025
0875	287
0883	1043
0895	1574
0906	268
0922	917
0923	917
0924	917
0926	917
0927	917
0928	917
0929	917
0930	1569
0933	506
0936	847
0938	189
0951	473
0953	389
0954	389
0955	1394
0959	790
0973	1394
0978	790
0983	790
0985	797
0988	797
0989	1395
0990	1580
0991	1580
0994	1395
0997	294
0999	1395
1002	1285
1003	377
1006	1559
1008	76
1009	76
1012	226
1013	226
1014	226
1015	601
1016	601
1017	601
1018	601
1019	601
1020	601
1021	1083
1022	1083
1023	1083
1024	1083
1025	1083
1028	954
1036	1031
1066	994
1068	1059
1069	289
1076	46
1077	46
1078	46
1083	180
1084	180
1089	131
1091	838
1092	838
1098	379
1099	379
1100	376
1158	595
1159	595
1160	595
1161	595
1163	222
1164	222
1165	222
1166	222
1167	222
1168	222
1169	222
1170	222
1171	222
1173	585
1174	585
1175	585
1176	585
1177	585
1178	585
1179	585
1181	157
1182	157
1183	12
1184	12
1185	12
1187	12
1188	275
1189	275
1190	275
1192	129
1193	129
1194	129
1202	1564
1204	1395
1224	848
1225	848
1230	883
1237	1395
1252	1144
1255	387
1256	1577
1258	941
1259	1033
1262	849
1263	1578
1270	848
1271	848
1274	848
1275	848
1277	848
1279	1577
1283	1578
1284	773
1285	1069
1288	982
1292	1395
1301	1083
1302	1083
1304	1083
1306	1395
1309	1395
1359	290
1364	283
1365	283
1366	283
1367	283
1368	283
1369	283
1391	225
1393	994
1394	994
1397	989
1398	989
1399	389
1477	74
1482	1395
1484	1395
1486	1395
1487	1395
1488	1395
1489	1395
1490	1395
1491	1395
1500	1395
1502	389
1510	383
1511	383
1512	383
1517	883
1530	1034
1534	629
1548	870
1550	848
1551	331
1553	1395
1554	818
1555	1395
1556	1395
1564	278
1565	278
1567	274
1568	274
1570	274
1571	274
1572	281
1573	281
1574	281
1575	277
1576	277
1577	277
1578	258
1579	258
1580	258
1581	258
1582	258
1583	258
1584	258
1585	595
1586	595
1587	595
1588	595
1589	595
1590	135
1591	539
1592	539
1593	539
1594	539
1595	539
1596	539
1597	171
1598	171
1599	171
1600	1395
1601	520
1608	201
1609	201
1610	1395
1611	383
1612	383
1613	1395
1614	1395
1622	601
1623	601
1631	747
1632	747
1633	747
1634	747
1635	747
1636	747
1637	747
1638	747
1639	747
1640	747
1652	1273, 1283
1656	289
1658	954
1659	1395
1661	1395
1662	1395
1666	25
1667	25
1668	25
1669	25
1670	1580
1678	836
1679	1143
1681	904
1682	1572
1683	1572
1684	1572
1685	1572
1686	1572
1691	1581
1692	1581
1701	1043
1710	982
1715	1578
1716	585
1717	585
1718	585
1719	585
1720	521
1721	946
1722	189
1724	189
1725	1578
1726	818
1729	1037
1731	1041
1735	1037
1736	1198
1737	1198
1744	914
1745	1560
1746	1560
1747	914
1748	914
1761	601
1762	601
1763	601
1766	601
1767	601
1768	601
1770	389
1780	789
1781	789
1784	789
1785	789
1789	523
1791	1414
1792	1414
1793	1414
1794	1414
1798	1559
1803	982
1804	982
1808	982
1818	1546
1825	1395
1827	76
1829	1038
1841	188
1842	1395
1843	1395
1844	1395
1846	948
1847	521
1848	1396
1849	1396
1850	1564
1853	1396
1857	1035
1861	1284
1862	1284
1863	503
1870	440
1871	440
1873	1002
1878	287
1879	443
1880	443
1881	792
1883	792
1884	287
1887	792
1888	792
1890	1086
1891	792
1892	792
1893	792
1895	1396
1896	1396
1897	1396
1901	1033
1902	305
1908	1126
1909	1396
1924	792
1926	792
1927	1016
1928	1396
1934	792
1935	792
1936	957
1937	957
1938	1083
1939	849
1941	1559
1943	1396
1946	1287
1947	1287
1949	1283
1951	1035
1953	1547
1954	790
1955	790
1956	790
1957	1396
1958	790
1959	1559
1964	790
1966	791
1967	791
1968	791
1969	883
1973	791
1974	791
1975	791
1976	791
1977	791
1978	791
1979	792
1981	792
1982	792
1990	792
1991	792
1992	792
1993	323
1995	323
1996	792
1997	1558
1998	323
1A00	1555
1A01	1288
1A02	1452
1A05	318
1A06	318
1A0A	1012
1A0C	479
1A0E	479
1A0H	479
1A0K	479
1A0L	479
1A0N	461
1A0P	420
1A0T	420
1A0X	420
1A0Y	420
1A10	426
1A11	426
1A1A	315
1A1C	315
1A1E	315
1A1H	315

Numerical Index

Art. No.	Page
1A1K	315
1A1L	315
1A1N	315
1A1P	315
1A1T	315
1A1X	315
1A1Y	315
1A20	315
1A21	315
1A22	315
1A23	315
1A24	315
1A25	315
1A26	315
1A27	315
1A28	315
1A29	315
1A2A	315
1A2L	1354
1A2N	1354
1A2P	1355
1A2T	1355
1A2X	1355
1A2Y	1320
1A30	1320
1A31	1320
1A32	1320
1A33	1392-1393
1A34	134
1A35	134
1A36	134
1A37	134
1A38	134
1A39	134
1A3A	134
1A3C	1034
1A3L	1532
1A3N	481
1A3P	481
1A3T	481
1A3X	481
1A3Y	481
1A40	481
1A41	295
1A42	295
1A43	295
1A44	295
1A45	295
1A46	295
1A47	295
1A48	295
1A49	295
1A4A	1201
1A4C	1201
1A4E	1201
1A4H	1201
1A4K	1201
1A4L	295
1A4N	295
1A4P	295
1A4T	295
1A4X	295
1A4Y	295
1A50	295
1A51	295
1A52	295
1A53	478
1A54	478
1A55	478
1A56	478
1A57	478
1A58	478
1A59	478
1A5A	478
1A5C	478
1A5K	176
1A5L	176
1A5N	176
1A5P	176
1A5T	176
1A5X	383
1A62	133
1A63	133
1A64	133
1A65	133
1A66	133
1A70	678
1A71	678
1A72	678
1A73	678
1A74	613
1A75	613
1A76	613
1A77	613
1A78	613
1A79	613
1A7A	613
1A7C	613
1A7H	1316
1A7K	1316
1A7L	1316
1A7N	1316
1A7P	1316
1A7T	1316
1A7X	1316
1A7Y	1031
1A81	1305
1A82	1305
1A83	1305
1A84	1305
1A85	1305
1A86	1305
1A87	1305
1A88	1305
1A89	893
1A8A	893
1A8C	893
1A8E	893
1A8H	893
1A8K	893
1A8L	892
1A8N	892
1A8P	892
1A8T	892
1A8X	892
1A90	1363
1A91	1363
1A93	1312
1A94	1312
1A95	1312
1A96	1368
1A97	1369
1A98	1370
1A9E	572
1AA3	572
1AA4	170
1AA5	170
1AA6	927
1AA7	927
1AA8	927
1AA9	927
1AAA	927
1AAC	927
1AAE	927
1AAH	927
1AAK	927
1AAL	927
1AAN	927
1AAT	925
1AAX	925
1AAY	925
1AC0	925
1AC1	925
1AC2	925
1AC3	925
1AC4	925
1AC5	925
1AC6	925
1AC7	925
1AC8	925
1AC9	925
1ACA	925
1ACC	925
1ACE	925
1ACH	925
1ACK	925
1ACL	925
1ACN	925
1ACP	925
1ACT	925
1ACX	925
1ACY	1045
1AE0	1045
1AE1	1045
1AE2	1043
1AE3	1043
1AE4	1043
1AE5	1044
1AE6	1044
1AE7	1044
1AE8	1044
1AE9	1044
1AEA	1045
1AEC	1045
1AEH	924
1AEK	924
1AEL	924
1AEN	924
1AEP	924
1AET	924
1AEY	925
1AH0	925
1AH1	925
1AH2	925
1AH3	925
1AH4	925
1AH5	925
1AH6	925
1AH7	925
1AH8	925
1AHE	518
1AHH	518
1AHK	517
1AHL	517
1AHN	517
1AHP	518
1AHT	518
1AHX	523
1AHY	517
1AK0	523
1AK1	925
1AK2	925
1AK3	925
1AK4	925
1AK5	925
1AK6	925
1AK7	925
1AK8	925
1AK9	925
1AKA	925
1AKC	926
1AKE	926
1AKH	926
1AKK	926
1AKL	926
1AKN	926
1AKP	926
1AKT	926
1AKX	926
1AKY	926
1AL0	521
1AL2	521
1AL3	926
1AL4	926
1AL5	926
1AL6	926
1AL7	926
1AL8	926
1AL9	926
1ALA	1435
1AN1	1083
1AN2	133
1AN3	133
1AN5	1383
1AN6	1383
1AN8	840
1AN9	710
1ANA	710
1ANC	710
1ANE	710
1ANH	710
1ANK	710
1ANL	710
1ANN	710
1ANP	710
1ANT	710
1ANX	711
1ANY	711
1AP0	711
1AP1	711
1AP2	711
1AP3	711
1AP4	711
1AP5	711
1AP6	711
1AP7	711
1AP8	711
1AP9	711
1APA	711
1APC	711
1APE	711
1APH	711
1APK	711
1APL	1555
1APN	1554
1APP	1260
1APT	1260
1APX	1453
1APY	894
1AT0	894
1AT1	894
1AT2	894
1AT3	894
1AT4	894
1AT5	1465
1AT6	1465
1AT9	892
1ATA	892
1ATC	892
1ATE	892
1ATH	892
1ATK	892
1ATL	577
1ATN	1391
1ATP	1391
1AX3	1127
1AX4	1137
1AX5	1127
1AX6	1126
1AX7	1128
1AX8	762
1AX9	762
1AXA	762
1AXC	762
1AXE	762
1AXH	762
1AXK	762
1AXL	762
1AXN	762
1AXP	762
1AXT	762
1AXX	762
1AXY	762
1AY0	762
1AY1	762
1AY2	762
1AY3	762
1AY4	762
1AY5	762
1AY6	762
1AY7	762
1AY8	763
1AY9	763
1AYA	763
1AYC	763
1AYE	763
1AYH	763
1AYK	763
1AYL	763
1AYN	763
1AYP	763
1AYT	763
1AYX	763
1AYY	763
1C00	763
1C01	763
1C02	763
1C03	763
1C04	763
1C05	763
1C06	763
1C07	763
1C08	763
1C09	763
1C0A	763
1C0C	764
1C0E	764
1C0H	764
1C0K	764
1C0L	760
1C0N	760
1C0P	760
1C0T	760
1C0X	760
1C0Y	760
1C10	760
1C11	760
1C12	761
1C13	761
1C14	761
1C15	761
1C16	761
1C17	761
1C18	761
1C19	761
1C1A	761
1C1C	761
1C1E	761
1C1H	761
1C1K	761
1C1L	761
1C1N	761
1C1P	761
1C1T	761
1C1X	761
1C1Y	762
1C20	762
1C21	762
1C22	762
1C23	762
1C24	762
1C25	762
1C26	762
1C27	762
1C28	762
1C29	762
1C2A	762
1C2C	762
1C2E	762
1C2H	762
1C2K	764
1C2L	764
1C2N	764
1C2P	764
1C2T	764
1C2X	764
1C2Y	841
1C35	1058
1C36	1058
1C37	1058
1C38	1058
1C39	1058
1C3H	1012
1C3K	1012
1C3L	1017
1C3N	1017
1C3P	1018
1C3T	1018
1C3X	1018
1C3Y	1018
1C40	1018
1C41	1018
1C42	1018
1C43	1018
1C44	1013
1C45	1013
1C46	1013
1C47	1013
1C48	1013
1C49	1013
1C4C	319
1C4E	320
1C4H	322
1C4K	322
1C4L	322
1C4N	322
1C4P	324
1C4T	324
1C4X	324
1C4Y	325
1C50	323
1C51	326
1C52	329
1C53	285
1C54	285
1C55	329
1C56	329
1C57	308
1C58	308
1C59	308
1C5A	308
1C5C	308
1C5E	320
1C5H	422
1C5L	543
1C5N	543
1C5P	543
1C5T	1101
1C6C	1103
1C6E	1353
1C6H	1353
1C6K	341
1C6L	341
1C6N	627
1C6P	627
1C6T	627
1C6X	627
1C6Y	627
1C70	393
1C71	393
1C72	393
1C73	393
1C74	393
1C75	393
1C76	393
1C77	393
1C78	393
1C79	393
1C7A	393
1C7C	393
1C7E	393
1C7H	393
1C7K	393
1C7L	393
1C7N	393
1C7P	393
1C7T	393
1C7X	393
1C7Y	382
1C80	382
1C81	382
1C82	252
1C83	252
1C84	252
1C85	252
1C86	200
1C87	200
1C88	200
1C89	200
1C8A	200
1C8C	990
1C8E	990
1C8H	990
1C8K	990
1C8L	990
1C8N	170
1C8P	170
1C8T	170
1C8X	169
1C90	1241
1C91	845
1C92	845
1C93	845
1C94	845
1C95	845
1C96	845
1C97	844
1C98	844
1C99	484
1C9A	485
1C9C	626
1C9E	626
1C9H	626
1C9K	626
1C9L	626
1C9N	626
1C9P	746
1C9T	746
1C9X	746
1C9Y	746
1CA0	746
1CA1	746
1CA5	1152
1CA7	1456
1CA8	1456
1CA9	1456
1CAC	611
1CAE	611
1CAH	611
1CAK	611
1CAL	611
1CAN	611
1CAP	611
1CAT	611
1CAX	611
1CAY	612
1CC0	612
1CC1	612
1CC2	612
1CC3	607
1CC4	607
1CC5	607
1CC6	607
1CC7	607
1CC8	607
1CC9	607
1CCA	607
1CCC	608
1CCE	544
1CCH	990
1CCK	990
1CCL	153
1CCN	153
1CCP	153
1CCT	153
1CCY	633
1CE0	633
1CE1	660
1CE2	660
1CE3	661
1CE5	998
1CE6	998
1CE7	998
1CE8	998
1CE9	997
1CEA	995
1CEC	401
1CEE	401
1CEH	401
1CEK	401
1CEL	401
1CEN	401
1CEP	401
1CET	401
1CEX	401
1CEY	401
1CH0	401
1CH1	401
1CH2	401
1CH3	401
1CH4	401
1CH5	401
1CH6	401
1CH7	401
1CH8	401
1CH9	401
1CHA	401
1CHC	401
1CHE	401
1CHH	401
1CHK	997
1CHT	841
1CHX	840
1CHY	1364
1CK0	1364
1CK1	735
1CK2	735
1CK3	735
1CK4	735
1CK5	735
1CK6	735
1CK7	735
1CK8	735
1CK9	735
1CKA	735
1CKC	735
1CKE	735
1CKH	735
1CKK	735
1CKL	735
1CKN	735
1CKP	733
1CKT	733
1CKX	733
1CKY	733
1CL0	733
1CL1	733
1CL2	733
1CL3	733
1CL4	732
1CL5	732
1CL6	732
1CL7	732
1CL8	732
1CL9	732
1CLA	732
1CLC	732
1CLE	732
1CLH	732
1CLK	732

Numerical Index

Art. No.	Page
1CLL	732
1CLN	732
1CLP	732
1CLT	732
1CLX	732
1CLY	732
1CN0	733
1CN1	733
1CN3	129
1CN4	129
1CNC	734
1CNE	734
1CNH	734
1CNK	734
1CNL	728
1CNN	728
1CNP	728
1CNT	728
1CNX	728
1CNY	728
1CP0	728
1CP1	728
1CP2	728
1CP3	728
1CP4	728
1CP6	820
1CP7	820
1CP8	820
1CP9	729
1CPA	729
1CPC	729
1CPE	729
1CPH	729
1CPK	729
1CPL	729
1CPN	730
1CPP	730
1CPT	730
1CPX	730
1CPY	730
1CT0	128
1CT1	128
1CT2	128
1CT3	128
1CT4	128
1CT5	128
1CT6	731
1CT7	731
1CT8	731
1CT9	731
1CTA	731
1CTC	731
1CTE	731
1CTH	731
1CTK	731
1CTL	731
1CTN	731
1CTP	820
1CTT	820
1CTX	820
1CTY	820
1CX0	820
1CX1	730
1CX2	730
1CX4	178
1CX5	178
1CX6	178
1CX7	178
1CX8	178
1CX9	178
1CXA	178
1CXC	178
1CXE	942
1CXH	942
1CXK	942
1CXL	942
1CXN	942
1CXP	942
1CXT	1450
1CXX	1450
1CXY	1450
1CY0	1450
1CY1	1451
1CY2	1451
1CY3	1451, 1460
1CY4	820
1CY5	820
1CY6	1451
1CY7	1451
1CY8	1452, 1460
1CY9	1452, 1460
1CYA	1452, 1460
1CYC	1452, 1460
1CYE	1452, 1460
1CYH	1452, 1460
1CYK	1452, 1460
1CYL	1452, 1460
1CYN	1452, 1460
1CYP	934
1CYT	932
1CYX	928
1E06	933
1E07	933
1E08	933
1E09	933
1E0A	933
1E0C	933
1E0E	127
1E0H	127
1E0K	127
1E0L	127
1E0N	127
1E0P	127
1E0T	127
1E0X	127
1E13	857
1E14	857
1E15	1137
1E16	130
1E1E	129
1E1H	129
1E1L	817
1E1N	817
1E1P	817
1E1T	817
1E1X	128
1E1Y	130
1E20	848
1E21	848
1E22	848
1E34	131
1E35	131
1E36	131
1E38	145
1E39	145
1E3A	145
1E3C	145
1E3E	145
1E3H	145
1E3K	145
1E3L	145
1E3N	145
1E3P	145
1E3T	145
1E3X	145
1E44	145
1E45	145
1E46	145
1E47	145
1E48	145
1E49	145
1E4A	145
1E4C	145
1E4E	145
1E4H	145
1E4K	145
1E4L	120
1E4N	120
1E4P	120
1E4T	120
1E4X	120
1E4Y	120
1E50	120
1E52	146
1E53	146
1E54	146
1E55	146
1E56	146
1E57	146
1E58	146
1E59	146
1E5A	146
1E5C	146
1E5E	146
1E5K	844
1E5P	159
1E5T	159
1E5X	159
1E5Y	159
1E60	159
1E61	159
1E62	159
1E63	159
1E64	159
1E65	159
1E66	159
1E67	159
1E68	159
1E69	159
1E6A	159
1E6C	159
1E6E	159
1E6H	159
1E6K	159
1E6L	159
1E6N	159
1E6P	159
1E6T	159
1E6X	159
1E6Y	159
1E72	844
1E74	1002
1E75	1002
1E76	1002
1E77	1002
1E78	1002
1E79	1002
1E7K	147
1E7L	147
1E7N	147
1E7P	147
1E7T	147
1E7X	147
1E7Y	147
1E80	147
1E81	147
1E82	147
1E84	147
1E85	147
1E86	147
1E87	147
1E92	102
1E93	102
1E94	102
1E95	102
1E97	578
1E98	578
1E9E	577
1E9H	577
1EA7	571
1EA9	568
1EC4	1065
1EC5	1065
1EH1	1407
1EH2	1407
1EH3	1407
1EH4	1403
1EH5	1408
1EH6	1408
1EH7	1408
1EHY	1459
1EK0	569
1EK1	568
1EK2	568
1EK3	568
1EK4	658
1EK5	658
1EK6	658
1EK7	658
1EK8	658
1EK9	658
1EKA	658
1EKC	658
1EKE	658
1EKH	658
1EKK	658
1EKL	658
1EKN	658
1EKP	658
1EKT	658
1EKX	658
1EL0	1145
1EL5	659
1EL6	659
1EL7	659
1EL8	659
1EL9	659
1ELA	659
1ELC	659
1ELE	659
1ELH	659
1ELK	659
1ELL	659
1ELN	659
1ELP	148
1ELT	148
1ELX	148
1ELY	148
1EN0	580
1EN1	580
1EN2	1100
1EN3	133
1EN4	1139
1EN5	988
1EN6	988
1EN7	988
1EN8	988
1EN9	988
1ENA	988
1ENC	1114
1ENE	1114
1ENN	1115
1ENP	1115
1ENT	1115
1ENX	1115
1ENY	1115
1EP5	1172
1EP6	1172
1EP7	876
1EP8	582
1EP9	582
1EPA	582
1EPC	876
1EPE	876
1EPH	876
1EPP	984
1EPT	933
1ETE	901
1ETH	901
1ETK	901
1ETL	901
1ETN	901
1ETP	901
1ETT	901
1ETX	901
1ETY	901
1EX0	901
1EX1	901
1EXP	843
1EXT	843
1EXX	1307
1EXY	1307
1EY0	1307
1EY1	1307
1EY2	1307
1EY3	1307
1EY4	1310
1EY5	1310
1EY6	1310
1EY7	1310
1EY8	1310
1EY9	1310
1EYA	1306
1EYC	1306
1EYE	1306
1EYH	1306
1EYK	1306
1EYL	1306
1EYN	1307, 1310
1EYP	1307, 1310
1EYT	1307, 1310
1EYX	1313
1EYY	1313
1H00	1313
1H01	1313
1H02	885
1H03	885
1H04	885
1H1N	1311
1H1P	1311
1H1X	1121-1122
1H1Y	1121-1122
1H20	1121-1122
1H21	1121-1122
1H24	1115
1H25	1215
1H26	876
1H27	959
1H28	959
1H29	959
1H2A	926
1H2C	926
1H2E	926
1H2H	926
1H2K	926
1H2L	926
1H2N	926
1H2P	926
1H2T	926
1H2X	926
1H2Y	926
1H30	926
1H31	926
1H32	926
1H33	926
1H34	926
1H35	926
1H36	926
1H37	926
1H38	926
1H39	109
1H3A	109
1H3C	109
1H3E	109
1H3H	109
1H3K	109
1H3L	109
1H3N	109
1H3T	871
1H49	875
1H4A	875
1H4H	1481
1H4K	967
1H4L	967
1H4N	1481
1H4P	1481
1H4T	1481
1H50	1554
1H51	1554
1H53	880
1H67	1321
1H68	917
1H69	917
1H6A	917
1H6C	917
1H6E	917
1H6H	917
1H6K	917
1H6L	917
1H6N	917
1H6P	917
1H6T	917
1H6X	917
1H6Y	917
1H70	917
1H71	917
1H72	917
1H73	917
1H74	917
1H75	918
1H76	918
1H77	918
1H78	918
1H79	918
1H7A	918
1H7C	918
1H7E	918
1H7H	918
1H7K	918
1H7L	918
1H7N	918
1H7P	918
1H7T	918
1H7X	917
1H7Y	917
1H80	917
1H81	917
1H82	917
1H83	917
1H84	917
1H85	917
1H86	917
1H87	917
1H88	917
1H89	917
1H8A	1321
1H8C	1321
1H8E	1321
1H8H	1321
1H8K	1321
1H8L	1321
1H8N	1321
1H8P	1321
1H8T	1321
1H8X	1322
1H8Y	1322
1H90	1539
1H91	1534
1H92	1545
1H98	1312
1H99	1312
1H9A	841
1H9C	1355
1H9K	1365
1H9L	1360
1H9N	1360
1H9P	1360
1H9T	1360
1H9X	1360
1H9Y	1360
1HA0	1360
1HA1	1360
1HA2	1360
1HA3	1360
1HA4	1360
1HA5	1360
1HA6	1360
1HA7	1360
1HAA	1374
1HAC	1477
1HAE	1477
1HC7	600
1HC8	600
1HC9	600
1HCA	600
1HCC	600
1HCE	600
1HCH	600
1HCK	600
1HCL	601
1HCN	601
1HCP	551
1HCT	551
1HCX	551
1HCY	551
1HE0	551
1HE1	551
1HE2	551
1HE3	551
1HE4	551
1HE5	551
1HE6	551
1HEN	1067
1HEP	1067
1HET	1067
1HEX	928
1HEY	928
1HH0	928
1HH1	928
1HH2	928
1HH3	928
1HH9	929
1HHA	929
1HHC	929
1HHE	929
1HHH	929
1HHK	929
1HK0	53
1HK1	53
1HK3	530
1HK4	530
1HK5	56
1HK6	530
1HK7	530
1HK8	530
1HK9	530
1HKA	530
1HKC	530
1HLL	51
1HLN	51
1HLP	51
1HLT	51
1HLX	51
1HLY	51
1HN0	51
1HN1	51
1HN2	51
1HN3	51
1HN4	51
1HN5	51
1HNA	531
1HNC	531
1HNE	531
1HNH	531
1HNK	529
1HNL	529
1HNN	529
1HNP	529
1HNT	529
1HNX	529
1HNY	529
1HP1	821
1HP2	821
1HP3	821
1HP9	63
1HPA	63
1HPC	63
1HPP	64
1HPT	64
1HPX	64
1HPY	64
1HT0	64
1HT1	66
1HT2	1366
1HT3	65
1HT4	65
1HT5	65
1HX5	65
1HX6	65
1HX7	65
1HX9	1116
1HXA	66
1HXC	66
1HXE	939
1HXK	937
1HXL	941
1HXN	941
1HXP	941
1HXT	941
1HXX	934
1HXY	934
1HY0	934
1HY1	934
1HY2	934
1HY3	934
1HY4	934
1HY5	934
1HY6	934
1HY8	936
1HY9	936
1HYA	940
1HYC	1505
1HYE	1505
1HYH	1505
1HYK	1505
1HYL	1505
1HYN	1505
1HYP	1505
1HYT	1505
1HYX	1505
1HYY	1505
1K00	1505
1K01	1505
1K02	1505
1K03	532
1K04	532
1K05	532
1K06	532
1K07	532
1K0A	1263
1K0C	24
1K0E	24
1K0H	24
1K0K	24
1K0L	24
1K0N	24
1K0P	24
1K0T	24
1K0X	1258
1K0Y	809
1K10	808
1K11	808
1K12	810
1K13	810
1K14	809
1K15	810
1K16	1261
1K19	1259
1K1A	1259
1K1C	1259

Numerical Index

Art. No.	Page
1K1H	1508
1K1K	1508
1K1L	1508
1K64	1234
1K65	534
1K66	534
1K67	533
1K68	533
1K69	533
1K6A	533
1K6C	533
1K6E	533
1K6H	1386
1K6K	1386
1K6L	533
1K6N	533
1K6P	533
1K6T	533
1K9A	1382
1K9C	1356
1K9E	1356
1K9H	1356
1K9K	1356
1K9L	1356
1K9N	1356
1K9P	1356
1K9T	1356
1K9X	1356
1K9Y	1356
1KA0	1356
1KA1	1356
1KA2	1356
1KA3	1356
1KA4	1356
1KA5	1355
1KA6	1355
1KA7	1355
1KA8	1355
1KA9	1355
1KAA	1355
1KAC	1355
1KAE	1355
1KAH	1357
1KAK	1357
1KKX	1259
1KKY	1259
1KL0	1259
1KX5	28
1KX6	28
1KX7	28
1KX8	28
1KX9	28
1KXA	28
1KXC	28
1KXE	28
1KXH	28
1KXK	28
1KXL	28
1KXN	28
1KXP	28
1KXT	28
1KXX	28
1KXY	28
1KY0	28
1KY1	28
1KY2	28
1KY3	28
1KY4	28
1KY5	28
1KY6	28
1KY7	28
1KY8	28
1KY9	28
1KYA	28
1KYC	28
1KYE	28
1KYH	28
1KYK	28
1KYL	28
1KYN	28
1L02	365
1L03	365
1L04	366
1L05	366
1L06	366
1L07	366
1L08	366
1L09	366
1L0A	366
1L0C	366
1L10	624
1L19	192
1L1A	192
1L1C	195
1L1E	158
1L1H	158
1L1K	158
1L1L	158
1L1N	158
1L1P	158
1L1T	158
1L1X	158
1L1Y	158
1L20	158
1L21	158
1L22	158
1L23	158
1L24	153
1L25	153
1L26	153
1L27	144
1L28	144
1L29	144
1L2A	144
1L2C	144
1L2E	144
1L2H	155
1L2K	155
1L2L	155
1L2N	152
1L2P	1187
1L2T	1187
1L2X	1164-1165
1L30	1168
1L31	1168
1L32	1169
1L33	1168
1L3C	483
1L3E	483
1L3H	483
1L3K	483
1L3L	483
1L3N	483
1L3P	483
1L3T	483
1L3X	483
1L3Y	483
1L40	483
1L41	483
1L42	483
1L43	483
1L44	483
1L45	483
1L46	483
1L47	483
1L48	483
1L49	483
1L4A	483
1L4C	483
1L4E	483
1L4H	483
1L7K	594
1L7L	594
1L7N	594
1L7P	594
1L7T	1570
1L7X	1571
1L80	1163
1L8L	396
1L8N	396
1L8X	705
1L8Y	705
1L90	477
1L91	450
1L92	450
1L93	450
1L94	450
1L95	450
1L96	450
1L97	1464
1L98	288
1L99	1022
1L9A	1022
1L9E	1486
1L9H	1040
1L9P	1357
1L9T	1357
1L9X	1357
1L9Y	1357
1LA0	1357
1LA1	1357
1LA2	1360
1LA3	1360
1LA4	1360
1LA6	549
1LA7	549
1LAK	1179
1LAL	1179
1LAN	1179
1LAP	1169
1LAT	1168
1LAX	744
1LAY	744
1LC0	744
1LC1	744
1LC3	1022
1LC4	1022
1LC6	1100
1LE3	1191
1LE4	1191
1LE5	1191
1LE7	151
1LE8	151
1LE9	151
1LEA	151
1LEC	151
1LEE	151
1LEH	337
1LEN	1286
1LET	1549
1LH0	630
1LH1	630
1LH2	630
1LH3	630
1LH4	630
1LH5	630
1LH6	630
1LH7	630
1LH9	1211
1LHA	1211
1LHC	1211
1LHE	1211
1LHH	1211
1LHK	1211
1LHL	1298
1LHX	340
1LHY	340
1LK0	340
1LK1	340
1LK5	340
1LK6	340
1LK7	340
1LK8	340
1LK9	340
1LKA	340
1LKC	340
1LKE	340
1LKH	1262
1LKK	1262
1LKL	343
1LKN	343
1LKT	1262
1LLE	576
1LN5	807
1LN6	444
1LN7	444
1LN8	444
1LP1	655
1LP2	655
1LP3	655
1LTN	986
1N3Y	427
1N49	456
1N4C	387
2000	324
2001	1245
2002	1564
2003	1564
2004	324
2005	808
2006	1564
2007	324
2009	1564
2011	1564
2013	1564
2017	1564
2018	1564
2019	1564
2020	254
2023	1564
2024	1576
2027	1564
2031	1244-1247, 1249
2033	1246-1247
2034	1247
2036	1246, 1249
2038	1250
2041	254
2043	1246, 1250
2044	1246, 1250
2046	254
2047	254
2048	329
2049	254
2050	1238
2051	254
2052	1244-1247, 1250
2057	254
2060	253
2065	1244-1245
2066	1244-1247, 1251
2067	1244-1245
2071	1244-1245, 1248
2072	1244-1245, 1249
2073	253
2074	1246, 1249
2075	253
2077	1086
2078	1246, 1248
2079	1086
2080	253
2082	1246
2084	941
2089	938
2094	1246
2098	1246
2099	1247-1248
2101	443
2102	1246
2105	443
2106	443
2108	1246
2109	443
2111	443
2115	1246, 1250, 1252
2116	443
2119	443
2126	1246
2129	329
2134	319
2135	319
2136	320
2142	934
2143	934
2144	932
2145	932
2146	932
2147	932
2149	287
2150	287
2152	1395
2153	1395
2159	287
2160	1244-1248
2161	1244-1246, 1248
2163	1244-1248
2164	1246, 1248
2165	1248
2170	1244-1246, 1248
2172	1244-1246, 1248
2173	1244-1248
2174	1244-1248
2175	1246, 1248
2176	1248
2179	319
2187	1247
2192	1246, 1248
2194	320
2196	1245, 1248
2197	1246, 1248
2198	1246, 1248
2199	1244-1247, 1249
2203	1246-1247, 1249
2204	1246, 1249
2206	328
2207	1244-1245
2210	328
2211	328
2262	328
2264	328
2265	328
2283	328
2290	454
2291	454
2292	455
2296	448
2297	448
2298	448
2299	452
2301	450
2302	450
2303	450
2304	448
2305	448
2306	447
2336	328
2358	1246-1247, 1251
2359	1246-1247, 1251
2369	317
2375	317
2376	317
2377	317
2378	319
2379	319
2380	319
2381	319
2382	319
2393	663
2530	1576
2545	1576
2551	1576
2596	389
2679	656
2683	603
2686	1579
2687	472
2688	472
2689	472
2690	472
2691	472
2692	472
2693	472
2695	472
2702	793
2704	793
2708	794
2710	790
2711	790
2712	790
2713	790
2714	790
2715	790
2716	790
2717	790
2718	790
2719	790
2720	790
2721	790
2768	797
2770	797
2771	797
2773	797
2774	797
2775	797
2776	797
2777	797
2779	797
2780	797
2781	797
2782	797
2783	797
2786	794
2801	472
2802	472
2851	472
2852	472
2853	472
2854	472
2855	472
2856	472
2857	472
2858	472
2859	472
2860	471
2861	471
2862	471
2865	304
2866	304
2867	304
2868	304
2869	304
2870	14
2871	14
2872	14
2873	14
2874	14
2875	14
2876	14
2877	14
2879	14
2880	14
2881	14
2882	14
2883	14
2884	14
2885	14
2886	14
2887	14
2888	984
2889	304
2890	14
2891	14
2892	14
2893	14
2894	14
2895	14
2896	14
2897	14
2899	14
2900	14
2901	304
2905	304
2906	304
2910	304
2912	304
2915	993
2920	984
2930	984
2938	866
2939	1414
2953	854
2958	1547
2967	959
2968	959
2970	1244
2984	131
2985	131
2987	862
3003	1244-1245, 1397
3006	307
3015	307
3042	307
3066	307
3083	1043
3084	1043
3085	1043
3119	307
3131	1577
3167	1246-1247
3184	1246, 1251
3189	1246, 1251
3191	303
3194	305
3200	305
3207	305
3214	331
3221	331
3228	331
3231	331
3232	331
3236	331
3237	331
3240	331
3241	331
3271	331
3287	982
3293	305
3294	305
3298	305
3311	305
3318	305
3321	305
3335	305
3351	305
3361	305
3371	305
3376	305
3396	304
3415	304
3433	304
3439	304
3455	305
3472	305
3489	305
3534	488
3539	488
3543	488
3545	488
3551	488
3569	488
3576	488
3577	488
3581	488
3582	488
3592	488
3607	481
3608	481
3609	481
3613	481
3621	481
3628	378
3635	378
3651	378
3653	378
3655	378
3669	378
3740	278
3773	274
3782	274
3820	274
3823	274
3824	274
3826	274
3831	274
3832	274
3836	274
3839	274
3841	274
3842	281
3848	281
3859	281
3860	277
3880	277
3933	277
3945	277
4004	277
4012	277
4168	258
4177	258
4178	258
4182	691
4189	691
4190	691
4204	691
4209	691
4279	339
4283	339
4287	339
4288	339
4299	339
4327	339
4367	339
4383	339
4388	339
4398	339
4399	339
4430	339
4448	339
4449	339
4450	339
4466	339
4490	1246, 1397
4517	1247, 1397
4518	605
4522	605
4524	1019

Numerical Index

Art. No.	Page
4549	795
4550	795
4551	1395
4556	794
4557	1395
4558	794
4562	347
4563	347
4567	794
4570	791
4572	791
4574	791
4575	347
4577	791
4578	791
4579	791
4581	347
4583	794
4584	794
4585	794
4586	794
4587	794
4588	794
4594	793
4596	793
4608	795
4616	794
4617	795
4624	795
4633	794
4635	794
4643	794
4646	794
4647	797
4648	797
4650	797
4652	797
4653	795
4657	795
4660	795
4663	795
4671	868
4687	1233
4693	920
4694	920
4695	1558
4766	796
4768	796
4770	796
4771	796
4775	796
4776	796
4781	796
4799	952
4892	593
4893	311
4918	1041
5001	97
5069	1395
5074	991
5083	991
5084	991
5087	991
5090	991
5096	991
5099	959
5101	789
5102	789
5104	789
5116	1034
5119	341
5128	984
5195	182
5226	957
5231	1086
5232	1086
5235	1547
5252	594
5327	476
5328	476
5330	163
5331	163
5332	163
5333	163
5352	1030
5354	1517
5356	1516
5358	789
5382	1001
5390	1015
5404	103
5416	341
5454	1567
5459	132, 988
5462	917
5468	917
5473	389
5474	389
5481	290
5483	917
5489	1033
5494	269
5496	269
5506	917
5508	917
5511	917
5535	867
5546	807
5553	177
5602	177
5623	177
5642	177
5645	140
5646	140
5651	140
5657	177
5694	177
5698	150
5706	150
5713	150
5717	150
5776	1568
5791	129
5823	974
5824	727
5831	974
5838	251
5844	834
5846	656
5862	104
5863	104
5866	104
5867	104
5913	691
5986	749
5987	754
5988	754
5989	727
5992	727
5994	727
5996	727
5998	727
6000	727
6111	1041
6121	77
6123	77
6124	669
6128	669
6144	669
6150	330
6160	330
6163	427
6173	427
6174	427
6181	427
6183	427
6186	303
6189	427
6191	307
6530	165
6533	165
6536	165
6537	1581
6539	165
6541	168
6542	168
6543	1581
6544	168
6545	168
6548	168
6553	241
6554	241
6557	241
6584	918
6599	918
6604	918
6737	593
6804	1575
6946	657
6952	636
6953	636
6969	636
6987	636
6996	169
7009	169
7024	169
7032	189
7034	189
7035	189
7038	189
7041	189
7043	189
7045	189
7047	189
7058	664
7060	694
7080	694
7083	694
7096	694
7137	694
7154	694
7181	694
7230	1028
7235	227
7236	227
7239	227
7240	227
7364	632
7366	583
7390	338
7391	338
7392	338
7393	338
7394	338
7395	338
7401	338
7407	338
7431	338
7435	338
7438	338
7441	338
7475	338
7477	338
7478	338
7479	338
7484	338
7487	338
7488	338
7489	338
7492	339
7493	339
7495	339
7497	339
7508	339
7605	390
7641	1575
7917	1547
7981	965
7982	965
7983	965
7985	965
7987	965
7988	965
7990	966
7991	966
7993	966
7994	966
7996	966
7997	966
7999	965
8000	965
8002	965
8003	965
8008	965
8014	965
8024	966
8026	966
8027	966
8033	966
8034	966
8035	966
8036	965
8037	965
8041	965
8042	965
8055	965
8057	965
8058	966
8061	966
8062	966
8064	966
8065	966
8069	966
8096	290
8097	290
8098	290
8099	290
8100	290
8101	290
8102	290
8103	193
8104	193
8105	193
8106	193
8108	310
8110	1028
8111	1028
8120	808
8123	847
8135	1249
8144	663
8148	663
8151	664
8154	664
8156	664
8157	664
8159	664
8160	664
8161	664
8162	664
8163	664
8164	664
8165	664
8193	939
8194	1042
8197	903
8198	903
8199	903
8200	903
8202	939
8209	1034
8221	391
8222	1155
8223	1155
8224	1155
8226	544
8227	544
8228	544
8229	544
8230	544
8231	223
8232	223
8233	223
8234	223
8290	1401
8291	282
8293	282
8294	282
8296	282
8298	282
8299	282
8300	282
8301	282
8302	282
8303	282
8304	282
8305	282
8307	282
8309	282
8311	282
8313	282
8314	282
8315	282
8316	282
8331	1022
8357	25
8359	25
8362	25
8363	25
8364	31
8365	31
8366	31
8368	31
8370	31
8372	31
8374	31
8375	31
8377	31
8378	31
8380	31
8381	31
8401	840
8404	626
8416	981
8419	981
8420	981
8430	981
8449	191
8453	191
8454	191
8455	191
8457	191
8537	1568
8544	1026
8574	1041
8957	794
8959	794
8960	794
8967	794
8968	794
8977	794
9042	1010
9045	1010
9050	1010
9070	991
9081	994
9144	34
9147	34
9167	1283
9170	1283
9171	1283
9172	1283
9175	1283
9179	1283
9220	513
9225	513
9232	1519
9236	513
9238	1519
9243	1521
9244	512
9251	512
9254	513
9255	513
9257	513
9260	655
9262	286
9267	137
9276	523
9282	381
9285	381
9291	677
9292	677
9293	677
9305	1012
9307	1086
9312	1086
9367	390
9461	983
9472	17
9473	17
9475	17
9476	17
9478	17
9479	17
9492	193
9493	193
9494	193
9495	193
9502	172
9506	172
9509	172
9518	255
9519	255
9520	255
9521	1028
9547	1086
9548	101
9550	101
9552	101
9553	101
9554	586
9555	586
9556	586
9557	586
9559	586
9560	586
9561	586
9562	586
9563	586
9565	586
9566	586
9568	586
9569	586
9571	586
9572	586
9573	586
9574	586
9575	586
9576	586
9577	586
9578	586
9580	586
9581	586
9583	584
9584	584
9585	584
9586	584
9587	584
9589	584
9591	584
9593	584
9594	584
9595	584
9596	584
9639	1575
9660	583
9661	583
9662	583
9663	433
9664	435
9674	1033
9676	1033
9677	1033
9678	1033
9689	1311
9700	1311
9702	156
9703	156
9704	156
9705	156
9706	156
9717	542
9724	585
9725	585
9726	585
9727	585
9730	585
9732	585
9733	585
9736	585
9737	587
9738	587
9740	587
9742	587
9744	587
9746	587
9747	587
9750	851
9755	264
9756	264
9757	264
9758	264
9759	264
9760	264
9761	264
9762	264
9764	960
9768	256
9769	256
9770	667
9771	667
9773	667
9799	849
9800	1083
9804	507
9805	507
A009	752
A012	752
A014	753
A021	753
A023	753
A026	753
A029	753
A031	753
A044	753
A045	753
A046	753
A068	717
A069	717
A070	717
A075	717
A076	717
A077	717
A078	717
A189	1398
A190	1398
A191	1398
A192	996
A194	996
A195	996
A205	242
A206	1017
A207	143
A208	143
A209	143
A219	226
A220	226
A221	226
A222	226
A223	226
A229	286
A230	286
A246	934
A247	476
A248	941
A249	848
A251	991
A252	991
A253	991
A254	991
A268	585
A269	585
A270	585
A271	585
A272	171
A273	171
A274	171
A275	171
A315	1390, 1392-1394
A316	1390, 1392-1394
A321	1101
A322	1411
A324	1411
A328	1411
A344	859
A356	45
A357	45
A358	45
A359	45
A360	45
A361	45
A362	45
A363	45
A364	45
A365	45
A366	44
A367	44
A368	44
A369	44
A370	44
A371	44
A372	44
A373	44
A374	44
A375	44
A377	983
A378	46
A379	46
A380	46
A385	1284
A386	1284
A398	906
A399	906
A400	906
A553	1582
A554	1582
A555	1582
A556	1582
A557	1582
A567	666
A569	669
A570	669
A571	669
A572	1032
A573	1032
A574	1032
A575	1032

Numerical Index

Art. No.	Page
A577	1032
A618	334
A621	906
A622	906
A623	906
A624	290
A625	290
A626	290
A627	290
A628	376
A629	376
A630	376
A631	376
A632	378
A633	378
A634	378
A635	298
A636	298
A637	298
A638	298
A639	298
A640	298
A641	301
A642	301
A643	301
A644	301
A645	310
A646	310
A647	310
A651	309
A652	309
A653	309
A654	309
A751	143
A752	143
A753	1580
A756	604
A757	604
A758	604
A759	604
A760	604
A761	604
A762	604
A764	604
A765	604
A766	604
A767	604
A774	690
A775	347
A777	347
A780	771
A781	771
A782	771
A783	771
A784	771
A785	771
A786	771
A787	771
A788	771
A789	771
A790	771
A791	771
A792	771
A793	771
A794	771
A795	769
A796	769
A797	769
A798	769
A799	769
A800	769
A801	769
A802	1237
A804	653
A828	250
A849	43
A854	994
A859	131
A860	131
A862	14
A863	14
A864	14
A865	14
A866	14
A867	14
A880	1246, 1250, 1252
A889	1136
A902	558
A903	558
A906	559
A908	559
A909	903
A910	903
A911	903
A915	1164
A916	1164
A917	1164-1165
A918	1164-1165
A920	1166
A925	1159
A926	1159
A937	1398
A938	1398
A939	1398
A940	1398
A941	1398
A942	1398
A943	1398
A944	1398
A945	1398
A946	1398
A947	1398
A948	1398
A950	1398
A951	1398
A952	1398
A953	1398
A954	1398
A955	1398
A956	1398
A958	1398
A959	1398
A960	1398
A961	1398
A962	1398
A963	1398
A964	1398
A966	1398
A967	1398
A968	1398
A969	1398
A972	1558
AA00	834
AA08	899
AA09	899
AA10	899
AA11	899
AA33	831
AA34	831
AA39	644
AA40	644
AA41	644
AA42	644
AA43	644
AA44	644
AA46	374
AA47	374
AA59	1527
AA60	239
AA61	239
AA62	239
AA63	1557
AA64	1557
AA67	1483
AA68	1483
AA69	1483
AA70	1483
AA71	1483
AA74	1574
AA75	1574
AA76	389
AA77	389
AA78	459
AA79	459
AA80	695
AA81	805
AA87	672
AA89	544
AA90	544
AA94	697
AAA0	1022
AAA1	1022
AAA2	1022
AAA3	18-19
AAA4	19
AAA5	19
AAA6	46
AAA7	46
AAA8	46
AAA9	45
AAC0	45
AAC1	44
AAC2	265
AAC3	265
AAC4	161
AAC5	161
AAC7	267
AAC8	267
AAC9	267
AAE0	267
AAE1	267
AAE2	267
AAE3	267
AAE4	267
AAE5	267
AAE6	267
AAE7	267
AAE8	267
AAE9	267
AAH0	267
AAH1	267
AAH2	267
AAH3	267
AAH4	267
AAH5	267
AAN1	1371
AAN2	1384
AAN3	32
AAN4	32
AAN5	236
AAN8	32
AAN9	32
AAP0	32
AAP1	218
AAP2	218
AAP3	33
AAP4	33
AAP5	33
AAP7	262
AAP8	262
AAP9	262
AAT0	219
AAT1	219
AAT2	219
AAT3	219
AAT4	219
AAT5	219
AAT6	219
AAT7	219
AAT8	219
AAT9	219
AAX0	219
AAX1	219
AAX2	219
AAX3	219
AAX4	219
AAX5	219
AAX6	219
AAX7	219
AAX8	219
AAX9	219
AAY0	219
AAY1	219
AAY2	219
AAY3	219
AAY4	284
AAY5	284
AAY6	284
AAY7	283
AAY8	283
AAY9	283
AC06	1003
AC07	882
AC08	744
AC09	744
AC10	744
AC11	744
AC12	744
AC13	744
AC14	744
AC15	744
AC16	744
AC17	744
AC18	744
AC19	744
AC20	744
AC21	744
AC22	744
AC23	743
AC24	743
AC25	743
AC26	743
AC27	743
AC28	743
AC29	743
AC30	743
AC31	743
AC32	743
AC33	743
AC34	743
AC35	743
AC36	743
AC37	743
AC38	745
AC39	745
AC40	745
AC41	745
AC42	745
AC43	745
AC44	745
AC45	745
AC46	745
AC47	745
AC48	742
AC49	742
AC50	742
AC51	742
AC52	742
AC53	742
AC54	742
AC55	742
AC56	742
AC57	742
AC58	742
AC59	742
AC60	743
AC61	743
AC62	743
AC63	743
AC84	622
AC85	622
AC86	622
AC87	622
AC88	622
AC89	622
AC90	622
AC91	622
AC92	622
AC93	622
AC94	622
AC96	366
AC97	201
AC98	201
AC99	201
ACA0	283
ACA1	283
ACA2	283
ACA3	283
ACA4	283
ACA5	283
ACA6	283
ACA7	31
ACA8	31
ACA9	31
ACC0	31
ACC1	31
ACC2	31
ACC3	249
ACC4	249
ACC5	249
ACC6	249
ACC7	249
ACC8	249
ACC9	249
ACE0	249
ACE1	249
ACE2	249
ACE3	249
ACE4	210
ACE5	210
ACE6	210
ACE7	210
ACE8	210
ACE9	210
ACH0	207
ACH1	207
ACH2	207
ACH3	207
ACH4	207
ACH5	207
ACH6	207
ACH7	207
ACH8	207
ACH9	207
ACK0	207
ACK1	207
ACK2	207
ACK3	207
ACK4	207
ACK5	207
ACK6	207
ACK7	11
ACK8	163
ACK9	163
ACL0	163
ACL2	241
ACL3	1028
ACL5	1028
ACL6	1028
ACL7	360
ACL8	359
ACL9	359
ACN0	363
ACN1	363
ACN7	1281
ACN9	1432
ACP0	1432
ACP1	1432
ACP2	1432
ACP3	1402
ACP4	1402
ACP5	1011
ACP6	1011
ACP8	1367
ACY9	1040
AEA0	1040
AEA1	1040
AEA2	416
AEA3	1064
AEA4	610
AEA5	609
AEA6	609
AEA7	608
AEA8	608
AEA9	657
AEC3	1083
AEC4	591
AEC5	591
AEC6	591
AEC7	591
AEC8	591
AEC9	591
AEE0	342
AEE1	342
AEE2	342
AEE3	342
AEE4	342
AEE5	342
AEE8	342
AEH0	342
AEH1	593
AEH2	593
AEH3	593
AEH4	593
AEH5	593
AEH6	704
AEH7	704
AEH8	704
AEH9	704
AEK0	704
AEK1	704
AEK2	702
AEK4	701
AEK5	701
AEK6	701
AEK7	701
AEK8	461
AEL0	426
AEL1	426
AEL2	426
AEL3	405
AEL4	452
AEL5	452
AEL6	452
AEL7	452
AEL8	452
AEL9	420
AEN0	420
AEN1	420
AEN3	350
AEN5	350
AEN7	200
AEN8	200
AEN9	200
AEP0	1230
AEP1	411
AEP2	1299
AEP3	1299
AEP4	1299
AET2	1264-1265
AET3	700
AET4	700
AET5	700
AET6	700
AET7	701
AET8	701
AET9	701
AEX0	701
AEX1	703
AEX2	703
AEX3	703
AEX4	703
AEX5	703
AEX6	703
AEX7	703
AEX8	406
AEX9	406
AEY0	406
AEY1	406
AEY2	49
AEY3	49
AEY4	49
AEY5	49
AH00	1559
AH01	447
AH02	447
AH03	447
AH04	447
AH05	447
AH09	448
AH10	450
AH11	450
AH12	450
AH13	450
AH14	1446
AH15	1447
AH16	1447
AH17	1447
AH18	1447
AH19	1447
AH20	1447
AH21	1447
AH22	1448
AH23	1448
AH27	523
AH29	1073
AH30	1422
AH32	1433
AH33	622
AH34	622
AH35	622
AH36	618
AH37	618
AH38	618
AH39	618
AH40	618
AH41	618
AH42	618
AH43	618
AH44	618
AH45	514
AH46	514
AH47	514
AH48	1476
AH50	717
AH52	717
AH53	717
AH54	717
AH55	1134
AH56	950
AH57	950
AH58	950
AH59	950
AH60	950
AH61	592
AH62	592
AH63	592
AH64	592
AH65	592
AH66	592
AH67	592
AH68	592
AH69	592
AH70	1377
AH71	1474
AH77	1071
AH78	953
AH79	953
AH81	864
AH82	871
AH86	1370
AH87	1370
AH88	484
AH89	484
AH90	484
AH91	1010
AH92	1010
AH99	55
AHA3	605
AHA4	605
AHA5	434
AHA6	434
AHA7	433
AHC0	433
AHC1	1541
AHC2	1219
AHC3	1219
AHC4	1219
AHC5	1219
AHC6	1219
AHC7	1219
AHC8	1219
AHC9	1222
AHE0	1223
AHE1	1222
AHE2	1223
AHE3	1222
AHE5	1222
AHE6	1223
AHE7	1222
AHE9	1222
AHH0	1223
AHH1	1222
AHH2	1223
AHH3	1226
AHH4	1226
AHH5	1226
AHH6	1226
AHH7	1226
AHH8	1226
AHH9	1328
AHK0	1328
AHK5	1404
AHK6	1404
AHK7	1404
AHK8	75
AHK9	75
AHL0	75
AHL1	75
AHL2	75
AHL3	75
AHL4	75
AHL5	75
AHL6	75
AHL7	75
AHL8	29
AHL9	29
AHN0	29
AHN1	29
AHN2	29
AHN3	29
AHN4	29
AHN5	29
AHN6	29
AHN7	29
AHN8	29
AHN9	29
AHP0	29
AHP1	29
AHP2	29
AHP3	29
AHP4	29
AHP5	29
AHP6	29
AHP7	29
AHP8	29
AHP9	29
AHT0	29
AHT1	29

Numerical Index

Art. No.	Page
AHT2	29
AHT3	29
AHT4	29
AHT5	29
AHT6	29
AHT7	29
AHT8	29
AHT9	29
AHX0	29
AHX1	29
AHX2	29
AHX3	29
AHX4	29
AHX5	29
AHX6	29
AHX7	29
AHX8	29
AHX9	29
AHY0	29
AHY1	29
AHY2	29
AHY3	29
AHY4	29
AHY5	29
AHY6	29
AHY7	29
AHY8	29
AHY9	29
AK00	265
AK01	265
AK05	1538
AK06	1313
AK07	1313
AK08	1313
AK09	1314
AK11	1552
AK12	1565
AK14	1565
AK15	1551
AK16	1101
AK17	929
AK18	929
AK19	929
AK20	929
AK21	929
AK23	930
AK24	930
AK25	930
AK26	930
AK28	929
AK29	929
AK30	929
AK31	929
AK33	928
AK34	928
AK35	928
AK36	928
AK37	1565
AK41	1533
AK49	1207
AK57	148
AK58	148
AK59	148
AK60	148
AK61	148
AK62	148
AK63	866
AK64	873
AK65	967
AK66	967
AK67	967
AK68	34
AK71	345
AK92	230
AK93	230
AK94	230
AK95	230
AK96	58
AK97	58
AK98	58
AK99	58
AKA0	29
AKA1	29
AKA2	23
AKA3	23
AKA4	23
AKA5	23
AKA6	23
AKA7	23
AKA8	23
AKA9	23
AKC0	23
AKC1	23
AKC2	23
AKC3	23
AKC4	23
AKC5	23
AKC6	23
AKC7	23
AKC8	23
AKC9	23
AKE0	27
AKE1	27
AKE2	27
AKE3	27
AKE4	27
AKE5	27
AKE6	27
AKE7	27
AKE8	27
AKE9	27
AKH0	27
AKH1	27
AKH2	27
AKH3	27
AKH4	27
AKH5	27
AKH6	221
AKH7	221
AKH8	221
AKH9	221
AKK0	221
AKK1	221
AKK2	221
AKK3	221
AKK4	221
AKK5	46
AKK6	46
AKK7	46
AKK8	46
AKK9	46
AKL0	46
AKL1	46
AKL2	46
AKN0	46
AKN1	46
AKN2	46
AKN4	1287
AKN5	1327
AKN8	549
AKN9	549
AKP0	549
AKP1	1395
AKP2	1395
AKP3	1395
AKP5	1395
AKP6	1395
AKP7	1395
AKP8	1395
AKP9	1395
AKT0	1395
AKT1	1395
AKT2	1395
AKT3	1395
AKT8	817
AKT9	839
AKX0	855
AKX1	851
AKX2	813
AKX3	984
AKX5	1265
AKX7	1265
AKX8	1265
AKX9	1265
AKY0	1265
AKY7	1266
AKY8	1266
AKY9	1266
AL06	1573
AL07	1573
AL08	1573
AL09	1573
AL17	660
AL28	1275
AL29	1275
AL30	1547
AL31	965
AL32	965
AL33	965
AL34	965
AL35	965
AL36	965
AL37	965
AL38	965
AL39	965
AL40	965
AL41	965
AL42	965
AL43	965
AL44	965
AL45	965
AL46	965
AL47	965
AL48	965
AL49	965
AL50	965
AL51	965
AL52	965
AL53	965
AL54	965
AL55	965
AL56	965
AL57	965
AL58	966
AL59	966
AL60	966
AL62	966
AL64	966
AL65	966
AL66	966
AL67	966
AL68	966
AL70	966
AL71	966
AL72	966
AL73	966
AL74	966
AL75	966
AL76	966
AL77	966
AL78	966
AL79	966
AL80	966
AL81	966
AL83	966
AL87	967
AL88	967
AL89	1518
AL93	1524
AL94	1525
AL96	1525
AL98	422
AL99	475
ALA0	1266
ALA1	918
ALA2	918
ALA3	918
ALA4	918
ALA5	418
ALA6	855
ALA7	855
ALA8	804
ALA9	806
ALC0	806
ALC1	807
ALC2	806
ALC3	806
ALC5	1006
ALC6	1006
ALC7	1006
ALC8	1006
ALE1	1007
ALE2	1007
ALE3	1009
ALE4	1009
ALE5	1009
ALE6	1009
ALH2	1008
ALH3	1008
ALH4	1008
ALH5	1008
ALH6	1092
ALH7	1092
ALH8	1092
ALH9	1092
ALK0	1092
ALK1	1092
ALK2	1092
ALK3	1092
ALK4	1092
ALK5	1092
ALK6	1092
ALK7	1092
ALK8	1092
ALK9	1092
ALL0	1092
ALL1	1092
ALL2	1092
ALL3	1092
ALL4	1092
ALL5	1092
ALL6	1092
ALL7	1092
ALL8	1092
ALL9	1092
ALN0	1093
ALN1	1093
ALN2	1093
ALN3	1093
ALN4	1093
ALN5	1093
ALN6	1093
ALN7	1093
ALN8	1391
ALN9	1287
ALP0	1094
ALP1	1094
ALP2	1094
ALP3	1094
ALP4	1094
ALP5	1094
ALP6	1094
ALP7	1094
ALP8	1094
ALP9	1094
ALT0	1094
ALT1	1094
ALT2	1094
ALT3	1094
ALT4	660
ALT5	660
ALT6	660
ALT7	660
ALT8	660
ALT9	660
ALX0	660
ALX1	660
ALX2	660
ALX3	660
ALX4	660
ALX5	660
ALX6	660
ALX7	660
ALX8	661
ALX9	661
ALY0	661
ALY1	661
ALY2	661
ALY3	661
ALY4	661
ALY5	661
ALY6	661
ALY7	661
ALY8	662
ALY9	662
AN00	475
AN01	22
AN02	22
AN03	22
AN04	22
AN05	22
AN06	22
AN07	22
AN08	22
AN09	22
AN10	24
AN11	24
AN12	24
AN13	24
AN14	24
AN15	24
AN16	24
AN17	24
AN18	24
AN21	652
AN22	652
AN23	652
AN24	652
AN25	652
AN26	652
AN34	1096
AN56	1558
AN57	1558
AN58	1417
AN59	1418
AN60	1418
AN61	1418
AN62	1430
AN63	884
AN64	884
AN71	148
AN74	521
AN75	521
AN76	121
AN77	121
AN78	121
AN79	121
AN80	121
AN81	121
AN82	1278
AN84	1276-1278
AN85	1276-1278
AN88	1276, 1278, 1280
AN94	649
AN95	649
AN96	649
AN97	649
AN98	649
AN99	649
ANA0	662
ANA1	662
ANA2	662
ANA3	662
ANA4	662
ANA5	662
ANA6	662
ANA7	662
ANA8	662
ANA9	662
ANC0	662
ANC1	662
ANC2	662
ANC3	662
ANC4	662
ANC5	662
ANC6	662
ANC7	662
ANE4	807
ANE5	1470
ANE6	1470
ANE7	1470
ANE8	1470
ANE9	1470
ANH0	1470
ANH1	1471
ANH2	1471
ANH3	1471
ANH4	1471
ANH5	1471
ANH6	1471
ANH7	1471
ANH8	1471
ANH9	1471
ANK0	1471
ANK1	1471
ANK2	1471
ANK3	1471
ANK4	1093
ANK5	1093
ANK6	1093
ANK7	1093
ANK8	1093
ANK9	1093
ANL0	1093
ANL1	1093
ANL2	1093
ANL3	832
ANL4	832
ANL5	832
ANN7	1317, 1323
ANN8	1324
ANN9	1324
ANP0	1324
ANP1	1324
ANP3	43
ANP4	42
ANP5	1026
ANP6	1026
ANP7	1026
ANP9	1480
ANT0	1480
ANT1	1480
ANT2	1480
ANT4	1488
ANT5	1488
ANT6	1488
ANT7	1491
ANT8	1491
ANT9	1492
ANX0	1492
ANX1	1492
ANX2	1485
ANX4	392
ANX5	392
ANX6	391
ANY5	1042
ANY6	483
ANY7	868
ANY8	1538
ANY9	1542
AP00	649
AP01	649
AP02	649
AP03	649
AP04	649
AP05	649
AP06	649
AP07	649
AP08	649
AP13	948
AP14	948
AP15	948
AP17	948
AP18	770
AP19	770
AP20	770
AP21	770
AP22	770
AP23	770
AP24	770
AP25	770
AP26	770
AP27	770
AP28	770
AP29	770
AP30	770
AP31	770
AP32	770
AP33	770
AP34	770
AP35	770
AP36	770
AP37	770
AP38	770
AP39	770
AP40	770
AP41	770
AP42	770
AP43	770
AP44	770
AP45	770
AP46	770
AP47	770
AP48	770
AP50	770
AP51	770
AP52	770
AP53	770
AP54	770
AP55	770
AP56	770
AP57	770
AP58	766
AP59	766
AP60	766
AP61	766
AP62	766
AP63	766
AP64	766
AP65	766
AP66	766
AP67	766
AP68	766
AP69	766
AP70	766
AP71	766
AP72	766
AP73	766
AP74	766
AP75	766
AP76	766
AP77	766
AP78	766
AP79	766
AP80	766
AP81	766
AP82	767
AP83	767
AP84	767
AP85	767
AP86	767
AP87	767
AP88	767
AP89	767
AP90	767
AP91	767
AP92	767
AP93	767
AP94	767
AP95	767
AP96	767
AP97	767
AP98	767
APA1	1542
APA2	1543
APA3	1543
APA4	1542
APA6	1570
APA7	1570
APA8	1225
APA9	1225
APC0	1225
APC2	1225
APC3	1225
APC4	97
APC5	97
APC6	97
APC7	97
APE1	311
APE4	524
APE8	98
APE9	98
APH0	98
APH1	98
APH2	98
APH3	98
APH4	294
APH5	294
APH6	16
APH7	16
APH8	16
APH9	16
APK1	165
APK2	165
APK3	165
APK4	165
APK5	165
APK6	148
APK7	148
APK8	44
APK9	44
APL0	44
APL1	44
APL2	44
APL3	44
APL4	44
APL5	44
APL8	986
APL9	986
APN0	986
APN1	118
APN2	118
APN3	118
APN4	118
APN5	118
APN6	118
APN7	118
APP5	118
APP6	118
APP7	118
APP8	118
APP9	118
APT0	1543
APT1	1543
APT2	1543
APT3	1543
APT4	1494
APT5	1298
APT6	681

Numerical Index

Art. No.	Page
APT7	681
APT8	683
APT9	683
APX0	673
APX1	673
APX2	673
APX3	673
APX5	936
APX6	921
APX7	829
APX8	829
APX9	829
APY0	829
APY1	816
APY2	816
APY3	816
APY4	816
APY5	813
APY7	819
APY8	819
APY9	836
AT00	767
AT01	767
AT02	767
AT03	767
AT05	767
AT06	767
AT08	767
AT09	767
AT10	767
AT11	767
AT12	767
AT13	767
AT14	773
AT16	307
AT17	307
AT18	301
AT19	308
AT20	308
AT21	308
AT22	308
AT23	306
AT24	306
AT26	649
AT27	649
AT28	649
AT29	649
AT30	649
AT31	649
AT32	649
AT33	649
AT34	649
AT35	649
AT37	1288
AT40	1286
AT41	1285
AT43	650
AT44	650
AT45	650
AT46	650
AT47	650
AT48	650
AT49	655
AT50	655
AT51	656
AT52	656
AT53	1467
AT54	1467
AT55	1141
ATA2	989
ATA3	989
ATA4	989
ATA5	989
ATA6	990
ATA7	990
ATA8	990
ATA9	482
ATC0	677
ATC1	1024
ATC2	286
ATC3	286
ATC5	124
ATC6	123
ATC7	123
ATC8	745
ATC9	745
ATE1	149
ATE2	149
ATE3	149
ATE4	149
ATE5	149
ATE6	149
ATE7	192
ATE8	192
ATE9	192
ATH0	192
ATH1	144
ATH2	144
ATH3	144
ATH4	144
ATH5	144
ATH6	144
ATH7	144
ATH8	144
ATH9	144
ATK0	82
ATK1	82
ATK2	82
ATK3	177
ATK4	177
ATK5	177
ATK6	177
ATK7	177
ATK8	177
ATK9	498
ATL0	262
ATL1	262
ATL2	262
ATL3	168
ATL4	168
ATL5	76
ATL6	76
ATL7	76
ATN3	97
ATN4	97
ATN5	97
ATN6	97
ATN7	626
ATN8	626
ATN9	1353
ATP0	99
ATP1	813
ATP2	813
ATP3	813
ATP4	812
ATP5	812
ATP6	836
ATP9	1048
ATT0	1048
ATT2	1054
ATT4	1056
ATT5	1056
ATT7	1055
ATT8	1055
ATX1	1468
ATX2	1468
ATX3	1468
ATX4	1468
ATX5	1468
ATX6	1468
ATX7	1317
ATX8	1318
ATX9	1318
ATY0	1318
ATY1	1318
ATY2	997
ATY3	997
ATY4	997
ATY5	997
ATY6	980
ATY7	980
AX07	1209
AX08	1209
AX09	1209
AX10	1209
AX11	1209
AX12	1209
AX13	1209
AX14	1209
AX15	1209
AX16	1209
AX17	1209
AXC1	1030
AXC2	1030
AXC3	444
AXC4	444
AXC5	444
AXC6	456
AXC7	670
AXC8	670
AXC9	670
AXE0	1027
AXE1	1027
AXE2	1027
AXE3	1027
AXE4	358
AXE5	336
AXE6	336
AXE7	336
AXE8	336
AXE9	336
AXH0	340
AXH2	340
AXH3	340
AXH4	340
AXH5	340
AXH6	485
AXH7	485
AXH9	346
AXK0	346
AXK1	346
AXK2	346
AXK3	346
AXK4	346
AXK5	346
AXK6	449
AXK7	449
AXK8	449
AXK9	449
AXL0	449
AXL1	449
AXL3	985
AXL4	985
AXL5	1017
AXL6	1069
AXL7	1069
AXL8	773
AXL9	773
AXN0	905
AXN1	905
AXN2	905
AXN3	905
AXN4	905
AXN5	565
AXN6	565
AXN7	565
AXN8	565
AXN9	565
AXP0	565
AXP1	566
AXP2	566
AXT3	1144
AXT4	1144
AXT5	1144
AXT6	1144
AXT7	1157
AXT8	1157
AXT9	1157
AXX0	902
AXX1	902
AXX2	902
AXX3	902
AXX4	1299
AXX5	1299
AXY9	902
AY02	1130
AY04	1086
AY05	1086
AY06	1086
AY12	579
AY13	579
AY14	579
AY16	579
AY17	579
AY18	579
AY19	422
AY21	1317, 1323
AY22	1317, 1323
AY23	1317, 1323
AY24	1317, 1323
AY25	1323
AY26	1323
AY27	1323
AY28	1323
AY29	1323
AY30	1323
AY31	1324
AY32	1324
AY36	765
AY39	765
AY40	765
AY41	765
AY42	765
AY43	765
AY44	765
AY45	765
AY46	765
AY47	765
AY48	765
AY49	765
AY51	765
AY55	765
AY56	765
AY57	765
AY58	765
AY59	765
AY74	769
AY75	769
AY76	769
AY78	769
AY79	769
AY81	769
AY83	769
AY87	769
AY91	1110
AY92	1110
AY93	1110
AY94	1110
AY95	1110
AY96	1110
AY97	1110
AY99	1111
AYA0	1157
AYA1	1157
AYA2	1158
AYA3	1158
AYA4	1158
AYA5	1158
AYA6	888
AYA7	888
AYA8	888
AYA9	888
AYC0	36
AYC1	36
AYC2	36
AYC3	36
AYC4	36
AYC5	36
AYC6	36
AYC7	36
AYC8	36
AYC9	36
AYE0	36
AYE1	270
AYE2	270
AYE3	270
AYE4	270
AYE5	270
AYE6	270
AYE7	270
AYE8	270
AYE9	270
AYH0	270
AYH1	270
AYH2	270
AYH3	270
AYH4	270
AYH5	270
AYH6	270
AYH7	270
AYH8	270
AYH9	270
AYK0	270
AYK1	276
AYK2	276
AYK3	276
AYK4	276
AYK5	276
AYK6	276
AYK7	276
AYK8	276
AYK9	276
AYL0	276
AYL1	276
AYL2	276
AYL3	276
AYL4	276
AYL5	276
AYL6	276
AYL7	276
AYL8	276
AYL9	787
AYN0	787
AYN1	787
AYN2	787
AYN3	787
AYN4	787
AYN5	787
AYN6	787
AYN7	787
AYN8	787
AYN9	787
AYP0	787
AYP1	787
AYP2	787
AYP3	787
AYP4	17
AYP6	202
AYP7	202
AYP8	202
AYP9	202
AYT0	202
AYT6	178
AYT7	178
AYT8	178
AYT9	178
AYX0	178
AYX1	178
AYX2	102
AYX3	102
AYX4	102
AYX5	102
AYX6	118
AYX7	118
AYX8	119
AYX9	119
AYY0	119
AYY1	119
AYY2	119
AYY3	119
AYY4	122
AYY5	122
AYY6	385
AYY7	385
B002	655
B006	656
B010	629
C001	514
C003	514
C004	514
C005	514
C012	1234
C013	1024
C014	1024
C018	1060
C019	1060
C020	1060
C022	584
C023	584
C024	584
C025	584
C026	584
C027	584
C030	190
C031	190
C032	190
C033	190
C034	190
C035	190
C037	190
C038	190
C039	190
C040	190
C041	190
C045	190
C046	190
C048	190
C049	190
C050	190
C051	190
C052	190
C053	190
C054	190
C055	190
C056	190
C057	190
C058	190
C059	190
C060	190
C061	190
C062	190
C063	190
C064	190
C065	190
C066	190
C067	190
C068	190
C069	190
C070	190
C079	271
C080	271
C081	271
C082	271
C083	271
C084	271
C085	271
C086	271
C087	271
C088	271
C089	271
C090	271
C091	271
C092	271
C093	271
C094	271
C095	271
C096	271
C097	271
C098	271
C101	116
C102	116
C103	116
C104	116
C105	116
C106	116
C107	116
C108	10
C109	10
C110	10
C111	10
C112	10
C113	10
C114	10
C115	10
C116	10
C117	10
C118	10
C119	10
C120	10
C121	10
C122	10
C123	10
C124	10
C125	10
C126	10
C127	10
C128	10
C129	10
C130	10
C131	10
C132	10
C133	19
C134	19
C135	19
C136	19
C137	19
C138	19
C139	19
C140	19
C141	19
C142	19
C143	19
C144	18
C145	18
C146	18
C147	18
C148	18
C149	18
C150	18
C151	18
C152	18
C153	249
C154	249
C155	249
C156	249
C157	249
C158	249
C159	249
C160	249
C161	249
C162	27
C163	27
C164	27
C165	27
C166	27
C167	27
C168	27
C169	27
C170	27
C171	27
C172	27
C173	23
C174	23
C175	23
C176	23
C177	23
C178	23
C179	23
C180	23
C181	23
C182	108
C183	108
C184	108
C185	108
C186	108
C187	108
C188	108
C189	108
C190	108
C191	108
C192	108
C193	108
C194	108
C195	108
C196	108
C197	108
C198	108
C199	108
C205	108
C206	108
C207	108
C208	108
C209	108
C210	108
C211	108
C212	108
C213	108
C214	108
C215	265
C216	265
C236	1021
C237	1021
C238	1021
C239	1021
C246	226
C248	226
C249	226
C250	226
C260	625
C261	624
C262	624
C263	624
C264	624
C267	1399
C272	851
C286	507
C287	507
C288	507
C289	507
C290	507
C291	507
C292	507
C293	507
C294	507
C295	507
C296	507
C297	507
C298	507
C299	507
C300	507
C309	1510
C310	1510
C317	478
C318	478
C319	478
C320	478
C321	479
C322	479
C327	388
C328	388

Numerical Index

Art. No.	Page
C333	1239
C334	1239
C346	837
C347	837
C348	837
C349	837
C367	112
C368	112
C369	379
C370	379
C371	379
C372	379
C374	187, 1029
C377	112
C378	112
C379	112
C380	112
C381	112
C382	112
C383	112
C384	112
C385	112
C386	112
C388	113
C389	113
C390	113
C391	113
C392	113
C393	113
C394	113
C395	113
C396	113
C397	113
C398	113
C459	153
C460	153
C461	153
C462	153
C463	153
C464	166
C465	166
C466	166
C467	166
C468	166
C469	141
C470	141
C471	149
C472	149
C473	149
C474	149
C475	149
C476	140
C477	140
C478	141
C479	141
C480	141
C481	407
C482	407
C483	407
C484	407
C485	407
C486	407
C487	407
C488	152
C489	152
C490	152
C491	152
C492	152
C493	856
C514	83
C515	83
C516	83
C518	82
C522	818
C527	1401
C529	626
C530	626
C531	626
C532	626
C533	326
C534	326
C535	326
C537	548
C538	548
C539	548
C541	548
C542	548
C563	569
C564	569
C610	380
C611	380
C612	380
C613	380
C614	627
C629	551
C630	551
C633	1270
C634	1270
C676	550
C677	550
C678	550
C679	550
C680	550
C681	550
C682	550
C683	550
C684	550
C685	550
C686	550
C687	550
C688	550
C689	550
C690	550
C691	550
C692	550
C693	550
C718	551
C719	551
C720	551
C721	551
C722	551
C723	551
C724	551
C725	1143
C726	1156
C728	1156
C730	1156
C731	1156
C732	1156
C733	1145
C734	1145
C735	1146
C736	1146
C749	297
C751	297
C753	297
C755	297
C760	280
C765	279
C767	279
C768	279
C771	349
C772	349
C773	349
C774	349
C775	349
C776	97
C777	97
C778	97
C779	97
C780	97
C781	97
C782	97
C785	864
C790	996
C804	1024
C806	1024
C810	846
C811	846
C826	326
C827	325
C828	474
C829	307
C830	475
C831	475
C832	475
C833	475
C834	475
C835	475
C836	475
C837	475
C838	475
C841	394
C843	394
C844	394
C846	395
C847	395
C848	308
C849	196
C850	196
C851	317
C852	317
C853	317
C854	317
C856	202
C857	202
C859	202
C861	202
C862	202
C863	324
C864	324
C865	324
C866	324
C867	324
C868	394
C869	394
C871	394
C873	276
C874	276
C875	276
C876	276
C877	276
C878	276
C879	276
C880	276
C881	276
C882	327
C883	327
C884	327
C885	327
C886	327
C887	1171
C889	1171
C892	1171
C893	1172
C894	1171
C899	1171
C900	1172
C940	898
C941	898
C942	898
C943	898
C944	135
C972	1019
C973	1019
C975	962
C976	962
C977	962
C986	1572
C987	1572
CA01	912
CA02	912
CA03	912
CA04	767
CA07	769
CA08	769
CA09	769
CA10	769
CA11	769
CA12	769
CA13	769
CA14	769
CA16	769
CA17	769
CA18	769
CA20	769
CA21	769
CA23	769
CA25	769
CA27	769
CA28	769
CA29	769
CA34	838
CA35	830
CA36	830
CA80	228
CA81	228
CA82	228
CA83	228
CA84	228
CA85	228
CA86	228
CA87	228
CA88	586
CA90	586
CA91	586
CA92	586
CA93	586
CA94	586
CA95	586
CA98	1416
CA99	1416
CAL2	1175
CAL3	1175-1176
CAL4	1182
CAL5	1182-1183
CAL7	882
CAL8	840
CAL9	933
CAN0	928
CAN1	928
CAN2	909
CAN3	909
CAN4	909
CAN5	909
CAN6	909
CAN7	588
CAN8	588
CAN9	588
CAP0	588
CAP1	588
CAP2	588
CAP3	588
CAP4	588
CAP5	588
CAP6	588
CAP7	588
CAT2	1536
CAT3	1536
CAT5	1536
CAT6	1539
CAT7	1539
CAT8	1539
CAX1	995
CAX2	995
CAX3	995
CAX8	1437
CAX9	1437
CAY0	1437, 1463
CAY1	1437, 1463
CAY2	1437, 1463
CAY3	1437, 1463
CAY4	1437, 1463
CAY5	1437, 1463
CAY6	1437, 1463
CAY7	1303
CC00	916
CC01	916
CC02	916
CC03	916
CC05	907
CC06	907
CC07	907
CC08	907
CC09	750
CC10	750
CC13	316, 1409
CC14	316, 1409
CC15	316, 1409
CC16	316, 1409
CC17	316, 1409
CC18	321, 1409
CC19	750
CC20	750
CC21	750
CC23	750
CC24	229
CC25	229
CC26	229
CC27	229
CC28	229
CC29	229
CC30	229
CC31	229
CC33	750
CC44	1518
CC45	1518
CC46	1517
CC47	1517
CC48	1517
CC53	1375
CC56	750
CC84	1507
CC85	1508
CC86	1507
CC87	1508
CC88	1507
CC89	1508
CC90	1507
CC91	1508
CC92	1507
CC93	1508
CC94	1507
CC95	1508
CC96	1507
CC97	1508
CC98	1507
CC99	1508
CCA0	954
CCA1	954
CCA2	954
CCA3	954
CCA4	954
CCA5	954
CCA6	954
CCA7	955
CCA8	955
CCA9	955
CCC0	955
CCC1	955
CCC2	955
CCC3	956
CCC4	956
CCC5	956
CCC6	956
CCC7	956
CCC8	956
CCC9	956
CCE0	956
CCE1	1065
CCE2	1113
CCE3	1113
CCE5	1220
CCE6	1220
CCE7	1220
CCE8	1220
CCE9	1220
CCH1	1220
CCH2	1220
CCH3	1220
CCH4	1220
CCH5	1220
CCH6	1220
CCH7	1220
CCH8	1220
CCH9	1220
CCK1	1220
CCK2	1220
CCK3	1220
CCK4	1220
CCK5	12
CCK6	12
CCK7	12
CCK8	12
CCK9	12
CCL0	12
CCL1	12
CCL2	180, 269
CCL3	180, 269
CCL4	180, 269
CCL5	180, 269
CCL6	40
CCL7	40
CCL8	40
CCN0	40
CCN1	40
CCN2	40
CCN3	40
CCN4	35
CCN5	35
CCN6	35
CCN8	35
CCN9	35
CCP0	35
CCP1	35
CCP2	35
CCP3	35
CCP4	40
CCP5	40
CCP6	40
CCP7	40
CCP8	40
CCP9	40
CCT2	38
CCT3	38
CCT4	38
CCT6	38
CCT7	38
CCT8	38
CCT9	49
CCX0	49
CCX1	49
CCX2	49
CCX3	39
CCX4	748
CCX5	47
CCX6	47
CCX7	47
CCX8	708
CCX9	708
CCY0	708
CCY1	708
CCY2	708
CCY3	708
CCY4	150
CCY5	150
CCY6	150
CCY7	150
CCY8	150
CCY9	150
CE01	1509
CE02	1509
CE03	1509
CE04	1509
CE05	1509
CE06	1508
CE07	1508
CE08	1508
CE09	1508
CE10	1508
CE11	1508
CE12	1508
CE13	1508
CE14	574
CE15	574
CE16	481
CE17	481
CE18	481
CE30	581
CE31	581
CE32	581
CE33	581
CE38	572
CE39	572
CE40	572
CE42	905
CE43	905
CE44	905
CE45	905
CE46	905
CE48	398
CE49	398
CE50	398
CE51	397
CE52	397
CE53	397
CE54	402
CE55	402
CE56	402
CE57	402
CE58	397
CE59	397
CE60	399
CE61	399
CE95	1241
CE96	223
CE97	223
CE98	223
CE99	223
CEA0	150
CEA1	150
CEA2	150
CEA3	150
CEA6	224
CEA7	224
CEA8	224
CEA9	224
CEC0	1424
CEC1	1424
CEC2	384
CEC3	384
CEC4	384
CEC5	384
CEC7	501
CEE1	383
CEE2	383
CEE3	383
CEE5	383
CEE6	383
CEE7	383
CEE8	383
CEE9	383
CEH0	995
CEH1	995
CEH2	995
CEH3	958
CEH4	958
CEH5	958
CEH6	958
CEH7	958
CEH8	958
CEH9	958
CEK0	958
CEK1	958
CEK2	958
CEK3	234
CEK4	234
CEK5	234
CEK6	234
CEK7	278
CEK8	679
CEL0	680
CEL1	680
CEL3	680
CEL5	690
CEL6	690
CEL7	684
CEL8	684
CEL9	684
CEN0	684
CEN1	684
CEN2	684
CEN3	688
CEN4	688
CEN5	687
CEP4	1287
CET4	284
CET5	1229
CET6	446
CET7	446
CET8	457
CET9	1043
CEX0	445
CEX1	443
CEX2	443
CEX3	443
CEX4	443
CEX5	453
CEX6	453
CEX7	674
CEX8	674
CEX9	1079
CEY0	1079
CEY1	1079
CEY2	1079
CEY3	1079
CEY4	1079
CEY5	1079
CEY6	1079
CEY7	1079
CEY8	1079
CEY9	1079
CH00	223
CH01	224
CH02	224
CH03	224
CH04	224
CH05	224
CH06	224
CH07	224
CH08	224
CH09	224
CH10	224
CH14	1083
CH15	828
CH18	821
CH22	563
CH23	587
CH24	587
CH25	587
CH26	587
CH27	587
CH28	587
CH29	587
CH30	247
CH31	247
CH32	247
CH33	247
CH34	247
CH35	247

Numerical Index

Art. No.	Page
CH36	247
CH37	247
CH38	1083
CH39	1083
CH40	1083
CH41	1083
CH42	1083
CH43	1083
CH44	899
CH45	899
CH46	899
CH47	899
CH56	1055
CH57	1055
CH82	644
CH83	644
CH84	644
CH85	644
CH86	1097
CH87	687
CH88	687
CH89	687
CH90	687
CH91	687
CH92	687
CH93	687
CH94	687
CH95	687
CH96	687
CHA0	1470
CHA1	1469-147
CHA2	1469-147
CHA3	1469-147
CHA4	1469
CHA5	1387
CHA6	1387
CHC6	657
CHC7	1367
CHC9	319
CHE0	319
CHE1	319
CHE2	319
CHE3	319
CHE4	319
CHE5	319
CHE6	319
CHE7	319
CHE8	318
CHE9	318
CHH2	316
CHH3	1464, 1466
CHH7	1208
CHH8	1208
CHH9	1208
CHK0	1208
CHK1	1208
CHK2	1208
CHK3	853
CHK5	853
CHK6	853
CHK8	994
CHK9	1366
CHL0	835
CHL1	854
CHL2	11
CHL3	11
CHL4	11
CHL5	323
CHL6	323
CHL7	323
CHL8	323
CHL9	323
CHN0	323
CHN1	323
CHN2	323
CHN3	325
CHN4	1034
CHN5	302
CHN6	325
CHN7	327
CHN8	327
CHN9	327
CHP0	1270
CHP1	1270
CHP4	1271
CHP5	1271
CHP8	1271
CHP9	1271
CHT0	1271
CHT1	1271
CHT2	1270
CHT3	1270
CHT4	1270
CHT5	1270
CHT6	1271
CHT7	1271
CHT9	1271
CHX0	293
CHX1	293
CHX2	293
CHX3	293
CHX6	320
CHX7	320
CHY3	313
CHY4	313
CHY5	313
CHY6	115
CHY7	115
CHY8	115
CHY9	115
CK05	693
CK06	692
CK07	485
CK08	485
CK09	1132
CK22	54
CK23	54
CK24	54
CK25	54
CK26	54
CK27	54
CK28	1272
CK29	1272
CK30	1272
CK31	1272
CK32	1272
CK33	1272
CK34	47
CK35	47
CK36	47
CK37	47
CK38	47
CK39	1097
CK40	1087
CK43	807
CK44	807
CK45	869
CK46	869
CK47	702
CK48	702
CK49	702
CK50	702
CK51	702
CK53	702
CK54	702
CK55	702
CK56	593
CK57	699
CK58	699
CK59	699
CK60	699
CK61	699
CK62	699
CK63	699
CK64	700
CK65	699
CK66	700
CK67	699
CK68	699
CK69	700
CK70	699
CK71	700
CK72	179
CK73	179
CK74	179
CK75	179
CK76	179
CK77	179
CK78	1377
CK79	55
CK80	55
CK81	57
CK82	688
CK83	688
CK84	688
CK85	688
CK86	688
CK90	819
CK91	819
CK94	1268
CK95	1268
CK97	1129
CK98	1412
CK99	1412
CKA0	115
CKA2	115
CKA3	115
CKA4	115
CKA5	1349
CKA6	1349
CKA7	1349
CKA8	1349
CKA9	1349
CKC0	1349
CKC1	1349-135
CKC2	1349
CKC3	1349-135
CKC4	1349-135
CKC5	1350
CKC6	1350
CKC7	1350
CKC8	1350
CKC9	1350
CKE0	1335, 1350
CKE1	1335, 1350
CKE2	1335, 1350
CKE3	1335, 1350
CKE4	1335, 1350
CKE5	1335, 1350
CKE6	1334
CKE7	1334
CKE8	1334
CKE9	1334
CKH0	1334
CKH1	1334
CKH2	1335
CKH3	1335
CKH4	1335
CKH5	1335
CKH6	1335
CKH7	1338
CKH8	1338
CKH9	1338
CKK0	1337
CKK1	1337
CKK3	1381
CKK4	15
CKK5	15
CKK6	15
CKK7	15
CKK8	15
CKK9	15
CKL0	15
CKL1	15
CKL2	15
CKL3	15
CKL4	15
CKL5	15
CKL6	15
CKL7	15
CKL8	15
CKL9	15
CKN0	15
CKN1	15
CKN2	15
CKN3	15
CKN4	16
CKN5	16
CKN6	16
CKN7	16
CKN8	16
CKN9	1414
CKP0	1414
CKP1	1414
CKP2	1414
CKP3	1414
CKP4	1414
CKP5	501
CKX7	1092
CKX8	1092
CKX9	1092
CKY0	1092
CKY1	1092
CKY2	1199
CKY3	1199
CKY4	269
CKY5	269
CKY6	269
CKY7	269
CKY8	241
CKY9	32
CLA0	98
CLA1	98
CLA2	98
CLA3	98
CLA4	98
CLA5	98
CLA6	98
CLA7	98
CLA8	98
CLA9	98
CLC0	98
CLC1	98
CLC2	98
CLC3	98
CLC4	98
CLC5	98
CLC6	116
CLC7	116
CLC9	655
CLE0	655
CLE1	655
CLE2	656
CLE3	656
CLE6	355
CLE7	355
CLE8	354
CLE9	354
CLH0	354
CLH1	354
CLH2	354
CLH3	354
CLH4	354
CLH5	354
CLH6	354
CLH7	357
CLH8	357
CLH9	357
CLK0	357
CLK1	357
CLK2	357
CLK3	357
CLK4	357
CLK5	357
CLK6	357
CLK7	357
CLK8	357
CLK9	357
CLL0	357
CLL1	357
CLL2	357
CLL3	357
CLL5	1498
CLL6	364
CLL7	364
CLL8	364
CLL9	363
CLN0	363
CLN1	363
CLN2	363
CLN3	363
CLN4	394
CLN5	394
CLN6	394
CLN7	394
CLN8	1531
CLN9	1527
CLP0	1528
CLP1	1527
CLP2	1526
CLP3	1528
CLP4	1528
CLP5	1527
CLP6	1530
CLP7	1530
CLP8	1537
CLP9	1536
CLT0	1557
CLT1	1406
CLT2	1406
CLT3	1406
CLT5	516
CLT6	516
CLY2	398
CLY3	405
CLY6	407
CLY8	407
CLY9	403
CNA0	403
CNA1	403
CNA2	399
CNA3	408
CNA4	408
CNA5	408
CNA6	397
CNA7	397
CNA8	397
CNA9	398
CNC1	398
CNC2	398
CNC3	398
CNC4	404
CNC5	404
CNC6	243
CNC7	243
CNC8	243
CNC9	1039
CNE1	847
CNE3	847
CNE4	846
CNE5	846
CNE6	829
CNE7	829
CNE8	823
CNE9	823
CNH0	819
CNH1	818
CNH2	831
CNH3	831
CNH4	829
CNH5	836
CNH6	921
CNH7	1432
CNH8	1222
CNK0	1222
CNK2	1222
CNK3	1222
CNK4	1225
CNK5	1225
CNK6	1225
CNK7	1225
CNK8	231
CNK9	231
CNL0	231
CNL2	645
CNL3	645
CNL4	645
CNL5	645
CNL6	645
CNL7	645
CNL8	645
CNL9	645
CNN0	645
CNN1	645
CNN2	535
CNP5	436
CNP6	400
CNP7	679
CNP8	387
CNT0	688
CNT3	693
CNT4	693
CNT5	693
CNT6	435
CNT7	435
CNX1	22
CNX2	22
CNX3	22
CNX4	22
CNX5	22
CNX6	22
CNX7	22
CNX8	22
CNX9	22
CNY0	30
CNY1	30
CNY2	30
CNY3	30
CNY4	30
CNY5	30
CNY6	30
CNY7	30
CNY8	30
CNY9	30
CPA0	30
CPA1	30
CPA2	30
CPA3	30
CPA4	30
CPA5	30
CPA6	30
CPA7	30
CPA8	30
CPA9	30
CPC0	30
CPC1	30
CPC2	30
CPC3	30
CPC4	30
CPC5	30
CPC6	30
CPC7	30
CPC8	30
CPC9	30
CPE0	30
CPE1	30
CPE2	30
CPE3	30
CPE4	30
CPE5	30
CPE6	30
CPE7	30
CPE8	30
CPE9	30
CPH0	30
CPH1	30
CPH2	30
CPH3	30
CPH4	30
CPH5	30
CPH6	601
CPH7	601
CPH8	601
CPH9	601
CPK0	1406
CPK1	1406
CPK2	1406
CPK5	1499
CPK6	1499
CPK7	1499
CPK8	1499
CPK9	1499
CPL1	1500
CPL2	1500
CPL3	1500
CPL5	1500
CPL6	1500
CPL7	1318
CPL8	1318
CPL9	1319
CPN0	1319
CPN1	1319
CPN2	1319
CPN3	1319
CPN4	1319
CPN5	1319
CPN6	1319
CPN7	1319
CPN8	1319
CPN9	1319
CPP0	1319
CPP1	1319
CPP2	613
CPP3	613
CPP4	613
CPP5	516
CPP6	516
CPP7	516
CPP8	516
CPP9	517
CPT0	517
CPT1	517
CPT2	517
CPT3	516
CPT4	516
CPT5	525
CPT6	525
CPT7	1067
CPT8	449
CPT9	341
CPX0	341
CPX1	341
CPX2	1027
CPX3	655
CPX4	426
CPX5	426
CPX6	887
CPX7	887
CPX8	887
CPX9	887
CPY6	1042
CPY7	1042
CT00	1412
CT01	1412
CT02	1412
CT03	1412
CT04	77
CT05	967
CT06	1201
CT07	860
CT08	747
CT09	747
CT10	747
CT11	747
CT12	747
CT24	860
CT25	860
CT33	596
CT34	596
CT35	596
CT36	596
CT37	596
CT38	596
CT39	187
CT42	596
CT43	596
CT44	596
CT46	596
CT47	596
CT52	596
CT53	596
CT55	596
CT56	596
CT58	596
CT59	596
CT60	596
CT61	596
CT62	596
CT63	596
CT64	596
CT65	596
CT66	596
CT67	596
CT68	596
CT69	596
CT70	596
CT71	596
CT72	1209
CT73	1209
CT75	843
CT77	843
CT79	738
CT80	738
CT81	738
CT82	738
CT83	738
CT84	738
CT85	739
CT86	739
CT87	742
CT88	742
CT89	742
CT90	742
CT91	742
CT92	742
CT93	742
CT94	742
CT96	742
CT99	741
CTA8	877
CTA9	877
CTC0	877
CTC1	877
CTC3	1012
CTC4	1012
CTC5	1011
CTC6	1011
CTC7	1011
CTC8	412
CTC9	412
CTE0	412
CTE1	412
CTE2	1217
CTE3	1217
CTE4	1217
CTE5	1217
CTE6	1217
CTE7	1217
CTE8	1217
CTE9	1217

Numerical Index

Art. No.	Page
CTH0	1223
CTH1	1223
CTH2	1223
CTH3	1223
CTH4	1212
CTH5	1212
CTH6	1212
CTH7	1212
CTH8	1212
CTH9	1212
CTK0	1212
CTK1	1212
CTK2	1212
CTK3	1212
CTK4	1212
CTK5	1212
CTK6	1212
CTK7	1212
CTK8	1212
CTK9	1212
CTL0	1212
CTL1	1212
CTL2	574
CTL3	574
CTN8	1315
CTN9	1315
CTP0	1315
CTP1	1316
CTP2	1316
CTP3	1316
CTP4	1316
CTP5	1316
CTP6	1316
CTP7	1316
CTP8	1316
CTP9	1316
CTT0	1316
CTT1	639
CTT2	639
CTT3	639
CTT4	639
CTT5	639
CTT6	639
CTT7	639
CTT8	639
CTT9	639
CTX0	639
CTX1	639
CTX2	639
CTX3	639
CTX4	639
CTX5	639
CTX6	639
CTX7	639
CTX8	639
CTX9	639
CTY0	639
CTY1	639
CTY2	647
CTY3	647
CTY6	501
CTY7	501
CTY9	1009
CX01	741
CX04	741
CX05	741
CX06	741
CX07	757
CX08	757
CX09	757
CX10	757
CX11	758
CX12	758
CX13	758
CX14	758
CX15	758
CX16	758
CX17	758
CX18	758
CX19	758
CX20	758
CX21	758
CX22	758
CX23	758
CX24	758
CX25	758
CX26	758
CX27	758
CX28	758
CX29	758
CX31	758
CX32	758
CX33	758
CX34	758
CX35	758
CX36	758
CX37	758
CX38	758
CX39	758
CX44	759
CX45	759
CX46	759
CX47	759
CX48	759
CX49	759
CX50	759
CX51	759
CX52	759
CX53	759
CX54	759
CX56	759
CX57	759
CX58	759
CX59	759
CX60	759
CX61	759
CX62	759
CX63	759
CX64	759
CX65	759
CX66	759
CX67	758
CX68	758
CX69	758
CX70	656
CX71	1272
CX72	1272
CX73	1476
CX74	23
CX75	23
CX76	23
CX77	23
CX78	23
CX79	23
CX80	23
CX81	24
CX82	24
CX83	24
CX84	24
CX85	24
CX86	24
CX87	24
CX88	632
CX89	632
CX90	632
CXA0	1009
CXA1	1009
CXA2	1009
CXA3	1009
CXA4	1009
CXA5	1008
CXA6	1008
CXA7	1008
CXA8	1009
CXA9	1009
CXC0	1009
CXC1	1009
CXC2	1009
CXC3	1009
CXC4	1116
CXC5	1116
CXC6	1083
CXC8	431
CXC9	431
CXE0	431
CXE1	431
CXE2	431
CXE3	431
CXE4	431
CXE5	432
CXE6	432
CXE7	432
CXE8	432
CXE9	432
CXH0	432
CXH1	432
CXH2	432
CXH3	432
CXH4	432
CXH5	432
CXH6	429
CXH7	429
CXH8	429
CXH9	429
CXK0	411
CXK1	411
CXK2	411
CXK3	411
CXK4	411
CXK5	411
CXK6	372
CXK7	372
CXK8	372
CXK9	372
CXL0	372
CXL1	372
CXL2	372
CXL5	372
CXL6	372
CXL9	501
CXN0	501
CXN1	501
CXN2	460
CXN3	460
CXN4	450
CXN5	450
CXN6	450
CXN7	350
CXN8	350
CXN9	350
CXP0	1088
CXP1	352
CXP2	415
CXP3	415
CXP4	415
CXP6	346
CXP8	631
CXP9	631
CXT0	631
CXT1	631
CXT2	80, 1033
CXT3	1449
CXT4	1449
CXT5	1449
CXT6	1449
CXT7	1449
CXT8	1449
CXT9	1449
CXX0	1449
CXX1	1449
CXX2	1449
CXX3	1449
CXX4	1449
CXX5	1449
CXX6	275
CXX7	1291
CXX8	1291
CXX9	1291, 1293
CXY0	1291
CXY1	1291
CXY2	1291
CXY3	1291
CXY4	1291
CXY5	1293
CXY6	1293
CXY7	1293
CXY8	1295
CXY9	1295
CY02	878
CY03	879
CY04	879
CY05	879
CY06	736
CY07	736
CY08	736
CY09	737
CY10	737
CY11	738
CY12	738
CY17	757
CY18	757
CY19	757
CY20	757
CY21	757
CY22	757
CY23	757
CY24	757
CY25	757
CY26	757
CY28	757
CY29	757
CY30	757
CY31	757
CY32	757
CY33	757
CY34	757
CY35	755
CY36	755
CY37	755
CY38	755
CY39	755
CY40	755
CY41	755
CY42	755
CY43	755
CY44	755
CY45	755
CY46	755
CY47	755
CY48	755
CY49	755
CY50	756
CY51	756
CY52	756
CY53	756
CY54	756
CY55	756
CY56	756
CY57	756
CY58	756
CY59	756
CY60	756
CY61	756
CY62	756
CY63	756
CY64	756
CY65	309
CY66	906
CY67	906
CY68	906
CY69	906
CY70	906
CY71	332
CY72	332
CY73	332
CY74	332
CY76	824
CY78	830
CY80	830
CY81	332
CY82	332
CY83	332
CY84	332
CY88	1169
CY90	132, 988
CY91	132, 988
CY92	321, 1409
CY95	1183
CY97	376
CYA0	1295
CYA1	1295
CYA2	1295
CYA3	1295
CYA4	1295
CYA5	1300
CYA6	1300
CYA9	566
CYC0	910
CYC1	910
CYC2	910
CYC3	910
CYC4	564
CYC5	564
CYC6	564
CYC7	564
CYC8	565
CYC9	564
CYH1	275
CYH3	1254
CYH4	1254
CYH5	1254
CYH6	1254
CYH7	1254
CYH8	775
CYH9	775
CYK0	775
CYK1	775
CYK2	775
CYK3	775
CYK4	775
CYK5	775
CYK6	775
CYK7	775
CYK8	775
CYK9	775
CYL0	775
CYL1	775
CYL2	775
CYL3	775
CYL4	775
CYL5	775
CYL6	775
CYL7	775
CYN0	822
CYN2	822
CYN3	1079
CYN4	670
CYN5	670
CYN6	670
CYN7	589
CYN8	589
CYN9	589
CYP0	589
CYP1	589
CYP2	589
CYP3	589
CYP4	589
CYP5	589
CYP6	589
CYP7	589
CYP8	589
CYP9	589
CYT0	589
CYT1	589
CYT2	589
CYT3	589
CYT4	589
CYT5	589
CYT6	589
CYT7	589
CYT8	589
CYT9	589
CYX0	589
CYX1	1023
CYX3	1429
CYX4	1429
CYX5	1429
CYX6	1429
CYX7	1429
CYX8	1429
CYX9	1429
CYY0	1429
CYY1	1429
CYY9	196
E008	960
E009	960
E013	522
E023	114
E024	114
E025	114
E026	114
E027	114
E028	114
E029	114
E030	114
E031	114
E032	114
E033	224
E034	224
E035	224
E036	224
E037	224
E038	224
E039	321
E040	321
E041	960
E042	960
E046	1576
E050	327
E051	327
E052	327
E054	226
E055	226
E056	226
E057	226
E072	333
E073	333
E075	333
E088	337
E091	337
E094	337
E097	337
E100	343
E101	343
E104	409
E105	409
E106	409
E107	409
E108	556
E109	556
E111	556
E113	556
E114	555
E115	555
E116	555
E117	555
E118	555
E119	555
E120	555
E121	555
E122	555
E123	555
E124	555
E125	555
E126	557
E127	556
E128	557
E129	557
E130	557
E131	557
E132	557
E133	557
E134	557
E135	557
E136	557
E137	557
E138	1255
E139	1255
E140	1255
E141	1255
E142	1255
E143	1256
E144	1256
E145	1256
E146	1256
E147	1256
E148	1256
E149	1256
E150	1256
E151	1256
E152	83
E153	83
E159	82
E160	82
E161	82
E162	82
E163	82
E164	82
E165	82
E170	1551
E171	1551
E172	836
E174	838
E184	881
E185	881
E186	983
E187	140
E188	140
E189	139
E190	139
E191	139
E192	139
E193	138
E195	138
E217	143
E218	143
E219	143
E220	143
E221	143
E227	838
E234	559
E250	609
E251	608
E252	383
E253	383
E254	384
E255	384
E267	961
E271	348
E272	348
E273	348
E274	348
E275	348
E285	1019
E286	309
E287	967
E288	967
E289	979
E290	704
E291	704
E292	704
E293	704
E294	704
E295	704
E303	609
E304	609
E305	608
E306	608
E308	704
E309	704
E310	704
E311	704
E312	704
E313	704
E314	704
E315	704
E316	704
E317	704
E318	704
E319	704
E320	705
E321	705
E322	705
E323	705
E324	705
E325	705
E326	605
E327	605
E330	986
E331	986
E335	522
E347	851
E348	804
E364	387
E391	984
E447	376
E448	1400
E449	1400
E450	1400
E451	1400
E452	1400
E453	1400
E478	459
E479	459
E480	459
E481	459
E482	459
E483	459
E485	585
E486	1198
E487	1198
E488	1198
E489	1198
E490	527
E491	527
E513	1196
E514	514
E515	514
E516	514
E517	514
E531	21
E532	21
E533	21
E534	21
E535	20
E536	20
E537	20
E540	275
E541	275
E542	275
E543	275
E544	275
E545	275
E546	275
E547	275
E548	275
E549	260
E550	260
E551	260
E552	260

Numerical Index

Art. No.	Page
E553	260
E554	260
E555	260
E556	260
E557	260
E558	260
E559	260
E560	260
E561	260
E562	260
E563	260
E564	260
E565	260
E566	260
E567	260
E568	260
E569	260
E570	260
E571	260
E572	260
E573	260
E575	263
E576	263
E577	263
E578	263
E579	263
E580	263
E581	263
E582	263
E583	263
E584	263
E588	206
E589	206
E590	206
E591	206
E592	206
E593	206
E594	206
E595	206
E596	206
E597	206
E598	206
E599	206
E600	206
E601	206
E602	209
E603	209
E604	209
E605	209
E606	211
E607	211
E608	211
E609	211
E610	211
E611	213
E612	213
E613	213
E614	213
E615	212
E616	212
E617	212
E618	212
E619	212
E620	212
E621	212
E628	238
E629	238
E630	237
E631	237
E632	237
E633	237
E634	237
E635	237
E636	239
E637	237
E638	237
E639	237
E640	237
E641	237
E642	247
E643	247
E644	247
E645	247
E646	245
E647	245
E648	245
E649	245
E650	245
E651	245
E652	221

Art. No.	Page
E653	221
E654	221
E655	221
E691	1570
E692	55
E693	55
E694	55
E695	55
E696	55
E699	226
E700	226
E701	226
E702	226
E704	797
E705	995
E706	995
E707	664
E708	694
E709	797
E710	797
E711	804
E712	689
E723	389
E724	389
E725	389
E736	657
E740	1090
E741	1090
E742	1090
E743	1090
E744	1090
E745	1090
E746	1569
E752	54
E753	54
E754	54
E755	1087
E757	1232
E758	1232
E759	1233
E763	597
E764	597
E765	597
E766	597
E767	597
E768	597
E769	597
E770	597
E771	597
E772	597
E773	597
E774	597
E775	597
E776	597
E777	597
E778	597
E779	597
E780	597
E781	597
E782	597
E784	597
E785	597
E786	597
E787	597
E788	597
E789	597
E790	597
E791	598
E792	598
E793	598
E794	598
E795	598
E796	598
E797	598
E798	598
E799	598
E800	598
E801	599
E802	599
E803	599
E804	599
E805	599
E806	599
E807	599
E808	599
E809	599
E810	599
E812	985
E813	985
E821	537

Art. No.	Page
E822	537
E823	537
E824	537
E825	537
E826	537
E827	537
E828	537
E829	537
E833	537
E834	537
E835	537
E836	537
E837	537
E838	537
E839	537
E840	537
E841	537
E842	538
E843	538
E844	538
E845	538
E846	538
E847	538
E853	792
E854	792
E855	792
E856	792
E857	792
E858	792
E859	792
E860	792
E861	792
E862	793
E863	793
E864	793
E865	793
E866	793
E867	793
E868	793
E869	793
E870	793
E871	793
E872	793
E873	793
E875	793
E876	793
E877	793
E878	793
E879	793
E881	793
E882	793
E883	793
E884	793
E885	793
E941	617
E942	617
E943	617
E944	617
E945	617
E946	617
E947	617
E948	617
E949	617
E950	618
E951	618
E952	618
E953	618
E954	618
E955	618
E956	618
E957	618
E958	618
E960	623
E961	623
E964	623
E965	623
E967	623
E968	623
E969	623
E970	623
E972	623
E973	623
E974	623
E976	623
E977	623
E978	623
E979	623
E980	623
E983	623
E984	623

Art. No.	Page
E996	1282
E997	1282
E998	1282
E999	1282
EA02	1304
EA03	1304
EA04	1304
EA05	1304
EA07	1304
EA08	1304
EA09	1304
EA10	1304
EA11	1304
EA12	1304
EA13	1304
EA14	1304
EA15	1304
EA16	1304
EA17	1304
EA42	254
EA43	254
EA44	254
EA45	254
EA46	254
EA47	1157
EA48	1157
EA49	1157
EA50	1158
EA51	1158
EA52	608
EA53	608
EA54	608
EA55	608
EA56	608
EA57	608
EA58	609
EA61	610
EA62	610
EA63	610
EA64	610
EA65	610
EA66	610
EA67	610
EA68	610
EA69	610
EA70	610
EA71	610
EA80	916
EA81	916
EA83	695
EA84	695
EA85	695
EA88	426
EA89	426
EA90	426
EA91	426
EA92	426
EA93	426
EA94	609
EA95	610
EA96	610
EA97	406
EA98	406
EA99	406
EAA0	196
EAA1	196
EAA2	196
EAA3	196
EAA4	196
EAA5	196
EAA6	1535
EAA8	983
EAA9	242
EAC0	242
EAC1	242
EAC2	242
EAC3	242
EAC4	242
EAC5	242
EAC6	242
EAC7	787
EAC8	787
EAC9	787
EAE0	787
EAE1	787
EAE2	787
EAE3	787
EAE4	787
EAE5	787
EAE6	787

Art. No.	Page
EAE7	777-778
EAE8	777
EAE9	777
EAH0	777
EAH1	777
EAH2	777
EAH3	777
EAH4	777
EAH5	777
EAH6	777
EAH7	777
EAH8	777
EAH9	777
EAK0	777
EAK1	777
EAK2	777
EAK3	777
EAK4	777
EAK5	777
EAK6	777
EAK7	777
EAK8	777
EAK9	777
EAL0	777
EAL1	777
EAL2	777
EAL3	777
EAL4	777
EAL5	777
EAL6	777
EAL7	777
EAL8	777
EAL9	777
EAN0	777
EAN1	777
EAN2	777
EAN3	777
EAN4	777
EAN5	777
EAN6	777
EAN7	777
EAN8	777
EAN9	777
EAP0	777
EAP1	777
EAP2	777
EAP3	777
EAP4	778
EAP5	778
EAP6	778
EAP7	778
EAP8	778
EAP9	778
EAT0	778
EAT1	778
EAT2	778
EAT3	778
EAT4	778
EAT5	778
EAT6	778
EAT7	778
EAT8	778
EAT9	778
EAX0	778
EAX1	778
EAX2	778
EAX3	778
EAX4	778
EAX5	778
EAX6	778
EAX7	778
EAX8	778
EAX9	778
EAY0	778
EAY1	778
EAY2	778
EAY3	778
EAY4	778
EAY5	778
EAY6	778
EAY7	778
EAY8	778
EAY9	778
EC00	406
EC01	406
EC02	406
EC03	406
EC04	406
EC05	675
EC06	675

Art. No.	Page
EC07	675
EC08	675
EC09	675
EC13	1365
EC14	1365
EC33	664
EC34	1490
EC35	1490
EC36	1491, 1493
EC37	1491, 1493
EC38	1490
EC39	1491
EC40	1492
EC41	1492
EC42	1493
EC43	1493
EC44	1493
EC45	1493
EC46	1493
EC47	1493
EC48	425
EC92	112
EC93	112
EC94	112
EC95	112
EC96	112
EC97	112
EC98	112
EC99	112
ECA0	778
ECA1	778
ECA2	778
ECA3	778
ECA4	778
ECA5	778
ECA6	778
ECA7	778
ECA8	778
ECA9	778
ECC0	778
ECC1	778
ECC2	778
ECC3	778
ECC4	778
ECC5	778
ECC7	776
ECE2	777
ECE3	776
ECE6	776
ECE7	776
ECE8	776
ECE9	776
ECH0	776
ECH1	776
ECH2	776
ECH6	974
ECH7	974
ECH8	973
ECK0	1121
ECK1	1121
ECK2	1122
ECK3	1122
ECK4	567
ECK5	1082
ECK6	1082
ECL0	1081
ECL1	1081
ECL2	1081
ECL3	1081
ECL4	530
ECL5	530
ECL6	530
ECL7	530
ECL8	530
ECL9	530
ECN0	530
ECN1	530
ECN2	530
ECN3	530
ECN4	530
ECN5	531
ECN6	531
ECN7	531
ECN8	531
ECN9	532
ECP0	532
ECP1	532
ECP2	532
ECP3	532
ECP7	919

Art. No.	Page
ECP8	919
ECP9	919
ECT0	919
ECT1	919
ECT2	912
ECT3	912
ECT4	912
ECT5	912
ECT6	912
ECT7	753
ECT8	754
ECX1	535
ECX2	535
ECX3	535
ECX4	535
ECX6	880
ECX7	880
ECY0	1516
ECY1	1335, 1350
ECY2	1335, 1350
ECY3	1335, 1350
ECY4	904
ECY5	904
ECY6	904
ECY7	904
ECY8	905
ECY9	905
EE00	114
EE01	114
EE02	114
EE03	114
EE04	114
EE05	114
EE06	114
EE07	114
EE16	460
EE24	927
EE25	927
EE26	927
EE27	927
EE28	927
EE29	927
EE30	842
EE31	842
EE32	1493
EE34	1436
EE35	1436
EE36	1436
EE37	1436
EE38	1436
EE39	1436
EE40	1436
EE41	1436
EE42	1436
EE43	1436
EE44	1436
EE46	511
EE47	511
EE48	511
EE49	511
EE51	1236
EE52	1369
EE53	1198
EE55	1562
EE58	250
EE59	250
EE60	250
EE61	250
EE62	250
EE63	250
EE64	250
EE65	250
EE66	250
EE67	250
EE70	234
EE71	235
EE72	235
EE73	235
EE74	234
EE75	233
EE76	233
EE77	389
EE78	724
EE79	724
EE80	724
EE81	724
EE82	386
EE84	1556
EE85	1556
EE86	1029

Numerical Index

Art. No.	Page
EE87	1029
EE88	1029
EE89	1029
EE90	1486
EE93	200
EE94	200
EE95	200
EE96	200
EE97	200
EE98	200
EE99	200
EEA0	905
EEA3	1303
EEA4	1303
EEA5	1303
EEA6	1303
EEA7	1303
EEA8	1303
EEA9	1426
EEC0	1426
EEC1	1426
EEC4	361
EEC5	347
EEC6	347
EEC7	1234
EEC8	1239
EEC9	1239
EEE1	1489
EEE2	1487
EEE3	57
EEE5	864
EEE6	865
EEE7	869
EEH0	1330
EEH1	1330
EEH2	1330
EEH3	1330
EEH4	1204
EEH5	1204
EEH6	1204
EEH7	1562
EEH8	1562
EEH9	1562
EEK0	1564
EEK1	1564
EEK2	1227
EEK3	815
EEK4	815
EEK5	815
EEK6	822
EEK7	812
EEK8	41
EEK9	41
EEL0	41
EEL1	41
EEL2	41
EEL3	41
EEL4	41
EEL5	41
EEL6	41
EEL7	41
EEL8	41
EEL9	41
EEN0	41
EEN1	41
EEN2	42
EEN3	42
EEN4	42
EEN5	42
EEN6	42
EEN7	42
EEN8	42
EEN9	42
EEP0	42
EEP1	42
EEP2	42
EEP3	42
EEP4	42
EEP5	1174-1175
EEP6	1169
EEP7	1169
EEP9	1183
EET0	480
EET1	480
EET6	373
EET7	1020
EET8	1020
EET9	1020
EEX0	1020
EEX1	1020
EEX2	203
EEX3	203
EEX4	203
EEX5	203
EEX6	203
EEX7	771
EEX8	771
EEX9	771
EEY0	771
EEY1	771
EEY2	771
EEY3	771
EEY4	771
EEY5	771
EEY6	771
EEY7	771
EEY8	771
EEY9	769
EH00	200
EH01	1416
EH02	1416
EH03	1416
EH04	1416
EH05	1416
EH09	1552
EH10	310
EH11	425
EH12	425
EH13	1378
EH15	1378
EH16	1379
EH20	459
EH21	633
EH54	1452
EH58	847
EH59	847
EH60	847
EH61	847
EH64	859
EH65	859
EH72	872
EH73	1107
EH77	1108
EH78	1108
EH79	1108
EH80	1108
EH81	1108
EH82	1108
EH84	1134
EH85	1134
EH87	1106
EH88	1106
EH89	1106
EH90	1106
EH91	1106
EH93	1107
EH95	1194
EH97	1134
EHA0	769
EHA1	769
EHA2	769
EHA3	769
EHA4	769
EHA5	769
EHA6	769
EHA7	769
EHA8	769
EHA9	769
EHC0	769
EHC1	769
EHC2	769
EHC3	769
EHC4	769
EHC5	769
EHC6	769
EHC7	769
EHC8	769
EHC9	882
EHE0	944
EHE1	944
EHE2	944
EHE3	944
EHE4	942
EHE5	942
EHE6	943
EHE7	590
EHE8	1206
EHE9	1206
EHH0	1206
EHH1	1206
EHH2	1206
EHH3	1206
EHH4	1206
EHH5	1206
EHH6	1206
EHH7	1206
EHH8	1206
EHH9	1206
EHK0	1206
EHK1	1206
EHK2	1206
EHK3	1206
EHK4	1206
EHK5	1206
EHK6	1206
EHK7	1206
EHK8	1206
EHK9	1206
EHL0	1206
EHL1	1206
EHL2	1206
EHL3	1206
EHL4	1206
EHL5	253
EHL6	253
EHL7	834
EHL8	834
EHL9	834
EHN0	834
EHN2	828
EHP1	578
EHP2	348
EHP3	938
EHP4	947
EHP5	947
EHP6	1125
EHP7	1436
EHP8	1212
EHP9	1212
EHT0	1212
EHT1	1212
EHT2	1212
EHT3	1212
EHT5	828
EHT6	826
EHT7	826
EHT8	826
EHX1	883
EHX2	883
EHX3	1114
EHX4	1114
EHX5	1114
EHX6	1161
EHX7	1161
EHX8	1161
EHY1	1173
EHY2	938
EHY3	938
EHY4	938
EHY5	938
EHY6	938
EHY7	1371
EHY8	1379
EHY9	1379
EK04	112
EKA1	223
EKA2	223
EKA3	223
EKA4	223
EKA5	223
EKA6	223
EKA8	223
EKA9	230
EKC0	230
EKC1	230
EKC2	230
EKC3	230
EKC4	230
EKC5	230
EKC6	230
EKC7	230
EKC8	230
EKC9	230
EKE0	230
EKE1	230
EKE2	230
EKE3	230
EKE4	230
EKE5	230
EKE6	230
EKE7	16
EKE8	16
EKE9	16
EKH0	16
EKH1	598
EKH2	598
EKH3	598
EKH4	598
EKH5	598
EKH6	870
EKH7	868
EKH8	1220
EKH9	1220
EKK0	1220
EKK1	1220
EKK2	1220
EKK3	1220
EKK4	1220
EKK5	1220
EKK6	1220
EKK7	1220
EKK8	1221
EKK9	1221
EKL0	1221
EKL1	1221
EKL2	1221
EKL3	1221
EKL4	1221
EKL5	1221
EKL6	1221
EKL7	1221
EKL8	1221
EKL9	678
EKN0	352
EKN1	352
EKN2	427
EKN3	427
EKN4	427
EKN5	427
EKN6	427
EKN7	606
EKN8	606
EKP9	371
EKT0	371
EKT1	371
EKT2	371
EKT3	371
EKT4	673
EKT5	673
EKT6	671
EKT7	671
EKT8	671
EKT9	671
EKX0	671
EKX1	671
EKX2	671
EKX3	671
EKX4	671
EKX5	402
EKX6	402
EKX7	402
EKX8	402
EKX9	399
EKY0	399
EKY1	121
EKY2	121
EKY3	696
EKY4	696
EKY5	696
EKY6	696
EKY7	696
EKY8	696
EKY9	696
EL06	969
EL07	969
EL08	969
EL09	969
EL10	289
EL11	289
EL12	590
EL13	590
EL14	590
EL15	590
EL16	590
EL17	590
EL18	987
EL19	987
EL20	987
EL21	987
EL22	1273
EL23	664
EL24	664
EL25	667
EL27	667
EL28	666
EL29	666
EL30	666
EL33	666
EL34	666
EL35	1274
EL36	1275
EL45	418
EL46	418
EL47	418
EL48	418
EL49	418
EL50	420
EL51	563
EL54	1105
EL55	1105
EL56	1105
EL57	1105
EL58	1105
EL59	1105
EL60	59
EL61	58
EL62	559
EL63	559
EL64	559
EL65	560
EL66	560
EL67	560
EL68	560
EL69	560
EL70	560
EL71	560
EL72	560
EL73	560
EL74	687
EL96	664
EL99	987
ELA0	206
ELA1	206
ELA2	206
ELA3	206
ELA4	206
ELA5	206
ELA6	206
ELA7	210
ELA8	210
ELA9	210
ELC0	210
ELC1	210
ELC2	210
ELC3	210
ELC4	210
ELC5	210
ELC6	210
ELC7	211
ELC8	211
ELC9	211
ELE0	211
ELE1	211
ELE2	211
ELE3	211
ELE4	211
ELE5	211
ELE6	211
ELE7	211
ELE8	211
ELE9	211
ELH0	211
ELH1	211
ELH2	211
ELH3	211
ELH4	212
ELH5	212
ELH6	212
ELH7	212
ELH8	212
ELH9	212
ELK0	212
ELK1	212
ELK2	212
ELK3	212
ELK4	212
ELK5	212
ELK6	212
ELK7	212
ELK8	212
ELK9	212
ELL0	212
ELL1	212
ELL2	212
ELL3	212
ELL4	212
ELL5	212
ELL6	212
ELL7	212
ELL8	212
ELL9	212
ELN0	213
ELN1	213
ELN2	213
ELN3	213
ELN4	213
ELN5	213
ELN6	213
ELN7	213
ELN8	213
ELN9	213
ELP0	213
ELP1	213
ELP2	213
ELP3	213
ELP4	213
ELP5	213
ELP6	213
ELP7	213
ELP8	213
ELP9	213
ELT0	213
ELT1	213
ELT2	213
ELT3	213
ELT4	213
ELT5	213
ELT6	213
ELT7	213
ELT8	213
ELT9	213
ELX0	213
ELX1	213
ELX2	213
ELX3	215
ELX4	215
ELX5	215
ELX6	215
ELX7	215
ELX8	215
ELX9	215
ELY0	215
ELY1	923
ELY2	923
ELY3	923
ELY4	923
ELY5	923
ELY6	923
ELY7	923
ELY8	923
ELY9	923
EN00	987
EN01	988
EN02	988
EN04	1423
EN05	1423
EN06	674
EN07	674
EN08	674
EN09	674
EN10	674
EN12	765
EN13	765
EN14	765
EN15	765
EN16	418
EN17	766
EN18	766
EN19	766
EN20	766
EN21	766
EN22	766
EN23	766
EN24	766
EN25	766
EN26	766
EN27	766
EN28	766
EN29	766
EN30	766
EN31	766
EN32	1196
EN33	1197
EN38	424
EN39	424
EN40	424
EN43	424
EN44	896
EN45	896
EN46	896
EN47	896
EN76	681
EN77	681
EN80	682
EN81	682
EN82	682
EN83	682
EN84	682
EN85	682
EN97	512
EN98	512
EN99	512
ENA0	923
ENA1	923
ENA2	923
ENA3	923
ENA4	923
ENA5	923
ENA6	923
ENA7	923
ENA8	923
ENA9	923
ENC0	923
ENC1	923
ENC2	923
ENC3	915
ENC4	915
ENC5	915
ENC6	915
ENC7	915
ENC8	915
ENC9	915
ENE0	915
ENE1	915
ENE2	1448
ENE3	1123
ENE4	1123
ENE5	1123
ENE8	691
ENE9	691
ENH0	691
ENH1	691
ENH2	691
ENH3	1210
ENH4	1210
ENH5	1210
ENH6	1210
ENH7	1210
ENH8	1210
ENH9	949
ENK0	98
ENK1	98
ENK2	98
ENK3	98
ENK4	98
ENK5	98
ENK6	98
ENK7	98
ENK8	1198
ENK9	1198
ENL0	358
ENL1	358
ENL2	358
ENL3	358
ENL4	358
ENL7	451
ENL8	358
ENN0	1120
ENN1	1120
ENN2	1120
ENN3	245
ENN4	245
ENN5	245
ENN6	245
ENN7	245
ENN8	245
ENN9	245
ENP0	245
ENP1	245
ENP2	245

Numerical Index

Art. No.	Page
ENP3	248
ENP4	248
ENP5	248
ENP6	248
ENP7	248
ENP8	248
ENP9	248
ENT0	248
ENT1	248
ENT2	248
ENT3	248
ENT4	248
ENT5	244
ENT6	244
ENT7	244
ENT8	244
ENT9	244
ENX0	244
ENX1	244
ENX2	244
ENX3	244
ENX4	244
ENX5	476
ENX6	427
ENX7	427
ENX8	427
ENX9	341
ENY0	502
ENY1	502
ENY2	501
ENY3	501
ENY4	318
ENY5	318
ENY6	318
ENY7	318
ENY8	318
ENY9	318
EP04	508
EP05	508
EP06	910
EP07	910
EP08	910
EP09	910
EP10	515
EP11	515
EP15	385
EP16	385
EP17	385
EP19	570
EP22	178
EP24	178
EP25	178
EP26	178
EP27	178
EP28	178
EP29	178
EP50	421
EP54	100
EP55	100
EP56	1274
EP57	1071
EP58	1071
EP62	1080
EP63	170
EP64	170
EP66	169
EP67	169
EP68	169
EP69	370
EP70	800
EP72	800
EP74	562
EP75	562
EP76	562
EP81	1444
EP82	1467
EP83	1467
EP84	1372
EP88	637
EP89	637
EP90	637
EP91	637
EP92	637
EP95	547
EP96	547
EP97	547
EP98	547
EPA0	492
EPA1	317
EPA2	317

Art. No.	Page
EPA3	395
EPA4	395
EPA5	1025
EPA6	1025
EPA7	103
EPA8	103
EPA9	337
EPC0	337
EPC1	337
EPC2	337
EPC3	232
EPC4	232
EPC5	232
EPC6	232
EPC7	232
EPC8	232
EPC9	232
EPE0	232
EPE1	232
EPE2	232
EPE3	232
EPE4	232
EPE5	232
EPE6	232
EPE7	234
EPE8	234
EPE9	229
EPH0	229
EPH1	1027
EPH2	1177
EPH3	1027
EPH4	1027
EPH5	1027
EPH6	1026
EPH7	1026
EPH8	1026
EPH9	1026
EPK0	135
EPK1	1021
EPK2	1021
EPK3	1021
EPK4	1021
EPK5	1021
EPK6	1021
EPL0	1020
EPL1	1020
EPL2	1020
EPL4	1023
EPL5	1023
EPL6	1026
EPL7	1026
EPL8	136
EPL9	136
EPN0	136
EPN1	136
EPN2	136
EPN3	136
EPN4	469
EPN5	469
EPN6	470
EPN7	470
EPN8	80
EPN9	234
EPP0	234
EPP1	234
EPP2	234
EPP3	234
EPP4	234
EPP5	233
EPP6	233
EPP7	233
EPP8	233
EPP9	233
EPT0	233
EPT1	233
EPT2	233
EPT3	233
EPT4	231
EPT5	231
EPT6	231
EPT7	231
EPT8	231
EPT9	231
EPX0	231
EPX7	1463
EPX8	1462
EPX9	1462
EPY0	996
EPY1	1094
EPY2	1094

Art. No.	Page
EPY3	1094
EPY4	1094
EPY5	1094
EPY6	1094
EPY7	20
EPY8	20
EPY9	296
ET02	1089
ET03	1089
ET04	1089
ET05	1089
ET06	1089
ET09	445
ET10	445
ET19	1201
ET20	1201
ET21	1201
ET22	1201
ET25	612
ET30	614
ET40	898
ET41	898
ET42	898
ET43	898
ET44	898
ET48	1564
ET50	1566
ET51	1466
ET57	542
ET58	542
ET59	542
ET60	542
ET61	542
ET62	542
ET63	542
ET64	542
ET65	542
ET66	543
ET67	543
ET68	543
ET69	543
ET70	543
ET71	543
ET72	542
ET73	542
ET74	542
ET75	542
ET76	542
ET77	542
ET78	542
ET79	542
ET80	542
ET81	542
ET82	542
ET83	542
ET84	542
ET85	542
ET86	542
ET87	543
ET88	543
ET89	543
ET90	543
ET91	543
ET92	543
ET93	543
ET94	543
ET95	543
ET98	543
ET99	50
ETA0	410
ETA1	410
ETA2	410
ETA3	410
ETA4	410
ETA5	383
ETA6	383
ETA7	225
ETA8	225
ETA9	225
ETC0	225
ETC1	225
ETC2	225
ETC3	225
ETC4	1172
ETC5	469
ETC6	469
ETC7	469
ETC8	472
ETC9	472
ETE2	455

Art. No.	Page
ETE3	455
ETE4	80
ETE5	80
ETE6	80
ETE7	80
ETE8	80
ETE9	80
ETH0	80
ETH1	80
ETH2	80
ETH3	80
ETH4	49
ETH5	49
ETH6	49
ETH7	49
ETH8	49
ETH9	49
ETK0	49
ETK1	49
ETK2	49
ETK3	49
ETK4	107
ETK5	107
ETK6	107
ETK7	37
ETK8	37
ETK9	37
ETL0	37
ETL1	37
ETL2	167
ETL3	167
ETL4	167
ETL5	167
ETL6	37
ETL7	37
ETL8	37
ETL9	37
ETN0	37
ETN1	37
ETN2	37
ETN3	37
ETN4	37
ETN5	37
ETN6	37
ETN7	36
ETN8	36
ETN9	36
ETP0	36
ETP1	36
ETP2	52
ETP3	52
ETP4	75
ETP5	75
ETP6	75
ETP7	75
ETP8	75
ETP9	75
ETT0	75
ETT1	75
ETT2	425
ETT3	1341
ETT4	1341
ETT5	519
ETT6	519
ETT7	519
ETT8	519
ETT9	519
ETX0	519
ETX1	519
ETX2	519
ETX3	518
ETX4	518
ETX5	518
ETX6	518
ETX7	518
ETX8	518
ETX9	518
ETY0	518
ETY1	518
ETY2	518
ETY3	518
ETY4	518
ETY5	571
ETY6	624
ETY7	1038
ETY8	282
ETY9	282
EX00	50
EX01	50
EX02	50

Art. No.	Page
EX03	50
EX04	50
EX06	1277
EX07	1276-1278
EX08	837
EX14	591
EX15	591
EX16	591
EX17	591
EX18	591
EX19	591
EX20	591
EX28	1230
EX29	1230
EX30	1230
EX31	1230
EX32	1230
EX33	1230
EX34	1230
EX35	1230
EX36	1230
EX37	1230
EX38	1230
EX39	1230
EX40	1230
EX41	1230
EX48	369
EX49	369
EX50	593
EX51	593
EX52	593
EX53	593
EX54	593
EX55	593
EX56	593
EX57	593
EX58	593
EX59	593
EX61	593
EX62	1136
EX63	1401
EX64	482
EX65	482
EX66	482
EX67	482
EX96	100, 1400
EX97	100, 1400
EX98	100, 1400
EX99	100, 1400
EXA0	282
EXA1	282
EXA2	282
EXA3	282
EXA4	282
EXA5	282
EXA6	282
EXA7	282
EXA8	487
EXA9	487
EXC0	1213
EXC1	1213
EXC2	1213
EXC3	468
EXC4	468
EXC5	468
EXC6	474
EXC7	474
EXC8	289
EXC9	289
EXE0	428
EXE1	290
EXE2	290
EXE3	290
EXE4	290
EXE5	290
EXE6	290
EXE8	405
EXE9	405
EXH0	405
EXH1	1498
EXH2	408
EXH3	408
EXH4	408
EXH5	408
EXH6	408
EXH7	408
EXH8	408
EXH9	408
EXK0	408
EXK1	47

Art. No.	Page
EXK2	47
EXK3	47
EXK4	51
EXK5	51
EXK6	51
EXK7	62
EXK8	62
EXK9	62
EXL3	962
EXL4	962
EXL5	962
EXL6	962
EXL7	962
EXL8	962
EXL9	962
EXN0	962
EXN1	962
EXN2	962
EXN3	962
EXN4	962
EXN5	962
EXN6	962
EXN7	960
EXN8	960
EXN9	960
EXP0	1083
EXP1	436
EXP2	436
EXP3	436
EXP4	436
EXP5	749
EXP7	32
EXP8	32
EXP9	32
EXT0	961
EXT1	961
EXT2	961
EXT3	961
EXT4	961
EXT5	961
EXT6	961
EXT7	961
EXT8	33
EXT9	33
EXX0	33
EXX1	33
EXX2	33
EXX3	33
EXX4	33
EXX5	33
EXX6	33
EXX9	262
EXY0	32
EXY1	104
EXY2	104
EXY3	104
EXY4	104
EXY5	104
EXY6	104
EXY7	103
EXY8	103
EY00	100, 1400
EY01	100, 1400
EY02	100, 1400
EY03	100, 1400
EY04	100, 1400
EY05	100, 1400
EY37	552
EY38	552
EY39	552
EY40	552
EY41	552
EY42	552
EY43	554
EY44	554
EY45	554
EY46	554
EY47	554
EY48	554
EY49	554
EY52	553
EY53	553
EY54	553
EY55	553
EY56	1083
EY70	136
EY71	136
EY72	136
EY73	136
EY75	1366

Art. No.	Page
EY76	1197
EY77	592
EY78	592
EY79	592
EY80	592
EY81	592
EY82	592
EY83	1392
EY84	1394
EY86	1405
EY98	1322
EY99	1322
EYA0	747
EYA7	748
EYC7	749
EYE1	749
EYE7	1386
EYE8	1386, 1389
EYE9	1386, 1389
EYH0	1389
EYH1	1463
EYH2	978
EYH3	978
EYH4	978
EYH5	978
EYH6	978
EYH7	978
EYH8	978
EYH9	978
EYK0	978
EYK1	978
EYK2	978
EYK3	978
EYK5	977
EYK6	977
EYK7	888
EYL1	890
EYL2	890
EYL3	890
EYL4	889
EYL5	889
EYL6	889
EYN3	961
EYN4	961
EYN5	961
EYN6	961
EYN7	962
EYN8	962
EYN9	962
EYP0	962
EYP1	962
EYP2	1052
EYP3	1052
EYP7	1053
EYP8	1053
EYT2	878
EYT3	889
EYT4	685
EYT5	685
EYT6	1053
EYT7	1053
EYX0	881
EYX1	881
EYX2	881
EYX3	881
EYX4	871
EYX5	871
EYX6	878
EYX7	878
EYX8	878
EYX9	878
EYY0	879
EYY1	878
EYY2	881
EYY3	869
EYY4	869
EYY5	983
EYY6	815
EYY7	815
EYY9	832
H044	39
H045	39
H046	39
H047	39
H048	39
H050	39
H051	39
H052	39
H053	39
H055	39

Numerical Index

Art. No.	Page
H056	39
H057	39
H058	39
H060	39
H061	39
H063	39
H064	39
H066	982
H067	982
H072	602
H075	602
H111	225
H112	225
H113	225
H114	225
H115	225
H116	225
H136	556
H138	556
H140	556
H142	556
H191	588
H192	588
H193	588
H194	588
H195	588
H196	588
H197	588
H202	775
H203	775
H204	775
H205	775
H206	775
H207	775
H208	775
H209	775
H210	775
H211	775
H277	796
H278	796
H279	583
H289	198
H290	198
H291	198
H292	198
H293	198
H294	198
H295	198
H300	82
H301	82
H302	82
H303	82
H304	82
H305	82
H306	82
H307	82
H308	82
H310	1021
H311	1021
H312	175
H313	175
H314	175
H315	175
H316	175
H317	175
H318	175
H319	175
H320	175
H321	175
H322	175
H323	175
H324	175
H325	175
H326	175
H327	175
H328	175
H329	175
H330	175
H331	175
H332	175
H334	160
H335	160
H336	160
H337	160
H338	160
H339	160
H340	160
H341	160
H342	160
H354	1026
H355	1026
H356	72
H357	72
H358	72
H359	72
H360	72
H361	72
H362	72
H363	72
H364	72
H365	72
H366	72
H367	72
H368	72
H369	72
H371	73
H372	73
H373	73
H374	73
H375	73
H376	73
H377	73
H378	73
H379	73
H380	73
H382	73
H384	73
H386	73
H387	73
H388	73
H389	73
H396	58
H397	58
H398	74
H399	74
H400	74
H401	74
H402	74
H403	74
H404	74
H405	74
H406	74
H407	74
H408	74
H409	74
H410	74
H411	74
H412	74
H413	386
H434	748
H439	341
H440	341
H441	341
H442	341
H443	341
H444	341
H452	595
H453	1425
H466	1078
H467	1078
H468	1078
H469	1078
H481	1199
H482	1199
H483	977
H486	977
H489	978
H490	977
H492	975
H493	975
H497	975
H508	995
H511	83
H512	83
H513	83
H514	83
H518	83
H519	83
H520	83
H521	83
H522	83
H524	338
H525	338
H526	338
H527	338
H528	339
H529	338
H530	338
H532	338
H533	338
H534	338
H535	338
H536	338
H537	338
H538	338
H539	338
H540	338
H541	338
H542	338
H543	339
H544	339
H545	339
H546	339
H547	506
H548	455
H549	457
H550	457
H551	457
H552	457
H553	457
H554	457
H557	1510
H558	1510
H559	1510
H560	690
H561	690
H562	690
H563	690
H564	690
H568	1068
H570	1068
H571	1068
H572	1068
H573	1070
H574	1070
H576	1070
H577	1067
H579	459
H580	459
H581	459
H582	459
H583	459
H590	391
H591	453
H612	1272
H613	1272
H615	350
H616	625
H617	625
H618	625
H619	625
H620	625
H621	625
H622	625
H666	387
H679	635
H680	635
H681	635
H682	635
H683	635
H684	635
H685	635
H686	635
H688	635
H689	635
H690	635
H691	635
H692	635
H693	635
H694	635
H696	1443
H698	667
H706	883
H717	1087
H718	1088
H720	385
H721	385
H722	385
H723	1207
H724	1207
H725	1207
H735	1238
H736	995
H745	1244-1247, 1249
H746	1245-1247, 1249
H751	1581
H754	481
H755	481
H760	481
H761	481
H762	481
H763	481
H764	481
H765	481
H767	481
H768	635
H769	681
H770	681
H772	1170
H826	1433
H827	1475
H828	1475
H830	1475
H831	1438
H832	1438
H833	1440
H834	1441
H835	1441
H836	1441
H837	1441
H838	1441
H839	1441
H840	1441
H841	1441
H842	1441
H844	1442
H867	445
H868	442
H869	442
H870	442
H871	442
H872	442
H873	440
H874	440
H875	440
H876	440
H877	440
H878	440
H879	443
H880	443
H882	443
H883	443
H913	1156
H914	1156
H915	1157
H916	1157
H917	1157
H918	1157
H919	1157
H920	1145
H921	1145
H922	1145
H923	1146
H948	1164
H950	460
H951	387
H976	1244, 1248
H977	1037
H992	82
H994	854
H995	47
H996	1244-1247, 1251
H999	548
HA02	1323
HA03	1317
HA05	1322
HA08	1390
HA10	1391
HA16	1390, 1392-1394
HA30	1461
HA31	1461
HA32	1461
HA33	1461
HA34	1097
HA37	946
HA38	135
HA39	581
HA40	581
HA44	454
HA45	454
HA46	454
HA47	454
HA48	454
HA49	454
HA50	453
HA51	453
HA52	985
HA62	1238
HA63	1238
HA64	1277
HA73	108
HA74	108
HA75	108
HA76	108
HA77	108
HA78	108
HA79	108
HA80	108
HA81	108
HA82	108
HA83	108
HA84	108
HA85	108
HA87	107
HA88	107
HA90	107
HA91	107
HA92	107
HA93	107
HA94	107
HA95	107
HA96	107
HA97	107
HA98	107
HA99	107
HAA0	833
HAA1	833
HAA2	833
HAA3	833
HAA4	833
HAA5	833
HAA6	816
HAA7	828
HAA8	828
HAA9	1482
HAC0	1308
HAC1	1308
HAC2	1308
HAC3	1308
HAC4	1308
HAC5	1308
HAC6	528
HAC7	528
HAC8	528
HAC9	528
HAE0	528
HAE1	528
HAE2	1177
HAE3	1177
HAE4	1162
HAE6	685
HAE7	685
HAE8	689
HAE9	689
HAH0	1174
HAH1	1174
HAH2	1174
HAH3	1162
HAH4	1162
HAH8	600
HAK0	600
HAK2	600
HAK3	600
HAK4	600
HAK6	600
HAK9	600
HAL0	931
HAL1	931
HAL2	931
HAL3	931
HAL4	931
HAL5	931
HAL7	931
HAL8	931
HAL9	931
HAN0	931
HAN1	931
HAN2	1099
HAN3	1579
HAN4	546
HAN5	546
HAN6	546-547
HAN7	547
HAN8	547
HAN9	547
HAP0	547
HAP1	1229
HAP2	1229
HAP4	1329
HAX2	1061
HAX5	1061
HAX6	1061
HAX7	1061
HAX8	1061
HAX9	1061
HAY0	1061
HAY1	1061
HAY2	1061
HAY3	1061
HAY4	1061
HAY5	1061
HAY6	1061
HAY7	1061
HAY8	1061
HAY9	1061
HC00	107
HC01	107
HC02	107
HC03	107
HC04	107
HC05	107
HC06	107
HC07	107
HC08	107
HC10	107
HC11	107
HC12	107
HC13	107
HC24	774
HC25	346
HC26	346
HC36	592
HC37	592
HC38	592
HC39	592
HC40	592
HC41	592
HC42	592
HC43	951
HC44	951
HC45	951
HC46	951
HC47	297
HC48	1277-1278
HC50	519
HC51	519
HC52	519
HC53	519
HC55	518
HC58	518
HC61	587
HC62	587
HC63	587
HC64	587
HC65	587
HC66	587
HC67	587
HC68	587
HC69	587
HC70	587
HC71	587
HC72	587
HC73	587
HC74	272
HC75	272
HC76	272
HC77	272
HC78	272
HC79	278
HC80	278
HC81	278
HC82	278
HC83	278
HC84	278
HC85	1421
HC86	1421
HC87	1422
HC88	1422
HC89	1422
HC90	1422
HC93	1422
HC94	574
HC95	571
HCA0	1061
HCA1	1552
HCA2	1552
HCA3	1552
HCA4	1552
HCA5	1552
HCA6	1552
HCA7	1562
HCA8	1561
HCA9	1561
HCC0	1561
HCC1	1561
HCC7	134
HCC8	256
HCC9	256
HCE0	256
HCE1	256
HCE2	256
HCE5	1362
HCE6	1362
HCE7	1340
HCE8	1340
HCE9	1340
HCH0	1340
HCH1	1309
HCH2	1309
HCH3	1309
HCH4	1309
HCH5	1309
HCH6	1309
HCH7	1309
HCH8	1309
HCH9	1309
HCK0	1309
HCK1	1391
HCK2	1361
HCK3	1361
HCK4	1361
HCK5	1361
HCK6	1361
HCK7	1361
HCK8	1361
HCK9	1361
HCL0	388
HCL1	472
HCL2	472
HCL3	472
HCN1	1036
HCN3	1036
HCN4	495
HCN5	495
HCN6	495
HCN7	330
HCN8	427
HCN9	427
HCP0	494
HCP1	494
HCP2	494
HCP3	495
HCP4	495
HCP5	490
HCP6	490
HCP7	490
HCP8	492
HCP9	490
HCT0	490
HCT2	494
HCT5	491
HCT6	491
HCT7	488
HCT8	488
HCT9	488
HCX0	488
HCX1	488
HCX2	488
HCX3	488
HCX4	488
HCX5	488
HCX7	488
HCY0	493
HCY1	503
HCY2	458
HCY7	480
HCY8	500
HCY9	500
HE00	359
HE01	359
HE03	359
HE06	1066
HE09	1482
HE10	1482
HE11	1482
HE12	1482

Numerical Index

Art. No.	Page
HE13	1482
HE14	1482
HE15	1037
HE23	681
HE28	1502
HE29	1503
HE30	1502
HE31	1503
HE32	1502
HE33	1503
HE34	1503
HE35	1503
HE36	1502
HE37	1502
HE38	1503
HE39	1502
HE40	1503
HE41	1502
HE42	1503
HE43	1502
HE44	1503
HE45	1503
HE46	1502
HE47	1503
HE61	885
HE62	992
HE63	992
HE64	992
HE65	992
HE66	992
HE67	992
HE68	914
HE69	914
HE70	914
HE71	914
HE72	914
HE73	921
HE74	922
HE75	922
HE76	922
HE81	785-786
HE82	785-786
HE83	785-786
HE84	785-786
HE94	858
HE95	859
HE98	857
HEA0	500
HEA1	500
HEA2	500
HEA3	500
HEA5	311
HEA6	309
HEA7	1479
HEA8	1481
HEA9	1481
HEC1	654
HEC2	654
HEC6	291
HEC7	473
HEC8	1030
HEC9	1030
HEE0	1030
HEE1	1030
HEE2	1032
HEE3	1032
HEE4	1032
HEE5	1032
HEE6	1032
HEE7	1032
HEE8	102
HEE9	102
HEH0	1205
HEH1	1205
HEH2	1205
HEH3	1205
HEH4	1463
HEH5	1463
HEH6	1319
HEH7	1320
HEH8	1320
HEH9	1320
HEK0	1320
HEK1	1320
HEK2	171
HEK3	171
HEK4	171
HEK6	171
HEK7	171
HEK8	171
HEK9	171
HEL0	171
HEL1	171
HEL2	171
HEN0	103
HEN1	908
HEN2	908
HEN3	908
HEN4	908
HEN5	908
HEN6	143
HEN7	143
HEN8	143
HEN9	143
HEP0	143
HEP1	143
HEP2	143
HEP4	296
HEP5	296
HEP6	312
HEP7	312
HEP8	516
HEP9	516
HET0	517
HET1	517
HET2	517
HET3	517
HET4	516
HET5	516
HET6	517
HET7	517
HET8	517
HET9	517
HEX0	544
HEX1	544
HEX2	544
HEY3	302
HEY4	302
HEY5	302
HEY6	488
HEY7	488
HEY8	488
HEY9	488
HH00	857
HH01	857
HH14	148
HH15	148
HH16	148
HH17	148
HH18	1284
HH19	1284
HH20	1284
HH21	1284
HH22	1284
HH23	1284
HH28	1129
HH29	910
HH30	910
HH31	910
HH32	910
HH50	822
HH51	822
HH55	1582
HH56	1582
HH57	1582
HH58	1582
HH59	1582
HH60	1080
HH64	1434
HH66	1377
HH67	1377
HH73	900
HH74	900
HH75	900
HH76	900
HH77	900
HH78	33
HH79	33
HH80	1141
HH81	1141
HH82	1141
HH83	1141
HH84	1141
HH85	1141
HH86	1141
HH87	1140
HH88	1140
HH89	1140
HH90	1140
HH91	1140
HH92	1140
HH93	1140
HH94	1140
HH95	1140
HH96	1140
HH97	1140
HH98	1140
HH99	1140
HHA0	473
HHA1	395
HHA2	1007
HHA3	1007
HHA4	1007
HHA5	1007
HHA6	1007
HHA7	1007
HHA8	1007
HHA9	1007
HHC0	1007
HHC1	1007
HHC2	1007
HHC3	1007
HHC5	1007
HHC6	1007
HHC7	1007
HHC8	1007
HHC9	1050
HHE0	395
HHE1	1050
HHE7	1051
HHE8	1051
HHH3	1051
HHH7	1513
HHH8	1513
HHH9	1513
HHK0	1513
HHK1	1514
HHK2	1514
HHK3	1514
HHK4	1514
HHK5	1300
HHK6	1299
HHK7	382
HHK8	382
HHK9	382
HHL0	382
HHL1	382
HHL2	382
HHL3	382
HHL4	382
HHL5	382
HHL6	382
HHL7	382
HHL8	382
HHL9	382
HHN0	1232
HHN1	1232
HHN3	1233
HHN4	884
HHN5	884
HHN6	884
HHN7	1233
HHN8	849
HHN9	849
HHP0	849
HHP1	1438
HHP2	1438
HHT7	827
HHT8	827
HHT9	827
HHX0	824
HHX1	824
HHX2	824
HHX3	824
HHX4	811
HHX5	363
HHY1	1104
HHY2	850
HHY3	850
HHY4	850
HHY5	446
HHY7	1297
HHY8	1297
HHY9	1289
HK00	637
HK01	637
HK02	637
HK03	1140
HK04	772
HK05	772
HK06	772
HK07	772
HK08	772
HK09	772
HK10	772
HK11	772
HK12	772
HK13	772
HK14	772
HK15	772
HK16	772
HK17	772
HK18	772
HK19	772
HK20	772
HK21	772
HK22	772
HK23	772
HK24	772
HK25	772
HK26	772
HK27	772
HK28	772
HK29	772
HK30	772
HK31	772
HK32	772
HK33	772
HK34	772
HK35	772
HK36	772
HK37	772
HK38	772
HK43	1200
HK44	1200
HK45	766
HK46	766
HK47	766
HK48	766
HK49	766
HK50	766
HK51	766
HK52	766
HK53	766
HK54	766
HK55	766
HK56	766
HK57	773
HK58	773
HK59	773
HK60	773
HK61	773
HK62	773
HK63	773
HK64	773
HK65	773
HK66	773
HK67	773
HK68	773
HK69	773
HK70	773
HK71	773
HK72	773
HK73	773
HK74	773
HK75	773
HK76	773
HK80	772
HK81	772
HK82	772
HK83	772
HK84	772
HK85	772
HK92	1205
HK93	1205
HK97	1205
HK99	1205
HKA0	1104
HKA1	1104
HKA2	1104
HKA3	1104
HKA4	660
HKA5	660
HKA6	660
HKE0	573
HKE1	573
HKE2	573
HKE4	440
HKE5	440
HKE6	440
HKE7	440
HKE8	440
HKE9	440
HKH0	440
HKH1	440
HKH2	440
HKH3	440
HKH4	440
HKH5	440
HKH6	440
HKH7	440
HKK8	261
HKK9	261
HKL0	261
HKL1	25
HKL2	25
HKL3	25
HKL4	25
HKL5	748
HKL8	550
HKL9	550
HKN0	550
HKN1	550
HKN2	550
HKN3	550
HKN4	550
HKN5	550
HKN6	550
HKN7	550
HKN8	550
HKN9	550
HKP0	550
HKP1	550
HKP2	550
HKP7	1008
HKP8	1008
HKP9	1008
HKT0	1008
HKT1	1006
HKT2	1006
HKT3	1142
HKT4	1142
HKT5	1142
HKT6	1142
HKT7	1142
HKT8	1142
HKT9	1142
HKX0	1141
HKX1	1141
HKX2	1141
HKX3	1141
HKX4	1090
HKX5	1090
HKX6	1090
HKX7	1090
HKX8	1090
HKX9	1090
HKY0	1090
HKY1	1090
HKY2	1090
HKY3	1090
HKY4	1090
HKY5	1090
HKY6	1090
HKY7	1090
HKY8	1090
HKY9	1090
HL00	1205
HL02	1205
HL05	1205
HL06	1444
HL07	1444
HL08	1444
HL09	1444
HL10	1444
HL11	1445
HL12	1440, 1445
HL13	1440, 1445
HL14	1440, 1445
HL15	1440, 1445
HL16	1440, 1445
HL17	1440, 1445
HL20	1146
HL41	517
HL42	517
HL43	517
HL50	1200
HL51	163
HL52	163
HL54	163
HL55	163
HL57	163
HL58	163
HL59	163
HL61	163
HL63	473
HL64	473
HL65	660
HL67	660
HL68	660
HL70	661
HL71	661
HL73	657
HL74	657
HL75	657
HL76	657
HL77	520
HL85	1221
HL86	1221
HL97	453
HL98	453
HL99	48
HLA0	1090
HLA1	1090
HLA2	458
HLA6	456
HLA7	456
HLC0	431
HLC1	431
HLC2	1074
HLC3	620
HLC4	620
HLC5	620
HLC6	620
HLC7	620
HLC8	622
HLC9	622
HLE0	622
HLE1	622
HLE2	622
HLE3	622
HLE4	622
HLE5	622
HLE6	622
HLE7	622
HLE8	622
HLH7	623
HLK2	675
HLK3	675
HLK5	635
HLK6	635
HLK7	635
HLL3	851
HLL4	851
HLL5	851
HLL6	963
HLL7	736
HLL8	736
HLL9	736
HLN0	736
HLN1	1389
HLN2	1389
HLN3	1389
HLN4	837
HLN6	861
HLN7	861
HLN8	861
HLN9	861
HLP0	861
HLP1	861
HLP2	861
HLP3	861
HLP4	900
HLP5	900
HLP6	900
HLP7	900
HLP8	891
HLP9	891
HLT0	891
HLT1	891
HLT2	891
HLT3	890
HLT4	890
HLT5	890
HLT6	890
HLT7	890
HLT8	907
HLX0	703
HLX1	703
HLX2	703
HLX3	703
HLX4	703
HLX5	703
HLX8	1003
HLX9	1003
HLY1	1003
HLY2	1003
HLY4	1003
HLY5	1003
HLY6	808
HLY7	546
HLY9	421
HNA1	1052
HNA2	1049
HNA3	908
HNA4	908
HNA5	908
HNA6	908
HNA7	909
HNA8	909
HNA9	909
HNC0	909
HNC1	909
HNC2	908
HNC3	908
HNC4	908
HNC5	908
HNC6	992
HNC7	992
HNC8	992
HNC9	935
HNE0	935
HNE2	935
HNE3	935
HNE4	935
HNH0	1029
HNH1	1029
HNH2	1056
HNH3	1059
HNH5	1057
HNH6	1057
HNH7	1057
HNH8	1057
HNH9	1269
HNK0	1076
HNK1	1076
HNK2	1076
HNK3	48
HNK4	48
HNK5	48
HNK6	48
HNK7	48
HNK8	48
HNK9	48
HNL0	48
HNL1	48
HNL2	48
HNL3	48
HNL4	48
HNL5	48
HNL6	48
HNL7	48
HNL8	48
HNL9	48
HNN0	48
HNN1	56
HNN2	56
HNN3	981
HNN4	981
HNN5	1109
HNN8	1108
HNN9	1110
HNP0	1110
HNP1	989
HNP2	989
HNP3	989
HNP4	989
HNP5	1568
HNP6	1489
HNP7	1489
HNP8	1490
HNP9	1490
HNT0	1490
HNT1	1490
HNT2	1490
HNT3	1490
HNT4	1490
HNT5	891
HNT6	891
HNT7	891

Numerical Index

Art. No.	Page
HNT8	891
HNT9	891
HNX0	891
HNX1	283
HNX2	283
HNX3	283
HNX4	283
HNX5	283
HNX6	283
HNX7	1016
HNX8	1023
HNX9	436
HNY0	355
HNY1	696
HNY2	696
HNY3	126
HNY4	126
HNY8	1523
HNY9	1145
HPA0	1145
HPA1	1145
HPA2	1145
HPA3	1146
HPA4	1146
HPA5	1392
HPA6	1265
HPA7	1335, 1350
HPC4	1224
HPC5	1224
HPC6	1236
HPC7	1160
HPC8	1180
HPC9	1180
HPE1	1045
HPE2	1045
HPE3	1045
HPE4	1045
HPE5	1045
HPE6	1045
HPE7	1045
HPE8	1045
HPE9	1044
HPH0	1044
HPH1	1044
HPH2	1044
HPH3	1044
HPH4	1044
HPH5	1044
HPH6	1044
HPH7	1044
HPH8	1044
HPH9	1044
HPK0	1269
HPK1	1269
HPK2	1269
HPK3	1269
HPK4	1187
HPK6	1186
HPL1	768, 1561
HPL2	768, 1561
HPL3	768, 1561
HPL4	768, 1561
HPL5	768, 1561
HPL6	768, 1561
HPL7	1181
HPL8	1181
HPL9	1181
HPN0	1181
HPN6	127
HPN7	127
HPN8	127
HPN9	127
HPP0	127
HPP1	127
HPP2	127
HPP3	127
HPP4	127
HPP5	127
HPP6	127
HPP7	127
HPP9	1213
HPT0	1213
HPT1	1215
HPT2	1215
HPT3	1215
HPT4	1215
HPT5	1215
HPT6	1215
HPT7	1215
HPT8	1215
HPT9	414
HPX0	442
HPX1	442
HPX2	442
HPX3	698
HPX4	698
HPX5	698
HPX6	403
HPX7	1235
HPX8	500
HPX9	500
HPY0	500
HPY1	500
HPY2	500
HPY3	500
HPY4	309
HPY5	309
HPY6	309
HPY7	300
HPY8	300
HPY9	300
HT00	48
HT01	48
HT02	48
HT03	522
HT04	522
HT05	285
HT06	285
HT07	135
HT08	135
HT09	135
HT10	135
HT11	50
HT12	50
HT13	50
HT14	50
HT15	50
HT16	50
HT19	1208
HT20	1208
HT21	1208
HT23	846
HT24	1188
HT25	985
HT26	985
HT27	506
HT28	506
HT29	506
HT30	506
HT31	506
HT32	1083
HT33	257
HT34	257
HT35	257
HT36	257
HT37	257
HT38	257
HT39	379
HT40	379
HT41	379
HT42	379
HT43	379
HT44	971
HT45	971
HT52	423
HT53	423
HT54	423
HT55	173
HT56	173
HT57	173
HT58	173
HT59	173
HT60	173
HT65	670
HT66	670
HT67	670
HT68	670
HT69	670
HT70	670
HT71	670
HT78	1109
HT83	384
HT84	183
HT85	183
HT86	183
HT87	183
HT88	183
HT89	183
HT90	13
HT91	13
HT92	13
HT93	13
HT94	13
HT95	13
HT96	13
HT97	461
HT98	461
HTA0	657
HTA1	657
HTA2	1010
HTA3	1010
HTA4	1454
HTA5	1454
HTC0	1354
HTC1	1455
HTC2	1455
HTC3	1455
HTC4	1455
HTC5	1455
HTC6	1455
HTC7	1455
HTC8	1455
HTE0	1044
HTE1	1044
HTE2	1044
HTE4	1160
HTE5	1160
HTE6	1160
HTE7	575
HTE8	1188
HTE9	487
HTH0	487
HTH1	922
HTH2	922
HTH3	774
HTH4	774
HTH5	774
HTH6	774
HTH7	774
HTH8	774
HTH9	774
HTK0	774
HTK1	774
HTK2	774
HTK3	774
HTK4	774
HTK5	774
HTK6	774
HTK7	764
HTK8	764
HTK9	764
HTL0	764
HTL1	764
HTL2	764
HTL3	764
HTL4	764
HTN2	764
HTN3	764
HTN5	764
HTN6	764
HTN7	764
HTN8	764
HTN9	764
HTP0	764
HTP1	764
HTP2	764
HTP3	764
HTP5	764
HTP6	764
HTP7	764
HTP8	764
HTT3	284
HTT4	284
HTT5	284
HTT6	284
HTT7	284
HTT8	284
HTT9	284
HTX0	1126
HTX1	464
HTX2	464
HTX5	1324
HTX6	1013
HTX7	1013
HTX8	1014
HTX9	1014
HTY0	1014
HTY1	1014
HTY2	1014
HTY3	1014
HTY4	1014
HTY5	1014
HTY6	1015
HTY7	1015
HTY8	1015
HTY9	1015
HX01	356
HX02	356
HX07	271
HX08	271
HX09	271
HX10	271
HX11	271
HX12	271
HX13	271
HX14	271
HX15	271
HX16	271
HX17	271
HX18	271
HX22	168
HX23	168
HX24	168
HX25	351
HX26	14
HX27	14
HX28	14
HX32	969
HX33	969
HX34	969
HX35	969
HX36	970
HX37	970
HX38	970
HX39	970
HX40	970
HX41	970
HX42	970
HX43	970
HX44	970
HX45	970
HX46	970
HX47	970
HX48	970
HX49	970
HX50	970
HX51	970
HX52	970
HX53	970
HX54	970
HX55	970
HX56	970
HX57	289
HX58	99
HX59	99
HX60	201
HX61	201
HX64	534
HX65	534
HX73	244
HX77	605
HX78	605
HX79	605
HX80	632
HX81	632
HX82	631
HX84	62
HX85	62
HX86	62, 71
HX87	62, 71
HX88	62, 71
HX89	62, 71
HX94	1286
HX95	301
HX96	301
HX97	301
HX98	301
HX99	301
HXA0	1016
HXA1	1016
HXA2	1016
HXA3	1016
HXA8	1184
HXA9	1184
HXC0	1189
HXC1	1091
HXC2	1091
HXC3	1091
HXC6	392
HXE0	393
HXE1	393
HXE2	393
HXE3	1043
HXE4	1043
HXE6	391
HXE7	391
HXE8	391
HXE9	392
HXH0	518
HXH1	518
HXH4	1550
HXH5	1550
HXH6	1431
HXH7	606
HXH8	606
HXK1	888
HXK2	888
HXK3	888
HXK4	888
HXK5	616
HXK6	616
HXK7	616
HXK8	616
HXK9	616
HXL0	616
HXL1	616
HXL2	616
HXL3	616
HXL4	616
HXL5	616
HXL6	616
HXL7	616
HXL8	616
HXL9	619
HXN0	619
HXN1	615
HXN2	615
HXN3	615
HXN4	615
HXN6	616
HXN9	616
HXP0	616
HXP3	616
HXP4	616
HXP5	616
HXP7	616
HXP8	617
HXP9	617
HXT0	617
HXT1	617
HXT2	617
HXT3	617
HXT4	617
HXT5	617
HXT6	617
HXT7	617
HXT8	617
HXT9	617
HXX0	617
HXX1	617
HXX2	621
HXX3	621
HXX4	621
HXX5	621
HXX6	621
HXX7	621
HXX8	621
HXX9	621
HXY0	621
HXY1	621
HXY2	621
HXY3	621
HXY4	621
HXY5	621
HXY6	621
HXY7	621
HXY8	621
HXY9	621
HY00	301
HY01	301
HY02	301
HY03	301
HY04	301
HY05	299
HY06	299
HY07	299
HY08	299
HY09	299
HY10	101
HY13	386
HY14	386
HY15	551
HY16	548
HY19	1279
HY26	254
HY27	254
HY28	254
HY29	254
HY30	254
HY31	934
HY32	936
HY36	981
HY37	981
HY38	981
HY42	1138
HY43	1138
HY44	1131
HY45	251
HY46	251
HY47	251
HY48	251
HY49	206
HY50	206
HY56	1178
HY58	1162
HY59	1163
HY61	1185
HY62	1185
HY63	1182
HY64	1182
HY65	1352
HY66	1174
HY67	1174-1175
HY68	1174-1175
HY89	1352
HY90	1559
HY91	1559
HY92	1559
HY93	1559
HY94	1559
HY95	1559
HY96	1559
HY97	1559
HY98	1559
HY99	1559
HYA0	621
HYA1	621
HYA2	621
HYA3	621
HYA4	621
HYA5	621
HYA6	621
HYA7	620
HYA8	620
HYA9	620
HYC0	620
HYC1	620
HYC2	620
HYC3	620
HYC4	620
HYC5	620
HYC6	620
HYC7	620
HYC8	620
HYC9	620
HYE0	620
HYE1	620
HYE2	620
HYE3	620
HYE4	620
HYE5	620
HYE6	619
HYE7	179
HYE8	179
HYE9	179
HYH0	179
HYH1	179
HYH2	410
HYH3	410
HYH4	410
HYH5	410
HYH6	410
HYH7	179
HYH8	184
HYH9	184
HYK0	180
HYK1	180
HYK2	180
HYK3	180
HYK4	1468
HYK5	1468
HYK6	1462
HYK7	1418
HYK8	1418
HYK9	1554
HYL0	1553
HYL1	1553
HYL2	81, 185
HYL3	81, 185
HYL4	823
HYL5	823
HYL6	823
HYL7	827
HYL9	825
HYN0	827
HYN2	357
HYN3	357
HYN4	357
HYN5	357
HYN6	345
HYN7	345
HYN8	1029
HYN9	451
HYP0	451
HYP1	451
HYP2	451
HYP3	451
HYP4	451
HYP6	654
HYP7	653
HYP8	653
HYP9	653
HYT0	628
HYT1	628
HYT2	288
HYT3	288
HYT4	288
HYT5	288
HYT6	288
HYT7	288
HYT8	287
HYT9	287
HYX0	287
HYX1	287
HYX2	287
HYX3	287
HYX4	999
HYX5	822
HYX6	999
HYX7	999
HYX8	999
HYX9	999
HYY0	1000
HYY1	1000
HYY2	1000
HYY4	1000
HYY5	1000
HYY6	999
HYY7	999
HYY8	999
HYY9	999
K007	1574
K072	1411
K073	1411
K074	1411
K075	1411
K076	1411
K077	1411
K078	1411
K079	1411
K080	1411
K081	1411
K082	345
K083	345
K084	345
K085	345
K086	345
K087	369
K088	369
K094	62
K095	62
K113	459
K114	459
K115	459
K116	459
K117	459
K120	414
K121	414
K122	414
K128	808

Numerical Index

Art. No.	Page
K130	859
K138	655
K150	385
K151	385
K152	385
K153	385
K154	1026
K155	1026
K156	1026
K157	1026
K159	1026
K164	968
K165	945
K166	945
K172	1247
K173	913
K174	913
K175	913
K178	961
K179	936
K182	205
K183	205
K184	205
K185	205
K186	205
K187	205
K188	205
K189	205
K190	205
K191	205
K192	205
K193	205
K194	205
K195	205
K196	205
K197	205
K198	205
K211	116
K212	116
K214	978
K222	116
K223	109
K224	109
K225	109
K226	109
K227	109
K228	109
K229	109
K230	109
K231	109
K232	109
K233	109
K234	109
K235	109
K236	109
K243	255
K244	255
K245	255
K246	255
K247	255
K248	105
K249	105
K250	105
K251	105
K252	105
K253	105
K254	105
K255	24
K256	24
K257	24
K258	24
K259	24
K260	24
K261	24
K262	24
K263	217
K264	217
K265	217
K266	217
K267	228
K268	228
K269	228
K270	228
K271	228
K272	228
K273	228
K274	228
K275	228
K276	228
K277	228

Art. No.	Page
K278	228
K279	386
K280	132, 988
K290	914
K291	914
K292	914
K293	914
K315	656
K325	967
K326	449
K327	449
K329	449
K331	449
K335	450
K336	1039
K337	465
K338	465
K339	462
K340	462
K341	462
K342	462
K343	465
K344	466
K345	990
K347	898
K348	898
K349	898
K350	898
K351	898
K352	957
K353	957
K363	413
K364	413
K367	413
K368	413
K371	413
K372	413
K375	413
K376	413
K377	413
K378	413
K379	414
K381	414
K382	414
K385	413
K387	413
K388	413
K389	414
K390	413
K392	413
K393	413
K395	414
K396	414
K397	414
K416	895
K417	895
K418	895
K419	895
K427	415
K428	415
K429	415
K430	415
K431	415
K436	968
K440	968
K441	968
K442	968
K443	968
K444	968
K445	968
K446	968
K447	968
K454	1247
K455	1247-1248
K456	1247, 1250, 1252
K457	1247, 1250
K458	1247, 1251
K459	1247
K492	1015
K493	1015
K494	1015
K495	1015
K496	365
K522	1002
K524	1002
K532	451
K533	451
K534	451
K535	451

Art. No.	Page
K536	451
K540	451
K541	451
K542	451
K544	451
K551	350
K552	350
K554	350
K556	968
K557	968
K562	960
K564	960
K565	961
K566	961
K568	961
K571	1024
K572	1024
K573	201
K575	201
K578	314
K579	314
K580	314
K581	314
K583	314
K585	360
K586	360
K587	360
K588	360
K589	360
K590	360
K591	360
K592	360
K593	360
K594	360
K595	360
K596	360
K608	417
K609	417
K610	417
K611	417
K612	417
K613	417
K614	283
K615	283
K616	283
K617	283
K618	34
K620	201
K621	201
K622	201
K623	201
K625	1019
K626	906
K633	141
K634	141
K635	141
K636	141
K637	141
K638	141
K640	141
K642	141
K643	141
K644	138
K645	138
K646	138
K647	138
K648	139
K649	139
K651	138
K652	138
K653	139
K654	139
K655	142
K656	142
K657	142
K658	142
K659	142
K660	142
K661	142
K662	142
K663	142
K664	142
K665	166
K666	166
K667	166
K668	166
K669	166
K670	166
K671	166
K672	166

Art. No.	Page
K673	166
K674	166
K682	174
K683	174
K684	174
K685	174
K686	174
K687	174
K688	174
K693	174
K694	174
K695	174
K696	174
K697	174
K698	174
K699	174
K700	174
K701	174
K702	174
K703	174
K704	174
K705	1365
K715	188
K716	188
K717	474
K718	474
K719	474
K720	474
K722	308
K723	308
K728	308
K729	308
K730	308
K731	308
K732	422
K733	300
K734	299
K745	299
K746	299
K747	299
K748	299
K749	299
K750	299
K751	299
K752	54
K753	54
K760	176
K761	176
K762	176
K763	176
K764	176
K765	176
K778	283
K779	283
K790	283
K791	283
K792	283
K793	283
K794	283
K811	152
K812	152
K813	152
K814	152
K815	152
K816	152
K817	152
K818	351
K819	351
K820	351
K821	351
K822	351
K823	351
K824	351
K825	351
K826	351
K827	351
K828	337
K829	337
K830	337
K833	340
K834	340
K835	340
K836	340
K837	272
K838	272
K839	272
K840	272
K841	272
K842	272
K843	272

Art. No.	Page
K844	272
K845	272
K846	25
K847	25
K848	25
K849	25
K850	25
K851	25
K852	25
K853	25
K855	1394
K856	1394
K859	1394
K864	222
K865	222
K866	222
K867	222
K868	222
K869	222
K870	222
K871	222
K879	1556
K931	945
K932	945
K934	945
K935	110
K936	110
K937	110
K938	110
K939	110
K940	110
K941	117
K943	117
K944	117
K945	117
K946	117
K947	117
K948	117
K949	117
K956	1579
K961	912
K962	912
K963	912
K964	912
K965	1039
K966	895
K967	895
K968	895
K969	895
K970	916
K971	916
K980	140
K981	140
K982	140
K983	140
K984	140
K989	332
K993	336
K994	429
KA00	1559
KA07	773
KA08	773
KA09	773
KA10	773
KA11	773
KA12	526
KA13	526-527
KA14	526-527
KA17	1049
KA18	1049
KA26	1278
KA31	817
KA32	1099
KA33	1099
KA34	1087
KA38	1125
KA39	151
KA40	151
KA43	1440, 1445
KA53	600
KA60	856
KA62	830
KA68	1323
KA69	1294
KA70	1294
KA71	1294
KA72	1294
KA73	1294
KA74	1294
KA75	1294

Art. No.	Page
KA76	1294
KA77	1294
KA78	1441
KA79	1441
KA80	817
KA82	831
KA83	831
KA84	745
KA85	745
KA86	745
KA89	746
KA90	746
KA91	151
KA92	151
KA93	151
KA94	151
KA95	169
KA96	169
KA97	169
KA98	169
KA99	1458
KAA0	999
KAA1	999
KAA2	999
KAA3	999
KAA4	997
KAA5	997
KAA6	1255
KAA7	1255
KAA8	1375
KAA9	915
KAC0	915
KAC1	915
KAC2	915
KAC3	915
KAC4	1544
KAC5	1544
KAC6	1215
KAC7	1215
KAC8	1215
KAC9	1215
KAE0	1215
KAE1	1215
KAE2	1215
KAE3	1216
KAE4	1216
KAE5	1216
KAE6	1216
KAE7	1216
KAE8	1216
KAE9	1216
KAH0	1216
KAH1	1216
KAH2	1216
KAH3	1216
KAH4	1216
KAH5	1216
KAH6	1216
KAH7	1216
KAH8	1216
KAH9	1216
KAK0	1216
KAK1	1216
KAK2	1216
KAK5	1404
KAK6	1404
KAK7	1404
KAK8	1405
KAK9	1405
KAL0	1405
KAL1	863
KAL2	866
KAL3	866
KAL4	868
KAL5	863
KAL6	868
KAL7	866
KAL8	871
KAL9	871
KAN0	992
KAN2	993
KAN3	993
KAN4	993
KAN5	993
KAN6	993
KAN7	993
KAN8	446
KAN9	503
KAP0	423
KAP1	423

Art. No.	Page
KAP2	423
KAP3	473
KAP4	499
KAP5	499
KAP6	499
KAP7	493
KAP8	480
KAP9	422
KAT0	303
KAT1	303
KAT2	331
KAT3	489
KAT4	489
KAT5	490
KAT6	491
KAT7	482
KAT8	309
KAT9	468
KAX0	468
KAX1	468
KAX2	468
KAX3	308
KAX4	308
KAX5	495
KAX7	1462
KAX8	1324
KAX9	863
KAY0	1159
KAY1	1159
KAY2	1159
KAY3	36
KAY4	36
KAY5	1003
KAY6	1403
KAY7	913
KAY8	913
KAY9	913
KC00	1458
KC01	1458
KC02	1458
KC03	288
KC04	288
KC05	288
KC06	288
KC07	664
KC08	664
KC09	664
KC10	652
KC11	1540
KC12	1540
KC15	1283
KC16	1283
KC17	1283
KC18	1283
KC50	1068
KC51	1068
KC60	712
KC61	712
KC62	715
KC63	715
KC64	713
KC65	713
KC66	714
KC67	714
KC68	714
KC69	714
KC70	712
KC71	712
KC72	715
KC73	715
KC74	713
KC75	713
KC76	714
KC77	714
KC78	714
KC79	714
KC80	712
KC81	712
KC82	715
KC83	715
KC84	713
KC85	713
KC86	714
KC87	714
KC88	714
KC89	714
KC90	715
KC91	715
KC92	713
KC93	713

Numerical Index

Art. No.	Page
KC94	714
KC95	714
KC96	714
KC97	714
KC98	709
KC99	709
KCA0	913
KCA1	783-784
KCA2	783-784
KCA3	783-784
KCA4	783-784
KCA5	783-784
KCA6	783-784
KCA7	782
KCA8	782
KCA9	782
KCC0	782
KCC1	782
KCC2	782
KCC3	782
KCC4	782
KCC5	782
KCC6	782
KCC7	781
KCC8	781-782
KCC9	781-782
KCE0	781-782
KCE1	781-782
KCE3	779
KCE4	779
KCE5	779
KCE6	779
KCE7	779
KCE8	779
KCH1	780
KCH2	780
KCH3	937
KCH4	937
KCH5	937
KCH7	853
KCH8	853
KCH9	853
KCK0	853
KCK1	853
KCK2	853
KCK3	853
KCK4	853
KCK5	853
KCK7	968
KCK8	968
KCK9	968
KCL0	964
KCL1	964
KCL2	964
KCL3	964
KCL4	964
KCL5	61
KCL6	61
KCL7	61
KCL9	57
KCN0	57
KCN1	1173
KCN2	57
KCN3	57
KCN4	57
KCN5	59
KCN6	52
KCN7	52
KCN8	52
KCN9	52
KCP0	52
KCP1	52
KCP2	52
KCP3	53
KCP4	53
KCP5	53
KCP6	53
KCP9	59
KCT0	49
KCT1	1001
KCT2	1001
KCT3	882
KCT4	1240
KCT5	1330
KCT6	1330
KCT7	1330
KCT8	1330
KCT9	1342
KCX0	1342
KCX1	1342
KCX2	1342
KCX3	1159
KCX4	1159
KCX5	1245, 1252
KCX6	1246, 1252
KCX7	1246, 1252
KCX8	1247, 1252
KCX9	1246-1247, 1250, 1252
KCY0	441
KCY1	441
KCY2	441
KCY3	441
KCY4	441
KCY5	441
KCY6	36
KCY7	36
KCY8	1567
KCY9	893
KE00	709
KE08	1142
KE09	1142
KE22	655
KE23	656
KE24	656
KE26	84
KE27	84
KE28	84
KE29	84
KE30	84
KE31	84
KE32	84
KE33	84
KE34	84
KE35	84
KE36	84
KE37	84
KE38	84
KE39	84
KE40	84
KE41	85
KE42	85
KE43	85
KE44	85
KE45	85
KE48	1371
KE51	55
KE52	63
KE53	63
KE54	63
KE55	63
KE56	63
KE57	63
KE59	1083
KE62	1565
KE63	1565
KE64	1565
KE65	1565
KE66	1564
KE67	1564
KE68	1564
KE69	1565
KE70	1565
KE71	1565
KE72	1565
KE73	895
KE74	895
KE75	895
KE76	895
KE77	932
KE78	932
KE79	932
KE80	932
KE81	932
KE82	932
KE87	1359
KE88	1359
KE89	1359
KE90	1359
KE91	1359
KE92	1359
KE93	1359
KE94	1359
KE95	1359
KE96	1359
KE97	1359
KE98	1359
KE99	1359
KEA0	893
KEA1	893
KEA2	893
KEA3	893
KEA4	1326
KEA5	1326
KEA6	1326
KEA7	1326
KEA8	1326
KEA9	1326
KEC0	1326
KEC1	1326
KEC2	1326
KEC3	1326
KEC4	1326
KEC5	1326
KEC6	1098
KEC7	1550
KEC8	1487
KEC9	1549
KEE1	1155
KEE2	1155
KEE3	1155
KEE4	1155
KEE5	1155
KEE6	1155
KEE7	1479
KEE8	1479
KEE9	1479
KEH0	1479
KEH1	1204
KEH2	1204
KEH3	1204
KEH4	1204
KEH5	1204
KEH6	1204
KEH7	1204
KEH8	1204
KEH9	1204
KEK0	1204
KEK1	1204
KEK2	1204
KEK3	1204
KEK4	1150
KEK5	1150
KEK6	1150
KEK7	1150
KEK8	1150
KEK9	1150
KEL0	1150
KEL1	1150
KEL2	1150
KEL3	1150
KEL4	1150
KEL5	1150
KEL6	1150
KEL7	1150
KEL8	1151
KEL9	1151
KEN0	1151
KEN1	1151
KEN2	1151
KEN3	1151
KEN5	1151
KEN6	1151
KEN7	1151
KEN8	1151
KEN9	1151
KEP0	1151
KEP1	1151
KEP2	1151
KEP3	1152
KEP4	1152
KEP5	1152
KEP6	1152
KEP7	1152
KEP8	1152
KEP9	1152
KET0	1152
KET2	1152
KET3	1152
KET4	1152
KET5	1152
KET6	1152
KET7	1152
KET8	1153
KET9	1153
KEX4	1200
KEX5	1200
KEX6	1200
KEX7	1200
KEX8	1200
KEY0	101
KEY1	101
KEY2	101
KEY3	101
KEY4	101
KEY5	137
KEY6	137
KEY7	137
KEY8	137
KEY9	137
KH00	1359
KH01	1359
KH02	1359
KH03	1359
KH04	1359
KH05	1360
KH06	1358
KH07	1358
KH08	1358
KH09	1358
KH10	1358
KH11	1358
KH12	1358
KH13	1358
KH14	1358
KH15	1358
KH16	1358
KH17	1358
KH18	1358
KH29	1358
KH30	1358
KH31	1358
KH32	1358
KH33	1358
KH34	1358
KH35	1358
KH36	1358
KH37	1358
KH38	1358
KH39	1358
KH40	1358
KH41	1358
KH42	1358
KH43	1358
KH44	1358
KH45	1358
KH46	1358
KH47	1358
KH48	1358
KH49	581
KH50	571
KH51	526
KH52	526
KH54	709
KH55	709
KH56	370
KH64	1475
KH65	1475
KH66	1475
KH67	1475
KH69	1156
KH88	1173
KH89	1457
KH90	1457
KH91	1458
KH92	1458
KHA0	137
KHA2	1508
KHA3	1506
KHA4	1506
KHA5	1506
KHA6	1506
KHA7	1506
KHA8	1506
KHA9	1506
KHC0	1506
KHC1	1506
KHC2	1506
KHC3	1506
KHC4	1373
KHC5	1415
KHC6	1415
KHC7	1430
KHC8	1430
KHC9	1478
KHE0	1375
KHE1	1063
KHE2	1227
KHE3	1213
KHE4	1213
KHE5	1413
KHE6	1413
KHE7	1326
KHE8	1326
KHE9	1326
KHH0	1326
KHH1	1326
KHH2	1326
KHH3	1327
KHH4	1327
KHH5	1327
KHH6	1327
KHH7	1327
KHH8	1327
KHH9	1216
KHK0	1216
KHK1	1216
KHK2	1216
KHK3	1216
KHK4	1216
KHK5	1216
KHK6	1216
KHK7	1216
KHK8	1216
KHK9	1216
KHL0	1216
KHL1	1135
KHL2	633
KHL3	633
KHL9	634
KHN0	634
KHN1	634
KHN2	634
KHN3	634
KHN4	634
KHN5	634
KHN6	634
KHN7	634
KHN8	634
KHN9	634
KHP0	634
KHP1	634
KHP2	634
KHP3	634
KHP4	634
KHP5	634
KHP6	634
KHP7	634
KHP8	634
KHP9	634
KHT0	1427
KHT1	1428
KHT2	1428
KHT3	1428
KHT4	1428
KHT5	1428
KHT6	1428
KHT7	1428
KHT8	439
KHT9	439
KHX0	439
KHX1	439
KHX2	440
KHX3	440
KHX4	440
KHX5	440
KHX6	440
KHX7	440
KHX8	440
KHX9	440
KHY0	440
KHY1	439
KHY2	439
KHY3	439
KHY4	437
KHY6	437
KHY7	416
KHY8	416
KHY9	416
KK11	541
KK43	1328
KK97	541
KK98	541
KK99	541
KKA0	416
KKA1	416
KKA2	440
KKA3	634
KKA4	634
KKA5	634
KKA6	634
KKA7	634
KKA8	634
KKA9	634
KKC0	634
KKC1	634
KKC2	634
KKC3	634
KKC4	634
KKC5	634
KKC6	634
KKC7	634
KKC8	634
KKC9	634
KKE0	634
KKE1	682
KKE2	682
KKE3	403
KKE4	403
KKE5	1385
KKE6	683
KKE7	683
KKE8	1296
KKE9	1296
KKH0	1291
KKH1	1291
KKH2	948
KKH3	1302
KKH4	403
KKH5	403
KKH6	403
KKH7	403
KKH8	403
KKH9	404
KKK0	404
KKK1	404
KKK2	1553
KKK3	370
KKK4	873
KKK5	873
KKK6	625
KKK7	625
KKK8	1077
KKK9	1077
KKL0	1077
KKL1	1077
KKL2	70
KKL3	70
KKL4	70
KKL5	70
KKL6	70
KKL7	70
KKL8	70
KKL9	70
KKN0	70
KKN1	70
KKN2	70
KKN3	69
KKN4	69
KKN5	69
KKN6	69
KKN7	69
KKN8	69
KKN9	69
KKP0	69
KKP1	69
KKP2	69
KKP3	69
KKP4	69
KKP5	69
KKP6	69
KKP7	69
KKP8	69
KKP9	69
KKT0	69
KKT1	69
KKT2	69
KKT3	69
KKT4	69
KKT5	69
KKT6	69
KKT7	69
KKT8	69
KKT9	69
KKX0	69
KKX1	69
KKX2	69
KKX3	69
KKX4	69
KKX5	69
KKX6	69
KKX7	69
KKX8	393
KKX9	393
KKY0	393
KKY1	393
KKY2	393
KKY3	393
KKY4	393
KKY5	372
KKY6	372
KKY7	388
KKY8	346
KKY9	346
KL03	667
KL04	667
KL05	477
KL07	1164-1165
KL16	1423
KL17	1423
KL18	911
KL19	911
KL20	911
KL21	911
KL29	1263
KL30	1102
KL31	1103
KL32	1103
KL33	1103
KL34	1103
KL35	1103
KL39	1001
KL40	1001
KL43	402
KL45	973
KL46	122
KL47	122
KL60	1413
KL62	247
KL63	247
KL64	247
KL65	247
KL66	1412
KL67	1412
KL68	1412
KL69	1412
KL71	1412
KL72	1412
KL73	1412
KL74	1412
KL75	1412
KL76	247
KL77	247
KL78	247
KL79	247
KL80	247
KL81	247
KL88	1281
KL89	447
KL90	1551
KL91	1548
KL92	1551
KL96	947
KL97	428
KL99	428
KLA0	346
KLA1	346
KLA2	346
KLA3	369
KLA4	369
KLA5	386
KLA7	384
KLA8	287
KLA9	287
KLC0	287
KLC1	287
KLC2	287
KLC3	287
KLC4	287
KLC5	286
KLC6	286
KLC9	1029
KLE0	1029
KLE1	672
KLE2	672
KLE3	672
KLE4	672
KLE5	671
KLE6	671
KLE7	671

Numerical Index

Art. No.	Page
KLE8	672
KLE9	672
KLH0	672
KLH1	897
KLH2	897
KLH3	897
KLH4	897
KLH5	1374
KLH6	1374
KLH7	1376
KLH8	1376
KLH9	1160
KLK0	1160
KLK1	1160
KLK2	1218
KLK3	1218
KLK4	1218
KLK5	1218
KLK6	1218
KLK7	1218
KLK8	1218
KLK9	1218
KLL0	1218
KLL1	1218
KLL2	1218
KLL3	1218
KLL4	1218
KLL5	1218
KLL6	1218
KLL7	1218
KLL8	1218
KLL9	1218
KLN0	1218
KLN1	1218
KLN2	1218
KLN3	1218
KLN4	1218
KLN5	1218
KLN6	1218
KLN7	1218
KLN8	1218
KLN9	1218
KLP0	1218
KLP1	1218
KLP2	1219
KLP3	1219
KLP4	1219
KLP5	1219
KLP6	1219
KLP7	1219
KLP8	1219
KLP9	1219
KLT0	1219
KLT1	1219
KLT2	1219
KLT3	1219
KLT4	1219
KLT5	1219
KLT6	1219
KLT7	1072
KLT8	1072
KLT9	1070
KLX1	1062
KLX2	1064
KLX3	1066
KLX4	1060
KLX5	1060
KLX6	1060
KLX7	1060
KLX8	1060
KLX9	1060
KLY0	265
KLY1	1061
KLY2	1061
KLY3	641
KLY4	641
KLY5	641
KLY6	641
KLY7	641
KLY8	641
KLY9	641
KN00	428
KN01	428
KN02	428
KN03	428
KN04	862
KN05	865
KN06	867
KN07	1030
KN08	424
KN09	1043
KN10	835
KN11	1284
KN12	1284
KN13	1284
KN15	1284
KN20	865
KN21	856
KN22	856
KN64	228
KN65	228
KN66	1239
KN68	1239
KN69	987
KN70	987
KN71	998
KN72	998
KN73	998
KN74	999
KN75	999
KN76	999
KN77	998
KN78	998
KN79	998
KN80	998
KN81	998
KN82	1382
KN83	1286
KN84	1288
KN85	1234
KN86	1234
KN87	1234
KN88	1234
KN89	1239
KN92	1370
KN93	1393
KN94	1393
KN95	822
KN96	822
KNA0	641
KNA1	641
KNA2	641
KNA3	641
KNA4	641
KNA5	641
KNA6	641
KNA7	641
KNA8	641
KNA9	641
KNC0	641
KNC1	641
KNC2	642
KNC3	642
KNC4	642
KNC5	642
KNC6	642
KNC7	642
KNC8	642
KNC9	642
KNE0	642
KNE1	642
KNE2	643
KNE3	643
KNE4	643
KNE5	643
KNE6	643
KNE7	643
KNE9	1288
KNH1	13
KNH2	13
KNH3	13
KNH4	13
KNH5	13
KNH6	13
KNH7	13
KNH8	13
KNH9	13
KNK0	13
KNK1	13
KNK2	13
KNK4	59
KNK5	1419
KNK6	1419
KNK7	1419
KNK8	1419
KNK9	100
KNL0	100
KP00	821
KP01	825
KP02	825
KP03	825
KP04	825
KP05	818
KP06	814
KP07	811
KP08	811
KP09	811
KP10	837
KP16	858
KP17	858
KP18	858
KP19	848
KP20	848
KP21	1257
KP22	1257
KP24	939
KP25	1195
KP26	663
KP27	663
KP28	663
KP29	1069
KP30	1059
KP32	1233
KP34	663
KP35	1292
KP36	1293
KP37	1293
KP38	1293
KP39	1293
KP41	1301
KP42	1301
KP43	1301
KP44	1292-1293
KP45	293
KP46	293
KP47	293
KP48	293
KP49	293
KP57	969
KP63	969
KP64	969
KP65	969
KP71	969
KP74	971
KP75	971
KP76	971
KP77	971
KP90	668
KP91	668
KP92	668
KP93	668
KP94	668
KP95	1529
KP96	396
KT00	801
KT01	801
KT02	801
KT03	923
KT04	923
KT05	923
KT06	923
KT07	923
KT08	923
KT09	668
KT10	668
KT11	668
KT12	668
KT13	668
KT14	668
KT15	668
KT16	668
KT17	669
KT18	669
KT20	1176
KT21	1176
KT25	1176
KT26	1176
KT27	1183
KT28	1183
KT29	1186
KT37	1239
KT39	1523
KT40	1227
KT41	1227
KT42	1227
KT58	1288
KT59	20
KT60	20
KT61	20
KT62	20
KT63	20
KT64	20
KT65	20
KT66	20
KT67	20
KT68	20
KT69	20
KT70	245
KT71	245
KT72	245
KT73	245
KT74	245
KT75	245
KT76	246
KT77	246
KT78	246
KT79	246
KT80	246
KT81	246
KT82	1241
KT83	1095
KT96	1136
KT97	20
KT98	20
KT99	20
KX00	20
KX01	20
KX05	1135
KX06	1135
KX07	1135
KX09	1201
KX10	1201
KX11	1205
KX12	1205
KX14	1208
KX15	20
KX16	20
KX17	20
KX18	20
KX19	20
KX20	20
KX21	803
KX23	1373
KX28	1373
KX33	1373
KX39	816
KX40	816
KX41	816
KX42	844
KX43	232
KX44	232
KX45	235
KX46	235
KX47	235
KX48	235
KX49	235
KX54	234
KX55	507
KX56	507
KX57	507
KX58	1413
KX59	1413
KX61	264
KX62	264
KX63	264
KX64	264
KX65	264
KX66	264
KX70	235
KX71	235
KX72	235
KX73	235
KX74	241
KX75	241
KX76	241
KX77	234
KX78	233
KX79	233
KX80	234
KX81	237
KX82	235
KX83	253
KX88	322
KX89	322
KX90	485
KX91	485
KX93	498
KX94	498
KX95	498
KX96	498
KX97	498
KX98	498
KX99	498
KY00	498
KY01	595
KY02	595
KY03	595
KY04	595
KY05	203
KY06	203
KY07	203
KY08	203
KY11	253
KY12	211
KY13	211
KY14	211
KY15	212
KY16	212
KY17	212
KY18	213
KY19	213
KY20	213
KY21	213
KY22	213
KY23	213
KY24	211
KY25	211
KY26	206
KY27	206
KY28	206
KY29	206
KY30	206
KY31	206
KY32	206
KY33	206
KY34	206
KY35	206
KY36	206
KY37	206
KY38	218
KY39	218
KY40	218
KY41	218
KY42	218
KY43	218
KY44	218
KY45	218
KY46	218
KY47	218
KY48	218
KY49	218
KY50	218
KY51	218
KY52	218
KY53	218
KY54	218
KY55	218
KY56	218
KY57	216
KY58	216
KY59	216
KY60	235
KY61	708
KY62	708
KY63	708
KY64	708
KY65	216
KY68	60
KY69	203
KY70	203
KY71	203
KY72	203
KY93	62
KY94	62
KY95	54
KY96	54
KY97	50
KY98	50
KY99	50
L001	292
L002	292
L003	292
L004	292
L005	292
L006	292
L007	292
L008	292
L009	292
L010	292
L016	279
L017	279
L019	279
L034	963
L035	963
L036	963
L040	395
L041	395
L042	395
L043	395
L044	395
L045	395
L046	395
L047	395
L048	1023
L050	395
L051	395
L052	395
L053	395
L054	395
L055	395
L056	395
L057	415
L058	415
L068	396
L069	396
L070	396
L073	935
L075	332
L076	332
L077	332
L078	332
L079	332
L080	332
L082	332
L083	332
L084	332
L085	332
L092	938
L124	1034
L148	1038
L159	846
L162	851
L163	1364
L165	1364
L166	1364
L167	852
L168	852
L169	852
L170	850
L171	850
L172	850
L173	850
L174	850
L175	850
L176	850
L177	851
L178	851
L179	851
L180	851
L181	850
L182	409
L183	409
L184	409
L185	409
L186	409
L187	409
L188	409
L192	443
L197	444
L198	444
L199	444
L203	444
L217	280
L218	280
L219	280
L220	280
L221	280
L222	280
L223	280
L224	280
L225	281
L226	281
L227	281
L228	281
L229	281
L230	281
L231	281
L232	281
L233	281
L234	281
L235	281
L236	281
L237	281
L238	281
L239	281
L240	281
L241	281
L242	290
L243	367
L244	367
L245	367
L246	367
L247	367
L248	367
L249	368
L252	976
L276	872
L297	868
L301	1538
L313	873
L371	997
L372	997
L373	997
L374	997
L375	997
L385	341
L386	341
L387	341
L388	341
L389	341
L390	341
L391	341
L423	1238
L424	961
L425	961
L429	1581
L430	443
L431	1025
L432	1025
L433	1025
L434	1025
L435	1025
L436	1025
L437	1025
L450	27
L452	27
L453	27
L454	27
L455	27
L456	27
L457	27
L458	27
L459	27
L460	27
L461	27
L462	27
L463	27
L468	629
L486	1240
L487	1282
L488	1282
L489	1282
L490	1445
L491	1445
L492	1446
L646	1443
L647	1443, 1448
L648	1446
L649	1446
L650	1446
L651	1446
L652	1446
L653	1446
L654	1446
L655	1446
L660	1431
L661	1431
L666	968
L667	968
L668	1446
L669	1445
L670	1445
L672	970
L673	970
L675	973
L676	968
L826	1036
L828	1143
L829	1146
L830	1145

Numerical Index

Art. No.	Page
L831	1145
L832	1143
L861	1156
L863	1145
L864	1145
L865	1145
L866	1146
L867	775
L868	775
L869	775
L870	767
L871	767
L872	767
L873	767
L874	767
L875	767
L876	767
L877	767
L878	767
L879	767
L880	767
L881	767
L882	767
L883	767
L884	767
L885	767
L886	767
L887	767
L888	767
L889	767
L890	767
L891	767
L892	767
L893	767
L895	1133
L909	1003
L918	604
L919	604
L920	604
L921	604
L922	604
L923	604
L924	604
L925	604
L926	604
L939	198
L941	198
L942	198
L943	198
L949	885
L950	885
L951	885
L952	1433
L953	1433
L954	1433
L955	1433
L958	132, 988
L959	132, 988
L961	1208
L962	1208
L963	1208
L964	1208
L966	1208
L992	59
L993	58
L994	58
LC00	50
LC02	85
LC03	85
LC04	85
LC05	85
LC06	85
LC07	85
LC08	85
LC09	85
LC10	86
LC11	86
LC12	86
LC13	86
LC14	86
LC15	86
LC16	88
LC17	88
LC18	88
LC19	88
LC20	88
LC21	88
LC22	89
LC23	89
LC24	89
LC26	89
LC27	89
LC28	89
LC29	89
LC30	89
LC31	91
LC32	91
LC33	91
LC34	91
LC35	91
LC36	91
LC37	91
LC38	91
LC39	91
LC40	91
LC41	91
LC42	92
LC43	92
LC44	92
LC45	92
LC46	92
LC47	92
LC48	92
LC49	92
LC50	92
LC51	92
LC52	92
LC53	92
LC54	93
LC56	93
LC58	93
LC60	94
LC61	94
LC62	94
LC63	94
LC64	94
LC65	94
LC66	94
LC67	94
LC68	94
LC69	94
LC70	94
LC71	94
LC72	94
LC73	94
LC74	94
LC75	94
LC76	94
LC77	94
LC78	95
LC79	95
LC80	95
LC81	95
LC82	99
LC83	99
LC84	99
LC85	99
LC86	99
LC87	99
LC88	96
LC89	96
LC90	96
LC91	96
LC92	96
LC93	96
LC94	96
LC95	96
LC96	96
LC97	96
LC98	96
LC99	96
LE00	96
LE01	96
LE02	96
LE03	96
LE04	96
LE05	96
LE07	1483
LE08	1483
LE09	1484
LE10	1484
LE13	1484
LE14	1484, 1492
LE15	1484, 1492
LE16	1484, 1492
LE17	1277-1278
LE19	236
LE20	236
LE21	238
LE22	238
LE23	238
LE24	238
LE25	238
LE26	238
LE32	240
LE33	240
LE34	240
LE38	239
LE39	239
LE40	239
LE41	239
LE42	240
LE43	240
LE44	240
LE45	240
LE46	240
LE47	240
LE48	240
LE49	240
LE50	240
LE51	240
LE52	240
LE53	240
LE54	240
LE55	240
LE56	240
LE57	240
LE58	240
LE59	240
LE60	236
LE61	236
LE62	236
LE65	261
LE66	261
LE67	261
LE68	261
LE69	261
LE70	261
LE71	261
LE72	260
LE73	260
LE74	260
LE75	260
LE76	224
LE77	224
LE78	224
LE79	224
LE80	224
LE81	224
LE82	224
LE83	224
LE85	377
LE86	377
LE87	377
LE88	377
LE89	377
LE90	377
LE91	377
LE92	377
LE93	377
LE94	377
LE95	377
LE96	377
LE97	377
LE98	377
LE99	377
LH00	377
LH01	377
LH02	377
LH03	377
LH04	377
LH05	377
LH06	380
LH07	380
LH20	1327
LH21	1327
LH22	441
LH23	441
LH24	441
LH25	441
LH26	441
LH30	1059
LH31	353
LH32	353
LH33	353
LH34	353
LH35	353
LH39	333
LH40	333
LH41	364
LH42	364
LH43	364
LH44	364
LH46	364
LH47	364
LH48	364
LH49	364
LH50	364
LH51	364
LH52	463
LH53	463
LH54	465
LH63	464
LH65	464
LH66	463
LH67	465
LH68	462
LH71	462
LH74	467
LH75	463
LH79	462
LH81	466
LH87	906
LH88	1279
LH89	1281
LH90	595
LH91	1157
LH94	951
LH95	804
LH96	939
LH97	939
LK06	541
LK07	541
LK08	545
LK09	545
LK10	1354
LK11	1354
LK12	1354
LK13	1354
LK17	410
LK18	410
LK19	410
LK20	410
LK27	1534
LK29	221
LK30	221
LK31	1535
LK32	221
LK33	221
LK35	1040
LK36	1040
LK37	1040
LK38	1040
LK40	246
LK41	246
LK42	246
LK43	246
LK44	246
LK45	246
LK46	228
LK47	228
LK48	228
LK49	228
LK50	228
LK51	228
LK52	228
LK53	228
LK54	229
LK55	229
LK56	229
LK57	229
LK58	234
LK59	234
LK60	234
LK61	234
LK62	233
LK63	233
LK64	233
LK65	233
LK66	232
LK67	951
LK70	233
LK71	233
LK72	60
LK73	60
LK74	60
LK75	60
LK76	1238
LL00	475
LL01	475
LL28	273
LL29	273
LL30	273
LL33	1266
LL34	1266
LL35	1267
LL36	1267
LL40	58
LL41	61
LL42	61
LL43	61
LL44	61
LL45	59
LL46	59
LL48	58
LL49	58
LL50	58
LL51	58
LL52	58
LL77	222
LL78	222
LL79	222
LL80	222
LL81	222
LL82	222
LL83	222
LL84	222
LL85	222
LL88	413
LL91	413
LL92	58
LL93	58
LL94	58
LL95	58
LL96	58
LL97	58
LL98	58
LL99	58
LN00	58
LN01	1240
LN02	1240
LN06	413
LN08	413
LN09	413
LN10	413
LN11	413
LN12	413
LN14	413
LN15	413
LN16	413
LN17	413
LN19	413
LN20	413
LN21	414
LN22	414
LN23	414
LN27	414
LN30	414
LN31	414
LN34	60
LN35	1388
LN36	1388
LN37	1388
LN38	1375
LN40	1375
LN41	1190
LN42	1190
LN43	1167
LN44	1183
LN45	1100
LN47	979
LN48	979
LN49	979
LN50	979
LN51	979
LN52	979
LN53	979
LN54	979
LN55	979
LN56	979
LN57	979
LN58	979
LN59	979
LN60	979
LN61	979
LN62	979
LN63	979
LN64	979
LN65	979
LN66	979
LN67	979
LN68	979
LN69	979
LN70	979
LN71	979
LN72	979
LN73	979
LN74	979
LN75	1368
LN76	1368
LN77	1368
LN78	962
LN79	962
LN80	962
LN81	962
LN86	1311
LN87	243
LN88	243
LN89	243
LN90	243
LN91	243
LN92	243
LN93	243
LN94	243
LN95	243
LN96	243
LN97	243
LN98	243
LN99	243
LP00	243
LP01	243
LP02	243
LP03	243
LP04	243
LP05	242
LP06	242
LP07	242
LP08	242
LP09	242
LP10	242
LP11	242
LP12	242
LP13	243
LP14	243
LP15	243
LP16	243
LP17	243
LP18	243
LP19	243
LP20	243
LP21	243
LP23	802
LP24	867
LP25	802
LP26	803
LP27	1095
LP30	1268
LP31	1268
LP32	1268
LP33	1268
LP38	1154
LP51	1290
LP52	1290
LP53	1290
LP55	1290, 1296
LP57	1290
LP58	1290
LP59	1290
LP64	1296
LP65	1296
LP68	1302
LP69	1302
LP71	1302
LP73	1153
LP75	603
LP92	333
LP93	375
LP94	375
LP95	375
LP96	375
LP97	375
LT01	374
LT02	374
LT03	374
LT04	375
LT05	375
LT06	375
LT09	1011
LT12	1011
LT13	486
LT14	486
LT18	489
LT19	494
LT21	202
LT22	202
LT23	202
LT24	17
LT25	17
LT26	1269
LT28	490
LT33	656
LT34	656
LT35	471
LT36	471
LT37	471
LT38	471
LT39	1256
LT40	1256
LT42	1145
LT43	1145
LT44	1146
LT45	1146
LT46	1146
LT47	1145
LT48	1145
LT49	1145
LT51	896
LT52	896
LT53	896
LT54	896
LT59	1397
LT60	1397
LT61	1397
LT62	1397
LT63	1397
LT64	1397
LT74	120
LT75	120
LT76	120
LT77	120
LT78	120
LT79	120
LT80	168
LT81	168
LT82	181
LT83	181
LT85	180
LT86	180
LT87	180
LT88	180
LT89	180
LT90	180
LT91	180
LT92	180
LT93	180
LX35	1465
LX36	1465
LX37	1465
LX38	1465
LX39	474
LX40	474
LX41	474
LX42	498
LX43	498
LX45	498
LX48	475
LX52	498
LX53	498
LX55	497
LX56	497
LX57	497
LX58	497
LX59	497
LX60	497
LX61	497
LX62	497
LX63	497
LX64	496
LX65	496
LX66	493
LX67	493
LX68	493
LX69	493
LX70	1509
LX71	1509
LX72	1509
LX73	1509
LX74	1509
LX75	1509
LX76	492

Numerical Index

Art. No.	Page
LX77	490
LX78	494
LX79	499
LX80	499
LX81	1087
LX82	502
LX83	502
LX84	1509
LX85	1509
LX86	1508
LX87	1508
LX88	1450
LX89	1295
LX90	1295
LX91	1295
LX92	1301
LX93	1301
LX94	1292
LX95	1292
LX96	1292
LX97	1292
LX98	1292
LY00	1292
LY01	1292
LY02	1292
LY03	1292
LY04	1292
LY05	1292
LY06	1292
LY09	1078
LY17	1522
LY18	1521
LY19	1435
LY20	1435
LY21	548
LY22	548
LY23	907
LY24	907
LY25	907
LY26	907
LY27	1378
LY28	1375
LY29	1458
LY30	1459
LY31	1459
LY32	1459
LY33	1459
LY34	1459
LY35	1459
LY36	1459
LY37	1459
LY38	1459
LY39	1459
LY40	1459
LY41	1459
LY44	804
LY45	805
LY46	1124
LY47	1439
LY48	1440
LY49	1440
LY50	805
LY51	806
LY52	93
LY53	523
LY64	904
LY65	1235
LY66	1235
LY67	1205
LY68	1205
LY69	1201
LY70	1201
LY71	1201
LY72	1207
LY73	1207
LY74	576
LY75	576
LY79	1388
LY89	920
LY90	920
LY91	920
LY92	920
LY94	411
LY95	411
LY96	411
LY97	411
LY98	411
LY99	1130
N001	1231
N002	1231

Art. No.	Page
N003	1231
N004	1231
N005	1231
N006	1231
N007	1231
N008	1231
N009	1231
N010	1231
N011	1231
N022	1234
N025	1423
N026	1423
N027	1423
N029	1423
N030	1423
N031	1423
N032	1423
N033	1423
N034	1423
N035	1423
N036	1423
N037	1423
N038	1423
N039	1423
N042	594
N043	594
N044	594
N045	594
N047	1531
N048	1531
N049	1532
N103	524
N104	513
N105	513
N106	513
N107	513
N115	1030
N116	1030
N120	968
N121	968
N122	968
N123	968
N124	968
N136	1014
N137	1014
N138	1015
N139	1015
N141	595
N142	188
N143	188
N144	188
N145	169, 788
N146	1025
N151	1231
N152	1231
N153	1231
N154	1231
N155	1231
N156	1231
N157	1231
N158	1231
N159	1231
N160	1231
N161	1231
N163	818
N168	852
N169	852
N170	852
N171	850
N172	850
N173	850
N174	850
N176	1014
N177	1014
N182	852
N183	1274
N186	845
N187	845
N188	845
N189	845
N190	845
N195	361
N196	361
N197	361
N198	361
N199	361
N200	361
N201	362
N216	697
N217	697

Art. No.	Page
N221	416
N223	416
N224	416
N231	612
N232	612
N236	612
N237	612
N239	612
N242	612
N243	612
N245	612
N246	1251
N257	1073
N258	1074
N259	1074
N276	1086
N278	1086
N279	1086
N286	1086
N317	1238
N330	1526
N331	1526
N332	1529
N333	1529
N334	1529
N335	1530
N336	1530
N359	1109
N360	1156
N369	138
N370	138
N372	1401
N373	1401
N376	974
N390	347
N411	1035
N419	976
N421	685
N422	685
N423	685
N424	685
N425	685
N426	835
N427	835
N428	854
N429	854
N430	854
N434	1002
N435	1002
N436	1002
N437	1002
N438	1002
N439	1002
N443	365
N457	694
N458	119
N459	119
N460	119
N461	119
N462	119
N463	119
N464	119
N465	119
N470	370
N472	629
N502	525
N503	525
N504	1166
N520	1170
N521	1170-1171
N522	1170-1171
N523	1170
N524	1170
N525	1170
N530	993
N531	947
N532	949
N533	949
N539	1401
N542	54
N543	54
N548	370
N874	586
N875	586
N876	583
N886	747
N949	654
N952	451
N953	451
N954	451

Art. No.	Page
N962	423
N964	904
N965	904
NA00	1276
NA01	1276, 1280
NA02	1276
NA03	575
NA04	1272
NA05	1272
NA06	1117
NA07	1117
NA10	574
NA11	574
NA12	673
NA16	692
NA17	570
NA18	570
NA21	713
NA22	1118
NA23	1118
NA25	1118
NA41	606
NA44	614
NA53	632
NA63	1128
NA64	591
NA65	591
NA66	591
NA67	591
NA68	591
NA69	591
NA70	591
NA71	651
NA72	651
NA73	651
NA74	651
NA75	651
NA76	651
NA77	651
NA78	651
NA79	651-652
NA80	651-652
NA81	651-652
NA82	651-652
NA83	651-652
NA84	651-652
NA86	1367
NA87	638
NA88	638
NA89	638
NA90	638
NA91	638
NA92	638
NA93	638
NA94	638
NA95	638
NA96	638
NA97	638
NA98	638
NA99	638
NH08	1555
NH09	1555
NH10	1555
NH11	1555
NH12	839, 861
NH13	839, 861
NH14	839
NH15	839
NH16	839
NH17	839
NH18	839
NH19	860
NH20	860
NH21	861
NH22	861
NH23	1038
NH24	1324
NH25	1324
NH28	518
NH29	512
NH30	512
NH31	513
NH32	430
NH33	523
NH34	523
NH35	580
NH36	1261
NH37	1261
NH38	1267
NH39	1267

Art. No.	Page
NH42	963
NH46	904
NH47	953
NH48	953
NH50	1546
NH60	1532
NH61	860
NH64	992
NH66	992
NH67	992
NH68	754
NH69	754
NH70	754
NH73	754
NH74	754
NH75	754
NH76	754
NH77	754
NH78	754
NH79	754
NH80	753
NH81	753
NH82	753
NH83	753
NH84	753
NH85	754
NH87	952
NH88	945
NH89	945
NH91	795
NH92	795
NH94	795
NH95	795
NH97	795
NH98	795
NK01	1063
NK02	1063
NK03	1078
NK04	1078
NK05	1078
NK08	934
NK09	934
NK10	934
NK11	934
NK12	934
NK13	934
NK14	934
NK15	935
NK16	935
NK17	940
NK18	940
NK19	940
NK21	976
NK22	976
NK23	976
NK24	976
NK26	976
NK27	976
NK28	976
NK29	976
NK30	976
NK31	976
NK32	976
NK33	976
NK34	976
NK35	976
NK36	976
NK37	976
NK38	976
NK39	976
NK40	976
NK41	976
NK42	976
NK43	976
NK45	976
NK46	976
NK47	976
NK48	976
NK49	434
NK52	884
NK53	944
NK54	944
NK55	944
NK56	1118
NK57	1118
NK58	1071
NK66	1396
NK67	1396
NK68	1396
NK69	1396

Art. No.	Page
NK71	1396
NK81	870
NK82	953
NK83	952
NK84	950
NK85	950
NK86	877
NK87	877
NK88	874
NK89	874
NK90	1073
NK91	1073
NK92	1073
NK93	1073
NK94	963
NK95	883
NK96	883
NK97	883
NK99	981
NL00	981
NL01	981
NL02	981
NL03	981
NL04	981
NL05	972
NL06	972
NL07	972
NL08	972
NL09	972
NL10	972
NL11	972
NL12	972
NL13	972
NL14	972
NL15	972
NL16	972
NL17	972
NL18	974
NL19	973
NL20	973
NL21	973
NL22	973
NL23	1062
NL24	1076
NL25	1139
NL29	771
NL30	771
NL31	771
NL32	771
NL37	771
NL38	771
NL39	771
NL40	771
NL44	771
NL45	771
NL46	771
NL47	771
NL48	771
NL49	771
NL50	771
NL51	663
NL52	663
NL53	664
NL54	664
NL55	664
NL56	664
NL57	664
NL58	669
NL60	669
NL61	663
NL65	665
NL66	665
NL67	665
NL68	1413
NL69	1413
NL70	1414
NL71	1414
NL72	1412
NL73	1412
NL76	1412
NL77	1412
NL78	1412
NL79	1412
NL80	362
NL81	362
NL82	362
NL83	362
NL84	362
NL85	362
NL86	362

Art. No.	Page
NL87	362
NL88	356
NL90	312
NL91	312
NL92	312
NL93	312
NL94	312
NL95	312
NL96	84
NL97	84
NL98	85
NL99	85
NN00	86
NN01	88
NN02	89
NN03	89
NN04	91
NN06	92
NN07	94
NN08	94
NN09	94
NN10	94
NN11	95
NN13	95
NN14	95
NN15	413
NN16	413
NN17	413
NN23	1078
NN24	1078
NN25	831
NN26	1494
NN27	1494
NN28	1494
NN31	1494
NN32	1494
NN33	1494
NN34	1495
NN35	1495
NN36	1495
NN37	88
NN38	1264
NN43	545
NN44	545
NN45	1219
NN46	1219
NN47	1219
NN48	1219
NN49	1219
NN50	1219
NN51	1219
NN52	1219
NN53	1219
NN57	1222
NN58	1223
NN59	1222
NN60	1223
NN61	1222
NN62	1223
NN63	1222
NN64	1223
NN65	1222
NN66	1223
NN67	1222
NN68	1223
NN69	1222
NN70	1223
NN71	1222
NN72	1223
NN73	1222
NN74	1223
NN75	1222
NN76	1223
NN77	1222
NN78	1223
NN79	1222
NN80	1223
NN81	1226
NN82	1226
NN83	1226
NN84	1226
NN85	1226
NN86	1226
NN87	1226
NN88	1226
NN89	1226
NN90	1226
NN91	1226
NN92	1226
NN93	1226

Numerical Index

Art. No.	Page
NN94	1226
NN95	1226
NN96	1226
NN97	1226
NN98	1226
NN99	924
NP00	924
NP01	924
NP02	924
NP03	924
NP04	924
NP05	924
NP06	924
NP07	924
NP08	924
NP09	924
NP10	924
NP11	924
NP12	924
NP13	924
NP14	924
NP15	924
NP16	1351
NP17	1351
NP18	1351
NP21	1466
NP22	1466
NP23	1466
NP24	829
NP25	829
NP26	829
NP27	824
NP29	821
NP32	1361
NP33	1361
NP34	1361
NP35	1361
NP36	1361
NP38	940
NP41	1163
NP42	1163
NP43	980
NP44	980
NP45	980
NP46	980
NP47	980
NP48	980
NP49	980
NP50	980
NP51	980
NP52	980
NP53	980
NP67	975
NP68	975
NP69	975
NP70	975
NP71	975
NP72	975
NP73	975
NP74	975
NP75	975
NP76	975
NP77	975
NP78	975
NP79	975
NP80	975
NP81	976
NP82	1258
NP90	416
NP91	21
NP92	21
NP93	21
NP94	21
NP95	79
NP98	61
NP99	61
NT00	1228
NT01	55
NT02	55
NT03	55
NT04	55
NT05	55
NT06	55
NT07	59
NT08	59
NT09	59
NT10	59
NT11	59
NT12	59
NT13	58
NT14	58
NT15	58
NT16	58
NT17	58
NT18	58
NT19	1076
NT20	1075
NT21	1075
NT22	60
NT23	77
NT24	77
NT25	77
NT26	77
NT27	77
NT28	77
NT29	12
NT30	12
NT31	12
NT32	12
NT33	20
NT34	20
NT35	20
NT36	20
NT37	20
NT38	269
NT39	269
NT40	269
NT41	269
NT42	269
NT43	269
NT44	269
NT46	269
NT47	269
NT48	269
NT49	269
NT50	269
NT51	269
NT52	269
NT53	269
NT54	204
NT55	204
NT56	204
NT57	204
NT58	204
NT59	204
NT60	204
NT61	204
NT62	204
NT63	204
NT64	204
NT65	204
NT66	204
NT67	204
NT68	204
NT69	204
NT70	204
NT71	204
NT72	204
NT73	204
NT74	204
NT75	204
NT76	204
NT77	204
NT78	204
NT79	204
NT80	272
NT81	272
NT82	272
NT83	272
NT84	272
NT85	255
NT86	255
NT87	255
NT88	207
NT89	207
NT90	207
NT91	207
NT92	207
NT93	207
NT94	207
NT95	207
NT96	207
NT97	207
NT98	208
NT99	208
NX00	208
NX01	208
NX02	208
NX03	208
NX04	208
NX05	208
NX06	208
NX07	72
NX08	72
NX09	72
NX10	72
NX11	72
NX15	272
NX16	253
NX17	253
NX18	77
NX19	78
NX20	78
NX21	67
NX22	67
NX23	67
NX24	67
NX25	67
NX26	67
NX27	67
NX28	67
NX29	67
NX30	67
NX31	67
NX32	67
NX33	67
NX34	67
NX35	67
NX36	67
NX37	67
NX38	67
NX39	68
NX40	68
NX41	68
NX42	68
NX43	68
NX44	68
NX45	68
NX46	68
NX47	68
NX48	68
NX49	68
NX50	68
NX51	68
NX52	68
NX53	68
NX54	68
NX55	70
NX56	70
NX57	70
NX58	70
NX61	60
NX62	60
NX63	60
NX64	60
NX65	60
NX71	223
NX72	223
NX73	223
NX74	223
NX75	223
NX76	223
NX77	252
NX78	252
NX79	252
NX80	252
NX81	252
NX82	227
NX83	227
NX84	227
NX85	227
NX86	227
NX87	227
NX88	227
NX89	227
NX90	227
NX91	227
NX99	222
NY00	222
NY01	222
NY02	222
NY03	222
NY04	222
NY05	335
NY07	335
NY08	336
NY09	368
NY10	368
NY11	368
NY12	368
NY15	362
NY16	362
NY17	352
NY18	349
NY20	63
NY21	266
NY22	266
NY23	266
NY24	266
NY25	266
NY26	266
NY27	266
NY28	266
NY29	71
NY30	71
NY31	345
NY32	227
NY33	60
NY34	60
NY35	60
NY36	60
NY37	60
NY38	60
NY39	214
NY40	214
NY41	214
NY42	214
NY43	214
NY44	214
NY45	214
NY46	214
NY47	214
NY48	229
NY49	229
NY50	229
NY51	229
NY52	229
NY53	246
NY54	246
NY55	246
NY56	57
NY57	43
NY58	43
NY59	43
NY60	43
NY61	43
NY62	43
NY63	43
NY64	43
NY65	262
NY66	262
NY67	262
NY68	262
NY69	262
NY75	250
NY76	250
NY77	250
NY78	250
NY79	250
NY86	21
NY87	21
NY88	21
NY89	21
NY90	110
NY91	110
NY92	110
NY93	110
NY94	110
NY95	458
NY96	458
NY97	458
NY98	458
NY99	458
P096	1287
P098	945
P103	1067
P104	1067
P105	1067
P106	1066
P107	1066
P108	1066
P109	1066
P110	319
P111	319
P112	319
P113	319
P114	319
P148	26
P149	26
P150	26
P151	26
P152	26
P153	26
P154	26
P157	904
P158	904
P159	197
P160	197
P161	197
P162	197
P163	191
P164	191
P165	191
P168	705
P169	705
P172	323
P174	323
P175	323
P177	324
P178	321
P179	321
P180	292
P184	362
P185	362
P186	362
P187	362
P199	333
P200	333
P201	333
P207	539
P208	539
P210	101
P211	101
P212	101
P213	101
P214	101
P224	32
P225	32
P226	32
P227	32
P228	32
P229	32
P230	32
P231	440
P232	440
P233	440
P234	440
P235	440
P241	520
P242	520
P252	374
P253	374
P268	1077
P272	374
P277	382
P278	382
P279	382
P280	382
P281	382
P282	382
P283	382
P284	382
P298	723
P299	723
P300	723
P301	723
P302	1132
P303	1132
P304	1194
P305	1194
P306	1197
P310	384
P311	384
P312	536
P313	536
P318	991
P319	991
P321	60
P329	1423
P332	862
P333	1024
P345	1003
P346	864
P387	1059
P388	1000
P389	1000
P390	1501
P391	1501-1502
P392	1501
P393	1501
P394	1501
P395	1501
P396	1501-1502
P397	1501-1502
P398	1501
P399	1501
P400	1501-1502
P401	1501
P402	1501-1502
P403	1501-1502
P404	1501-1502
P405	1501-1502
P406	1503
P407	1503
P408	1503
P411	1503
P412	1503
P413	1503
P415	1503
P416	1503
P418	1503
P419	1504
P420	1504
P421	1504
P423	1504
P424	1504
P425	1504
P426	1504
P427	1504
P428	1504
P429	1504
P430	1504
P431	1504
P432	1445
P433	1445
P434	1445
P435	1446
P436	1444
P437	1249
P438	895
P439	895
P440	895
P441	895
P502	1557
P505	1434
P506	1434
P507	1433, 1435
P508	1434
P509	1433, 1435
P510	1435
P511	1435
P512	1433, 1435
P513	1435
P514	1435
P515	1435
P516	1435
P517	1434
P518	1473
P519	1472-1473
P520	1472-1473
P521	1472-1473
P522	1472-1473
P529	1549
P530	1548
P531	1550
P560	795
P564	795
P566	795
P568	795
P569	795
P570	795
P586	795
P590	795
P592	795
P594	795
P595	795
P596	795
P599	795
P603	795
P605	795
P607	795
P608	795
P609	795
P652	284
P653	284
P654	284
P655	284
P656	284
P657	284
P658	284
P659	284
P666	709
P667	709
P668	709
P685	1232
P686	1232
P757	506
P758	830
P760	830
P761	830
P763	830
P765	353
P766	353
P767	353
P769	353
P770	43
P771	43
P772	43
P773	43
P786	363
P787	930
P788	930
P789	930
P790	930
P791	162
P792	162
P793	162
P794	162
P795	162
P800	15
P801	15
P802	15
P803	15
P804	14
P805	14
P806	14
P807	14
P808	14
P809	14
P815	708
P816	708
P817	708
P818	708
P819	708
P820	708
P821	708
P822	812
P842	847
P845	850
P846	854
P853	1365
P855	1123
P857	1123
P858	1083
P866	663
P867	663
P868	663
P874	1237
P895	354
P896	354
P897	354
P898	355
P899	355
P900	355
P901	796
P902	796
P907	857
P910	1282
P921	1145
P922	1146
P923	1201
P924	1201
P936	1207
P937	1207
P938	1207
P941	983
P942	983
P943	603
P946	603
P947	603
P957	449
P960	1283
P961	1201
P978	394
P979	394
P980	394
P986	428
P987	428
PA00	638
PA01	638

Numerical Index

Art. No.	Page
PA02	638
PA03	638
PA04	638
PA05	638
PA06	638
PA07	638
PA08	638
PA09	638
PA10	638
PA11	638
PA19	1439
PA23	1439
PA24	1439
PA25	1439
PA26	1439, 1457
PA27	561
PA28	561
PA29	561
PA30	1202
PA31	1202
PA32	1202
PA33	1202
PA34	1202
PA35	1202
PA36	1202
PA37	1202
PA38	1202
PA39	1202
PA40	1202
PA41	1202
PA42	1202
PA43	1202
PA44	1202
PA45	1202
PA46	1202
PA47	1202
PA49	715
PA50	715
PA51	713
PA52	713
PA53	714
PA54	714
PA55	714
PA56	714
PA57	713
PA59	713
PA60	713
PA63	712
PA64	712
PA66	1422
PA71	541
PA73	545
PA77	913
PA78	913
PA79	913
PA80	913
PA81	913
PA82	913
PA83	902
PA84	902
PA85	902
PA86	902
PA87	902
PA88	985
PA90	895
PA91	895
PA92	895
PA93	895
PA94	869
PA95	869
PA96	869
PC00	387
PC01	129
PC02	129
PC03	129
PC04	130
PC05	130
PC06	130
PC07	128
PC08	128
PC09	128
PC10	128
PC11	128
PC12	128
PC13	128
PC14	1300
PC15	1300
PC16	412
PC17	412
PC18	412
PC19	412
PC20	412
PC21	412
PC22	412
PC23	412
PC24	412
PC25	412
PC26	412
PC27	412
PC28	412
PC29	412
PC30	412
PC31	412
PC32	412
PC33	11
PC34	11
PC35	11
PC36	11
PC37	11
PC38	11
PC39	11
PC40	19
PC41	19
PC42	19
PC43	19
PC44	19
PC45	19
PC46	19
PC47	19
PC48	19
PC49	19
PC50	19
PC51	19
PC52	57
PC53	56
PC54	344
PC55	344
PC56	451
PC57	422
PC58	422
PC59	422
PC60	356
PC63	448
PC64	448
PC65	448
PC66	445
PC67	445
PC68	445
PC69	445
PC70	445
PC71	445
PC72	437
PC73	437
PC74	437
PC77	657
PC78	624
PC79	45
PC80	45
PC81	45
PC82	45
PC83	45
PC84	45
PC85	44
PC86	44
PC87	44
PC88	46
PC89	46
PC90	46
PC91	663
PC92	663
PC93	664
PC94	664
PE14	927
PE15	927
PE16	927
PE17	927
PE18	927
PE19	927
PE20	927
PE21	927
PE22	927
PE23	927
PE24	927
PE25	924
PE26	924
PE27	924
PE28	924
PE29	924
PE30	924
PE31	924
PE32	924
PE33	924
PE36	1577
PE40	1561
PE42	603
PE43	1290
PE44	1290
PE45	1297
PE47	1297
PE51	1298
PE52	1325
PE53	1325
PE54	1325
PE55	1325
PE63	1102
PE64	1102
PE65	477
PE66	477
PE67	477
PE68	696
PE69	696
PE70	1178
PE71	562
PE72	562
PE74	1314
PE75	1098
PE82	1088
PE83	1088
PE84	1088
PE85	1088
PE86	1088
PE87	1088
PE88	143
PH26	123
PH27	123
PH28	123
PH29	123
PH30	123
PH31	1117
PH32	1117
PH35	1488
PH36	123
PH37	123
PH38	123
PH39	123
PH40	123
PH41	123
PH42	123
PH43	123
PH44	123
PH45	327
PH46	321
PH47	321
PH48	321
PH49	329
PH50	329
PH51	342
PH52	342
PH53	342
PH54	342
PH55	342
PH56	302
PH57	302
PH58	302
PH59	302
PH60	302
PH61	302
PH62	302
PH63	1472
PH64	1472
PH65	1472
PH66	1472
PH78	1204
PH79	125
PH80	125
PH81	125
PH82	125
PH83	125
PH84	125
PH85	125
PH86	125
PH88	125
PH89	126
PH90	126
PH91	126
PH92	126
PH93	125
PH94	125
PH95	125
PH96	124
PH97	124
PH98	124
PH99	124
PK01	124
PK02	124
PK03	124
PK04	1434
PK10	407
PK11	407
PK13	407
PK15	407
PK16	411
PK17	411
PK18	665
PK19	665
PK20	665
PK21	665
PK22	665
PK23	665
PK24	665
PK25	665
PK26	441
PK27	441
PK29	411
PK30	76
PK31	76
PK36	437
PK40	154
PK41	154
PK42	154
PK43	154
PK44	142
PK45	142
PK46	142
PK47	500
PK48	1062
PK49	1031
PK51	1030
PK52	812
PK54	149
PK55	149
PK56	149
PK57	149
PK58	150
PK60	1396
PK61	1396
PK62	1396
PK63	1396
PK64	1396
PK65	1394
PK66	1394
PK68	1394
PK70	1394
PK71	1394
PK72	1394
PK73	1394
PK74	1394
PK75	1394
PK76	1394
PK77	1399
PK78	464
PK79	1195
PK80	1197
PK81	35
PK82	35
PK83	35
PK84	264
PK85	71
PK86	71
PK87	71
PK88	71
PK96	941
PK97	536
PK98	536
PK99	536
PL00	536
PL01	263
PL02	263
PL03	263
PL04	263
PL05	263
PL11	538
PL12	538
PL13	538
PL14	538
PL15	538
PL16	538
PL17	538
PL18	538
PL19	538
PL20	538
PL21	1119
PL22	1119
PL23	1119
PL35	241
PL36	241
PL37	241
PL38	241
PL39	241
PL40	111
PL41	111
PL42	111
PL43	111
PL44	111
PL45	111
PL46	111
PL47	111
PL48	111
PL49	111
PL50	111
PL51	111
PL52	111
PL53	111
PL54	111
PL55	111
PL56	1347
PL57	1347
PL58	1347
PL59	1347
PL60	1347
PL61	1347
PL62	1347
PL63	1347
PL64	1347
PL65	1348
PL66	1348
PL67	1348
PL68	1348
PL69	1348
PL70	1348
PL71	1348
PL72	1348
PL73	1348
PL74	1329
PL75	1329
PL80	526
PL81	526
PL82	526
PL83	526
PL84	526
PL85	526
PL93	523
PL96	1331
PL97	1331
PL98	1331
PL99	1331
PP00	1331
PP01	1331
PP02	1331
PP03	1331
PP04	1331
PP05	1331
PP06	1331
PP07	1331
PP10	168
PP11	168
PP12	168
PP13	141
PP14	141
PP15	380
PP16	380
PP17	380
PP18	380
PP19	179
PP20	931
PP21	931
PP22	931
PP23	931
PP25	931
PP26	931
PP27	931
PP28	931
PP29	931
PP30	931
PP31	814
PP32	844
PP33	1485
PP35	1185
PP36	1185
PP37	1359
PP38	424
PP39	424
PP40	424
PP41	716
PP42	716
PP43	716
PP44	716
PP45	716
PP46	716
PP47	716
PP48	716
PP49	1469
PP50	1469
PP51	1469
PP52	716
PP53	716
PP54	286
PP55	286
PP56	286
PP57	286
PP58	285
PP59	285
PP60	285
PP61	285
PP62	285
PP64	285
PP65	269
PP66	269
PP67	269
PP68	269
PP69	269
PP70	111
PP71	664
PP87	545
PP88	545
PP89	545
PP90	545
PP91	534
PP92	534
PP93	534
PP94	534
PT04	1429
PT05	1429
PT07	184
PT08	184
PT09	184
PT10	184
PT12	184
PT13	182
PT18	182
PT19	186
PT20	186
PT21	186
PT22	185
PT23	185
PT24	185
PT25	185
PT26	185
PT27	185
PT28	185
PT29	187
PT30	187
PT31	187
PT32	105
PT33	105
PT34	105
PT35	105, 187
PT36	105, 187
PT37	105, 187
PT38	105, 187
PT39	186
PT41	814
PT43	1099
PT44	813
PT45	852
PT46	925
PT47	925
PT48	925
PT49	925
PT50	925
PT51	925
PT52	925
PT53	925
PT54	925
PT55	925
PT56	925
PT57	925
PT58	927
PT59	927
PT60	927
PT61	927
PT62	86
PT65	903
PT66	903
PT67	903
PT68	903
PT69	498
PT74	837
PT76	1237
PT86	154
PT87	154
PT88	154
PT89	154
PT90	154
PT91	154
PT92	154
PT93	154
PT94	154
PT95	476
PT98	1067
PT99	1067
PX00	1069
PX06	459
PX18	1207
PX19	1032
PX20	480
PX21	480
PX22	480
PX23	480
PX24	293
PX25	293
PX26	342
PX27	342
PX28	472
PX29	472
PX30	472
PX31	472
PX32	472
PX33	303
PX34	303
PX35	303
PX36	303
PX37	470
PX38	470
PX39	470
PX40	473
PX41	1224
PX42	1224
PX43	1224
PX44	1224
PX45	1224
PX46	1224
PX47	1224
PX48	1224
PX49	1224
PX50	1224
PX51	1224
PX52	1224
PX53	1224
PX54	1224
PX58	147
PX59	147
PX60	147
PX61	147
PX62	147
PX63	147
PX64	147
PX65	147
PX66	147
PX67	420
PX73	410
PX74	410
PX75	410
PX76	410
PX77	410
PX78	485
PX79	485
PX80	485
PX81	419
PX82	419
PX83	419
PX84	419
PX85	421
PX86	421
PX87	1431
PX88	1431
PX89	1431
PX90	169
PX91	169
PX92	169

Numerical Index

Art. No.	Page
PX93	149
PX94	149
PX95	149
PX96	149
PX97	149
PX98	149
PX99	375
PY00	375
PY01	156
PY02	156
PY03	156
PY04	156
PY05	156
PY06	134
PY08	155
PY09	155
PY10	155
PY11	155
PY12	155
PY13	155
PY15	1545
PY16	1544
PY17	1545
PY18	1537
PY19	1546
PY25	1314
PY26	1315
PY27	1315
PY28	1315
PY29	1315
PY30	1315
PY31	1315
PY32	1315
PY33	1315
PY34	1315
PY44	163
PY55	273
PY56	273
PY57	273
PY58	273
PY59	273
PY60	273
PY61	246
PY63	329
PY64	329
PY66	1099
PY67	1437
PY70	1368
PY71	1368
PY72	1387
PY73	1387
PY75	944
PY76	944
PY77	944
PY78	944
PY80	1240
PY81	1140
PY82	1140
PY83	1140
PY84	1140
PY85	55
PY86	61
PY87	61
PY88	417
PY89	50
PY90	50
PY91	50
PY92	108
PY93	108
PY94	105
PY95	105
PY96	105
PY97	19
PY98	61
PY99	1522
T037	875
T041	1391
T042	1391
T054	877
T067	458
T068	458
T069	458
T070	458
T071	458
T072	458
T073	458
T084	940
T093	682
T098	352
T099	352

Art. No.	Page
T100	352
T208	447
T211	1423
T213	1424
T216	349
T217	349
T218	349
T219	349
T220	349
T221	226
T222	226
T224	1010
T243	523
T244	523
T251	513
T252	383
T253	383
T254	383
T255	383
T256	383
T257	384
T258	384
T261	383
T262	383
T263	384
T265	384
T266	515
T267	515
T269	515
T271	515
T272	515
T273	513
T277	653
T278	653
T279	653
T280	653
T295	945
T296	945
T297	945
T299	948
T300	540
T301	540
T302	540
T303	540
T304	540
T305	540
T306	540
T321	953
T326	540
T327	540
T328	540
T329	540
T330	540
T331	540
T332	1100
T341	739
T342	739
T343	739
T344	739
T345	740
T346	740
T347	740
T348	800
T358	602
T359	602
T361	1146
T362	1146
T363	1146
T364	1146
T365	1147
T366	1148
T367	1148
T368	1148
T369	1148
T370	1148
T371	1148
T372	1148
T373	1149
T374	1149
T375	1149
T376	1149
T377	1149
T378	1149
T379	1147
T380	1147
T381	1147
T382	1147
T383	1147
T384	1147
T385	1147

Art. No.	Page
T387	1147
T388	1147
T389	1148
T391	134
T392	134
T393	134
T394	134
T395	134
T396	134
T397	134
T398	163
T399	163
T400	163
T401	163
T402	163
T403	163
T404	163
T405	163
T406	163
T407	163
T408	175
T409	1083
T410	923
T411	923
T412	923
T413	923
T414	923
T415	923
T416	923
T417	923
T418	923
T419	923
T420	923
T421	923
T422	923
T423	923
T424	45
T425	45
T426	45
T427	45
T428	45
T429	45
T430	45
T431	45
T432	45
T433	45
T434	45
T435	361
T436	361
T437	361
T438	361
T439	361
T440	364
T457	510
T458	313
T459	313
T464	1476
T465	1476
T474	160
T475	160
T476	160
T477	160
T478	160
T479	160
T480	160
T481	160
T486	156
T487	156
T488	156
T489	156
T490	1453
T491	1453
T493	1453
T494	1453
T495	1454
T496	1454
T497	1445
T498	1446
T499	1446
T500	1446
T502	161
T503	161
T508	144
T509	144
T510	144
T511	144
T512	144
T513	510
T514	510
T519	1443, 1448

Art. No.	Page
T534	1427
T535	1427
T536	1427
T539	1427
T548	548
T549	548
T550	548
T551	548
T552	548
T598	1417
T613	666
T633	157
T635	157
T636	157
T637	157
T638	157
T639	157
T640	157
T641	157
T642	157
T643	12
T645	12
T646	12
T647	12
T648	12
T649	12
T650	12
T651	12
T652	12
T653	12
T654	275
T655	275
T668	836
T686	664
T687	664
T708	834
T709	986
T712	1514
T713	1514
T714	1514
T715	1514
T716	1515
T717	1515
T718	1515
T719	1515
T720	1515
T721	1515
T722	1515
T723	1515
T724	422
T725	458
T726	458
T727	458
T728	437
T729	437
T730	438
T731	438
T732	438
T733	438
T734	437
T735	437
T736	543
T737	543
T738	543
T739	543
T740	543
T741	543
T742	615
T743	615
T744	615
T745	615
T746	615
T747	615
T748	615
T752	1032
T753	1032
T754	1032
T758	842
T759	842
T760	842
T761	842
T763	842
T923	903
T924	903
T926	1274
T927	1275
T930	167
T931	167
T932	167
T933	167

Art. No.	Page
T937	417
T938	417
T939	417
T940	417
T941	417
T942	417
T943	417
T944	417
T945	417
T946	417
T947	417
T948	421
T949	421
T950	421
T954	407
T955	408
T956	408
T958	408
T959	408
T962	409
T963	409
T964	409
T965	409
T970	132
T971	132
T972	132
T973	132
T974	137
T975	586
T976	586
T977	586
T978	586
T979	586
T980	587
T981	583
T982	583
T983	583
T984	583
T985	583
T986	583
T987	547
T997	484
T998	484
T999	484
TA00	1520
TA01	1279
TA02	1279
TA03	1279
TA04	1279
TA07	978
TA08	506
TA09	1179
TA10	1179
TA11	1166
TA12	1184
TA13	1184-1185
TA14	1185
TA15	1185
TA16	1236
TA19	416
TA20	1485
TA21	640
TA22	640
TA23	640
TA24	640
TA25	640
TA26	640
TA27	640
TA55	1236
TA56	1098
TA62	1201
TA63	1214
TA64	1214
TA65	1214
TA66	1214
TA67	1214
TA68	1214
TA69	1214
TA74	1402
TA75	1402
TA76	1402
TA77	1403
TA78	396
TA88	1400
TA89	1400
TA90	1400
TA91	773
TA92	773
TA93	773
TA94	1101

Art. No.	Page
TA95	1323
TA96	1323
TA97	1323
TA98	1323
TA99	1323
TC00	1323
TC01	1323
TC02	1323
TC04	1323
TC05	1323
TC06	1023
TC07	1023
TC08	1023
TC09	1019
TC10	1020
TC11	1020
TC12	887
TC13	887
TC14	887
TC15	887
TC16	629
TC21	674
TC22	674
TC23	674
TC24	674
TC25	674
TC28	499
TC29	499
TC30	499
TC32	500
TC34	500
TC35	499
TC38	486
TC39	486
TC40	486
TC42	486
TC43	486
TC47	1162
TC83	496
TC84	496
TC85	496
TC86	496
TC88	496
TC89	496
TC90	496
TC91	495
TC92	495
TC94	496
TC96	496
TC97	496
TC98	496
TC99	496
TE00	496
TE01	496
TE02	496
TE03	496
TE04	496
TE05	239
TE06	1228
TE08	373
TE10	373
TE12	373
TE14	373
TE16	373
TE19	502
TE20	503
TE25	489
TE26	489
TE27	489
TE28	489
TE29	489
TE30	489
TE31	491
TE33	491
TE34	491
TE35	491
TE36	491
TE37	491
TE38	491
TE39	491
TE40	492
TE41	492
TE42	492
TE43	493
TE44	493
TE45	492
TE46	492
TE47	493
TE48	493
TE49	1178

Art. No.	Page
TE50	1178
TE53	877
TE54	877
TE55	877
TE56	877
TE58	865
TE59	463
TE60	462
TE61	466
TE62	464
TE63	464
TE64	466
TE65	466
TE66	465
TE67	465
TE68	462
TE69	462
TE70	463
TE71	463
TE72	463
TE73	465
TE75	465
TE76	466
TE77	466
TE78	467
TE79	823
TE80	858
TE81	858
TE82	858
TE83	850
TE84	850
TE85	592
TE86	592
TE87	592
TE90	602
TE91	602
TE92	602
TE93	206
TE94	206
TE95	206
TE96	206
TE97	206
TE98	230
TE99	230
TH00	230
TH01	230
TH02	230
TH04	217
TH05	217
TH06	217
TH07	217
TH08	217
TH09	217
TH10	217
TH11	216
TH12	216
TH13	216
TH14	216
TH15	216
TH16	216
TH17	216
TH18	215
TH19	215
TH20	215
TH21	215
TH22	215
TH23	242
TH24	242
TH25	218
TH26	218
TH27	218
TH28	218
TH29	218
TH30	218
TH31	218
TH32	218
TH33	218
TH34	218
TH35	217
TH36	217
TH37	217
TH38	217
TH39	217
TH40	217
TH41	217
TH42	217
TH43	217
TH44	237
TH45	237
TH46	237

Numerical Index

Art. No.	Page
TH47	237
TH48	239
TH49	239
TH50	239
TH51	456
TH53	969
TH54	969
TH55	969
TH56	969
TH57	969
TH58	969
TH59	969
TH61	1163
TH63	209
TH64	209
TH65	209
TH66	209
TH67	209
TH68	209
TH69	209
TH70	209
TH71	216
TH72	216
TH73	216
TH74	216
TH75	216
TH76	215
TH77	215
TH78	215
TH79	215
TH80	215
TH81	215
TH82	215
TH83	230
TH84	230
TH85	230
TH86	230
TH87	230
TH88	230
TH89	230
TH90	230
TH91	230
TH92	230
TH93	228
TH94	228
TH95	228
TH96	228
TH97	231
TH98	231
TH99	231
TK00	231
TK01	231
TK02	383
TK03	383
TK04	383
TK08	227
TK09	227
TK10	227
TK11	227
TK12	20
TK13	20
TK14	20
TK15	228
TK16	228
TK17	228
TK18	228
TK19	238
TK20	238
TK21	238
TK22	238
TK23	238
TK24	238
TK25	238
TK26	238
TK27	237
TK28	237
TK29	237
TK30	237
TK31	237
TK32	237
TK33	237
TK34	237
TK35	237
TK36	237
TK37	237
TK38	237
TK39	237
TK40	237
TK41	237
TK43	855

Art. No.	Page
TK44	1524
TK45	1158
TK46	1158
TK54	244
TK55	244
TK56	244
TK57	244
TK58	244
TK59	244
TK60	244
TK61	787
TK62	787
TK67	209
TK68	209
TK69	209
TK70	209
TK71	209
TK72	209
TK73	209
TK74	209
TK75	209
TK76	447
TK77	447
TK78	214
TK79	214
TK80	214
TK81	214
TK82	214
TK83	42
TK97	112
TK98	112
TK99	112
TL00	112
TL01	112
TL02	112
TL03	112
TL04	112
TL05	112
TL06	112
TL07	112
TL08	112
TL09	111
TL10	111
TL11	111
TL12	111
TL13	111
TL14	111
TL15	111
TL16	111
TL17	111
TL18	111
TL19	111
TL20	111
TL21	111
TL22	111
TL23	111
TL24	111
TL25	111
TL26	111
TL27	111
TL28	111
TL29	111
TL30	111
TL31	111
TL32	111
TL33	113
TL34	113
TL35	113
TL36	113
TL37	113
TL38	113
TL39	113
TL40	113
TL41	113
TL42	113
TL43	111
TL44	111
TL45	111
TL46	113
TL47	113
TL48	113
TL49	114
TL50	114
TL51	114
TL52	114
TL53	114
TL54	114
TL55	114
TL56	114
TL57	114

Art. No.	Page
TL58	114
TL60	948
TL61	1253
TL62	1253
TL63	1253
TL64	1253
TL65	1253
TL66	1253
TL67	316, 1409
TL68	316, 1409
TL69	316, 1409
TL70	1409
TL75	257
TL76	257
TL77	257
TL78	257
TL79	257
TL80	278
TL81	278
TL82	278
TL83	278
TL84	279
TL85	292
TL86	280
TL87	280
TL88	280
TL89	280
TL90	280
TL93	272
TL94	272
TL95	272
TL96	272
TL97	272
TL98	272
TP10	273
TP11	273
TP12	273
TP13	273
TP14	273
TP15	273
TP22	344
TP23	344
TP24	373
TP25	373
TP26	373
TP27	373
TP28	452
TP29	345
TP30	345
TP31	453
TP32	451
TP33	1264
TP38	947
TP39	947
TP40	947
TP41	947
TP42	947
TP43	947
TP44	947
TP45	950
TP46	32
TP47	32
TP48	231
TP49	231
TP50	343
TP51	343
TP54	343
TP55	343
TP58	288
TP59	288
TP60	288
TP61	288
TP62	288
TP63	288
TP64	289
TP65	289
TP66	289
TP67	703
TP68	646
TP69	646
TP70	646
TP71	646
TP72	646
TP73	646
TP74	646
TP75	646
TP76	646
TP77	646
TP79	591
TP80	591

Art. No.	Page
TP81	591
TP82	591
TP83	591
TP84	591
TP85	591
TP86	591
TP97	647
TP98	647
TP99	647
TT00	647
TT01	647
TT02	647
TT03	647
TT04	647
TT10	940
TT11	225
TT12	104
TT13	104
TT14	104
TT15	104
TT16	101, 1401
TT17	117
TT18	117
TT19	117
TT20	117
TT21	227
TT22	612
TT23	612
TT24	317
TT25	317
TT29	460
TT30	460
TT31	311
TT32	311
TT33	296
TT34	296
TT35	479
TT36	479
TT37	479
TT38	100
TT39	100
TT40	100
TT41	253
TT42	253
TT43	253
TT44	253
TT45	253
TT46	253
TT47	1198
TT50	598
TT51	598
TT52	598
TT53	598
TT54	598
TT55	598
TT56	460
TT57	430
TT58	430
TT59	430
TT60	430
TT61	430
TT62	430
TT63	430
TT64	430
TT65	430
TT66	430
TT67	430
TT68	430
TT69	167
TT70	167
TT71	167
TT73	110
TT74	110
TT75	196
TT78	1385
TT79	1385
TT80	1385
TT81	921
TT82	920
TT83	1562
TT84	919
TT85	919
TT86	919
TT98	167
TT99	167
TX00	167
TX01	167
TX02	167
TX03	167
TX04	272

Art. No.	Page
TX05	272
TX06	272
TX07	272
TX18	108
TX19	108
TX20	108
TX21	108
TX22	108
TX23	108
TX24	108
TX25	108
TX26	108
TX27	104
TX28	104
TX29	104
TX33	1029
TX37	25
TX38	25
TX39	25
TX40	25
TX41	894
TX42	894
TX43	894
TX44	894
TX45	894
TX46	894
TX47	648
TX48	648
TX49	648
TX50	648
TX51	648
TX52	648
TX53	648
TX54	648
TX55	648
TX56	648
TX57	648
TX58	648
TX59	648
TX60	648
TX61	1039
TX62	653
TX63	653
TX64	653
TX65	653
TX66	653
TX67	653
TX68	653
TX69	443
TX70	443
TX71	441
TX72	441
TX73	441
TX74	441
TX75	441
TX76	441
TX77	605
TX78	605
TX79	605
TX80	605
TX89	921
TX90	54
TX91	54
TX92	54
TX93	54
TX94	54
TX98	1343
TX99	1343
TY00	1343
TY01	1343
TY02	1343
TY03	1343
TY04	1343
TY05	1343
TY06	1344
TY07	1344
TY08	1344
TY09	1344
TY10	1344
TY11	1344
TY12	1344
TY13	1344
TY14	1345
TY15	1345
TY16	1345
TY17	1345
TY18	1345
TY19	1345
TY20	1345
TY21	1345

Art. No.	Page
TY22	1346
TY23	1346
TY24	1346
TY25	1346
TY26	1346
TY27	1346
TY28	1346
TY29	1346
TY30	1332
TY31	1332
TY32	1332
TY33	1332
TY34	1332
TY35	1332
TY36	1332
TY37	1332
TY38	1333
TY39	1333
TY40	1333
TY41	1333
TY42	1333
TY43	1333
TY44	1333
TY45	1333
TY46	1338
TY47	1338
TY48	1338
TY49	1338
TY50	1339
TY51	1339
TY52	1339
TY53	1339
TY54	1339
TY55	1339
TY56	1339
TY57	1339
TY59	835
TY60	835
TY61	835
TY62	650
TY63	650
TY64	650
TY65	650
TY66	650
TY67	650
TY68	650
TY69	650
TY70	650
TY71	845
TY72	84
TY73	84
TY74	85
TY75	85
TY76	88
TY77	89
TY78	90
TY79	90
TY80	90
TY81	90
TY82	90
TY83	90
TY84	90
TY85	90
TY86	90
TY87	1235
TY88	91
TY89	91
TY90	92
TY92	93
TY94	95
TY95	335
TY96	335
TY97	335
TY98	335
TY99	334
X001	484
X002	484
X003	484
X004	484
X005	484
X006	484
X007	1042
X008	1042
X021	452
X022	452
X023	452
X024	452
X025	452
X031	296
X032	296

Art. No.	Page
X033	552
X034	552
X035	552
X036	552
X038	552
X039	552
X041	553
X042	553
X043	553
X044	553
X045	554
X046	554
X047	554
X048	554
X049	554
X050	554
X051	554
X056	553
X057	553
X058	553
X059	553
X060	552
X061	552
X063	119
X064	119
X072	318
X075	318
X076	318
X077	318
X078	318
X079	318
X080	318
X081	318
X082	319
X083	323
X084	323
X086	323
X087	325
X088	325
X094	317
X095	317
X096	325
X097	325
X098	325
X099	330
X100	330
X101	330
X102	331
X103	194
X104	194
X105	194
X111	194
X114	110
X115	342
X116	342
X117	342
X118	1482
X119	1482
X121	1482
X127	551
X128	551
X129	551
X132	551
X133	551
X134	551
X152	883
X153	883
X154	883
X157	619
X158	619
X159	619
X160	619
X162	619
X163	1041
X171	1399
X172	681
X173	1172
X174	1172
X176	1380
X177	1380
X182	1457
X183	1457
X184	1457
X185	1439, 1457
X186	1439, 1457
X187	1439, 1457
X188	1439, 1457
X189	1439, 1457
X190	1039
X191	1039

Numerical Index

Art. No.	Page
X192	1039
X193	1039
X194	1039
X196	1103
X213	1557
X226	1131
X227	1131
X228	1083
X231	1289
X232	1289
X233	1289
X247	1567
X252	880
X253	1235
X254	880
X256	1098
X257	1136
X265	1077
X274	1077
X279	1077
X287	950
X288	950
X289	950
X292	947
X293	947
X294	1069
X298	945
X299	945
X319	1146
X320	1146
X321	1147
X322	1147
X323	1148
X324	1148
X325	1148
X326	1149
X327	107
X328	107
X329	107
X330	107
X331	107
X332	107
X334	741
X335	741
X336	741
X337	741
X338	741
X339	741
X340	741
X341	741
X342	741
X348	740
X352	526
X368	812
X396	1235
X398	1235
X406	811
X407	811
X415	1201
X416	1201
X423	936
X424	936
X426	993
X429	1010
X430	1010
X431	1010
X432	1010
X435	1070
X441	1001
X442	1001
X446	1016
X447	1016
X448	1016
X449	1016
X450	977
X457	1039
X465	835
X466	1473
X467	1474
X468	1474
X469	1474
X470	1474
X471	1474
X472	1473
X473	1474
X477	1428
X478	628
X479	628
X480	628
X482	628
X530	602
X531	602
X534	1429
X535	1429
X541	850
X544	1380
X545	969
X547	969
X548	969
X549	969
X550	969
X551	969
X556	856
X561	1434
X571	1166
X576	1091
X577	1091
X578	1091
X589	870
X590	663
X591	663
X592	664
X594	664
X595	666
X596	666
X597	667
X599	667
X601	667
X612	968
X613	968
X614	968
X615	968
X616	396
X654	99
X655	99
X656	99
X657	99
X658	99
X659	99
X660	99
X661	99
X662	99
X663	99
X668	870
X669	253
X670	253
X672	253
X673	253
X674	253
X685	11
X686	11
X687	11
X688	11
X689	11
X690	11
X691	11
X692	11
X693	11
X694	11
X695	11
X696	11
X697	11
X698	11
X700	11
X701	11
X702	11
X703	11
X704	11
X705	11
X706	11
X707	11
X708	11
X709	11
X710	11
X711	1273
X712	42
X713	42
X714	42
X715	42
X716	42
X717	1111
X718	1111
X719	1111
X720	1111
X721	1111
X722	1111
X723	1111
X724	1111
X726	1111
X727	1112
X728	1112
X729	1112
X730	1112
X731	1112
X732	1133
X734	18
X735	18
X736	18
X737	18
X738	18
X739	18
X740	18
X741	18
X742	18
X745	18
X746	18
X747	18
X748	18
X749	18
X750	18
X751	18
X752	18
X753	18
X754	18
X755	18
X769	20
X770	20
X771	20
X773	20
X774	20
X776	20
X778	20
X779	20
X782	221
X783	221
X784	221
X785	221
X786	221
X787	221
X788	221
X789	221
X790	221
X818	1327
X822	1048
X823	1048
X825	1112
X826	1453
X828	1012
X837	1229
X840	1227
X845	398
X846	398
X847	398
X851	433
X852	433
X853	433
X854	433
X855	433
X856	433
X857	1023
X859	1560
X860	1030
X861	1030
XA00	334
XA01	334
XA02	334
XA03	334
XA04	334
XA05	334
XA06	334
XA07	334
XA08	334
XA09	943
XA10	943
XA11	943
XA12	943
XA13	943
XA14	943
XA15	943
XA16	943
XA17	1394
XA18	1394
XA19	1394
XA20	1394
XA21	1397
XA22	1397
XA23	1397
XA24	1397
XA25	1397
XA26	1397
XA27	1397
XA28	842
XA29	842
XA30	842
XA31	842
XA32	842
XA33	842
XA34	842
XA35	842
XA36	859
XA38	858
XA41	1137
XA42	757
XA43	757
XA44	757
XA45	757
XA46	757
XA47	757
XA48	757
XA49	757
XA50	757
XA51	757
XA52	757
XA54	757
XA55	757
XA56	760
XA57	760
XA58	760
XA59	760
XA60	760
XA61	760
XA62	760
XA63	760
XA64	760
XA65	760
XA66	760
XA67	760
XA68	760
XA69	760
XA70	760
XA71	760
XA72	760
XA73	760
XA74	760
XA75	760
XA76	760
XA77	760
XA78	760
XA79	760
XA80	760
XA81	760
XA82	760
XA83	760
XA84	760
XA85	760
XA86	760
XA87	760
XA88	760
XA89	760
XA90	760
XA91	760
XA92	760
XA93	760
XA94	760
XA95	760
XA96	760
XA97	760
XA98	758
XA99	758
XC00	758
XC01	758
XC02	758
XC03	758
XC04	759
XC05	759
XC06	759
XC07	759
XC10	426
XC11	786
XC12	786
XC14	484
XC15	484
XC16	484
XC17	484
XC18	484
XC19	484
XC20	391
XC21	391
XC26	497
XC27	497
XC29	497
XC31	497
XC35	497
XC37	81
XC38	81
XC39	81
XC40	81
XC41	81
XC42	81
XC43	81
XC44	81
XC45	81
XC46	81
XC47	87
XC48	87
XC49	87
XC50	87
XC51	87
XC52	383
XC53	383
XC54	383
XC55	720-721
XC56	720-721
XC57	720-721
XC58	720-721
XC59	720-721
XC60	720-721
XC61	720-721
XC62	692
XC63	692
XC64	87
XC65	87
XC66	97
XC67	97
XC68	97
XC69	97
XC70	97
XC71	97
XC73	455
XC74	542
XC75	655
XC76	655
XC77	655
XC78	667
XC79	698
XC80	698
XC81	698
XC82	698
XC83	698
XC84	698
XC85	826
XC86	826
XC87	826
XC88	856
XC91	844
XC92	844
XC93	911
XC94	911
XC95	911
XC96	911
XC97	859
XC98	718
XC99	718
XE00	720
XE01	720
XE02	718
XE03	718
XE04	720
XE05	720
XE06	719
XE07	719
XE08	719
XE09	719
XE10	718
XE11	718
XE12	720
XE13	720
XE14	720
XE15	720
XE16	718
XE17	718
XE18	718
XE19	718
XE20	719
XE21	719
XE22	719
XE23	719
XE24	719
XE25	719
XE26	719
XE27	719
XE28	719
XE30	737
XE31	737
XE32	737
XE33	737
XE34	737
XE35	582
XE36	582
XE37	582
XE44	896
XE45	896
XE46	896
XE47	896
XE48	896
XE49	896
XE50	896
XE51	896
XE52	896
XE53	896
XE56	922
XE79	720-721
XE80	946
XE81	946
XE82	717
XE83	717
XE84	717
XE85	717
XE86	751
XE87	751
XE88	751
XE95	751
XE99	740
XH00	740
XH01	740
XH02	740
XH03	740
XH04	740
XH05	740
XH07	949
XH08	949
XH09	949
XH11	949
XH12	949
XH14	952
XH15	952
XH16	952
XH17	952
XH18	952
XH19	952
XH21	946
XH22	946
XH23	946
XH24	946
XH25	946
XH26	1336
XH27	1336
XH28	1336
XH29	1336
XH30	1336
XH31	1336
XH32	1351
XH33	1351
XH34	1351
XH35	1351
XH36	1351
XH37	1351
XH38	721
XH39	721
XH42	722
XH43	722
XH44	725
XH45	724
XH46	724
XH47	726
XH48	726
XH49	722
XH50	722
XH51	725
XH52	725
XH53	722
XH54	722
XH55	722
XH56	722
XH57	722
XH58	722
XH59	725
XH60	725
XH61	723
XH62	723
XH63	723
XH64	723
XH65	723
XH66	726
XH67	726
XH68	726
XH69	724
XH70	724
XH71	726
XH72	726
XH73	725
XH74	725
XH75	725
XH76	726
XH77	726
XH78	739
XH79	739
XH80	739
XH81	740
XH82	740
XH83	740
XH84	740
XH85	740
XH86	740
XH87	740
XH88	418
XH89	418
XH90	418
XH97	122
XH98	122
XH99	122
XK00	1124
XK01	483
XK02	1031
XK05	676
XK08	676
XK10	676
XK11	676
XK12	676
XK13	676
XK18	676
XK19	676
XK20	434
XK21	434
XK23	434
XK24	434
XK25	434
XK26	434
XK27	434
XK28	434
XK29	434
XK30	1460
XK31	1460
XK32	1232
XK33	1232
XK34	1232
XK35	848
XK36	848
XK37	848
XK38	848
XK40	848
XK42	848
XK44	848
XK45	848
XK46	848
XK47	849
XK48	849
XK54	1352
XK55	1352
XK56	1352
XK57	1352
XK58	1563
XK59	1563
XK60	1563
XK61	1563
XK62	1563
XK63	1563
XK64	1563
XK65	1563
XK66	1563
XK67	1563
XK68	1563
XK69	1563
XK70	1563
XK71	1563
XK72	1563
XK73	1563
XK74	1563
XK75	1563
XK76	1563

Numerical Index

Art. No.	Page
XK77	1563
XK78	1563
XK79	1563
XK80	1472
XL10	938
XL11	938
XL12	938
XL13	937
XL15	978
XL16	978
XL19	978
XL21	978
XL22	978
XL23	978
XL24	978
XL25	978
XL26	978
XL27	977
XL28	978
XL29	978
XL31	978
XL33	978
XL34	978
XL35	978
XL36	978
XL37	978
XL40	978
XL42	978
XL43	978
XL44	978
XL45	978
XL46	978
XL47	978
XL48	978
XL49	978
XL50	978
XL52	978
XL53	978
XL54	425
XL55	425
XL56	425
XL57	425
XL58	310
XL59	310
XL60	311
XL62	277
XL63	277
XL64	277
XL65	277
XL66	277
XL67	277
XL68	277
XL69	277
XL70	277
XL71	277
XL72	277
XL73	277
XL74	277
XL75	277
XL76	277
XL77	277
XL78	277
XL79	277
XL80	277
XL81	277
XL82	278
XL83	278
XL84	278
XL85	17
XL86	17
XL87	17
XL88	17
XL89	274
XL90	274
XL91	274
XL92	274
XL93	274
XL96	274
XL97	274
XL98	274
XL99	274
XP00	274
XP01	274
XP02	274
XP03	274
XP04	274
XP05	274
XP06	274
XP07	482
XP08	482
XP09	483
XP13	770
XP15	770
XP16	770
XP20	770
XP22	770
XP23	770
XP27	770
XP30	770
XP31	766
XP32	766
XP34	766
XP36	766
XP38	767
XP40	767
XP41	1560
XP42	1560
XP43	768, 1560
XP44	768, 1560
XP45	768, 1560
XP46	768, 1560
XP47	768, 1560
XP48	768, 1560
XP49	768, 1560
XP50	774
XP51	1478
XP52	1372
XP53	1372
XP54	874
XP55	874
XP56	1536
XP57	1540
XP58	1541
XP59	1565
XP60	1565
XP61	1566
XP62	1566
XP63	1566
XP64	1565
XP65	1566
XP66	1566
XP67	997
XP68	997
XP69	1452
XP77	1495
XP78	1495
XP79	1496
XP80	1496
XP81	1496
XP82	1496
XP83	1496
XP84	1496
XP85	1496
XP86	1496
XP89	1496
XP90	1496
XP91	656
XP92	656
XP93	657
XP94	889
XP95	889
XP96	889
XP97	889
XP98	354
XP99	354
XT00	354
XT01	354
XT02	50
XT03	50
XT04	50
XT05	56
XT06	56
XT07	19
XT08	19
XT09	748
XT15	1477
XT16	1404
XT17	1404
XT18	1404, 1407
XT19	1407
XT20	1407
XT21	1407
XT22	1407
XT23	1387
XT24	1387
XT25	1387
XT26	1387
XT33	1381
XT34	1381
XT35	1381
XT36	1383
XT37	1383
XT38	1383
XT39	1461
XT40	1461
XT41	1461
XT42	1461
XT43	1456
XT44	1408
XT45	1408
XT46	1464
XT47	1464
XT48	1464, 1466
XT49	1464, 1466
XT50	1464, 1466
XT51	1465, 1467
XT52	1466
XT53	1466
XT54	1393
XT55	1393
XT57	703
XT59	1390
XT60	1390
XT61	1390
XT62	442
XT63	320
XT64	679
XT65	679
XT66	680
XT67	680
XT71	680
XT72	400
XT73	400
XT74	400
XT75	400
XT76	400
XT77	400
XT82	653
XT83	653
XT84	653
XT85	1043
XT86	690
XT87	690
XT88	690
XT89	688
XT90	688
XT91	689
XT94	686
XT95	686
XT98	686
XX01	686
XX02	686
XX03	686
XX04	1417
XX05	585
XX06	585
XX07	902
XX08	902
XX09	902
XX10	902
XX11	902
XX13	378
XX14	378
XX15	378
XX16	378
XX17	1424
XX18	1240
XX19	258
XX20	258
XX21	258
XX22	258
XX23	236
XX24	280
XX25	280
XX26	277
XX27	277
XX28	277
XX29	277
XX30	277
XX31	277
XX32	277
XX33	277
XX34	277
XX35	13
XX36	13
XX37	13
XX38	13
XX39	13
XX40	13
XX41	13
XX42	13
XX43	13
XX44	258
XX45	258
XX46	258
XX47	258
XX48	258
XX49	258
XX50	258
XX51	258
XX52	258
XX53	258
XX54	258
XX55	279, 285
XX56	279, 285
XX57	279, 285
XX58	311
XX59	311
XX60	311
XX61	311
XX62	297
XX63	457
XX64	279
XX65	279
XX66	279
XX67	279
XX68	279
XX69	279
XX70	279
XX71	279
XX72	279
XX73	279
XX74	279
XX75	279
XX76	279
XX77	279
XX78	279
XX79	281
XX80	281
XX81	281
XX82	281
XX83	281
XX84	281
XX85	281
XX86	281
XX87	281
XX88	281
XX89	281
XX90	281
XX91	281
XX92	281
XX93	281
XX94	281
XX95	1435
XX96	121
XX97	121
XX98	121
XX99	121
XY00	908
XY01	908
XY02	908
XY03	908
XY08	1314
XY09	1314
XY10	1314
XY11	1314
XY12	1314
XY13	1314
XY14	899
XY15	899
XY16	1056
XY17	1056
XY18	1056
XY19	276
XY20	276
XY21	15
XY22	459
XY23	459
XY24	459
XY29	459
XY30	31
XY31	31
XY32	31
XY33	31
XY34	31
XY35	31
XY36	31
XY37	31
XY38	31
XY39	31
XY40	31
XY41	31
XY42	31
XY43	31
XY51	30
XY52	30
XY53	30
XY54	30
XY55	30
XY56	30
XY57	614
XY58	614
XY59	614
XY60	614
XY61	614
XY62	208
XY63	208
XY64	208
XY65	162
XY66	162
XY67	162
XY68	162
XY69	162
XY70	178
XY71	178
XY72	178
XY74	188
XY75	188
XY76	188
XY83	909
XY84	909
XY85	909
XY86	909
XY87	909
XY88	909
XY89	164
XY90	164
XY91	164
XY92	164
XY93	164
XY94	164
XY95	164
XY96	164
Y030	433
Y031	433
Y032	433
Y033	433
Y035	433
Y037	355
Y038	355
Y039	355
Y040	355
Y041	355
Y042	355
Y043	355
Y044	355
Y045	355
Y046	355
Y047	355
Y048	355
Y049	355
Y050	355
Y051	355
Y052	355
Y053	355
Y054	354
Y055	354
Y059	1483
Y063	546
Y064	546
Y104	1000
Y105	1000
Y106	1000
Y109	1562
Y110	1562
Y111	1562
Y112	1562
Y113	1231
Y114	1231
Y115	1231
Y116	1231
Y117	1231
Y118	1231
Y119	1231
Y120	1231
Y121	1230
Y122	1230
Y123	1230
Y124	1230
Y125	1230
Y126	1230
Y127	1230
Y128	1230
Y129	1230
Y130	1230
Y131	1230
Y132	1230
Y133	1230
Y134	1230
Y135	1230
Y136	1230
Y194	435
Y195	435
Y196	435
Y197	435
Y198	435
Y199	435
Y200	435
Y201	435
Y203	1233
Y204	1233
Y222	1526
Y223	1528
Y224	1237
Y227	1240
Y231	27
Y232	27
Y233	27
Y234	27
Y235	27
Y236	27
Y237	27
Y239	27
Y240	27
Y241	27
Y242	27
Y243	27
Y244	27
Y245	27
Y246	1137
Y254	819
Y258	1037
Y274	28
Y275	28
Y276	28
Y277	28
Y278	28
Y279	28
Y280	28
Y281	28
Y282	28
Y283	28
Y284	28
Y285	28
Y286	28
Y287	28
Y288	28
Y290	28
Y292	28
Y293	28
Y294	28
Y295	28
Y296	28
Y297	28
Y298	28
Y299	28
Y300	28
Y301	28
Y302	28
Y303	22
Y304	22
Y305	22
Y306	22
Y307	22
Y308	22
Y309	22
Y310	22
Y311	22
Y340	241
Y341	233
Y342	233
Y343	231
Y344	231
Y345	231
Y351	918
Y352	918
Y353	239
Y354	239
Y355	239
Y356	239
Y359	1442
Y369	569
Y370	569
Y372	567
Y373	567
Y374	562
Y377	1020
Y378	1020
Y383	882
Y384	1428
Y386	1000
Y387	1001
Y388	1027
Y389	1027
Y390	1027
Y391	1027
Y392	1027
Y393	852
Y394	852
Y399	1287
Y400	1125
Y401	1128
Y404	1002
Y405	1000
Y406	828
Y407	1369
Y408	1369
Y409	1369
Y410	1369
Y419	669
Y421	1054
Y431	919
Y432	919
Y433	919
Y436	1411
Y437	1411
Y438	1411
Y439	1411
Y440	1411
Y441	1411
Y442	1411
Y443	1411
Y444	1411
Y446	527
Y447	527
Y448	527
Y449	527
Y450	527
Y451	527
Y452	903
Y453	903
Y454	903
Y455	903
Y456	903
Y457	575
Y484	584
Y485	584
Y486	584
Y487	584
Y488	584
Y489	584
Y492	559
Y496	603
Y497	1017
Y504	584
Y505	584
Y506	584
Y507	584
Y508	584
Y509	1420
Y510	1420
Y512	1420
Y513	1420
Y514	1420
Y515	1420
Y517	1440
Y518	1440
Y519	1440
Y520	1440
Y521	1441
Y522	1441
Y523	599
Y524	599
Y525	1421
Y527	1288
Y530	1207
Y534	588
Y535	588
Y545	563
Y549	1471

Numerical Index

Art. No.	Page
Y550	1471
Y551	1471
Y552	1471
Y553	1471
Y554	1471
Y555	1471
Y556	1148
Y557	1149
Y558	1149
Y559	1149
Y560	1149
Y561	1270
Y562	1270
Y563	1270
Y564	1270
Y565	1271
Y566	1271
Y568	22
Y569	22
Y570	22
Y571	22
Y572	22
Y573	22
Y574	22
Y575	22
Y576	22
Y577	27
Y578	27
Y579	27
Y580	27
Y581	27
Y582	27
Y583	27
Y584	27
Y585	26
Y586	26
Y587	26
Y588	26
Y589	26
Y590	26
Y591	26
Y592	26
Y609	1204
Y610	1204
Y612	40
Y613	40
Y614	40
Y615	40
Y616	40
Y617	40
Y618	40
Y619	40
Y620	40
Y621	40
Y622	38
Y623	38
Y624	38
Y625	38
Y626	38
Y627	38
Y628	38
Y629	38
Y630	38
Y631	38
Y634	271
Y635	271
Y636	271
Y637	271
Y638	271
Y639	271
Y640	271
Y641	271
Y642	271
Y643	20
Y644	20
Y645	1011
Y646	206
Y647	206
Y648	206
Y649	206
Y650	1273
Y652	1275
Y653	205
Y654	205
Y655	205
Y656	205
Y657	205
Y658	205
Y659	208
Y660	208
Y661	208
Y662	208
Y663	208
Y664	208
Y665	208
Y666	208
Y669	244
Y670	244
Y671	244
Y672	244
Y673	244
Y674	244
Y675	244
Y676	232
Y677	232
Y680	232
Y681	232
Y682	42
Y683	42
Y684	20
Y685	239
Y686	239
Y687	239
Y688	239
Y689	239
Y690	239
Y691	239
Y692	239
Y693	239
Y697	527
Y698	527
Y699	527
Y701	387
Y702	1008
Y703	1008
Y704	1008
Y705	1008
Y706	1007
Y707	1007
Y708	1006
Y709	1006
Y710	1006
Y711	1006
Y712	1006
Y713	1006
Y716	765
Y718	1353
Y719	1353
Y720	1353
Y752	109
Y753	109
Y754	109
Y755	109
Y756	192
Y767	166
Y768	166
Y769	166
Y770	166
Y771	166
Y772	259
Y773	259
Y774	259
Y775	259
Y777	259
Y778	259
Y779	259
Y780	259
Y782	259
Y783	259
Y784	259
Y785	259
Y787	259
Y788	259
Y789	259
Y790	259
Y792	259
Y793	259
Y794	259
Y795	259
Y801	165
Y802	165
Y803	220
Y804	220
Y805	220
Y806	220
Y807	220
Y808	220
Y809	631
Y810	631
Y811	631
Y812	631
Y813	631
Y814	631
Y816	666
Y822	1376
Y823	1396
Y824	1396
Y825	1396
Y826	1396
Y828	804
Y829	804
Y830	805
Y831	805
Y832	807
Y833	40
Y834	40
Y835	38
Y836	38
Y843	112
Y844	112
Y846	113
Y847	113
Y848	113
Y849	113
Y850	113
Y851	113
Y852	113
Y853	113
Y854	113
Y855	113
Y856	769
Y857	769
Y858	769
Y859	769
Y861	857
Y862	857
Y863	1533
Y866	867
Y868	856
Y871	259
Y872	259
Y873	259
Y874	259
Y875	259
Y876	259
Y877	259
Y878	259
Y879	259
Y880	257
Y881	257
Y882	257
Y883	257
Y884	257
Y888	1384
Y928	957
Y931	1088
Y932	1088
Y933	751
Y934	751
Y935	752
Y936	752
Y937	752
Y938	752
Y943	752
Y948	752
Y949	752
Y950	752
Y951	752
Y952	752
Y958	523
Y959	523
Y960	523
Y961	523
Y962	523
Y963	523
Y964	523
Y965	523
Y966	523
Y967	523
Y968	523
Y969	523
Y974	1427
Y975	1427
YA06	615
YA07	615
YA08	615
YA09	615
YA10	615
YA11	615
YA12	182
YA14	182
YA15	182
YA16	182
YA17	176
YA18	176
YA19	176
YA20	176
YA21	181
YA22	181
YA23	181
YA24	181
YA25	106
YA26	106
YA27	106
YA28	106
YA29	15
YA30	15
YA31	15
YA32	164
YA33	164
YA34	164
YA35	164
YA36	164
YA37	164
YA38	164
YA39	164
YA40	164
YA41	164
YA42	164
YA43	164
YA44	250
YA45	250
YA46	250
YA47	250
YA48	250
YA49	250
YA50	250
YA51	250
YA55	996
YA56	996
YA57	996
YA58	1000
YA60	897
YA61	897
YA62	897
YA63	897
YA64	999
YA65	999
YA66	252
YA67	252
YA68	252
YA69	252
YA73	246
YA74	246
YA75	34
YA76	34
YA78	425
YA79	425
YA80	425
YA87	390
YA89	390
YA90	389
YA94	336
YA95	344
YA96	344
YA97	344
YA98	344
YA99	344
YC05	336
YC06	335
YC07	335
YC08	335
YC09	455
YC11	295
YC14	295
YC15	295
YC16	295
YC19	1337
YC27	26
YC28	26
YC30	1400
YC31	1205
YC32	1205
YC33	1205
YC35	1565
YC36	1415
YC37	1415
YC38	1415
YC39	1531
YC41	675
YC43	298
YC44	788
YC47	1314
YC48	1315
YC49	1315
YC50	1315
YC51	1315
YC52	1315
YC53	1329
YC59	520
YC60	510
YC61	510
YC62	510
YC63	510
YC64	510
YC65	510
YC66	510
YC67	510
YC68	510
YC69	510
YC70	510
YC71	510
YC72	510
YC73	510
YC76	1027
YC77	1027
YC78	1027
YC79	1027
YC80	293
YC81	293
YC82	298
YC83	300
YC84	300
YC85	300
YC86	300
YC87	300
YC88	299
YC89	299
YC90	298
YC91	298
YC92	1203
YC93	1203
YC94	1203
YC95	1203
YC96	1203
YC97	1203
YC98	1203
YC99	1203
YE01	129
YE02	129
YE04	129
YE05	130
YE08	1154
YE13	429
YE14	429
YE15	429
YE16	429
YE17	1089
YE18	1089
YE19	1089
YE20	1089
YE21	1089
YE22	1089
YE23	1089
YE24	1089
YE25	1089
YE26	1089
YE28	1272
YE29	469
YE30	470
YE32	470
YE33	468
YE34	468
YE35	468
YE36	467
YE37	467
YE38	467
YE39	467
YE40	467
YE41	1096
YE43	285
YE44	285
YE45	285
YE46	373
YE47	198
YE48	198
YE49	198
YE50	198
YE51	198
YE52	198
YE53	294
YE54	294
YE55	294
YE56	294
YE57	294
YE58	294
YE59	294
YE60	291
YE61	1511
YE62	1511
YE63	1511
YE64	1511
YE65	1512
YE66	1512
YE67	1512
YE68	594
YE69	594
YE70	594
YE71	594
YE72	594
YE73	594
YE74	594
YE75	594
YE76	594
YE77	594
YE78	594
YE79	594
YE80	486
YE81	487
YE82	310
YE83	310
YE84	310
YE85	1289
YE87	1017
YE88	1017
YE90	292
YE91	292
YE92	292
YE93	292
YE94	292
YE95	292
YE97	292
YE98	292
YE99	292
YH00	292
YH01	292
YH03	292
YH05	1420
YH06	1421
YH07	1421
YH08	1421
YH09	173
YH10	173
YH11	173
YH12	173
YH13	173
YH14	173
YH15	1399
YH16	1399
YH17	1399
YH18	1399
YH19	1399
YH20	268
YH21	268
YH22	268
YH23	268
YH24	268
YH25	268
YH26	268
YH27	268
YH28	193
YH29	291
YH30	291
YH31	291
YH32	291
YH36	291
YH37	291
YH38	291
YH39	291
YH42	291
YH43	202
YH44	202
YH45	202
YH46	202
YH47	202
YH48	192
YH49	199
YH50	199
YH51	199
YH52	199
YH53	199
YH54	199
YH55	199
YH56	199
YH57	197
YH58	197
YH59	197
YH60	197
YH61	197
YH62	197
YH63	197
YH64	197
YH65	197
YH66	197
YH67	197
YH68	197
YH69	197
YH70	191
YH71	191
YH72	191
YH73	191
YH74	197
YH75	197
YH76	197
YH77	199
YH78	199
YH79	199
YH80	199
YH81	199
YH82	199
YH83	199
YH84	199
YH85	199
YH86	199
YH87	199
YH88	199
YH89	199
YH90	199
YH91	1454
YH92	1454
YH93	1454
YH94	1454
YH95	1454
YH96	509
YH97	509
YH98	509
YH99	509
YK00	509
YK01	509
YK02	509
YK03	509
YK04	509
YK05	509
YK06	509
YK07	509
YK08	509
YK09	509
YK10	509
YK13	697
YK14	697
YK15	697
YK16	697
YK17	697
YK18	697
YK19	697
YK20	697
YK21	697
YK22	697
YK23	697
YK24	636
YK28	523
YK29	523
YK30	468
YK31	468
YK32	468
YK33	468
YK34	468
YK35	468
YK36	471
YK37	471
YK38	471
YK39	469
YK40	469
YK41	469
YK42	469
YK43	469
YK44	469
YK45	469
YK46	469
YK47	469

Numerical Index

Art. No.	Page
YK48	471
YK49	471
YK51	305
YK52	305
YK53	305
YK54	305
YK55	305
YK56	305
YK57	305
YK58	305
YK59	305
YK60	305
YK61	305
YK62	305
YK63	305
YK64	305
YK65	305
YK66	304
YK67	304
YK68	304
YK69	304
YK70	304
YK71	304
YK72	300
YK73	300
YK74	303
YK75	303
YK76	303
YK77	303
YK78	303
YK79	303
YK80	1385
YK82	1074
YK85	1549
YK87	1548
YK90	985
YK91	985
YK92	986
YK93	986
YK94	986
YK95	986
YK96	986
YK98	986
YK99	508
YL00	508
YL02	508
YL03	268
YL04	268
YL05	268
YL06	268
YL07	268
YL08	268
YL09	268
YL10	268
YL14	306
YL15	306
YL16	306
YL17	306
YL18	306
YL19	306
YL20	306
YL21	306
YL22	306
YL23	306
YL24	306
YL25	306
YL26	306
YL27	306
YL28	306
YL29	306
YL30	306
YL31	306
YL32	306
YL33	306
YL34	306
YL35	304
YL36	304
YL37	304
YL38	304
YL39	304
YL40	304
YL41	304
YL42	304
YL43	304
YL44	304
YL48	499
YL49	499
YL50	306
YL51	306
YL52	306
YL53	306
YL54	306
YL55	306
YL56	306
YL57	306
YL58	306
YL59	307
YL61	331
YL62	330
YL63	330
YL64	330
YL65	330
YL66	326
YL67	326
YL70	1363
YL72	1362
YL73	1282
YL81	590
YL82	590
YL83	590
YL84	590
YL85	590
YL86	590
YL87	590
YL88	590
YL89	590
YL90	590
YL91	590
YL92	590
YL93	590
YL94	590
YL95	590
YL96	590
YL97	590
YL98	590
YL99	590
YP04	183
YP05	183
YP06	183
YP07	183
YP08	183
YP09	183
YP10	183
YP11	183
YP12	846
YP17	843
YP18	843
YP19	1512
YP20	1512
YP21	1260
YP22	1260
YP23	801
YP24	801
YP25	801
YP26	801
YP27	800
YP28	1161
YP30	1180
YP32	800
YP33	800
YP34	510
YP35	510
YP36	511
YP37	511
YP38	511
YP39	511
YP40	511
YP41	512
YP42	512
YP43	512
YP46	511
YP47	511
YP48	511
YP49	511
YP50	511
YP51	511
YP52	511
YP53	511
YP54	324
YP68	1173
YP70	1280
YP71	1280
YP72	1280
YP73	1280
YP74	1280
YP75	1231
YP76	1231
YP77	1231
YP78	1231
YP79	1231
YP80	1231
YP81	1231
YP82	1231
YP83	1231
YP84	1231
YP85	1231
YP86	1231
YP87	301
YP88	301
YP89	301
YP90	301
YP91	301
YP92	301
YP93	329
YP94	329
YP95	329
YP96	329
YP97	303
YP98	303
YP99	303
YT00	421
YT01	421
YT02	421
YT03	421
YT04	421
YT05	341
YT06	341
YT07	341
YT08	1410
YT09	1410
YT10	1410
YT11	1410
YT12	1410
YT13	1410
YT14	1410
YT15	1410
YT16	1410
YT17	1410
YT18	1410
YT19	1410
YT20	1410
YT21	1410
YT22	1410
YT23	1410
YT24	1410
YT25	1410
YT26	1410
YT27	1410
YT28	1410
YT29	1410
YT30	1410
YT31	1410
YT32	1410
YT33	1410
YT34	314
YT35	314
YT36	314
YT37	314
YT38	838
YT39	79
YT40	79
YT41	396
YT42	396
YT43	396
YT44	396
YT45	396
YT47	862
YT48	871
YT49	867
YT50	1159
YT51	1159
YT52	1159
YT61	1571
YT62	199
YT63	475
YT64	298
YT65	298
YT66	1033
YT68	313
YT69	313
YT70	313
YT71	313
YT72	317
YT73	317
YT76	197
YT77	197
YT78	197
YT79	197
YT80	270
YT81	270
YT82	270
YT83	270
YT84	270
YT85	270
YT86	270
YT87	270
YT88	270
YT89	270
YT90	270
YT91	270
YT92	270
YT93	270
YT94	1189
YX02	441
YX03	441
YX04	441
YX05	964
YX06	964
YX07	964
YX08	964
YX09	964
YX10	964
YX11	964
YX12	964
YX13	964
YX14	964
YX15	964
YX18	964
YX19	975
YX20	975
YX21	975
YX22	975
YX23	975
YX24	975
YX25	975
YX26	975
YX27	975
YX28	975
YX29	975
YX30	975
YX31	975
YX32	977
YX33	977
YX34	977
YX35	977
YX36	977
YX37	977
YX38	977
YX39	977
YX40	977
YX41	977
YX42	977
YX43	977
YX44	1192-1193
YX45	1192-1193
YX46	1192-1193
YX49	1167
YX50	1167
YX53	626
YX54	897
YX55	897
YX56	897
YX57	897
YX58	12
YX59	12
YX60	12
YX61	12
YX63	187
YX64	187
YX65	187
YX66	172
YX67	172
YX68	172
YX69	172
YX70	172
YX71	172
YX72	172
YX73	172
YX74	268
YX75	268
YX76	268
YX77	268
YX81	512
YX82	512
YX83	512
YX84	512
YX85	508
YX87	196
YX88	196
YX89	196
YX90	196
YX91	196
YX92	196
YX93	196
YX94	196
YX95	196
YX96	273
YX97	1552
YX98	1552
YX99	1552
YY00	16
YY01	16
YY02	16
YY03	16
YY04	16
YY16	869
YY17	388
YY19	863
YY23	252
YY24	252
YY25	252
YY26	252
YY27	252
YY28	252
YY29	252
YY30	252
YY31	252
YY32	1203
YY33	1203
YY34	1203
YY35	1203
YY36	1203
YY37	1203
YY38	1203
YY39	1203
YY40	1203
YY41	1203
YY42	195
YY43	195
YY44	195
YY45	195
YY46	195
YY47	195
YY48	195
YY49	195
YY50	181
YY51	181
YY52	181
YY53	181
YY54	181
YY55	181
YY57	21
YY58	21
YY59	21
YY60	157
YY61	157
YY62	157
YY63	157
YY64	157
YY65	157
YY67	157
YY68	157
YY69	157
YY70	157
YY71	157
YY73	26
YY74	26
YY75	26
YY79	106
YY81	106
YY82	106
YY83	106
YY84	106
YY85	106
YY89	1042
YY90	1042
YY99	1401

Alphabetical Index

A

Absorbents 944, 982-984
Accessories for gloves 882-883
Accessories for petri dishes 399, 414-416, 422-423
Accessories for ultrasonic units 1503-1504, 1508-1512, 1514-1518
Acid and alkali pumps. 520, 522-527
Adapters 60, 227-229, 233-234, 261, 523, 602-603, 991, 1246-1247, 1251, 1481, 1489-1490
Adhesive films 388, 681-683, 1029
Adhesive mats. 944, 1029
Adhesive slides 445
Adhesive tapes 963-967, 974, 1041-1042, 1575-1579
Aerometers 241
Aids 1423, 1579-1582
Air-flow measuring devices. 1194
Air quality meters. 1139
Ampoules 80, 952, 1033
Analytical balances. 1213-1226
Analytical mills. 1426-1428
Analytical sieve machines. 776-778
Anemometers 1194
Anti-slip mats. 1029-1030
Applicators 425-428
Aprons. 934-937
Assortment boxes 1026-1027
Atomisers. 169, 787-788
Attachments 232, 236, 1431, 1435, 1438
Autoclavable bags. 995-996
Autoclave accessories 1244-1252
Autoclave monitoring. 391-392
Autoclaves. 1244-1248, 1253-1254
Autoradiography 1077
Autosampler vials 84-95, 104, 675

B

Baffled flasks. 51, 409-411
Bags 382-384, 506, 995-998, 1000
Balances 1200-1226, 1229-1230
Barometers 1138
Barrel pumps. 520-527
Barrels 131-132, 134, 988
Baskets 395-396, 1003, 1023, 1025
Bath thermostats 1290-1297, 1300-1302
Batteries 1003, 1083
Beakers 10-17, 182-183
Beta radiation protection 959-962
Bins 132, 134, 988
Blades 481-485
Block heaters. 1314-1317, 1322-1323
Block thermostats 1314-1317, 1322-1323
Body showers 800
Boiling stones 1581
Boss heads 319-322
Bottle-top filter systems. 741-746
Bottles . . . . . 33, 37-48, 50-53, 71, 82-83, 102-104, 131, 140-154, 156-157, 160-163, 165-169, .262-265, 397-398, 407-409, 446, 515, 741
Bottles with conical shoulder 38-40, 156
Bottles with snap-on lid. 90, 98-99
Bowls. 198-199, 268
Boxes. 337, 353-358, 360-363, 386, 854, 981, 1016, 1020-1021, 1023, 1026-1027
Brushes 289-290, 428, 1562-1565
Buckets 133, 200-203, 373, 1002-1003, 1024
Bulb pipettes 615, 620-623
Bunsen burners. 1270-1274, 1276-1278, 1280, 1282
Burettes 329, 542-545
Burner accessories 1283-1284, 1547
Burners 1270-1278, 1280, 1282-1283

C

Cabinets . . . . . 77, 854, 945, 1328-1333, 1336, .1340-1341, 1343-1348, 1351, 1353
Cable ties 385, 1037
Cables 1233
Calculators 1240-1241
Calibration solutions 1159-1160
Calibration weights 1230-1231
Canister pumps. 520-527, 536, 539
Canisters . . 16, 128-129, 134-140, 142, 202, 989, 992, 1289
Capillary tubes 242, 604-605, 787, 1034

Alphabetical Index

Caps 83, 90, 413-414
Carbon dioxide meters 1139
Carboys 140-142
Cast resin 1576
Cell culture bottles 397-398, 403-404, 408
Cell culture plates 402
Cell disruptors 1420-1425
Cell scrapers 399
Cuvettes 424, 433-436
Cellulose 1554, 1556-1557
Centrifugal filter units 739-740
Centrifugal pumps 558
Centrifuge bottles 125-126
Centrifuge glasses 115-117, 123-126
Centrifuge tubes 106, 117-126, 405, 696
Centrifuges 1476-1496
Chairs 1006, 1010
Chargers 1083
Chemical bottles 42-43, 47, 131, 143-144, 152-153, 156, 160, 163, 165-166, 168-169
Chemical protection gloves 897-900, 902-906
Circular filters 766-767, 770-771, 773
Circulating thermostats 1290-1303
Clamps 222-224, 317, 319, 322-326, 495-496, 595, 697, 1040, 1409
Cleaning agents 1516-1532, 1544-1548, 1575
Cleansing lotions 869-871
Clear lubricants 1568-1573
Clips 110, 224, 327, 697, 796, 1040
Clock timers 1234
Clocks 1234, 1237-1240
Closing pliers 97-98
Closure seals 510
Coffee machines 1288
Cold compresses 948
Cold light sources 1059-1061
Cold protection gloves 916-917
Collecting trays 192-195, 991-993, 1543
Collection containers 984-989, 991-995, 1001-1003
Colony counters 423-424
Columns 238
Combi-shakers 1438, 1440, 1444, 1447, 1453
Combi-stands 336, 344
Compact balances 1200-1201, 1205
Components with ground glass joint 227-231
Compresses 948
Conductivity meters 1180-1185, 1188-1190, 1192-1193
Connecting pieces 597-600
Connectors 59-60
Constant temperature baths 1291-1297, 1301-1302, 1304-1305, 1310-1313
Contact thermometers 1394
Containers 172, 448, 452, 854, 985-987, 994, 1021-1024, 1026-1027
Coolers 220, 237-239, 369, 1298-1299
Cooling bags 374-375
Cooling boxes 353-355, 357-358, 360-363, 365-370, 372, 374-375
Cooling incubators 1337-1340
Cooling packs 365-370, 372, 375-376
Cotton buds 425-426
Cotton containers 270
Cotton stoppers 412
Cotton swabs 425-426
Cotton wool 619, 1561
Counters 424, 1198
Counting chambers 437-439
Cover films 387-390, 681-683
Coverslips 439-442, 456
Crimp caps 83, 89-90, 95
Crimping tools 97-98
Crucible tongs 326, 330-331
Crucibles 260, 279-282
Cryogenic vessels 179, 350, 352-355, 357-358, 360-363, 376-380
Cryogenic vials 179, 703-705
Crystallising dishes 270-271
Culture bottles 71, 397, 407-409
Culture flasks 409-411
Culture media bottles 398, 407-409
Culture tubes 105, 107, 404-405, 407
Cut resistant gloves 907-913, 919, 922
Cutters 1031
Cutting instruments 481, 483-485, 488, 593, 1030
Cuvette stands 433, 435-436
Cylinders 22-27, 269, 425, 1142

Alphabetical Index

D

Data loggers 1113-1114, 1116-1123
Deep freezers 1257, 1261-1263, 1265, 1267
Density measuring instruments 1140-1142
Descalers 1546
Desiccators 72-79
Detergents 1544-1545
Dewar containers 376-380
Dialysis accessories 796-797
Dialysis membranes 789-794
Dialysis systems 795-796
Digestion vessels 1255-1256
Digital thermometers 1098-1099, 1101-1103, 1105-1110, 1123-1125
Dishes 173, 189-192, 196-197, 199, 230, 268, 270-272, 275-277, 285-286, 288, 416-421, 448, 454
Dishwasher cleaners 1522-1525, 1531-1532
Disinfectants 870, 872-875, 1533-1543
Disinfection wipes 875, 1540-1543
Disintegrators 1420-1422
Dispenser pipettes 633-637
Dispensers 60, 527-541, 869, 876-878, 880-882, 944, 950-951, 1539
Dispersion balls 1582
Dispersion units 1416-1419
Disposable gloves 883-884, 887-891, 893-895
Disposal bags 961, 995-1001
Dissecting needles, probes 498-500
Dissecting scissors 489-492, 494
Dissecting sets for anatomy 309, 473, 476, 501-503
Distillation 231-236
Distillation apparatus 231-236
Double boss heads 319-321
Double spatulas 296, 300, 303-306, 308, 311, 499
Double spoon 299-300, 499
Drainage systems 187-188, 194, 337
Drawer inserts 1028
Driers 1227-1228, 1287
Drigalski spatulas 399, 422-423
Drip pans 189-191, 193, 198-200, 992
Dropper bottles 151, 153, 167-168, 181
Dropping funnels 247-248
Dry ice machines 381
Drying ovens 77, 1343-1351, 1353
Drying tubes 241
Dust masks 846-847, 851
Dustpan sets 1566

E

Ear plugs 856-859
Ear protection plugs 856-859
Ear protectors 859-860
Earmuffs 838-839, 860-861
Electrodes 1162-1173, 1181, 1183, 1185
Embedding cassettes 459-461
Emergency showers 800
Engraving tools 1034-1035
Erlenmeyer flasks 17-21, 409, 411
Escape hoods 853
Evaporating dishes 275-278
Exchangeable blocks 1314, 1318-1320
Exsiccator accessories 72-74
Extraction 239-240
Extraction sleeves 774-775
Extraction systems 581-582, 750, 957-958
Extractors 239-240
Eye protection 801-833, 836-833
Eye showers 801-804
Eye wash bottles 804-808
Eyewear 811-833

F

Fabric gloves 908, 910, 914-915
Face shields 836-839
FFP masks 842-847, 850
Fibre-optic cables 1059-1061
Films 387-390, 683, 1077
Filter adapters 261
Filter crucibles, funnels 219, 259-261, 279-280
Filter papers 766-774, 1560-1561
Filter tips 662, 666-669
Filter units 736-739

Alphabetical Index

Filters 759-760, 848, 850-851
Filtration units 263, 741-750, 752, 957
Fine dust masks 842-844, 846-847
Fire blankets 953
Fire extinguishers 953-954
Fire protection 853, 953-954, 975
First aid 945-953
First aid boxes 945-953
Fittings 596-599, 601
Flake ice makers 1267-1269
Flask accessories 332
Flask stands 225
Flasks 17-21, 27-31, 204-218, 409, 411
Flasks with ground glass joint 206-218
Flat bottom flasks 204-205
Flocculation units 1415-1416
Floor mops 1565-1566
Flow measuring devices 1112, 1194, 1198
Foot protection 940-943
Forceps 97, 326, 329-331, 486, 1035, 1039
Freezers 1257, 1261-1265, 1267
Freezing boxes 353-355, 357-358, 360-363
Fume cupboards/work stations 957-959
Funnels 245-247, 249-255, 257-258, 284, 745, 988, 990, 994

G

Gas-leak testers 506, 1579
Gas burners 1270-1280
Gas cartridges 1273, 1275, 1283
Gas handling 506-507
Gas lighters 1283
Gas wash bottles 264-266
Glass bottles 35-53
Glass components 220, 227-229, 231-234, 237, 239, 244
Glass cutters 1033-1035
Glass stopcocks 242-243
Glass vials with rolled rim 89-90, 94, 98-99
Glass, quartz fibre filters 764-766
Gloves 883-885, 887-922
Glues 1575-1579
Gowns 923-925, 927, 932
Graduated pipettes 615-620
Griffin beakers 14-15
Grinding dishes 272-275

H

Half masks 849, 851-852
Hand-held counters 1198
Hand creams 862, 864-868
Hand sanitizers 870, 872-874
Hand scoops 291, 293-295
Hand towel dispensers 878-881, 1556
Hazard warning symbols 963, 973, 975-981
Head and face protection 836-839
Hearing protection 839, 856-861
Heat baths 1305, 1310
Heat indicators 1086
Heat protection gloves 918-922
Heat thermostats 1290-1297, 1300, 1302
Heater and magnetic stirrers 1381-1385, 1387-1393
Heaters 1270-1274, 1288, 1354, 1364, 1366-1367, 1369-1370
Heating baths 1303-1305, 1310-1313
Heating lines 1354-1355
Heating mantles 1357-1361
Heating thermoshakers 1317-1320, 1322-1323
Heating thermostats 1290-1297, 1300, 1302
High-pressure autoclaves 1244-1248
High-temperature greases 1569-1570, 1572-1574
Histology, pathology devices 1362-1363
Holders 246, 256, 326, 329, 332, 386, 1556
Hole punches 1035
Homogenisation systems 1416-1419
Homogenizers 429-432, 1420-1425
Hoods 853, 937-938, 944
Hose accessories 385, 593-599, 602, 797, 1037
Hose connectors 596-602
Hose membranes 789-794
Hoses 583-592
Hot air guns 1286-1287
Hot glue guns 1577
Hot plates 1365-1370

Alphabetical Index

HPLC bottles 53, 62
HPLC connecting hoses 67
HPLC connector caps, GL 45 67
HPLC intake filters 70
HPLC syringe filters 716
HPLC syringes 555
Humidity meters 1126, 1128-1134, 1136-1137
Hydrometers 1140-1142
Hygrometers 1126-1136

I

Ice containers 373, 376
Ignition dishes 278
Illuminated magnifiers 1062-1070
Immersion coil heaters 1285
Immersion thermostats 1290-1293, 1295-1296
Incubation shakers 1442, 1446-1448, 1454-1459, 1474
Incubators 1328-1341, 1350, 1442, 1446
Indicators 391-393, 1155-1158
Information signs 963-967
Infrared burners 1282
Infrared thermometers 1123-1126
Inoculation loop sterilisers 1281
Inoculation loops 426-428
Instrument dishes 189, 196-197
Instrument disinfectants 1533-1534
Instruments 305, 470-471, 474-475, 479, 481, 484-486,
. . . . . 488-489, 491-493, 495-497, 499-500, 502-503
Intensifying screens 1077
Interval timers 1234-1238
Ion exchanger systems 778-779
Ionisers 1229

J

Jacks 313-315
Joint clips 222-224

K

Kettles 1273, 1288-1289, 1369-1370
Knives 483, 485, 1031-1032

L

Lab coats 924-927
Lab porcelain 257-258, 274, 277-279
Labelling tapes 964-967
Labels 391, 968-981
Laboratory blowers 1287
Laboratory cabinets 954-956, 958, 1260
Laboratory dishes 189, 191, 196-198, 268
Laboratory furniture 1006-1010
Laboratory hand towels 880-881, 1552
Laboratory markers 1043-1045
Laboratory pads 187, 193, 1029-1030, 1559
Laboratory stirrers 1402-1408, 1415
Laboratory timers 1234-1238
Laboratory tubes 584-592
Labwear 923, 925, 927-930, 932,
. . . . . .934-936, 939-941
Ladders 1010-1011
Lamps 1059-1061, 1067, 1070-1074
Lancets 427, 498
Laser labels 969-971, 981
Laser pointers 1073
Latex gloves 883-885, 897-898
Leak testers 506, 1579
Leakage monitors 1199
Leather gloves 914
Leukocyte counting 437-438
Light meters 1196-1197
Lighters 1283
Lighting plates 1076-1077
Lights 1065, 1067, 1070-1073, 1078
Linen testers 1070
Loggers 1113-1114, 1116-1123
Lubricants 1568-1574, 1578
Luxmeters 1195-1197

M

Magnetic bars 1244-1247, 1394-1400
Magnetic stirrers 71, 1371-1394, 1455, 1478
Magnifier lamps 1062-1068
Magnifiers 1062-1070

Alphabetical Index

Marker pens 1034, 1043-1045
Marker tapes 963-967
Markers 1043-1045
Marking 963-981
Masks 840-853
Measuring beakers 12, 14-17, 1538
Measuring cylinders 22-27
Measuring vessels. 32-34
Melting crucibles. 280-282, 1284
Melting point measurement. 242, 1362
Membrane filters 752-764
Membrane pumps. 559-562, 567, 569-572
Metering pumps 60, 520, 527-541, 561-562, 874, 877
Micro balances 1201, 1205, 1207-1208, 1211,
. . . . . 1220-1223, 1225-1226
Microcentrifuges 1476-1481, 1483, 1486-1487, 1492
Microlitre centrifuges. 1476-1486, 1492
Microlitre pipettes 637, 640, 644, 646-652
Microlitre syringes 552-557
Microscope accessories. 1056-1057, 1059
Microscope slide boxes 448-452
Microscope slides. 442-445
Microscopes 1048-1056, 1059
Microscopy accessories 443-444, 446-448,
. . . . . .488-490, 492-494
Microtest plates. 677-680
Microtiter plates. 399-400, 402, 677-681
Microtitration plate shakers 1431, 1434, 1436, 1438,
. . . . . .1440-1441, 1452-1454
Microwave ovens. 1285-1286
Mills 1426-1429
Mixer, stirrer and temperature control units. 1474
Mixers 1402, 1405, 1407-1408, 1423-1424,
. . . . . 1426-1429, 1432, 1462-1463, 1469, 1471-1475
Mixing barrels 131
Mixing beads. 1582
Mixing devices 1371-1375, 1377-1379, 1382, 1385,
. . . . . .1387-1388, 1390-1391, 1393, 1420-1422,
. . . . . 1429, 1433, 1438-1440, 1442-1445, 1447,
. . . . . 1450-1460, 1463-1467, 1469, 1471-1475
Moisture analysers 1227-1229
Monitoring equipment 1198-1199
Mortars 272-273, 275, 430-431
Muffle furnaces 1352
Multi-channel pipettes. 642, 645, 649, 651
Multi-position magnetic stirrers 1377, 1379-1382
Multi-purpose vacuum cleaners 1567-1568
Multi-socket outlets 1232-1234
Multimeters 1187-1190, 1192-1193
Multiple distributors. 61-63, 67-71, 142
Multiple distributors for bottles 61-63, 67-71, 142

N

Needles. 426-427, 496-498, 500, 551, 554, 556
Nitrile gloves 887-891, 893-894, 900, 902, 904-905
Nitrogen tanks. 376-380
NMR tubes 99-100
NTC temperature sensors 1103-1106, 1108, 1110-1112,
. . . . . .1115, 1118, 1122, 1135, 1199

O

Occupational safety 804-808, 835, 853-854,
. . . . . .858-860, 910, 935, 938, 940, 948,
. . . . . .953-954, 959-961, 975
Office chairs 1006-1010
Office cleaning products. 1551
Office organisation 1041-1042
Oil binders. 983-984
Openers 80, 1033, 1039-1040
Opening pliers. 97-98
Orbital shakers 1437-1440, 1444-1445, 1447-1448,
. . . . . 1450-1453, 1455-1460, 1467, 1473-1474
Organisational aids 1026-1028
Outdoor thermometers 1095-1098
Ovens 1328-1336, 1341, 1343-1351, 1353
Over glasses 816-818, 832
Overalls 928-932
Overhead mixers. 1468-1475
Overshoes. 940-944
Oxygen meters 1186, 1189

Alphabetical Index

P

Pads 187, 193, 501, 768, 1029-1030, 1559, 1561
Paraffin baths. 1363
Particle masks 842-853
Pasteur pipettes 605-612
Pathology equipment 105, 107, 182, 184-187
Pens. 1043-1045
Peristaltic pumps. 563-565
Pestles. 272-274, 428-430
Petri dishes 416-421, 425
pH electrodes 1162-1173, 1181, 1183, 1185
pH meters 1160-1163, 1166, 1173-1179, 1189
pH papers 1155-1158
pH testers 1160-1161
pH/mV/°C meters 1173-1179, 1188, 1192-1193
Photometers 1153-1154
Pipette accessories. 394, 631-632, 1028, 1516
Pipette controllers 624, 627-629
Pipette stands 631-632, 653-654
Pipette tips. 655-669
Pipettes 605-606, 612-623, 638-640,
. . . . . 644, 646-647, 651-652
Plasters 949-952
Plugs 95, 111-114, 118, 221-222, 227,
. . . . . .413, 856-859
Plunger pipettes 637-638, 646-647
Pluviometers 1137
Pocket balances 1200-1203
Pocket calculator. 1240-1241
Pots 200
Pouring rings 41, 54-55
Precision balances 1200, 1202-1212, 1218-1219,
. . . . . .1221-1223, 1225-1226
Precision linen testers 1070
Precision thermometers. 1090, 1092-1094, 1102-1103,
. 1105-1107
Precision tweezers 462-470
Preformed masks 842-843, 846-847, 851
Preparation accessories 292, 499-501, 1037
Pressure meters 1138
Pressure reducers 507
Probes 498-499
Propane gas burners. 1270-1274, 1277-1278
Protective clothing 928-943, 947
Protective gloves 883-885, 887-922, 940
Protective suits 928-932
Pumps 514, 520-527, 558-567, 569-574, 578, 583
Pycnometers 32

Q

Quadrupod stands 1284
Quartz clocks 1235-1239
Quick tests. 1144, 1146-1149

R

Racks. 33, 188, 334, 336-337, 341, 343-363, 372, 676
Radiation protection containers 961-962
Radiation protection screens. 959-961
Radio wall clocks. 1239-1240
Radio weather stations 1136-1137
Rain gauges 1137
Reaction vial stands 333, 346-351, 356, 358, 372
Reaction vials 179, 686-705
Reagent reservoirs 670-673, 696
Recirculating coolers. 1291, 1293, 1295, 1298-1303
Refractometers 1079-1082
Refrigerated containers. 366, 373-375
Refrigerating thermostats 1298-1303
Refrigerators 1257-1260, 1263-1266
Respiratory filters. 848, 850, 853
Respiratory protection accessories. 854-855
Respiratory protection masks 841-853
Rocker shakers 1430-1452, 1457, 1460,
. . . . . .1463-1468, 1473-1474
Rockers 1463-1467
Roller mixers 1430-1452, 1457, 1460-1463
Rotary evaporators 1324-1327
Rotary pumps 572-574
Rotators. 1468-1475
Rotors 1480-1484, 1489-1491, 1493-1494, 1496
Round bottom flask stands 225
Round bottom flasks 206-208, 210-215, 217-218
Rubber bulbs. 624-626

Alphabetical Index

S

Safety cabinets 954-958
Safety containers. 127-131
Safety gloves 884, 907-922
Safety knives 485, 1031
Safety spectacles 811-833
Safety spectacles accessories 834-836
Sample bags 382-385, 1424
Sample spoons 295-296, 312, 516-517
Sample trays 180, 268-270
Sample vessels 102, 171-187
Sample vials 49, 82-86, 88-95
Samplers 292-295, 507-519
Scalpels. 480-485
Scintillation vials 102-104
Scissors. 486-494, 595, 1033
Scoops 291-294, 513, 515
Screw caps 33, 36, 41-42, 54-60, 84-86,
. . . . . 88, 91-95, 141, 164
Screw top bottles. 42-48, 50-51, 84-86, 88, 91-96
Scrub sponges 1562
Sealants. 1568-1574, 1578
Sealing films 681-683
Seals 58-59, 226, 243, 1244-1248, 1574, 1578
Seals with ground glass joint. 226
Sedimentation vessels. 34, 256
Separating funnels 243, 245-246
Septa 58, 82-86, 88, 91-95
Sets of instruments 502-503
Sets of weights 1230-1231
Shakers 1422, 1430-1434, 1436-1445,
. . . . . .1447-1460, 1462-1468, 1470
Shaking water baths 1312-1314
Shipping containers
for microscope slides 447-448, 450-452
Shut-off valves. 596-602, 1244-1247, 1249
Sieve machines 776
Sieves 290-292, 403, 773, 777-778
Signal timers 1234-1237
Single-rod measuring cells 1162-1173, 1181, 1183, 1185
Single-use pipettes 607-608, 610-614
Skin care 862-868, 870
Skin cleansing 869-873
Skin disinfection 865, 868, 870, 872-875
Skin protection. 862-875
Sleeves 226, 775, 939-940, 1482
Slide folders. 449-450
Slide rules 1036
Slide storage 448-452, 458
Small balances 1200-1201
Small benchtop centrifuges 1476-1478, 1480,
. . . . . 1483-1484, 1486-1489, 1491
Small parts containers. 1026-1028
Small shakers 1430-1434, 1436, 1438, 1440,
. . . . . 1443, 1447, 1452-1453, 1460
Soap dispensers 871, 876-878
Socket outlets 1232-1233
Soldering devices 1272-1274
Solvent absorbers 982-984
Solvent labels 981
Solvent pumps. 524-525
Sound level meters 1197
Spatulas. 101, 296-297, 300-312, 422,
. . . . . 443, 499, 1401
Special papers 1059, 1559-1560
Sponges 460, 1562
Spoon spatulas 296-297, 299, 301-303, 312
Spoons 292, 295-302, 499
Spot plates 279, 446
Spray bottles 169-170
Sprays 1548-1550
Stabilising rings. 332
Staining plates. 446
Staining racks, boxes 446, 453-458
Stand clamps 317, 322-329, 1409
Stand material 316-319, 1409
Standard tweezers 467-480
Standing support. 1009-1010
Stands 333, 335-337, 341, 344, 346, 350, 353,
. . . . . .362, 372, 433, 435, 632, 653, 996, 999
Steam sterilisers 1253-1256
Stepladders. 1010-1011
Steps 1010-1011
Stereo microscopes 1048-1051, 1054
Sterilisation 391-395

Alphabetical Index

Sterilisers 1253, 1281-1282, 1343-1346, 1351
Sterilising containers 394-396, 480, 503
Sterilising stations 1279, 1281
Stirrer accessories 1410-1414
Stirrer reactors 71
Stirrers 71, 100, 311, 1371-1385, 1387-1388, 1390-1391, 1393, 1400-1408, 1411, 1414
Stirring magnets 1244-1247, 1394-1400
Stirring rods 100-101, 311, 1244-1247, 1394-1401
Stools 1007-1010
Stop clocks 1238
Stopcocks 135, 243, 595, 601-603
Storage boxes 355-357, 359-363
Storage containers 81, 172-173, 334, 353, 356, 358-362, 450-452, 458, 835, 854-855, 1026-1028
Storage systems 1026-1028
Suction aids 624-627
Suction bottles 262-263
Surface disinfectants 875, 1535-1543, 1551
Swabs 270, 950, 952
Syringe filters 708-735, 737
Syringes 547-550, 552-557

T

Tachometers 1197
Temperature control plates 1366-1367, 1369-1370
Temperature control shakers 1454-1459
Temperature control thermostats . . . 1290-1298, 1300, 1302
Temperature controllers 1394
Temperature indicators 1086
Temperature measuring devices 1087, 1089-1091, 1096-1099, 1101-1115, 1117-1119, 1122-1125, 1128, 1135, 1199
Temperature monitors 1199
Tempering units 1328-1330, 1332-1333, 1336, 1347-1348
Test solutions 1159-1160
Test systems 773, 1143-1153
Test tube racks 337-343
Test tube shakers 1430-1434, 1436, 1440, 1447, 1450
Test tubes 104-105, 107-110, 121, 182, 185, 187
Test weights 1230-1231
Thermohygrometers 1126, 1128-1136
Thermometers, analogue 1087-1094
Thermometers, digital 1095-1102, 1104-1112, 1134
Thermos jugs 1289
Thermoshakers 1317-1320, 1322-1323, 1327
Thermostats 1290-1303, 1317, 1322-1323
Thrombocyte counting 437-438
Tilt/roller mixers 1460-1462
Timers 1234-1238, 1240
Tins 171-181, 184, 269-270, 283, 447, 1027
Tissue culture devices 423-424
Titration equipment 542-547
Tools 1035-1039
Torches 1073-1076
Transfection 424
Transilluminators 1078
Transmitted light microscopes 1049, 1052-1055
Transport castors 1012, 1014-1017, 1019-1020
Transport containers 1020-1025
Transport trolleys 1012-1013, 1015-1018
Tripods 1283, 1358-1359
Trolleys 1014-1020
Tubes 676, 686-705
Tubs 193-195, 199, 268, 373, 1019, 1543
Tweezers 462-480

U

Ultrapure water systems 778-786
Ultrasonic cleaners 1516-1518
Ultrasonic disintegrators 1420-1422
Ultrasonic units 1498-1503, 1506-1509, 1511-1514, 1516
Universal cleaning agents 1518-1525, 1532, 1545

V

Vacuum cleaners 1567-1568
Vacuum drying cabinets 1353-1354
Vacuum flasks 374-380, 1289
Vacuum meters 575-576

Alphabetical Index

Vacuum pumps 567, 569-572
Vacuum systems 578-580
Valves 600-601, 1244-1247, 1249
Vials . . . . . 82, 84-96, 99, 102-104, 145, 181, ... 675, 692
Vigreux columns 238
Volumetric flasks 27-31

W

Wall clocks 1239-1240
Wall holder . . . . . 807, 838, 854, 883, 944, 982, ... 986, 1011-1012, 1542, 1559
Wash bottles 163, 165-166
Waste bags 961, 995-1001
Waste containers 984-989, 991-995
Waste disposal bags 961, 995-1001
Waste disposal containers . . . . . 984-989, 991-995, ... 1001-1003
Watch glasses 271-272
Water bath preservatives 1544
Water bath trays 192, 195
Water baths 1303-1314
Water filters 786
Water flow monitoring 1199
Water jet pumps 583
Water treatment 778-786
Wax plates 605
Weather stations 1136-1137
Weighing accessories 279, 283-290
Wide-vision goggles 811-815, 832
Window wipers 1566
Wiper 101, 1566
Wipes 879-881, 1059, 1552-1561
Wiping cloths 1552-1558, 1560-1561
Wire baskets 395-396, 1003, 1023
Work clothing 923-927
Workwear 923-925, 927-932, 934-941
Woulff bottles 265

Z

Zirconia/glass beads 1423

Catalogue ROTH XXXI
Edition February 2022

Labware | Life Science | Chemicals

© 2022 by Carl Roth, Karlsruhe, Germany

Our partners

LACTAN®
Vertriebsges. m.b.H. + Co. KG
Puchstr. 85, A-8020 Graz
Phone +43 316 323692-0
info@lactan.at
www.lactan.at

ROTH SOCHIEL E.U.R.L.
3, rue de la Chapelle
F-67630 Lauterbourg
Phone +33 3 88948242
info@carlroth.fr
www.carlroth.fr

ROTH AG
Fabrikmattenweg 12
CH-4144 Arlesheim
Phone +41 61 7121160
info@carlroth.ch · www.carlroth.ch

CARL ROTH GmbH + Co. KG
Phone +31 180 516704
Fax +49 721 5606-260
info@carlroth.nl
www.carlroth.nl

CARL ROTH GmbH + Co. KG
Vlaanderen: Phone +32 52 374121
Wallonie: Phone +32 80 447958
info@carlroth.be
www.carlroth.be

LINEGAL CHEMICALS Sp.z o.o.
Ul. Kasprzaka 44/52
01-224 Warszawa, Polska
Phone +48 22 6317281
info@linegal.pl
www.linegal.pl

P-LAB A. S.
Laboratory Instruments
U Pekáren 1645/1, 10200 Praha 10
Phone +420 271 730800
info@p-lab.cz
www.p-lab.cz

Techmate Ltd.
10 Bridgeturn Avenue,
Old Wolverton
UK-MK12 5QL Milton Keynes
Phone +44 1908 322222
sales@techmate.co.uk
www.techmate.co.uk

PRODOTTI GIANNI S.r.l.
Via Quintiliano, 30, I-20138 Milano
Phone +39 02 5097220
ricerca.assistenza@
prodottigianni.com
www.ricerca.it

betaLab Lda.
Rua Sérgio Soares, 12-A Pendao
P-2745-051 Queluz
Phone +351 21 4358437
geral@betalab.pt

Aegis-Advanced
Healthcare Solutions
43, Koritsas str./Agios Dimitrios
GR-17342 Athens
Phone +30 211 012 7870
info@aegishealth.gr
www.aegishealth.gr

QUIMIVITA PRODUCTS, S.L
Calle Balmes 245, 6-4 Planta
E-08006 Barcelona
Phone +34 932 380094
adoblado@quimivita.com
www.quimivita.es

RK TECH Kft.
Köszál u. 6., H-1163 Budapest
Phone +36 1 4020721
rktech@rktech.hu
www.rktech.hu

INTROGEN KIMYA LTD. STI.
Ata Is Merkezi 228
Sokak No. 14 Kat. 3
TR-34524 Yakuplu
Beylikdüzü - ISTANBUL
Phone +90 212 8751112
info@introgen.com.tr
www.introgen.com.tr

Oasis-lab s.r.o.
Ignaca Gesaja 36
SK 90028 Zalesie, Bratislava
Phone +421 905 605 891
oasis@oasis-lab.sk
www.oasis-lab.sk

GRIDA
Molétu g. 16, Didzioji Riesé
LT-14260 Vilnius
Phone +370 5 2469435
labor@grida.lt
www.grida.lt

Koncept media d.o.o.
Ante Mike Tripala 1, 3rd floor
HR-10090 Zagreb
Phone +385 1 6547954
koncept@konceptmedia.hr
www.konceptmedia.hr

MIKRO + POLO d.o.o.
Zagrebska cesta 22
SI-2000 Maribor
Phone +386 2 6143300
info@mikro-polo.si
www.mikro-polo.si

Tampereen PENLI OY
Keskuojankatu 13
33900 Tampere, Finland
Phone +358 3 3486607
asiakaspalvelu@penli.fi
www.penli.fi

INTER-HEM DOOEL
Bulevar Partizanski Obredi br. 64
1000 Skopje
Phone +389 (0) 2 3063 158
info@interhem.com.mk
www.interhem.com.mk

Frisenette ApS
Energivej 134, 8420 Knebel,
Denmark
Phone +45 86 34 22 44
Denmark: roth@frisenette.dk
www.frisenette.dk

Sweden: roth@frisenette.dk
www.frisenette.dk

CHIRON AS
Stiklestadveien 1
N-7041 Trondheim
Phone +47 73 874490
salg@chiron.no
www.chiron.no

Please check our website!
www.carlroth.com/com/en/
Auslandsvertretungen

LAR-L SIA
Biekensalas str. 21
LV-1004 Riga
Phone +371 67 622230
info@lar-l.lv
www.lar-l.lv

SEMIKEM d.o.o.
Omladinska 44
BIH - 71320 Vogosca-Sarajevo
Phone +387 33 722900
info@semikem.ba
www.semikem.com.ba

UNI-CHEM d.o.o. Beograd
Crnotravska 27
11000 Beograd
Phone +381 11 785 72 70
info@uni-chem.rs
www.uni-chem.rs

Please check our website!
www.carlroth.com/com/en/
Auslandsvertretungen

Geolabinstruments Ltd.
Vaja-Pshavela Ave,
Block VII, 13, 30
GE-0186 Tbilisi
Phone +995 323 00866
info@geolab.ge
www.geolab.ge

AKROM-EX INC.
Vee 2, Märja,
EE-61406, Tartumaa
Phone +372 5520624
a-inf@akrom.ee
www.akrom.ee

Astech Ireland Ltd.
Unit 47, Southern Cross
Bus. Park, Bray, Co. Wicklow
Phone +353 0404 25070
info@astechireland.ie
www.astechireland.ie

Chemlaborreaktiv LLC
Schelkovskaya 8
Brovary city (Kiev region)
07400 UA
Phone +380 44 494 42 42
mashkara@hlr.ua
www.hlr.com.ua

Further international distributors of our products can be found on our Website:
www.carlroth.com/com/en/Auslandsvertretungen

CARL ROTH
2022/23
3140.2