

VWR INTERNATIONAL

VWR COLLECTION CATALOGUE

2013-2015

INSTRUMENTS | EQUIPMENT
CONSUMABLES

STOP PRESS!

Although this catalogue contains over 10 000 products from the VWR Collection range that covers over 600 pages, this dynamic range is developing daily.

During the production of this catalogue keynote launches that we just couldn't squeeze in include:



So if you're looking for products that you can't find in this catalogue check out our **VWR Collection microsite** on vwr.com for up to date information on new products and promotions.



TABLE OF CONTENTS

SAFETY, LABORATORY FURNITURE AND LABORATORY EQUIPMENT

Safety	2
Disposal	50
Furniture and Workstations	56
Cleaning, Disinfection and Drying Equipment	63
Vacuum Equipment	76

CONSTRUCTIONAL ELEMENTS AND ACCESSORIES

Constructional Elements	80
Containers and Accessories	84
Filling and Dispensing	120
Tools	125
Clamps and Supports	127
Miscellaneous	135

SAMPLING AND CELL CULTURE

Sampling	138
Cell Culture	146

SAMPLE PREPARATION

Sample Reduction	160
Reduction and Mixing	161
Mixing	166
Heat Treatment	210
Temperature Treatment and Drying	214
Cold Treatment	233
Sterilisation and Disinfection	244

SEPARATION AND CONCENTRATION

Sieving and Filtration	248
Centrifuges and Sedimentation	266
Evaporation, Sublimation and Extraction	284
Chromatography - Sampling and Sample Preparation	290
Chromatography - Thin Layer and HPLC Columns	316
Chromatography Instruments and Accessories	318

MEASUREMENT AND ANALYSIS

Time Measurement and Counters	330
Weight and Volume	335
Thermal and Climate Analysis	392
Optical Analysis	429
Mechanical Analysis and Others	459
Electrochemistry and Titration	461

SPECIAL APPLICATIONS

Environmental, Water and Food Analysis	484
Microbiology	487
Healthcare	507
Life Science	516

LAB DOCUMENTATION

Pens and Markers	564
Office Supplies	564
Calculators	567
Tapes and Adhesives	568

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Complex problems require sophisticated solutions

For over 160 years, our customers have been challenged with finding the answers that help improve lives. Our mission is to identify product and service solutions, while eliminating process complexities to help labs and production facilities to work better and faster.

Through our global reach and knowledgeable teams, we proudly excel in delivering solutions that improve productivity, accelerate discovery and encourage innovation.

At VWR, we are focussed on your success because... **together, We Enable Science**



VWR BRAND ...

A GROWING RANGE TO MEET YOUR NEEDS

We introduced the first VWR branded equipment and consumable products in Europe early 2000... we had one goal; to provide our customers with functional, reliably performing products at attractive prices. Since then our portfolio has grown enormously and we are delighted to present this new catalogue offering you greater product choice and flexibility in allocating your budgets.

Today, our range encompasses a wide selection of consumable items. For some ranges with the additional option of 'Standard line' where product features are purified to the most basic level for consistent results or 'High Performance Line' offering innovative user benefits while still remaining cost conscious.

Equipment is evaluated extensively by our technical services teams around Europe to ensure technical specifications are precise and reliable and all regulatory, safety and maintenance issues are fully taken care of. This means that we are able to offer extensive warranties on these products because we have total confidence in them.

Our global sourcing and logistics teams work with our producers to ensure continuity of supply. Regular production audits verify continued compliance with our specifications and ensure regulatory and ethical standards are maintained.

For chemicals, biochemicals and reagents, including production materials and custom manufacturing, our VWR chemicals portfolio includes the world renowned BDH Prolabo® range and Amresco® brand. These products are featured in a companion catalogue.

The family doesn't stop growing either, LABOnord recently joined bringing with them some fantastic speciality products for histologists and cytologists. Our newly formed cleanroom supplies division incorporates basan®, a service leader in this field. While our collaboration with HITACHI on the dual branded chromatography ranges has seen some technological quantum leaps in recent months.

At VWR, we are immensely proud to offer our customers, whatever their field of expertise, this great value portfolio because we know that what you're doing is important for us all.

A photograph of laboratory glassware. In the foreground, there are two volumetric flasks. The one on the left is filled with an orange liquid and has a white label with 'VWR' and 'ISO' visible. The one on the right is empty. In the background, several blue pipettes are visible, slightly out of focus.

Together, We Enable Science

For up to date product innovations
and promotions check out [vwr.com](https://www.vwr.com)

SUSTAINABILITY INITIATIVES



Sustainability is everyone's business

At VWR, our approach to sustainability is to meet the three primary goals as defined by the UN World Commission on the Environment and Development:

- Environmental protection
- Economic growth
- Social impact

We recognise that helping the planet is in the best interest of our company, our customers and our community. We understand that you have green initiatives and we are committed to helping you reach those goals too.

Product offering

VWR strives to offer products that are environmentally preferable with sustainable attributes. We have implemented a process to evaluate our products according to certain standards for sustainability.

These criteria vary from product to product but encompass parameters such as recyclability of the product and packaging, low CO₂ footprint, produced with renewable energy sources, energy efficient, water efficient, etc.

An initial review of various lines has taken place, and those found to offer environmental advantages have been highlighted by the "Green Leaf" symbol. Please be aware, however, that products that don't yet have the green leaf may still have reduced environmental impact but have simply not been examined yet against our criteria.

This ongoing sustainability initiative will be applied throughout our range and will appear on more products as our evaluation continues.

Energy and waste management

We monitor and improve our waste and energy balance.

- Activities to recycle paper, glass and other material on every VWR site
- Centralised computer centres reducing server hardware and energy consumption
- Minimise energy use and GHG emissions (T5 light system enhancements with motion detection)
- Control consumption of raw materials

Logistics and transport

We actively strive to balance our customer's needs for rapid, safe and reliable deliveries while minimising environmental impact by:

- Using transport partners to avoid deliveries with close to empty trucks
- Limiting and optimising the packaging used
- Optimising our logistics system to consolidate shipments
- Using shipping boxes made from 43% recycled fibre with recyclable paper wadding (avoiding packing chips)
- Recycling cardboard, paper and aluminium packing materials
- Reusing Styrofoam™ coolers for frozen shipments
- Recycling cardboard and wood pallets in our warehouses

Process and e-business

We provide a variety of electronic solutions in order to avoid printing, paper mailing and transport.

- Improved search engines reduce the reliance on excess paper catalogues
- Order submission through website or EDI/XML capabilities
- Order confirmations can be received electronically
- VWR.com Quote-to-Order and electronic invoicing to generate paper-free transactions

Economic growth

We strive to ensure that economic growth does not jeopardise environmental or social sustainability.

- VWR's economic stability is an essential criterion for our customers and suppliers
- VWR uses Six Sigma principles for process optimisation throughout the company
- ISO 9001, ISO 14001 and OHSAS 18001 certified in main European countries
- VWR is Sarbanes-Oxley compliant ensuring financial integrity
- Supportive corporate governance (codes of conduct and ethics)

Social impact

Improvements in associate health and workplace safety is a key performance measure for our organisation. VWR also works extensively on community engagement with the VWR foundation and other partnerships with local community organisations.

**For more information,
please email us at
sustainability@vwr.com**



Chemicals, reagents, standards and microbiology media for laboratories and production

We're SPECIALIST ...

... more than 500 new products have been added over the past two years to meet your needs

- LC/MS solvents
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- NMR solvents
- UV/Vis and colour standards
- Buffer secondary standards
- Green solvents
- Spectroscopy and peptide synthesis solvents
- LABWASH PREMIUM detergents range

We're EXPERIENCED ...

we know you need a fast turnaround time on your orders, so 98% of the range is always in stock

We're BIG

- ... **on choices:**
More than 3500 products covering all the basic reagents you need for analysis and research
- ... **on quality:**
More than 10 different grades for all your analytical methods
- ... **on flexibility:**
From 1 g to several tonnes for production areas

New catalogue released in 2014 – make sure you're on our mailing list to get one – contact your local VWR sales office now

BUT on prices ... we're not very big at all!

We are VWR chemicals – working together, We Enable Science

THE VWR TECHNICAL SERVICE TEAM OFFERS A WIDE RANGE OF SERVICING OPTIONS TO SUPPORT YOUR LABORATORY EQUIPMENT

In the VWR repair centres across Europe, our expert teams of manufacturer trained technicians can repair small equipment and measuring instruments. In addition to servicing our VWR Collection products, these highly equipped workshops handle every brand, every type of model, even those not sold by us, minimising your downtime and providing a professional, cost effective and timely solution. Repairs can be followed with a calibration procedure to make sure that your equipment is in compliance with GMP/GLP and FDA regulations.

We have an extensive knowledge and a wide range of manufacturer original spare parts to re-invigorate the following equipment:

- pH meters
- Conductivity meters
- Turbidity meters
- Shakers
- Mixers
- Stirrers
- Hotplates
- Heating baths
- Data loggers
- Pumps
- Spectrophotometers
- Air samplers
- Centrifuges
- Balances
- Autoclaves
- Refrigerators
- Incubators
- etc...

SPECIALIST SERVICES

Air sampler calibration services

Air samplers are key to any environmental monitoring programme, so regular checking of the volume of aspirated air is imperative to ensure that there are no errors in the monitoring of contamination. VWR has a comprehensive calibration and service programme on air samplers. We recommend performing a calibration every 6 - 12 months and also if the air sampler has potentially been damaged or the flow rate compromised.

Brand independent calibration and adjustment of thermometers and data loggers

Our fast, efficient and competitive service provides calibration, adjustment and repair services for all brands and models both with and without accreditation. Our tailored services can meet any specific calibration demand you may have. All calibration services are directly traceable to a National Measurement Standard or can be certified with ISO 17025:2005 accreditation. Every calibrated thermometer or data logger is provided with a calibration certificate.



VWR provides a unique combination of service and support for all your centrifuges

As the condition of a centrifuge is critical for the most essential tasks in the laboratory, we have developed a complete service solution; from installation, after sales and compliance services to spare parts. Our experienced technicians are trained and certified by all major centrifuge manufacturers and we only use original spare parts supplied by the centrifuge manufacturer, so you can rest assured your centrifuge is being serviced to the highest standard.

CENTRIFUGE SERVICES

Installation: Check the environmental conditions, the marking of the equipment, documentation, installation conforms to manufacturer's instruction, operating instructions and test run

Preventive maintenance: Check the rotor, rotor chamber, unit, drive, compressor, the electrical system and test run

Calibration: Timer, speed and temperature calibration

Qualification IQ/OQ/PQ: Performed according to the supplier's operating procedures

Electrical safety test: Safety test according to norms EN/IEC 61010 and additional safety tests according to any other local norms, check the environmental conditions and visual safety test

Rotor check: Performed according to the supplier's operating procedures



VWR's multi-brand pipette calibration and maintenance is accurate and reliable

VWR's pipette services is our total care programme for pipette calibration and service of single and multichannel pipettes, steppers, burettes, volumetric glassware, titrators and other liquid handling equipment. To remain compliant, regular pipette calibration is required by GLP, GMP, FDA and ISO.

A complete service solution – in-house or on-site

VWR's calibration service of pipettes, steppers, burettes and volumetric glassware covers:

- Calibration procedures according to ISO 8655/ISO 4787
- Adjustment
- Preventative maintenance
- Corrective maintenance/repair
- Troubleshooting and diagnosis
- Calibration certificate
- Due date reminder system

We set the highest standards – officially trained technicians and full ISO 17025 accredited facilities

- Calibration according to ISO 8655
- Genuine spare parts for repairs
- Accredited Competence Centre compliant with ISO 17025
- VWR technicians fully certified and trained by the manufacturers

Traceable from beginning to end...

Every calibration is registered with a free calibration certificate including individual calibration results. If an accredited calibration according to ISO/IEC 17025 is required, the certificate is provided with the accreditation logo which gives direct traceability to a National Standard. In case of an adjustment of your pipette you always receive two calibration certificates from us, one from before adjustment and one after.

For all **GLP laboratories** we perform an '**as found**' and an '**as left**' calibration. This means that we perform a calibration before preventative maintenance and after.

Every calibrated pipette gets a calibration label with calibration date and recalibration date. To keep your pipette in a calibrated status we have our due date reminder system. This system will inform you about the date to send the pipette in again for service.



For more information on any of our technical and validation services, please contact your local VWR sales office.
technical.services@eu.vwr.com

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Dairies

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Microscopy



Handy reference tools for your application or technique. Go to vwr.com to see the latest additions.

Request your copy from your local VWR sales office

- More than 8000 cleanroom products
- Quantus[®] garment concept
- Services for personnel and processes
- Consultation for your individual needs
- Synergies for your laboratory and cleanroom procurement

BASAN AND VWR COMPETENCE² FOR YOUR CLEANROOMS



Safety - Laboratory Furniture - Laboratory Equipment

You will find some essential items when setting up a new laboratory listed in this chapter. The products are base around Laboratory Safety, Furniture and Equipment, Cleaning and Disposal.

Safety

Eye and Face Protection	2
Respiratory Protection	4
Hand Protection - Gloves	5
Protective Clothing - Smocks and Labcoats	9
Protective Clothing - Aprons and Overalls	23
Protective Clothing - Head, Arm and Feet	26
Protective Clothing - Storage	33
Laboratory and Safety Shoes	36
Skin Protection	37
Cleanroom Wipes and Swabs	37
Towels, Wipes and Dispensers	42
Surface Protection and Mats	43
Signs, Labels and Tape	47
First Aid and Emergency	47
Shields and Radiation Protection	47

Disposal

Spill Control	50
Waste Disposal	51

Furniture and Equipment

Furniture - Chairs	56
Work Tools - Lighting and Torches	61

Cleaning, Disinfection and Dryling Equipment

Cleaning Equipment	63
Detergents and Disinfectants	71
Ultrasonic Cleaners	73

Vacuum Equipment

Membrane Pumps	76
Vacuum Systems	78



Safety spectacles, Berlin



Single lens

The innovative design of these spectacles provides an excellent field of vision. Ideal for working with laboratory UV lamps.

- High UV protection (UV 254 tested)
- Moulded brow guard
- Soft temple tips, made from two materials
- Adjustable temples for a perfect fit

Weight: 29 g

EN 166, EN 170 (EN 172 - 111-0544)

Type	Lenses	Colour	Pk	Cat. No.
Anti-UV, anti-scratch, anti-fog	Clear PC	Transparent	1	111-0543
Anti-UV, anti-scratch, anti-fog	Smoke PC	Black	1	111-0544

Safety spectacles, Milano



Single lens

Spectacles in a fashionable design, ideal for women due to low cut profile. Provide excellent field of vision. Ideal for working with laboratory UV lamps.

- High UV protection (UV 254 tested)
- Slim temples, fashionable design

Weight: 27 g

EN 166, EN 170

Type	Lenses	Colour	Pk	Cat. No.
Anti-UV, anti-scratch, anti-fog	Clear PC	Red	1	111-0545
Anti-UV, anti-scratch	Indoor/outdoor PC	Amber	1	111-0546

Safety spectacles, Oslo



Single lens

Safety spectacles with wraparound clear polycarbonate lens and indirect ventilation.

- Anti-scratch/anti-fog coating
- Integrated side shields
- Integrated brow guard
- Adjustable temple length

Weight: 35 g

EN 166, EN 170; 1 FT

Type	Lenses	Colour	Pk	Cat. No.
Anti-UV (2-1.2), anti-scratch, anti-fog	Clear PC	Transparent	1	111-0932

Safety spectacles, Vienna



Single lens

Lightweight safety spectacles with clear polycarbonate lens.

- Anti-scratch/anti-fog coating
- With pantoscopic adjustment for angle modification
- Moulded brow guard
- Adjustable temple length

Weight: 26 g

EN 166, EN 170; 1 FT

Type	Lenses	Colour	Pk	Cat. No.
Anti-UV (2-1.2), anti-scratch, anti-fog	Clear PC	Transparent	1	111-0931

Safety spectacles, Dublin



Single lens

Lightweight spectacles with clear polycarbonate lens.

- Anti-scratch/anti-fog coating
- Moulded brow guard
- Soft nose pad
- Soft rubber temple pads

Weight: 25.5 g

EN 166, EN 170; 1 FT

Type	Lenses	Colour	Pk	Cat. No.
Anti-UV (2-1.2), anti-scratch, anti-fog	Clear PC	Transparent	1	111-0929

Cover spectacles, Lisbon



Visitor spectacles with wraparound clear polycarbonate lens and with indirect ventilation.

- Anti-scratch/anti-fog coating
- Integrated brow guard
- Vented side shields

Weight: 46 g

EN 166, EN 170; 1 FT

Type	Lenses	Colour	Pk	Cat. No.
Anti-UV (2-1.2), anti-scratch, anti-fog	Clear PC	Transparent	1	111-0930



Cleanroom goggles, autoclavable



Lightweight cleanroom goggles, suitable for ISO Class 4 environments.

- Soft, thermoplastic body with toughened polycarbonate lens
- Strap with polypropylene strap hooks
- Indirect base ventilation
- Autoclavable at 121 °C

EN 166:2001; Optical Class 1

Packaging Information: Packed in a NEBB Certified ISO Class 4 (Class 10) cleanroom. One piece per PE bag.

Type	Lenses	Colour	Pk	Cat. No.
Anti-scratch	Clear PC	Blue/Transparent	1	111-0614
Description			Pk	Cat. No.
Accessories				
Replacement lens for autoclavable cleanroom goggles			10	111-0599



Cleanroom goggles, sterile, single-use



Sterile cleanroom goggles with a lightweight frame, indirect ventilation and a non linting latex-free head band. The goggles are designed for single-use and recommended for ISO Class 4 and EU GMP Grade A/B critical environments.

- Toughened polycarbonate lens with anti-fog and anti-scratch coating
- Lightweight PVC body with silicone rubber strap provide comfort
- Ethylene Oxide (EtO) sterilised, fully validated to ISO 11135-1-2007

EN 166:2001, Optical Class 1

Packaging Information: Packed in a Nextech Certified ISO Class 4 cleanroom. One piece per Tyvek™ /PE bag.

Type	Lenses	Colour	Pk	Cat. No.
Cleanroom, sterile, anti-fog, anti-scratch	Clear PC	Transparent	10	111-0615

Lens cleaning tissues, grade 541



100% exotic fibres

These tissues are suitable for cleaning various optical lenses such as objectives, binoculars, magnifying glasses, spectacles as well as optical fibre filaments.

Thickness: 0,04 mm
Weight: 12 g/m²

Size (mm)	Packed	Pk	Cat. No.
80×100	1×500 sheets	500	111-5003
100×150	25×25 sheets	625	111-5004

Face shields



Face shield with clear polycarbonate screen.

- With adjustable headgear and ABS front protection
- Optical class 1 and impact resistance F

L×W: 200×300 mm
EN 166, 1F

Type	Material	Pk	Cat. No.
Impact resistant	PC	1	111-8141

Particle filtering half masks



Disposable, FFP2

These masks guarantee protection against particulates, dust and aerosols. For use against non toxic to low toxicity solid and liquid aerosols.

- Exhalation valve fitted with the exclusive "butterfly" opening-closing system
- Extra light
- Latex- and PVC-free

EN 149:2001; EG 89/686 (11.B)

Class	With valve	Size	Pk	Cat. No.
FFP2	No	U*	20	113-0645
FFP2	Yes	U*	10	113-0646

*One size fits all

Cleanroom face masks, Maximum

Maximum cleanroom masks feature three ply construction for superior particle and bacterial filtration efficiency. These masks are latex-free.

- Three ply masks provide high bacterial and particle filtration efficiency
- Highly breathable and fluid resistant
- A full length plastic arch holds the fabric away from the wearer's mouth to allow cooler, more comfortable breathing
- Malleable noseband ensures a custom, secure seal
- Available with spandex ear loops or PP-ties, ultrasonically welded to maintain softness and guard against particulates
- Moisture resistant, sterile mask features a unique, lightweight inner layer of film for enhanced moisture resistance

Colour: White or blue

LxH: 175x95 mm

Particle shedding (particles: ≥0,5 µm/cu. ft.): 196 (IEST-RP-CC003.3)

Bacterial filtration efficiency (%): >99 (ASTM F2101)

Particle filtration efficiency (%): >99 (ASTM F2299)

Delta P breathability (mm H2O/cm2): 1.9 - 2.2 (MIL-M-36954C)

Rigorously tested and manufactured in an ISO certified facility; products are validated through independent lab testing.

Packaging Information: 50 masks per cleanroom-compatible, heat-sealed bag; 10 bags per case.

Type	Colour	Pk	Cat. No.
Maximum cleanroom masks	White	50	113-6221
Maximum cleanroom masks	Blue	50	113-6220
Maximum moisture resistant sterile cleanroom masks	White	50	113-6222

General purpose gloves



Latex, non sterile, powdered and powder-free, textured fingertips

Single-use, ambidextrous gloves made from natural latex. Suitable for food handling, laboratory and industrial applications with complex risks and for medical applications (powder-free version only).

- Free from phthalates and softeners
- Textured fingertips for excellent grip
- Rolled cuffs minimise the risk of tearing
- Tested and certified according to 1935/2004 - suitable for food contact

Length: 240 mm

Thickness: 0,12 mm (palm - single measured)

Colour: Natural

Powdered: EN 420, EN 374; AQL 1,5; Cat. III

Powder-free: EN 420, EN 455 (1-2-3-4), EN 374; AQL 1,5; Cat. III

Type	Size	Pk	Cat. No.
Powdered	S	100	112-1565
Powdered	M	100	112-1566
Powdered	L	100	112-1567
Powdered	XL	90	112-1568
Powder-free	S	100	112-2750
Powder-free	M	100	112-2751
Powder-free	L	100	112-2752
Powder-free	XL	90	112-2753

Cleanroom gloves, CERTICLEAN®



Latex, non sterile, powder-free, textured finish

Suitable for use in Class 10, ISO 4, M2.5 cleanrooms.

Hand-specific gloves with beaded cuffs for strength and reduction of cuff roll down.

- Film thickness designed for comfort and tactile sensitivity
- Exceptionally low particle counts
- Minimised ionic contaminants and non volatile residue (NVR) transfer

Length: 305 mm

Thickness: 0,22 mm (fingers), 0,2 mm (palm)

Colour: Natural

Packaging Information: In cleanroom compatible polyethylene, 50 pairs per double poly bag, 4 bags per case.

Size	Pk	Cat. No.
6	200	112-4800
7	200	112-4802
7,5	200	112-4803
8	200	112-4804
9	200	112-4806

Cleanroom gloves, CERTICLEAN®



Latex, non sterile, powder-free, textured finish

Suitable for use in Class 100, ISO 5, M3.5 cleanrooms.

Ambidextrous gloves with beaded cuffs for strength and reduction of cuff roll down.

- Film thickness designed for comfort and tactile sensitivity
- Textured for a reliable grip
- Low particle counts
- Minimised ionic contaminants and non volatile residue (NVR) transfer

Length: 305 mm

Thickness: 0,22 mm (fingers), 0,2 mm (palm)

Colour: Natural

Packaging Information: Packaged in cleanroom-compatible polyethylene, 100 gloves per double poly bag, 10 bags per case.

Size	Pk	Cat. No.
S	1.000	112-0477
M	1.000	112-0478
L	1.000	112-0479
XL	1.000	112-0480

Medical examination gloves



Nitrile, non sterile, powder-free, textured fingertips
The gloves are manufactured from 100% nitrile which contains no natural rubber latex. They are excellent for use in environments where natural rubber is not desirable or for people with Type I allergies. The gloves are very light, but strong and durable, due to the excellent tensile and elongation properties.
• Ambidextrous
• Beaded cuffs
• Textured fingertips for an excellent grip
Length: 240 mm
Colour: Blue
EN 455-2, AQL 1,5

Table with 3 columns: Size, Pk, Cat. No. Rows include sizes XS, S, M, L, XL for 100 and 150 gloves per pack.

Laboratory gloves



Nitrile, non sterile, powder-free, textured finish
For laboratory use in pharmaceutical, industrial and medical applications, and in the food industry. These ambidextrous gloves provide extra protection, particularly for sensitive skin.
• Highly resistant to chemical solvents and fats
• Excellent grip, especially when holding wet objects
• Designed especially for latex allergy sufferers
Length: 240 mm
Thickness: 0,25 mm (palm - measured as double wall thickness)
Colour: Blue
EN 374-2/-3, EN 455-1/-2/-3/-4; Cat. III, 89/686/EC; AQL 1,5

Table with 3 columns: Size, Pk, Cat. No. Rows include sizes S, M, L, XL.

Laboratory gloves, AZUR



Nitrile, non sterile, powder-free, textured fingers
These ambidextrous gloves with beaded cuffs are ideal for laboratory and general use in industrial and medical applications, as well as in the food industry.
• Great tactility
• Textured fingers for excellent grip
• Latex-free material - eliminates Type 1 allergies
Length: 240 mm
Thickness: >0,07 mm (finger), >0,06 mm (palm)
Colour: Azure blue
EN 374-1/-2/-3, EN 455-1/-2/-3, Cat. III, AQL 1,5
Food contact approved according to regulation EC 1935/2004

Table with 3 columns: Size, Pk, Cat. No. Rows include sizes S (6 - 7), M (7 - 8), L (8 - 9), XL (9 - 10).

Gloves, food grade



Nitrile, non sterile, powder-free, textured fingertips

The gloves are manufactured from 100% nitrile which contains no natural rubber latex. They are therefore excellent for use in environments where natural rubber is not desirable or for people who suffer from allergic reactions. The gloves are very light, but strong and durable, due to the excellent tensile and elongation properties, and especially suitable for food handling (Food contact approved according to European Directive EC 1935/2004)

- Ambidextrous
- Beaded cuffs
- Textured fingertips for better grip

Length: 240 mm

Colour: Blue

EC 1935/2004, AQL 1.5

Size	Pk	Cat. No.
XS	1.000	112-1873
S	1.000	112-1874
M	1.000	112-1875
L	1.000	112-1876
XL	1.000	112-1877

Light general purpose gloves



Nitrile, non sterile, powder-free, textured fingertips

Light, ambidextrous and durable gloves that are ideal for food handling, catering and kitchen work, medical applications and other complex risk tasks. The thin nitrile gloves are free from phthalates, softeners and allergenic latex proteins.

- Low thickness and textured fingertips for excellent grip
- Particularly skin friendly for users with latex allergy
- Rolled cuffs minimise the risk of tearing
- Tested and certified according to 1935/2004 - suitable for food contact

Length: 240 mm

Thickness: 0,10 mm (palm - single measured)

Colour: Blue

EN 420, EN 455 (1-2-3-4), EN 374; AQL 1,5; Cat. III

Size	Pk	Cat. No.
S	100	112-2754
M	100	112-2755
L	100	112-2756
XL	90	112-2757

Cleanroom gloves, CERTICLEAN®



Nitrile, non sterile, powder-free, textured fingertips

Suitable for use in Class 10, ISO 4, M2.5 and lower cleanrooms.

Ambidextrous, gloves with beaded cuffs made from silicone-free nitrile. The specialised manufacturing processes result in consistently low particle counts and low levels of ionic extractables and non-volatile residue (NVR) transfer.

- In-use static dissipative properties are superior to natural rubber latex
- Tapered cuff provides more coverage over the garment sleeve

Length: 305 mm

Thickness: 0,16 mm (finger); 0,13 mm (palm)

Colour: White

Packaging Information: Packaged in cleanroom-compatible polyethylene, 100 gloves/double poly bag, 10 bags/case.

Size	Pk	Cat. No.
S	1.000	112-0481
M	1.000	112-0483
L	1.000	112-0484

Gloves, food grade



Vinyl, non sterile, powder-free, smooth finish

Ambidextrous and durable gloves that are ideal for food handling, catering and kitchen work, but also for low risk medical applications, cleaning and janitorial tasks and general purposes. They are made of synthetic PVC and provide a comfortable fit.

- Excellent textile sensitivity
- Latex-free and powder-free, thus skin friendly
- Food contact approved

Colour: Blue

EN 455; ASTM D-5250

Size	Pk	Cat. No.
S	1.000	112-1883
M	1.000	112-1884
L	1.000	112-1885
XL	1.000	112-1886

General purpose gloves



Vinyl, non sterile, powdered or powder-free, smooth finish

Ambidextrous and durable gloves that are ideal for food handling, catering and kitchen work and low risk medical applications. They are made of vinyl and free from latex proteins and accelerants.

- Particularly skin friendly for users with latex allergy
- Rolled cuffs minimise the risk of tearing
- Smooth surface
- Food contact approved according to Regulation EC 1935/2004 (non fatty food)

Length: 240 mm

Thickness: 0,075 mm (palm - single measured)

Colour: Transparent

EN 420, EN 374; AQL 1,5; Cat. I

Type	Size	Pk	Cat. No.
Powdered	S (6,5)	100	112-2758
Powdered	M (7,5)	100	112-2759
Powdered	L (8,5)	100	112-2760
Powder-free	S (6,5)	100	112-2761
Powder-free	M (7,5)	100	112-2762
Powder-free	L (8,5)	100	112-2763

Glove liners



These durable and reusable glove liners are made of 100% nylon. They are compatible with stringent clean-room requirements and can be used effectively as a gowning glove. Low-linting.

- Reduces perspiration and wicks moisture during extended use
- Prevents skin irritation without diminishing tactile sensitivity
- Limits wear and tear to extend life of gloves and conserves resources
- Pre-laundered, will not shrink during washing

Colour: White

Basic weight: 21,5 g/pair ±10%

Thickness: 2 mm ±10%

Surface resistivity: 1 × 109 ±10% ohms/m²

Description	Size	Pk	Cat. No.
Full-finger liners	S	300 PAIR	112-1900
Full-finger liners	M	300 PAIR	112-1899
Full-finger liners	L	300 PAIR	112-1898
Full-finger liners	XL	300 PAIR	112-1904
Half-finger liners	S	300 PAIR	112-1915
Half-finger liners	M	300 PAIR	112-1910
Half-finger liners	L	300 PAIR	112-1905
Half-finger liners	XL	300 PAIR	112-1917

Ladies’ coats, cotton or polyester/cotton



These reusable coats for women are either made of 100% cotton or 65% polyester/35% cotton. Both fabrics are robust, tear resistant and durable. The coats are available with a tailored or stand-up collar.

- With concealed press stud fastening and two-step adjustable cuffs
- Two side pockets and one breast pocket
- Fitted style, with back belt and side slit
- Washable at 95 °C, suitable for industrial laundering

Density: 215 g/m²

Colour: White

Approved in accordance with Oeko-Tex® Standard 100.

Type	Clothing size	Pk	Cat. No.
Cotton			
With tailored collar	34 (ladies)	1	113-1682
With tailored collar	36 (ladies)	1	113-1683
With tailored collar	38 (ladies)	1	113-1684
With tailored collar	40 (ladies)	1	113-1685
With tailored collar	42 (ladies)	1	113-1686
With tailored collar	44 (ladies)	1	113-1687
With tailored collar	46 (ladies)	1	113-1688
With tailored collar	48 (ladies)	1	113-1689
With tailored collar	50 (ladies)	1	113-1690
With tailored collar	52 (ladies)	1	113-1691
With stand-up collar	34 (ladies)	1	113-1692
With stand-up collar	36 (ladies)	1	113-1693
With stand-up collar	38 (ladies)	1	113-1694
With stand-up collar	40 (ladies)	1	113-1695
With stand-up collar	42 (ladies)	1	113-1696
With stand-up collar	44 (ladies)	1	113-1697
With stand-up collar	46 (ladies)	1	113-1698
With stand-up collar	48 (ladies)	1	113-1699
With stand-up collar	50 (ladies)	1	113-1701
With stand-up collar	52 (ladies)	1	113-1702
Polyester/cotton			
With tailored collar	34 (ladies)	1	113-1703
With tailored collar	36 (ladies)	1	113-1704
With tailored collar	38 (ladies)	1	113-1705
With tailored collar	40 (ladies)	1	113-1706
With tailored collar	42 (ladies)	1	113-1707
With tailored collar	44 (ladies)	1	113-1708
With tailored collar	46 (ladies)	1	113-1709
With tailored collar	48 (ladies)	1	113-1710
With tailored collar	50 (ladies)	1	113-1711
With tailored collar	52 (ladies)	1	113-1712
With stand-up collar	34 (ladies)	1	113-1713
With stand-up collar	36 (ladies)	1	113-1714
With stand-up collar	38 (ladies)	1	113-1715
With stand-up collar	40 (ladies)	1	113-1716
With stand-up collar	42 (ladies)	1	113-1717
With stand-up collar	44 (ladies)	1	113-1718
With stand-up collar	46 (ladies)	1	113-1719
With stand-up collar	48 (ladies)	1	113-1720
With stand-up collar	50 (ladies)	1	113-1721
With stand-up collar	52 (ladies)	1	113-1722

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Men’s coats, cotton or polyester/cotton



These reusable coats for men are either made of 100% cotton or 65% polyester/35% cotton. Both fabrics are robust, tear resistant and durable. The coats are available with a tailored or stand-up collar.

- With concealed press stud fastening and two-step adjustable cuffs
- Two side pockets and one breast pocket
- With side slit for improved wearing comfort
- Washable at 95 °C, suitable for industrial laundering

Density: 215 g/m²

Colour: White

Approved in accordance with Oeko-Tex® Standard 100.

Type	Clothing size	Pk	Cat. No.
Cotton			
With tailored collar	42 (men)	1	113-1723
With tailored collar	44 (men)	1	113-1724
With tailored collar	46 (men)	1	113-1725
With tailored collar	48 (men)	1	113-1726
With tailored collar	50 (men)	1	113-1727
With tailored collar	52 (men)	1	113-1728
With tailored collar	54 (men)	1	113-1729
With tailored collar	56 (men)	1	113-1730
With tailored collar	58 (men)	1	113-1731
With tailored collar	60 (men)	1	113-1732
With tailored collar	62 (men)	1	113-5988
With stand-up collar	42 (men)	1	113-1734
With stand-up collar	44 (men)	1	113-1735
With stand-up collar	46 (men)	1	113-1736
With stand-up collar	48 (men)	1	113-1737
With stand-up collar	50 (men)	1	113-1738
With stand-up collar	52 (men)	1	113-1739
With stand-up collar	54 (men)	1	113-1740
With stand-up collar	56 (men)	1	113-1741
With stand-up collar	58 (men)	1	113-1742
With stand-up collar	60 (men)	1	113-1743
With stand-up collar	62 (men)	1	113-5989
Polyester/cotton			
With tailored collar	42 (men)	1	113-1745
With tailored collar	44 (men)	1	113-1746
With tailored collar	46 (men)	1	113-1747
With tailored collar	48 (men)	1	113-1748
With tailored collar	50 (men)	1	113-1749
With tailored collar	52 (men)	1	113-1766
With tailored collar	54 (men)	1	113-1767
With tailored collar	56 (men)	1	113-1768
With tailored collar	58 (men)	1	113-1769
With tailored collar	60 (men)	1	113-1770
With tailored collar	62 (men)	1	113-5990
With stand-up collar	42 (men)	1	113-1772
With stand-up collar	44 (men)	1	113-1773
With stand-up collar	46 (men)	1	113-1774
With stand-up collar	48 (men)	1	113-1775
With stand-up collar	50 (men)	1	113-1776
With stand-up collar	52 (men)	1	113-1777
With stand-up collar	54 (men)	1	113-1778
With stand-up collar	56 (men)	1	113-1779
With stand-up collar	58 (men)	1	113-1780
With stand-up collar	60 (men)	1	113-1781



HACCP food coats, PE/cotton



These reusable coats comply with HACCP requirements and are therefore suitable for food processing. Made of a blend of 65% polyester and 35% cotton, they feature a stand-up collar, two-step adjustable cuffs, two inside side pockets and one inside breast pocket.

- Ideal for use in food handling, preparation and food manufacturing industries
- With concealed press stud fastening
- Women's coat has a fitted design
- Washable at 95 °C, suitable for industrial laundering

Density: 215 g/m²

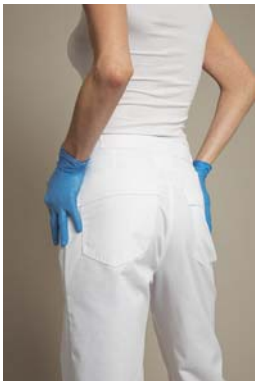
Colour: White

DIN 10524

Type	Clothing size	Pk	Cat. No.
Women's style	34 (ladies)	1	113-1804
Women's style	36 (ladies)	1	113-1805
Women's style	38 (ladies)	1	113-1806
Women's style	40 (ladies)	1	113-1807
Women's style	42 (ladies)	1	113-1808
Women's style	44 (ladies)	1	113-1809
Women's style	46 (ladies)	1	113-1810
Women's style	48 (ladies)	1	113-1811
Women's style	50 (ladies)	1	113-1812
Women's style	52 (ladies)	1	113-1813
Men's style	42 (men)	1	113-1814
Men's style	44 (men)	1	113-1815
Men's style	46 (men)	1	113-1816
Men's style	48 (men)	1	113-1817
Men's style	50 (men)	1	113-1818
Men's style	52 (men)	1	113-1819
Men's style	54 (men)	1	113-1820
Men's style	56 (men)	1	113-1821
Men's style	58 (men)	1	113-1822
Men's style	60 (men)	1	113-1823



HACCP trousers, food contact approved



These trousers, made of 65% polyester and 35% cotton, are HACCP certified and therefore suitable for use in hygienically sensitive areas in food processing and manufacturing. They are ideal for wearing in combination with the VWR® HACCP coats.

- With two side pockets and two back pockets covered by a flap
- Elasticated waistband with button fastening
- Men's trousers also feature belt loops

Density: 215 g/m²

Colour: White

DIN 10524

Type	Clothing size	Pk	Cat. No.
Women's style	34 (ladies)	1	113-1938
Women's style	36 (ladies)	1	113-1939
Women's style	38 (ladies)	1	113-1940
Women's style	40 (ladies)	1	113-1941
Women's style	42 (ladies)	1	113-1942
Women's style	44 (ladies)	1	113-1943
Women's style	46 (ladies)	1	113-1944
Women's style	48 (ladies)	1	113-1945
Women's style	50 (ladies)	1	113-1946
Women's style	52 (ladies)	1	113-1947
Men's style	42 (men)	1	113-1948
Men's style	44 (men)	1	113-1949
Men's style	46 (men)	1	113-1950
Men's style	48 (men)	1	113-1951
Men's style	50 (men)	1	113-1952
Men's style	52 (men)	1	113-1953
Men's style	54 (men)	1	113-1954
Men's style	56 (men)	1	113-1955
Men's style	58 (men)	1	113-1956
Men's style	60 (men)	1	113-1957



ESD coats



These reusable coats for women and men are made of 63% polyester, 35% cotton and 2% carbon, which provides anti-static protection. All models feature two-step adjustable cuffs, two side pockets, one breast pocket, tailored collar and concealed press stud fastening.

- ESD features: Anti-static fabric that is suitable for handling of electronic parts
- With side slit
- Women's style: Fitted and with back belt
- Washable at 60 °C, suitable for industrial laundering

Density: 190 g/m²

Colour: White

EN 1149-5, EN 61340

Type	Clothing size	Pk	Cat. No.
Women's style	34 (ladies)	1	113-1783
Women's style	36 (ladies)	1	113-1784
Women's style	38 (ladies)	1	113-1785
Women's style	40 (ladies)	1	113-1786
Women's style	42 (ladies)	1	113-1787
Women's style	44 (ladies)	1	113-1788
Women's style	46 (ladies)	1	113-1789
Women's style	48 (ladies)	1	113-1790
Women's style	50 (ladies)	1	113-1791
Women's style	52 (ladies)	1	113-1792
Men's style	42 (men)	1	113-1793
Men's style	44 (men)	1	113-1794
Men's style	46 (men)	1	113-1795
Men's style	48 (men)	1	113-1796
Men's style	50 (men)	1	113-1797
Men's style	52 (men)	1	113-1798
Men's style	54 (men)	1	113-1799
Men's style	56 (men)	1	113-1800
Men's style	58 (men)	1	113-1801
Men's style	60 (men)	1	113-1802



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ESD trousers



These trousers for men and women are made of 63% polyester, 35% cotton and 2% resistant fibre (carbon). The special material mix provides the permanent anti-static/ESD features. The trousers are therefore suitable for all kind of applications in electronic manufacturing areas. Perfect for wearing in combination with the VWR® ESD coats.

- With two side pockets and two back pockets
- Adjustable width for more comfort
- Men’s trousers also feature a belt loop
- Washable at 60 °C, suitable for industrial laundering

Colour: White

Density: 190 g/m²

EN 1149-5, EN 61340-5-1, Oeko-Tex® Standard 100

Type	Clothing size	Pk	Cat. No.
Women’s style	34 (ladies)	1	113-1898
Women’s style	36 (ladies)	1	113-1899
Women’s style	38 (ladies)	1	113-1919
Women’s style	40 (ladies)	1	113-1920
Women’s style	42 (ladies)	1	113-1921
Women’s style	44 (ladies)	1	113-1922
Women’s style	46 (ladies)	1	113-1923
Women’s style	48 (ladies)	1	113-1924
Women’s style	50 (ladies)	1	113-1925
Women’s style	52 (ladies)	1	113-1926
Men’s style	42 (men)	1	113-1927
Men’s style	44 (men)	1	113-1928
Men’s style	46 (men)	1	113-1929
Men’s style	48 (men)	1	113-1930
Men’s style	50 (men)	1	113-1931
Men’s style	52 (men)	1	113-1932
Men’s style	54 (men)	1	113-1933
Men’s style	56 (men)	1	113-1934
Men’s style	58 (men)	1	113-1935
Men’s style	60 (men)	1	113-1936

Laboratory coats, PP, disposable



These disposable lab coats have two pockets (one breast pocket and one lower pocket).

- Waterproof
- Tapered collar, bound seams
- Press stud fastening, four studs and elasticated wrist

Density: 48 g/m²

Length: 1020 mm; 870 mm (sleeves)

Colour: White

Clothing size	Pk	Cat. No.
L	30	113-0728
XL	30	113-0729
XXL	30	113-0730

Laboratory coats, PP, disposable



Disposable laboratory coats made from non woven PP, feature a tapered collar and one breast pocket. Ideal for non critical applications.

- Bound seams
- Straight wrist
- Press stud fastening, four studs

Length: 1020 mm; 870 mm (sleeves)

Density: 40 g/m²

Colour: White

Clothing size	Pk	Cat. No.
L	30	113-0737
XL	30	113-0738
XXL	30	113-0739

Laboratory coats, PP, disposable



These disposable laboratory coats made from non woven PP feature a tapered collar and two side pockets. Ideal for non critical applications.

- Bound seams
- Elasticated wrist
- Press stud fastening, four studs or zip closure (113-0733)

Length: 1020 mm; 870 mm (sleeves)

Density: 40 g/m²

Colour: White

Description	Clothing size	Pk	Cat. No.
Zip closure	XL	30	113-0733
Press studs	L	30	113-0734
Press studs	XL	30	113-0735
Press studs	XXL	30	113-0736

Laboratory coats, SPP



This disposable coat is made of non woven laminated SPP fabric.

- Tailored collar
- Press-stud closure and open cuffs
- Two pockets

Weight: 45 g/m²

Colour: White

Clothing size	Pk	Cat. No.
M	50	113-6223
L	50	113-6224
XL	50	113-6225
XXL	50	113-6226
3XL	50	113-6227
4XL	50	113-6228

Visitor smocks, LDPE/LLDPE, disposable



This disposable smock is made from 65% LDPE and 35% LLDPE.

- Highly resistant to chemical corrosion
- Effective against dirt, moisture and oil
- Straight cuffs, press stud fastening with three studs and hood

Length: 1250 mm

Weight: 12,5 g

Colour: White

Clothing size	Pk	Cat. No.
U*	100	113-0727

*One size fits all

Laboratory coats, acid resistant



These anti-static lab coats are made of 99% polyester and 1% anti-static fibre. They provide limited protection against liquid chemicals.

- Officer collar and press-stud fastening with flap
- Long sleeves with elastic cuff
- Three pockets with flaps and press-studs (2 lower side, 1 upper breast)

Weight: 275 gr/m²

Colour: White

EN 13034: 2009 (Type 6), EN 1149-5: 2008

Type	Clothing size	Pk	Cat. No.
Women's style	XS	1	113-1587
Women's style	S	1	113-1588
Women's style	M	1	113-1589
Women's style	L	1	113-1590
Women's style	XL	1	113-1591
Women's style	XXL	1	113-1592
Men's style	XS	1	113-1581
Men's style	S	1	113-1582
Men's style	M	1	113-1583
Men's style	L	1	113-1584
Men's style	XL	1	113-1585
Men's style	XXL	1	113-1586

Chemical resistant coats, polyester/Hydro-Tec, reusable



These anti-static coats are manufactured from 99% polyester fibres with 1% Hydro-Tec finish (carbon treated), which makes them both extremely durable and excellent for repelling dirt, oil, chemicals and water. All coats feature a stand-up collar, two side pockets and one breast pocket, all three protected by a flap. The model for women comes with a fitted waist.

- Extremely durable thanks to plain weave construction
- Innovative Hydro-Tec finish provides protection against splashes
- Front closure with press studs covered by Velcro® flap
- Washable at 60 °C

Colour: White, grey or blue

Density: 275 g/m²

EN 13034:2005 (type 6), EN 1149-5; complies with Oeko-Tex® Standard 100

Colour	Clothing size	Pk	Cat. No.
For ladies			
White	34 (ladies)	1	113-1825
White	36 (ladies)	1	113-1826
White	38 (ladies)	1	113-1827
White	40 (ladies)	1	113-1828
White	42 (ladies)	1	113-1829
White	44 (ladies)	1	113-1830
White	46 (ladies)	1	113-1831
White	48 (ladies)	1	113-1832
White	50 (ladies)	1	113-1833
White	52 (ladies)	1	113-1834
Blue	34 (ladies)	1	113-6096
Blue	36 (ladies)	1	113-6097
Blue	38 (ladies)	1	113-6098
Blue	40 (ladies)	1	113-6099
Blue	42 (ladies)	1	113-6100
Blue	44 (ladies)	1	113-6101
Blue	46 (ladies)	1	113-6102
Blue	48 (ladies)	1	113-6103
Blue	50 (ladies)	1	113-6104
Blue	52 (ladies)	1	113-6105
Grey	34 (ladies)	1	113-6138
Grey	36 (ladies)	1	113-6139
Grey	38 (ladies)	1	113-6140
Grey	40 (ladies)	1	113-6141
Grey	42 (ladies)	1	113-6142
Grey	44 (ladies)	1	113-6143
Grey	46 (ladies)	1	113-6144
Grey	48 (ladies)	1	113-6145

Continued from previous page

Colour	Clothing size	Pk	Cat. No.
For ladies			
Grey	50 (ladies)	1	113-6146
Grey	52 (ladies)	1	113-6147
For men			
White	42 (men)	1	113-1835
White	44 (men)	1	113-1836
White	46 (men)	1	113-1837
White	48 (men)	1	113-1838
White	50 (men)	1	113-1839
White	52 (men)	1	113-1840
White	54 (men)	1	113-1841
White	56 (men)	1	113-1842
White	58 (men)	1	113-1843
White	60 (men)	1	113-1844
Blue	42 (men)	1	113-6106
Blue	44 (men)	1	113-6107
Blue	46 (men)	1	113-6108
Blue	48 (men)	1	113-6109
Blue	50 (men)	1	113-6110
Blue	52 (men)	1	113-6111
Blue	54 (men)	1	113-6112
Blue	56 (men)	1	113-6113
Blue	58 (men)	1	113-6114
Blue	60 (men)	1	113-6115
Blue	62 (men)	1	113-6116
Grey	42 (men)	1	113-6148
Grey	44 (men)	1	113-6149
Grey	46 (men)	1	113-6150
Grey	48 (men)	1	113-6151
Grey	50 (men)	1	113-6152
Grey	52 (men)	1	113-6153
Grey	54 (men)	1	113-6154
Grey	56 (men)	1	113-6155
Grey	58 (men)	1	113-6156
Grey	60 (men)	1	113-6157
Grey	62 (men)	1	113-6158

Chemical resistant trousers



These trousers are manufactured from 99% polyester fibres and 1% Hydro-Tec fibres. The special fabric with Hydro-Tec nanotechnology finish makes the trousers extremely durable and provides anti-static features as well as protection against dirt, oil, chemicals and water. They are ideal for wearing in combination with the chemical resistant VWR® coats.

- Excellent protection against chemical splashes
- With two side and two back pockets, all covered by a flap
- Elasticated waistband which can be adjusted for improved wearing comfort
- Closure: Metal press stud with zip closure

Colour: White, grey or blue

Density: 275 g/m²

EN 13034:2005 (type 6), EN 1149-5; complies with Oeko-Tex® Standard 100

Colour	Clothing size	Pk	Cat. No.
For ladies			
White	34 (ladies)	1	113-1959
White	36 (ladies)	1	113-1960
White	38 (ladies)	1	113-1961
White	40 (ladies)	1	113-1962
White	42 (ladies)	1	113-1963
White	44 (ladies)	1	113-1964
White	46 (ladies)	1	113-1965
White	48 (ladies)	1	113-1966
White	50 (ladies)	1	113-1967
White	52 (ladies)	1	113-1968
Blue	34 (ladies)	1	113-6117
Blue	36 (ladies)	1	113-6118
Blue	38 (ladies)	1	113-6119
Blue	40 (ladies)	1	113-6120
Blue	42 (ladies)	1	113-6121
Blue	44 (ladies)	1	113-6122
Blue	46 (ladies)	1	113-6123

Continued from previous page

Colour	Clothing size	Pk	Cat. No.
For ladies			
Blue	48 (ladies)	1	113-6124
Blue	50 (ladies)	1	113-6125
Blue	52 (ladies)	1	113-6126
Grey	34 (ladies)	1	113-6159
Grey	36 (ladies)	1	113-6160
Grey	38 (ladies)	1	113-6161
Grey	40 (ladies)	1	113-6162
Grey	42 (ladies)	1	113-6163
Grey	44 (ladies)	1	113-6164
Grey	46 (ladies)	1	113-6165
Grey	48 (ladies)	1	113-6166
Grey	50 (ladies)	1	113-6167
Grey	52 (ladies)	1	113-6168
For men			
White	42 (men)	1	113-1969
White	44 (men)	1	113-1970
White	46 (men)	1	113-1971
White	48 (men)	1	113-1972
White	50 (men)	1	113-1973
White	52 (men)	1	113-1974
White	54 (men)	1	113-1975
White	56 (men)	1	113-1976
White	58 (men)	1	113-1977
White	60 (men)	1	113-1978
Blue	42 (men)	1	113-6127
Blue	44 (men)	1	113-6128
Blue	46 (men)	1	113-6129
Blue	48 (men)	1	113-6130
Blue	50 (men)	1	113-6131
Blue	52 (men)	1	113-6132
Blue	54 (men)	1	113-6133
Blue	56 (men)	1	113-6134
Blue	58 (men)	1	113-6135
Blue	60 (men)	1	113-6136
Blue	62 (men)	1	113-6137
Grey	42 (men)	1	113-6169
Grey	44 (men)	1	113-6170
Grey	46 (men)	1	113-6171
Grey	48 (men)	1	113-6172
Grey	50 (men)	1	113-6173
Grey	52 (men)	1	113-6174
Grey	54 (men)	1	113-6175
Grey	56 (men)	1	113-6176
Grey	58 (men)	1	113-6177
Grey	60 (men)	1	113-6178
Grey	62 (men)	1	113-6179

Protection kit (pandemic)



With this selection of products from our range, you can create a protection kit to meet your own specific needs. The set contains:

- Madrid overglasses (111-1206) for visitors, and a WILLSON 5211 MI, FFP2 dust mask, with valve (111-3562)
- A box of 100 VWR Collection powder-free latex gloves, sizes M / L / XL (112-1526)
- A Tyvek Classic Plus overall, white, with hood, sizes M / L / XL / XXL (113-0453)
- A pair of overshoes, white, butterfly style, one size fits all (113-0161)
- Autoclavable bag, 200×300 mm, thickness: 40 µm (129-9601), Purell disinfectant with pump bottle, 60 ml (115-0180) and a box of 120 disinfecting wipes (115-8133)

Clothing size	Pk	Cat. No.
M	1	113-9990
L	1	113-9991
XL	1	113-9992
XXL	1	113-9993

Cleanroom lab coats, VWR Basic, SPP, disposable



The VWR Basic SPP lab coats are manufactured from a strong, lightweight, and breathable spunbonded polypropylene (SPP) fabric, which protects against dirt, grime, and certain dry particulates in non hazardous environments. This garment is ideal for less critical areas or pre-gowning entry rooms. It is tested and manufactured in an ISO Certified facility and lot controlled and validated through independent lab testing.

- Tapered collar, inset sleeves, snap closure, elastic or knitted cuffs, no pockets or three pockets
- Lightweight and breathable first line barrier protection

Colour: White

Clothing size	Pk	Cat. No.
With elastic cuffs, no pockets		
S	25	113-1118
M	25	113-1119
L	25	113-1120
XL	25	113-1121
XXL	25	113-1122
With knitted cuffs, three pockets		
S	30	113-1111
M	30	113-1112
L	30	113-1113
XL	30	113-1114
XXL	30	113-1115

Cleanroom lab coats, VWR Basic, SMS, disposable



The SMS lab coats are manufactured from a latex-free, multilayer spunbonded-meltblown-spunbonded (SMS) fabric that offers high tensile strength while remaining soft, comfortable, and breathable.

- Tapered collar, inset sleeves, snap closure, knitted cuffs, three pockets
- Fluid and particulate barrier
- Light chemical splash resistance

Colour: White or blue

Colour	Clothing size	Pk	Cat. No.
Blue	S	30	113-1125
Blue	M	30	113-1126
Blue	L	30	113-1127
Blue	XL	30	113-1128
Blue	XXL	30	113-1129
White	S	30	113-1131
White	M	30	113-1132
White	L	30	113-1133
White	XL	30	113-1134
White	XXL	30	113-1135

Cleanroom lab coats, VWR Advanced, SPP, disposable



VWR Advanced SPP lab coats are manufactured from a medium weight spunbonded polypropylene (SPP). Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Tapered collar, inset sleeves, snap closure, elastic cuffs, three pockets
- Durable fabric with excellent breathability and water vapour transmission rate
- Significant fluid and particulate barrier: 99,9% bacterial filtration efficiency
- Particle shedding: Level II Helmke drum classification
- Soft, cloth-like fabric

Colour: White

Clothing size	Pk	Cat. No.
S	25	113-1145
M	25	113-1146
L	25	113-1147
XL	25	113-1148
XXL	25	113-1149

Cleanroom lab coats, VWR Maximum, SPP



VWR Maximum SPP lab coats are the cleanest and most durable within the entire VWR clothing line. Made with a comfortable spunbonded polypropylene (SPP) formulation, these garments have been designed to optimise barrier protection, cleanliness, and comfort properties. Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Tapered collar, inset sleeves, snap closure, elastic cuffs, three pockets
- Superior fluid and particulate barrier: >99,9% bacterial filtration efficiency
- Lowest level of particle shedding: Level I Helmke drum classification
- Light chemical splash resistance
- Improved breathability to ensure user comfort
- Soft, cloth-like fabric with maximum tear strength

Colour: White

Clothing size	Pk	Cat. No.
S	25	113-1138
M	25	113-1139
L	25	113-1140
XL	25	113-1141
XXL	25	113-1142

Frocks, PP



Frocks made from PP, with tapered collar, and either press stud fastening (five studs) or zip closure.

- No pockets
- Bound seams and elasticated wrists

Length for size XL: 1100 mm; 920 mm (sleeves)

Colour: White or blue

Density: 40 g/m²

Colour	Clothing size	Pk	Cat. No.
With press stud fastening			
Blue	L	30	113-1455
White	XL	30	113-0731
Blue	XL	30	113-1456
With zip closure			
White	XL	30	113-0732
White	XXL	30	113-1454

Cleanroom frocks, VWR Basic, SPP



The VWR Basic SPP frocks are manufactured from a strong, lightweight, and breathable spunbonded polypropylene (SPP) fabric, which protects against dirt, grime, and certain dry particulates in non hazardous environments. This garment is ideal for less critical areas or pre-gowning entry rooms. It is tested and manufactured in an ISO Certified facility and lot controlled and validated through independent lab testing.

- Snap collar, raglan sleeves, snap closure, knitted cuffs, no pockets
- Lightweight and breathable first line barrier protection

Colour: White

Colour	Clothing size	Pk	Cat. No.
White	M	30	113-1151
White	L	30	113-1152
White	XL	30	113-1153
White	XXL	30	113-1154

Cleanroom frocks, with Velcro®, VWR Basic, SPP



The VWR Basic SPP frocks are manufactured from a strong, lightweight, and breathable spunbonded polypropylene (SPP) fabric, which protects against dirt, grime, and certain dry particulates in non hazardous environments. This garment is ideal for less critical areas or pre-gowning entry rooms. It is tested and manufactured in an ISO Certified facility and lot-controlled and validated through independent lab testing.

- Snap collar, raglan sleeves, Velcro® closure, knitted cuffs, no pockets
- Lightweight and breathable first line barrier protection

Colour: White

Clothing size	Pk	Cat. No.
S	30	113-1988
M	30	113-1989
L	30	113-1990
XL	30	113-1991
XXL	30	113-1992

Cleanroom frocks, VWR Basic, SMS



The SMS frocks are manufactured from a latex-free, multilayer spunbonded-meltblown-spunbonded (SMS) fabric that offers high tensile strength while remaining soft, comfortable, and breathable.

- Snap collar, raglan sleeves, snap closure, knitted cuffs
- Fluid and particulate barrier
- Light chemical splash resistance

Colour: White or blue

Colour	Clothing size	Pk	Cat. No.
White	S	30	113-1156
White	M	30	113-1157
White	L	30	113-1158
White	XL	30	113-1159
White	XXL	30	113-1160
Blue	M	30	113-1162
Blue	L	30	113-1174
Blue	XL	30	113-1175
Blue	XXL	30	113-1176

Cleanroom frocks, VWR Advanced, SPP



VWR Advanced SPP frocks are manufactured from a medium weight spunbonded polypropylene (SPP). Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Snap collar, raglan sleeves, snap closure, elastic cuffs
- Durable fabric with excellent breathability and water vapour transmission rate
- Significant fluid and particulate barrier: 99,9% bacterial filtration efficiency
- Particle shedding: Level II Helmke drum classification
- Soft, cloth-like fabric

Colour: White

Clothing size	Pk	Cat. No.
S	25	113-1177
M	25	113-1178
L	25	113-1179
XL	25	113-1180
XXL	25	113-1181



INSTRUMENT SERVICE AND MAINTENANCE

Please contact your local VWR sales office for more information

Cleanroom frocks, VWR Maximum, SPP



VWR Maximum SPP frocks are the cleanest and most durable within the entire VWR clothing line. Made with a comfortable spunbonded polypropylene (SPP) formulation, these garments have been designed to optimise barrier protection, cleanliness, and comfort properties. Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Snap collar, raglan sleeves, snap closure, elastic cuffs
- Superior fluid and particulate barrier: >99,9% bacterial filtration efficiency
- Lowest level of particle shedding: Level 1 Helmke drum classification
- Light chemical splash resistance
- Improved breathability to ensure user comfort
- Soft, cloth-like fabric with maximum tear strength

Colour: White

Clothing size	Pk	Cat. No.
M	25	113-1167
L	25	113-1168
XL	25	113-1169
XXL	25	113-1170

Tunics without collar, for women, PE/Cotton



These ladies' tunics without a collar are made of 65 % polyester and 35 % cotton. They are suitable for use in medical areas, especially in medical care.

- Two side pockets and one cut breast pocket
- Concealed press stud fastening with 5 snap buttons
- Fitted design thanks to front and back darts
- Washable at 95 °C, suitable for industrial laundering

Colour: White

Density: 215 g/m²

Approved in accordance with Oeko-Tex® Standard 100.

Clothing size	Pk	Cat. No.
34 (ladies)	1	113-1856
36 (ladies)	1	113-1857
38 (ladies)	1	113-1858
40 (ladies)	1	113-1859
42 (ladies)	1	113-1860
44 (ladies)	1	113-1861
46 (ladies)	1	113-1862
48 (ladies)	1	113-1863
50 (ladies)	1	113-1864
52 (ladies)	1	113-1865

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Tunics with collar, PE/cotton



These functional tunics with a tailored collar are made of 65 % polyester and 35 % cotton. They are most suitable for use in medical areas, especially in medical care.

- Two side pockets (one with an additional small pocket) and one breast pocket
- Concealed press stud fastening with 5 snap buttons
- With side slits for improved wearing comfort
- Washable at 95 °C, suitable for industrial laundering

Colour: White

Density: 215 g/m²

Approved in accordance with Oeko-Tex® Standard 100.

Type	Clothing size	Pk	Cat. No.
Women's style	32 (ladies)	1	113-6180
Women's style	34 (ladies)	1	113-1846
Women's style	36 (ladies)	1	113-1847
Women's style	38 (ladies)	1	113-1848
Women's style	40 (ladies)	1	113-1849
Women's style	42 (ladies)	1	113-1850
Women's style	44 (ladies)	1	113-1851
Women's style	46 (ladies)	1	113-1852
Women's style	48 (ladies)	1	113-1853
Women's style	50 (ladies)	1	113-1854
Women's style	52 (ladies)	1	113-1855
Men's style	44 (men)	1	113-1866
Men's style	46 (men)	1	113-1867
Men's style	48 (men)	1	113-1868
Men's style	50 (men)	1	113-1869
Men's style	52 (men)	1	113-1870
Men's style	54 (men)	1	113-1871
Men's style	56 (men)	1	113-1872
Men's style	58 (men)	1	113-1873
Men's style	60 (men)	1	113-1874
Men's style	62 (men)	1	113-1875
Men's style	64 (men)	1	113-5995

Trousers for women and men



These straight trousers are made of 65% polyester and 35% cotton. They are suitable for use in laboratories, hospitals, nursing homes and other medical areas. Ideal for combination with the VWR® tunics.

- With two side and two back pockets
- Elasticated waistband with button and zip closure can be manually adjusted for a perfect fit
- Men's trousers also feature belt loops
- Washable at 95 °C, suitable for industrial laundering

Colour: White

Density: 215 g/m²

Approved in accordance with Oeko-Tex® Standard 100.

Type	Clothing size	Pk	Cat. No.
Women's style	32 (ladies)	1	113-6181
Women's style	34 (ladies)	1	113-1877
Women's style	36 (ladies)	1	113-1878
Women's style	38 (ladies)	1	113-1879
Women's style	40 (ladies)	1	113-1880
Women's style	42 (ladies)	1	113-1881
Women's style	44 (ladies)	1	113-1882
Women's style	46 (ladies)	1	113-1883
Women's style	48 (ladies)	1	113-1884
Women's style	50 (ladies)	1	113-1885
Women's style	52 (ladies)	1	113-1886
Men's style	42 (men)	1	113-1887
Men's style	44 (men)	1	113-1888
Men's style	46 (men)	1	113-1889
Men's style	48 (men)	1	113-1890
Men's style	50 (men)	1	113-1891
Men's style	52 (men)	1	113-1892
Men's style	54 (men)	1	113-1893
Men's style	56 (men)	1	113-1894
Men's style	58 (men)	1	113-1895
Men's style	60 (men)	1	113-1896
Men's style	62 (men)	1	113-5996

Aprons, LDPE/LLDPE



This disposable apron is made from a mixture of 65% LDPE and 35% LLDPE.

- Excellent resistance to most corrosive chemicals
- Effective against dirt, moisture and oil

Length: 1200 or 1400 mm

Colour: White

Size (mm)	Colour	Pk	Cat. No.
700×1200	White	100	113-0740
780×1400	White	100	113-0741

Overalls, PP, tapered collar



Overalls made from non woven PP. Ideal for non critical applications.

- Tapered collar, long sleeves and legs
- Bound seams and zip fastening
- Elasticated waist, wrist and ankles

Density: 40 g/m²

Colour: White

Clothing size	Pk	Cat. No.
L	25	113-0720
XL	25	113-0721
XXL	25	113-0722
3XL	25	113-0975

Overalls, PP, with hood



Overalls made from non woven PP. Ideal for non critical applications.

- Hood, long sleeves and legs
- Elasticated waist, wrist and ankles
- Bound seams and zip fastening

Density: 40 g/m²

Colour: White

Clothing size	Pk	Cat. No.
M	25	113-0723
L	25	113-0724
XL	25	113-0725
XXL	25	113-0726
3XL	25	113-0976

Overalls, SPP



Breathable overalls made of spunbonded polypropylene (SPP), a lightweight fabric that provides protection in non hazardous, dirty work environments.

- With hood
- Zip closure
- Elasticated cuffs, ankles and waist

Colour: White

Weight: 50 g/m²

Clothing size	Pk	Cat. No.
M	50	113-6229
L	50	113-6230
XL	50	113-6231
XXL	50	113-6232
3XL	50	113-6233
4XL	50	113-6234

Overalls, SMS



These durable, anti-static overalls are made of breathable and soft SMS, a spunbonded fabric with a unique trilaminate construction that offers a high tensile strength and toughness and provides a barrier to fluids and particulates. The overalls can be used in medical, industrial, laboratory, electrical and pharmaceutical applications. Suitable for use in Critical Environments (IEST-RP-CC003.3 – Level I).

- With elasticated hood
- Zip closure with flap
- Elasticated cuffs, ankles and waist
- Serged seams (stitching method)

Colour: White

Weight: 55 g/m²

EN 340, EN 1149-5, EN 13034:2005+A1:2009 (Type 5), EN 13982-1:2004+A1:2010 (Type 6), EN 1073-2:2002; Cat. III

Clothing size	Pk	Cat. No.
S	50	113-6235
M	50	113-6236
L	50	113-6237
XL	50	113-6238
XXL	50	113-6239
3XL	50	113-6240

Cleanroom overalls, VWR Basic, SPP



The VWR Basic SPP overalls are manufactured from a strong, lightweight, and breathable spunbonded polypropylene (SPP) fabric, which protects against dirt, grime, and certain dry particulates in non hazardous environments. This garment is ideal for less critical areas or pre-gowning entry rooms. It is tested and manufactured in an ISO Certified facility and lot controlled and validated through independent lab testing.

- Tapered collar, inset sleeves, zip closure, elastic cuffs
- Lightweight and breathable first line barrier protection

Colour: White

Clothing size	Pk	Cat. No.
M	25	113-1104
L	25	113-1105
XL	25	113-1106
XXL	25	113-1107

Cleanroom overalls, VWR Basic, SMS



The cleanroom overalls are manufactured from a latex-free, multilayer spunbonded-meltblown-spunbonded (SMS) fabric that offers high tensile strength while remaining soft, comfortable, and breathable.

- Tapered collar, inset sleeves, zip closure, elastic cuffs
- Fluid and particulate barrier
- Light chemical splash resistance

Colour: White or blue

Colour	Clothing size	Pk	Cat. No.
Blue	S	25	113-1090
Blue	M	25	113-1091
Blue	L	25	113-1092
Blue	XL	25	113-1093
Blue	XXL	25	113-1094
White	M	25	113-1097
White	L	25	113-1098
White	XL	25	113-1099
White	XXL	25	113-1101

Cleanroom overalls, VWR Advanced, SPP



VWR Advanced SPP overalls are manufactured from a medium weight spunbonded polypropylene (SPP). Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Tapered collar or hood, inset sleeves, zip closure, elastic cuffs
- Durable fabric with excellent breathability and water vapour transmission rate
- Significant fluid and particulate barrier: 99.9% bacterial filtration efficiency
- Particle shedding: Level II Helmke drum classification
- Soft, cloth-like fabric

Colour: White

Clothing size	Pk	Cat. No.
Standard		
S	25	113-1061
M	25	113-1062
L	25	113-1063
XL	25	113-1064
XXL	25	113-1065
Hooded overalls with attached fluidimpervious boot covers		
L	25	113-1069
XL	25	113-1070
XXL	25	113-1071

Cleanroom overalls, VWR Maximum, SPP



VWR Maximum SPP overalls are the cleanest and most durable within the entire VWR clothing line. Made with a comfortable spunbonded polypropylene (SPP) formulation, these garments have been designed to optimise barrier protection, cleanliness, and comfort properties. Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Tapered collar, inset sleeves, zip closure, elastic cuffs
- Superior fluid and particulate barrier: >99,9% bacterial filtration efficiency
- Lowest level of particle shedding: Level 1 Helmke drum classification
- Light chemical splash resistance
- Improved breathability to ensure user comfort
- Soft, cloth-like fabric with maximum tear strength

Colour: White

Clothing size	Pk	Cat. No.
Standard overall with collar		
M	25	113-1078
L	25	113-1079
XL	25	113-1080
XXL	25	113-1081
Overall with collar and attached non skid boot covers		
M	25	113-1085
L	25	113-1086
XL	25	113-1087
XXL	25	113-1088
Hooded overall with attached fluid-impervious boot covers		
M	25	113-1074
L	25	113-1075
XL	25	113-1076
XXL	25	113-1077



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Chemical resistant overalls, microporous film laminate



Disposable, anti-static overall made of a microporous film with a nylon scrim between film and substrate that gives the material additional strength. The breathable garment provides protection against chemical dusts, paint sprays, asbestos, and other airborne dusts. It can be used in any non hazardous environment where protection against dirt, grime, splashes and spills is required. Also suitable for use in Critical Environments (IEST-RP-CC003.3 – Level II)

- With hood
- Zip closure with flap
- Elastic cuffs, ankles and waist
- Seams sealed with dark green tape (liquid-proof)

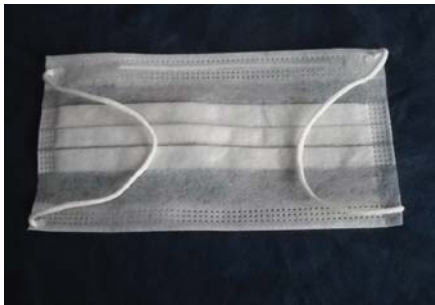
Weight: 60 g/m²

Colour: White

EN 340, EN 1149-5, EN 14065:2005+A1:2009 (Type 4), EN 13034:2005+A1:2009 (Type 5), EN 13982-1:2004+A1:2010 (Type 6), EN 1073-2:2002, EN 14126:2003; Cat. III

Clothing size	Pk	Cat. No.
S	50	113-6241
M	50	113-6242
L	50	113-6243
XL	50	113-6244
XXL	50	113-6245
3XL	50	113-6246

Hygiene masks, 2-ply non woven PP



The hygiene mask with nose bridge is made from two ply, non woven PP.

- Latex-free
- Available with earloops or headbands

Density: 25 g/m² (front layer); 20 g/m² (back layer)

Type	Colour	Pk	Cat. No.
With earloops	White	50	113-0713
With ties	Green	50	113-0715

Hygiene masks, 3-ply non woven PP



Hygiene masks made from 3-ply, non woven PP and featuring a nose bridge and ear loops.

- Latex-free
- Bacterial filtration efficiency: 99,7%
- Particle filtration efficiency: 98,5%
- Particle size: 0,1 µm

Density: 20 g/m² (front layer); 20 g/m² (back layer); 25 g/m² (centre)

Type	Colour	Pk	Cat. No.
With earloops	Green	50	113-0714
With earloops	Blue	50	113-0716

Cleanroom beard covers, VWR Basic, SPP



The VWR Basic SPP beard covers are manufactured from a strong, lightweight, and breathable spunbonded polypropylene (SPP) fabric, which protects against dirt, grime, and certain dry particulates in non hazardous environments. This garment is ideal for less critical areas or pre-gowning entry rooms. It is tested and manufactured in an ISO Certified facility and lot controlled and validated through independent lab testing.

- Lightweight and breathable first line barrier protection

Diameter (stretched): 406 mm

Type	Colour	Pk	Cat. No.
With latex	White	1.000	113-1463
Latex-free	White	1.000	113-1464

Cleanroom bouffant caps, VWR basic, SPP



The VWR Basic SPP bouffant caps are manufactured from a strong, lightweight, and breathable spunbonded polypropylene (SPP) fabric, which protects against dirt, grime, and certain dry particulates in non hazardous environments. This garment is ideal for less critical areas or pre-gowning entry rooms. It is tested and manufactured in an ISO Certified facility and lot controlled and validated through independent lab testing.

- Lightweight and breathable first line barrier protection

Type	Ø (mm)	Colour	Pk	Cat. No.
Latex-free	530	White	1.000	113-1459
Latex-free	610	White	1.000	113-1460
With latex	530	White	1.000	113-1461
With latex	610	White	1.000	113-1462

Beard covers, PP



Comfortable beard cover made from non woven PP. For non critical applications.

- Elasticated bands
- With welded seams
- Latex-free

Density: 12 g/m²

Colour	Pk	Cat. No.
White	100	113-0712

Beard covers, detectable

Beard cover for general, non critical applications.

- Detectable: Ideal for food industry
- Universal size fits all

Colour	Pk	Cat. No.
Blue	1.000	113-1580

Bouffant caps, PP



Bouffant caps made from non woven PP.
• Latex-free
• Elasticated band
Density: 12 g/m²
Packaging Information: Supplied in boxes or bags.

Ø (mm)	Colour	Packed	Pk	Cat. No.
530	White	Bag	100	113-0700
530	White	Box	100	113-0702
530	Blue	Box	100	113-0703
530	Green	Box	100	113-0704
610	White	Bag	100	113-0701
610	Blue	Bag	100	113-0971
610	Green	Bag	100	113-0972

Bouffant caps with clip, PP



Bouffant caps made from non woven PP. For non critical applications.
• Latex-free
• Two elasticated bands (one elasticated band: 113-0708)
Density: 12 g/m²

Ø (mm)	Colour	Packed	Pk	Cat. No.
500	White	Bag	100	113-0708
500	White	Box	250	113-0705
500	Blue	Box	250	113-0706
500	Green	Box	250	113-0707
500	Red	Box	250	113-0973
500	Yellow	Box	250	113-0974

Bouffant caps, PP, detectable



These detectable caps made of non woven polypropylene provide an effective way to cover the hair when working in hygienic environments.
• Increased detectability thanks to foil strip
• With two elastic bands for improved fit
Weight: 10 g/m²

Ø (mm)	Colour	Pk	Cat. No.
530	Blue	1.000	113-1578
610	Blue	1.000	113-1579

Bouffant caps with visor, PP



Bouffant caps made from non woven PP. For non critical applications.
• With visor (white or blue)

Continued from previous page

- Latex-free
- Available with mesh cap for use with long hair

Density: 12 g/m²

Packaging Information: In bags.

Type	Ø (mm)	Colour	Pk	Cat. No.
Standard	510	White	100	113-0709
Standard	510	Blue	100	113-0710
For long hair	510	White	100	113-0711

Cleanroom sleeve protectors, VWR Advanced, SPP



VWR Advanced SPP sleeve protectors are manufactured from a medium weight spunbonded polypropylene (SPP). Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Elastic cuffs, with sonically welded seams
- Durable fabric with excellent breathability and water vapour transmission rate
- Significant fluid and particulate barrier: 99,9% bacterial filtration efficiency
- Particle shedding: Level II Helmke drum classification
- Soft, cloth-like fabric

Length (mm)	Colour	Pk	Cat. No.
495	White	300	113-1194
546	White	300	113-1193

Sleeve protectors, PP/PE



Sleeve protector made from non woven PP coated with PE.

- Waterproof
- With welded elasticated cuffs

Ø×L: 200×400 mm

Density: 48 g/m²

Length (mm)	Colour	Pk	Cat. No.
400	White	100	113-0717

Sleeve protectors, LDPE/LLDPE



Sleeve protectors made from 65% LDPE and 35% LLDPE.

- Excellent resistance to most corrosive chemicals
- Elasticated cuffs
- Two colours available

Ø×L: 200×400 mm

Length (mm)	Colour	Pk	Cat. No.
400	White	100	113-0718
400	Blue	100	113-0719



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Shoe covers, PP



Shoe covers made from PP.

- No seam under the foot
- Opening when stretched: 300 mm

L×H: 400×180 mm

Density: 40 g/m²

Size	Colour	Pk	Cat. No.
U*	White	1.000	113-0742

*One size fits all

Shoe covers, LDPE/LLDPE



Shoe covers made from LDPE/LLDPE.

- Repellent against moisture and dirt
- No seam under the foot

L×H: 360×150 mm

Colour	Pk	Cat. No.
Blue	1.000	113-0743
White	1.000	113-0746

Shoe covers, PP



Non woven PP with a CPE laminated sole.

- No seam under the foot

L×H: 410×160 mm

Size	Colour	Pk	Cat. No.
U*	White	200	113-0744
U*	Blue	200	113-0745

*One size fits all

Shoe covers, non woven PP



Over shoes made from non woven PP.

- Laminated

Opening when stretched: 290 mm

L×H: 430×170 mm

Size	Colour	Pk	Cat. No.
U*	Blue	300	113-0747

*One size fits all

Shoe covers, non woven PP/PE



Over shoes made from non woven polypropylene.

- PE laminated anti-skid sole

Opening when stretched: 290 mm

LxH: 400x170 mm

Size	Colour	Pk	Cat. No.
U*	White	300	113-0749

*One size fits all

Shoe covers, non woven PP with latex pattern



Over shoes made from non woven polypropylene. With latex pattern.

- Anti-skid

LxH: 460x170 mm

Size	Colour	Pk	Cat. No.
U*	Blue	1.000	113-0748

*One size fits all

Shoe covers, CPE

Basic shoe covers made of CPE, for laboratory use.

- CPE is water resistant and provides good resistance against chemicals

Size	Colour	Pk	Cat. No.
U*	White	1.000	113-1491
U*	Blue	1.000	113-1492

*One size fits all

Fluid-impervious cleanroom boot covers, VWR Maximum, SPP



VWR Maximum SPP boot covers are the cleanest and most durable within the entire VWR clothing line. Made with a comfortable spunbonded polypropylene (SPP) formulation, these garments have been designed to optimise barrier protection, cleanliness, and comfort properties. Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Non skid and anti-static
- Fluid-impervious, sealed seams to repel water
- Impervious material: >99,9% bacterial filtration efficiency
- Superior coefficient of friction to ensure maximum traction
- Maximum skid resistance on wet and smooth surfaces

Length: 381 mm (U*), 419 mm (XL), 470 mm (XXL)

Size	Colour	Pk	Cat. No.
XL	Blue	100 PAIR	113-1184
XXL	Blue	100 PAIR	113-1185
U*	White	100 PAIR	113-1186

*One size fits all

Cleanroom shoe covers, non skid, VWR Advanced, SPP



VWR Advanced SPP shoe covers are manufactured from a medium weight spunbonded polypropylene (SPP). Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- High coefficient of friction to provide excellent traction
- Water resistant
- Durable fabric with excellent breathability and water vapour transmission rate
- Significant fluid and particulate barrier: 99,9% bacterial filtration efficiency
- Particle shedding: Level II Helmke drum classification
- Soft, cloth-like fabric

Length: 394 mm (U*), 432 mm (XL), 470 mm (XXL)

Type	Size	Colour	Pk	Cat. No.
Static dissipative	U*	Blue	300	113-1377
Static dissipative	XL	Blue	300	113-1378
Standard	U*	Blue	300	113-1382
Standard	XL	Blue	300	113-1383
Standard	XXL	Blue	300	113-1384

*One size fits all

Cleanroom boot covers, non skid, VWR Maximum, SPP



VWR Maximum SPP boot covers are the cleanest and most durable within the entire VWR clothing line. Made with a comfortable spunbonded polypropylene (SPP) formulation, these garments have been designed to optimise barrier protection, cleanliness, and comfort properties. Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Non skid
- Impervious material: >99,9% bacterial filtration efficiency
- Superior coefficient of friction to ensure maximum traction
- Maximum skid resistance on wet and smooth surfaces
- Clean, low-linting fabric

Length: 286 mm (M), 356 mm (U*), 381 mm (XL)

Type	Size	Colour	Pk	Cat. No.
Without ankle ties	M	White	100 PAIR	113-1187
Without ankle ties	L	White	100 PAIR	113-1188
Without ankle ties	XL	White	100 PAIR	113-1189
With ankle ties	M	White	100 PAIR	113-1192
With ankle ties	XL	White	100 PAIR	113-1191
With ankle ties	U*	White	100 PAIR	113-1190

*One size fits all

Cleanroom shoe and boot covers, non skid, VWR Maximum, SPP



VWR Maximum SPP shoe covers are the cleanest and most durable within the entire VWR clothing line. Made with a comfortable spunbonded polypropylene (SPP) formulation, these garments have been designed to optimise barrier protection, cleanliness, and comfort properties. Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Non skid and anti-static
- Fluid impervious
- Impervious material: >99,9% bacterial filtration efficiency
- Superior coefficient of friction to ensure maximum traction
- Maximum skid resistance on wet and smooth surfaces
- Clean, low-linting fabric

Size	Colour	Pk	Cat. No.
M	White	200	113-1371
L	White	200	113-1372
XL	White	200	113-1370
U*	White	200	113-1369
M	Blue	200	113-1375
L	Blue	200	113-1376
XL	Blue	200	113-1374
U*	Blue	200	113-1373

*One size fits all

Fluid-impervious cleanroom shoe covers, Butterfly-Style, VWR Maximum, SPP



VWR Maximum SPP shoe covers are the cleanest and most durable within the entire VWR clothing line. Made with a comfortable spunbonded polypropylene (SPP) formulation, these garments have been designed to optimise barrier protection, cleanliness, and comfort properties. Tested and manufactured in an ISO Certified facility under stringent process controls. Lot controlled and validated through independent lab testing.

- Non skid and anti-static
- Fluid impervious, sealed seams to repel water
- Impervious material: >99,9% bacterial filtration efficiency
- Superior coefficient of friction to ensure maximum traction
- Maximum skid resistance on wet and smooth surfaces
- Clean, low-linting fabric

Length: 394 mm (U*), 432 mm (XL), 483 mm (XXL)

Size	Colour	Pk	Cat. No.
U*	Blue	150	113-1366
XL	Blue	150	113-1367
XXL	Blue	150	113-1368
U*	White	150	113-1379
XL	White	150	113-1380
XXL	White	150	113-1381

*One size fits all

Dispensing boxes



ABS

These containers are designed for storing personal safety apparatus in the workplace. They can be mounted using adhesive fittings or can be screwed to the wall.

- Protection against dirt, dust and dampness
- Patented opening allows for quick removal of the PPE in case of emergency
- Available in three sizes

Description	Colour	WxDxH (mm)	Pk	Cat. No.
Mini				
Eye protection	Blue	236x120x120	1	111-0000
Eye protection	Transparent	236x120x120	1	111-0021
Hair nets	Blue	236x120x120	1	111-0014
Hair nets	Transparent	236x120x120	1	111-0010
Hand protection	Blue	236x120x120	1	111-0025
Hand protection	Transparent	236x120x120	1	111-0013
Midi				
Ear protection	Blue	236x125x225	1	111-0002
Ear protection	Transparent	236x125x225	1	111-0161
Respirator	Blue	236x125x225	1	111-0022
Respirator	Transparent	236x125x225	1	111-0015
Hair nets	Blue	236x125x225	1	111-0019
Hair nets	Transparent	236x125x225	1	111-0162
Maxi				
Helmet	Blue	236x200x315	1	111-0003
Helmet and eye protection	Blue	236x200x315	1	111-0163

Glove box holder, anti-microbial



PS with Microban® additive

This glove box dispenser is suitable for use in cleanrooms, hospitals, and microbiological work areas. The versatile dispenser is intended for wall-mounting and can accommodate one single box.

- Microban® additive prevents growth of moulds and bacteria
- Durable resin is resistant to harsh cleaning solutions
- Universal size to fit different glove box manufacturers
- Modular design allows stacking to save space

Colour	WxDxH (mm)	Pk	Cat. No.
Blue	254x156x97	3	211-0371

Glove box holders



Epoxy coated steel wire

These racks can hold most major brands of glove boxes.

- Available as a single box holder or the three box holder
- Easily mounted on the wall
- Screws are included

Colour: White

Description	WxDxH (mm)	Pk	Cat. No.
Glove box holder for one box	102×140×208	1	211-0343
Glove box holder for three boxes	250×96×432	1	211-0344

Overshoes dispenser



Aluminium plastic composite panels

This overshoe dispenser allows the user to enter a clean area without taking off his/her shoes. The machine automatically puts on a shoe cover. Can be used in hospitals, laboratories, factories and cleanrooms.

- Holds up to 50 shoe covers
- User friendly and easy to refill
- PE and non woven shoe covers available

WxDxH: 280×180×520 mm

Description	Colour	WxDxH (mm)	Pk	Cat. No.
Shoe cover dispenser	Silver	280×180×520	1	113-0608

Type	Size	Colour	Pk	Cat. No.
Overshoes				
PE	U*	Blue	4.000	113-0609
Non woven	U*	Blue	2.000	113-0611
PE, blue sole	U*	White	1.000	113-0927
PE, white sole	U*	White	1.000	113-0928

*One size fits all

Work jackets



Durable jackets made of 65% polyester and 35% Sanforized cotton, which prevents the clothing from shrinking in the laundry.

- Two breast pockets with press stud, mobile phone pocket, two side pockets, three inside pockets
- Press stud closure
- Sleeves and jacket bottom adjustable
- Back folds for improved freedom of movement

Weight: 245 g/m²

Colour	Clothing size	Pk	Cat. No.
Grey/Black	46 (men)	1	113-07365
Grey/Black	48 (men)	1	113-07366
Grey/Black	50 (men)	1	113-07367
Grey/Black	52 (men)	1	113-07368
Grey/Black	54 (men)	1	113-07369
Grey/Black	56 (men)	1	113-07370
Grey/Black	58 (men)	1	113-07371
Blue/Dark Blue	46 (men)	1	113-07372
Blue/Dark Blue	48 (men)	1	113-07373
Blue/Dark Blue	50 (men)	1	113-07374
Blue/Dark Blue	52 (men)	1	113-07375
Blue/Dark Blue	54 (men)	1	113-07376
Blue/Dark Blue	56 (men)	1	113-07377
Blue/Dark Blue	58 (men)	1	113-07378
Blue/Grey	46 (men)	1	113-06729
Blue/Grey	48 (men)	1	113-06730
Blue/Grey	50 (men)	1	113-06731
Blue/Grey	52 (men)	1	113-06732
Blue/Grey	54 (men)	1	113-06733
Blue/Grey	56 (men)	1	113-06734
Blue/Grey	58 (men)	1	113-06735

Work trousers



Durable trousers made of 65% polyester and 35% sanforized cotton, which prevents the clothing from shrinking in the laundry.

- Waistband with belt loops and button
- Two front and back pockets, large side pocket with press stud, small inside pocket
- Pockets for folding rule and mobile phone

Weight: 245 g/m²

Colour	Clothing size	Pk	Cat. No.
Grey/Black	46 (men)	1	113-07379
Grey/Black	48 (men)	1	113-07380
Grey/Black	50 (men)	1	113-07381
Grey/Black	52 (men)	1	113-07382
Grey/Black	54 (men)	1	113-07383
Grey/Black	56 (men)	1	113-07384
Grey/Black	58 (men)	1	113-07385
Blue/Dark Blue	46 (men)	1	113-07386
Blue/Dark Blue	48 (men)	1	113-07387
Blue/Dark Blue	50 (men)	1	113-07388
Blue/Dark Blue	52 (men)	1	113-07389
Blue/Dark Blue	54 (men)	1	113-07390
Blue/Dark Blue	56 (men)	1	113-07391
Blue/Dark Blue	58 (men)	1	113-07392
Blue/Grey	46 (men)	1	113-06818
Blue/Grey	48 (men)	1	113-06819
Blue/Grey	50 (men)	1	113-06820
Blue/Grey	52 (men)	1	113-06821
Blue/Grey	54 (men)	1	113-06822
Blue/Grey	56 (men)	1	113-06823
Blue/Grey	58 (men)	1	113-06824

Work overalls with bib and braces



Versatile overalls made of 65% polyester and 35% cotton. The material is Sanforized which prevents the clothing from shrinking in the laundry.

- Elasticated braces, large bib pocket
- Waist adjustable by button, elasticated leg sides
- Two front and back pockets, large side pocket with press stud, small inside pocket
- Pockets for folding rule and mobile phone

Weight: 245 g/m²

Colour	Clothing size	Pk	Cat. No.
Grey/Black	46 (men)	1	113-05895
Grey/Black	48 (men)	1	113-05896
Grey/Black	50 (men)	1	113-05897
Grey/Black	52 (men)	1	113-05898
Grey/Black	54 (men)	1	113-05899
Grey/Black	56 (men)	1	113-05900
Grey/Black	58 (men)	1	113-05901
Blue/Dark Blue	46 (men)	1	113-07393
Blue/Dark Blue	48 (men)	1	113-07394
Blue/Dark Blue	50 (men)	1	113-07395
Blue/Dark Blue	52 (men)	1	113-07396
Blue/Dark Blue	54 (men)	1	113-07397
Blue/Dark Blue	56 (men)	1	113-07398
Blue/Dark Blue	58 (men)	1	113-07399
Blue/Grey	46 (men)	1	113-06773
Blue/Grey	48 (men)	1	113-06774
Blue/Grey	50 (men)	1	113-06775
Blue/Grey	52 (men)	1	113-06776
Blue/Grey	54 (men)	1	113-06777
Blue/Grey	56 (men)	1	113-06778
Blue/Grey	58 (men)	1	113-06779



Laboratory clogs, Top Clogs



- Clogs without toecap made from thermoplastic material (SEBS). Machine washable at 90 °C; autoclavable at 135 °C.
- Resistant to high temperature
- Anti-static and anti-slip
- Energy absorption in the heel
- Side perforation for ventilation
- Wide fitting and comfortable shape

EN ISO 20347: 2007; SRA

Ordering Information: Without heel strap (to be ordered separately).

Size	Colour	Pk	Cat. No.
34/35	White	1 PAIR	114-3666
36/37	White	1 PAIR	114-3667
38/39	White	1 PAIR	114-3668
40/41	White	1 PAIR	114-3669
42/43	White	1 PAIR	114-3670
44/45	White	1 PAIR	114-3671
46/47	White	1 PAIR	114-3672
34/35	Black	1 PAIR	114-3673
36/37	Black	1 PAIR	114-3674
38/39	Black	1 PAIR	114-3675
40/41	Black	1 PAIR	114-3676
42/43	Black	1 PAIR	114-3677
44/45	Black	1 PAIR	114-3678
46/47	Black	1 PAIR	114-3679
34/35	Green	1 PAIR	114-3680
36/37	Green	1 PAIR	114-3681
38/39	Green	1 PAIR	114-3682
40/41	Green	1 PAIR	114-3683
42/43	Green	1 PAIR	114-3684
44/45	Green	1 PAIR	114-3685
46/47	Green	1 PAIR	114-3686
34/35	Blue	1 PAIR	114-3687
36/37	Blue	1 PAIR	114-3688
38/39	Blue	1 PAIR	114-3689
40/41	Blue	1 PAIR	114-3690
42/43	Blue	1 PAIR	114-3691
44/45	Blue	1 PAIR	114-3692
46/47	Blue	1 PAIR	114-3693
34/35	Pink	1 PAIR	114-3694
36/37	Pink	1 PAIR	114-3695
38/39	Pink	1 PAIR	114-3696
40/41	Pink	1 PAIR	114-3697
42/43	Pink	1 PAIR	114-3698
44/45	Pink	1 PAIR	114-3699
46/47	Pink	1 PAIR	114-3700
34/35	Red	1 PAIR	114-3701
36/37	Red	1 PAIR	114-3702
38/39	Red	1 PAIR	114-3703
40/41	Red	1 PAIR	114-3704
42/43	Red	1 PAIR	114-3705
44/45	Red	1 PAIR	114-3706
46/47	Red	1 PAIR	114-3707
Description		Pk	Cat. No.
Accessories for Top Clogs			
Heel strap for Top Clogs		1	114-3708

Soap dispensers, Touch-Free



The Touch-Free soap dispensers effectively reduce cross-contamination and waste in the cleanroom and supporting areas. They are suitable for use with Micro-nova 500 ml pump bottles.

- Economical, no drip
- No-waste unit, can be wall-mounted
- Activated by electronic eye, the dispenser delivers a pre-measured dose of soap, lotion or sanitiser into hands cleanly and safely
- 129-0486: Compact, gravity fed unit that has no tubes but a simple pump action

Complies with OSHA, CDC and ADA

Delivery Information: Supplied with four size ,D' batteries.

Description	Pk	Cat. No.
Touch-Free soap dispenser, gravity-fed	1	129-0486
Touch-Free soap dispenser	1	129-0514

Cleanroom wipes, non woven, Spec-Wipe® 3



Suitable for use in Class 100, ISO 5 cleanrooms.

Designed for cleaning laminar flow benches, cleanroom surfaces, quartzware and general process equipment. Appropriate for electronics, pharmaceutical, biotechnology, chemical and petroleum, environmental and education industries. Non textured.

- 45% polyester, 55% cellulose. Re-sealable pouches maintain product integrity, preserve cleanliness and saturation levels
- Option of pre-saturated wipes, which reduce solvent use, chemical blending and waste
- Hydroentangled without using chemicals, reduces ionic contamination

Colour: White

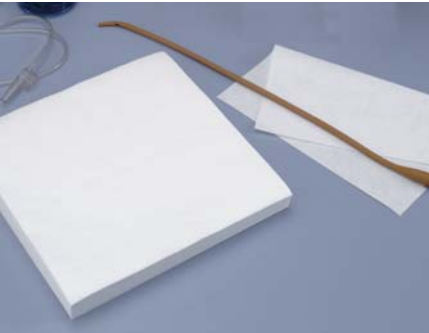
Absorbency - extrinsic (ml/m²)	335
Absorbency - intrinsic (ml/g)	4,82
Absorbency - rate (s)	1
Basis weight (g/m²)	67
Extractables - using deionised water (g/m²)	0,056
Extractables - using isopropyl alcohol (g/m²)	0,015
Fibres (>100 µm) (×10³/m²)	14,8
Ions - chloride (ppm)	7,8
Ions - sodium (ppm)	11,2
Particle generation - 0.5-5 µm (×10⁶/m²)	17,1

Description	LxW (mm)	Packed	Pk	Cat. No.
Spec-Wipe® 3	229×229	300/bag	300	115-0031
Spec-Wipe® 3	305×305	150/bag	150	115-0032
Spec-Wipe® 3, saturated with 70% IPA, 30% deionised water	229×229	75/bag	75	115-0034

Properties above reflect the data for the wipe in an unsaturated state. Wipes are manufactured using USP grade IPA (isopropanol) filtered to 5 µm.



Cleanroom wipes, non woven, sterile, Spec-Wipe® 3



Suitable for use in Class 100, ISO 5, M3.5 cleanrooms.

Designed for cleaning laminar flow benches, cleanroom surfaces, quartzware and general process equipment. Appropriate for electronics, pharmaceutical, biotechnology, chemical and petroleum, environmental, and education industries. Non textured.

- Hydroentangled without using chemicals, reduces ionic contamination
- Sterilised by gamma radiation to SAL (Sterility Assurance Level) of 10⁻⁶

In accordance with ANSI/AAMI/ISO 11137 and AMMI TIR 27 Method VDmax guidelines.

Colour: White	
Absorbency - extrinsic (ml/m²)	335
Absorbency - intrinsic (ml/g)	4,82
Absorbency - rate (s)	1
Basis weight (g/m²)	67
Extractables - using deionised water (g/m²)	0,056
Extractables - using isopropyl alcohol (g/m²)	0,015
Fibres (>100 µm) (×10³/m²)	14,8
Ions - chloride (ppm)	7,8
Ions - sodium (ppm)	11,2
Particle generation (>=0.5 µm) (×10⁶/m²)	17,1

LxW (mm)	Packed	Pk	Cat. No.
300x300	20 wipes per pouch, 5 pouches per bag	100	115-0033

Properties above reflect the data for the wipe in an unsaturated state. Wipes are manufactured using USP grade IPA (isopropanol) filtered to 5 µm.

Cleanroom wipes, Spec-Wipe® 3E



Durable, non woven wipes, made of 46% polyester and 54% cellulose.

- Hydroentangled: Yields a durable wipe which produces less particulation than some other non woven methods
- Hydroentangled without the use of chemicals: Reduces ionic contamination
- Lightweight polyester/cellulose combination: Economical and sorbent
- Creped fabric: Provides improved softness and bulk

Absorbency - extrinsic (ml/m²)	283
Absorbency - intrinsic (ml/g)	5,43
Absorbency - rate (s)	1
Basis weight (g/m²)	52
Extractables - using deionised water (g/m²)	0,025
Extractables - using isopropyl alcohol (g/m²)	0,020
Fibres (>100 µm) (×10³/m²)	44
Ions - chloride (ppm)	9,4
Ions - sodium (ppm)	8,3
Particle generation (>=0.5 µm) (×10⁶/m²)	58,2

LxW (mm)	Pk	Cat. No.
229x229	300	115-0597
305x305	150	115-0598



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Cleanroom wipes, Spec-Wipe® 4



- Suitable for use in Class 10, ISO Class 4 cleanrooms.
- Excellent for cleaning rough, abrasive, or irregular surfaces, yet soft enough for delicate surfaces. Appropriate for electronics, pharmaceutical, biotechnology, chemical and petroleum, environmental and education industries.
- For critical process cleaning and environments where low particle and fibre generation is critical
 - Made from 100% double-knit polyester laundered in ISO Class 4 cleanroom to reduce particulate and extractable contaminants
 - Durable double-knit allows rigorous cleaning, is also soft for delicate surfaces
 - Re-sealable pouches maintain product integrity, preserve cleanliness and saturation levels
 - Option of pre-saturated wipes, which reduce solvent use, chemical blending and waste

Colour: White

Packaging Information: Half-folded wipes are packaged in a re-sealable pouch.

Absorbency - extrinsic (ml/m²)	312
Absorbency - intrinsic (ml/g)	2,3
Absorbency - rate (s)	<1,5
Basis weight (g/m²)	136
Extractables - using deionised water (g/m²)	0,042
Extractables - using isopropyl alcohol (g/m²)	0,015
Fibres (>100 µm) (×10³/m²)	3,3
Ions - chloride (ppm)	0,45
Ions - sodium (ppm)	0,39
Particle generation (>=0.5 µm) (×10⁶/m²)	4,8

Description	LxW (mm)	Packed	Pk	Cat. No.
Spec-Wipe® 4	229×229	150 per bag	150	115-0036
Spec-Wipe® 4, 70% IPA, 30% DI H2O	229×229	30 per bag	30	115-0039

Properties above reflect the data for the wipe in an unsaturated state. Wipes are manufactured using USP grade IPA (isopropanol) filtered to 0,5 µm.



Cleanroom wipes, sterile, Spec-Wipe® 4



- Suitable for use in Class 10, ISO 4, M2.5 cleanrooms.
- Tissues, 100% polyester, double woven fabric with close-cut edges, washed in ISO class 4 cleanrooms to minimise contamination by particles and extractables. Ideal for cleaning abrasive surfaces, yet still soft enough for use on sensitive surfaces.
- For critical process cleaning and environments where sterility, low particle and fibre generation are critical
 - Gamma sterilised to 10⁻⁶ SAL (Sterility Assurance Level)
 - Resealable pouches to protect wipes from contamination

Compliant with ANSI/AAMI/ISO guidelines

Colour: White

Absorbency - extrinsic (ml/m²)	312
Absorbency - intrinsic (ml/g)	2,3
Absorbency - rate (s)	<1,5
Basis weight (g/m²)	136
Extractables - using deionised water (g/m²)	0,042
Extractables - using isopropyl alcohol (g/m²)	0,015
Fibres (>100 µm) (×10³/m²)	3,3
Ions - chloride (ppm)	0,045
Ions - sodium (ppm)	0,39
Particle generation (>=0.5 µm) (×10⁶/m²)	4,8

LxW (mm)	Packed	Pk	Cat. No.
305×305	20 wipes per pouch, 5 pouches per bag	100	115-0038

Cleanroom wipes, non woven, Spec-Wipe® 5



- Suitable for use in Class 100, ISO 5 cleanrooms.
- Treated 45% polyester/55% cellulose non woven wipes. Ideal for cleaning of surfaces and laminar flow benches, absorbing spills of water and most common solvents and general all-purpose cleaning.
- Polyester/cellulose combination, improves absorbency
 - Hydroentangled giving a durable wipe with less particulation
 - Durable wipe that produces less particulation than some other non woven methods
 - Specially treated to reduce particles

Colour: White

Absorbency - extrinsic (ml/m ²)	264
Absorbency - intrinsic (ml/g)	3,93
Absorbency - rate (s)	1
Basis weight (g/m ²)	67
Extractables - using deionised water (g/m ²)	0,0207
Extractables - using isopropyl alcohol (g/m ²)	0,0647
Fibres (>100 µm) (×10 ³ /m ²)	27,1
Ions - chloride (ppm)	47,81
Ions - sodium (ppm)	67,21
Particle generation (>=0.5 µm) (×10 ⁶ /m ²)	14,3

LxW (mm)	Packed	Pk	Cat. No.
229x229	300 per bag	300	115-0041

Cleanroom wipes, Spec-Wipe® 6



- Suitable for use in Class 100, ISO Class 5 cleanrooms.
- Made from meltblown PP microfibre fleece. Ideal for applications in biotechnology, pharmaceuticals, electronics and the semiconductor industry and for medical equipment and precision instruments. Perfect for absorbing liquid spills, including acids and solvents.
- Low release of particles and extractable substances
 - Multilayered construction for greater absorbency
 - Soft texture is ideal for cleaning sensitive surfaces
 - Acid and solvent resistant, low metallic ion content

Colour: White

Absorbency - extrinsic (ml/m ²)	250
Absorbency - intrinsic (ml/g)	3,69
Absorbency - rate (s)	1
Basis weight (g/m ²)	67
Extractables - using deionised water (g/m ²)	0,022
Extractables - using isopropyl alcohol (g/m ²)	0,242
Fibres (>100 µm) (×10 ³ /m ²)	0,72
Ions - chloride (ppm)	1,52
Ions - sodium (ppm)	323
Particle generation (>=0.5 µm) (×10 ⁶ /m ²)	25,5

LxW (mm)	Packed	Pk	Cat. No.
305x305	100 wipes/bag	100	115-0042



INSTRUMENT SERVICE AND MAINTENANCE

Please contact your local VWR sales office for more information

Cleanroom wipes, Spec-Wipe® 7



Suitable for use in Class 1, ISO Class 3 cleanrooms.

Ideal for cleaning rough or uneven surfaces, yet still soft enough for use on sensitive surfaces. Use these 100% double-knit polyester wipes where minimum particle and fibre contamination is essential.

- Double-knit for extreme durability, continuous single filaments for extra softness
- Sealed edges prevent release of fibres and lint
- Laundered in an ISO Class 4 cleanroom to reduce particulate and extractable contaminants

Colour: White

Ordering Information: 100 wipes in each PE pouch.

Absorbency - extrinsic (ml/m²)	312
Absorbency - intrinsic (ml/g)	2,3
Absorbency - rate (s)	<1,5
Basis weight (g/m²)	136
Extractables - using deionised water (g/m²)	0,015
Extractables - using isopropyl alcohol (g/m²)	
Fibres (>100 µm) (×10³/m²)	0,6
Ions - chloride (ppm)	0,13
Ions - sodium (ppm)	0,11
Particle generation (>=0.5 µm) (×10⁶/m²)	4,8

LxW (mm)	Pk	Cat. No.
229x229	100	115-0043
305x305	100	115-0044

Cleanroom wipes

Suitable for use in class 1, ISO 3, M1.5 environments.

These cleanroom wipes are made from 100% virgin grade, continuous-filament polyester in a double-knit, no-run interlock pattern to provide maximum cleanliness and absorbency. Designed for cleaning surfaces and controlling spills in ISO class 3 or higher cleanroom environments, these durable wipes resist fibre release and abrasion under rigorous use, even when wiping rough surfaces.

- Laser cut with sealed edges
- Minimum particles, fibres, extractables and ions: Ideal for environments that demand low levels of contaminants
- Ultra-clean, highly absorbent and durable
- Cleanroom laundered and packaged (ISO class 4)

Colour: White

Absorbency - extrinsic (ml/m²)	350
Absorbency - intrinsic (ml/g)	2,5
Absorbency - rate (s)	<1
Basis weight (g/m²)	135 ±5
Extractables - using deionised water (g/m²)	<0,01
Extractables - using isopropyl alcohol (g/m²)	<0,02
Fibres (>100 µm) (m²)	400
Ions - chloride (ppm)	<0,05
Ions - potassium (ppm)	<0,02
Ions - sodium (ppm)	<0,21
Particle generation (>=0.5 µm) (×10⁶/m²)	4,2

LxW (mm)	Packed	Pk	Cat. No.
229x229	150/bag	150	115-0660
305x305	150/bag	150	115-0661

All test results obtained according to Institute for Environmental Sciences and Technology standard IEST-RP-CC004.3. The data shown in this entry represent typical values at the time of publication.

Facial tissues



2 ply facial tissues made from 100% cellulose paper.

- Extra soft

Colour: White

LxW (mm)	Packed	Pk	Cat. No.
195x200	150 sheets per box	150	115-0600

Wipes for general applications



Absorbent, soft, thick and low-lint fleece wipes. For many light uses in the laboratory, electronics and computer industry, pharmaceuticals, biotechnology, optics, etc.

- High absorbency, in three formats, available in single or triple ply
- Practical dispenser box with anti-static, plastic film window for removal
- Table and wall mountings for one handed removal of the wipes available separately

Colour: White

Description	LxW (mm)	Packed	Pk	Cat. No.
Wipes				
Tissue wipes, 1 ply	213x114	In box	280	115-0202
Tissue wipes, 1 ply	424x355	In box	140	115-0203
Tissue wipes, 3 ply	424x368	In box	90	115-0204

Description	Pk	Cat. No.
Dispensers for wipes for general applications		
Dispenser, small, for 115-0202	1	115-0205
Dispenser, medium, for 115-0203	1	115-0206
Dispenser, large, for 115-0204	1	115-0207

Dispensers for wipes for general applications

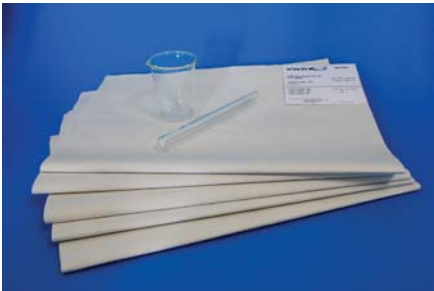


Made from 6 mm white PVC.

- Double sided tape for semi-permanent installation holds the dispenser securely
- Medium and large holders feature keyhole openings for screws, allowing permanent installation

Description	Pk	Cat. No.
Dispenser, small, for 115-0202	1	115-0205
Dispenser, medium, for 115-0203	1	115-0206
Dispenser, large, for 115-0204	1	115-0207

Joseph paper, Grade 551



Absorbent paper, suitable for cleaning and drying of glass containers, tubes, microscopic plates, bottles, etc.

Thickness (mm)	0,07 mm		
Weight	25 g/m²		
Description	LxW (mm)	Pk	Cat. No.
Plain	350×500	500	111-5005
Folded	350×500	500	111-5006
Plain	350×500	800	111-5007
Folded	350×500	40	111-5009

Disinfectant wipes



Fleece wipes in dispenser, soaked in disinfecting solution. Optimum protection against fungi, bacteria and viruses.

- For disinfection* of surfaces
- For simple disinfection of hands

Kills bacteria: In accordance with EN 1040 and NF T 72-151. NF T 72-171. NF T 72-190

Kills fungi: In accordance with EN 1275

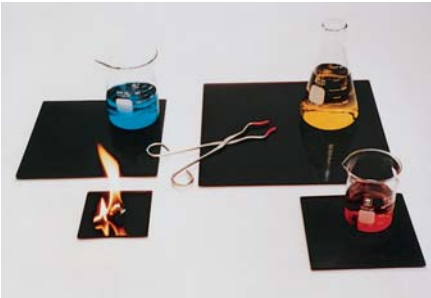
Kills viruses: In accordance with NF T 72-180 for polio, herpes and adenovirus, and in accordance with NF T 72-181 for T2, MS2

Colour: White

LxW (mm)	Packed	Pk	Cat. No.
150x220	120 per dispenser	120	115-8133

* Does not serve as a substitute for an immersion or sterilising bath

Surface protection plates, Thermoplate



These plates made from ceramic glass protect high quality surfaces from high temperature containers, such as crucibles, evaporating dishes, glass containers and more. They also provide reliable protection against deep frozen items. Feet at the edges of the plates prevent direct contact with the surfaces to be protected.

- Temperature resistant from –235,5 to +648,8 °C
- Easily cleaned, dirt-repellent surface
- Low thermal expansion, resistant to thermal shocks

LxW (mm)	Colour	Packed	Pk	Cat. No.
102x102	Dark Brown	Plates	1	115-0094
152x152	Dark Brown	Plates	1	115-0095
229x229	Dark Brown	Plates	1	115-0096
305x305	Dark Brown	Plates	1	115-0097

Bench protectors



High quality, smooth, absorbent paper that quickly absorbs liquid spills with a thick, laminated polyethylene layer that prevents seeping onto the work surface.

- Retains leaked reagents in radio-chemical laboratories and prevents radioactive contamination
- Recovery of leaked, expensive materials
- Breakage protection for hard surfaces
- Absorption layer for water or solvent moisture chambers
- Ideal, impermeable protective material for lining animal cages

Absorbence rate 115-9220 and 115-9221: 500 ml/m²

Absorbence rate 115-0673: 750 ml/m²

LxW (mm)	Colour	Packed	Pk	Cat. No.
Regular				
570x460	White	50 single sheets	50	115-9220
50000x460	White	1 roll of 50 m	1	115-9221
Maxi				
460x570	White	50 single sheets	50	115-0673

Bench protection paper



Highly absorbent paper sheets for bench and surface protection.

- Dust-proof packaging
- Very soft: Prevents scratches on surfaces

LxW (mm)	Colour	Packed	Pk	Cat. No.
371x303	White	25 sheets/pack	1	631-1059

Adhesive mats, PureStep



These 30 and 60 layer entrance mats made from 1,8 mm thick LDPE film with 0,3 mm thick, pressure-sensitive acrylic adhesive film to remove dirt and dust from the soles of shoes and the wheels of transport containers. When one layer is no longer tacky, simply tear it off at the marking and the mat is ready for use again.

- Antimicrobial, destroys germs and fungi
- Non slip, colour coded
- Reduced maintenance and cleaning costs

L×W (mm)	Thickness (mm)	Colour	Pk	Cat. No.
Adhesive film cleaning mats, 30 layer, PureStep				
457×914	1,8	Blue	8	115-0055
457×914	1,8	Grey	8	115-0056
457×914	1,8	White	8	115-0057
457×1143	1,8	Blue	8	115-0061
457×1143	1,8	Grey	8	115-0062
457×1143	1,8	White	8	115-0063
610×762	1,8	Blue	4	115-0047
610×762	1,8	Clear	4	115-0048
610×762	1,8	Grey	4	115-0049
610×762	1,8	White	4	115-0050
610×914	1,8	Blue	8	115-0067
610×914	1,8	Grey	8	115-0068
610×914	1,8	White	8	115-0069
660×1143	1,8	Blue	8	115-0073
660×1143	1,8	Grey	8	115-0074
660×1143	1,8	White	8	115-0075
914×914	1,8	Blue	8	115-0079
914×914	1,8	Grey	8	115-0080
914×914	1,8	White	8	115-0081
914×1143	1,8	Blue	8	115-0085
914×1143	1,8	Grey	8	115-0086
914×1143	1,8	White	8	115-0087
914×1524	1,8	Blue	4	115-0091
914×1524	1,8	Grey	4	115-0092
914×1524	1,8	White	4	115-0093
Adhesive film cleaning mats, 60 layer, PureStep				
457×914	1,8	Blue	4	115-0058
457×914	1,8	Grey	4	115-0059
457×914	1,8	White	4	115-0060
457×1143	1,8	Blue	4	115-0064
457×1143	1,8	Grey	4	115-0065
457×1143	1,8	White	4	115-0066
610×762	1,8	Blue	4	115-0051
610×762	1,8	Clear	4	115-0052
610×762	1,8	Grey	4	115-0053
610×762	1,8	White	4	115-0054
610×914	1,8	Blue	4	115-0070
610×914	1,8	Grey	4	115-0071
610×914	1,8	White	4	115-0072
660×1143	1,8	Blue	4	115-0076
660×1143	1,8	Grey	4	115-0077
660×1143	1,8	White	4	115-0078
914×914	1,8	Blue	4	115-0082
914×914	1,8	Grey	4	115-0083
914×914	1,8	White	4	115-0084
914×1143	1,8	Blue	4	115-0088
914×1143	1,8	Grey	4	115-0089
914×1143	1,8	White	4	115-0090
PureStep high tack mats, 30 layer mats				
457×1143	1,8	Blue	8	115-0167
PureStep high tack mats, 60 layer mats				
660×1143	1,8	White	4	115-0168
914×1143	1,8	White	4	115-0169

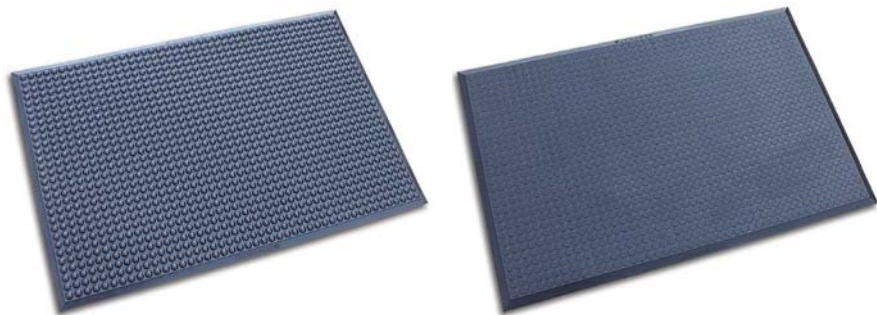
Mat frames for PureStep mats

These frames are designed to be used with the PureStep mats to create a system that is ideal for any critical area that does not allow direct adhesion to the flooring surface. The frames are constructed of a hard, rigid, polystyrene base material combined with a non skid backing that holds the mats in place on almost any surface.

- Protect floors from adhesive residue from the mats
- Reduces the risk of slips and falls
- Non-slip parts made from polymer coated polyester textile
- Naturally antimicrobial, mould and mildew resistant

Description	For	LxW (mm)	Thickness (mm)	Colour	Pk	Cat. No.
Mat frame	457x914 mm	508x965	3,2	White	1	115-1287
Mat frame	457x1143 mm	508x1194	3,2	White	1	115-1288
Mat frame	609x914 mm	660x965	3,2	White	1	115-1289
Mat frame	660x1143	711x1193	3,2	White	1	115-1290
Mat frame	914x914 mm	965x965	3,2	White	1	115-1291
Mat frame	914x1524 mm	965x1574	3,2	White	1	115-1292

Ergonomic mats, Basic Bubble and Basic Smooth



These mats are made of lower density polyurethane and provide an ergonomic and anti-fatigue profile. Bubble mats are designed for dry, non critical environments, reducing trip hazards, body aches, quality issues and sick leave. The smooth, flat mats are ideal for dry, non critical environments where sitting and standing work areas are combined, or where carts or trolleys must be used.

- Moulded bevelled edges will not curl up, thus eliminating trip hazards
- Any size or any shape - will always be one piece: No overlapping or worn out connecting mats
- Ergonomic design is stimulating the body to increase blood circulation and alertness
- Silicone and latex-free

DIN 53505, EN ISO 527-1, ASTM D 624

Type	LxW (mm)	Thickness (mm)	Colour	Pk	Cat. No.
Basic Bubble					
Bubble surface	600x900	15	Grey	1	115-1149
Bubble surface	600x1200	15	Grey	1	115-1150
Bubble surface	600x1500	15	Grey	1	115-1151
Bubble surface	600x1800	15	Grey	1	115-1152
Bubble surface	900x900	15	Grey	1	115-1167
Bubble surface	900x1200	15	Grey	1	115-1168
Bubble surface	900x1500	15	Grey	1	115-1169
Bubble surface	900x1800	15	Grey	1	115-1170
Bubble surface	1200x1200	15	Grey	1	115-1185
Bubble surface	1200x1500	15	Grey	1	115-1186
Bubble surface	1200x1800	15	Grey	1	115-1187
Basic Smooth					
Smooth surface	600x900	11	Grey	1	115-1202
Smooth surface	600x1200	11	Grey	1	115-1203
Smooth surface	600x1500	11	Grey	1	115-1204
Smooth surface	600x1800	11	Grey	1	115-1205
Smooth surface	900x900	11	Grey	1	115-1220
Smooth surface	900x1200	11	Grey	1	115-1221
Smooth surface	900x1500	11	Grey	1	115-1222
Smooth surface	900x1800	11	Grey	1	115-1223
Smooth surface	1200x1200	11	Grey	1	115-1238
Smooth surface	1200x1500	11	Grey	1	115-1239
Smooth surface	1200x1800	11	Grey	1	115-1240

Ergonomic lab mats, Infinity Bubble and Smooth



The Infinity mat offers the comfort of a polyurethane mat and is suitable for cleanroom ISO Class 5 (Class 100) environments. It is either available with a bubble surface that features a unique ergonomic and anti-fatigue design or with a smooth surface that is ideal for areas that combine sitting and standing.

- Extremely good chemical and UV resistance (except for organic solvents)
- Silicone and latex-free
- Closed cell / non porous surface allows for easy wash down and cleaning
- Smooth mat: Ideal if carts or trolleys must be used
- Bubble mat: Ergonomic benefit of stimulating the body to increase blood circulation

DIN 53505

LxW (mm)	Thickness (mm)	Colour	Pk	Cat. No.
Smooth surface				
910x600	11	Blue	1	115-0735
1200x900	11	Blue	1	115-0739
1800x600	11	Blue	1	115-0736
1800x900	11	Blue	1	115-0740
1800x1200	11	Blue	1	115-0742
2700x600	11	Blue	1	115-0737
3600x1200	11	Blue	1	115-0743
6000x600	11	Blue	1	115-0738
6000x900	11	Blue	1	115-0741
6000x1200	11	Blue	1	115-0744
910x600	11	Grey	1	115-0745
1200x900	11	Grey	1	115-0749
1800x600	11	Grey	1	115-0746
1800x900	11	Grey	1	115-0756
1800x1200	11	Grey	1	115-0758
2700x600	11	Grey	1	115-0747
3600x1200	11	Grey	1	115-0759
6000x600	11	Grey	1	115-0748
6000x900	11	Grey	1	115-0757
6000x1200	11	Grey	1	115-0760
Bubble surface				
600x1200	14,5	Blue	1	115-1061
600x1500	14,5	Blue	1	115-1062
900x600	14,5	Blue	1	115-0715
900x900	14,5	Blue	1	115-1075
900x1500	14,5	Blue	1	115-1076
1200x900	14,5	Blue	1	115-0719
1200x1200	14,5	Blue	1	115-1090
1200x1500	14,5	Blue	1	115-1091
1800x600	14,5	Blue	1	115-0716
1800x900	14,5	Blue	1	115-0720
1800x1200	14,5	Blue	1	115-0722
2700x600	14,5	Blue	1	115-0717
3600x1200	14,5	Blue	1	115-0723
6000x600	14,5	Blue	1	115-0718
6000x900	14,5	Blue	1	115-0721
6000x1200	14,5	Blue	1	115-0724
600x1200	14,5	Grey	1	115-1106
600x1500	14,5	Grey	1	115-1107
900x600	14,5	Grey	1	115-0725
900x900	14,5	Grey	1	115-1120
900x1500	14,5	Grey	1	115-1121
1200x900	14,5	Grey	1	115-0729
1200x1200	14,5	Grey	1	115-1135
1200x1500	14,5	Grey	1	115-1136
1800x600	14,5	Grey	1	115-0726
1800x900	14,5	Grey	1	115-0730
1800x1200	14,5	Grey	1	115-0732
2700x600	14,5	Grey	1	115-0727
3600x1200	14,5	Grey	1	115-0733
6000x600	14,5	Grey	1	115-0728
6000x900	14,5	Grey	1	115-0731
6000x1200	14,5	Grey	1	115-0734

Safety labels, according to GHS



These labels, made of PE film and with the GHS symbols, meet with GHS (global harmonised system) regulations for chemical substances and mixtures. The GHS symbols will replace traditional orange symbols (HSID) by 2015, when the pictogram on an orange square, and R and S phrases will disappear. The GHS symbols are based on the physical, health and environmental risks posed by the substance. The mandatory dates for conversion to GHS labelling are December 2010 for 'pure' chemical substances and June 2015 for chemical mixtures.

- Diamond shape
- Black print on white background in red frame
- Roll contains 500 labels in dispensing box

Description	Type	Dimensions (mm)	Pk	Cat. No.
GHS label, Oxidizing	Oxidising	26×26	1 Roll	116-0279
GHS label, Explosive	Explosive	26×26	1 Roll	116-0280
GHS label, Gas under Pressure	Gas under Pressure	26×26	1 Roll	116-0281
GHS label, Environmental Toxicity	Dangerous for the Environment	26×26	1 Roll	116-0282
GHS label, Respiratory Sensitisation/Carcinogen	Health Hazard	26×26	1 Roll	116-0283
GHS label, Acute Toxicity	Toxic	26×26	1 Roll	116-0284
GHS label, Flammable	Flammable	26×26	1 Roll	116-0285
GHS label, Corrosive	Corrosive	26×26	1 Roll	116-0286
GHS label, Irritant	Irritant	26×26	1 Roll	116-0287

Fire blankets



Made from a composite material including two plies of glass fibre matting and one layer of flame-retardant foil. For extinguishing and smothering relatively small fires. Environmentally friendly, these blankets contain no asbestos.

- Heat resistant up to 550 °C
- Safe, dust-free storage in a covered plastic box labelled in three languages (German, English, French)
- Can be wall-mounted
- Unfold quickly with two ripcords

BS EN 1869

Description	L×W (mm)	Pk	Cat. No.
Fire blanket	1200×1200	1	118-1105
Fire blanket	1200×1800	1	118-1106
Fire blanket (for Scandanavia)	1200×1200	1	118-1107

Beta radiation shields



Acrylic, transparent, thickness: 10 mm

For use on work tables or in fume cupboards. For protection from low-energy beta radiation.

- Absorb 99,5% of ³²P beta radiation
- Stable and easy to clean
- Also protects from splashes

Form	W×D×H (mm)	Pk	Cat. No.
Angled	304×150×450	1	113-8820
Dual angled	304×150×450	1	113-8821

Beta storage box



Acrylic, transparent, thickness: 10 mm

For the shielded storage of isotopic solutions or radioactive samples. With foam inserts for secure storage of lead capsules or flasks containing isotopic solutions.

- Suitable for long-term storage at temperatures as low as –70 °C
- Sturdy, stackable, with attached hinged lid
- Easy identification of samples without lifting the lid

Description	WxDxH int. (mm)	Pk	Cat. No.
Beta radiation storage box	165x85x55	1	113-8985

Beta storage rack for test tubes



Acrylic, crystal clear, thickness: 10 mm

The solid cast block with 4x6 bore holes for 1,5 ml test tubes provides optimum protection during transport and storage of solutions with high specific activity. The bore holes are spaced appropriately to ensure easy handling of the test tubes and minimise risk of contamination.

- Protects the base and sides of the test tubes up to the height of the recommended filling volume
- Removable lid to shield the test tube closures
- Stackable and easy to clean

WxDxH (lid): 181x124x29 mm

For tubes (ml)	No. of holes	WxDxH (mm)	Pk	Cat. No.
1,5	4x6	171x118x44	1	113-8978

Beta radiation bins



Acrylic, transparent, thickness: 10 mm

For short-term storage or disposal of contaminated pipette tips, cannulae, test tubes and other small parts.

- Attached hinged lid for easy and effortless emptying
- Additional mini hinged lid for closing the filling aperture
- Robust, stable and easy to clean

Description	WxDxH (mm)	Pk	Cat. No.
Beta radiation bin	150x150x150	1	113-8975

Beta radiation bins



Acrylic, transparent, thickness: 10 mm

Maximum protection for short-term storage or disposal of contaminated materials.

- Attached hinged lid for easy filling and quick emptying
- Sturdy, stable and easy to clean

Description	WxDxH (mm)	Pk	Cat. No.
Beta radiation bins	150x150x150	1	113-8976
Beta radiation bins	200x200x250	1	113-8977

Beta radiation bins



Acrylic, transparent, thickness: 10 mm

Maximum protection for short-term storage or disposal of mildly contaminated materials.

- Attached hinged lid for easy filling and quick emptying
- Robust, manoeuvrable and easy to clean

WxDxH (inner): 285x285x580 mm

Description	WxDxH (mm)	Pk	Cat. No.
Beta radiation waste bin	305x305x600	1	113-8993



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Spillage absorption granules



The coarse granules are easy to use and when applied to liquid spillages will absorb up to 80% of their own weight. The granules are suitable for absorbing acids, alkalis, other aqueous solutions and organic liquids.

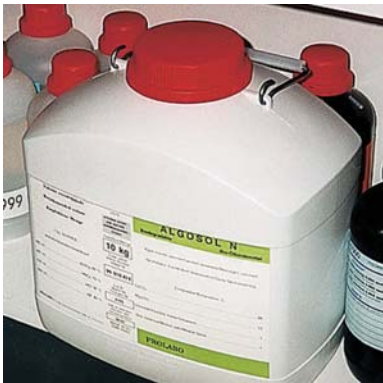
- Bulk density 50 g/100 ml
- Rapid absorption of low viscosity liquids
- Granular, size typically 1 to 3,15 mm (95% more than 1,0 mm), generates little dust

Safety note: Mercury is not absorbed.

Description	Pk	Cat. No.
Spillage absorption granules	2,5 kg	332377C



Spillage granules, Algosol



Algosol is a unique natural product made from seaweed and is suitable for the neutralisation of acids, such as hydrochloric, sulphuric, nitric and hydrofluoric. It absorbs spills immediately without breaking up and can be used to extinguish fires.

- Biodegradable, non toxic, non flammable and dust-free
- Can be swept up easily
- Stable, chemically inert and non polluting

1 kg of Algosol neutralises 180 ml 95% sulphuric acid or 530 ml of 36% hydrochloric acid or 400 ml of 70% nitric acid or 260 ml of 40% hydrofluoric acid.

Description	Pk	Cat. No.
Spillage granules, Algosol	10 kg	99910.414

Emergency intervention kit



Kit for absorption of organics, aqueous solutions, alkalis and acids.

- Includes personal protective equipment like gloves, masks and goggles
- Includes removal equipment: dust tray, brush and bags

The kit contains:

- 3× MERCK Chemizorb for absorption of organics and aqueous solutions 1.02051.0500
- 1× MERCK Chemizorb for absorption of alkalis (including a neutraliser and a pH indicator) 1.01596.1000
- 1× MERCK Chemizorb for absorption of acids 1.01595.2000
- 1× Pair barrier gloves with liner size 9 (112-1010)
- 1× Pair barrier gloves with liner size 7 (112-0946)
- 2× Mask 4279 3M ABEK (111-0044)
- 2× Goggles 3M 2790A (111-0265)
- 1× Dust tray ergonomic (129-0174)
- 1× Brush in PBT sterilisable (129-0175)
- 1× Disposal bag 483×610 mm (129-0021)

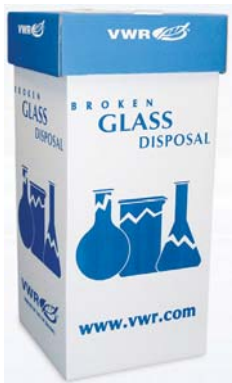
Pk	Cat. No.
Emergency intervention kit	
1 SET	129-0199



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The local website with global reach

Boxes for broken glass



Cardboard carton with PE pouch 50 µm thick

Ideal for collecting, transporting and removing broken glass from the laboratory. Consists of a sturdy box made of strong corrugated cardboard and a PE insertion pouch which prevents any possible escape of fluids adhering to the broken glass.

- Folded flat for space saving storage
- A flap is built into the lid for easy filling
- The internal safety lid is closed for the removal of the container

Description	WxDxH (mm)	Pk	Cat. No.
Floor*	305×305×685	6	119-0036
Bench**	203×203×254	6	119-0037

* Maximum weight: 18 kg
** Maximum weight: 5,5 kg



Bags, non hazardous waste



PP, 50 µm, thick-walled, transparent, with labelling area

Sturdy bags, ideal for disposing of non hazardous waste that must first be autoclaved.

- Autoclavable up to 121 °C
- Highly resistant to tears and impact
- Specially welded seams reduce the risk of leakages

The bags meet the requirements of the 165 g puncture inspection standard as described in ASTM D1709-98.

Capacity (l)	Material	LxW (mm)	Pk	Cat. No.
11	PP	483×356	200	129-0020
27	PP	610×483	200	129-0021
80	PP	889×635	200	129-0022
210	PP	1143×914	100	129-0023



Bags, biohazard



PP, 38 µm thick, transparent, with 'Biohazard' printing

Sturdy, temperature resistant bags, ideal for disposing of hazardous waste that must be autoclaved first. Can also be used autoclaving other products. Supplied complete with sealing wires.

- Autoclavable up to 135 °C
- Highly resistant to tears and impact

Capacity (l)	Material	LxW (mm)	Pk	Cat. No.
12	PP	610×305	1.000	129-0018
75	PP	914×610	500	129-0019



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Bags, biohazard



PP, 50 µm thick, orange, with 'Biohazard' label

Sturdy bags, ideal for disposing of biologically hazardous waste that must be autoclaved first. With wire closures that allow expansion of the bag and ventilation when cooling. Tear proof and puncture resistant. Available as transparent bags without temperature indicator or orange with temperature indicator.

- Autoclavable up to 135 °C
- The useful temperature indicator text is white before autoclaving, then black. The text 'Contents Have Been Autoclaved' indicates successful autoclaving
- Highly visible 'Biohazard' label with the corresponding warning sign

The bags meet the requirements of the 165 g puncture inspection standard as described in ASTM D 709-98.

Description	Capacity (l)	Material	LxW (mm)	Pk	Cat. No.
Orange with temperature indicator	11	PP	483x356	200	129-0024
Orange with temperature indicator	27	PP	610x483	200	129-0025
Orange with temperature indicator	80	PP	889x635	200	129-0026
Orange with temperature indicator	210	PP	1143x914	100	129-0027
Clear	12	PP	610x305	200	129-0028
Clear	75	PP	914x610	200	129-0029



Bags, biohazard



PP, 50 µm thick, red

These sturdy bags are ideal for disposing of biologically hazardous waste that must be autoclaved first.

- Autoclavable up to 135 °C
- Available with or without temperature indicator
- Useful temperature indicator text is white before autoclaving, then black
- Text 'Contents Have Been Autoclaved' indicating successful autoclaving
- Luminous red for easy recognition and highly visible 'Biohazard' label with the corresponding warning sign

Meet the requirements of the 480 g tensile strength test as described in ASTM D 299-94A.

Description	Capacity (l)	Material	LxW (mm)	Pk	Cat. No.
Red, with printing sign and temperature indicator	12	PP	610x305	200	129-0033
Red, with printing sign and temperature indicator	80	PP	890x635	200	129-0034
Red, with printing sign and temperature indicator	75	PP	914x610	200	129-0035
Red, with printing sign and temperature indicator	260	PP	1219x965	100	129-0036
Plain red, without printing sign	12	PP	610x305	200	129-0037
Plain red, without printing sign	75	PP	914x610	200	129-0038



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Bags, biohazard



PP, 75 µm thick, red, with 'Biohazard' label

Sturdy bags, ideal for disposing of biologically hazardous waste that must be autoclaved first.

- Autoclavable up to 135 °C
- The useful temperature indicator text is white before autoclaving, then black. The text 'Contents Have Been Autoclaved' indicates successful autoclaving
- Luminous red for easy recognition and highly visible 'Biohazard' label with the corresponding warning sign

Capacity (l)	Material	LxW (mm)	Pk	Cat. No.
12	PP	610x305	250	129-0030
75	PP	914x610	250	129-0031
260	PP	1220x965	50	129-0032



Bags, biohazard



HDPE, 100 µm thick, red, with 'Biohazard' label

Sturdy bags, ideal for disposing of biologically hazardous waste that must be autoclaved first. Supplied complete with the necessary sealing wires.

- Autoclavable up to 121 °C
- Highly resistant to tears and impact
- Luminous red for easy recognition and highly visible 'Biohazard' label with the corresponding warning sign

Capacity (l)	Material	LxW (mm)	Pk	Cat. No.
12	HDPE	610x305	50	129-0039
75	HDPE	914x610	50	129-0040
260	HDPE	1220x965	50	129-0041



Autoclavable bags, 'Sterilbag' and 'Sterilbag indicator'



Made of special plastic, red coloured

These bags are ideal for autoclaving polystyrene containers and other items contaminated by pathogenic agents (Petri dishes, microtitre plates, pipettes, bottles, tubes, etc.). They can be used for realising and preserving sterile conditions.

- Resistant to 134 °C in autoclave
- Available with or without sterilisation indicator stripe
- Red coloured
- Instructions printed on the bag

Description	Material	LxW (mm)	Pk	Cat. No.
'Sterilbag' autoclavable bags				
Autoclavable bags, resistant to 134 °C , 'Sterilbag' type 30	Plastic	300x500	500	129-0716
Autoclavable bags, resistant to 134 °C , 'Sterilbag' type 60	Plastic	600x700	500	129-0717



Autoclavable bags, 'Biobag' and 'Biobag indicator'



Made of plastic, white coloured

These bags are ideal for autoclaving polystyrene containers and other items contaminated by pathogenic agents (Petri dishes, microtitre plates, pipettes, bottles, tubes, etc.). They can be used for realising and preserving sterile conditions.

- Resistant to 121 °C in autoclave
- Available with or without sterilisation indicator stripe
- White coloured
- Instructions printed on the bag

Description	Material	LxW (mm)	Pk	Cat. No.
'Biobag' autoclavable bags				
Autoclavable bags, resistant to 121 °C, 'Biobag' type 30	Plastic	300x500	500	129-0714
Autoclavable bags, resistant to 121 °C, 'Biobag' type 60	Plastic	600x780	500	129-0715



Disposal bags



PP, 40 µm thick, clear, with or without 'Biohazard' printing

For safe disposal of laboratory waste such as pipette tips, disposable Petri dishes, sample tubes, etc.

- Heat resistant up to 145 °C
- Autoclavable

Description	Capacity (l)	LxW (mm)	Pk	Cat. No.
Autoclavable bags, clear	2	200x300	500	129-0578
Autoclavable bags, clear	3	400x250	500	129-0579
Autoclavable bags, clear	12	660x305	500	129-0580
Autoclavable bags, clear	16	780x400	500	129-0581
Autoclavable bags, clear	14	610x420	500	129-0582
Autoclavable bags, clear	25	770x550	500	129-0583
Autoclavable bags, clear	32	780x600	500	129-0584
Autoclavable bags, clear	40	1100x700	350	129-0585
Autoclavable bags, clear	60	1100x900	100	129-0586
Autoclavable bags, clear, with 'Biohazard' printing	12	660x305	200	129-0587
Autoclavable bags, clear, with 'Biohazard' printing	14	610x420	200	129-0588
Autoclavable bags, clear, with 'Biohazard' printing	32	780x600	200	129-0589

Dispensing bins



Acrylic

Convenient, space saving bins are ergonomically designed with large angled openings to facilitate the removal of items. Bins feature non skid rubber feet for added benchtop security as well as pre-drilled holes to allow for wall-mounting (hardware included).

- Lid tilts back into locking position to remain open for repeated use
- Lid features an oversized lip to provide easy access, even to gloved hands
- Green bin is supplied with a removable insert divider to allow customisation of the interior (one or two compartments)

Description	Colour	WxDxH (mm)	Pk	Cat. No.
Dispensing bin, one compartment	Blue	115x155x170	1	631-0720
Dispensing bin, two compartments	Green	180x155x165	1	631-0721

Sharps disposal container, Sharps Chute™



The Sharps Chute™ sharps container is a secure and effective method for disposal of contaminated syringes, pen needles and lancets. Features an ergonomic three-grip dome for closing, opening and permanent lock. View the fill level easily through the translucent base.

- Unique rotating dome to lock in dangerous sharps for discarding
- Puncture resistant container is autoclave- and incinerator-safe
- Stackable

Description	Type	Colour	Pk	Cat. No.
Disposable sharps container, 1.4 l	Sharps Chute™	Yellow	18	119-0098



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Chairs, stools

All chairs and stools are available with a star base which is made from high strength sectional steel tubing, and is particularly robust and durable. The flat design prevents trip hazards.

Glides: The glides are wear-proof plastic and have a large surface area and offer a high level of stability.

Castors: Dual-wheel castors with load-sensitive brakes have to be right for the floor. All chairs are supplied with soft castors for hard floors as standard. Hard castors for soft floors are also available as an option.

Stop&go technology: For safety reasons chairs whose seat is more than 650 mm high must not be movable whilst in use. With innovative stop & go castors these chairs are only mobile when no one is sitting on them.

Economy Line



As well as the need for maximum hygiene and easy cleaning, laboratory chairs also have to meet a number of other requirements associated with routine laboratory tasks: Flexibility in terms of the work applications and also they must not take too much space.

- Anatomically designed seat and backrest
- Washable, easy to clean, robust and durable
- Seat height adjustment by gas-lift

Description	Height (mm)	Foot form	Foot ring	Pk	Cat. No.
Laboratory chair, made from laminated beech, backrest adjustable in height and inclination, backrest pendular embedded	440 - 610	Glides	-	1	132-0410
Laboratory chair, made from artificial black leather, backrest adjustable in height and inclination, backrest pendular embedded	440 - 610	Glides	-	1	132-0411
Laboratory chair, made from laminated beech, backrest adjustable in height and inclination, backrest pendular embedded	570 - 850	Glides	+	1	132-0412
Laboratory chair, made from artificial black leather, backrest adjustable in height and inclination, backrest pendular embedded	570 - 850	Glides	+	1	132-0413
Laboratory chair, made from laminated beech, backrest adjustable in height and inclination, backrest pendular embedded	440 - 610	Castors	-	1	132-0414
Laboratory chair, made from artificial black leather, backrest adjustable in height and inclination, backrest pendular embedded	440 - 610	Castors	-	1	132-0415
Laboratory chair with Stop&Go castors and adjustable foot ring, made from laminated beech, with the backrest adjustable in height and inclination	610 - 890	Stop&Go-castors	+	1	132-0499
Laboratory chair with Stop&Go castors and adjustable foot ring, made from artificial leather black, with the backrest adjustable in height and inclination	610 - 890	Stop&Go-castors	+	1	132-0500

All-In-One line



SoftTouch PU-foam, resistant against aggressive liquids. The permanent contact backrest follows all movements automatically and supports dynamic sitting, ergonomic shaped backrest for ideal fitting to the back.

- Complete hygienic design, easy to clean and disinfect
- Seat height adjustment by gas-lift
- Seat tilt adjustment
- Backrest adjustable in height and inclination

Conform to security level S2, GMP

Description	Height (mm)	Foot form	Foot ring	Pk	Cat. No.
Laboratory chair, with SoftTouch PU foam, black	430 - 600	Glides	-	1	132-0405
Laboratory chair, with SoftTouch PU foam, black	430 - 600	Castors	-	1	132-0406
Laboratory chair, with SoftTouch PU foam, black	580 - 850	Glides	+	1	132-0407
Laboratory chair with Stop&Go castors and SoftTouch PU-foam	620 - 890	Stop&Go-castors	+	1	132-0498

Mr-Lab line
Chairs



The perfect combination of comfort and ergonomics for optimal performance. Anatomically moulded cushions with pelvis support and integrated lumbar support. Very comfortable, large and soft upholstery in artificial leather covering, washable and disinfectant-proof.

- Backrest adjustable in height and inclination
- Seat height adjustment by gas-lift
- Aluminium 5 star base

Conform to security level S2, GMP

Description	Height (mm)	Foot form	Foot ring	Pk	Cat. No.
Laboratory chair, made from blue skai®	470 - 620	Castors	-	1	132-0416
Laboratory chair, made from blue skai®	600 - 870	Glides	+	1	132-0417
Laboratory stool, plastic black frame, seat made from black skai®; height adjustment based on pneumatic spring	460 - 630	Castors	-	1	132-0425
Laboratory stool, plastic black frame, seat made from black PU-foam; height adjustment based on pneumatic spring	460 - 630	Castors	-	1	132-0426
Laboratory chair, made from blue skai®	640 - 910	Stop&Go-castors	+	1	132-0501

Lab-ESD line



ESD (Electro Static Discharge) refers to the electrostatic discharge of charged objects or people. Electrostatic discharge can result in damage to microelectronic components.

- Backrest adjustable in height and inclination
- Seat height adjustment by gas-lift
- Aluminium 5 star base
- Upholstery in artificial leather covering, washable and disinfectant-proof

Conforms to security level S2, GMP. Soft discharge is achieved on the basis of a fixed and defined discharge resistance of 106 Ω in accordance with DIN EN 61340-5-1.

Description	Height (mm)	Foot form	Foot ring	Pk	Cat. No.
ESD-chair, made from black skai®	470 - 620	Castors	-	1	132-0419
ESD-chair, made from black skai®	620 - 870	Glides	+	1	132-0420
ESD-chair, made from black skai®, with Stop&Go-castors	640 - 910	Stop&Go-castors	+	1	132-0502

Lab-Clean cleanroom line



In order to create “clean” or “sterile” rooms, measures have to be implemented to prevent products and processes from becoming contaminated. This is a key requirement of the microelectronics sector, the pharmaceuticals industry, microsystem production, optics, medical engineering and healthcare.

- Sealed upholstery with special foam technology, in artificial leather covering, washable and disinfectant-proof
- Materials suitable for use in cleanrooms
- Smooth, sealed surfaces
- Encapsulated mechanisms
- Electrostatic discharge measures

VWR cleanrooms chairs meet the requirements of air cleanliness classification 3 in accordance with DIN EN ISO 146444-1, cleanroom classification 1 as defined by US Federal Standard 209E and the specifications of the EU GMP guidelines.

Description	Height (mm)	Foot form	Foot ring	Pk	Cat. No.
Cleanroom chair, made from black skai®	470 - 620	Castors	-	1	132-0421
Cleanroom chair, made from black skai®	600 - 870	Glides	+	1	132-0422
Cleanroom stool, made from black skai®	460 - 630	Castors	-	1	132-0424
Cleanroom chair, made from black skai®	640 - 910	Stop&Go-castors	+	1	132-0503

Lab-Office line



The perfect combination of comfort and ergonomics for optimal performance. The high quality fabric upholstery is soft, breathable and hard wearing. Anatomically moulded cushions with pelvis support and integrated lumbar support.

- Backrest adjustable in height and inclination
- Seat height adjustment by gas-lift
- Aluminium 5 star base

Description	Height (mm)	Foot form	Foot ring	Pk	Cat. No.
Office chair, made from blue fabric	470 - 620	Castors	-	1	132-0418

Office chair line: the Smart and the Comfort series



A workplace chair with all-inclusive ergonomics: Seat tilt, seat height, backrest height and synchronous mechanism with weight regulation. Synchronous technology with weight regulation: The seat and the backrest tilt are automatically adjusted in line with current posture. There is a continuously variable weight regulation system to ensure that the backrest responds in accordance with how much pressure is applied. It is particularly useful in cases where there are frequent changes in working posture.

- 8 cm thick comfort upholstery
- Integrated lumbar support
- Hard wearing yet soft, comfortable and breathable fabric cover (different colours available)
- Backrest and seat adjustable in height and inclination
- Polished aluminium base

EN 1335

Description	Height (mm)	Foot form	Foot ring	Pk	Cat. No.
Office swivel chair, Smart, black upholstery	450 - 600	Castors	-	1	132-0686
Office swivel chair, Smart, blue upholstery	450 - 600	Castors	-	1	132-0687
Office swivel chair, Smart, dark blue upholstery	450 - 600	Castors	-	1	132-0688
Office swivel chair, Smart, dark green upholstery	450 - 600	Castors	-	1	132-0689
Office swivel chair, Smart, red upholstery	450 - 600	Castors	-	1	132-0690
Office swivel chair, Smart, grey upholstery	450 - 600	Castors	-	1	132-0691
Office swivel chair, Smart, orange upholstery	450 - 600	Castors	-	1	132-0692
Office swivel chair, Smart, burgundy upholstery	450 - 600	Castors	-	1	132-0693
Office chair, Comfort, black upholstery	450 - 600	Castors	-	1	132-0694
Office chair, Comfort, blue upholstery	450 - 600	Castors	-	1	132-0695
Office chair, Comfort, dark blue upholstery	450 - 600	Castors	-	1	132-0696
Office chair, Comfort, dark green upholstery	450 - 600	Castors	-	1	132-0697
Office chair, Comfort, red upholstery	450 - 600	Castors	-	1	132-0698

Continued from previous page

Table with 6 columns: Description, Height (mm), Foot form, Foot ring, Pk, Cat. No.
Rows include Office chair, Comfort, grey upholstery; Office chair, Comfort, orange upholstery; Office chair, Comfort, burgundy upholstery.

Visitor's line

Table with 6 columns: Description, Height (mm), Foot form, Foot ring, Pk, Cat. No.
Rows include Visitor's chair, Smart, black, four legs, without armrests; Visitor's chair, Smart, blue, four legs, without armrests; Visitor's chair, Smart, dark blue, four legs, without armrests; Visitor's chair, Smart, dark green, four legs, without armrests; Visitor's chair, Smart, red, four legs, without armrests; Visitor's chair, Smart, grey, four legs, without armrests; Visitor's chair, Comfort, orange, cantilever model, without armrests; Visitor's chair, Comfort, burgundy, cantilever model, without armrests; Visitor's chair, Smart, black, four legs, with armrests; Visitor's chair, Smart, blue, four legs, with armrests; Visitor's chair, Smart, dark blue, four legs, with armrests; Visitor's chair, Smart, dark green, four legs, with armrests; Visitor's chair, Smart, red, four legs, with armrests; Visitor's chair, Smart, grey, four legs, with armrests; Visitor's chair, Smart, orange, four legs, with armrests; Visitor's chair, Smart, burgundy, four legs, with armrests; Visitor's chair, Comfort, black, cantilever model, without armrests; Visitor's chair, Comfort, blue, cantilever model, without armrests; Visitor's chair, Comfort, dark blue, cantilever model, without armrests; Visitor's chair, Comfort, dark green, cantilever model, without armrests; Visitor's chair, Comfort, red, cantilever model, without armrests; Visitor's chair, Comfort, grey, cantilever model, without armrests; Visitor's chair, Comfort, orange, cantilever model, without armrests; Visitor's chair, Comfort, burgundy, cantilever model, without armrests; Visitor's chair, Comfort, black, cantilever model, with armrests; Visitor's chair, Comfort, blue, cantilever model, with armrests; Visitor's chair, Comfort, dark blue, cantilever model, with armrests; Visitor's chair, Comfort, dark green, cantilever model, with armrests; Visitor's chair, Comfort, red, cantilever model, with armrests; Visitor's chair, Comfort, grey, cantilever model, with armrests; Visitor's chair, Comfort, orange, cantilever model, with armrests; Visitor's chair, Comfort, burgundy, cantilever model, with armrests.



Chairs, Flex range



Flex is the innovative solution for sitting and standing workplaces. Thus, Flex is usable both as stool and as standing rest, it is light, uncomplicated and easy to use. Flex adapts to its user and the workplace situation.

- Ergonomic, soft and comfortable seat with back support
- Turns through 360° for maximum freedom of movement
- Extra-large seat height adjustment range by gas-lift
- SoftTouch PU-foam, easy to clean and disinfect
- With polished aluminium 5 stars base
- The chrome plated footring can be adjusted in height without any tools

Table with 6 columns: Description, Height (mm), Foot form, Foot ring, Pk, Cat. No.
Rows include Flex lab standing rest (450-650, Castors, -, 1, 132-0747); Flex lab standing rest (510-780, Glides, -, 1, 132-0748); Flex lab standing rest (510-780, Glides, +, 1, 132-0749); Flex lab standing rest (540-810, Stop & Go castors, +, 1, 132-0750).



Chairs, All-In-One Alu



The VWR Collection All-In-One Alu is the upgrade of the Collection All-In-One, all the chairs are designed with a polished aluminium 5 star base. The seat height adjustment allows the individual adjustment of the seat height depending on the user’s seating habits, activity and height. As well, the seat inclination adjustment enables inclination of the entire seat up to 5°, supports active sitting – ensuring a vertical position of the pelvis helping the spine to maintain its natural S shape.

- SoftTouch PU foam, resistant against aggressive liquids, easy to clean and disinfect
- Permanent contact backrest responds to any movement and supports dynamic sitting
- Seat height adjustment by gas-lift
- Ergonomically shaped backrest for ideal fitting of the back

Lab chairs conform to security level S2, GMP-conform

Description	Height (mm)	Foot form	Foot ring	Pk	Cat. No.
All-In-One polished aluminium chair	430-600	Glides	No	1	132-0743
All-In-One polished aluminium chair	430-600	Castors	No	1	132-0744
All-In-One polished aluminium chair	580-850	Glides	Yes	1	132-0745
All-In-One polished aluminium chair	580-850	Stop & Go castors	Yes	1	132-0746

Emergency torches



These torches are designed for emergencies. Fifteen to thirty seconds of shaking provide durable light.

- No battery needed
- Continuous bright light
- Single LED light visible up to 1,5 km

Description	Pk	Cat. No.
Emergency torch, Eternity, 171×38 mm	1	139-0033
Emergency torch, Eternity, 290×48 mm	1	139-0034
Emergency torch, Infinity	1	620-1263

LED workplace lamp, TL1

Anodised aluminium, two arms

This LED lamp is an efficient alternative to conventional halogen illuminating systems for use in research and industry.

- Continuous brightness adjustment for a homogeneous and flicker-free illumination
- Flexible “modul-LED” concept allows quick exchange of the LED modules or the optional use of different optics and colours
- Flexible arms for easy and individual positioning

Cone foot height: 142 mm; cone foot Ø: 160 mm
Gooseneck length: 450 mm, gooseneck Ø: 100 mm
Optics Ø: 19,7 mm
LED lifespan: 50 000 hours
Operating voltage: 100 - 240 V / 50 - 60 Hz

Delivery Information: Supplied with power cord and manual. The LED spots in different colours are not included and must be ordered separately.

Description	Pk	Cat. No.
LED workplace lamp, two arms, with EU-plug	1	631-0995

Continued from previous page

Description	Pk	Cat. No.
Accessories for LED workplace lamp, TL1		
LED module: Spot optic, pure white, 6000 K	1	631-0997
LED module: Flood optic, pure white, 6000 K	1	631-1003
LED module: Diffuse optic, pure white, 6000 K	1	631-1009
LED module: Line optic, pure white, 6000 K	1	631-1015
LED module: Line optic, blue	1	631-1020



INSTRUMENT SERVICE AND MAINTENANCE

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Draining racks



Wire, vinyl coated

With 18 draining rods, 127 mm long for large containers and 72 draining rods, 76 mm long for smaller containers.

- May be used on the bench or as a wall rack
- Drip tray can be removed from the side for easy emptying

Description	WxDxH (mm)	Pk	Cat. No.
Drying rack	457×181×525	1	211-0196

Cleaning brushes for flasks and bottles



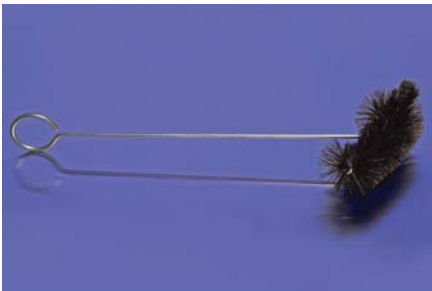
White, natural bristles with flexible plastic handle

Ideal for cleaning Erlenmeyer flasks, round- and flat-bottom flasks, Kjeldahl flasks, pear-shaped flasks, reagent and measuring flasks, and bottles.

- Angled handle passes easily through the neck of bottles and flasks
- Flexible, pliable brush head adapts to the shape of the container to be cleaned
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Natural bristle	35	89	300	5	149-0108
Natural bristle	38	100	350	5	149-0109
Natural bristle	44	125	430	5	149-0110

Cleaning brushes for bottles, double tufted end



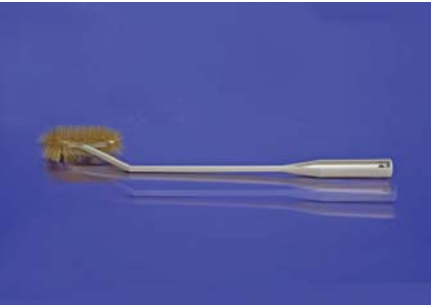
Black natural bristles, with wire handle

Specially designed brush folds flat as it enters the glassware, then opens to reach across flask and bottle bottoms for very effective cleaning.

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Natural bristle	38	106	300	3	149-0204



Cleaning brushes for flasks and bottles



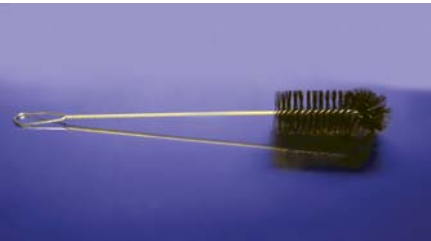
White natural bristles with plastic handle

Ideal for cleaning flasks and bottles.

- Flexible, pivoting plastic handle enables all the curved surfaces of flasks and bottles to be thoroughly cleaned
- Autoclavable
- Extra wide handle for a secure, comfortable grip

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Natural bristle	38	100	400	5	149-0106

Cleaning brushes for gas washing bottles and cylinders



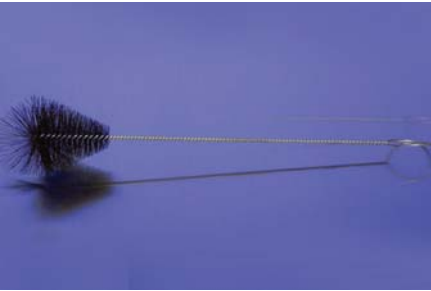
White or black nylon, with wire handle

These cleaning brushes are specially designed for cleaning gas washing bottles, cylinders, and large test tubes.

- With tied tip to reduce the danger of scratching and improve cleaning intensity
- Wire handle for secure grip
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Nylon bristle	41	100	280	3	149-0224
Nylon bristle	60	150	500	3	149-0202
Natural bristle	44	112	280	3	149-0223
Natural bristle	50	500	120	1	149-0250

Cleaning brushes for bottles



White or black natural bristles with wire handle

The special design enables bottles to be cleaned thoroughly and effectively.

- Bristles flatten together and spread out again when they have passed through the bottle neck
- Double tied tip to minimise risk of scratching and improve cleaning intensity
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Natural bristle	13 - 43	44	230	3	149-0205
Natural bristle	14 - 53	44	230	3	149-0206
Natural bristle	38	60	300	3	149-0207

Cleaning brushes for bottles



Natural black bristles with wire handle

- Rounded tip for gentle, thorough cleaning
- Handle with safety ribbing for a firm grip when cleaning glass equipment
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Natural bristle	35	91	280	5	149-0138

Cleaning brushes for test tubes



White bristles with wire handle

Ideal for cleaning test tubes and a wide range of other laboratory utensils.

- With one or two tip ties to minimise risk of scratching and improve cleaning intensity
- Wire handle for secure grip
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Natural bristle	13	75	200	5	149-0218
Natural bristle	19	81	230	5	149-0213
Natural bristle	35	100	250	5	149-0214
White nylon bristles	11	75	230	5	149-0208
White nylon bristles	13	78	200	5	149-0219
White nylon bristles	19	81	230	5	149-0220
White nylon bristles	35	100	250	5	149-0221



Cleaning brushes for glass beakers



White nylon bristles with plastic handle

Ideal for cleaning glass beakers and other cylindrical laboratory utensils.

- Durable, tough brushes
- FDA and USDA approved
- Autoclavable

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Nylon bristle	68	100	300	1	149-0135

Cleaning brushes for glass beakers



Black natural bristles with wooden handle

Inexpensive brushes for cleaning glass beakers and a wide range of other wide-necked laboratory utensils.

- Chemical resistant bristles
- Long wooden handle
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Natural bristle	60	150	410	1	149-0131
Natural bristle	82	139	330	1	149-0132
Natural bristle	75	150	410	1	149-0133

Cleaning brushes for glass beakers



White nylon bristles with wooden handle

Ideal for intensive, extra-thorough cleaning of glass beakers and a wide range of other wide-necked laboratory utensils.

- Chemical resistant bristles
- Strong tufts at the brush tip reduce the risk of scratching and improve cleaning intensity
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Nylon bristle	60 - 73	150	410	1	149-0134

Cleaning brushes for conical vessels



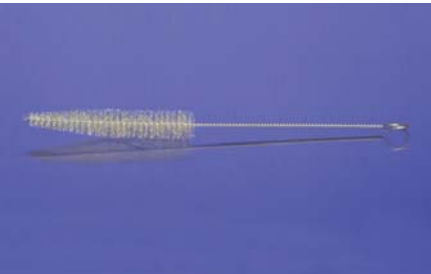
Black natural bristles, plastic handle

These cleaning brushes are specially designed for cleaning conical laboratory equipment such as conical measuring cylinders, funnels, etc.

- Conically-tapered bristles with rounded tips and two protruding tufts ensure gentle, thorough cleaning
- Ergonomic handle
- Handle has loop for hanging up

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Natural bristle	56	150	330	1	149-0104

Cleaning brushes for small vessels



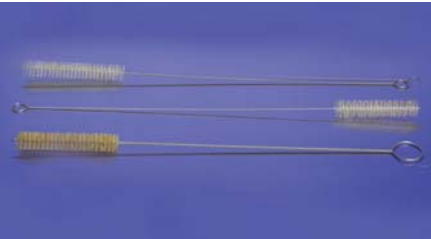
White nylon bristles, with wire handle

These brushes are specially designed for cleaning small tubes, pipes, and a wide range of small containers.

- Rounded tip for gentle but thorough cleaning
- Wire handle for secure grip
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Nylon bristle	25	100	1000	1	141-0327
Nylon bristle	5 - 13	75	180	5	149-0203

Cleaning brushes for small vessels



White bristles with wire handle

Ideal for cleaning reagent flasks, burettes, pipettes, tubes and a wide variety of other laboratory articles with small diameters.

- Available with white nylon bristles or white natural bristles
- Wire handle for secure grip
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
White nylon bristles	13	63	300	5	149-0216
White nylon bristles	13	75	300	5	149-0217
Natural bristle	13	75	300	5	149-0222

Cleaning brushes for balloon flasks



Black nylon, wooden handle

These cleaning brushes are specially designed for cleaning balloon flasks and carboys.

- Swivelling brush section for easy cleaning of bottoms and corners
- For cleaning the upper inside shoulder of balloon flasks and carboys
- Wooden handle with hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Nylon bristle	50	200	550	1	149-0105

Cleaning brushes for burettes



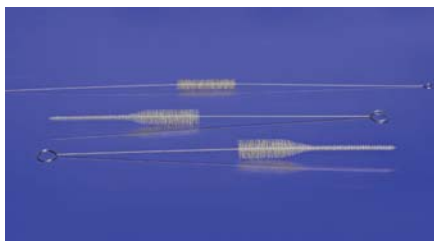
White natural bristles with wire handle

Ideal for cleaning burettes, pipettes and long tubing.

- Long, flexible handle
- Fan tip prevents scratching
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Natural bristle	32	131	900	5	149-0215

Cleaning brushes for pipettes



White nylon bristles with wire handle

Ideal for cleaning volumetric pipettes, milk pipettes, and Mohr pipettes.

- Soft nylon bristles for gentle, thorough cleaning
- Long wire handle for secure grip
- With hanging loop

Material	Head Ø (mm)	Trimming length (mm)	Total length (mm)	Pk	Cat. No.
Nylon bristle	5 - 19	190	430	5	149-0210
Nylon bristle	5 - 23	190	430	5	149-0211
Nylon bristle	13	75	600	5	149-0228

Cleanroom mops



Suitable for use in Class 10, ISO 4, M2.5 environments or below.

100% polyester string mops. Double clear poly bagged for cleanroom use. Good chemical sorbancy. Ideal for application of cleaning solutions on floors in critical environments.

- The sterile tubular knit mop, 129-0148, has a sterility assurance level of 10^{-6}
- The ribbed tubular knit mop offers the best sorbancy with chemicals

Ordering Information: The required mop handles 129-0062 and 129-0551 must be ordered separately.

Description	Pk	Cat. No.
Tubular knit mop	12	129-0147
Tubular knit mop, sterile	12	129-0148
Tubular knit mop, ribbed	12	129-0149



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Cleanroom cleaning systems



These systems can be used without a wringer. They are particularly suitable for applying disinfectants to floors, walls, and ceilings. The new, high performance foam for clean rooms enables excellent and lasting liquid transfer.

- Autoclavable; resistant to gamma rays and ETO
- Resistant to most widely available disinfectants and detergents
- Sponges made from laminated polyester for liquid absorption and highly delicate, lint-free disinfection
- Sponges made from laminated microfibres for liquid absorption, deep cleaning and highly delicate, lint-free disinfection

Description	Pk	Cat. No.
Complete cleaning systems (A)		
Ergonomic cleaning system (handle + head), made from stainless steel (1270×355 mm) and blue sponge (355×83 mm)	1	129-0182
Telescopic cleaning system (handle + head), made from aluminium (1486 - 1937×355 mm) and blue sponge (355×83 mm)	1	129-0269
Telescopic cleaning system (handle + head), made from aluminium (1486 - 1937×254 mm) and blue sponge (254×83 mm)	1	129-0270
Replacement sponges for cleaning systems (A)		
General purpose sponge with stainless steel clip (254×83 mm), blue	12	129-2506
General purpose sponge with stainless steel clip (355×83 mm), blue	12	129-2507
General purpose sponge with galvanised clip (355×83 mm), blue	12	129-2505
White polyester sponge with stainless steel clip (355×83 mm)	12	129-2508
Microfibre sponge	12	129-2509
Flat cleaning systems (B)		
General purpose sponge with stainless steel clip (355×83 mm), blue	12	129-0194
Swivel head (406×127 mm)	1	129-0101
Fixed head (406×127 mm)	1	129-0125
Lightweight handle	1	129-0266
Sponges for cleaning systems (B)		
General purpose high density sponge (406×127 mm), blue, for large volumes	50	129-2500
Blue polyester sponge (406×127 mm) for use in corners with disinfectants	50	129-2502



Mops, flat, cleanroom



Suitable for Class 10, ISO 4, M2 cleanrooms.

Foam with 100% polyester cover. Ideal for applying disinfectants during pharmaceutical production or for aseptic processes. The flat mop head is ideally suited for cleaning large surfaces such as floors, walls and ceilings. Low structuring, thick padding and angled head for easy use.

- Autoclavable, washable and reusable
- Good moisture bonding provides optimum contact with the disinfectant
- Available in sterile and non sterile versions
- Also resistant to strong disinfectants

Ordering Information: The complete mop consists of the mop head, a matching stainless steel adapter, and the mop handle. Please select the required components and order separately.

Description	Dimensions (mm)	Pk	Cat. No.
Mop head, non sterile	230	24	129-0067
Mop head, non sterile	356	24	129-0068
Mop head, non sterile	457	24	129-0069
Mop head, sterile	230	24	129-0070
Mop head, sterile	356	24	129-0071
Mop head, sterile	457	24	129-0072



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Mops, dry, cleanroom



Suitable for Class 10, ISO 4, M2.5 and below cleanrooms

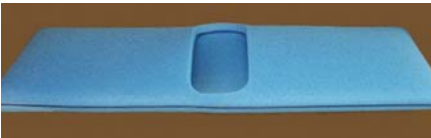
Made from polyester with PVA cover or NovaLite™. The mop head quickly absorbs the cleaning agents and can be used for large surfaces, such as floors, walls and ceilings. PVA is perfect for the semiconductor and microelectronics industry. This low-lint, quick drying material ensures clean, dry and residue-free surfaces. NovaLite™ has the same properties as PVA, but it can also be used with disinfectants and autoclaved. With an angled head for easy application.

- Can be used without a bucket or wringer
- Quick drying, for moisture critical areas
- Available in a variety of widths, sterile or non sterile
- Washable, which means it can be reused

Ordering Information: The complete mop consists of the mop head, a matching stainless steel adapter and the mop handle. Please select the required components and order separately.

Description	LxW (mm)	Pk	Cat. No.
Mop head, PVA, non sterile	360	24	129-0074
Mop head, NovaLite™, non sterile	360	24	129-0080

Mop heads, cleanroom, PurSPONGE



Suitable for wet wiping in sterile areas and cleanrooms. One-piece, made from highly absorbent polyurethane. The coated mop heads are particularly suitable for disinfecting rough or sharp-edged surfaces while still ensuring excellent take-up of liquids.

- Models available for use with Perfex or Roll-O-Matic® handles
- Perfex model made from PU (on PE base), coated or uncoated. Roll-O-Matic® model made from highly absorbent PU sponge with clamp, available with or without coating

Ordering Information: The Perfex or Rol-O-Matic® mop handles are not included. These must be ordered separately.

Description	Pk	Cat. No.
Mop heads for Perfex mop system		
PU foam	50	129-0047
PU foam, tear-proof, extra absorbent	50	129-0048
Mop heads for Roll-O-Matic® mop system		
PU foam sponge, tear-proof with stainless steel bracket	12	129-0051
PU foam sponge, tear-proof with galvanised steel bracket	12	129-0052
PU foam sponge, tear-proof with stainless steel bracket	12	129-0053
PU foam sponge, tear-proof with galvanised steel bracket	12	129-0054
PU foam sponge, tear-proof, double-woven, microfibre laminated, with stainless steel bracket	12	129-0065
PU foam sponge, tear-proof, polyester-coated, with stainless steel bracket	12	129-0066



Foam wall mop heads, Specmops



Suitable for ISO Class 5, 100 or M3.5 environments.

Mop heads are made of polyester fabric laminated to clean ester foam and are free of any cellulosic contaminants. Developed for cleaning ceilings and walls in controlled and critical environments.

- Compatible with a wide range of chemicals, making the mop head ideal for application of disinfectants and cleaning solvents
- Compatible with gamma, ETO, and autoclave sterilisation (recommended cycles of 121 °C for 30 minutes)
- 130 mm size can be used with 130 mm frame, telescoping mop handles and with one- or two-bucket system (25 and 30 l buckets)

Description	Pk	Cat. No.
Mop head, 115 mm	24	115-0198
Mop head, 130 mm	28	115-0199



Microfibre Mop system



The VWR® Microfibre Mop system offers the total cleaning solution for cleaning floors, walls and ceilings. This system does not require any specific training as it is very simple and flexible to use.

The VWR® Microfibre Mop cleaning system consists of:

- a stainless steel trolley equipped with a choice of either 2 or 3 buckets
- an ergonomic flat press
- an ergonomic telescopic handle and mop frame
- low friction microfibre VWR controlled environment mops

All components are autoclavable.

- Cost-effective: one mop can clean up to 25 m²
- Ergonomic and easy to handle
- Depending on the need, the mop-frame unit can be inserted in the flat press in order to get the desired mop moisture: Wet for disinfection or damp-moist for cleaning

The VWR controlled environment microfibre mop:

Made of 100% PES endless microfibre. Laser cut for lint-free edges.

- Excellent mechanical cleaning performance
- For floors, walls and ceilings
- Heat and chemical resistant, suitable for sterilisation (autoclave or radiation)

Complies for both ISO Class 5 and GMP A+B requirements

Description	Pk	Cat. No.
Mops		
VWR® Microfibre Mop - microfibre, 50 cm	1	129-0451
VWR® Microfibre Mop - microfibre, 50 cm	5	129-0452
Handle and mop frames		
Aluminium telescopic handle	1	129-0456
Sweep Duo Frame	1	129-0457
Sweep Duo Press	1	129-0455
Dustpans		
Squeegee 50 cm	1	129-0459
Dustpan	1	129-0460
Trolley and buckets		
Stainless steel trolley	1	129-0453
Bucket 6 l	1	129-0458
Bucket 25 l	1	129-0454



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Cleaning solution, IPASEPT 70®



Iso-propyl alcohol Ph. Eur. 70% V/V with purified water Ph.Eur. 30% V/V, filtered at 0,20 µm

For surface cleaning by spraying with or without wipes. Also for cleaning gloved hands before entrance into cleanrooms. Ideal for wiping down entrances to controlled environments.

- Filled under GMP conditions in cleanroom ISO Class 7
- Certificate of analysis is available for each batch
- Fine stream for precise applications, or wide spray for covering large areas

Packaging Information: Packed in double dust-free bag; non irradiated bottles are not double wrapped.

Description	Pk	Cat. No.
IPASEPT® 70, spray bottle, 6x1 l	6 l	93002.1016
IPASEPT® 70, spray bottle, irradiated, 6x1 l	6 l	94006.1016



LABWASH® cleaning agents



- Residue-free laboratory glassware cleaning
- Excellent cleaning power at low dosage levels
- Protects the environment
- Acid rinse concentrates available to neutralise alkaline cleaners

Manual cleaning - immersion cleaning

Description	Pk	Cat. No.
Strongly alkaline cleaner for removal of organic and inorganic contamination; adequate substitute for chromosulphuric acid; contains active chlorine	1 kg	29870.318
Strongly alkaline cleaner for removal of organic and inorganic contamination; adequate substitute for chromosulphuric acid; contains active chlorine	5 kg	29870.360
Strongly alkaline cleaner for removal of organic and inorganic contamination; adequate substitute for chromosulphuric acid; contains active chlorine	10 kg	29870.411
Strongly alkaline cleaner for removal of organic and inorganic contamination; adequate substitute for chromosulphuric acid; contains active chlorine	28 kg	29870.488
Mildly alkaline, low in phosphate, also used for sensitive laboratory equipment; pH value of 11,5 in 1% use solution	1,3 kg	29871.312
Mildly alkaline, low in phosphate, also used for sensitive laboratory equipment; pH value of 11,5 in 1% use solution	7 kg	29871.367
pH neutral, phosphate- and silicate-free, extremely gentle on materials, removes light contamination and is suitable for use with hard water	5 kg	29872.360
pH neutral, phosphate- and silicate-free, extremely gentle on materials, removes light contamination and is suitable for use with hard water	10 kg	29872.417
Phosphate-free, versatile, effective cleaner; environmentally friendly; especially useful for pipette washers	1 kg	83901.310
Phosphate-free, versatile, effective cleaner; environmentally friendly; especially useful for pipette washers	5 kg	83901.360
Phosphate-free, versatile, effective cleaner; environmentally friendly; especially useful for pipette washers	10 kg	83901.410
Surfactant-free, non foaming cleaner especially suitable for glassware used for organic trace analysis and also highly effective with organic and inorganic residues	1 kg	83902.310
Surfactant-free, non foaming cleaner especially suitable for glassware used for organic trace analysis and also highly effective with organic and inorganic residues	5 kg	83902.360
Surfactant-free, non foaming cleaner especially suitable for glassware used for organic trace analysis and also highly effective with organic and inorganic residues	10 kg	83902.410

Automated cleaning - washing machines

Description	Pk	Cat. No.
Mildly alkaline, chlorine- and surfactant-free cleaner with universal applications in laboratory washing machines, suitable for mechanical treatment of surgical instruments and anesthesia devices in central sterilisation	1 kg	29874.312
Mildly alkaline, chlorine- and surfactant-free cleaner with universal applications in laboratory washing machines, suitable for mechanical treatment of surgical instruments and anesthesia devices in central sterilisation	10 kg	29874.414
Mildly alkaline liquid cleaner with oxidising action for the removal of organic and inorganic residues on laboratory glassware and reusable equipment	6 kg	29875.360
Mildly alkaline liquid cleaner with oxidising action for the removal of organic and inorganic residues on laboratory glassware and reusable equipment	12 kg	29875.417
Mildly alkaline liquid cleaner with oxidising action for the removal of organic and inorganic residues on laboratory glassware and reusable equipment	30 kg	29875.485
Phosphate-free, chlorine-free, alkaline liquid cleaner with universal applications in laboratory washing machines, suitable for mechanical treatment of surgical instruments in central sterilisation. Note: This cleaner is not compatible with aluminium, zinc, non ferrous metals, rubber or latex.	6 kg	29876.360

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Automated cleaning - washing machines		
Description	Pk	Cat. No.
Phosphate-free, chlorine-free, alkaline liquid cleaner with universal applications in laboratory washing machines, suitable for mechanical treatment of surgical instruments in central sterilisation. Note: This cleaner is not compatible with aluminium, zinc, non ferrous metals, rubber or latex.	12 kg	29876.411
Phosphate-free, chlorine-free, alkaline liquid cleaner with universal applications in laboratory washing machines, suitable for mechanical treatment of surgical instruments in central sterilisation. Note: This cleaner is not compatible with aluminium, zinc, non ferrous metals, rubber or latex.	30 kg	29876.488
Phosphate- and surfactant-free neutraliser, based on organic acid, also removes acid-soluble residues	1 kg	29877.312
Phosphate- and surfactant-free neutraliser, based on organic acid, also removes acid-soluble residues	5 kg	29877.367
Phosphate- and surfactant-free neutraliser, based on organic acid, also removes acid-soluble residues	10 kg	29877.414
Phosphate- and surfactant-free neutraliser, based on organic acid, also removes acid-soluble residues	25 kg	29877.460
Surfactant-free neutraliser, based on inorganic acid, can also be used as pre-rinsing agent. Note: Not compatible with aluminium or zinc	7 kg	29878.361
Surfactant-free neutraliser, based on inorganic acid, can also be used as pre-rinsing agent. Note: Not compatible with aluminium or zinc	12 kg	29878.417
Surfactant-free neutraliser, based on inorganic acid, can also be used as pre-rinsing agent. Note: Not compatible with aluminium or zinc	35 kg	29878.485
Environmentally friendly rinse-aid and shine aid	1 kg	29879.318
Environmentally friendly rinse-aid and shine aid	5 kg	29879.364
Environmentally friendly rinse-aid and shine aid	10 kg	29879.410
Strongly alkaline, surfactant-free, intensive, liquid cleaner; very effective against stubborn residues on laboratory glassware, particularly useful in microbiology and syntheses laboratories	6 kg	83903.360
Strongly alkaline, surfactant-free, intensive, liquid cleaner; very effective against stubborn residues on laboratory glassware, particularly useful in microbiology and syntheses laboratories	12 kg	83903.410
Strongly alkaline, surfactant-free, intensive, liquid cleaner; very effective against stubborn residues on laboratory glassware, particularly useful in microbiology and syntheses laboratories	30 kg	83903.480
Phosphate-free, alkaline, chlorine- and surfactant-free cleaner for removal of organic and inorganic impurities especially with applications where the presence of phosphate is critical	1 kg	83904.310
Phosphate-free, alkaline, chlorine- and surfactant-free cleaner for removal of organic and inorganic impurities especially with applications where the presence of phosphate is critical	10 kg	83904.410

VWR CHEMICALS LABWASH PREMIUM cleaning agents



A more concentrated version of the LABWASH range.

- Residue-free laboratory glassware cleaning
- Excellent cleaning power at low dosage levels
- NTA-free (no Nitrilotriacetic acid)
- Protects the environment, active ingredients are biodegradable
- Acid rinse concentrates available to neutralise alkaline cleaners

Description	Pk	Cat. No.
Manual cleaning - immersion cleaning		
LABWASH PREMIUM Classic, mildly alkaline concentrate for manual cleaning of laboratory glassware	1 l	84545.290
LABWASH PREMIUM Classic, mildly alkaline concentrate for manual cleaning of laboratory glassware	5 l	84545.360
LABWASH PREMIUM Classic, mildly alkaline concentrate for manual cleaning of laboratory glassware	10 l	84545.410
LABWASH PREMIUM Classic, mildly alkaline concentrate for manual cleaning of laboratory glassware	20 l	84545.440
LABWASH PREMIUM Extra, concentrate for the manual cleaning of laboratory glassware and precision components	1 l	84546.290
LABWASH PREMIUM Extra, concentrate for the manual cleaning of laboratory glassware and precision components	5 l	84546.360
LABWASH PREMIUM Extra, concentrate for the manual cleaning of laboratory glassware and precision components	10 l	84546.410
LABWASH PREMIUM Extra, concentrate for the manual cleaning of laboratory glassware and precision components	20 l	84546.440
LABWASH PREMIUM Neutra, pH-neutral concentrate for the cleaning of laboratory glassware and precision components	1 l	84547.290
LABWASH PREMIUM Neutra, pH-neutral concentrate for the cleaning of laboratory glassware and precision components	5 l	84547.360
LABWASH PREMIUM Neutra, pH-neutral concentrate for the cleaning of laboratory glassware and precision components	10 l	84547.410
LABWASH PREMIUM Neutra, pH-neutral concentrate for the cleaning of laboratory glassware and precision components	20 l	84547.440
LABWASH PREMIUM Extra PF, phosphate-free concentrate for manual cleaning of laboratory glassware	1 l	84554.290
LABWASH PREMIUM Extra PF, phosphate-free concentrate for manual cleaning of laboratory glassware	5 l	84554.360
LABWASH PREMIUM Extra PF, phosphate-free concentrate for manual cleaning of laboratory glassware	10 l	84554.410
LABWASH PREMIUM Extra PF, phosphate-free concentrate for manual cleaning of laboratory glassware	20 l	84554.440
LABWASH PREMIUM Pure, concentrate for soak and spray cleaning of laboratory glassware	1 l	84555.290
LABWASH PREMIUM Pure, concentrate for soak and spray cleaning of laboratory glassware	5 l	84555.360
LABWASH PREMIUM Pure, concentrate for soak and spray cleaning of laboratory glassware	10 l	84555.410
LABWASH PREMIUM Pure, concentrate for soak and spray cleaning of laboratory glassware	20 l	84555.440

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Description	Pk	Cat. No.
Manual cleaning - immersion cleaning		
LABWASH PREMIUM Powder, mildly alkaline cleaning powder for special washing machines	1 kg	84548.290
LABWASH PREMIUM Powder, mildly alkaline cleaning powder for special washing machines	5 kg	84548.360
LABWASH PREMIUM Powder, mildly alkaline cleaning powder for special washing machines	10 kg	84548.410
Automated cleaning - washing machines		
LABWASH PREMIUM Alkamatic, mildly alkaline, liquid cleaning concentrate for special washing machines	1 l	84549.290
LABWASH PREMIUM Alkamatic, mildly alkaline, liquid cleaning concentrate for special washing machines	5 l	84549.360
LABWASH PREMIUM Alkamatic, mildly alkaline, liquid cleaning concentrate for special washing machines	10 l	84549.410
LABWASH PREMIUM Alkamatic, mildly alkaline, liquid cleaning concentrate for special washing machines	20 l	84549.440
LABWASH PREMIUM Alkamatic PF, alkaline, phosphate-free, chlorine-free, liquid cleaning concentrate for special washing machines for heavy contamination	1 l	84550.290
LABWASH PREMIUM Alkamatic PF, alkaline, phosphate-free, chlorine-free, liquid cleaning concentrate for special washing machines for heavy contamination	5 l	84550.360
LABWASH PREMIUM Alkamatic PF, alkaline, phosphate-free, chlorine-free, liquid cleaning concentrate for special washing machines for heavy contamination	10 l	84550.410
LABWASH PREMIUM Alkamatic PF, alkaline, phosphate-free, chlorine-free, liquid cleaning concentrate for special washing machines for heavy contamination	20 l	84550.440
LABWASH PREMIUM Acidrinse C, phosphate-free neutraliser for special washing machines	1 l	84551.290
LABWASH PREMIUM Acidrinse C, phosphate-free neutraliser for special washing machines	5 l	84551.360
LABWASH PREMIUM Acidrinse C, phosphate-free neutraliser for special washing machines	10 l	84551.410
LABWASH PREMIUM Acidrinse C, phosphate-free neutraliser for special washing machines	20 l	84551.440
LABWASH PREMIUM Acidrinse P, neutraliser and precleaner for special washing machines	1 l	84552.290
LABWASH PREMIUM Acidrinse P, neutraliser and precleaner for special washing machines	5 l	84552.360
LABWASH PREMIUM Acidrinse P, neutraliser and precleaner for special washing machines	10 l	84552.410
LABWASH PREMIUM Acidrinse P, neutraliser and precleaner for special washing machines	20 l	84552.440
LABWASH PREMIUM Easyrinse, acidic, ecological rinsing concentrate with shiny effect	1 l	84553.290
LABWASH PREMIUM Easyrinse, acidic, ecological rinsing concentrate with shiny effect	5 l	84553.360
LABWASH PREMIUM Easyrinse, acidic, ecological rinsing concentrate with shiny effect	10 l	84553.410
LABWASH PREMIUM Easyrinse, acidic, ecological rinsing concentrate with shiny effect	20 l	84553.440
LABWASH PREMIUM Alkamatic LA, highly alkaline, intensive cleaner for laboratory washers	1 l	84556.290
LABWASH PREMIUM Alkamatic LA, highly alkaline, intensive cleaner for laboratory washers	5 l	84556.360
LABWASH PREMIUM Alkamatic LA, highly alkaline, intensive cleaner for laboratory washers	10 l	84556.410
LABWASH PREMIUM Alkamatic LA, highly alkaline, intensive cleaner for laboratory washers	20 l	84556.440
LABWASH PREMIUM Powder PF, phosphate-free, alkaline powder cleaner for laboratory washers	1 kg	84557.290
LABWASH PREMIUM Powder PF, phosphate-free, alkaline powder cleaner for laboratory washers	10 kg	84557.410

Ultrasound cleaning machines, USC



Cleaning via ultrasound has been one of the most effective methods of freeing parts with complex geometry, such as fins, undercuts, boreholes, pocket holes, etc. from residues (contaminations).

The physical property of imploding vacuum bubbles causes tiny air bubbles to form in the cleaning fluid, which generate up to 1000 bar and 5000°C when the forces implode and penetrate all the fins. Combined with a chemical (cleaning agent) geared to the type of contamination and the material to be cleaned, it is possible, through the cavitation forming on the part to be cleaned without any additional manual workload, to remove residues like oil carbon, incrustations, grease, oils, oxidation, paints, dust, rust, lime, etc. quickly in a way that protects the material and does not leave behind any residual matter.

- High-performance PZT ultrasonic converter with ceramics technology
- Homogeneous distribution of ultrasound in the cleaning
- Lower noise development through higher frequency
- Robust heating with integrated run-dry protection
- Thermostat adjustable up to 80°C
- Stainless steel trough material and cladding
- All models in digital design

Ultrasonic bath USC T

This range has a digital timer 1 – 99 minutes in steps of 1 minute

Ultrasonic bath USC TH

With a digital timer and a trough heater, infinitely variable up to 80°C, can be connected to assist the cleaning effect. To monitor the heater, a yellow LED display illuminates, which goes out again when the set temperature is reached.

Ultrasonic bath USC D

This machine has a digital operating surface to ensure convenient setting and operation. The special features of the D range are:

- Digital time setting of 01- 99 min or continuous sound
- Digital temperature display adjustable up to 80°C
- The heater is equipped with dry run protection
- Ultrasound output adjustable over nine levels from 10 - 100%
- Stabilisation of the set output, independently of level and temperature
- Dual half-wave sound with sweep
- Degassing function to homogenise the trough fluid.

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Continued from previous page

	Capacity (l)	Frequency (kHz)	Tank dimensions WxDxH (mm)	Weight (kg)	WxDxH (mm)
USC "T" range					
USC 300 T	2,8	45	240x137x100	4,1	265x162x235
USC 500 T	4,6	45	240x137x150	4,9	265x162x295
USC 600 T	5,4	45	300x151x150	5,4	325x176x295
USC 900 T	12,3	45	300x240x200	8,2	325x265x335
USC 1200 T	9,2	45	495x130x150	8,5	515x150x270
USC 1700 T	16,8	45	327x300x200	9,7	352x325x335
USC 2100 T	19,6	45	505x300x150	12,7	530x325x365
USC 2600 T	26,1	45	505x300x200	12,9	530x325x365
USC "TH" range					
USC 300 TH	2,8	45	240x137x100	4,1	265x162x235
USC 500 TH	4,6	45	240x137x150	4,9	265x162x295
USC 600 TH	5,4	45	300x151x150	5,4	325x176x295
USC 900 TH	12,3	45	300x240x200	8,2	325x265x335
USC 1200 TH	9,2	45	495x130x150	8,5	515x150x270
USC 1700 TH	16,8	45	327x300x200	9,7	352x325x335
USC 2100 TH	19,6	45	505x300x150	12,7	530x325x365
USC 2600 TH	26,1	45	505x300x200	12,9	530x325x365
USC "D" range					
USC 300 D	2,8	45	240x137x100	4,1	265x162x235
USC 300 D	2,8	132	240x137x100	4,1	265x162x235
USC 500 D	4,6	45	240x137x150	4,9	265x162x295
USC 600 D	5,4	45	300x151x150	5,4	325x176x295
USC 600 D	5,4	132	300x151x150	5,4	325x176x295
USC 900 D	12,3	45	300x240x200	8,2	325x265x335
USC 900 D	12,3	132	300x240x200	8,2	325x265x335
USC 1200 D	9,2	45	495x130x150	8,5	515x150x270
USC 1700 D	16,8	45	327x300x200	9,7	352x325x335
USC 2100 D	19,6	45	505x300x150	12,7	530x325x365
USC 2100 D	19,6	132	505x300x150	12,7	530x325x365
USC 2600 D	26,1	45	505x300x200	12,9	530x325x365
Description					
				Pk	Cat. No.
USC "T" range					
Table top cleaning unit with digital control, display and digital timer, USC 300 T				1	142-0083
Table top cleaning unit with digital control, display and digital timer, USC 500 T				1	142-0087
Table top cleaning unit with digital control, display and digital timer, USC 600 T				1	142-0090
Table top cleaning unit with digital control, display and digital timer, USC 900 T				1	142-0094
Table top cleaning unit with digital control, display and digital timer, USC 1200 T				1	142-0098
Table top cleaning unit with digital control, display and digital timer, USC 1700 T				1	142-0101
Table top cleaning unit with digital control, display and digital timer, USC 2100 T				1	142-0104
Table top cleaning unit with digital control, display and digital timer, USC 2600 T				1	142-0108
USC "TH" range					
Table top cleaning unit with digital control, display, digital timer and integrated heater, USC 300 TH				1	142-0084
Table top cleaning unit with digital control, display, digital timer and integrated heater, USC 500 TH				1	142-0088
Table top cleaning unit with digital control, display, digital timer and integrated heater, USC 600 TH				1	142-0091
Table top cleaning unit with digital control, display, digital timer and integrated heater, USC 900 TH				1	142-0095
Table top cleaning unit with digital control, display, digital timer and integrated heater, USC 1200 TH				1	142-0099
Table top cleaning unit with digital control, display, digital timer and integrated heater, USC 1700 TH				1	142-0102
Table top cleaning unit with digital control, display, digital timer and integrated heater, USC 2100 TH				1	142-0105
Table top cleaning unit with digital control, display, digital timer and integrated heater, USC 2600 TH				1	142-0109
USC "D" range					
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 300 D (45 Hz)				1	142-0085
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 300 D (132 Hz)				1	142-0086
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 500 D (45 Hz)				1	142-0089
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 600 D (45 Hz)				1	142-0092
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 600 D (132 Hz)				1	142-0093
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 900 D (45 Hz)				1	142-0096
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 900 D (132 Hz)				1	142-0097
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 1200 D (45 Hz)				1	142-0100
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 1700 D (45 Hz)				1	142-0103
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 2100 D (45 Hz)				1	142-0106
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 2100 D (132 Hz)				1	142-0107
Table top cleaning unit with digital control, display, digital timer, integrated heater and degas-function, USC 2600 D (45 Hz)				1	142-0110

Continued on next page

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Description	For	Pk	Cat. No.
Accessories			
Set lid and mesh basket	USC100 models	1	142-6048
Set lid and mesh basket	USC200 models	1	142-6049
Set lid and mesh basket	USC300 models	1	142-6020
Set lid and mesh basket	USC500 models	1	142-6021
Set lid and mesh basket	USC600 models	1	142-6022
Set lid and mesh basket	USC900 models	1	142-6024
Set lid and mesh basket	USC1200 models	1	142-6023
Set lid and mesh basket	USC1700 models	1	142-6025
Set lid and mesh basket	USC2100 models	1	142-6026
Set lid and mesh basket	USC2600 models	1	142-6027
Positioning lid for 1 beaker 600 ml	USC200 models	1	142-1704
Coverlid for 2 beakers 250 ml	USC100 models	1	142-6050
Positioning lid for 2 beakers 250 ml	USC200 models	1	142-1701
Positioning lid for 2 beakers 250 ml	USC300/USC500 models	1	142-6028
Positioning lid for 2 beakers 250 ml	USC600 models	1	142-1702
Positioning lid for 2 beakers 250 ml	USC1200 models	1	142-6030
Positioning lid for 2 beakers 250 ml	USC1700 models	1	142-6032
Positioning lid for 4 beakers 250 ml	USC900 models	1	142-1703
Positioning lid for 2 beakers 600 ml	USC300/USC500 models	1	142-6035
Positioning lid for 4 beakers 600 ml	USC900 models	1	142-1705
Coverlid for 2 beakers 600 ml	USC600 models	1	142-6037
Coverlid for 4 beakers 600 ml	USC1200 models	1	142-6038
Coverlid for 4 beakers 600 ml	USC1700 models	1	142-6039
Positioning lid for 8 beakers 250 ml	USC2100/USC2600 models	1	142-6033
Coverlid for 8 beakers 600 ml	USC2100/USC2600 models	1	142-6040
Glass beakers, 250 ml	all models	2	142-6042
Rubber bands for 250 ml beaker	all models	1	142-0111
Rubber bands for 650 ml beaker	all models	1	142-0112



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Mini diaphragm vacuum pump



Single head, dry running diaphragm pumps for a wide range of laboratory applications. They pump, compress and evacuate without affecting media, i.e. media remains uncontaminated. Includes diaphragm with patented tension optimisation, which allows the pump size to be smaller and extends the service life of the diaphragm.

- 100% oil-free pumping, so media is not contaminated when pumping, evacuating or compressing
- For neutral to mildly aggressive gases and vapours
- Maintenance-free, quiet running

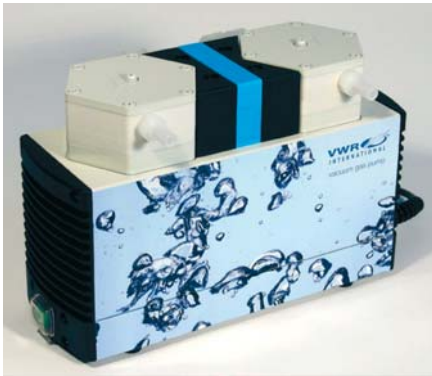
Delivery Information: Includes diaphragm pump with thermal switch, mains fuse, connecting cable with plug, and hose connector for hoses with 4 mm internal diameter.

Model	VP 86
Final pressure (abs.) (mbar)	100
Flow rate (l/min)	6*
Protection class	IP 20
Vacuum (mbar)	250
Weight (kg)	1,9
Working overpressure (bar)	2,4
WxDxH (mm)	90x164x141

Model	Pk	Cat. No.
VP 86 with UK-Plug	1	181-0065
VP 86 with EU-plug	1	181-0067
VP 86 with CH-plug	1	181-0068

* Flow rate at atmospheric pressure

Diaphragm vacuum pumps



Dual-head, dry running diaphragm pumps for a wide range of laboratory applications. They pump, compress and evacuate without affecting media, i.e. media remains uncontaminated. The pump includes a diaphragm with patented tension optimisation, which allows the pump to be smaller and prolongs the service life of the diaphragm.

- 100% oil-free pumping, so media cannot be contaminated when pumping and evacuating
- For medium aggressive gases and vapours
- Maintenance-free, quiet running

Delivery Information: Includes diaphragm pump with thermal switch, mains fuse, connecting cable with plug, and hose connectors for hoses with 9 mm internal diameter.

Model	VP 820
Final pressure (abs.) (mbar)	8
Flow rate (l/min)	20
Protection class	IP 44
Weight (kg)	9,3
Working overpressure (bar)	1,0
WxDxH (mm)	110x304x204

Model	Pk	Cat. No.
VP 820 with EU-plug	1	181-0071
VP 820 with CH-plug	1	181-0072
VP 820 with UK-plug	1	181-0073

* Flow rate at atmospheric pressure

Chemistry diaphragm vacuum pumps, self-drying for moist gases



Dual-head, dry running diaphragm pumps with an integrated self-drying system. There is a wide range of applications for this pump in laboratories, especially whenever clean vacuum is required and moist gases must be pumped down. Examples include operation of vacuum drying chambers (for drying or heat-treating substances and components) or steam sterilisers for sterilising instruments, vessels, filters and textiles. This pump can be used in a wide range of applications due to the pump's high resistance to aggressive media. The pump includes a PTFE coated diaphragm with patented tension optimisation, which allows the pump to be smaller and prolongs the service life of the diaphragm. The innovative self-drying system allows condensed liquid to be blown out of the pump heads at high speed during evacuation. The vacuum in the vacuum chamber remains constant. The drying cycle can be adjusted to the requirements of the individual process using three variables. After drying the pump reaches a better vacuum and is able to evacuate significantly faster compared with pumps without a drying system.

- Pure transfer and evacuation
- Highly compatible with moist gases and vapours
- Maintenance-free
- Environmentally friendly

Delivery Information: Includes the diaphragm pump with thermal switch, mains fuse, connecting cable with plug and hose connector for hose with 10 mm internal diameter.

Final pressure (abs.) (mbar)	10
Flow rate (l/min)	20
Permitted gas and ambient air temperature	+5 to +40 °C
Protection class	IP 44
Weight (kg)	9,6
Working overpressure (bar)	1
WxDxH (mm)	312x220x177

Model	Pk	Cat. No.
SD 820	1	181-0094

* Flow rate at atmospheric pressure

Compact vacuum pumps for filtration and solid phase extraction
VWR by Vacuubrand



Vacuum filtration is one of the most common applications used for sample preparation in chemistry, microbiology, wastewater control and other analytical processes. The VP 100 and VP 100 C diaphragm pumps offer a compact, high performance and easy to use solution which is perfect for both single and multiple filtrations.

This new development, based on the highly successful technology of the three-stage diaphragm pump series MD 1 and MD 1C, provides a well proven and extraordinary long diaphragm lifetime. The functional, space saving and innovative design with visible top-mounted power switch ensures convenient and quick operation for day-to-day lab work. Robust PTFE diaphragms and valves provide optimum chemical resistance. An optional manual control valve with gauge enables variable fine adjustment of the pumping speed.

- Convenient, quick and simple to use due to the new top-mounted power switch
- Whisper quiet and ultra-low vibration resulting from a new patented motor mounting
- Requires minimal bench top space
- Maintenance-free drive system and proven long diaphragm life
- High chemical resistance (especially VP 100 C)

Model	VP 100	VP 100 C
Flow rate (m³/h)	0,7	
No. of stages	3	
Vacuum (mbar)	100	

Description	Pk	Cat. No.
Diaphragm pump VP 100 for aqueous filtration and solid phase extraction (EU-plug)	1	181-0235
Diaphragm pump VP 100 for aqueous filtration and solid phase extraction (CH-plug)	1	181-0236
Diaphragm pump VP 100 for aqueous filtration and solid phase extraction (UK-plug)	1	181-0237
Diaphragm pump VP 100 C - chemical resistant (EU-plug)	1	181-0238
Diaphragm pump VP 100 C - chemical resistant (CH-plug)	1	181-0239
Diaphragm pump VP 100 C - chemical resistant (UK-plug)	1	181-0240

Chemically resistant vacuum system for distillation, VP 8 vac



This vacuum system is especially suitable for controlling processes in a rotary evaporator. The patented, closed system arrangement enables gentle distillation and high recovery rates of solvents even with low-boiling points. Ideal for use with the VWR Collection RV10 rotary evaporator.

- Gentle distillation due to a closed system
- Reliable control of the evaporation process
- High degree of solvent recovery
- The vacuum pump is gas-tight, 100% oil-free, maintenance-free and quiet
- Environmentally friendly

Delivery Information: Includes the chemically resistant vacuum pump, base plate, separator, condenser, fine tuning valve, digital vacuum gauge, safety and venting valve, mains switch and mains cable.

Flow rate (l/min)	20
Vacuum (mbar)	8
Weight (kg)	14,5
Working overpressure (bar)	1
WxDxH (mm)	307x199x481

Description	Pk	Cat. No.
Manual vacuum system VP 8 vac, EU-plug	1	181-0156
Manual vacuum system VP 8 vac, UK-plug	1	181-0157
Manual vacuum system VP 8 vac, CH-plug	1	181-0158

* Flow rate at atmospheric pressure



INSTRUMENT SERVICE AND MAINTENANCE

Please contact your local VWR sales office for more information

General Labware

Even the most modern and analytical lab needs accessories. Plasticware, metalware and glassware - beakers, flasks, test tubes, bottles, etc. - are essential. All these products are listed in this chapter.

Constructional Elements	
Flasks with Joints	80
Accessories for Ground Joint Connections	81
Containers and Accessories	
Test Tubes and Test Tube Accessories	84
Beakers	91
Measuring Beakers	94
Flasks - Erlenmeyer, Round and Flat Bottom	95
Flasks - Accessories	96
Bottles - Narrow and Wide Mouth	97
Bottles - Drop, Wash and Spray	104
Bottle Carriers and Baskets	106
Trays, Dishes and Boxes	106
Transport and Storage Containers	110
Cooling Containers	117
Stoppers, Caps and Accesories	119
Filling and Dispensing	
Funnels and Accessories	120
Dispensing Pumps	122
Tubing	123
Tools	
Spoons and Spatulas	125
Scoops and Ladles	125
Tweezers	126
Clamps and Supports	
Support - Sets, Stand Bases and Rods	127
Support Clamps and Bossheads	129
Laboratory Jacks	133
Miscellaneous	
Foils and Accessories	135





Flasks, round bottom with standard ground joint



Borosilicate glass, grade 3.3, clear

The inexpensive alternative for a wide range of laboratory applications. With matt labelling area. Imprinted catalogue number for convenient reordering.

- Very good chemical resistance
- High temperature resistance
- Low heat expansion

DIN 12348

Socket size (NS)	Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
14/23	10	65	33	2	201-1351
14/23	25	85	41	2	201-1352
14/23	50	90	51	2	201-1353
14/23	100	105	64	2	201-1355
29/32	50	90	51	2	201-1354
29/32	100	105	64	2	201-1356
29/32	250	140	85	2	201-1357
29/32	500	163	105	2	201-1358
29/32	1000	200	131	1	201-1359



Flasks, flat bottom with standard ground joint



Borosilicate glass, grade 3.3, clear

The inexpensive alternative for a wide range of laboratory applications. With graduation and labelling area. Imprinted catalogue number for convenient reordering.

- Very good chemical resistance
- High temperature resistance
- Low heat expansion

DIN 12348

Socket size (NS)	Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
29/32	50	100	51	2	201-1380
29/32	100	110	64	2	201-1381
29/32	250	140	85	2	201-1382
29/32	500	165	105	2	201-1383
29/32	1000	200	131	1	201-1384



Flasks, Erlenmeyer, with standard ground joint



Borosilicate glass, grade 3.3, clear

The good value alternative for a wide range of laboratory applications. Volume graduations and labelling area.

- Very good chemical resistance
- High temperature resistance
- Low heat expansion

DIN 12387

Socket size (NS)	Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
14/23	25	70	42	2	201-1385
14/23	50	85	51	2	201-1386
14/23	100	105	84	2	201-1388
19/26	100	105	84	2	201-1389
29/32	50	85	51	2	201-1387
29/32	100	105	84	2	201-1390
29/32	200	131	79	2	201-1391
29/32	250	140	85	2	201-1392
29/32	300	156	87	2	201-1393
29/32	500	175	105	2	201-1394
29/32	1000	220	131	1	201-1395

Flasks, round bottom, with three necks and standard ground joints



Borosilicate glass, grade 3.3, clear, with angled side necks

The inexpensive alternative for a wide range of laboratory applications. With matt labelling area. Imprinted catalogue number for convenient reordering.

- Very good chemical resistance
- High temperature resistance
- Low heat expansion

DIN 12394

Centre neck (NS)	Side necks (NS)	Capacity (ml)	Pk	Cat. No.
14/23	14/23	50	1	201-0546
29/32	14/23	100	1	201-0547
29/32	14/23	250	1	201-0548
29/32	14/23	500	1	201-0549
29/32	14/23	1000	1	201-0552

Flasks, round bottom, with two necks and standard ground joints



Borosilicate glass, grade 3.3, clear, with angled side neck

The inexpensive alternative for a wide range of laboratory applications. With matt labelling area. Imprinted catalogue number for convenient reordering.

- Very good chemical resistance
- High temperature resistance
- Low heat expansion

DIN 12394

Centre neck (NS)	Side necks (NS)	Capacity	Pk	Cat. No.
14/23	14/23	25 ml	1	201-0540
14/23	14/23	50	1	201-0541
29/32	14/23	100	1	201-0542
29/32	14/23	250	1	201-0543
29/32	14/23	500	1	201-0544
29/32	14/23	1000	1	201-0545



Bellows connectors for standard ground joints



PTFE, with ground joints on cone and socket

For use as a flexible or elastic connector to prevent pressure and stresses, and to dampen vibrations in standard ground joints. Sturdy construction with sealing rings, which prevent the ground joint from seizing and give a very good seal. No grease required, so joint grease residue cannot contaminate the analysis. Can be bent to an angle of 120°.

- Very good chemical resistance
- Gas, liquid and vacuum-tight
- Temperature resistant from –200 to +280 °C

Cone size (NS)	Socket size (NS)	Length (mm)	Pk	Cat. No.
14/23	14/23	90	1	201-0062
19/26	19/26	100	1	201-0064
24/29	19/26	105	1	201-0065
24/29	24/29	110	1	201-0066
29/32	14/23	110	1	201-0063
29/32	29/32	115	1	201-0067
34/35	29/32	120	1	201-0068
34/35	34/35	120	1	201-0069



Clips for conical standard ground joints



PTFE with inner steel spring

Very stable, safe and durable, easy to use.

- Very good chemical resistance
- Temperature resistant from –200 to +280 °C

For NS	Colour	Pk	Cat. No.
14/23	White	1	232-0053
19/26	White	1	232-0054
24/29	White	1	232-0055
29/32	White	1	232-0056
34/35	White	1	232-0057
40/38	White	1	232-0058



Rigid sleeves for standard ground joints



PTFE, with grip

For fitting onto standard ground cones. Sturdy construction with protruding grip so sleeves can be detached easily. With sealing rings on the outside of the ground socket, which prevent ground joints from seizing and give a very good seal. Grease-free connection; no grease residue to contaminate the product.

- Very good chemical resistance
- Gas, liquid and vacuum-tight
- Temperature resistant from –200 to +280°C

For NS	Pk	Cat. No.
10/19	10	201-0039
14/23	10	201-0040
19/26	10	201-0041
24/29	10	201-0042
29/32	10	201-0043
34/35	10	201-0044
40/38	10	201-0045
45/40	10	201-0046



Sleeves for standard ground joints



PTFE, 0,05 mm thick

For fitting onto standard ground cones. Easily detachable and suitable for repeated use. Joint grease is not needed.

- Very good chemical resistance
- Gas, liquid and vacuum-tight (to 0,1 mbar)
- Temperature resistant from –200 to +300 °C

For NS	Pk	Cat. No.
7/16	10	201-0024
10/19	10	201-0025
12/21	10	201-0026
14/23	10	201-0027
19/26	10	201-0028
24/29	10	201-0029
29/32	10	201-0030
34/35	10	201-0031
40/38	10	201-0032
45/40	10	201-0033
50/42	10	201-0034
55/44	10	201-0035
60/46	10	201-0036
71/51	10	201-0037



Adapters for standard ground joints



PTFE, strong walls

For greaseless connection of two different ground joint sizes; no grease residue can get into the analysis. Sturdy construction with grip and sealing rings, which prevent ground joints from seizing and give a very good seal.

- Very good chemical resistance
- Gas, liquid and vacuum-tight
- Temperature resistant from –200 to +280 °C

Type	Cone size (NS)	Socket size (NS)	Pk	Cat. No.
Reduction	14/23	10/19	1	201-0052
Reduction	19/26	10/19	1	201-0053
Reduction	19/26	14/23	1	201-0054
Reduction	24/29	14/23	1	201-0055
Reduction	24/29	19/26	1	201-0056
Reduction	29/32	19/26	1	201-0057
Reduction	34/35	19/26	1	201-0058
Reduction	29/32	24/29	1	201-0059
Reduction	34/35	24/29	1	201-0060
Reduction	34/35	29/32	1	201-0061



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Test tubes without rim



AR-Glas®, soda lime glass

The economical, proven alternative in an economy size pack. Wall thickness approximately 0,8 to 1,0 mm.

- Good chemical and physical properties
- Can also be used as disposable test tubes

Length (mm)	Ø ext. (mm)	Pk	Cat. No.
40	8	250	212-0011
70	10	250	212-0012
75	12	250	212-0013
100	10	250	212-0014
100	12	250	212-0015
100	14	250	212-0017
100	16	250	212-0016
130	14	250	212-0018
160	16	250	212-0019
180	18	250	212-0020



Test tubes with or without rim



Borosilicate glass, grade 3.3

The economical alternative for a wide range of uses. Thick wall. Wall thickness approximately 0,8 to 1,2 mm.

- Very good chemical resistance
- High temperature resistance
- Minimal thermal expansion, giving relatively high resistance to temperature changes

DIN 12395

Length (mm)	Ø ext. (mm)	Wall thickness (mm)	Pk	Cat. No.
With rim				
75	12	0,9 - 1,0	100	212-0307
100	12	0,9 - 1,0	100	212-0308
130	14	0,9 - 1,0	100	212-0309
130	16	1,1 - 1,2	100	212-0310
150	20	1,1 - 1,2	100	212-0313
150	25	1,1 - 1,2	50	212-0315
160	16	1,1 - 1,2	100	212-0311
180	18	1,1 - 1,2	100	212-0312
180	20	1,1 - 1,2	100	212-0314
200	25	1,1 - 1,2	50	212-0316
200	30	1,1 - 1,2	50	212-0317
Without rim				
75	10	0,8 - 1,0	100	212-0027
75	12	0,8 - 1,0	100	212-0028
100	10	0,8 - 1,0	100	212-0029
100	12	0,8 - 1,0	100	212-0030
130	14	0,9 - 1,0	100	212-0318
130	16	1,1 - 1,2	100	212-0319
150	20	1,1 - 1,2	100	212-0320
150	25	1,1 - 1,2	50	212-0322
160	16	0,8 - 1,0	100	212-0031
180	18	0,8 - 1,0	100	212-0032
180	20	1,1 - 1,2	100	212-0321
200	25	1,1 - 1,2	50	212-0323
200	30	1,1 - 1,2	50	212-0324

Test tubes with rim



FIOLAX®, neutral glass

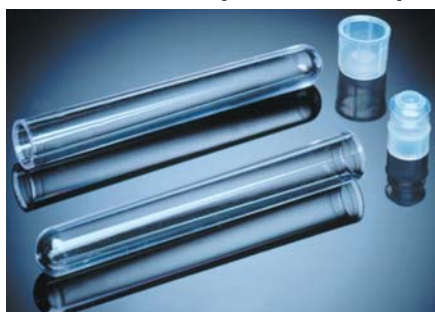
The economical alternative for a wide range of uses. Thin-walled.

- Very good chemical resistance
- Relatively resistant against rapid temperature changes and local heating

DIN 12395

Length (mm)	Ø ext. (mm)	Wall thickness (mm)	Pk	Cat. No.
70	8	0,4 - 0,5	100	212-0021
75	10	0,4 - 0,5	100	212-0300
75	12	0,4 - 0,5	100	212-0301
100	10	0,4 - 0,5	100	212-0022
100	12	0,4 - 0,5	100	212-0023
130	14	0,4 - 0,5	100	212-0302
130	16	0,5 - 0,6	100	212-0303
150	25	0,6 - 0,7	50	212-0304
160	16	0,5 - 0,6	100	212-0024
180	18	0,5 - 0,6	100	212-0025
180	20	0,5 - 0,6	100	212-0026
200	25	0,6 - 0,7	50	212-0305
200	30	0,7 - 0,8	50	212-0306

Culture and sample tubes, disposable



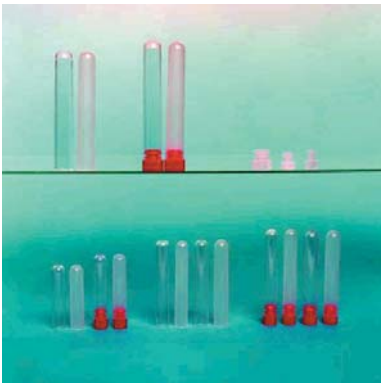
Polystyrene (PS), clear or Polypropylene (PP), natural

Precision moulded culture and sample tubes for a wide variety of applications. With round bottom. Sterile or non sterile.

- PS tubes: Not autoclavable. Temperature resistant from -40 to +90 °C. Can be centrifuged up to 1500×g
- PP tubes: Autoclavable up to +121 °C. Temperature resistant from -90 to +135 °C. Can be centrifuged up to 3000×g
- Press-in stopper or dual position push-on cap available for pressure equalisation or gas exchange whilst ensuring that the cap cannot fall off

Length (mm)	Ø ext. (mm)	Capacity (ml)	Packed	Material	Pk	Cat. No.
Tubes, non sterile, without caps						
100	13	8	1000/Bag	PS	1.000	211-0070
100	13	8	1000/Bag	PP	1.000	211-0071
100	13	8	125/Bag	PS	1.000	211-0072
100	13	8	125/Bag	PP	1.000	211-0073
100	17	14	1000/Bag	PS	1.000	211-0075
100	17	14	1000/Bag	PP	1.000	211-0076
100	17	14	125/Bag	PS	1.000	211-0079
100	17	14	125/Bag	PP	1.000	211-0080
Tubes, sterile, without caps						
100	13	8	125/Bag	PP	1.000	211-0074
100	17	14	125/Bag	PP	1.000	211-0081
100	13	8	125/Bag	PS	1.000	211-0132
100	17	14	125/Bag	PS	1.000	211-0133
Tubes, non sterile, with dual position caps						
100	17	14	1000/Bag	PS	1.000	211-0077
100	17	14	1000/Bag	PP	1.000	211-0078
Tubes, sterile, with dual position caps						
100	17	14	125/Bag	PS	1.000	211-0082
100	17	14	125/Bag	PP	1.000	211-0083
100	17	14	25/Bag	PS	500	211-0084
100	17	14	25/Bag	PP	500	211-0085
Cap	For tubes (mm)		Colour		Pk	Cat. No.
Disposable culture and sample tubes						
Plug type	12/13		Translucent		1.000	211-0135
Plug type	12/13		Purple		1.000	211-0136
Dual position type	17		Translucent		1.000	211-0137

Test tubes



Polystyrene (PS), clear or polypropylene (PP), natural

Universal tubes with round bottom for a wide range of applications. Available in either crystal clear (PS) or translucent (PP).

- Can be centrifuged up to 3000×g
- Can be delivered sterile with red plug or non sterile without plug
- Additional plugs and other colours upon request

Length (mm)	Ø ext. (mm)	Capacity (ml)	Material	Pk	Cat. No.
Non sterile					
75,0	11,8	3,5	PS	5.000	212-1837
74,5	11,0	5	PS	2.000	212-1809
74,5	12,8	5	PS	4.000	212-1834
Sterile					
74,5	12,8	5	PS	2.000	212-1823
For tubes		Cap size (mm)		Pk	Cat. No.
212-1837		10		3.000	217-7004
11 mm I.D.		11		2.500	217-7005



Culture and test tubes



Polystyrene (PS), clear or Polypropylene (PP), natural

Precision moulded reagent and sample tubes for a wide variety of applications. With conical or round bottom. Sterile or non sterile.

- PS tubes: Not autoclavable. Temperature resistant from –40 to +90 °C. Can be centrifuged up to 1500×g
- PP tubes: Autoclavable up to +121 °C. Temperature resistant from –90 to +135 °C. Can be centrifuged up to 3000×g
- Press-down stoppers or dual position closures available for secure sealing

Length (mm)	Ø ext. (mm)	Capacity (ml)	Material	Colour	Packed	Pk	Cat. No.
Tubes, round base, non sterile, without closure							
75	12	5	PS	Transparent	3000/Bag	3.000	211-0046
75	12	5	PP	Translucent	3000/Bag	3.000	211-0047
75	12	5	PS	Transparent	1000/Bag	1.000	211-0048
75	12	5	PP	Translucent	1000/Bag	1.000	211-0049
75	12	5	PP	Yellow	1000/Bag	1.000	211-0050
75	12	5	PP	Orange	1000/Bag	1.000	211-0051
75	12	5	PP	Red	1000/Bag	1.000	211-0052
75	12	5	PP	Purple	1000/Bag	1.000	211-0053
75	12	5	PP	Blue	1000/Bag	1.000	211-0054
75	12	5	PP	Green	1000/Bag	1.000	211-0055
75	12	5	PS	Transparent	125/Bag	1.000	211-0057
75	12	5	PP	Translucent	125/Bag	1.000	211-0059
Tubes, round base, sterile, without closure							
75	12	5	PS	Transparent	125/Bag	1.000	211-0058
75	12	5	PP	Translucent	125/Bag	1.000	211-0060
Tubes, round base, non sterile, with dual position caps							
75	12	5	PS	Transparent	1000/Bag	1.000	211-0056
Tubes, round base, sterile, with dual position caps							
75	12	5	PS	Transparent	125/Bag	1.000	211-0061
75	12	5	PP	Translucent	125/Bag	1.000	211-0062
75	12	5	PS	Transparent	25/Bag	500	211-0063
75	12	5	PP	Translucent	25/Bag	500	211-0064
Tubes, round base, sterile, with plug style caps							
75	12	5	PS	Transparent	25/Bag	500	211-0065
75	12	5	PP	Translucent	25/Bag	500	211-0066
Tubes, conical base, non sterile, without closure							
75	12	4	PS	Transparent	1000/Bag	1.000	211-0067
75	12	4	PP	Translucent	1000/Bag	1.000	211-0068
Tubes, conical base, sterile, with dual position caps							
75	12	4	PP	Translucent	25/Bag	500	211-0069

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Cap	For tubes (mm)	Colour	Pk	Cat. No.
Dual position type	12	Translucent	1.000	211-0039
Plug type	12/13	White	1.000	211-0040
Plug type	12/13	Yellow	1.000	211-0041
Plug type	12/13	Red	1.000	211-0042
Plug type	12/13	Blue	1.000	211-0043
Plug type	12/13	Green	1.000	211-0044
Plug type	12/13	Assorted	3.000	211-0045



Test tubes with red cap and label

Polystyrene (PS), clear or polypropylene (PP), natural

Universal tubes with round bottom for a wide range of applications.

Length (mm)	Ø ext. (mm)	Capacity (ml)	Material	Packed	Pk	Cat. No.
75	13	4	PP	bulk	1.500	216-1166
100	16	10	PS	bulk	800	216-1045
100	16	10	PS	bulk	2.000	216-1044
100	16	10	PP	bulk	800	216-1047

Test tubes without rim

Polystyrene (PS), clear or polypropylene (PP), natural

Universal tubes with round bottom for a wide range of applications.

Length (mm)	Ø ext. (mm)	Capacity (ml)	Type	Material	Pk	Cat. No.
55	11,5	3	non graduated	PS	6.000	216-1163
55	11,5	3	non graduated	PP	6.000	216-1164
75	12	3,5	Sorwall type	PP	4.000	216-1165
75	13	5	non graduated	PP	4.000	216-1167
100	16	10	graduated	PP	2.000	216-1046



Test tube racks



Nylon, glass fibre reinforced

- Racks are single piece moulded
- Good heat and chemical resistance
- 3 tiers with contents always clearly visible
- Large labelling areas on the side surfaces

No. of holes	For tube Ø (mm)	Colour	WxDxH (mm)	Pk	Cat. No.
36 (6x6)	13	Blue	106x106x57	1	212-0382
36 (6x6)	13	Green	106x106x57	1	212-0383
36 (6x6)	13	Red	106x106x57	1	212-0384
36 (6x6)	13	White	106x106x57	1	212-0385
72 (6x12)	13	Blue	103,5x202,5x60	1	212-0400
72 (6x12)	13	Green	103,5x202,5x60	1	212-0401
72 (6x12)	13	Magenta	103,5x202,5x60	1	212-0402
72 (6x12)	13	Orange	103,5x202,5x60	1	212-0403
72 (6x12)	13	Red	103,5x202,5x60	1	212-0404
72 (6x12)	13	White	103,5x202,5x60	1	212-0405
72 (6x12)	13	Yellow	103,5x202,5x60	1	212-0406
36 (6x6)	16	Blue	131x131x70	1	212-0386
36 (6x6)	16	Green	131x131x70	1	212-0387
36 (6x6)	16	Red	131x131x70	1	212-0388
36 (6x6)	16	White	131x131x70	1	212-0389
72 (6x12)	16	Blue	127,3x250,6x73	1	212-0407
72 (6x12)	16	Green	127,3x250,6x73	1	212-0408
72 (6x12)	16	Orange	127,3x250,6x73	1	212-0409
72 (6x12)	16	Red	127,3x250,6x73	1	212-0410
72 (6x12)	16	White	127,3x250,6x73	1	212-0411
72 (6x12)	16	Yellow	127,3x250,6x73	1	212-0412
20 (4x5)	20	Blue	130x105x84	1	212-0390
20 (4x5)	20	Green	130x105x84	1	212-0391
20 (4x5)	20	Red	130x105x84	1	212-0392

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No. of holes	For tube Ø (mm)	Colour	WxDxH (mm)	Pk	Cat. No.
20 (4x5)	20	White	130x105x84	1	212-0393
40 (4x10)	20	Blue	104x253,6x86,6	1	212-0413
40 (4x10)	20	Green	104x253,6x86,6	1	212-0414
40 (4x10)	20	Orange	104x253,6x86,6	1	212-0415
40 (4x10)	20	Red	104x253,6x86,6	1	212-0416
40 (4x10)	20	White	104x253,6x86,6	1	212-0417
40 (4x10)	20	Yellow	104x253,6x86,6	1	212-0418
40 (4x10)	25	Blue	123x301x94,5	1	212-0419
40 (4x10)	25	Green	123x301x94,5	1	212-0420
40 (4x10)	25	Orange	123x301x94,5	1	212-0421
40 (4x10)	25	Red	123x301x94,5	1	212-0422
40 (4x10)	25	White	123x301x94,5	1	212-0423
40 (4x10)	25	Yellow	123x301x94,5	1	212-0424
16 (4x4)	25	Blue	123,9x123,9x74	1	212-0394
16 (4x4)	25	White	123,9x123,9x74	1	212-0395
9 (3x3)	30	Blue	110,6x110,6x84,2	1	212-0396
9 (3x3)	30	Green	110,6x110,6x84,2	1	212-0397
9 (3x3)	30	Red	110,6x110,6x84,2	1	212-0398
9 (3x3)	30	White	110,6x110,6x84,2	1	212-0399
24 (3x8)	30	Blue	110x285,5x86,7	1	212-0425
24 (3x8)	30	Green	110x285,5x86,7	1	212-0426
24 (3x8)	30	Orange	110x285,5x86,7	1	212-0427
24 (3x8)	30	Red	110x285,5x86,7	1	212-0428
24 (3x8)	30	White	110x285,5x86,7	1	212-0429
24 (3x8)	30	Yellow	110x285,5x86,7	1	212-0430

Test tube racks



- PP
- Racks are single piece moulded
 - Good heat and chemical resistance
 - 3 tiers with contents always clearly visible
 - Large labelling areas on the side surfaces

No. of holes	For tube Ø (mm)	Colour	WxDxH (mm)	Pk	Cat. No.
72 (6x12)	13	Blue	103,5x202x60	1	212-0431
72 (6x12)	13	Green	103,5x202x60	1	212-0432
72 (6x12)	13	Magenta	103,5x202x60	1	212-0433
72 (6x12)	13	White	103,5x202x60	1	212-0434
72 (6x12)	16	Blue	127,3x250,6x73	1	212-0435
72 (6x12)	16	Green	127,3x250,6x73	1	212-0436
72 (6x12)	16	Red	127,3x250,6x73	1	212-0437
72 (6x12)	16	White	127,3x250,6x73	1	212-0438



Test tube racks, Fold and Snap



- PP
- Easy to assemble polypropylene racks snap together in seconds
 - Designed to remain stable in water baths
 - Shipped flat

No. of holes	Hole Ø (mm)	Colour	WxDxH (mm)	Pk	Cat. No.
40 (4x10)	21	Blue	250x108x72	1	211-0351
40 (4x10)	21	Red	250x108x72	1	211-0352
40 (4x10)	21	White	250x108x72	1	211-0353

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No. of holes	Hole Ø (mm)	Colour	WxDxH (mm)	Pk	Cat. No.
40 (4x10)	21	Yellow	250x108x72	1	211-0354
90 (6x15)	13	Blue	245x105x63	1	211-0355
90 (6x15)	13	Red	245x105x63	1	211-0356
90 (6x15)	13	White	245x105x63	1	211-0357
90 (6x15)	13	Yellow	245x105x63	1	211-0358
60 (5x12)	17	Blue	245x108x72	1	211-0359
60 (5x12)	17	Red	245x108x72	1	211-0360
60 (5x12)	17	White	245x108x72	1	211-0361
60 (5x12)	17	Yellow	245x108x72	1	211-0362

Tube rack, universal, for 15 - 50 ml tubes



PP

Quickly change aperture by opening the 'iris' with a turn of the knob or directly insert a tube into the opening.

- Holds up to 12 similar size tubes with a diameter from 16 - 30 mm
- Imprinted references for easy tube identification
- Not suitable for autoclaving

Description	No. of holes	For tube Ø (mm)	WxDxH (mm)	Pk	Cat. No.
Universal tube rack for 15 - 50 ml tubes	12	16 - 30	194x140x51	1	211-0380

Test tube racks, Rota-Rack™



PP, coloured

Racks with four independently rotating modules coloured purple, blue, green and yellow for simultaneous loading with test tubes, culture tubes, centrifuge tubes or microcentrifuge tubes of different sizes.

- Very good thermal resistance, autoclavable
- Type A: With one side each for 2x50 ml tubes, 8x15 ml tubes, 6x20 mm tubes and 10 tubes with 10 - 13 mm diameter
- Type B: With one side each for 6x15 ml tubes, 9x1,5/2,0 ml microcentrifuge tubes, 12x0,5/0,6 ml microcentrifuge tubes and 32x0,2 ml PCR tubes or four strips with eight PCR tubes

No. of holes	For tube Ø (mm)	For tubes (ml)	WxDxH (mm)	Type	Pk	Cat. No.
8 - 40	10 - 30	50/15	224x110x110	A	1	211-0378
24 - 128	6 - 18	0,2/0,5/0,6/1,5/2,0/15	210x100x100	B	1	211-0379

Test tube racks, Mega



- PP
- Storage of high quantity of samples eliminates the need for multiple racks
 - Alpha-numeric grid for quick location and retrieval of tubes
 - Sturdy, lightweight material for easy transport

No. of holes	For tube Ø (mm)	Colour	WxDxH (mm)	Pk	Cat. No.
120	13 - 16	Blue	337x267x91	1	211-0365
120	13 - 16	White	337x267x91	1	211-0366



Test tube racks



- PP, coloured
- With four sides that can be loaded independently. Create as large a rack as needed by linking together multiple racks. Practical and compact. Very good chemical resistance. High thermal resistance, autoclavable.
- Side 1: 4x30 mm diameter holes for 50 ml centrifuge tubes
 - Side 2: 12x17 mm diameter holes for 15 ml centrifuge tubes
 - Side 3: 32x12 mm diameter holes for 1,5/2,0 ml microcentrifuge tubes
 - Side 4: 32x8 mm diameter holes for 0,5 ml microcentrifuge tubes

Colour	WxDxH (mm)	Pk	Cat. No.
Orange	175x95x51	1	211-0200
Green	175x95x51	1	211-0201
Pink	175x95x51	1	211-0202
Yellow	175x95x51	1	211-0203



Microtube and test tube racks, Cube-Rack model

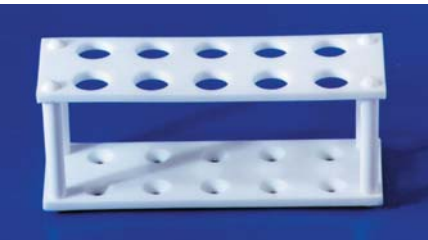


- PP, coloured
- With four sides that can be loaded independently. Can be clipped together. Practical and compact. Very good chemical resistance. High thermal resistance, autoclavable.
- Side 1: 4 holes for 50 ml tubes
 - Side 2: 10 holes for 15 ml tubes
 - Side 3: 12 holes for 12x75 mm or 12x100 mm tubes
 - Side 4: 16 holes for 1,5/2,0 ml microtubes
- Ordering Information:** The colour coded kit includes one rack of each colour: Orange, blue, green, pink and yellow.

Description	No. of holes	For tubes	Colour	Pk	Cat. No.
Cube-Rack	4/10/12/16	50 ml/15 ml/12x75 mm/1,5/2,0 ml	Assorted colours	5	211-0345



Test tube racks



- PTFE
- Robust and inert to virtually all chemical reagents with very good thermal resistance. Suitable for use in cryogenics, freezers, ovens and high temperature thermostats etc. 180 mm long, 60 mm wide.
- Excellent chemical resistance
 - Temperature resistant from -200 to +250 °C
 - Non stick surfaces for easy cleaning

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No. of holes	For tube Ø (mm)	Height (mm)	Pk	Cat. No.
27 (3x9)	8	45	1	525-0192
21 (3x7)	13	60	1	525-0193
10 (2x5)	19	70	1	525-0194
4 (1x4)	30	80	1	525-0195



Test tube and drying racks



PP, reinforced, colour coded

Secure hold for test tubes, sample tubes, reaction vessels, etc. Can also be used as drying racks for test tubes, electrophoresis and chromatography plates.

- Heat resistant up to +135 °C, autoclavable
- Do not float in the water bath
- Very good chemical resistance

No. of holes	For tube Ø (mm)	Colour	WxDxH (mm)	Pk	Cat. No.
96 (8x12)	10 - 13	White	179x127x64	1	211-0219
96 (8x12)	10 - 13	Blue	179x127x64	1	211-0221
50 (5x10)	14 - 17	White	187x105x70	1	211-0220
50 (5x10)	14 - 17	Blue	187x105x70	1	211-0222



Beakers, low form



Grade 3.3 borosilicate glass, with spout

The economical alternative for a wide range of laboratory applications. With volume graduations and labelling area.

- Very good chemical resistance
- High temperature resistance
- Autoclavable

DIN 12331, ISO 3819

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
25	50	34	10	213-1120
50	60	42	10	213-1121
100	70	50	10	213-1122
150	80	60	10	213-1123
250	95	70	10	213-1124
400	110	80	10	213-1125
600	125	90	10	213-1126
800	135	100	10	213-1127
1000	145	105	10	213-1128
2000	185	130	10	213-1129
3000	210	150	1	213-1130
5000	270	170	1	213-1131
10000	350	217	1	213-1132



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Beakers, tall form



Grade 3.3 borosilicate glass, with spout

The economical alternative for a wide range of laboratory applications. With volume graduations and labelling area.

- Very good chemical resistance
- High temperature resistance
- Autoclavable

DIN 12331, ISO 3819

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
50	70	38	10	213-1169
100	80	48	10	213-1170
150	95	54	10	213-1171
250	120	60	10	213-1172
400	130	70	10	213-1173
600	150	80	10	213-1174
800	175	90	10	213-1175
1000	180	95	10	213-1176
2000	240	120	10	213-1177
3000	280	135	1	213-1178

Beaker cups, disposable



PS

Economical multipurpose beaker for a very wide range of uses.

- Suitable for use in various sample dispensers
- Beakers with capacity of 5 and 20 ml are recommended for use in flame photometric analyses

Capacity (ml)	Pk	Cat. No.
5	1.000	611-1363
10	1.000	611-1364
20	500	611-1365
50	500	611-1366
150	100	611-1367
250	100	611-1368
800	100	611-1369
1000	100	611-1370



Beakers, disposable



PP, translucent

High quality economical beaker for everyday work. Ideal for general laboratory use. With spout.

- Embossed graduations
- Ribs for easy stacking
- Autoclavable to +121 °C

Capacity (ml)	Height (mm)	Ø ext. (mm)	Division (ml)	Pk	Cat. No.
15	38	37	5 - 15	100	213-3915
30	44	46	5 - 30	100	213-3916
50	52	52	5 - 50	100	213-3917
100	62	64	5 - 100	100	213-3918
150	79	70	5 - 150	100	213-3919
250	90	80	10 - 250	50	213-3920
400	111	96	25 - 400	50	213-3921
600	124	107	25 - 600	25	213-3922



Beakers, low form



PP, highly translucent

Ideal for general laboratory use. With spout and easy to read blue graduations.

- Good chemical resistance
- Resistant to heat up to +121 °C (for 20 minutes), prolonged use at +100 °C
- Smooth surfaces for easy, fast cleaning

ISO 7056

Capacity (ml)	Height (mm)	Ø ext. (mm)	Division (ml)	Pk	Cat. No.
25	47	31	5	12	213-1621
50	60	40	10	12	213-1622
100	70	52	20	12	213-1623
250	94	68	50	6	213-1624
400	109	77	50	1	213-1725
600	125	91	100	1	213-1726
1000	149	102	100	1	213-1642
2000	183	133	200	1	216-1643
3000	214	174	200	1	219-1644
5000	248	185	500	1	222-1645



Beakers, low form



PTFE, with spout

Thick walled, with reinforced lip and exceptionally smooth inner walls to prevent contamination. Non stick. Low gas permeability.

- Excellent chemical resistance
- Temperature resistant from –200 to +300 °C
- Flat bottom for good heat transfer, for example when used on regulated hotplates

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
1	18	13	2	213-0270
5	26	20	1	213-0233
10	33	24	1	213-0234
25	47	32	1	213-0235
50	60	43	1	213-0236
100	68	54	1	213-0237
150	69	59	1	213-0238
250	97	66	1	213-0239
400	106	80	1	213-0274
500	125	80	1	213-0240
600	125	90	1	213-0241
1000	155	100	1	213-0242
2000	210	120	1	213-0243
5000	280	170	1	213-0244



Beakers, low form, heatable, Thermotech™



PTFE, white with black PTFE carbon base

Features the unique combination of a pure PTFE body with a specially formulated stabilised PTFE carbon base as a single moulding.

- Totally inert pure PTFE inner surface
- Heatable to 270°C without distortion
- Improved heat transfer

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
100	74	56	1	213-0271
250	94	75	1	213-0272
400	112	85	1	213-0273



Beakers, low form



18/8 stainless steel, rust-proof

A complete range of metal beakers for a wide variety of applications in the lab. For use with corrosive materials. Available with rim or spout and with or without handle.

- Robust and durable
- Excellent resistance to heat
- Smooth surface for quick and easy cleaning

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
With rim				
100	60	50	1	213-0278
250	80	65	1	213-0279
500	110	80	1	213-0280
1000	130	100	1	213-0281
2000	180	120	1	213-0282
3000	180	150	1	213-0283
5000	210	180	1	213-0284
With rim and spout				
100	60	50	1	213-0292
250	80	65	1	213-0293
500	110	80	1	213-0294
1000	130	100	1	213-0295
2000	180	120	1	213-0296
3000	180	150	1	213-0297
5000	210	180	1	213-0298
With rim and handle				
100	60	50	1	213-0285
250	80	65	1	213-0286
500	110	80	1	213-0287
1000	130	100	1	213-0288
2000	180	120	1	213-0289
3000	180	150	1	213-0290
5000	210	180	1	213-0291
With rim, spout and handle				
100	60	50	1	213-0299
250	80	65	1	213-0300
500	110	80	1	213-0301
1000	130	100	1	213-0302
2000	180	120	1	213-0303
3000	180	150	1	213-0304
5000	210	180	1	213-0305



Measuring beakers with handle



PP, highly translucent

Ideal for general laboratory use and a wide variety of other applications. With embossed scale, blue graduations and spout.

- Good chemical resistance
- Resistant to heat up to +121 °C (for 20 minutes), prolonged use +100 °C
- Smooth surfaces for easy, fast cleaning

Capacity (ml)	Height (mm)	Ø ext. (mm)	Division (ml)	Pk	Cat. No.
250	120	70	5	12	213-3401
500	133	91	10	12	213-3402
1000	170	116	10	1	213-3403
2000	215	150	20	1	213-3404



Flasks, round bottom, narrow or wide mouth, with flared rim



Grade 3.3 borosilicate glass

The economical alternative for a wide range of applications. With printed indication of contents and white labelling area.

- Very good chemical resistance
- High temperature resistance
- Minimal thermal expansion, giving relatively high resistance to temperature changes

ISO 1773 (narrow mouth)

DIN 12347 (wide mouth)

Capacity (ml)	Height (mm)	Ø ext. (mm)	Neck Ø ext. (mm)	Pk	Cat. No.
Narrow mouth					
100	110	64	26	1	214-1177
250	143	85	34	1	214-1178
500	168	105	34	1	214-1179
1000	200	131	42	1	214-1180
2000	240	166	50	1	214-1181
Wide mouth					
100	110	64	34	1	214-1182
250	143	85	50	1	214-1183
500	168	105	50	1	214-1184
1000	200	131	50	1	214-1185
2000	240	166	76	1	214-1186



Flasks, flat bottom, narrow or wide mouth, with flared rim



Grade 3.3 borosilicate glass

With printed indication of contents and white labelling area.

- Very good chemical resistance
- High temperature resistance
- Minimal thermal expansion giving relatively high resistance to temperature changes

ISO 1773 (narrow mouth)

DIN 12347 (wide mouth)

Capacity (ml)	Height (mm)	Neck Ø ext. (mm)	Ø ext. (mm)	Pk	Cat. No.
Narrow mouth					
100	105	26	64	1	214-1187
250	138	34	85	1	214-1188
500	163	34	105	1	214-1189
1000	190	42	131	1	214-1190
2000	230	50	166	1	214-1191
Wide mouth					
100	105	34	64	1	214-1192
250	138	50	85	1	214-1193
500	163	50	105	1	214-1194
1000	190	50	131	1	214-1195
2000	230	76	166	1	214-1196



Erlenmeyer flasks, narrow or wide mouth, with beaded rim



Borosilicate glass, grade 3.3

The economical alternative for a wide range of laboratory applications. Flasks have flared rim with markings for approximate volume graduations and a labelling area.

- Very good chemical resistance
- High temperature resistance
- Minimal thermal expansion, giving relatively high resistance to temperature changes

ISO 1773 (narrow mouth)

DIN ISO 24450 (wide mouth)

Capacity (ml)	Height (mm)	Ø ext. (mm)	Neck Ø ext. (mm)	Pk	Cat. No.
Narrow mouth					
50	90	51	22	10	214-1130
100	105	64	22	10	214-1131
200	135	79	34	10	214-0157
250	145	85	34	10	214-1132
500	180	105	34	10	214-1133
1000	220	131	42	10	214-1134
2000	280	153	50	10	214-1135
3000	310	187	50	1	214-1136
5000	365	220	50	1	214-1137
Wide mouth					
50	85	51	34	10	214-1170
100	105	64	34	10	214-1171
200	131	79	50	10	214-0158
250	140	85	50	10	214-1172
300	156	87	50	10	214-1173
500	175	105	50	10	214-1174
1000	220	131	50	10	214-1175
2000	280	153	69	10	214-1176

Holders, round bottom flasks



Compressed cork, natural

The ideal rest for round-bottom flasks and other round-bottom glass vessels.

- Economical and from a renewable resource
- Lightweight, tough
- Good thermal resistance

For	Ø ext. (mm)	Pk	Cat. No.
10 - 100	80	5	217-1000
250 - 500	110	5	217-1001
500 - 1000	140	3	217-1002
2000	170	3	217-1003
4000	210	2	217-1004
6000	240	2	217-1005

Cork plates



Made of natural cork

- Square form
- 15 mm thick

WxD (mm)	Pk	Cat. No.
120x120	10	217-1006
150x150	10	217-1007
175x175	10	217-1008
200x200	5	217-1009
250x250	5	217-1010



Laboratory bottles, narrow mouth, with screw cap



Grade 3.3 borosilicate glass with PP screw cap

The economical alternative for a wide range of laboratory applications. Round, with graduations, DIN GL 45 thread, pouring ring and blue screw cap.

- Very good chemical resistance
- High temperature resistance
- Minimal thermal expansion

ISO 4796

Capacity (ml)	Pk	Cat. No.
100	10	215-1592
250	10	215-1593
500	10	215-1594
1000	10	215-1595
2000	1	215-1596
5000	1	215-0057
10000	1	215-0058
20000	1	215-0059



Laboratory bottles, narrow mouth, with screw cap



Amber borosilicate glass with polypropylene screw cap

A economical alternative. Suitable for a wide range of laboratory applications. Round, with graduation, DIN thread, pouring ring and blue polypropylene screw cap. Amber coloured to protect light-sensitive materials.

- Very good chemical resistance
- High temperature resistance
- Minimal thermal expansion

ISO 4796

Capacity (ml)	Thread	Ø ext. (mm)	Height (mm)	Pk	Cat. No.
100	GL 45	56	100	1	215-2325
250	GL 45	70	138	1	215-2326
500	GL 45	86	176	1	215-2327
1000	GL 45	101	225	1	215-2328
2000	GL 45	136	260	1	215-2329
5000	GL 45	182	300	1	215-2330
10000	GL 45	227	410	1	215-2337
20000	GL 45	288	505	1	215-2338

Bottles, narrow mouth, with screw cap



LDPE, natural colour

Excellent for sample collection, storing and transporting liquids.

- Leakproof, tough and versatile
- Squeezable, containers can be used as dropper or wash bottles
- Raised graduations

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Bottles

Capacity (ml)	Thread (mm)	Ø ext. (mm)	Height (mm)	Neck I-Ø (mm)	Pk	Cat. No.
50	18	37	87	11	10	215-5637
100	18	47	105	11	10	215-5638
250	25	63	119	18	10	215-5639
500	25	78	152	18	12	215-5640
1000	28	96	206	20	12	215-5641
2000	28	120	264	20	6	215-5642

Screw caps



LDPE

For narrow mouth bottles with thread.

Thread (mm)	For bottles (ml)	Pk	Cat. No.
18	50/100	10	215-5643
25	250/500	10	215-5644
28	1000/2000	10	215-5645

Drip closures for narrow mouth bottles



LDPE, natural colour

Complete dropper closure with holding strap and cap.

Ordering Information: Can only be used with narrow mouth bottles 215-5637 to 215-5642.

Thread (mm)	For bottles (ml)	Pk	Cat. No.
18	50/100	10	215-2195
25	250/500	10	215-2196
28	1000/2000	10	215-2197

Spray caps for narrow mouth bottles



LDPE, natural colour

Ordering Information: Can only be used with narrow mouth bottles 215-5638 to 215-5641.

For	For bottles (ml)	Thread (mm)	Pk	Cat. No.
215-5638	100	18	1	215-6312
215-5639/215-5640	250/500	25	1	215-6313
215-5641	1000	28	1	215-6314

Bottles, narrow mouth, with screw cap



LDPE, amber

Perfect for sample collection, storage and transport.

- Coloured amber to protect light-sensitive liquids
- Leakproof, tough and versatile
- Raised graduations

Capacity (ml)	Thread (mm)	Ø ext. (mm)	Height (mm)	Neck I-Ø (mm)	Pk	Cat. No.
50	18	37	87	11	10	215-5671
100	18	47	105	11	10	215-5672
250	25	63	119	18	10	215-5673
500	25	78	152	18	12	215-5674
1000	28	96	206	20	12	215-5675

High performance bottles, narrow mouth, with screw cap



LDPE, HDPE or PP with PP screw cap

Ideal for storing and transporting liquids.

- LDPE heat resistant up to +80 °C
- HDPE heat resistant up to +120 °C
- PP heat resistant up to +135 °C, autoclavable
- Leakproof

Capacity (ml)	Thread	Ø ext. (mm)	Height (mm)	Pk	Cat. No.
LDPE, translucent					
8	20-410	25	44	12	215-3409
15	20-410	25	58	12	215-3410
30	20-410	33	69	12	215-3411
60	20-410	39	88	12	215-3412
125	24-410	51	98	12	215-3413
500	28-410	72	164	12	215-3414
1000	38-430	91	199	6	215-3415
2000	38-430	118	250	1	215-1917
HDPE, translucent					
4	13-415	16	41	12	215-3400
8	20-410	25	44	12	215-3401
15	20-410	25	58	12	215-3402
30	20-410	33	69	12	215-3403
60	20-410	39	88	12	215-3404
125	24-410	51	98	12	215-3405
250	24-410	61	133	12	215-3406
500	28-410	72	164	12	215-3407
1000	38-430	91	199	6	215-3408
HDPE, amber (to protect light-sensitive materials)					
4	13-415	16	41	12	215-3416
8	20-410	25	44	12	215-3417
15	20-410	25	58	12	215-3418
30	20-410	33	69	12	215-3419
60	20-410	39	88	12	215-3420
125	24-410	51	98	12	215-3421
250	24-410	61	133	12	215-3422
500	28-410	72	164	12	215-3423
1000	38-430	91	199	6	215-3424
PP, translucent, autoclavable					
8	20-410	25	44	12	215-3425
15	20-410	25	58	12	215-3426
30	20-410	33	69	12	215-2290

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Capacity (ml)	Thread	Ø ext. (mm)	Height (mm)	Pk	Cat. No.
PP, translucent, autoclavable					
60	20-410	39	88	12	215-3427
125	24-410	51	98	12	215-3428
250	24-410	61	133	12	215-2291
500	28-410	72	164	12	215-3429
1000	38-430	91	199	6	215-3430

Bottles, narrow mouth, octagonal, with screw cap



PET, clear, with HDPE cap

Ideal for food applications. For packaging, storage and transport of liquids or powders. Horizontal storage means optimum use of available space. Graduations: 125 ml (in 25 ml increments), 250, 500 and 1000 ml (in 50 ml increments). Inner neck diameter: 31,7 mm.

- Manufactured from food grade materials in cleanrooms (class 100)
- Packed under aseptic conditions with separate, natural colour tamper evident cap
- Lightweight and break resistant, excellent leakproof properties

Capacity (ml)	WxDxH (mm)	Cap colour	Cap	Version	Pk	Cat. No.
125	53×53×108	Natural	separate	aseptic	191	391-1516
250	64×64×135	Natural	separate	aseptic	112	391-1526
500	76×76×172	Natural	separate	aseptic	82	391-1533
1000	96×96×214	Natural	separate	aseptic	60	391-1540

Bottles, wide mouth, with screw cap



LDPE, natural

Perfect for sample collection, storage and transport. Ideal for liquids, pastes and granular material. The wide mouth allows easy filling and cleaning. Without graduations.

- Good chemical resistance
- Leakproof, tough and versatile
- Suitable for packaging and storing food

Capacity (ml)	Ø ext. (mm)	Height (mm)	Neck I-Ø (mm)	Neck Ø ext. (mm)	Pk	Cat. No.
Bottles with screw cap						
50	39	77	24	32	10	215-5630
100	47	94	24	32	10	215-5631
250	63	119	31	40	10	215-5632
500	78	152	39	50	12	215-5633
1000	96	206	50	65	12	215-5634
1500	109	226	50	65	6	215-5635
2000	120	247	50	65	6	215-5636

Thread (mm)	For bottles (ml)	Pk	Cat. No.
Screw caps			
32	50/100	10	215-5646
40	250	10	215-5647
50	500	10	215-5648
65	1000/1500/2000	10	215-5649

Bottles, wide mouth with screw cap, high performance



LDPE, HDPE or PP with PP screw cap

Can be used anywhere in the laboratory, as well as for collecting samples. Wide opening allows rapid filling and dispensing of powders, pastes and liquids. Four litre bottles have integrated handle design.

- Good chemical resistance
- LDPE and HDPE heat resistant up to +80 °C
- PP heat resistant up to +135 °C, autoclavable
- Leakproof

Capacity (ml)	Thread	Ø ext. (mm)	Height (mm)	Pk	Cat. No.
LDPE, translucent					
30	28-415	35,0	62,5	12	215-3431
60	28-415	38,5	85,0	12	215-3432
125	38-415	50,5	98,0	12	215-3433
250	43-415	61,5	131,0	12	215-3434
500	53-415	72,5	169,0	12	215-3435
1000	63-415	91,5	199,0	6	215-3436
HDPE, translucent					
30	28-415	35,0	62,5	12	215-3437
60	28-415	38,5	85,0	12	215-3438
125	38-415	50,5	98,0	12	215-3439
250	43-415	61,5	131,0	12	215-3440
500	53-415	72,5	169,0	12	215-3441
1000	63-415	91,5	199,0	6	215-3442
2000	100-415	119	240	1	215-1918
4000	100-415	163	298	1	215-1889
HDPE, amber (to protect light-sensitive materials)					
30	28-415	35,0	62,5	12	215-3443
60	28-415	38,5	85,0	12	215-3444
125	38-415	50,5	98,0	12	215-3445
250	43-415	61,5	131,0	12	215-3446
500	53-415	72,5	169,0	12	215-3447
1000	63-415	91,5	199,0	6	215-3448
PP, translucent, autoclavable					
30	28-415	35,0	62,5	12	215-3449
60	28-415	38,5	85,0	12	215-3450
125	38-415	50,5	98,0	12	215-3451
250	43-415	61,5	131,0	12	215-3452
500	53-415	72,5	169,0	12	215-3453
1000	63-415	91,5	199,0	6	215-3454
2000	100-415	119	240	1	215-1898
4000	100-415	163	298	1	215-1899

Bottles, wide mouth, with screw cap



LDPE, amber

Perfect for sample collection, storage and transport. Ideal for liquids, pastes and granular material. The wide mouth allows easy filling and cleaning.

- Coloured amber to protect light-sensitive substances
- Leakproof, tough and versatile

Capacity (ml)	Ø ext. (mm)	Height (mm)	Neck I-Ø (mm)	Neck Ø ext. (mm)	Pk	Cat. No.
50	39,0	77,0	24,0	32,0	10	215-5676
100	47,0	94,0	24,0	32,0	10	215-5677
250	63,0	119,0	31,0	40,0	10	215-5678
500	78,0	152,0	39,0	50,0	12	215-5679
1000	96,0	206,0	50,0	65,0	12	215-5680



Bottles, wide mouth, with screw cap



PP, translucent

Perfect for sample collection, storage and transport. Ideal for liquids, pastes and granular material. The wide opening permits easy filling. Can be filled with hot substances. With easy to read blue graduations.

- Very good chemical resistance
- Heat resistant up to +121 °C (for 20 minutes), prolonged use +100 °C
- Leakproof

Capacity (ml)	Ø ext. (mm)	Height (mm)	Neck I-Ø (mm)	Neck Ø ext. (mm)	Pk	Cat. No.
50	39	77	24	32	10	215-5681
100	47	94	24	32	10	215-5682
250	63	119	31	40	10	215-5683
500	78	152	39	50	12	215-5684
1000	96	206	50	65	12	215-5685

Bottles, wide mouth, with screw cap



PTFE, strong walled

Robust, unbreakable construction. The special recessed grips on the cap and grooves in the flask make it easy to handle. Non stick, the wide mouth allows easy filling and cleaning.

- Very good chemical resistance
- Heat resistant from –200 up to +300 °C
- Exceptionally smooth inner walls to prevent contamination

Capacity (ml)	Ø ext. (mm)	Height (mm)	Neck I-Ø (mm)	Pk	Cat. No.
5	22	35	10	1	215-1152
10	26	50	12	1	215-1153
25	33	61	19	1	215-1154
50	43	76	25	1	215-1155
100	52	88	35	1	215-1156

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Capacity (ml)	Ø ext. (mm)	Height (mm)	Neck I-Ø (mm)	Pk	Cat. No.
150	60	90	35	1	215-1157
250	67	115	42	1	215-1158
500	80	150	52	1	215-1159
1000	100	185	57	1	215-1160
2000	120	240	60	1	215-1161

Bottles, wide mouth, rectangular or square, with screw cap



HDPE, translucent

Ideal for collecting, storing and shipping samples or storing liquids and dry substances. Space saving thanks to rectangular base. 2 and 4 litre bottles have integrated handle design.

- Good chemical resistance
- Heat resistant up to +120 °C
- Leakproof

Capacity (ml)	Thread	WxDxH (mm)	Type	Pk	Cat. No.
125	28-415	38x59x97	Rectangular	12	215-1905
250	38-415	51,5x74,5x112	Rectangular	12	215-1906
500	48-415	64x99,5x114	Rectangular	12	215-1907
1000	53-415	67x127x180	Rectangular	6	215-1908
2000	63	96x150x237	Rectangular	4	215-1909
4000	100-415	147x147x290	Square	1	215-1904

Bottles, wide mouth, square, with screw cap



HDPE with black, PP tamper evident cap

Perfect for sample collection, storage and transport. Ideal for liquids, pastes and granular material. The wide mouth allows easy filling and cleaning.

- Good chemical resistance
- Leakproof
- Space saving

Capacity (ml)	WxDxH (mm)	Neck I-Ø (mm)	Neck Ø ext. (mm)	Pk	Cat. No.
100	52x52x82	31	40	1	215-7390
250	67x67x106	39	49	1	215-7392
500	85x85x130	39	49	1	215-7394
1000	85x85x210	39	49	1	215-7396

Bottles, wide mouth, square or rectangular, with screw cap



HDPE, translucent or HDPE, amber (2700 ml) with screw cap

Space saving bottles. Wide mouth, easy to fill. Translucent PE ensures good visibility of the content level. Screw cap with separate seal. Ideal for storage of liquids, solids and powders. Bottles with 500, 1000, 2000 and 2700 ml capacities have graduations. The 2500/2700 ml version has a carrying handle.

- Good chemical resistance, good temperature resistance
- Capped aseptic or capped ionised (10 kGray)
- Excellent shock resistance

Capacity (ml)	WxDxH (mm)	Colour	Neck I-Ø (mm)	Cap	Cap colour	Form	Pk	Cat. No.
Aseptic								
150	50x50x95	Natural	37	Screw cap, double closure, assembled	Red	Square	300	215-3008
250	57x57x109	Natural	37	Screw cap, double closure, assembled	Red	Square	210	215-3014
250	57x57x109	Natural	37	Screw cap, double closure, assembled	Blue	Square	210	215-3016
250	57x57x109	Natural	37	Screw cap, double closure, assembled	White	Square	210	215-3017
500	76x76x122	Natural	58	Screw cap, double closure, assembled	Red	Square	175	215-3020
500	76x76x122	Natural	58	Screw cap, double closure, assembled	Blue	Square	175	215-3022
500	76x76x122	Natural	58	Screw cap, double closure, assembled	White	Square	175	215-3023

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Capacity (ml)	WxDxH (mm)	Colour	Neck I-Ø (mm)	Cap	Cap colour	Form	Pk	Cat. No.
Aseptic								
1000	95×78×185	Natural	58	Screw cap, double closure, assembled	Red	Rectangular	90	215-3004
1000	95×78×185	Natural	58	Screw cap, double closure, assembled	Blue	Rectangular	90	215-3006
1000	95×78×185	Natural	58	Screw cap, double closure, assembled	White	Rectangular	90	215-3007
2000	73×73×230	Natural	58	Screw cap with wad, assembled	Red	Square	50	216-2679
2000	109×96×230	Natural	58	Screw cap, double closure, assembled	Red	Rectangular	50	215-3010
2000	109×98×230	Natural	58	Screw cap, double closure, assembled	Blue	Rectangular	50	215-3011
2000	109×98×230	Natural	58	Screw cap, double closure, assembled	White	Rectangular	50	215-3013
2500	110×110×285	Natural	88	Screw cap with wad, assembled	White	Square	35	215-3018
2700	128×117×250	Brown	70	Screw cap with wad, assembled	Yellow	Rectangular	30	215-3003
Sterile								
250	57×57×109	Natural	37	Screw cap, double closure, assembled	Red	Square	210	215-3015
500	76×76×122	Natural	58	Screw cap, double closure, assembled	Red	Square	175	215-3021
1000	95×78×185	Natural	58	Screw cap, double closure, assembled	Red	Rectangular	90	215-3005
1000	95×78×185	Natural	58	Screw cap, double closure, assembled	Blue	Rectangular	90	215-3025
1000	95×78×185	Natural	58	Screw cap, double closure, assembled	White	Rectangular	90	215-3026
2000	109×98×230	Natural	58	Screw cap, double closure, assembled	Red	Rectangular	50	215-3012
2500	110×110×285	Natural	88	Screw cap with wad, assembled	White	Square	35	215-3019

Bottles, wide mouth, square for solid products

PE

- Ideal for storing and shipping samples
- Wide mouth permits easy filling, emptying and cleaning
- Square shape saves space

Capacity (ml)	Thread	WxDxH (mm)	Neck I-Ø (mm)	Pk	Cat. No.
1000	DIN 60	97×97×210	50,5	1	13251000.
2500	DIN 80	127×127×280	68,5	1	13252500.

Thread	For bottles (ml)	Material	Pk	Cat. No.
Screw caps				
DIN 60	1000	PP	1	13010160.
DIN 80	2500	PP	1	13010181.

Dropping bottles



PTFE, white

Suitable for dropping out aggressive chemicals.

- Flexible wall for easy use
- Screw fit cap
- Guaranteed chemically resistant and inert

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
25	80	33	1	216-0456
50	100	43	1	216-0457

Safety wash bottles, wide mouth, with printed name



LDPE, translucent, with PP vented screw cap

With safety imprint in accordance with regulation (EC) No. 1272/2008 (GHS). Dispensing tube with pointed end made of PP to optimise backflow of the medium.

- Chemical name in English, French, German and Spanish languages
- Chemical formula, CAS number
- Hazard pictogram, signal word, hazard statements H; precautions statements P

Imprint	Capacity (ml)	Colour code	Thread	Pk	Cat. No.
Acetone	250	Red	GL 45	5	215-2535
Acetone	500	Red	GL 45	5	215-2536
Distilled water	250	Clear	GL 45	5	215-2537
Distilled water	500	Translucent	GL 45	5	215-2538
Ethanol	250	Orange	GL 45	5	215-2539
Ethanol	500	Orange	GL 45	5	215-2540
Isopropanol	250	Blue	GL 45	5	215-2547
Isopropanol	500	Blue	GL 45	5	215-2548
Methanol	250	Green	GL 45	5	215-2545
Methanol	500	Green	GL 45	5	215-2546

Wash bottles, narrow or wide mouth, colour coded



LDPE, translucent, with coloured PP screw cap

Economical, soft and very easy to squeeze. For use with general solutions such as water, soap, dilute acids and dilute alkalis. Dispensing tube with pointed end made of PP to optimise backflow of the medium.

- Good chemical resistance
- Heat resistant up to +80 °C
- Colour coded caps for quick identification

Capacity (ml)	Colour code	Thread	Pk	Cat. No.
Narrow Mouth				
250	Blue	GL 25	5	215-2496
250	Red	GL 25	5	215-2497
250	Green	GL 25	5	215-2498
250	Yellow	GL 25	5	215-2499
250	Natural	GL 25	5	215-2500
250	Magenta	GL 25	5	215-2506
500	Blue	GL 25	5	215-2517
500	Red	GL 25	5	215-2518
500	Green	GL 25	5	215-2519
500	Yellow	GL 25	5	215-2520
500	Natural	GL 25	5	215-2527
500	Magenta	GL 25	5	215-2528
Wide mouth				
250	Blue	GL 45	5	215-2507
250	Red	GL 45	5	215-2508
250	Green	GL 45	5	215-2509
250	Yellow	GL 45	5	215-2512
250	Natural	GL 45	5	215-2513
250	Magenta	GL 45	5	215-2514
500	Blue	GL 45	5	215-2529
500	Red	GL 45	5	215-2530
500	Green	GL 45	5	215-2531
500	Yellow	GL 45	5	215-2532
500	Natural	GL 45	5	215-2533
500	Magenta	GL 45	5	215-2534

Safety bottle carrier



Rubber, coloured

These high tensile strength transport carriers have been designed to ensure the safe transport of flasks containing acids, alkalis and solvents. The small carrier can hold flasks with a capacity of 500 ml or 1 l, the large carrier hold flasks with a volume of 2,5 or 4 l.

- Service temperature from –45 to +110 °C; steam sterilisable
- Locating rings in the bottom of the container ensure that there is a gap of about 25 mm between the flask and the container wall
- Handle specially shaped for carrying comfort

Description	Colour	For (ml)	Pk	Cat. No.
Small	Red	500 - 1000	1	611-1382
Small	Black	500 - 1000	1	611-1385
Large	White	2500 - 4000	1	611-1383
Large	Red	2500 - 4000	1	611-1381
Large	Black	2500 - 4000	1	611-1384



Safety bottle containers, Safepak®



PP

For the safe transport and storage of hazardous chemicals. These vessels contain chemical spillages and being translucent (except 332498 K, which is black and ideal for light-sensitive materials) they allow the examination of the condition and contents of the inner container without opening. Safepaks are designed to be used with BDH branded glass and SafeBreak bottles, ranging from 100 ml to 2500 ml Winchester bottles.

- Contains bottle spillages
- For safe storage and transportation of chemicals
- Good temperature resistance

Colour	For	Pk	Cat. No.
Natural	100 ml bottles	6	332491D
Natural	500 ml bottles	3	332493F
Natural	1000 ml bottles	3	332497J
Black	2500 ml bottles	2	332498K

For	Pk	Cat. No.
Safety bottle containers, Safepak®		
100 ml bottles	6	332491D
500 ml bottles	3	332493F
1000 ml bottles	3	332497J
2500 ml bottles	2	332498K



Dishes, evaporating



Grade 3.3 borosilicate glass, with spout

The economical alternative for a wide range of applications. With flat bottom and matt surfaced labelling area.

- Very good chemical resistance
- High temperature resistance up to +500 °C
- Minimal thermal expansion, giving relatively high resistance to temperature changes

DIN 12336

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
10	20	40	1	216-0083
15	25	50	1	216-0084
45	30	60	1	216-0085
60	35	70	1	216-0086
90	45	80	1	216-0087
170	55	95	1	216-0088
320	65	115	1	216-0089
600	80	140	1	216-0090
1500	100	190	1	216-0091
2500	130	230	1	216-0092

Dishes, evaporating, shallow



Porcelain, glazed

The economical alternative for a wide range of laboratory applications. With spout and flat bottom. Glazed white except for the outside bottom surface.

- Very good chemical resistance
- Heat resistant up to +1000 °C
- Low heat expansion

DIN 12903

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
10	10	50	5	216-0555
20	13	63	5	216-0556
45	16	80	5	216-0557
100	20	100	5	216-0558
260	25	125	5	216-0559
520	40	160	5	216-0560
1100	60	200	1	216-0561
1750	55	250	1	216-0562

Dishes, evaporating, half depth



Porcelain, glazed

The economical alternative for a wide range of laboratory applications. With spout and round bottom. White glaze inside and outside.

- Very good chemical resistance
- Heat resistant up to +1000 °C
- Low heat expansion

DIN 12903 Form B

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
10	16	40	5	216-0537
25	20	50	5	216-0548
35	25	63	5	216-0549
75	32	80	5	216-0550
115	40	100	5	216-0551
285	50	125	5	216-0552
580	52	160	5	216-0553
1000	60	200	1	216-0554



Dishes, evaporating, shallow



PTFE, with spout

Thick walled, conical shape. Robust and unbreakable.

- Very good chemical resistance
- Temperature resistant from -200 to +280 °C
- Exceptionally smooth inner walls to prevent contamination

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
25	12	65	1	216-0173
50	15	82	1	216-0174
100	20	102	1	216-0175
180	22	130	1	216-0176
350	36	132	1	216-0177
400	40	136	1	216-0178



Dishes, evaporating, tall form



- PTFE, with spout**
- Thick walled, conical shape. Robust and unbreakable.
- Very good chemical resistance
 - Temperature resistant from -200 to +280 ° C
 - Exceptionally smooth inner walls to prevent contamination

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
25	34	38	1	216-0179
50	50	40	1	216-0180
100	50	64	1	216-0181
150	43	78	1	216-0182
180	50	80	1	216-0183
250	50	97	1	216-0184
350	60	100	1	216-0185



Dishes, crystallising



- Borosilicate glass, grade 3.3, with or without spout**
- The economical alternative for a wide range of applications. With round labelling area.
- Very good chemical resistance
 - High temperature resistance up to +500 °C
 - Minimal thermal expansion, giving relatively high resistance to temperature changes
- DIN 12337 (without spout)
- DIN 12338 (with spout)

Ø ext. (mm)	Height (mm)	Capacity (ml)	Version	Pk	Cat. No.
40	25	20	with spout	1	216-0060
40	25	20	without spout	1	216-0061
50	30	40	with spout	1	216-0062
50	30	40	without spout	1	216-0063
60	35	60	with spout	1	216-0064
60	35	60	without spout	1	216-0065
70	40	100	with spout	1	216-0066
70	40	100	without spout	1	216-0067
80	45	150	with spout	1	216-0068
80	45	150	without spout	1	216-0069
95	55	300	with spout	1	216-0070
95	55	300	without spout	1	216-0071
115	65	500	with spout	1	216-0072
115	65	500	without spout	1	216-0073
140	75	900	with spout	1	216-0074
140	75	900	without spout	1	216-0075
190	90	2000	with spout	1	216-0076
190	90	2000	without spout	1	216-0077
230	100	3500	with spout	1	216-0078
230	100	3500	without spout	1	216-0079



Watch glasses



PTFE

Ideal for covering PTFE beakers when decomposing and evaporating, can also be used as evaporating dishes. Thick walled, robust and unbreakable.

- Very good chemical resistance
- Temperature resistant from –200 to +280 °C
- Exceptionally smooth surfaces to prevent contamination

Ø ext. (mm)	Pk	Cat. No.
20	4	216-0454
30	1	216-0155
40	1	216-0156
50	1	216-0157
65	1	216-0158
75	1	216-0159
80	1	216-0160
100	1	216-0161
125	1	216-0162
150	1	216-0163
200	1	216-0455

Drawer organiser



PS, white

For well organised storage of various different items in drawers, on shelves or at the workstation. With three long compartments. Ideal for pipettes, thermometers, spatulas, etc.

- One wide compartment: 430 mm long, 110 mm wide
- Two compartments each 430 mm long, 80 mm wide
- Smooth surfaces with rounded corners for easy cleaning

WxDxH (mm)	Pk	Cat. No.
460x307x63	1	631-0727

Blood collection trays



ABS, coloured

Lightweight, roomy, and easy to clean blood collection tray. Keeping the tray clean and organised could not be easier. Along with the sturdy plastic frame, there are a set of economical, disposable inserts specifically designed for blood collection. Tray inserts come in two configurations and include an extra-deep compartment for sharps. Other tray features include a supply drawer, side pockets, and a ratcheting handle with soft rubber grip that rotates out of the way for easy access.

- Each tray comes with its own 13 mm or 16 mm test tube rack
- With two disposable polystyrene inserts
- Additional inserts for 13 mm or 16 mm test tube racks are available

Description	Pk	Cat. No.
Blood collection tray (A) with 2 inserts and 36-place, 13 mm test tube rack	1	216-0814
Blood collection tray (B) with 2 inserts and 36-place, 16 mm test tube rack	1	216-0815
Insert A for 13 mm tube rack	4	216-0816
Insert B for 13 mm tube rack	4	216-0817

Continued from previous page

Description	Pk	Cat. No.
Lid, white, 420x205x240 mm	1	216-0819
Pockets, blue, 230x105x110 mm, 2/pack	1 SET	216-0833
Urine collection inserts, white	4	216-0834

Sample containers with screw cap



PS, crystal clear, with skirt

Vessels with conical bottom and skirt for sample collection, storage and transport. Colour coded closures for better sample identification.

- Available in sterile or aseptic versions
- Can be centrifuged up to 4000xg
- Spill-proof closure

Capacity (ml)	Ø ext. (mm)	Height (mm)	Type	Cap colour	Pk	Cat. No.
30	24,5	89	Sterile	Red	1.000	216-2637
30	24,5	89	Aseptic	White	1.000	216-2638



Sample transport tubes with skirt



PP with HDPE screw cap

Free-standing sample transport tubes with conical bottom. Marked with 1 ml graduations.

- Robust, durable and leakproof
- Wide skirt ensures stability when standing
- Large, matt labelling area for easy labelling and identification

Capacity (ml)	Ø ext. (mm)	Height (mm)	Packed	Pk	Cat. No.
5	14	60	500/bag	500	216-0153
10	14	100	50/bag	1.000	211-0134
10	14	100	500/bag	500	216-0154



Sample containers with attached lids



PP, natural colour

Ideal for collecting, storing and transporting samples. Special design available with cap that can be perforated. Includes integral septum for automatic sample collection and analysis. Sample can be injected straight into the vessel with a syringe.

- Can be used with one hand; the cap remains vertical when open
- Very good chemical and temperature resistance
- Aseptic

Capacity (ml)	Ø ext. (mm)	Height (mm)	Type	Pk	Cat. No.
45	29	85	Cap not piercable	650	216-2606
50	31	78	Cap not piercable	650	216-2625
90	43	80	Cap piercable	350	216-2627
300	75	88	Cap piercable	240	216-2628

Straight sample containers with screw cap



PP translucent or PS clear, with PE screw cap

Straight walled vessels for sample collection, storage and transport. Twist closure with leakproof inner lip for quick opening and closing. PS offers good thermal and chemical resistance. PP offers excellent thermal and chemical resistance.

- Selection of colour coded closures for easier sample identification
- Available packed under sterile or aseptic conditions
- Five volumes are available: 40 ml, 60 ml, 100 ml, 125 ml and 180 ml

Dimensions:

40 ml: 30×70 mm (int.Ø×h)

60 ml: 33×70 mm (int.Ø×h)

100 ml: 52×67 mm (int.Ø×h)

125 ml: 52×74 mm (int.Ø×h)

180 ml: 52×102 mm (int.Ø×h)

Capacity (ml)	Cap colour	Packed	Material	Pk	Cat. No.
Aseptic					
40	White	Bag of 100, carton of 1000	PS	1.000	216-2685
40	Red	Bag of 100, carton of 1000	PS	1.000	216-2693
40	Red	Bag of 100, carton of 1000	PP	1.000	216-2694
40	White	Bag of 100, carton of 1000	PP	1.000	216-2689
60	Red	Bag of 70, carton of 700	PS	700	216-2683
60	White	Bag of 70, carton of 700	PP	700	216-2620
60	White	Bag of 70, carton of 700	PS	700	216-2612
60	Red	Bag of 70, carton of 700	PP	700	216-2684
100	Red	Carton of 330	PS	330	216-2583
100	White	Carton of 330	PS	330	216-2582
100	Blue	Carton of 330	PS	330	216-2636
125	Red	Carton of 380	PP	380	216-2589
125	White	Carton of 380	PP	380	216-2588
125	Blue	Carton of 380	PP	380	216-2634
125	Green	Carton of 380	PP	380	216-2590
180	Red	Carton of 264	PS	264	216-2604
180	White	Carton of 264	PS	264	216-2603
180	Red	Carton of 264	PP	264	216-2598
180	White	Carton of 264	PP	264	216-2597
180	Blue	Carton of 264	PP	264	216-2630
Sterile					
40	Red	Bag of 100, carton of 1000	PS	1.000	216-2686
40	Red	Bag of 100, carton of 1000	PP	1.000	216-2690
60	Red	Bag of 70, carton of 700	PS	700	216-2613
60	Red	Bag of 70, carton of 700	PP	700	216-2621
100	Red	Carton of 330	PS	330	216-2592
125	Red	Carton of 380	PP	380	216-2586
180	Red	Carton of 264	PS	264	216-2601
180	White	Carton of 264	PS	264	216-2600
180	Red	Carton of 264	PP	264	216-2595
180	Blue	Carton of 264	PP	264	216-2629
180	Green	Carton of 264	PP	264	216-2596

Conical sample containers with snap-on lids



PP, natural colour

Conical containers for sample collection, storage and transport.

- Available in sterile or aseptic versions
- Raised graduations
- Leakproof snap-on lid

Capacity (ml)	Height (mm)	Type	Ø top/Ø bottom (mm)	Packed	Pk	Cat. No.
200	88	Separate snap-on lid, aseptic	62/54	Carton of 660	660	216-2648
200	88	Assembled snap-on lid, sterile	62/54	Carton of 220	220	216-2649
400	100	Separate snap-on lid, aseptic	85/72	Carton of 460	460	216-2651
400	100	Assembled snap-on lid, sterile	85/72	Carton of 185	185	216-2652
1000	130	Separate snap-on lid, aseptic	105/96	Carton of 250	250	216-2639
1000	130	Assembled snap-on lid, sterile	105/96	Carton of 80	80	216-2640

Specimen container, conical, with screw caps



- PP, translucent
- Ideal as general specimen containers. 120 ml capacity.
- Complete range with different cap colours available
 - Sterile as well as aseptic, individually packed or bulk
 - With frosted label

Type	Cap colour	Packed	Version	Pk	Cat. No.
Aseptic	Red	10×50	Separate cap	500	216-0855
Aseptic	Red	Bulk	Separate cap	500	216-0859
Aseptic	Red	Bulk	Assembled cap	300	216-0864
Aseptic	Red	Individually	Assembled cap	250	216-0868
Aseptic	Blue	Bulk	Assembled cap	300	216-0858
Aseptic	White	Bulk	Assembled cap	300	216-0863
Aseptic	Green	Bulk	Assembled cap	300	216-0865
Sterile	Red	Bulk	Assembled cap	300	216-0861
Sterile	Red	Individually	Assembled cap	250	216-0856
Sterile	Blue	Bulk	Assembled cap	300	216-0857
Sterile	White	Bulk	Assembled cap	300	216-0860
Sterile	White	Individually	Assembled cap	250	216-0869
Sterile	Green	Bulk	Assembled cap	300	216-0862



Urine collection containers with screw cap



- PP with red HDPE screw cap with wad
- Ideal for collecting, storing and transporting urine samples.
- Sterile
 - Filled with 260 mg boric acid
 - Graduated, with label

Capacity (ml)	Height (mm)	Ø ext. (mm)	Pk	Cat. No.
30	89	23	400	216-2678

THE VWR E-NEWSLETTER

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Jars, wide mouth, with screw cap



PTFE, strong walled

Stable, unbreakable construction. Special recessed grips in the cap make it easy to handle. The wide mouth allows easy filling and cleaning.

- Very good chemical resistance
- Temperature resistant from –200 to +280 °C
- Exceptionally smooth inner walls to prevent contamination

Capacity (ml)	Height (mm)	Ø Cap (mm)	Pk	Cat. No.
15	34	34	1	216-0164
30	62	34	1	216-0165
60	46	60	1	216-0166
120	62	72	1	216-0167
240	100	72	1	216-0168
360	95	90	1	216-0169
480	125	90	1	216-0170
1000	160	110	1	216-0171
2200	260	134	1	216-0172



Carboys, wide mouth



PP, opaque

The VWR carboy is an advanced fluid handling system developed with the end user in mind. The ergonomically designed carboy body is coupled with the VWR® Versatile Cap technology to provide the user with an easy to use and easy to clean carboy. The carboy is made from polypropylene that offers good chemical resistance and heat stability. Carboys may also be autoclaved. The carboy body includes design features that make it easier to hold and manipulate during lifting, filling, and pouring, while the VWR® Versatile Cap technology provides interchangeable and leakproof top connections. The carboy features include a set of handles at both the top and bottom of the carboy, easy to read embossed graduation marks and moulded carboy material type identification mark. The 20 litre and 40 litre carboys are also available with an extra wide mouth for easier filling and cleaning.

- Versatile Cap technology provides the flexibility of interchangeable connectors
- Extra wide mouth version for easy filling and cleaning
- Smart Barb technology provides interchangeable spigot options

Without spigot

Capacity (l)	Type	Thread (mm)	Pk	Cat. No.
5	Versatile Cap	80	1	216-0610
10	Versatile Cap	80	1	216-0616
10	3" Sanitary Cap	-	1	216-0618
20	Versatile Cap	80	1	216-0623
20	3" Sanitary Cap	-	1	216-0625
20	Versatile Cap, extra wide mouth	120	1	216-0630
40	Versatile Cap, extra wide mouth	120	1	216-0636
40	3" Sanitary Cap	-	1	216-0638

With spigot

Capacity (l)	Type	Thread (mm)	Pk	Cat. No.
5	Versatile Cap	80	1	216-0611
10	Versatile Cap	80	1	216-0617
20	Versatile Cap	80	1	216-0624
20	Versatile Cap, extra wide mouth	120	1	216-0631
40	Versatile Cap, extra wide mouth	120	1	216-0637

Versatile caps for carboys

Description	Connection	Cap size (mm)	Pk	Cat. No.
Versatile Cap, 80 mm, closed	-	80	2	216-0644
Versatile Cap, 80 mm, open, with closed adapter	-	80	2	216-0645
Versatile Cap, 80 mm, open, with adapter, 2x1/4" hose barbs and vent	-	80	1	216-0646
Versatile Cap, 80 mm, open, with adapter, 2x1/2" hose barbs and vent	-	80	1	216-0647
Versatile Cap, 120 mm, closed	-	120	2	216-0688
Versatile Cap, 120 mm, open, with closed adapter	-	120	2	216-0689

Adapters

Description	Connection	Cap size (mm)	Pk	Cat. No.
Adapter, closed for Versatile Cap	-	80	1	216-0643
Adapter for Versatile Cap, 2x1/4" hose barbs	2 quick connects	80	1	216-0648
Adapter, 2x3/8" hose barbs	2 quick connects	80	1	216-0649
Adapter for Versatile Cap, 3x1/4" hose barbs	3 quick connects	80	1	216-0683
Adapter for Versatile Cap, 3x3/8"	3 quick connects	80	1	216-0684
Adapter for Versatile Cap, 4x1/4"	4 quick connects	80	1	216-0685
Adapter for Versatile Cap, 4x3/8"	4 quick connects	80	1	216-0686
Adapter, closed, for Versatile Cap	-	120	1	216-0687
Adapter for Versatile Cap, 2x1/4" hose barbs	2 quick connects	120	1	216-0690
Adapter for Versatile Cap, 2x3/8" hose barbs	2 quick connects	120	1	216-0691
Adapter for Versatile Cap, 3x1/4" hose barbs	3 quick connects	120	1	216-0692
Adapter for Versatile Cap, 3x3/8" hose barbs	3 quick connects	120	1	216-0693
Adapter for Versatile Cap, 4x1/4" hose barbs	4 quick connects	120	1	216-0694
Adapter for Versatile Cap, 4x3/8" hose barbs	4 quick connects	120	1	216-0695
Adapter, Bioprocess Adapter for Versatile Cap	-	120	1	216-0696
Adapter for Versatile Cap, 2x1/4" hose barbs and vent	-	80	1	216-0697
Adapter for Versatile Cap, 2x1/2" hose barbs and vent	-	80	1	216-0698
Clearview adapter 80 mm	-	-	1	391-0356

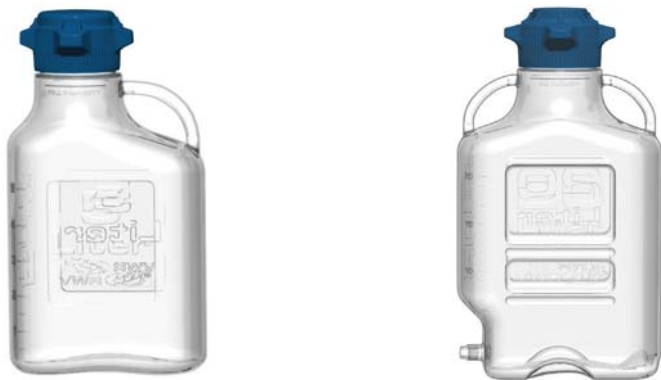
Connectors

Description	Connection	Cap size (mm)	Pk	Cat. No.
Connector, panel with socket, valved, 1/4"	-	-	6	391-0324
Connector, panel with socket, valved, 5/16"	-	-	6	391-0325
Connector, panel with socket, valved, 3/8"	-	-	6	391-0326
Connector, in-line socket, valved, 1/4"	-	-	6	391-0327
Connector, in-line socket, valved, 5/16"	-	-	6	391-0328
Connector, in-line socket, valved, 3/8"	-	-	6	391-0329
Connector, in-line socket, non valved, 1/4"	-	-	6	391-0331
Connector, in-line socket, non valved, 3/8"	-	-	6	391-0332
Connector, in-line plug valved, 1/4" hose barb	-	-	6	391-0333
Connector, in-line plug valved, 5/16" hose barb	-	-	6	391-0334
Connector, in-line plug valved, 3/8" hose barb	-	-	6	391-0335
Connector, in-line plug, non valved, 1/4"	-	-	6	391-0336
Connector, in-line plug, non valved, 5/16"	-	-	6	391-0337
Connector, in-line plug, non valved, 3/8"	-	-	6	391-0338
Connector, elbow plug, non valved, 1/4" hose barb	-	-	6	391-0339
Connector, elbow plug, non valved, 3/8" hose barb	-	-	6	391-0341
Connector, elbow plug, valved, 1/4" hose barb	-	-	6	391-0342
Connector, elbow plug, valved, 3/8" hose barb	-	-	6	391-0343
Connector, assembly, valved, socket and plug, 1/4" hose barb	-	-	2	391-0344
Connector, assembly, valved, socket and plug, 5/16" hose barb	-	-	2	391-0345
Connector, assembly, valved, socket and plug, 3/8" hose barb	-	-	2	391-0346

Spigots

Description	Connection	Pk	Cat. No.
Carboy spigot, lever up/down	-	2	391-0349
Smartbarb spigot, fitting closed, 1-1/8"	-	1	391-0350
Smartbarb spigot, fitting 1/4" hose barb	-	1	391-0351
Smartbarb spigot, fitting 3/8" hose barb	-	1	391-0352
Smartbarb spigot, fitting 1/2" hose barb	-	1	391-0353
Smartbarb spigot, fitting 3/4" hose barb	-	1	391-0354
Smartbarb spigot, fitting 1/4" hose barb	-	1	391-0355

Carboys, wide mouth, BPA-free



BPA-free, clear

The VWR BPA-free carboy is an advanced fluid handling system developed with the end user in mind. The ergonomically designed carboy body is coupled with our VWR® Versatile Cap technology to provide the user an easy to use and easy to clean carboy. The BPA-free carboy is made from a rigid and clear material that is heat stable. The BPA-free carboys are appropriate for aqueous solutions and are used for most life science buffer solutions. The carboy body includes design features that allow the user to easily hold and manipulate during lifting, filling, and pouring, while Versatile Cap technology provides interchangeable and leakproof top connections. The carboy features include a set of handles at both the top and bottom of the carboy, easy to read embossed graduation marks and moulded carboy material type identification mark. The 20 litre and 40 litre carboys are also available with an extra wide mouth for easier filling and cleaning.

- Versatile Cap technology provides the flexibility of interchangeable connectors
- Extra wide mouth design for easy filling and cleaning
- Smart Barb technology provides interchangeable spigot options

Capacity (l)	Type	Thread (mm)	Pk	Cat. No.
Without spigot				
5	Versatile Cap	80	1	216-0612
10	Versatile Cap	80	1	216-0619
20	Versatile Cap, extra wide mouth	120	1	216-0632
40	Versatile Cap, extra wide mouth	120	1	216-0639
With spigot				
5	Versatile Cap	80	1	216-0613
10	Versatile Cap	80	1	216-0620
20	Versatile Cap, extra wide mouth	120	1	216-0633
40	Versatile Cap, extra wide mouth	120	1	216-0640

Carboys, wide mouth



HDPE

The VWR HDPE carboy is an advanced fluid handling system developed with the end user in mind. The ergonomically designed carboy body is coupled with our VWR® Versatile Cap technology to provide the user an easy to use and easy to clean carboy. The carboy is made from HDPE that is more scratch resistant and has better chemical resistance than other carboys making them ideal for most buffers and reagents as well as powders and solids. The carboy body includes design features that allow the user to easily hold and manipulate during lifting, filling, and pouring, while VWR® Versatile Cap technology provides interchangeable and leakproof top connections. The carboy features include a set of handles at both the top and bottom of

the carboy, easy to read embossed graduation marks, and moulded carboy material type identification mark. The 20 l and 40 l carboys are also available with an extra wide mouth for easier filling and cleaning.

- Versatile Cap technology provides the flexibility of interchangeable connectors
- Extra wide mouth version for easy filling and cleaning
- Smart Barb technology provides interchangeable spigot options

Carboys without spigot

Capacity (l)	Type	Thread (mm)	Pk	Cat. No.
5	Versatile Cap	80	1	216-0614
10	Versatile Cap	80	1	216-0621
20	Versatile Cap	80	1	216-0628
20	Versatile Cap, extra wide mouth	120	1	216-0634
40	Versatile Cap, extra wide mouth	120	1	216-0641

Carboys with spigot

Capacity (l)	Type	Thread (mm)	Pk	Cat. No.
5	Versatile Cap	80	1	216-0615
10	Versatile Cap	80	1	216-0622
20	Versatile Cap	80	1	216-0629
20	Versatile Cap, extra wide mouth	120	1	216-0635
40	Versatile Cap, extra wide mouth	120	1	216-0642

Versatile caps for carboys

Description	Pk	Cat. No.
Versatile Cap, 80 mm, closed	2	216-0644
Versatile Cap, 80 mm, open, with closed adapter	2	216-0645
Versatile Cap, 80 mm, open, with adapter, 2×1/4" hose barbs and vent	1	216-0646
Versatile Cap, 80 mm, open, with adapter, 2×1/2" hose barbs and vent	1	216-0647
Versatile Cap, 120 mm, closed	2	216-0688
Versatile Cap, 120 mm, open, with closed adapter	2	216-0689

Adapters

Description	Pk	Cat. No.
Adapter, closed for Versatile Cap	1	216-0643
Adapter for Versatile Cap, 2×1/4" hose barbs	1	216-0648
Adapter, 2×3/8" hose barbs	1	216-0649
Adapter for Versatile Cap, 3×1/4" hose barbs	1	216-0683
Adapter for Versatile Cap, 3×3/8"	1	216-0684
Adapter for Versatile Cap, 4×1/4"	1	216-0685
Adapter for Versatile Cap, 4×3/8"	1	216-0686
Adapter, closed, for Versatile Cap	1	216-0687
Adapter for Versatile Cap, 2×1/4" hose barbs	1	216-0690
Adapter for Versatile Cap, 2×3/8" hose barbs	1	216-0691
Adapter for Versatile Cap, 3×1/4" hose barbs	1	216-0692
Adapter for Versatile Cap, 3×3/8" hose barbs	1	216-0693
Adapter for Versatile Cap, 4×1/4" hose barbs	1	216-0694
Adapter for Versatile Cap, 4×3/8" hose barbs	1	216-0695
Adapter, Bioprocess Adapter for Versatile Cap	1	216-0696
Adapter for Versatile Cap, 2×1/4" hose barbs and vent	1	216-0697
Adapter for Versatile Cap, 2×1/2" hose barbs and vent	1	216-0698
Clearview adapter 80 mm	1	391-0356

Connectors

Description	Pk	Cat. No.
Connector, panel with socket, valved, 1/4"	6	391-0324
Connector, panel with socket, valved, 5/16"	6	391-0325
Connector, panel with socket, valved, 3/8"	6	391-0326
Connector, in-line socket, valved, 1/4"	6	391-0327
Connector, in-line socket, valved, 5/16"	6	391-0328
Connector, in-line socket, valved, 3/8"	6	391-0329
Connector, in-line socket, non valved, 1/4"	6	391-0331
Connector, in-line socket, non valved, 3/8"	6	391-0332
Connector, in-line plug valved, 1/4" hose barb	6	391-0333
Connector, in-line plug valved, 5/16" hose barb	6	391-0334
Connector, in-line plug valved, 3/8" hose barb	6	391-0335
Connector, in-line plug, non valved, 1/4"	6	391-0336
Connector, in-line plug, non valved, 5/16"	6	391-0337
Connector, in-line plug, non valved, 3/8"	6	391-0338
Connector, elbow plug, non valved, 1/4" hose barb	6	391-0339
Connector, elbow plug, non valved, 3/8" hose barb	6	391-0341
Connector, elbow plug, valved, 1/4" hose barb	6	391-0342
Connector, elbow plug, valved, 3/8" hose barb	6	391-0343
Connector, assembly, valved, socket and plug, 1/4" hose barb	2	391-0344
Connector, assembly, valved, socket and plug, 5/16" hose barb	2	391-0345
Connector, assembly, valved, socket and plug, 3/8" hose barb	2	391-0346

Spigots

Description	Pk	Cat. No.
Carboy spigot, lever up/down	2	391-0349
Smartbarb spigot, fitting closed, 1-1/8"	1	391-0350
Smartbarb spigot, fitting 1/4" hose barb	1	391-0351
Smartbarb spigot, fitting 3/8" hose barb	1	391-0352
Smartbarb spigot, fitting 1/2" hose barb	1	391-0353
Smartbarb spigot, fitting 3/4" hose barb	1	391-0354
Smartbarb spigot, fitting 1/4" hose barb	1	391-0355



Container for transport of biological samples, Emo-Express



Disposable containers conforming to World Health Organisation guidelines (WHO/EMC/97) and to UNI EN 892 standards. Made from resistant, leakproof and watertight materials suitable for containing and protecting pathogenic or potentially infected material.

- Leakproof to prevent accidental spillage of biological samples in order to guarantee the safety of transportation personnel
- Transparent and shock-proof for visual inspection of contents and for ensuring their integrity
- Complete with test tube holder made of absorbent material and able to hold four 16 mm tubes, four 12 mm tubes and two 30 mm tubes at the same time
- Disposable with tamper-proof seal; once closed the tube seal must be broken to access the contents

Capacity (ml)	Height (mm)	Ø top (mm)	Pk	Cat. No.
2000	161	132	120	720-1987

Urine containers

Natural PP, with yellow screw cap

Aspiration system for vacuum tubes.

- With frosted label

Capacity (ml)	Packed	Type	Pk	Cat. No.
120	Bulk	Non sterile	300	216-1080
120	Individually wrapped	Sterile	250	216-1161

Faeces/specimen containers, conical, with screw cap

PP, translucent

Ideal as faeces or general specimen containers.

- With frosted label, graduated
- Available with or without spoon
- Sterile or under aseptic conditions packed available

Capacity (ml)	Pk	Cat. No.
120	300	216-0891
120	300	216-0892
120	300	216-0893

Ice buckets, square, with lid



Polyurethane

Ideal for storing samples, these buckets maintain hot or cold temperatures of bottles, test tubes, solutions, and cultures. Suitable for use with dry-ice, water-ice, salt solution. For freezer storage only.

- Resistant to temperatures from -20 to +70 °C
- Unbreakable, leakproof, stackable, lightweight
- Available in four colours

Capacity (l)	WxDxH (mm)	Colour	Pk	Cat. No.
2,5	254x254x127	Black	1	216-0443
2,5	254x254x127	Blue	1	216-0444
2,5	254x254x127	Green	1	216-0445
2,5	254x254x127	Red	1	216-0446
4,5	254x254x178	Black	1	216-0447
4,5	254x254x178	Blue	1	216-0448
4,5	254x254x178	Green	1	216-0449
4,5	254x254x178	Red	1	216-0458

Ice pans



Polyurethane

Ideal for storing samples, these buckets maintain hot or cold temperatures of bottles, test tubes, solutions, and cultures. Suitable for use with dry-ice, water-ice, salt solution. For freezer storage only.

- Resistant to temperatures from –20 to +70 °C
- Unbreakable, leakproof, stackable, lightweight
- Available in three sizes and four colours

Capacity (l)	WxDxH (mm)	Colour	Pk	Cat. No.
1	150x150x75	Black	1	216-0459
1	150x150x75	Blue	1	216-0460
1	150x150x75	Green	1	216-0461
1	150x150x75	Red	1	216-0462
4	255x330x127	Black	1	216-0463
4	255x330x127	Blue	1	216-0464
4	255x330x127	Green	1	216-0465
4	255x330x127	Red	1	216-0466
9	340x405x115	Black	1	216-0467
9	340x405x115	Blue	1	216-0468
9	340x405x115	Green	1	216-0469
9	340x405x115	Red	1	216-0470

Cooling packs



Gel-filled

For long lasting, high performance temperature protection, these packs are designed to safeguard temperature-sensitive products during storage and transport. They can be chilled in a freezer, refrigerator or low temperature incubator. They are effective when used with insulated shipping containers.

- Ideal for pharmaceuticals, clinical trials, diagnostic kits, chemicals and biologicals
- Keep their shape during all stages of use: Phase changes at 0 °C/32 °F and returns to gel state after thawing
- Reusable

WxDxH (mm)	Weight (g)	Pk	Cat. No.
89x165x19	227	72	216-0192
140x152x25	341	48	216-0193
140x165x25	454	36	216-0194
203x140x32	682	24	216-0195
267x140x32	909	18	216-0196

Cooling pouches



Semi-rigid foam

Optimal for limited space. They never lose their shape, when freezing, when in use, or when thawing. Available in a range of sizes and suitable for use during storage and transport. Each cooling pouch is vacuum-sealed for consistent weight and shape.

- Phase changes at 0 °C/32 °F
- Returns to foam state after thawing
- Keep their shape during all stages of use, reusable

WxDxH (mm)	Weight (g)	Pk	Cat. No.
102x114x19	199	72	216-0191
114x102x38	426	36	216-0188
102x229x38	880	18	216-0189
235x286x25	1590	12	216-0190



INSTRUMENT SERVICE AND MAINTENANCE

Please contact your local VWR sales office for more information

Ice packs



Plastic with gel filling

These robust ice packs are suitable for cooling products in cold boxes, pouches or packages. The gel ensures constant and reliable cooling.

- Non toxic for use with foodstuffs
- Strong, hard wearing plastic casing
- Suitable for heavy loads
- Adapted to rough transport conditions
- Can be reused as often as required

Weight (g)	Pk	Cat. No.
400	40	216-1168
750	20	216-1169
1000	20	216-1170



Stoppers for standard ground joints



PTFE, solid

Greaseless closure, which prevents ground joints from seizing. With inclined, circumferential sealing lips for better sealing and reduced risk of breakage. Easily detachable. With ergonomically shaped grip.

- Very good chemical resistance
- Gas, liquid and vacuum-tight
- Temperature resistant from –200 to +300 °C

NS	Height (mm)	Pk	Cat. No.
10/19	31	1	217-0210
14/23	34	1	217-0211
19/26	38	1	217-0212
24/29	44	1	217-0213
29/32	47	1	217-0214
34/35	51	1	217-0215

Stoppers, cork, conical



Natural cork, A1 quality

- Lightweight, tough
- Easy to drill holes into
- Very economical

Height (mm)	Ø bottom (mm)	Ø top (mm)	Pk	Cat. No.
16	3	6	10	217-1011
17	6	9	10	217-1012
18	7	10	10	217-1013
20	8	11	10	217-1014
20	9	12	10	217-1015
22	10	13	10	217-1016
22	12	15	10	217-1017
22	14	17	10	217-1018
22	16	19	10	217-1019
26	18	22	10	217-1020
27	20	24	10	217-1021
27	22	26	10	217-1022
27	24	28	10	217-1023
27	26	30	10	217-1024
27	28	32	10	217-1025



Funnels with short stem



Borosilicate glass, grade 3.3

With smooth internal walls.

- Very good chemical resistance
- High temperature resistance
- Minimal thermal expansion giving relatively high resistance to temperature changes

ISO 4798

Funnel O-Ø (mm)	Stem O-Ø (mm)	For filter Ø (mm)	Stem length (mm)	Pk	Cat. No.
35	6	45 - 55	35	2	221-0175
45	6	55 - 70	45	2	221-0176
55	8	70 - 90	55	2	221-0177
70	8	110 - 125	70	2	221-0178
80	10	125 - 150	80	2	221-0179
100	10	150 - 185	100	2	221-0180
120	16	185 - 240	120	2	221-0181
150	16	240 - 270	150	2	221-0182



Funnels with long stem



Borosilicate glass, grade 3.3

With smooth internal walls.

- Very good chemical resistance
- High temperature resistance
- Minimal thermal expansion, giving relatively high resistance to temperature changes

ISO 4798

Stem O-Ø (mm)	Stem length (mm)	Pk	Cat. No.
65	150	2	221-0172
80	150	2	221-0173
110	180	2	221-0174

Funnels with short stem, disposable



PP or PS

Suitable for use with standard filter paper.

- Good chemical resistance
- Good temperature resistance
- PP funnels are autoclavable

Funnel O-Ø (mm)	Stem O-Ø (mm)	Length (mm)	Stem length (mm)	Pk	Cat. No.
PP					
55	7,4/4,3	71,3	27,1	100	221-0252
65	7,4/4,3	74,4	22,7	100	221-0251
PS					
55	7,4/4,3	71,3	27,1	100	221-0253



Funnels, analytical



PP, translucent

Designed for use with standard filter paper. Cone angle 60°.

- Inner ribs at an angle of 58° for rapid filtration
- Outer ribs prevent air from being trapped under the filter paper
- Very good chemical and temperature resistance

Funnel O-Ø (mm)	Stem length (mm)	Stem O-Ø (mm)	Length (mm)	Pk	Cat. No.
35	49,3	6,3	75,8	12	221-0243
45	52,0	7,1	84,6	12	221-0244
55	59,5	7,1	103,4	12	221-0245
65	61,4	6,4	111,7	12	221-0246
75	76,3	6,8	139,4	6	221-0247
90	89,0	8,2	164,0	6	221-0248
100	95,4	9,1	180,0	4	221-0249
160	154,0	14,0	280,0	2	221-0250



Funnels with long stem



PTFE, white

Conical opening with long stem.

- Temperature resistance: -200 to +280 °C
- Totally chemically inert
- Super smooth non-stick internal finish

I-Ø top (mm)	Stem O-Ø (mm)	Length (mm)	Pk	Cat. No.
30	8	50	1	221-0204
50	10	85	1	221-0205
70	12	110	1	221-0206
100	14	170	1	221-0207
150	16	220	1	221-0208



Funnels, powder



Borosilicate glass, grade 3.3

With smooth internal walls. For transferring powders. Can also be used for liquids.

- Good chemical and physical properties
- Very good thermal resistance
- Quick and easy to clean

Funnel O-Ø (mm)	Stem length (mm)	Pk	Cat. No.
50	18	2	221-0183
60	18	2	221-0184
80	22	2	221-0185
100	25	2	221-0186
120	30	2	221-0187
160	35	2	221-0188



Funnels, powder, with short wide stem



PP, translucent

Used for transferring powders.

- Parallel stem minimises powder bridging
- External ribs for better air evacuation
- Very good chemical and temperature resistance

Funnel O-Ø (mm)	Stem O-Ø (mm)	Stem length (mm)	Length (mm)	Pk	Cat. No.
65	15,6	20,7	66,7	12	221-0239
80	15,8	30,0	85,2	12	221-0240
105	20,5	33,0	106,2	6	221-0241
150	26,7	33,0	136,5	4	221-0242

FASTLoad peristaltic pumps



Tube I/D	0.8 mm	1.6 mm	3.2 mm	4.8 mm	6.3 mm	8.0 mm
Flow rate (Auto, Programmable, Dispensing)	0.8 - 19 ml/min	2.8 - 70 ml/min	11 - 270 ml/min	24 - 587 ml/min	38 - 937 ml/min	53 - 1312 ml/min

The VWR FASTLoad peristaltic pump series provides highly accurate and reproducible flow rates from 0,8 ml/min up to 1312 ml/min.

Offering 4 models: Manual control, Auto control, Programmable control (all IP 40) and a Dispensing control (IP 66) version.

- Variable speed/flow rate
- Easy tube change due to the FASTLoad pump head
- Three roller rotors
- Stackable pump heads (except pump with manual control)
- User friendly keypad control with 2 line alpha-numeric display

Manual Control Pump (IP40)

- Simple manual control
- Speed from 15 to 150 rpm
- Replaceable brush motor

Description	Pk	Cat. No.
FASTLoad Manual control peristaltic pump (UK-plug)	1	181-0180
FASTLoad Manual control peristaltic pump (EU-plug)	1	181-0184
FASTLoad Manual control peristaltic pump (CH-plug)	1	181-0188

Remote Control Pump (IP40)

- Manual and analogue control
- Speed from 10 to 250 rpm
- Remote speed control, remote Stop/Start/Reverse

Description	Pk	Cat. No.
FASTLoad Auto control peristaltic pump (UK-plug)	1	181-0181
FASTLoad Auto control peristaltic pump (EU-plug)	1	181-0185
FASTLoad Remote control peristaltic pump (CH-plug)	1	181-0189

Programmable Control Pump (IP40)

- Manual, analogue and digital control
- Speed: From 10 to 250 rpm
- Tube size selector: 6 tube sizes
- Remote speed control, remote Stop/Start/Reverse
- Single or repeat dosing

Delivery Information: Delivered with a RS232 computer signal interface

Description	Pk	Cat. No.
FASTLoad Programmable control peristaltic pump (UK-plug)	1	181-0182
FASTLoad Programmable control peristaltic pump (EU-plug)	1	181-0186
FASTLoad Programmable control peristaltic pump (CH-plug)	1	181-0190

Dispensing Control Pump (IP60)

- Manual, analogue and digital control
- Speed: From 10 to 250 rpm
- Tube size selector: 6 tube sizes
- Remote speed control, remote Stop/Start/Reverse
- Single or repeat dosing

Delivery Information: Delivered with a RS232 computer signal interface

Description	Pk	Cat. No.
FASTLoad, Dispensing control, programmable pump (UK-plug)	1	181-0183
FASTLoad, Dispensing control, programmable pump (EU-plug)	1	181-0187
FASTLoad, Dispensing control, programmable pump (CH-plug)	1	181-0191

Accessories

Description	Pk	Cat. No.
FASTLoad stackable pump head	1	181-0251
FASTLoad pump head	1	181-0291



Tubing, silicone



Silicone, transparent to translucent, peroxide cross-linked

For laboratory and medical applications, pharmacies, biotechnology, fermentation and pharmaceutical production. Biologically neutral (USP XXIII Class VI). Compliant with Eur. Ph. (2nd ed.).

- Good physical properties such as pliancy, elasticity and flexibility
- Suitable for use with foodstuffs in accordance with FDA
- Produced in compliance with GMP conditions, ISO 9001 and EN 46002 (CE marking), certificate supplied with each roll

Temperature resistance: -60 to +200 °C (briefly up to +220 °C)

Hardness (Shore durometer A): 60 ±5

Density: 1,16

Ø int. (mm)	Ø ext. (mm)	Wall thickness (mm)	Pk	Cat. No.
Tubing, silicone				
1,00	3,00	1,00	15 m	228-0700
1,00	3,00	1,00	25 m	228-0701
1,50	3,00	0,75	15 m	228-0702
1,60	4,80	1,60	25 m	228-1528
2,00	4,00	1,00	15 m	228-0703
2,00	4,00	1,00	25 m	228-0704
2,00	6,00	2,00	15 m	228-0705
3,00	5,00	1,00	15 m	228-0706
3,00	5,00	1,00	25 m	228-0707
3,00	6,00	1,50	15 m	228-1500
3,00	6,00	1,50	25 m	228-1517
3,00	7,00	2,00	15 m	228-1501
3,00	7,00	2,00	25 m	228-1518
4,00	6,00	1,00	15 m	228-0708
4,00	6,00	1,00	25 m	228-0709
4,00	7,00	1,50	15 m	228-0710
4,00	8,00	2,00	15 m	228-0711
4,00	8,00	2,00	25 m	228-0712
4,00	10,00	3,00	15 m	228-1502

Continued from previous page

Ø int. (mm)	Ø ext. (mm)	Wall thickness (mm)	Pk	Cat. No.
Tubing, silicone				
4,00	10,00	3,00	25 m	228-1519
5,00	8,00	1,50	15 m	228-0713
5,00	8,00	1,50	25 m	228-0714
5,00	9,00	2,00	15 m	228-0715
5,00	10,00	2,50	15 m	228-0716
6,00	9,00	1,50	15 m	228-0717
6,00	9,00	1,50	25 m	228-0718
6,00	10,00	2,00	15 m	228-0719
6,00	10,00	2,00	25 m	228-0720
6,00	12,00	3,00	15 m	228-0721
6,00	12,00	3,00	25 m	228-0722
7,00	10,00	1,50	15 m	228-0723
7,00	11,00	2,00	15 m	228-1503
7,00	11,00	2,00	25 m	228-1520
7,00	12,00	2,50	15 m	228-1504
7,00	12,00	2,50	25 m	228-1521
7,00	13,00	3,00	15 m	228-1505
7,00	13,00	3,00	25 m	228-1522
8,00	11,00	1,50	15 m	228-0724
8,00	12,00	2,00	15 m	228-0725
8,00	12,00	2,00	25 m	228-0726
8,00	14,00	3,00	15 m	228-0727
8,00	14,00	3,00	25 m	228-0728
8,00	16,00	4,00	15 m	228-1506
8,00	16,00	4,00	25 m	228-1523
9,00	13,00	2,00	15 m	228-0729
10,00	14,00	2,00	15 m	228-0730
10,00	14,00	2,00	25 m	228-0731
10,00	16,00	3,00	15 m	228-1507
10,00	16,00	3,00	25 m	228-1524
10,00	18,00	4,00	15 m	228-1508
10,00	18,00	4,00	25 m	228-1525
12,00	15,50	1,75	15 m	228-1509
12,00	15,50	1,75	25 m	228-1526
12,00	17,00	2,50	15 m	228-1510
12,00	17,00	2,50	25 m	228-1527
15,00	21,00	3,00	5 m	228-1511
18,00	24,00	3,00	5 m	228-1512
20,00	27,00	3,50	5 m	228-1513
25,00	35,00	5,00	5 m	228-1514
30,00	40,00	5,00	5 m	228-1515
40,00	50,00	5,00	5 m	228-1516



E-BUSINESS

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Spatulas, disposable



PP

Multipurpose, robust and inexpensive tools for collecting, transferring and processing samples of chemical and biological materials. The innovative shape of the spatula allows it to be used as a spatula, spoon, scoop, scraper, mixing rod or wiper. Ideal for recovering samples that have been frozen in liquid nitrogen. The Macro type disposable spatulas are 50% larger than standard disposable spatulas. The long shaft makes it easier to pick up material in larger containers.

- Resistant to dilute acids and alkalis
- Reduced cross-contamination
- Autoclavable

Compliant with FDA standards for applications involving contact with food

Description	Type	Length (mm)	Colour	Pk	Cat. No.
Standard disposable spatulas	Standard	210	Blue	300	231-0103
Standard disposable spatulas	Standard	210	Natural	300	231-0104
Macro disposable spatulas	Macro	310	Green	150	231-0105
Micro disposable spatulas, anti-static	Micro	140	Natural	300	231-0106
Sterile disposable spatulas		210	Natural	100	231-0369
Disposable Eco spatulas, biodegradable (EcoPure® additive)	Eco	140	Natural	300	231-0416



Cutlery, multipurpose



PS, white

Multipurpose utensil - knife, fork and spoon in one. For aseptic liquid and solid sample collection and processing in the food, pharmaceuticals or cosmetics industries. 180 mm long, spoon capacity 4 ml.

- Individual, sterile packaging
- Impact resistant material
- For left or right handed use

Pk	Cat. No.
500	612-1550

Scoop



PTFE

- Totally chemically inert
- Overall length 140 mm

Length (mm)	Width (mm)	Ø (mm)	Pk	Cat. No.
80	30	20	1	231-0501

Forceps



PTFE, white

- Very good chemical resistance, inert, non stick
- Temperature resistant from –200 to +280 °C
- Smooth surfaces prevent contamination and allow easy cleaning

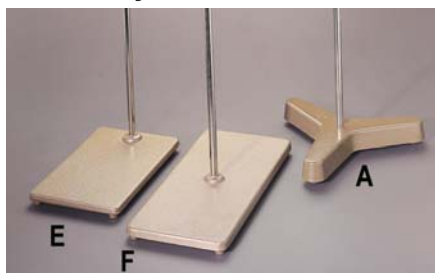
Type	Length (mm)	Pk	Cat. No.
Square end	100	1	232-0150
Sharp end	100	1	232-0151
Square end	150	1	232-0152
Sharp end	150	1	232-0153
Square end	200	1	232-0154
Sharp end	200	1	232-0155



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Laboratory stands



Tripod stands (A)

Cast iron tripod stand, hammer finish enamel, with steel support rod, nickel plated

- Threaded hole
- Support rod (three lengths available with different diameters)
- Robust, secure stand

Description	Arm length (mm)	Pk	Cat. No.
Tripod stand (A) with rod (500 mm length, 8 mm Ø)	115	1	241-0090
Tripod stand (A) with rod (800 mm length, 12 mm Ø)	145	1	241-0091
Tripod stand (A) with rod (1000 mm length, 16 mm Ø)	175	1	241-0092

Support stands (E)

Cast iron stand base, painted with hammer finish, phosphated, painted steel support rod

With eccentrically attached support rod.

- Firm, non-slip stand
- Available in three different sizes
- Robust, corrosion resistant

Description	Length (mm)	Width (mm)	Pk	Cat. No.
Support stand (E) with rod (500 mm length, 8 mm Ø)	225	140	1	241-0093
Support stand (E) with rod (800 mm length, 12 mm Ø)	250	160	1	241-0094
Support stand (E) with rod (1000 mm length, 16 mm Ø)	270	180	1	241-0095

Support stands (F)

Cast iron stand base, painted with hammer finish, steel support rod, nickel plated

With centrally attached support rod.

- Firm, non-slip stand
- Available in three different sizes
- Robust, corrosion resistant

Description	Length (mm)	Width (mm)	Pk	Cat. No.
Support stand (F) with rod (500 mm length, 8 mm Ø)	300	140	1	241-0099
Support stand (F) with rod (800 mm length, 12 mm Ø)	340	160	1	241-0100
Support stand (F) with rod (1000 mm length, 16 mm Ø)	380	180	1	241-0101

Curved base stand

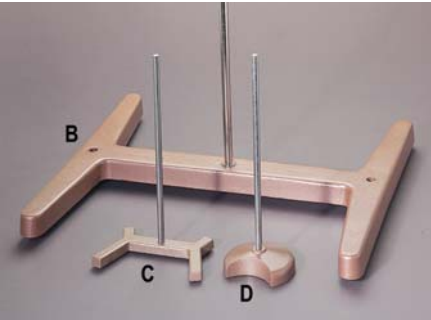


PU coated cast iron stand, high grade steel rod 500×12 mm.

- Special shape of the stand ensures it is particularly solid and steady

Description	Pk	Cat. No.
Curved base stand	1	241-0104

Large H stands (B)



H-shaped stands with nickel-coated steel rod and 420×400 mm grey marbled cast iron baseplate.

- H-shaped stand has adjustable baseplate
- Designed to accommodate the upright in any one of three positions

Description	L×W (mm)	Weight (kg)	Pk	Cat. No.
Stand with H-shaped baseplate, rod 16×1000 mm	400×420	8,3	1	241-0116
Stand with H-shaped baseplate, rod 21×800 mm	400×420	8,3	1	241-0117

Electrode stand



For two electrodes.

- Sturdy painted cast iron stand, provides a firm footing
- Stainless steel support rod
- Acrylic electrode holder fitted using knurling screws

Description	Pk	Cat. No.
Stand for 2 electrodes	1	241-0114

Stand with holder for separating funnels



PU coated cast iron stand 450×200 mm, steel rod 500×12 mm, bosshead and holder for two funnels.

- Height of holder can be adjusted
- Holder measures 300×100 mm, apertures for funnels measure 65 mm - centre distance 200 mm

Description	L×W (mm)	Pk	Cat. No.
Stand with funnel holder for two funnels	200×450	1	241-0046

Stand with holder for funnels



Grey iron stand 450×200 mm, steel rod 500×12 mm, bosshead and holder for four funnels.

- Height of holder can be adjusted
- Holder measures 400×80 mm
- Apertures for funnels measure 100 mm and recesses in front of the apertures for funnels have a diameter of 40 mm

Description	L×W (mm)	Pk	Cat. No.
Stand with funnel holder for four funnels	200×450	1	241-0045

Support plates



Support plate, square

- Large area: 200×200 mm
- Can be attached to support rods up to 16 mm diameter by means of a thumbscrew
- Central hole: 7 mm diameter

Description	Pk	Cat. No.
Support plate, square	1	241-0089

Hex key



Toughened steel

This six-sided key is designed for use with Labomeca® bosses, joints and feet.

- Hollow six-sided screws can be replaced with thumbscrews for assemblies which require frequent dismantling

Description	Pk	Cat. No.
Securing keys	5	241-0053

Bossheads



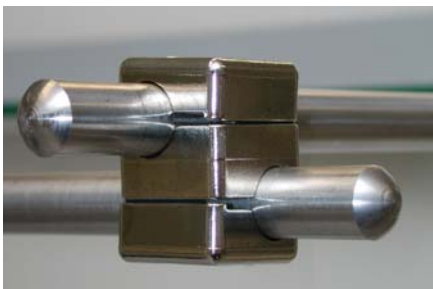
For assembling 12, 13 and 16 mm diameter rods.

- Bossheads can be fully opened; this enables the rod to be securely attached in the desired position
- Easy to assemble and disassemble by means of an Allen key (optional, part number 241-0053)
- Very good chemical resistance, robust

Material	For	For rod Ø (mm)	Pk	Cat. No.
Stainless steel	< 3,5 Nm*	12 - 12, 7 - 13	10	241-0119
Stainless steel	< 3,5 Nm*	16	10	241-0120

* When stainless steel boss is locked onto stainless steel rod it can not be moved by a rotational force less than 3,5 Nm

Bossheads



For assembling 8, 12, 13, 16 and 21 mm diameter rods.

- Light yet robust design
- Bossheads open out completely enabling them to be secured instantly at the required position on any rod
- Lock into place with a Labomeca® Allen key (optional, part number 241-0053)

Material	For	For rod Ø (mm)	Pk	Cat. No.
Laboral aluminium alloy	< 3* Nm	8×8	10	241-0128
Laboral aluminium alloy	< 3*or 6** Nm	8×12	10	241-0224
Laboral aluminium alloy	< 6** Nm	12 - 12, 7 - 13	10	241-0129
Laboral aluminium alloy	< 6* or 25*** Nm	12×16	10	241-0130
Laboral aluminium alloy	< 25*** Nm	16×16	10	241-0131
Laboral aluminium alloy	< 25*** Nm	21×21	3	241-0133

* When 8 mm boss is locked onto duralumin rod it can not be moved by a rotational force less than 3 Nm

** When 8 - 12 mm boss is locked onto duralumin rod it can not be moved by a rotational force less than 6 Nm

*** When 16 mm boss is locked onto duralumin rod it can not be moved by a rotational force less than 25 Nm

Continued from previous page

Bossheads, universal



- Light robust design
- With easy action, knurled screws for fixing

Material	Spanning width (mm)	Pk	Cat. No.
Laboral aluminium alloy	1,5 - 13	5	241-0143
Laboral aluminium alloy	2 - 16	5	241-0017
Stainless steel	2 - 16	2	241-0109
Aluminium bronze	8 - 27	2	241-0025
Stainless steel	8 - 27	2	241-0110

Bossheads, universal, pivoting



For connecting two retort rods at any angle

- Tommy screw for securing the bosshead at the desired angle
- T-screws for securing the retort rods

Material	Spanning width (mm)	Pk	Cat. No.
Laboral aluminium alloy	3 - 16	2	241-0113

Stand clamps with flexible rod



Laboral aluminium alloy

Clamp with flexible arm, mounting rod 12 mm Ø and rod length is 200 mm.

- Round jaws covered in vinyl to protect clamped items
- Convenient flexible arm has a maximum load of 500 g

Spanning width (mm)	Pk	Cat. No.
15 - 65	2	241-0040

Clamps



Laboral aluminium alloy

- Round jaws covered in vinyl to protect clamped items
- With one easy-action knurled screw for securing

Spanning width (mm)	Pk	Cat. No.
8 - 30	5	241-0013

Clamps



Laboral aluminium alloy

- Round jaws covered in vinyl to protect clamped items
- With one easy-action knurled screw for securing

Spanning width (mm)	Pk	Cat. No.
15 - 65	5	241-0020

Clamps



Laboral aluminium alloy

- Round jaws covered in vinyl to protect clamped items
- With two easy-action knurled screws for adjusting each of the movable clamping jaws independently of each other

Spanning width (mm)	Pk	Cat. No.
22 - 70	2	241-0032

Clamps



Stainless steel

Easy to use, robust clamps.

- Round, independently adjustable jaws, jaw height 16 & 25 mm
- With two easy-action knurled screws for adjusting each of the movable clamping jaws independently of each other

Spanning width (mm)	Pk	Cat. No.
8 - 35	3	241-0037
20 - 75	2	241-0023

Protecting covers for clamp jaws

Vinyl, red

Suitable for VWR® clamps with rounded jaws.

- Good chemical and thermal stability
- Fits snugly but easily over the clamp jaws
- Protects clamped items

For	Pk	Cat. No.
Clamps 241-0013	10	241-0150
Clamps 241-0020/241-0023	10	241-0151
Clamps 241-0032	10	241-0149

Clamps, three pronged, with flexible rod



Laboral aluminium alloy

- Jaws covered in vinyl to protect clamped items
- Clamp rod diameter: 8 mm; rod length: 200 mm

Spanning width (mm)	Pk	Cat. No.
0 - 30	2	241-0034

Clamps, three pronged



Laboral aluminium alloy

- Clamping fingers covered in vinyl to protect clamped items
- With easy-action knurled screw for adjusting the clamping prongs

Spanning width (mm)	Pk	Cat. No.
0 - 30	5	241-0015

Clamps, three pronged



Laboral aluminium alloy

- Clamping prongs covered in vinyl to protect clamped items
- With two easy-action knurled screws for adjusting the clamping fingers independently of each other

Spanning width (mm)	Pk	Cat. No.
12 - 100	5	241-0019

Clamps, four pronged



Stainless steel

- Robust design, clamp rod diameter 12 mm, 140 mm long
- With two easy-action knurled screws for adjusting the clamping fingers independently of each other

Spanning width (mm)	Pk	Cat. No.
35 - 100	2	241-0029

Protecting covers for clamp prongs

Vinyl, red

Suitable for VWR® clamps with prongs.

- Good chemical and thermal stability
- Fits snugly but easily over the clamp jaws
- Protects clamped items

For	Pk	Cat. No.
Clamps 241-0019	10	241-0152
Clamps 241-0029	40	241-0153

Burette clamps



Vinyl, black

Simple model.

- For two burettes up to 12 mm diameter
- Easy height adjustment
- Can be attached to stand rods using knurled screws

For	Pk	Cat. No.
Two burettes	2	241-0043

Funnel holder



PP, white

- Stainless steel bosshead to fit rods up to 12 mm diameter
- Acid resistant

Description	Pk	Cat. No.
Funnel holder for 4 funnels up to 100 mm diameter	1	241-0105
Holder for 2 separating funnels, apertures 65 mm diameter	1	241-0106

Laboratory jacks



Aluminium, with stainless steel plates

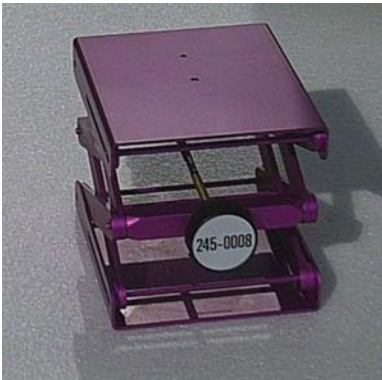
High quality, stable and inexpensive range of lifting platforms for a variety of uses. With plates made from matt, brushed, non rusting stainless steel, and smooth running aluminum frame with scissor action. Rubber feet ensure stable support.

- Ergonomically designed height adjustment knob for easy operation
- Available with several different platform sizes
- With 10 mm hole for stands (not 245-1220)

Plate size (mm)	Max. static load capacity (kg)	Working height (mm)	Pk	Cat. No.
75x80	15	49 - 147	1	245-1220
120x140	30	60 - 243	1	245-1221
130x160	60	65 - 255	1	245-1222
200x200	80	70 - 260	1	245-1223
240x240	80	60 - 265	1	245-1226
300x300	80	130 - 470	1	245-1227
400x400	80	165 - 615	1	245-1228

Description	For	Pk	Cat. No.
Accessories			
Retort rod, aluminium, 400 mm, Ø 12 mm	245-1221, 245-1222, 245-1223, 245-1226, 245-1227, 245-1228	1	241-0227

Laboratory jacks



Aluminium, with anodised colouring

With M 10 threaded hole in the middle of the top plate for attaching stand rods (starting from item number 245-0006).

- Smooth adjustment of working height
- Extreme stability
- Exceptionally sturdy
- Corrosion resistant and non susceptible to a wide range of chemicals

Plate size (mm)	Max. static load capacity (kg)	Working height (mm)	Colour	Pk	Cat. No.
50x40	20	31 - 93	Lilac	1	245-0004
80x75	30	49 - 147	Lilac	1	245-0005
120x140	50	60 - 243	Lilac	1	245-0006
122x150	80	80 - 278	Lilac	1	245-0007
180x216	90	95 - 398	Lilac	1	245-0008
240x320	90	120 - 500	Lilac	1	245-0009

Accessories for laboratory jacks

Extension panels

Aluminium, grey/black anodised. Increase the size of the work surface.

Stand plates

Aluminium, anodised grey/black. For securing to support stands.

Stand rods

Aluminium, anodised yellow. Can only be used in conjunction with the two extension panels 245-0017, 650 mm long, 12 mm diameter.

Stand fixture

Aluminium, anodised. For fixing laboratory racks to stand rods, etc.

Description	Base	For	Pk	Cat. No.
Support	-	245-0005, 245-0006, 245-0007, 245-0008	1	245-0014
Support rod	-	245-0006, 245-0007, 245-0008	1	245-0016
Retort stand plate	200x200	Sockets up to 16 mm	1	245-0015
Additional plate	180x260	245-0006, 245-0007, 245-0008	1	245-0019
Additional plate	200x200	245-0006, 245-0007, 245-0008	1	245-0017
Additional plate	300x300	245-0006, 245-0007, 245-0008	1	245-0018
Additional plate	320x220	245-0006, 245-0007, 245-0008	1	245-0021
Additional plate	400x500	245-0009	1	245-0020

Laboratory jacks, extra stable, with and without motor drive



Aluminium, anodised in yellow/black

Height-adjustable work surfaces for precise placement of tools and containers on laboratory apparatus. Very stable model due to special two-spindle system. On models with an electric motor, the desired bottom and top limit positions can be adjusted to any position. When it reaches this position, the lifting platform stops automatically. These lifting platforms are also suitable for repetitive work steps. They can be controlled remotely and their speed can be controlled steplessly.

- Available with or without casters with fixed or free-running capability
- Two-spindle system assures exceptional stability
- Capable of sustaining heavy loads
- Corrosion resistant and resistant to a wide range of chemicals
- Remote controllable

Plate size (mm)	Max. static load capacity (kg)	Working height (mm)	With	Pk	Cat. No.
400×400	150	253 - 629	-	1	245-0010
400×400	150	253 - 629	Motor	1	245-0011
400×400	150	253 - 629	Rollers	1	245-0012
400×400	150	253 - 629	Motor and Rollers	1	245-0013



INSTRUMENT SERVICE AND MAINTENANCE

Please contact your local VWR sales office for more information

Dispenser for PARAFILM® M sealing film



Clear acrylic

For clean storage and easy dispensing of PARAFILM® M sealing film.

- Designed for two rolls 50 mm wide or one roll 100 mm wide
- With serrated blade for easy cutting
- Easy to clean

Description	Pk	Cat. No.
Dispenser for PARAFILM® M sealing film	1	631-0726

Foil dispenser



ABS

This foil dispenser is designed as an inexpensive solution for precut foil squares.

- Small size allows for use in limited spaces and easy transport
- Unique blade and cover activation allows the foil to be cut to a desired length
- Foam strip positioned along the length of the cover prevents the foil from retracting back into the dispenser

Description	WxDxH (mm)	Pk	Cat. No.
Foil dispenser	100x190x120	1	113-1575

Description	Pk	Cat. No.
Foil rolls		
Foil rolls, 102 mmx153 m	24	113-1576
Foil rolls, 153 mmx153 m	24	113-1577



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Sampling and Cell Culture

The right sample selection - taken at random or continuously, inline or online - is the basis of analysis. This chapter lists all the instruments necessary to take a sample, including products for sampling in cell culture.

Sampling

Samplers - Fluid	138
Bags and Swabs	140

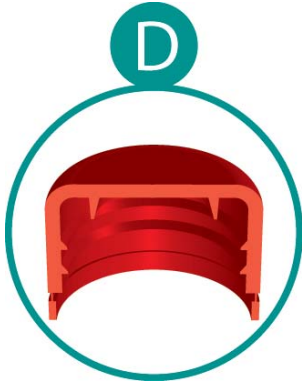
Cell Culture

Incubators	146
Petri Dishes	147
Inoculating Loops and Needles	148
Stoppers	150
Flasks	152
Plates and Dishes	152
Bottles and Tubes	153
Sealing Systems and Accessories	155





Water sampling bottles, sterile



HDPE

The flasks are dosed with sodium thiosulphate, which inhibits the effects of chlorine, bromine and ozone present in the water when the sample is taken. Square or rectangular bottles for more efficient storage.

- Dosage in compliance with standards: 20 mg/l French standard NFT90-400, 120 mg/l ISO 5667-3
- Sodium thiosulphate in powder form
- Tamper evident red screw cap guarantees the sterility of the bottles prior to use
- Shelf life up to 2 years

Capacity (ml)	Dosage	Cap	Packed	Neck Ø ext. (mm)	WxDxH (mm)	Pk	Cat. No.
Square bottles, narrow neck							
500	Undosed	Tamper evident hinged cap with inner lip and safety ring	Carton of 100	29,0	70×70×148	100	331-0062
500	Undosed	Tamper evident screw cap with wad	Carton of 100	22,0	70×70×157	100	331-0063
500	Sodium thiosulphate (20 mg/l)	Tamper evident screw cap with shaped seal	individually wrapped	32,0	70×70×160	100	331-3412
500	Sodium thiosulphate (20 mg/l)	Tamper evident screw cap with shaped seal	Carton of 100	32,0	70×70×160	100	331-3411
500	Sodium thiosulphate (20 mg/l)	Tamper evident hinged cap with inner lip and safety ring	individually wrapped	32,0	70×70×148	100	331-3405
500	Sodium thiosulphate (20 mg/l)	Tamper evident hinged cap with inner lip and safety ring	Carton of 100	32,0	70×70×148	100	331-3403
500	Sodium thiosulphate (20 mg/l)	Screw cap with wad	Carton of 100	32,0	70×70×146	100	331-0066
500	Sodium thiosulphate (120 mg/l)	Tamper evident screw cap with shaped seal	individually wrapped	32,0	70×70×160	100	331-0068
500	Sodium thiosulphate (120 mg/l)	Tamper evident screw cap with shaped seal	Carton of 100	32,0	70×70×160	100	331-3427
500	Sodium thiosulphate (120 mg/l)	Tamper evident hinged cap with inner lip and safety ring	individually wrapped	32,0	70×70×148	100	331-0067
500	Sodium thiosulphate (120 mg/l)	Tamper evident hinged cap with inner lip and safety ring	Carton of 100	32,0	70×70×148	100	331-3426
1000	Sodium thiosulphate (20 mg/l)	Tamper evident screw cap with shaped seal	individually wrapped	32,0	82×82×182	77	331-3526
1000	Sodium thiosulphate (20 mg/l)	Tamper evident screw cap with shaped seal	Carton of 77	32,0	82×82×182	77	331-3428
1000	Sodium thiosulphate (120 mg/l)	Tamper evident screw cap with shaped seal	individually wrapped	32,0	82×82×182	77	331-0065
1000	Sodium thiosulphate (120 mg/l)	Tamper evident screw cap with wad	Carton of 77	32,0	82×82×182	77	331-0064
Rectangular bottles, narrow neck							
250	Sodium thiosulphate (20 mg/l)	Tamper evident screw cap with shaped seal	individually wrapped	20,0	60×45×155	200	331-3408
250	Sodium thiosulphate (20 mg/l)	Tamper evident screw cap with shaped seal	Carton of 312	20,0	60×45×155	312	331-3407
Square bottles, wide neck							
250	Sodium thiosulphate (20 mg/l)	Screw cap with wad	individually wrapped	37,0	57×57×109	182	331-0070
250	Sodium thiosulphate (20 mg/l)	Screw cap with wad	Carton of 210	37,0	57×57×109	210	331-0069

Continued from previous page

Capacity (ml)	Dosage	Cap	Packed	Neck Ø ext. (mm)	WxDxH (mm)	Pk	Cat. No.
Square bottles, wide neck							
500	Sodium thiosulphate (20 mg/l)	Tamper evident screw cap with wad	Carton of 140	55,0/58,0	75x75x128	140	331-0050
500	Sodium thiosulphate (120 mg/l)	Tamper evident screw cap with wad	individually wrapped	55,0/58,0 mm	75x75x128	162	331-0051
Rectangular bottles, wide neck							
1000	Sodium thiosulphate (20 mg/l)	Tamper evident screw cap with wad	Carton of 85	55,0/58,0	92x77x187	85	331-0052
1000	Sodium thiosulphate (120 mg/l)	Tamper evident screw cap with wad	Carton of 85	55,0/58,0	92x77x187	85	331-0053
2000	Sodium thiosulphate (20 mg/l)	Tamper evident screw cap with wad	Carton of 50	55,0/58,0	110x93x237	50	331-0054

Sample dippers



PTFE, inert

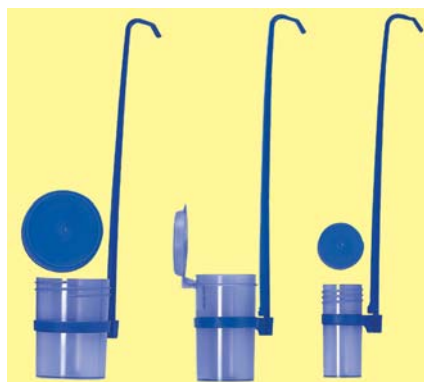
Extendible screw-in shafts have a steel core for rigidity and are fully encapsulated in PTFE. The basic unit consists of a container with a single 600 mm shaft. A second shaft (331-0005) can be screwed onto the handle for more length.

- Very good chemical resistance
- Temperature resistant; suitable for use at high and low temperatures (–200 to +280 °C)

Description	Capacity	Pk	Cat. No.
Replacement/extension shaft, 600 mm	-	1	331-0005
Dipper	100	1	331-0006
Dipper	250	1	331-0007
Dipper	500	1	331-0008
Dipper	1000	1	331-0009



Sample dippers



All sample dippers are made of blue polypropylene and consist of a bottle with snap handle. Available with either hinged or screw cap.

- Containers designed for sample collection and dispatch for testing in the same container, eliminating cross-contamination risks
- Gamma sterilised and individually packed in sealed zip bag to guarantee integrity of sample

Description	Capacity (ml)	Pk	Cat. No.
Sample dippers, hinged cap	90	150	331-3413
Sample dippers, screw cap	40	250	331-3414
Sample dippers, screw cap	180	100	331-3415
Sample dippers, screw cap	125	100	331-3416

Scoop



PTFE

- Totally chemically inert

Description	Capacity (ml)	Pk	Cat. No.
Scoop, PTFE	10	1	231-0500



Bags, twist-seal



LDPE bags, manufactured and packaged in sterile conditions

Universal use for samples such as foods, liquids, grains, petroleum products, animal material, waste and soil samples.
Market segment: Environmental sampling (surface samples), carcass sampling, biomedical and pharmaceutical research, quality assurance procedures (QA/QC), food industry applications and clinical and veterinary medicine.

- Provide a secure, contaminant-free flexible container that ensures dependable analytical results
- RNase, DNase, pyrogen and BPA-free
- Offers an economical and efficient way to collect, contain and carry samples
- Wire tab keeps bag open for filling
- Unique double fold over system provides a temporary leakproof seal

The Opaque TWIRL'EM® is used by the food, pharmaceutical and environmental industries. The black resin is a total light barrier that protects photo-sensitive substances, such as vitamins, chemicals and pharmaceuticals, or food supplements, plant extracts and biological tissues.

Closure with 2 round wires, without write-on panel

Capacity (ml)	Thickness (µm)	Dimensions (mm)	Pk	Cat. No.
60	63	76×127	500	129-9831
150	63	76×178	500	129-9832
355	76	114×190	500	129-9833
450	63	114×229	500	129-9834
650	76	140×229	500	129-9837
900	63	114×305	500	129-9835
1200	63	114×382	500	129-9836
1500	76	140×382	500	129-9838
1650	76	178×305	250	129-9839

Closure with 2 round wires, with write-on panel

Capacity (ml)	Thickness (µm)	Dimensions (mm)	Pk	Cat. No.
60	63	76×127	500	129-9842
150	63	76×178	500	129-9843
450	63	114×229	500	129-9844
650	76	140×229	500	129-9846
900	63	114×305	500	129-9845
1650	76	178×305	250	129-9847

Closure with 1 round and 1 flat wire, without write-on panel

Capacity (ml)	Thickness (µm)	Dimensions (mm)	Pk	Cat. No.
150	63	76×178	500	129-9850
450	63	114×229	500	129-9851
650	76	140×229	500	129-9854
900	63	114×305	500	129-9852
1200	63	114×382	500	129-9853
1500	76	140×382	500	129-9855
1650	76	178×305	250	129-9856

Closure with 1 round and 1 flat wire, with write-on panel

Capacity (ml)	Thickness (µm)	Dimensions (mm)	Pk	Cat. No.
150	63	76×178	500	129-9859
450	63	114×229	500	129-9860
650	76	140×229	500	129-9862
900	63	114×305	500	129-9861
1650	76	178×305	250	129-9863

Continued from previous page

Jumbo type, stronger, with 2 flat wires, without write-on panel

Capacity (ml)	Thickness (µm)	Dimensions (mm)	Pk	Cat. No.
3000	101	305×305	250	129-9876
4250	101	305×356	250	129-9877
5500	101	305×406	250	129-9878
6750	101	305×457	250	129-9879
8000	101	305×508	250	129-9880
10500	101	305×610	250	129-9881
13000	101	305×711	250	129-9882
15000	101	382×610	250	129-9883

Opaque bag: Closure with 2 round wires, with write-on panel

Capacity (ml)	Thickness (µm)	Dimensions (mm)	Pk	Cat. No.
450	63	114×229	500	129-9870

Safety Tabs bags: Closure with 2 round wires, with write-on panel

Capacity (ml)	Thickness (µm)	Dimensions (mm)	Pk	Cat. No.
150	63	76×178	500	129-9884
450	63	114×229	500	129-9885
650	76	140×229	500	129-9886
1650	76	178×305	250	129-9887

Safety Tabs bags: Closure with 2 round wires, with write-on panel, sterile version double bag

Capacity (ml)	Thickness (µm)	Dimensions (mm)	Pk	Cat. No.
810	76	114×305	1.000	129-9889

Safety Tabs bags: Closure with 1 round and 1 flat wire, without write-on panel

Capacity (ml)	Thickness (µm)	Dimensions (mm)	Pk	Cat. No.
1080	76	104×305	500	129-0417
1650	76	178×305	250	129-0418
2250	101	254×305	250	129-0010
4000	101	254×382	250	129-0011

Safety Tabs bags: Closure with 1 round and 1 flat wire, without write-on panel, sterile version double bag

Capacity (ml)	Thickness (µm)	Dimensions	Pk	Cat. No.
1650	101	178×305	1.000	129-9890

Safety Tabs bags: Closure with 1 round and 1 flat wire, with write-on panel

Capacity (ml)	Thickness (µm)	Dimensions (mm)	Pk	Cat. No.
450	63	114×229	500	129-9888
650	76	140×229	1.000	300-0106
1650	76	178×305	1.000	300-0107
2250	101	254×305	250	129-0012
4000	101	254×382	250	129-0013

Bags, zip seal



LDPE

For storage and transport of solid samples, tubes, spare parts and documents, available with and without writing field.

- Quick sealing with guide tracks on the pressure seal
- Transparent PE for easy identification of the contents
- Can be resealed repeatedly, flexible and tear-proof

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LxW (mm)	Pk	Cat. No.
Single pocket without writing field		
60x40	1.000	129-0293
80x60	1.000	129-0294
100x70	1.000	129-0309
120x80	1.000	129-0295
150x100	1.000	129-0296
170x120	1.000	129-0297
220x160	1.000	129-0298
250x180	1.000	129-0299
300x200	1.000	129-0306
350x250	1.000	129-0307
400x300	1.000	129-0308
Single pocket with writing area		
40x60	1.000	129-0310
60x80	1.000	129-0311
70x100	1.000	129-0320
80x120	1.000	129-0312
100x150	1.000	129-0313
120x170	1.000	129-0314
160x220	1.000	129-0315
180x250	1.000	129-0316
200x300	1.000	129-0317
350x250	1.000	129-0318
300x400	1.000	129-0319
Single pocket sterile with writing field		
200x300	1.000	129-0325
Double pocket without writing field		
120x170	1.000	129-0321
160x220	1.000	129-0322
180x250	1.000	129-0323
200x300	1.000	129-0324

Critical Swab, foam-over-cotton head swabs



Disposable foam-over-cotton tip swab features 100% polyurethane foam with 100 ppi and a wooden shaft.

- Combine the benefits of foam and cotton head swabs
- Foam exterior resists abrasion and most solvents
- Cotton core is highly absorbent

Model	149-0335	149-0336
Handle length (mm)	152,0	
Handle width (mm)	2,5	
Head length (mm)	19,1	23,8
Head width (mm)	6,4	9,5
Total length (mm)	171,0	176,0

Description	Pk	Cat. No.
Small foam-over-cotton head	500	149-0335
Foam-over-cotton head	500	149-0336

Swabs, cotton head, Critical Swab



- Highly absorbent
- Low-linting formulations reduce contamination
- Economical

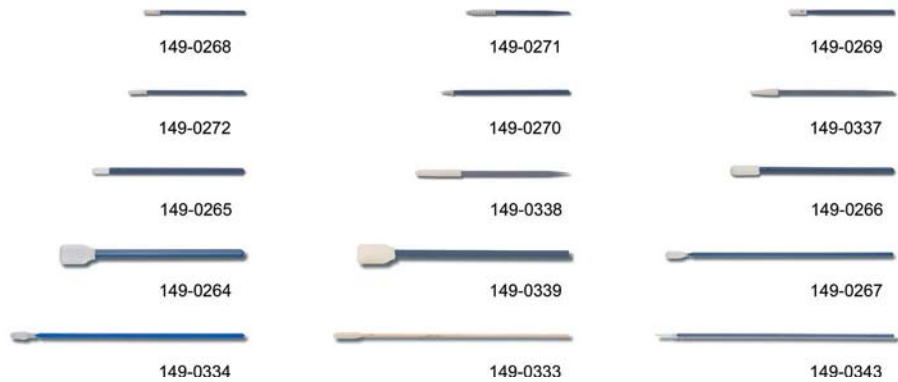
Model	149-0331	149-0332	149-0340	149-0341	149-0342
Handle length (mm)	152,0		82,0	78,0	75,5
Handle width (mm)	2,5				1,5
Head length (mm)	15,9	17,4	11,0	15,0	14,0
Head width (mm)	4,8	5,9	4,7	4,4	3,2
Total length (mm)	168,0	170,0	93,0		89,5

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Description	Pk	Cat. No.
Absorbent cotton tip and wooden shaft, autoclavable	1.000	149-0331
Large absorbent cotton tip and wooden shaft, autoclavable	500	149-0332
Double cone-shaped, highly absorbent cotton heads, packaged in an anti-static leaf pack, white	1.250	149-0340
Double, highly absorbent cotton heads, packaged in an anti-static leaf pack, white	2.500	149-0341
Double slim highly absorbent cotton heads, packaged in an anti-static leaf pack, white	2.500	149-0342

Swabs, foam head, Critical Swab



The VWR Critical Swab line includes foam head swabs, cotton head swabs, and foam-over-cotton head swabs, suitable for a wide variety of applications. Swabs feature 100 ppi open or closed cell polyurethane foam with 100% virgin polypropylene handle. Swab heads are thermally bonded to the handle without using adhesive. Some have a blue glass-filled polypropylene shaft for extra rigidity, specially for use in critical environments.

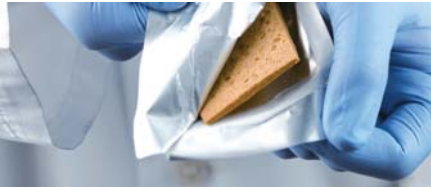
- Ideal for use in controlled environments
- Withstand most widely used solvents
- Non abrasive to protect delicate components

Model	149-0264	149-0265	149-0266	149-0267	149-0268	149-0269	149-0270	149-0271	149-0272	149-0333	149-0334	149-0337	149-0338	149-0339	149-0343
Handle length (mm)	106,0	93,0		146,0	57,5	59,0	79,0	50,0	59,7	152,0		83,0	82,8	130,0	161,0
Handle width (mm)	6,6	4,3		3,2	2,4	3,0		2,5	2,2	2,5	3,1	2,5		5,0	2,4
Head length (mm)	25,0	12,0	21,0	17,0	10,5	12,0	10,0	20,0		17,4	15,1	17,5	25,4		14,6
Head width (mm)	15,0	4,8	7,0	6,2	3,4	3,6	3,5	3,4	3,2	4,8		3,9	3,6	13,5	1,8
Total length (mm)	131,0	105,0	114,0	163,0	68,0	71,0	89,0	70,0	79,7	170,0	167,0	100,0	108,0	152,0	173,0

Description	Pk	Cat. No.
Large rectangular foam head (closed)	100	149-0264
Medium flexible foam head with a nylon handle (closed)	100	149-0265
Large flexible foam head (closed)	100	149-0266
Medium foam head (open)	500	149-0267
Small foam head with flexible tip (open)	500	149-0268
Small foam head (open)	500	149-0269
Mini pointed compressed foam head (open)	500	149-0270
Medium pointed compressed foam head (open)	500	149-0271
Micro foam head (open)	500	149-0272
Foam head with a wooden shaft	500	149-0333
Paddle-shaped foam head	500	149-0334
Cone-shaped reticulated foam head with a blue glass-filled polypropylene shaft	500	149-0337
Extended-length reticulated foam head, handle end pointed for dual use, with a blue glass-filled polypropylene shaft	500	149-0338
Large rectangular foam head	500	149-0339
Fine-point reticulated foam head with a blue glass-filled polypropylene shaft	500	149-0343



Surface sampling kits



The Surface Sampling Kit SANI-SPONGE is designed to collect samples to detect the presence of microbiological contaminations such as Listeria, Salmonella, E. coli, and other foodborne pathogens on almost any surface. These kits are widely used in the food, medical, public health and cosmetic industries. Surface Sampling Kits come in two forms: Dry Sponge Sterile Sampling bag with write-on strip containing a dry, biocide-free cellulose sponge (38×76×16 mm when hydrated) or Wet Sponge Sterile Sampling bag accompanied by a foil-sealed, pre-moistened cellulose sponge, holding 10 ml of sterile neutralising buffer.

- All bags come with puncture-proof safety tabs, eliminating the sharp points that can cause bag puncture and/or abrasions
- Kits are sterilised using gamma irradiation
- Convenient and easy to use
- Help to eliminate several time-consuming steps

In accordance with HACCP, USDA, ACIA and CFIA requirements.

Dimensions: 114×229 mm.

Note: Gloves should be worn during all sampling procedures.

Description	Packed	Pk	Cat. No.
SANI-SPONGE, pre-moistened sponge in a bag for 540 ml volume	4×25	100	710-0936
SANI-SPONGE, dry sponge in a bag for 450 ml volume, with gloves	4×100	400	710-0860
SANI-SPONGE, dry sponge in a bag for 540 ml volume	4×100	400	710-1020



Transport swabs



A range of collection and transport devices for bacterial specimens. Available with different applicators and transport media. Shipment in aluminium packaging under nitrogen ensures longer shelf life.

- A wide range of bacteria can survive for 24 - 48 hours on the applicator and in the tube
- Proven in many studies with aerobic and anaerobic organisms
- Each swab system is individually wrapped in a pouch with a tamper-proof seal, which turns white when opened

Medium risk for transient or short-term use:

Class IIa - surgical-invasive, short-term application, for taking samples from natural orifices and surgical wounds.

Description	Pk	Cat. No.
Swab, shaft/head, transport medium, plastic/viscose, Amies gel	50	710-0432
Swab, shaft/head, transport medium, plastic/viscose, Amies gel with charcoal	50	710-0434
Swab, shaft/head, liquid transport medium, plastic/viscose, Amies liquid. Contains a fluid filled sponge. The sponge holds 1 ml of transport medium and ensures that the swab tip remains in contact with the liquid medium during transport.	50	710-0438
Swab, shaft/head, transport medium, plastic/viscose, Stuart liquid. Contains a fluid filled sponge. The sponge holds 1 ml of transport medium and ensures that the swab tip remains in contact with the liquid medium during transport.	50	710-0441
Swab, shaft/head, transport medium, aluminium/viscose, Amies gel	50	710-0433
Swab, shaft/head, transport medium, aluminium/viscose, Amies gel with charcoal	50	710-0435
Swab, shaft/head, transport medium, twisted aluminium/viscose, Amies gel	50	710-0436
Swab, shaft/head, transport medium, twisted aluminium/viscose, Amies gel with charcoal	50	710-0437
Swab, shaft/head, transport medium, aluminium/viscose, Amies liquid. Regular firm aluminium wire - orange cap ideal for male urethral sampling.	50	710-0439
Swab, shaft/head, transport medium, twisted aluminium/viscose, Amies liquid. Flexible twisted wire - blue cap specifically for nasopharyngeal sampling. Shaped wire tip covered with soft rayon.	50	710-0440



Transport swab, Transystem M40



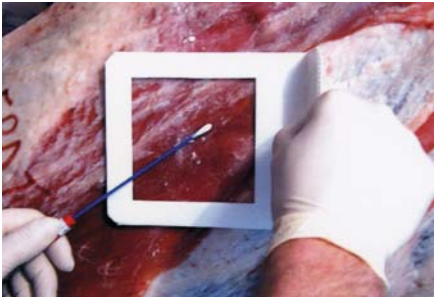
Transport swab system plastic shaft, synthetic tip, with Amies agar gel. Helps to improve recovery and survival of fastidious microorganisms from throat, vaginal, wound and skin swabs.

- Compliant with CLSI (formerly NCCLS) standard M40-A at 21 and 4 °C
- Without charcoal

Description	Pk	Cat. No.
M40 swab, Amies	50	710-0442



Square sampling templates, Area Space 100



Sampling templates to define sampling area. For flat surfaces, templates help define the sample size and allows the investigator to determine the number of organisms per cm². This can be used to validate microbial bioburden in cleanrooms and critical areas in which sterile drugs are exposed to the environment and in food processing plants to establish hygiene scores based on colony-forming units per cm². Sampling template is available in 10×10 cm (100 cm²).

- For defined and standardised sampling
- Irradiated
- Sampling templates single packed

Description	Pk	Cat. No.
Square sampling template, Area Space 100	100	300-0142



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- Field and laboratory methods for water testing
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Incubators, INCU-Line®, IL 53 and IL 115



Incubators with natural air circulation for all standard incubation applications. Units have stainless steel chamber with glass inner doors.

- Microprocessor control with large digital temperature display
- Temperature setting in increments of 0,1 °C
- Built-in timer from 0 - 999 min, or 0 - 99,9 h or continuous mode
- Exhaust duct on the back of the unit with manually adjustable slide
- Independent adjustable temperature safety device Class 3.1 with a visual alarm, saves the samples and the incubator

Delivery Information: Supplied with two chrome plated shelves.

Model	IL 53	IL 115
Capacity (l)	53	115
Convection type	Natural convection	
External WxDxH (mm)	620x622x680	820x732x760
Internal WxDxH (mm)	401x330x401	600x400x480
Nominal power consumption (W)	200	250
Shelves supplied (max.)	2 (4)	
Temperature fluctuation (time) (°C)	At 37 °C: ±0,2	
Temperature range (°C)	Ambient +5...70	
Temperature variation (spatial) (°C)	At 37 °C: ±0,6	At 37 °C: ±0,7
Weight (kg)	45	68

Type	Pk	Cat. No.
IL 53 incubator	1	390-0350
IL 115 incubator	1	390-0353

Description	For	Pk	Cat. No.
Shelves			
Chrome plated shelf	DL 53/VL 53/IL 53	1	466-3522
Chrome plated shelf	DL 115/VL 115/IL 115	1	466-3523



Digital incubators, INCU-Line®, IL 10 and IL 23



The IL 10 and IL 23 digital incubators offer an economical and space saving solution for microbiology or haematology applications. The temperature can be freely adjusted in increments of 0,1 °C up to a maximum of 70 °C. Heating elements are incorporated into the housing base and walls to ensure temperature stability and uniformity. The IL 10 is available with a transparent plexiglas® window to provide full visibility or a painted, opaque plexiglas® window to protect photosensitive samples. The housing and door frame are constructed entirely of epoxy coated mild steel.

- Compact design (footprint is only 0,08 m² IL 10 model)
- Digital PID control with PT100 sensor and LED display, temperature control can be re-adjusted with a certificated reference temperature measuring instrument
- Excellent temperature stability
- Easy to use, safe and reliable

Delivery Information: IL 10 is supplied with one perforated stainless steel shelf, IL 23 is supplied with two. The IL 10 can, optionally, be loaded with up to two specially designed aluminium tube racks for vertical incubation of a maximum of 24 dip slide tubes.

Continued from previous page

Model	IL 10	IL 23
Capacity (l)	10	23
Convection type	Natural convection	
External WxDxH (mm)	285x280x335	340x360x400
Internal WxDxH (mm)	230x220x200	290x290x270
Nominal power consumption (W)	70	160
Shelves supplied (max.)	1 (2)	2 (3)
Temperature fluctuation (time) (°C)	at 37 °C: ±0,5	
Temperature range (°C)	Ambient +5...70	
Temperature variation (spatial) (°C)	at 37 °C: ±0,5	
Weight (kg)	8,3	12,8

Type	Pk	Cat. No.
IL 10 mini incubator, transparent window	1	390-0384
IL 10 mini incubator, painted opaque window	1	390-0385
IL 23 incubator, transparent window	1	390-0482

Description	Pk	Cat. No.
Accessories		
Tube rack for dip slides, 2x6 positions, Ø 32 mm	1	390-0386
Extra shelf for IL 10, stainless steel, 226x215 mm	1	390-0387
Extra shelf for IL 23, stainless steel, 286x285 mm	1	390-0483

Petri dishes



Transparent PS

All dishes are manufactured under strict aseptic conditions using on line production and packaging (Class 100). Sterile dishes are gamma irradiated (10 kGy) with proof of sterility and batch number displayed on the box.

- Stable stacking
- Perfectly flat and retain shape up to 55 °C
- Excellent optical quality - total transparency
- Stringent quality control procedures
- Compliant with automatic plate pourers

Certificates on request.

Version	Ø (mm)	Height (mm)	Sterile	Pk	Cat. No.
With 3 vents	55	14,2	-	1.620	391-0865
With 3 vents	55	14,2	+	1.620	391-0895
Without vents	55	14,2	-	1.620	391-0866
Without vents	55	14,2	+	1.620	391-0868
With 3 vents	90	14,2	-	825	391-0439
With 3 vents	90	14,2	+	825	391-0455
With 3 vents, double outer bag	90	14,2	-	825	391-0891
With 3 vents, double outer bag	90	14,2	+	825	391-0892
Without vents	90	14,2	-	825	391-0441
Without vents	90	14,2	+	825	391-0453
Without vents, double outer bag	90	14,2	+	825	391-0894
High, with 3 vents	90	16,2	-	700	391-0440
High, with 3 vents, double outer bag	90	16,2	+	700	391-0459
High, with 1 vent	90	16,2	-	700	391-0443
High, with 1 vent, double outer bag	90	16,2	+	700	391-0458
High, without vents	90	16,2	-	700	391-0442
High, without vents, double outer bag	90	16,2	+	700	391-0457
With 3 vents	140	20,6	-	176	391-1500
With 3 vents	140	20,6	+	176	391-1502
Without vents	140	20,6	-	176	391-1501
Without vents	140	20,6	+	176	391-1503
Contact dish, double outer bag	65	14,5	+	720	391-1504



Inoculating loops and needles



The resealable pouch allows loops to be easily accessed any number of times, then reclosed to maintain product integrity. The loops and needles are positioned upside down in the pouch in order to reduce any risk of contamination. Optional pack holder facilitates easy access using one hand, leaving the other hand free to hold a culture plate or tube.

- Colour coded for easy product identification
- Hexagonal loop shaft improves grip, assisting orientation and making diluting and streaking easier
- Gamma sterilised

Delivery Information: Delivered with a calibration certificate in each box.

Packaging Information: 40 loops/pouch (25 pouches per pack)

Description	Capacity (µl)	Colour	Packed	Pk	Cat. No.
Loops, rigid	1	Dark Green	40	1.000	612-9360
Loops, rigid	10	Dark Blue	40	1.000	612-9359
Loops, flexible	1	Light Green	40	1.000	612-9361
Loops, flexible	10	Light Blue	40	1.000	612-9362
Needles, Ø 1,45 mm, length 20 cm		Purple	40	1.000	612-9366

Description	Pk	Cat. No.
Accessories for loops in resealable bags		
Holder for resealable packs	1	612-9365



Inoculating loops and needles



Calibrated disposable inoculating loops made from flexible or rigid plastic to cater to different applications and preferences of microbiologists.

- Colour coded for easy product identification
- Conveniently packaged in anti-roll tubes with push-on resealable cap
- Fast, easy and secure access to the loops, without the need for a separate holder
- Loops have an ultra-smooth surface for easy streaking and length of 210 mm

Delivery Information: Calibration certificate supplied with every pack.

Description	Capacity (µl)	Colour	Packed	Pk	Cat. No.
Loops, rigid	1	Dark Green	50	1.000	612-2494
Loops, rigid	10	Dark Blue	50	1.000	612-2496
Loops, flexible	1	Light Green	50	1.000	612-2497
Loops, flexible	10	Light Blue	50	1.000	612-2498
Needles, Ø 1,45 mm	-	Purple	50	1.000	612-2495



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Inoculating loops



These loops ensure consistent wetting and complete liquid transfer. Available rigid or flexible, the loops have smooth edges to avoid gouging the surface of the media.

- Gamma sterilised
- Colour coded
- Hexagonal shaft for easy handling

Delivery Information: Delivered with a calibration certificate in each box.

Description	Capacity (µl)	Colour	Packed	Pk	Cat. No.
Loops, rigid	1	Dark Green	bags of 10	500	612-9351
Loops, rigid	1	Dark Green	bags of 20	1.000	612-9352
Loops, rigid	10	Dark Blue	bags of 10	500	612-9353
Loops, rigid	10	Dark Blue	bags of 20	1.000	612-9354
Loops, flexible	1	Light Green	bags of 10	500	612-9355
Loops, flexible	1	Light Green	bags of 20	1.000	612-9356
Loops, flexible	10	Light Blue	bags of 10	500	612-9357
Loops, flexible	10	Light Blue	bags of 20	1.000	612-9358



Inoculating needles



Plastic, single-use, sterile

Packaging Information: Peelable sachets.

Description	Colour	Ø (mm)	Length (mm)	Pk	Cat. No.
Mini inoculation needles	Blue	1,15	150	500	612-2654
Inoculation needles	Purple	1,45	200	1.000	612-2655



Spreaders, L-shaped



The foot of the spreader has a completely smooth, rounded surface, free of rough edges and imperfections. It enables even spreading of liquid samples across the surface of agar plates without gouging or cutting the medium.

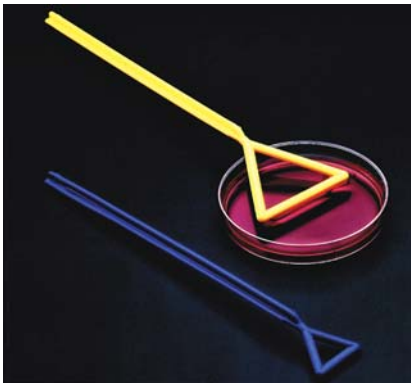
- Surface treated to enhance adhesion of droplets
- Non toxic
- Gamma irradiated

Dimensions: 135×35 mm

Description	Colour	Packed	Pk	Cat. No.
Spreaders, L-shaped	Blue	individually packed	500	612-1560
Spreaders, L-shaped	Blue	5/bag	1.000	612-1561



Spreaders



Convenient and economical, these cell spreaders are designed to simplify bacterial culture work.

- Durable enough to be autoclaved and used again
- Width: 30 mm (blue) / 60 mm (yellow)

Description	Colour	Packed	Pk	Cat. No.
Sterile	Blue	Individually wrapped	25	612-2688
Sterile	Yellow	Individually wrapped	25	612-2690
Non sterile	Blue	Bulk	25	612-2687
Non sterile	Yellow	Bulk	25	612-2689



Spreaders, T-shaped



Plastic, sterile

Designed for spreading and dispersing liquids across the surface of agar culture plates. Used for performing bacterial (for example, CFU) plate counts on water, milk and other liquid samples.

- Smooth rounded surfaces to prevent cutting or gouging of agar
- T-shaped to ensure even pressure is applied while spreading

Description	Colour	Packed	Pk	Cat. No.
T-shaped spreader	Blue	1/peel pouch	500	612-2651
T-shaped spreader	Blue	5/peel pouch	1.000	612-2652
T-shaped spreader	Blue	10/peel pouch	1.000	612-2653

Stoppers, cellulose



Stoppers for microbiological samples and tissue cultures in test tubes or Erlenmeyer flasks.

- Air permeable
- Autoclavable up to 200 °C
- Will filter bacteria
- Packed in bags and cardboard boxes for easy handling and space saving

Description	Height (mm)	Ø bottom (mm)	Ø top (mm)	Pk	Cat. No.
Special shape	29,5	7,5	11,0	1.400	391-0162
Special shape	30	9,0	10,5	1.400	391-0164
Special shape	31	11,5	13,0	800	391-0152
Special shape	33,5	13,5	14,5	800	391-0191
Special shape	50	43,0	46,0	60	391-0173
Special shape	56	31,0	33,5	100	391-0174
Special shape	67	44,0	48,0	40	391-0175
Special shape	70	58,0	66,0	20	391-0185
Thick shape	38	13,5	16,0	800	391-0165
Standard shape	29,5	10,5	11,5	1.400	391-0163
Standard shape	31	8,5	9,5	1.400	391-0186
Standard shape	31,5	11,5	13,5	800	391-0149
Standard shape	32	9,5	12,0	800	391-0187
Standard shape	34	13,0	16,0	800	391-0167
Standard shape	37	12,0	14,5	800	391-0151
Standard shape	37	17,0	18,5	400	391-0161
Standard shape	39	16,5	18,0	700	391-0192
Standard shape	39	19,0	22,5	500	391-0193
Standard shape	39,5	12,0	14,0	800	391-0166
Standard shape	40	13,0	14,5	800	391-0150
Standard shape	40	13,5	15,5	400	391-0153
Standard shape	41,6	20,5	22,0	300	391-0176

Continued from previous page

Description	Height (mm)	Ø bottom (mm)	Ø top (mm)	Pk	Cat. No.
Standard shape	42	25,0	27,0	240	391-0169
Standard shape	51	22,0	24,0	300	391-0194
Standard shape	55	27,0	32,5	140	391-0168
Standard shape	61	37,5	43,5	60	391-0184
Standard shape	61	40,0	45,5	60	391-0177
Standard shape	62	32,5	35,0	100	391-0179
Standard shape	65	28,5	31,0	100	391-0154
Standard shape	65	33,5	36,0	100	391-0178

Caps for test tubes, Safe-T-Flex



Safe-T-Flex caps feature a unique, flexible, over-locking design, locking securely on the outside of the tube lip and can be removed with one hand. A tight seal ensures sample integrity and prevents spillage or evaporation of serum samples. This special seal protects against the aerosols of highly infectious organisms such as TB and the HTLV-III virus. They are colour coded for easy specimen identification and to help guard against cross-contamination. The top of each cap can also be numbered or labelled with indelible ink. Self-locking cap holds firmly in any position and keeps contents secure while in transit. Liquid-tight seal withstands centrifugation, agitation, refrigeration, and freezing.

- Colour coded self-locking test tube caps prevent spillage or loss of samples
- Fit all varieties of blood collecting and disposable culture tubes

Ordering Information: Caps are packaged in bags of 1000.

Description	Colour	Pk	Cat. No.
Safe-T-Flex caps for 10 mm blood collecting and culture tubes	Transparent	1.000	548-0720
Safe-T-Flex caps for 10 mm blood collecting and culture tubes	Blue	1.000	548-0728
Safe-T-Flex caps for 10 mm blood collecting and culture tubes	Lilac	1.000	548-0731
Safe-T-Flex caps for 10 mm blood collecting and culture tubes	Red	1.000	548-0733
Safe-T-Flex caps for 10 mm blood collecting and culture tubes	Yellow	1.000	548-0734
Safe-T-Flex caps for 10 mm blood collecting and culture tubes	Green	1.000	548-0735
Safe-T-Flex caps for 10 mm blood collecting and culture tubes	Grey	1.000	548-0737
Safe-T-Flex caps for 12 mm culture tubes and 13 mm blood collecting tubes	Transparent	1.000	548-0711
Safe-T-Flex caps for 12 mm culture tubes and 13 mm blood collecting tubes	Green	1.000	548-0713
Safe-T-Flex caps for 12 mm culture tubes and 13 mm blood collecting tubes	Lilac	1.000	548-0716
Safe-T-Flex caps for 12 mm culture tubes and 13 mm blood collecting tubes	Blue	1.000	548-0718
Safe-T-Flex caps for 12 mm culture tubes and 13 mm blood collecting tubes	Red	1.000	548-0722
Safe-T-Flex caps for 12 mm culture tubes and 13 mm blood collecting tubes	Grey	1.000	548-0725
Safe-T-Flex caps for 12 mm culture tubes and 13 mm blood collecting tubes	Yellow	1.000	548-0727
Safe-T-Flex caps for 13 mm culture tubes	Transparent	1.000	548-0710
Safe-T-Flex caps for 13 mm culture tubes	Blue	1.000	548-0714
Safe-T-Flex caps for 13 mm culture tubes	Lilac	1.000	548-0719
Safe-T-Flex caps for 13 mm culture tubes	Red	1.000	548-0723
Safe-T-Flex caps for 13 mm culture tubes	Green	1.000	548-0724
Safe-T-Flex caps for 13 mm culture tubes	Yellow	1.000	548-0730
Safe-T-Flex caps for 13 mm culture tubes	Grey	1.000	548-0732
Safe-T-Flex caps for 16 mm blood collecting and culture tubes	Transparent	1.000	548-0712
Safe-T-Flex caps for 16 mm blood collecting and culture tubes	Lilac	1.000	548-0715
Safe-T-Flex caps for 16 mm blood collecting and culture tubes	Red	1.000	548-0717
Safe-T-Flex caps for 16 mm blood collecting and culture tubes	Blue	1.000	548-0721
Safe-T-Flex caps for 16 mm blood collecting and culture tubes	Yellow	1.000	548-0726
Safe-T-Flex caps for 16 mm blood collecting and culture tubes	Green	1.000	548-0729
Safe-T-Flex caps for 16 mm blood collecting and culture tubes	Grey	1.000	548-0736

Cellulose stoppers

For tubes.

Description	Ø bottom (mm)	Ø top (mm)	Pk	Cat. No.
Special shape	31,0	33,5	100	391-0392
Special shape	43,0	46,0	500	391-0391
Special shape	44,0	48,0	100	391-0393
Standard shape	9,5	12,0	500	391-0412
Standard shape	12,0	14,0	1.000	391-0414
Standard shape	12,0	14,5	500	391-0377
Standard shape	13,0	14,5	500	391-0376
Standard shape	13,5	15,5	500	391-0379
Standard shape	17,0	18,5	500	391-0382
Standard shape	27,0	32,5	1.000	391-0389
Standard shape	28,8	31,0	100	391-0381
Standard shape	32,5	35,0	100	391-0397
Standard shape	33,5	36,0	100	391-0396
Standard shape	40,0	45,5	100	391-0395
Thick shape	13,5	16,0	500	391-0386



Cell culture flasks, Standard Line



Crystal clear virgin PS, sterile and certified non pyrogenic

VWR Collection flasks are vacuum gas plasma treated for consistent cell attachment and growth. Vented caps incorporate a 0,22 µm hydrophobic filter to allow gas exchange and minimise risk of contamination. Plug seal caps can be used in closed systems (providing a liquid and gas-tight seal) or used in an open system (simply unscrew the cap one quarter of a turn).

- Angled neck design offers good pipette and cell scraper access
- Upper triangular and wide base shape provide better stability
- Volume graduations on both sides with special writing area
- Choice of vented or plug seal caps

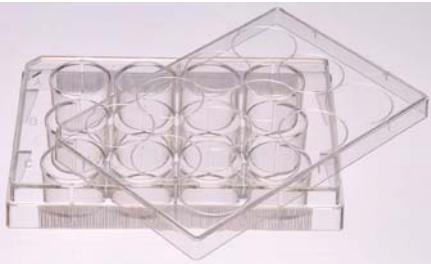
Manufactured in 100 000 grade cleanroom environment.

Packaging Information: Packed in resealable self-standing bags allowing flasks to remain upright, lowering the risk of contamination.

Capacity (ml)	Cap	Culture area (cm²)	Packed	Pk	Cat. No.
25	Vented	12,5	10/bag	200	734-2309
25	Plug seal	12,5	10/bag	200	734-2310
50	Vented	25	10/bag	200	734-2311
50	Plug seal	25	10/bag	200	734-2312
250	Vented	75	5/bag	100	734-2313
250	Plug seal	75	5/bag	100	734-2314
600	Vented	182,5	5/bag	40	734-2315
600	Plug seal	182,5	5/bag	40	734-2316
850	Vented	300	3/bag	18	734-2600
850	Plug seal	300	3/bag	18	734-2601



Multiwell cell culture plates, Standard Line



Clear PS, sterile and certified non pyrogenic

VWR Collection multiwell plates are vacuum gas plasma treated for consistent cell attachment and growth.

- Well volume uniformity ensures uniform growth surface area exposure
- Raised rims on wells and condensation rings on the lid reduce evaporation and minimise edge effects
- Single position lid reduces misplacement and the risk of contamination
- Wells with alphanumeric code for easy identification

Manufactured in 100 000 grade cleanroom environment.

Packaging Information: Individually wrapped in peel-to-open paper/plastic blister packs.

No. of wells	Culture area (cm²)	Recommended working volume (ml)	Well volume (ml)	Pk	Cat. No.
6	9,6	1,90 - 2,90	17,0	100	734-2323
12	3,85	0,76 - 1,14	6,80	100	734-2324
24	1,93	0,38 - 0,57	3,50	100	734-2325

Continued from previous page

No. of wells	Culture area (cm ²)	Recommended working volume (ml)	Well volume (ml)	Pk	Cat. No.
48	0,84	0,19 - 0,29	1,55	100	734-2326
96 F	0,33	0,075 - 0,20	0,39	100	734-2327
96 U	0,32	0,075 - 0,20	0,32	100	734-2328

Recommended working volume (ml) = per well



Cell culture dishes, Standard Line



Clear PS, sterile and certified non pyrogenic

VWR Collection dishes are vacuum gas plasma treated for consistent cell attachment and growth. Dishes are optically clear, making them suitable for microscopy.

- Flat bottom and uniform wall thickness ensure dishes are distortion-free
- Stacking rings for easier stacking and handling
- 60, 70 and 100 mm dishes have a gripping ring incorporated in the design
- Every inner bag is printed with a batch number for traceability

Manufactured in 100 000 grade cleanroom environment.

Packaging Information: Packed in resealable self-standing bags allowing dishes to remain upright, lowering the risk of contamination.

Description	Ø (mm)	Height (mm)	Growth area (cm ²)	Packed	Pk	Cat. No.
Cell culture dish	35	12	8,5	10/bag	960	734-2317
Cell culture dish with gripping ring	60	18	21,2	10/bag	600	734-2318
Cell culture dish with gripping ring	70	15	36,3	10/bag	600	734-2319
Cell culture dish	90	17	55,0	10/bag	500	734-2320
Cell culture dish with gripping ring	100	22	60,8	10/bag	300	734-2321
Cell culture dish	150	22	143,0	1/bag	120	734-2322

Drosophila vials



For storage, handling and transportation of Drosophila flies.

Manufactured in ISO 9001:2000 certified facility. Narrow and wide vials are manufactured in PP, PS or K-Resin and packaged in bulk or tray formats.

Polystyrene (PS)

This resin has glass-like properties, allowing very clear, distortion-free viewing of fly gender and behaviour.

Not autoclavable

Ø ext.xH (mm)	Packed	Pk	Cat. No.
25x95	Bulk	500	734-2255
25x95	Tray	500	734-2259
28,5x95	Bulk	500	734-2262
28,5x95	Tray	500	734-2265

Continued from previous page

Polypropylene (PP)

PP is a clear resin and is softer than PS. This is optimal for cost-sensitive experiments and clear viewing.

Autoclavable

Table with 4 columns: Ø ext.xH (mm), Packed, Pk, Cat. No. Rows include sizes 25x95, 28,5x95 in Bulk and Tray packaging.

K-Resin

K-Resin is a premium scratch resistant resin, combining the clarity of PS with the flexibility of PP.

Not autoclavable

Table with 4 columns: Ø ext.xH (mm), Packed, Pk, Cat. No. Rows include sizes 25x95, 28,5x95 in Bulk and Tray packaging.



Media bottles with cap



PS, PC or PETG, with PP screw cap, sterile

VWR Collection disposable, round, Easy Grasp media bottles have been designed for storage of sterile solutions, such as tissue culture media, serum and buffers. These bottles are available in three low extractable plastics: polycarbonate which can withstand up to three autoclave cycles and offers good alcohol resistance; polystyrene for general purpose cell culture aqueous solutions; and PETG for most general laboratory solution storage.

- Sloped design improves bottle stability when placed on the work surface
- Narrow bottle shoulder combined with moulded finger grips improves the ability to securely grip the bottle with gloved hands
- Easy Grasp bottle cap facilitates uncapping, tightening and bottle stacking, as well as providing a convenient gripping surface while transporting

Manufactured with class VI materials in a ISO 13485 facility

Table with 3 columns: Capacity (ml), Pk, Cat. No. Rows are categorized by material (PS, PC, PETG) and sterility (sterile, non sterile) for capacities of 250, 500, and 1000 ml.



Media bottles with cap



PC, autoclavable, narrow mouth bottles with standard PP caps

VWR Collection Media Bottles are an ideal replacement for all borosilicate glass bottles. They are specifically designed for every laboratory application requiring terminal sterilisation (autoclaving), storage, transportation, and production of laboratory biological fluids. The bottles are available in square and round shapes to accommodate various packaging needs.

The closure system is guaranteed leakproof and the seal ring allows for convenient shrink-wrapping of the caps. Each bottle is carefully produced and quality controlled for uniform wall thickness, clarity, graduation, and leakproof closure.

Optional septum cap or vented cap with PTFE membrane is also available.

- Ideal for steam sterilisation
- Safe and shatterproof
- Chemically inert

Capacity (ml)	Description	Thread	Pk	Cat. No.
125	Clear, octagonal	38-430	24	215-2203
250	Clear, octagonal	38-430	24	215-2204
500	Clear, octagonal	38-430	12	215-2205
500	Clear, round	38-430	12	215-2210
1000	Clear, octagonal	38-430	12	215-2206
1000	Clear, round	38-430	12	215-2211

Description	Pk	Cat. No.
Closures for media bottles and flasks		
Standard cap, blue	96	215-2207
Septum cap, blue	96	215-2212



Cell scrapers

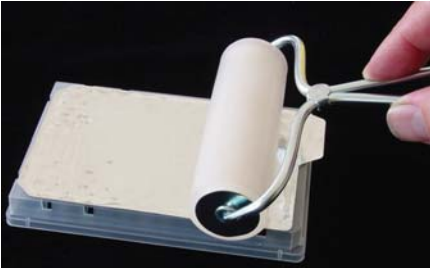


Specifically designed to make collecting of cells easier and more effective. Available with a choice of blade positions - scraper for use in flasks, or lifter for use in harvesting cells (especially stem cells) in dishes.

- Cross-ribbed handle in ABS provides a greater rigidity and ensures a better control while scraping cells
- Thin, flexible TPE blade prevents damage to cells
- Individually wrapped
- Sterilised by gamma irradiation
- Non pyrogenic

Description	Total length (mm)	Pk	Cat. No.
Cell scraper, blade width 20 mm	250	100	734-2602
Cell lifter, blade width 20 mm	250	100	734-2603
Cell scraper, blade width 30 mm	390	100	734-2604
Cell lifter, blade width 30 mm	390	100	734-2605

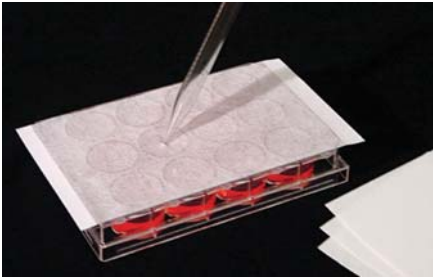
Plate roller for securing films and foils to microplates



Soft rubber roller recommended for assuring tight and consistent application of adhesive films to microplates.

Description	Pk	Cat. No.
Plate roller	1	391-1278

Breatheable rayon films for biological cultures



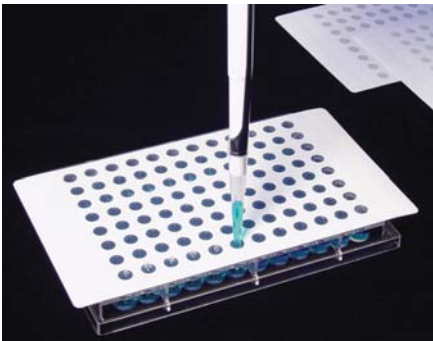
A 114 µm thick hydrophobic porous film with medical-grade adhesive for tissue culture plates, bio-blocks, and 96-well plates where gas exchange is necessary for cell or bacterial growth. These rayon films minimise cross-contamination, spillage and evaporation. They allow uniform air and CO₂ exchange for all wells, unlike plate lids which favour exchange for wells near plate edges. Sterile product is packaged in tamper evident bags of 25.

- Non cytotoxic, highly gas permeable
- Pierceable with tips or pipettes for sample recovery
- Recommended for temperatures from –20 °C to +80 °C

Each film LxD: 142,9x82,6 mm for standard size tissue culture plates.

Description	Pk	Cat. No.
Rayon films, non sterile	100	391-1261
Rayon films, sterile	50	391-1262

Pierceable films for robotics, Clear-Zone

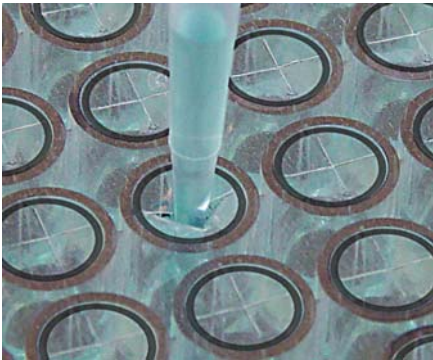


Addition of a die-cut white polypropylene sub-layer provides these polyethylene films with an adhesive-free zone above each well for applications where adhesive fouling of pipette tips or robotic probes is a concern. Suitable for 96-well plates only.

- Clear zone above each well is free of adhesive
- Minimise sample exposure to adhesive

Description	Pk	Cat. No.
Clear-Zone films, non sterile	50	391-1264

Precut pierceable vinyl films for robotics



These 100 µm thick vinyl films with 20 µm adhesive layer are designed for temporary protection of samples in 96 well plates from contamination and evaporation. A precut pattern over each well separates the film into four flaps that bend inward easily when pushed by a robotic probe or pipette tip, allowing access to the sample without coring or adhesive fouling. The resilient flaps regain their original position after sampling for continued sample protection. For long-term sample protection after sampling, a continuous film should be applied as a second layer. Suitable for sealing all standard 96-well plates.

- Protect samples and limit evaporation short-term
- Precut flaps bend inward without fouling probes or tips
- Flaps close for continued protection after sampling

Each film LxD: 145,5x79,4 mm

Description	Pk	Cat. No.
Precut vinyl films, non sterile	100	391-1286
Precut vinyl films, sterile	50	391-1287

Sealing film for automation



Adhesive sealing film or foil rolls constructed on plastic cores, for use with high throughput automated microplate sealers.

- Continuous rolls - no splices
- Film or foil does not extend beyond edge of plastic core
- Robust static-free packaging provides protection during shipment and facilitates accurate alignment and adhesion

Sealing film for qPCR, sitting-drop protein crystallisation, HTS and storage

Clear polyolefin with ultra-strong, pressure-sensitive silicone adhesive for qPCR, sitting-drop protein crystallisation, HTS, storage and general incubation applications.

- DMSO resistant
- Nuclease, nucleic acid and pyrogen-free
- Provides as strong a bond to the plate as heat sealing films without the drawbacks of heat

Description	Pk	Cat. No.
Sealing film, polyolefin	1 Roll	731-0308

Sealing foil for PCR, HTS and cold storage

Pierceable aluminium foil with pressure-sensitive acrylic adhesive for PCR, HTS and cold storage.

- DMSO resistant
- Easily pierceable for sample recovery
- Nuclease, nucleic acid and pyrogen-free

Description	Pk	Cat. No.
Sealing foil, aluminium	1 Roll	731-0307

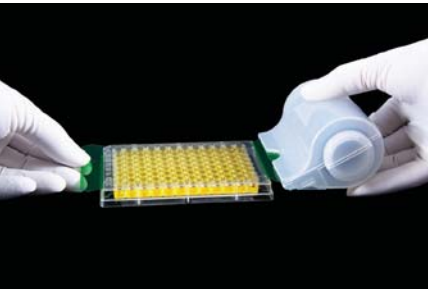
Sealing film for cell and tissue culture

Breathable rayon films for cell and tissue culture.

- Non cytotoxic
- Highly gas permeable
- Easily pierceable for sample recovery

Description	Pk	Cat. No.
Sealing film, rayon	1 Roll	731-0306

Sealing film for biological cultures



Rayon film with medical grade adhesive

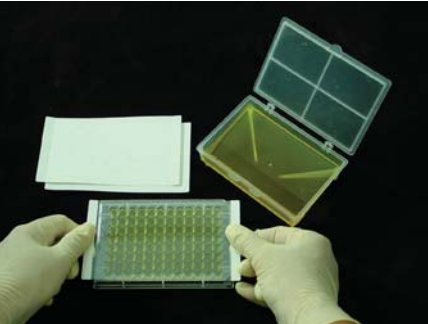
Hydrophobic, porous film in sheeted-roll format for sealing tissue culture plates, bio-blocks, and 96-well plates where gas exchange is necessary for cell or bacterial growth.

- Recommended temperature range from –20 °C to +80 °C
- Total thickness 140 µm
- Prescored films separated by red colour bands for easy application
- Pierceable and breathable

Delivery Information: Each roll contains sufficient film to cover 50 plates.

Description	Pk	Cat. No.
Starter kit including dispenser and 2 film rolls	1 KIT	731-0313
Starter kit including dispenser and 2 film rolls, sterile	1 KIT	731-0314
Replacement rolls	2 Roll	731-0315
Replacement rolls, sterile	2 Roll	731-0316

Polyester sealing film



Polyester film, acrylic adhesive

These 50 µm thick polyester films minimise evaporation and prevent spillage and contamination between wells.

- Recommended temperature range from –40 °C to +120 °C
- Available sterile and non sterile
- Marginally pierceable by single channel pipette

Each film LxD: 141,0x79,4 mm

Description	Pk	Cat. No.
Polyester sealing film	100	731-0319
Polyester sealing film, sterile	100	731-0320



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Sample Preparation

Upon completion of sample collection, it may then need to undergo qualitative and/or quantitative analysis. This chapter includes all the essential tools you need to get your sample ready.

Sample Reduction

Mortars	160
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Reduction and Mixing

Mixer	161
Dispersers and Accessories	162
Homogenisers and Accessories	163

Mixing

Stirrers and Stirring Accessories	166
Magnetic Stirrers without Heating	169
Magnetic Stirrers with Heating	171
Stirring Bars and Retrievers	175
Shakers, Vortex	183
Shakers, Microplate	187
Shakers, Orbital	188
Shakers, Reciprocating	201
Shakers, Rotational and Rocking	202
Shaking Incubators	207

Heat Treatment

Hotplates	210
Accessories	212

Temperature Treatment and Drying

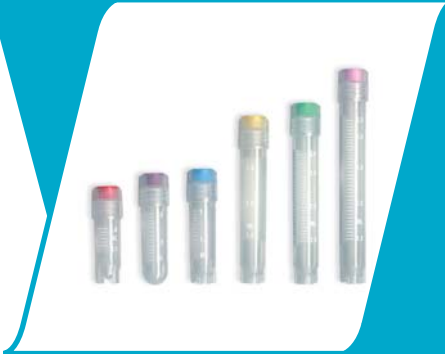
Block Heaters	214
Immersion Thermostats	221
Bath Thermostats, Plastic and Stainless Steel	222
Circulating Thermostats	224
Water Baths	228
Drying Ovens and Heating Chambers	229
Desiccators	230

Cold Treatment

Refrigerators and Freezers	233
Cryogenic Technique	234
Cryo Storage Systems	239

Sterilisation and Disinfection

Autoclaves	244
Sterilisation Indicators	246



Mortars, without pestles



Porcelain, produced according to DIN 12906

- With spout
- Glazed outside, grinding surface unglazed
- Highly resistant against acids and alkalis

Capacity (ml)	Height (mm)	Ø int. (mm)	Pk	Cat. No.
20	32	50	1	410-0108
70	42	66	1	410-0109
75	46	76	1	410-0110
140	50	85	1	410-0111
170	56	92	1	410-0112
250	64	115	1	410-0113
400	71	122	1	410-0114
650	90	155	1	410-0115
1000	104	185	1	410-0116
2400	127	255	1	410-0117
4300	160	265	1	410-0118

Pestles



Porcelain, produced according to DIN 12906

- Grinding surface unglazed
- Glazed handle

Head Ø (mm)	Length (mm)	Pk	Cat. No.
24	115	1	410-0119
30	135	1	410-0120
36	150	1	410-0121
42	175	1	410-0122
48	185	1	410-0123
58	210	1	410-0124
73	255	1	410-0125
86	305	1	410-0126

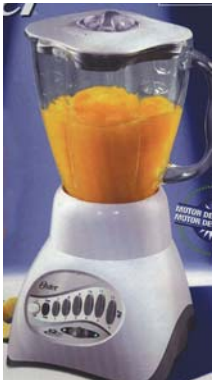


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Laboratory mixer, Sterilmixer 12



The Sterilmixer 12 is a blade blender for solid or semi-solid sample preparation, it is ideal for processing infected items or for aseptic work in a sterile environment. The mixer is designed for high speed mixing, emulsion and disintegration of liquids, fluid suspensions or semi-solid substances. The unit has interchangeable leakproof containers and all parts that come into contact with samples can be sterilised by steam or autoclave.

- Speed is easy to control by means of buttons on front
- 12 different speeds from 12 500 to 18 000 min⁻¹ in increments of 500 min⁻¹
- Pulse function
- Easy to dismantle, clean and sterilise
- Various optional container sizes from 125 to 3000 ml in stainless steel, glass or plastic to cover all laboratory needs, including autoclavable containers are available

Delivery Information: Supplied with stainless steel asymmetrical blades, base plate fixing system, sealing ring, 1250 ml glass container and plastic cover. Requires 220 V power supply. Other containers and accessories are available. Accessories must be ordered separately.

Description	Revolutions	Pk	Cat. No.
Sterilmixer 12	12500 - 18000*	1	710-0883

* in 500 min⁻¹ increments

Description	Pk	Cat. No.
Containers and blades for Sterilmixer 12		
Autoclavable Neomini sealing ring for blades	2	710-0905
Autoclavable, stainless steel container, capacity 1250 ml, with plastic (non autoclavable) cover	1	710-0897
Blostev 12, base plate fixing system, non autoclavable	1	710-0901
Conti-Glass container with cover, capacity 1250 ml	1	710-0898
Johnny sealing ring for blades, autoclavable, for use with Steri-Blostev 12 base fixing plate	1	710-0953
Leakproof cover for Conti-Glass container	1	710-0903
Steri-Blostev 12 base plate fixing system, autoclavable, for use with Johnny sealing ring	1	710-0952
Triplex stainless steel blades	1	710-0900

Capacity (ml)	Thread (mm)	Ø ext. (mm)	Height (mm)	Pk	Cat. No.
Bottles, wide mouth, with screw cap, Mason type, Nalgene®					
500	70	75	175	6	215-7851
1000	70	94	213	6	215-7852
2000	70	120	244	4	215-7853
3000	70	155	246	1	215-7854
PMP					
125	70	64	74	4	216-8214
250	70	75	119	4	216-8215

Mixer Mill, Star Beater



A ball mill for disintegration of small sample volumes that can also be used to shake/mix microtubes and microplates. Wide range of applications in different scientific fields from geology to biotechnology.

- Easy to use- simple knob and keypad to control frequency and timer
- Easy to maintain - brushless DC motor
- Large range of grinding jars and tube holders to suit the sample requirements

Model	Star Beater
Grinding time setting (min)	5 seconds to 60 minutes
Max. sample volume (ml)	2×50
Power consumption (W)	200 VA
Speed display	LED
Vibrational frequency (Hz)	3 - 30
Weight (kg)	42
W×D×H (mm)	365×405×225

Description	Pk	Cat. No.
Star Beater	1	412-0167

Material	Nominal volume (ml)	Max. feed size (mm)	Pk	Cat. No.
Grinding jars				
Stainless steel	1,5	1	2	412-0168
Stainless steel	5	2	2	412-0169
Stainless steel	10	4	2	412-0170
Stainless steel	25	6	2	412-0171
Stainless steel	35	6	2	412-0172
Stainless steel	50	8	2	412-0173
Hardened steel	1,5	1	2	412-0174
Hardened steel	5	2	2	412-0175
Hardened steel	10	4	2	412-0176
Hardened steel	25	6	2	412-0177
Hardened steel	35	6	2	412-0178
Hardened steel	50	8	2	412-0179
Material	Ø (mm)		Pk	Cat. No.
Grinding balls				
Stainless steel	5		2	412-0190
Stainless steel	10		2	412-0191
Stainless steel	12		2	412-0192
Stainless steel	25		2	412-0193
Hardened steel	5		1	412-0186
Hardened steel	10		2	412-0187
Hardened steel	12		2	412-0188
Hardened steel	25		2	412-0189
Description			Pk	Cat. No.
Accessories				
Tube holder, PTFE for reaction vials, 12x0,2 ml tubes on each arm			2	412-0181
Tube holder, PTFE for reaction vials, 12x2 ml tubes on each arm			2	412-0182
Tube holder, PTFE for reaction vials, 6x2 ml tubes on each arm			2	412-0183
Tube holder, PTFE for reaction vials, 6x2 ml tubes (screw cap) on each arm			2	412-0184
Holder for up to 3 microplates or 1 deep well plates on each arm			2	412-0185
Set of spanners			1 SET	412-0180



Homogeniser, VDI 12



Handheld or stand model, volume range 0,1 to 100 ml

An ergonomic, lightweight, handheld homogeniser which is easy to handle. Ideal for RNA protein assays, DNA and RNA blot analysis, PCR work, wastewater extractions, tissue decomposition and suspensions. High shear homogenisation reduces sample process times 10-fold compared to conventional mixers.

- Motor accepts VWR dispersing elements as well as those from selected other manufacturers*
- Overload protection means motor shuts down if overload conditions arise, ensuring the motor is protected
- Quick release

Max. viscosity (mPas)	5000
Motor rating (W)	125
Speed display	Scale
Speed range (min ⁻¹)	8000 - 30000
Volume H ₂ O (ml)	0,1 - 100
Weight (kg)	0,4
WxDxH (mm)	46x57x201

Description	Pk	Cat. No.
VDI 12 homogeniser, EU-plug	1	431-0109
VDI 12 homogeniser, UK-plug	1	431-0124
VDI 12 homogeniser, CH-plug	1	431-0125

Description	For	Pk	Cat. No.
Stainless steel rotor/stators			
Dispersing element S12N-5S		1	431-0110
Dispersing element S12N-7S		1	431-0111
Dispersing element S12N-12S		1	431-0112
Accessories			
Plate stand, 242x355 mm, rod 10 mm Ø with height 370 mm	T 10 basic	1	431-1006
Bosshhead clamp		1	442-2043

* For details of dispersing elements please contact VWR.

Disposable pestles, microtubes and cordless motor for pellet mixing



- PBTP**
- Pestles and microtubes manufactured from polybutylene terephthalate in a Class 10 000, ISO Class 7, M5.5 cleanroom. Designed for homogenising cells and plant tissue or for re-suspending protein and DNA pellets. An optional battery-powered motor can be used with the pestles and microtubes. Pestles are 75 mm in length.
- DNase-, RNase- and pyrogen-free
 - Grooved grip makes pestle handle easy to turn without slipping, even when wearing gloves
 - Lightweight motor reduces hand fatigue
 - Motor's high speed vortexing action completely homogenises cell tissue or pellets within seconds

Delivery Information: Pestles and microtubes are individually wrapped. Optional motor is supplied with a pestle adapter and two AA batteries.

Description	Capacity (ml)	Pk	Cat. No.
Pestle	1,5	100	431-0094
Pestle	0,5	100	431-0095
Microtube	1,5	100	431-0096
Microtube	0,5	100	431-0097
Pestle and microtube	1,5	100	431-0098
Pestle and microtube	0,5	100	431-0099

Description	Pk	Cat. No.
Accessories		
Pestle motor	1	431-0100
Replacement pestle adapter	1	431-0101



Tissue grinders, Potter-Elvehjem type



Borosilicate glass tube, PTFE pestle with stainless steel shaft

Tissue grinders are used for controlled reduction of particle size and homogenisation of a variety of substances, especially biological material. The shearing forces generated by the movement of the rotating plunger in a precision bore tube cause size reduction, determining factors include clearance between the pestle head and tube, speed of rotation and viscosity of medium.

Grinding chamber clearance: 0.15 - 0.25 mm

Diameter of stainless steel shaft is 6.5 mm

Capacity (ml)	Ø ext.xlength (mm)	Total length (mm)	Pk	Cat. No.
Glass vessel				
2	8x120	120	1	432-0200
5	12x135	135	1	432-0201
10	15x150	150	1	432-0202
15	19x155	155	1	432-0203
30	25x175	175	1	432-0204
50	32x195	195	1	432-0205
Plain plunger				
2		230	1	432-0206
5		235	1	432-0207
10		270	1	432-0208
15		270	1	432-0209
30		270	1	432-0210
50		270	1	432-0211
Plunger with serrated tip				
2		230	1	432-0212
5		235	1	432-0213
10		270	1	432-0214
15		270	1	432-0215
30		270	1	432-0216
50		270	1	432-0217



Lab blender, LB 400



For sample volumes of 50 - 400 ml

Compact and easy to use blender, efficiently blends solid or liquid samples in any sterile bags (plain or filter bags).

- Optimum extraction of microorganisms
- Samples are prepared quickly, ready for analysis, eliminating difficult cleaning steps
- Stainless steel door opens fully, allowing stainless steel blending chamber to be cleaned easily
- Safe and hygienic - minimum risk of infection, no risk of cross-contamination
- Lifetime resistant shock absorbers

Max./min. temperature (°C)	40/5
Paddle speed (min ⁻¹)	240, fixed speed: 8 strokes/second
Power (W)	Max. 300
Timer	30, 60, 90, 120, 150, 180, 210 seconds or continuous operation
Weight (kg)	15
WxDxH (mm)	390x260x280

Description	Pk	Cat. No.
LB 400	1	710-0632

Description	Pk	Cat. No.
Accessories		
Straw pipettes	1.000	612-1675
Drip tray for lab blender LB 400	1	710-0633
Bag holder for 10x400 ml bags	1	710-0634
Automatic straw pipette SP100 for 1:10 dilutions, autoclavable	1	710-1021
Automatic straw pipette SP100 for 1:10 dilutions, autoclavable	1	710-1021



Lab-blender bags



PE, sterile

- Fit all conventional lab blenders
- Choice of plain or filtered bags, plain bags have capacities from 80 ml to 3500 ml

Irradiated at 10 kGy

Description	Capacity (ml)	WxL (mm)	Packed	Pk	Cat. No.
Plain bags	80	105x150	60xbags of 25	1.500	129-9873
Plain bags	400	180x300	20xbags of 25	500	129-9866
Plain bags	400	180x300	10xbags of 50	500	129-9867
Plain bags	3500	380x510	20xbags of 25	500	129-9872
Bags with lateral filter	400	190x300	60xbags of 25	1.500	129-9868
Bags with lateral filter	400	190x300	10xbags of 50	500	129-9874
Bags with full page filter	400	190x300	10xbags of 50	500	129-9875

Description	Pk	Cat. No.
Lab-Blender Bags		
Clips for lab blender bags	200	129-9869

VWR pbi
Reinforced-Round-Bag



Made of high strength plastic material, radiation resistant, transparent, for use in circulator homogenisers "Stomacher 400 Circulator", "Stomacher 400" or similar.

- Tear-off top seal to guarantee sterility of every bag
- Round bottom to avoid stagnancy in the corners
- Reinforced bottom with double seal to prevent leakage
- Graduated to 400 ml
- Label for identification of the sample according to GLP and lot number printed on every bag

Description	Capacity (ml)	WxL (mm)	Pk	Cat. No.
Reinforced round bag	400	185x315	1.000	129-0491

VWR pbi



Laboratory blenders, Eco Blender II



For sample volumes up to 400 ml

Microbiological and pathogenic samples can be treated without risk to the operator or environment, by blending solid and semi-solid samples in sealed bags, eliminating bioaerosol production.

- Two reciprocating paddles
- Stainless steel external casing and handle
- Internal surface made of stove enamel
- Window in front door for observation of bagged samples during homogenisation
- Removable front door to make cleaning easier

EN ISO 7218

Paddle speed (min ⁻¹)	180 - 320
Timer	For cycle programming
Weight (kg)	15
WxDxH (mm)	250x410x220

Description	Pk	Cat. No.
Eco Blender II	1	710-0873

Description	Pk	Cat. No.
Reinforced-Round-Bag		
Reinforced round bag	1.000	129-0491
Accessories		
Straw pipettes	1.000	612-1675
Automatic straw pipette SP100 for 1:10 dilutions, autoclavable	1	710-1021



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The local website with global reach



Overhead stirrer, VOS 14



This quiet, economical overhead stirrer is suitable for simple laboratory mixing, applications such as processing media with substantial temporary viscosity changes. Ideal for stirring substances with low to medium viscosities. Electronically controlled closed loop feedback to the motor to maintain constant speed, even when viscosity changes. The shaft accommodates stirring elements with shafts up to 8 mm in diameter.

- Gearless, direct drive motor
- Infinitely adjustable speed control
- Easy to operate
- Analogue speed display, overload protection

IP protection class according to DIN EN 60529: IP 20

Delivery Information: Supplied with chuck key and extension arm. Accessories must be ordered separately. Plate stand 431-2901 has slip resistant foil coating, a 16 mm diameter supporting rod and supports up to 5 kg.

Max. stirring capacity H ₂ O (l)	8
Max. torque at chuck (Ncm)	
Max. viscosity (mPas)	10000
Power - motor input/output (W)	28,5/17
Shaft Ø (mm)	0,5 - 8
Speed range (minx ¹)	100 - 2000
Weight (kg)	2
WxDxH (mm)	70x176x197

Description	Model	Pk	Cat. No.
VOS 14 overhead stirrer, EU-plug	VOS 14	1	441-0017
VOS 14 overhead stirrer, UK-plug	VOS 14	1	441-0026
VOS 14 overhead stirrer, CH-plug	VOS 14	1	441-0027

Description	For	Pk	Cat. No.
Accessories			
Flexible coupling for applications using glass stirring rods Ø 6 - 10 mm, max. torque 10 Ncm		1	441-9213
Support holder for stirring shaft		1	441-0038
Stirring shaft protector		1	441-2999
Bosshhead clamp, 6 - 16 mm Ø stand, 6 - 16 mm Ø extension arm	T 18 basic and T 25 digital	1	431-2923
Strap clamp for securing vessels, stand Ø 8 - 16 mm, vessel Ø 40 - 300 mm	T 18 basic and T 25 digital	1	431-2943
Plate stand, 200x316 mm, rod 16 mm Ø with height 560 mm	T 18 basic and T 25 digital	1	431-1047
Plate stand, 200x316 mm, rod 16 mm Ø with height 800 mm	T 18 basic and T 25 digital	1	431-2901
Plate stand, 200x316 mm, rod 16 mm Ø with height 1000 mm	T 18 basic and T 25 digital	1	441-2129



Electronic overhead stirrers, VOS power control



Lightweight, ergonomic overhead stirrer which is ideal for high viscosity mixing, large batch mixing or stirring products with medium viscosity. Microprocessor control provides feedback to the motor to maintain constant speed under changing viscosity, ensuring repeatable settings. The smooth start provides enhanced safety. VOS power control is particularly suitable for applications involving precise mixing documentation. It can be controlled using optional software and features integrated torque trend for viscosity control. An analogue interface enables the speed and torque to be recorded. Unit accommodates push-through stirring elements with shaft diameter up to 10 mm.

- Infinitely adjustable without gear shifting
- Microprocessor control
- Overload protection
- Digital speed display and RS232 interface

IP protection class according to DIN EN 60529: IP 42

Delivery Information: Supplied with chuck key and extension arm. Accessories must be ordered separately. Plate stand 431-2901 has slip resistant foil coating, a 16 mm diameter supporting rod and supports up to 5 kg.

Model	VOS power control
Max. stirring capacity H ₂ O (l)	40
Max. torque at chuck (Ncm)	60
Max. viscosity (mPas)	50000
Power - motor input/output (W)	130/110
Shaft Ø (mm)	0,5 - 10
Speed range (minx ¹)	50 - 2000
Weight (kg)	3,8
WxDxH (mm)	80x190x253

Continued from previous page

Description	Pk	Cat. No.
VOS power control overhead stirrer, EU-plug	1	441-0286
VOS power control overhead stirrer, UK-plug	1	441-0295
VOS power control overhead stirrer, CH-plug	1	441-0298

Description	For	Pk	Cat. No.
Accessories			
Flexible coupling for applications using glass stirring rods Ø 6 - 10 mm, max. torque 10 Ncm		1	441-9213
Stirring shaft protector		1	441-2999
Support holder for stirring shaft		1	441-0038
Bosshead clamp, 34 mm Ø stand, 16 mm Ø extension arm	T 50 basic	1	431-2907
Strap clamp for securing vessels, stand Ø 8 - 16 mm, vessel Ø 40 - 300 mm	T 18 basic and T 25 digital	1	431-2943
Plate stand, 200x316 mm, rod 16 mm Ø with height 560 mm	T 18 basic and T 25 digital	1	431-1047
Plate stand, 200x316 mm, rod 16 mm Ø with height 800 mm	T 18 basic and T 25 digital	1	431-2901
Plate stand, 200x316 mm, rod 16 mm Ø with height 1000 mm	T 18 basic and T 25 digital	1	441-2129



Electronic overhead stirrers, VOS 40 digital and VOS 60 control



Laboratory stirrers which are ideal for simple stirring tasks, suitable for quantities up to 25 l (VOS 40 digital), or for intensive stirring tasks for quantities up to 40 l (VOS 60 control). Due to microprocessor controlled technology the stirrers automatically adjust the speed within the speed range of 0/30 - 2000 rpm. Safety circuits ensure automatic cut-off in anti-stall or overload conditions. The actual shaft speed and preset speed are constantly monitored and variations are adjusted automatically. This guarantees a constant speed even with changes in sample viscosities. Stirrers have a slim casing and provide quiet operation.

- Digital speed display
- Infinitely adjustable speed
- Push-through agitator shafts
- Overload protection and units can be operated for short-term periods in overload conditions
- Error code display

The VOS 60 control model features a removable wireless controller and a digital, multilingual TFT display. This stirrer is equipped with a RS232 and a USB interface to control and document all parameters. An integrated torque trend display enables measurement of viscosity changes.

- Programmable functions
- Integrated temperature measurement
- Interval operation, timer and lock function
- Adjustable safety circuit

IP protection class according to DIN EN 60529: IP 40

Ordering Information: Supplied without accessories, a wide range of accessories are available to order separately.

Model	VOS 40 digital	VOS 60 control
Chuck range (mm)	0,5 - 10	
Max. stirring capacity H ₂ O (l)	25	40
Max. torque at chuck (Ncm)	40	60
Max. viscosity (mPas)	40000	50000
Power - motor input/output (W)	112/87	168/131
Speed range (minx ¹)	0/30 - 2000	
Weight (kg)	4,4	4,7
WxDxH (mm)	86x208x248	86x230x267

Description	Pk	Cat. No.
VOS 40 digital overhead stirrer, EU-plug	1	441-0302
VOS 40 digital overhead stirrer, UK-plug	1	441-0303
VOS 40 digital overhead stirrer, CH-plug	1	441-0304
VOS 60 control overhead stirrer, EU-plug	1	441-0305
VOS 60 control overhead stirrer, UK-plug	1	441-0306
VOS 60 control overhead stirrer, CH-plug	1	441-0307

Stirring shafts



PTFE, for use with stirring blades. Chemically inert. The smooth surface reduces contamination and makes cleaning easier. It also prevents the agitation vessels from being scratched.

- Very good chemical resistance
- Temperature resistant from –200 to +280 °C

Ordering Information: Stirring blades must be ordered separately.

Length (mm)	Ø (mm)	Pk	Cat. No.
300	8	1	441-0253
400	8	1	441-0254
500	8	1	441-0255
650	10	1	441-0256
750	10	1	441-0257
1000	10	1	441-0258
650	12	1	441-0259
750	12	1	441-0260
1000	12	1	441-0261

Stirrer blades with plain ends



PTFE. Blades fit PTFE stirring shaft; hole diameter 6,5 mm, 3,2 mm thick. Inert and non scratch. The smooth surface prevents contamination and makes cleaning easier.

- Very good chemical resistance
- Temperature resistant from –200 to +280 °C

Width (mm)	Height (mm)	Type	Pk	Cat. No.
65	25	Stirrer blade, plain ends	1	441-0248
75	25	Stirrer blade, plain ends	1	441-0249
105	25	Stirrer blade, plain ends	1	441-0250
125	25	Stirrer blade, plain ends	1	441-0251
150	25	Stirrer blade, plain ends	1	441-0252

Stirring rods



Solid PTFE

- Inert and will not scratch, can be used up to 280 °C

Material	Length (mm)	Ø (mm)	Description	Pk	Cat. No.
PTFE	150	8	Stirring rods, PTFE	5	442-4539
PTFE	250	8	Stirring rods, PTFE	5	442-4541
PTFE	300	8	Stirring rods, PTFE	5	442-4542

Stirring rods



PTFE with steel core

- Inert and will not scratch, can be used up to 280 °C

Material	Length (mm)	Ø (mm)	Pk	Cat. No.
PTFE/steel	100	6	5	442-4537
PTFE/steel	100	8	5	442-4538
PTFE/steel	200	8	5	442-4540
PTFE/steel	150	6	5	442-4543
PTFE/steel	200	6	5	442-4544
PTFE/steel	250	6	5	442-4545
PTFE/steel	300	6	5	442-4546
PTFE/steel	350	6	5	442-4547
PTFE/steel	400	6	5	442-4548



Magnetic stirrer, lab disc



Extremely flat and compact magnetic stirrer with no moving parts. Reverses direction of rotation every 30 seconds to ensure optimum mixing.

- Selectable reversible rotation direction
- Wear-free drive
- Set-up plate and casing made of chemically resistant materials
- Slip-proof, safe stand

IP protection class according to DIN EN 60529: IP 65

Delivery Information: Supplied with two beakers (150 ml) and three magnetic stirring bars (10 mm, 20 mm, 30 mm).

Model	lab disc
Max. stirring capacity H ₂ O (ml)	800
Plate dimensions (mm)	Ø 100
Plate material	Polyester
Rating input/output (W)	5/3
Speed range (minx ¹)	15 - 1500
Weight (kg)	0,3
WxDxH (mm)	117x180x12

Description	Pk	Cat. No.
Magnetic stirrer, lab disc, EU/CH/UK-plug	1	442-0883



Magnetic stirrer with auto-start



Compact, powerful stirrer automatically starts when a beaker is placed on the corrosion resistant top plate. When the beaker is removed the stirring stops, but the setting remains unchanged for repeatable accuracy from batch to batch. The ±50 gram activation weight allows even small samples to be mixed automatically. Saves power, runs only as needed, and provides an extra measure of safety by automatically turning off when the sample is removed.

- Automatic start and stop
- Guaranteed repeatability
- Power saving

Max. stirring capacity H ₂ O (ml)	1000
Plate dimensions (mm)	Ø 114
Plate material	Aluminium
Speed range (minx ¹)	100 - 1200
Weight (kg)	2,0
ØxH (mm)	165x137

Description	Pk	Cat. No.
Magnetic stirrer, EU-plug	1	444-2856
Magnetic stirrer, UK-plug	1	444-2857
Magnetic stirrer, CH-plug	1	444-2858



Magnetic stirrers, VS-C series



Compact stirrers with a chemically resistant ceramic top. The elevated control panel minimises contact with spills. With fitting for retort rod.

- Powerful motor
- Strong magnetic adhesion prevents stirring bar decoupling
- Microprocessor control sends feedback to the motor to maintain constant speed

IP protection class according to DIN EN 60529: IP 21

Model	VS-C4	V5-C7
Max. stirring capacity H ₂ O (l)	5	10
Plate dimensions (mm)	100x100	180x180
Plate material	Ceramic	
Power input/output (W)	15/1,5	
Speed range (minx ¹)	100 - 1500	
Weight (kg)	3	5
WxDxH (mm)	150x260x105	220x330x105

Continued from previous page

Description	Pk	Cat. No.
Magnetic stirrer, VS-C4, EU-plug	1	442-0550
Magnetic stirrer, VS-C4, UK-plug	1	442-0556
Magnetic stirrer, VS-C4, CH-plug	1	442-0562
Magnetic stirrer, VS-C7, EU-plug	1	442-0551
Magnetic stirrer, VS-C7, UK-plug	1	442-0557
Magnetic stirrer, VS-C7, CH-plug	1	442-0563
Description	Pk	Cat. No.
Accessories		
Support rod, stainless steel, length 450 mm, Ø 10 mm, for all stirrers with M10 thread	1	442-2041
Bosshead clamp	1	442-2043



Magnetic stirrers, Advanced series



VWR Advanced magnetic stirrers deliver accurate and repeatable results. These easy to use microprocessor controlled units have an analogue dial with rpm adjustment markings. Rear housing features an integral support rod holder with locking knob to accept the optional support rod and clamp kit. The low profile design takes up less space and fits into fume hoods. Spill resistant housing channels fluids away from internal components. Enhanced electronics regulates stirring - speed control is precise and stirring consistent at all speeds. Ramping feature slowly increases speed for improved safety and enhanced coupling, avoids splashing, improves spin bar control, and provides excellent low end speed control. Ceramic tops feature a chemically resistant, reflective white top plate surface that is easy to clean.

- Built-in support rod holder
- Microprocessor control with analogue dial
- Chemically resistant housing
- Ceramic top plate

Delivery Information: Each unit is supplied complete with a PTFE coated magnetic stirring bar. Optional support rod kit (444-2844) is available, this includes 457 mm stainless steel support rod, thermometer/temperature probe extension clamp, three-prong medium swivel clamp, and hook connector.

Max. stirring capacity H ₂ O (ml)	600	2500	6000
Plate dimensions (mm)	100×100	180×180	250×250
Plate material	Ceramic		
Speed range (minx ¹)	60 - 1600		
Speed stability (%)	±2		
Weight (kg)	2,0	4,2	6
WxD×H (mm)	167×274×108	250×375×108	330×455×108

Description	Pk	Cat. No.
Advanced magnetic stirrer, 100×100, EU-plug	1	444-0566
Advanced magnetic stirrer, 100×100, UK-plug	1	444-0567
Advanced magnetic stirrer, 100×100, CH-plug	1	444-0568
Advanced magnetic stirrer, 180×180, EU-plug	1	444-0569
Advanced magnetic stirrer, 180×180, UK-plug	1	444-0570
Advanced magnetic stirrer, 180×180, CH-plug	1	444-0571
Advanced magnetic stirrer, 250×250, EU-plug	1	444-0572
Advanced magnetic stirrer, 250×250, UK-plug	1	444-0573
Advanced magnetic stirrer, 250×250, CH-plug	1	444-0574



Magnetic stirrers, Professional series



VWR Professional magnetic stirrers are designed for applications that require exceptional accuracy, stability, and repeatability. Stirring function, with continuous duty motor and powerful magnet, maintains set speed even under changing load or viscosity. Touch pad controls with easy to read, independent LED displays for speed, and time, allow the operator to view all settings at once. Rear housing features a built-in support rod holder with locking knob that accepts the optional probe kit. Low profile design takes up less space and fits into fume hoods. Spill resistant housing channels fluids away from internal components. An audible alarm will sound when time reaches zero in timed mode. Microprocessor control with enhanced electronics regulates stirring - speed control is precise and stirring consistent at all speeds. Ramping feature slowly increases speed for improved safety and enhanced coupling. Avoids splashing, improves spin bar control and provides excellent low end speed control. The ceramic tops feature a chemically resistant, reflective white top plate surface that is easy to clean.

- Microprocessor control
- Separate digital displays for speed and time. Display will show last used settings, even after power has been turned off
- Chemically resistant housing
- Ceramic top plate

Delivery Information: Each unit is supplied complete with a PTFE coated magnetic stirring bar.

Continued from previous page

Max. stirring capacity H ₂ O (ml)	2500	6000
Plate dimensions (mm)	180×180	250×250
Plate material	Ceramic	
Speed display	Digital	
Speed range (minx ¹)	60 - 1600	
Speed stability (%)	±2	
Weight (kg)	4,2	6
W×D×H (mm)	250×375×108	330×455×108

Description	Pk	Cat. No.
Professional magnetic stirrer, 180×180, EU-plug	1	444-0611
Professional magnetic stirrer, 180×180, UK-plug	1	444-0612
Professional magnetic stirrer, 180×180, CH-plug	1	444-0613
Professional magnetic stirrer, 250×250, EU-plug	1	444-0614
Professional magnetic stirrer, 250×250, UK-plug	1	444-0615
Professional magnetic stirrer, 250×250, CH-plug	1	444-0616



Magnetic hotplate stirrer, VMS-A



- Fixed safety circuit (400 °C)
- Soft-start stirring motor

IP protection class according to DIN EN 60529: IP 21

Model	VMS-A
Heat output (W)	400
Max. stirring capacity H ₂ O (l)	10
Plate dimensions (mm)	Ø 125
Plate material	Stainless steel
Power input/output (W)	15/2
Speed range (minx ¹)	100 - 2000
Temperature range (°C)	Ambient to 320
Weight (kg)	2,4
W×D×H (mm)	168×220×105

Description	Pk	Cat. No.
VMS-A magnetic hotplate stirrer with stainless steel plate, EU-plug	1	442-0185
VMS-A magnetic hotplate stirrer with stainless steel plate, UK-plug	1	442-0186
VMS-A magnetic hotplate stirrer with stainless steel plate, CH-plug	1	442-0212



Magnetic hotplate stirrers, VMS Advanced series



Compact stirrers with a ceramic glass plate, providing excellent chemical resistance. Units feature digital error code display, a «hot» top indicator to warn users that surface is hot, a fixed safety circuit shuts off heater if temperature rises above 550 °C and there are three operating modes to choose from (standard, safe, adjustment protection). Stirrers have a speed display scale and optional capability to connect a PT1000 temperature sensor directly; when using this functionality control accuracy in the medium is ±0,5 °C.

- Exact temperature setting via digital potentiometer
- Simultaneous digital display of target and actual temperatures via LCD display
- Display of actual temperature value in medium with 0,1 °C resolution when using PT1000 temperature sensor
- Integrated contact thermometer VT-5 (all VT-5 functions incorporated in hotplate stirrer)
- Stirrer can be controlled using two microcontrollers

IP protection class according to DIN EN 60529: IP 21

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Delivery Information: Supplied with PT1000 probe. A wide range of optional accessories are available.

Model	VMS-C4 Advanced	VMS-C7 Advanced	VMS-C10 Advanced
Heat output (W)	250	1000	1500
Max. stirring capacity H ₂ O (l)	5	10	15
Plate dimensions (mm)	100×100	180×180	260×260
Plate material	Ceramic glass		
Power input/output (W)	15/1,5		
Speed range (minx ¹)	100 - 1500		
Temperature range (°C)	50...500		
Weight (kg)	3	5	6
W×D×H (mm)	150×260×105	215×330×105	300×415×105

Description	Pk	Cat. No.
VMS-C4 Advanced magnetic hotplate stirrer, EU-plug	1	442-0661
VMS-C4 Advanced magnetic hotplate stirrer, UK-plug	1	442-0662
VMS-C4 Advanced magnetic hotplate stirrer, CH-plug	1	442-0663
VMS-C7 Advanced magnetic hotplate stirrer, EU-plug	1	442-0664
VMS-C7 Advanced magnetic hotplate stirrer, UK-plug	1	442-0665
VMS-C7 Advanced magnetic hotplate stirrer, CH-plug	1	442-0666
VMS-C10 Advanced magnetic hotplate stirrer, EU-plug	1	442-0667
VMS-C10 Advanced magnetic hotplate stirrer, UK-plug	1	442-0668
VMS-C10 Advanced magnetic hotplate stirrer, CH-plug	1	442-0669

Description	Pk	Cat. No.
Accessories		
Support rod, stainless steel, length 450 mm, Ø 10 mm, for all stirrers with M10 thread	1	442-2041
Bosshhead clamp	1	442-2043
Extension cable, separates casing from the sensor, avoiding damage from vapours released by the medium	1	620-8104
Holding rod, for fastening ETS-D5 or VT-5 to the support rod	1	431-2888



Magnetic hotplate stirrers, Advanced series



VWR Advanced magnetic hotplate stirrers deliver accurate and repeatable results. Units are microprocessor controlled and have an easy to read LED display for set point temperature. The control panel features easy to use controls which allow users to dial in adjustments for temperature, the stirrer control dial has rpm adjustment markings. Rear housing features an integral support rod holder with locking knob to accept the optional support rod and clamp kit. The low profile design takes up less space and fits into fume hoods. Spill-resistant housing channels fluids away from internal components. Safety features include a «hot» symbol warning light which is illuminated when heat is turned on and remains on until top plate cools down. Stir protection if stirrer motor stops or fails, unit will automatically shut down the heater. Enhanced electronics regulate both heating and stirring and bring samples to temperature quickly and efficiently. Temperature measurement is controlled more accurately by using a resistance thermometer (RTD). Ramping feature slowly increases speed for improved safety and enhanced coupling, avoids splashing, improves spin bar control, and provides excellent low end speed control. Ceramic tops feature a chemically resistant, reflective white top plate surface that is easy to clean. Durable aluminium tops will not crack or chip, and provide a more even heating surface.

- Excellent temperature uniformity with consistent stirring at all speeds
- Microprocessor controlled with built-in memory allowing recall of last set temperature (even if unit has been turned off)
- Cool touch, chemically resistant housing
- LED display for temperature
- Choice of models with ceramic or aluminium top plates

Delivery Information: Each unit is supplied complete with a PTFE coated magnetic stirring bar. Optional support rod kit is available which includes a 457 mm stainless steel support rod, thermometer/temperature probe extension clamp, three-prong medium swivel clamp, and hook connector.

Model	Aluminium top plate			Ceramic top plate		
Heat output (W)	400	1050	1600	400	1050	1600
Max. stirring capacity H ₂ O (ml)	600	2500	6000	600	2500	6000
Plate dimensions (mm)	100×100	180×180	250×250	100×100	180×180	250×250
Plate material	Aluminium			Ceramic		
Speed range (minx ¹)	60 - 1600					
Speed stability (%)	±2					
Temperature range (°C)	Ambient +5...400			Ambient +5...500		
Temperature stability (%)	±2*			±3*		
Weight (kg)	2,0	4,2	6	2,0	4,2	6
W×D×H (mm)	167×274×108	250×375×108	330×455×108	167×274×108	250×375×108	330×455×108

Description	Pk	Cat. No.
Models with aluminium top plates		
Magnetic hotplate stirrer, aluminium plate, 100×100 mm, EU-plug	1	444-0596
Magnetic hotplate stirrer, aluminium plate, 100×100 mm, UK-plug	1	444-0597
Magnetic hotplate stirrer, aluminium plate, 100×100 mm, CH-plug	1	444-0598

Continued from previous page

Description	Pk	Cat. No.
Models with aluminium top plates		
Magnetic hotplate stirrer, aluminium plate, 180×180 mm, EU-plug	1	444-0602
Magnetic hotplate stirrer, aluminium plate, 180×180 mm, UK-plug	1	444-0603
Magnetic hotplate stirrer, aluminium plate, 180×180 mm, CH-plug	1	444-0604
Magnetic hotplate stirrer, aluminium plate, 250×250 mm, EU-plug	1	444-0608
Magnetic hotplate stirrer, aluminium plate, 250×250 mm, UK-plug	1	444-0609
Magnetic hotplate stirrer, aluminium plate, 250×250 mm, CH-plug	1	444-0610
Models with ceramic top plates		
Magnetic hotplate stirrer, ceramic plate, 100×100 mm, EU-plug	1	444-0593
Magnetic hotplate stirrer, ceramic plate, 100×100 mm, UK-plug	1	444-0594
Magnetic hotplate stirrer, ceramic plate, 100×100 mm, CH-plug	1	444-0595
Magnetic hotplate stirrer, ceramic plate, 180×180 mm, EU-plug	1	444-0599
Magnetic hotplate stirrer, ceramic plate, 180×180 mm, UK-plug	1	444-0600
Magnetic hotplate stirrer, ceramic plate, 180×180 mm, CH-plug	1	444-0601
Magnetic hotplate stirrer, ceramic plate, 250×250 mm, EU-plug	1	444-0605
Magnetic hotplate stirrer, ceramic plate, 250×250 mm, UK-plug	1	444-0606
Magnetic hotplate stirrer, ceramic plate, 250×250 mm, CH-plug	1	444-0607
Accessories		
Stirrer support rod clamping kit (rod, 2 clamps and hook connector)	1	444-2844
Support plate for 100 mm stirrers and hotplate stirrers	1	444-2851

* Below 100 °C ±2 °C environmental and sample conditions permitting.



Magnetic hotplate stirrers, Professional series



VWR Professional hotplate stirrers are designed for applications that require exceptional accuracy, stability, and repeatability. Enhanced microprocessor control offers an external resistance thermometer (RTD) probe option that delivers superior temperature control of the sample. Stirring function, with continuous duty motor and powerful magnet, maintains set speed even under changing load or viscosity. Touch pad controls with easy to read, independent LED displays for temperature, speed, and time, allow operator to view all settings at once. Rear housing features a built-in support rod holder with locking knob that accepts the supplied probe kit. Low profile design takes up less space and fits into fume hoods. Spill resistant housing channels fluids away from internal components. A «hot» symbol warning light is illuminated when heat is turned on and remains on until top plate cools down. Stir protection; if stirrer motor stops or fails, unit will automatically shut down heater. Plate over-temperature limit ensures plate temperature will never exceed users programmed set temperature limit, allowing for control of sensitive flash points. An audible alarm will sound when time reaches zero or when unit reaches set point temperature in timed mode, and if the probe disengages from sample, unit will automatically shut off heater. Microprocessor control with enhanced electronics regulates both heating and stirring and brings samples to temperature quickly and efficiently. Ramping feature slowly increases speed for improved safety and enhanced coupling. Avoids splashing, improves spin bar control and provides excellent low end speed control. Ceramic tops feature a chemically resistant, reflective white top plate surface that is

easy to clean. Durable aluminium tops will not crack or chip, and provide a more even heating surface.

- Excellent temperature uniformity with consistent stirring at all speeds
- Separate digital displays for temperature, speed, and time; show set and actual values. Display will show last used settings, even after power has been turned off
- Cool touch, chemically resistant housing
- Includes external RTD temperature probe kit
- Choice of models with ceramic or aluminium top plates

Delivery Information: Each unit is supplied complete with a 203 mm stainless steel PT1000 temperature probe, a 457 mm stainless steel support rod, thermometer/temperature probe extension clamp, hook connector and a PTFE coated magnetic stirring bar.

Model	Aluminium top plate		Ceramic top plate	
Heat output (W)	1050	1600	1050	1600
Heated area (mm)	180×180	250×250	180×180	250×250
Max. stirring capacity H ₂ O (ml)	2500	6000	2500	6000
Plate dimensions (mm)	180×180	250×250	180×180	250×250
Plate material	Aluminium		Ceramic	
Speed range (minx ¹)	60 - 1600			
Speed stability (%)	±2			
Temperature range (°C)	Ambient +5...400		Ambient +5...500	
Temperature stability (%)	±1*			
Weight (kg)	4,2	6	4,2	6
WxDxH (mm)	250×375×108	330×455×108	250×375×108	330×455×108

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Description		Pk	Cat. No.
Models with aluminium top plates			
Magnetic hotplate stirrer, aluminium plate, 180×180 mm, EU-plug		1	444-0632
Magnetic hotplate stirrer, aluminium plate, 180×180 mm, UK-plug		1	444-0633
Magnetic hotplate stirrer, aluminium plate, 180×180 mm, CH-plug		1	444-0634
Magnetic hotplate stirrer, aluminium plate, 250×250 mm, EU-plug		1	444-0638
Magnetic hotplate stirrer, aluminium plate, 250×250 mm, UK-plug		1	444-0639
Magnetic hotplate stirrer, aluminium plate, 250×250 mm, CH-plug		1	444-0640
Models with ceramic top plates			
Magnetic hotplate stirrer, ceramic plate, 180×180 mm, EU-plug		1	444-0629
Magnetic hotplate stirrer, ceramic plate, 180×180 mm, UK-plug		1	444-0630
Magnetic hotplate stirrer, ceramic plate, 180×180 mm, CH-plug		1	444-0631
Magnetic hotplate stirrer, ceramic plate, 250×250 mm, EU-plug		1	444-0635
Magnetic hotplate stirrer, ceramic plate, 250×250 mm, UK-plug		1	444-0636
Magnetic hotplate stirrer, ceramic plate, 250×250 mm, CH-plug		1	444-0637
Description	For	Pk	Cat. No.
Accessories			
Spare temperature probe, 200 mm, stainless steel	Professional series units	1	444-0641
Spare temperature probe, 200 mm, PTFE	Professional series units	1	444-0642
Spare temperature probe, 250 mm, stainless steel	Professional series units	1	444-0643
Spare temperature probe, 250 mm, PTFE	Professional series units	1	444-0644
Replacement probe kit, 200 mm, stainless steel	Professional series units	1	444-0645

* Below 100 °C ±2 °C environmental and sample conditions permitting.



Electronic contact thermometer, VT-5



Ideal for accurate temperature control particularly with VWR hotplates and magnetic hotplate stirrers or other units with contact thermometer bushing according to DIN 12878, Class 2.

- Maintains the set temperature of the medium without overshooting
- Ensures precise temperature control even during unsupervised operation
- Clear, easy to read digital display shows actual temperature of the sample

IP protection class according to DIN EN 60529: IP 54

Control deviation (K)	±0.5
Measuring accuracy (K)	±0.2*
Measuring/control range (°C)	-50...+450
Resolution (K)	0.1
Sensor type	PT1000
Setting accuracy (K)	0.1
Weight (kg)	0.2
WxD×H (mm)	82×22×83 (without sensor)

Description	Pk	Cat. No.
VT-5 Electronic contact thermometer with PT1000 probe	1	442-0573

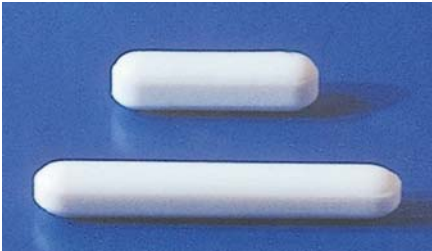
* plus sensor tolerance PT1000



INSTRUMENT SERVICE AND MAINTENANCE

Please contact your local VWR sales office for more information

Magnetic stirring bars, micro



PTFE covered, strong Alnico V magnetic core. Round, smooth surface. For use in the smallest containers.

<ul style="list-style-type: none"> • Very good chemical resistance • Temperature resistant, suitable for high and low temperature applications (–200 to +250 °C) 			
Length (mm)	Ø (mm)	Pk	Cat. No.
White			
2	2	10	442-0359
3	3	10	442-0360
5	2	10	442-0361
6	3	10	442-0362
7	2	10	442-0363
8	1,5	10	442-0364
8	3	5	442-0594
10	3	10	442-0365
13	3	10	442-0366
15	1,5	10	442-0367
20	3	10	442-0368
Blue			
2	2	10	442-0447
3	3	10	442-0450
5	2	10	442-0453
6	3	10	442-0456
7	2	10	442-0459
8	1,5	10	442-0462
8	3	5	442-0595
10	3	10	442-0465
13	3	10	442-0468
15	1,5	10	442-0471
Red			
2	2	10	442-0448
3	3	10	442-0451
5	2	10	442-0454
6	3	10	442-0457
7	2	10	442-0460
8	1,5	10	442-0463
8	3	5	442-0596
10	3	10	442-0466
13	3	10	442-0469
15	1,5	10	442-0472
Yellow			
2	2	10	442-0449
3	3	10	442-0452
5	2	10	442-0455
6	3	10	442-0458
7	2	10	442-0461
8	1,5	10	442-0464
8	3	5	442-0597
10	3	10	442-0467
13	3	10	442-0470
15	1,5	10	442-0473

Magnetic stirring bars, plain, economy



PTFE covered, strong Alnico V magnetic core. Smooth surface with rounded edges which enhance agitation effect even at low speeds. Inexpensive, high performance.

<ul style="list-style-type: none"> • Very good chemical resistance • Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C) 			
Length (mm)	Ø (mm)	Pk	Cat. No.
12	3	10	442-0482
25	8	10	442-0483
40	8	5	442-0484
50	8	5	442-0485

Magnetic stirring bars, plain



PTFE covered, strong Alnico V magnetic core. Smooth surface with rounded edges that intensify the stirring effect, even at low speeds.

- Very good chemical resistance
- Temperature resistant, suitable for high and low temperature applications (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
10	6	10	442-0262
13	8	10	442-0263
15	4,5	10	442-0264
20	6	10	442-0265
20	7	10	442-0266
25	6	10	442-0267
25	10	10	442-0268
30	7	10	442-0269
35	10	10	442-0270
40	8	5	442-0271
50	10	5	442-0272
57	27	5	442-0278
60	7	5	442-0273
65	13	5	442-0274
70	10	5	442-0275
75	13	5	442-0276
80	10	5	442-0277
108	27	5	442-0279
159	27	5	442-0280

Magnetic stirring bars, rectangular



PTFE covered, strong Alnico V magnetic core. Smooth surface. Inexpensive, high performance.

- Very good chemical resistance
- Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Length (mm)	Height (mm)	Pk	Cat. No.
12	4	10	442-0486
25	5,5	10	442-0487
35	6	10	442-0488
50	7,5	5	442-0489

Magnetic stirring bars, cylindrical

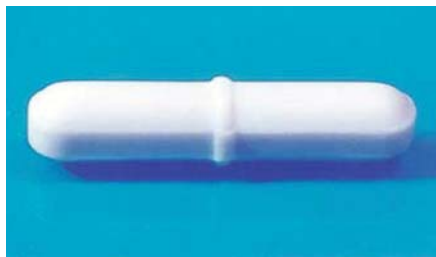


PTFE covered, strong Alnico V magnetic core. Round, smooth surface.

- Very good chemical resistance
- Extremely temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
6	3	10	442-0259
8	3	10	442-4520
10	6	10	442-0295
12	4,5	10	442-4521
15	4,5	10	442-4522
20	6	10	442-4523
25	6	10	442-4524
30	6	5	442-4525
35	6	5	442-4530
40	8	5	442-4527
50	8	5	442-4528
60	10	5	442-4529
70	10	5	442-0260
80	10	5	442-0261

Magnetic stirring bars, cylindrical, with centre ring



PTFE covered, strong Alnico V magnetic core. Smooth surface. For containers with slightly uneven bases.

- Very good chemical resistance
- Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
8	3	10	442-4500
12	6	10	442-4501
15	4,5	10	442-4502
15	8	10	442-4503
20	6	10	442-4504
25	6	10	442-4505
25	10	10	442-4506
30	6	10	442-4507
35	6	10	442-4508
40	8	10	442-4509
45	8	10	442-4510
50	8	5	442-4511
57	24	1	442-0256
60	10	5	442-4512
70	10	5	442-4513
108	24	1	442-0257
159	24	1	442-0258

Magnetic stirring bars, cylindrical, with removable pivot ring



PTFE covered, strong Alnico V magnetic core. Smooth surface. For containers with slightly uneven bases.

- Very good chemical resistance
- Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
12	8	10	442-0369
25	8	10	442-0371
32	8	10	442-0373
38	8	10	442-0374
38	10	10	442-0375
42	10	5	442-0376
51	8	5	442-0378
51	10	5	442-0379
75	12	5	442-0381
102	16	1	442-0382
127	16	1	442-0383
150	19	1	442-0384

Magnetic stirring bars, oval



PTFE covered, Alnico V magnetic core. Smooth surface. Designed for use in round bottomed flasks.

- Very good chemical resistance
- Temperature resistant, suitable for high and low temperature applications (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
10	5	10	442-0401
15	6	10	442-0402
20	10	10	442-0403
25	12	10	442-0404
30	16	10	442-0405
35	16	10	442-0406
40	20	5	442-0407
50	20	5	442-0408
64	20	5	442-0409
70	20	5	442-0410

Magnetic stirring bars, octagonal, with pivot ring



PTFE covered, strong Alnico V magnetic core. Smooth surface. For use in containers with bases that are slightly uneven or curved.

- Very good chemical resistance
- Temperature resistant, suitable for high and low temperature applications (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
White			
13	3	10	442-0281
13	8	10	442-0282
13	10	10	442-0283
15	8	10	442-0284
22	8	10	442-0286
25	8	10	442-0345
25	10	10	442-0346
28	8	10	442-0347
38	8	10	442-0349
38	10	10	442-0350
41	8	5	442-0352
51	8	5	442-0354
51	10	5	442-0355
64	8	5	442-0356
64	10	5	442-0357
75	13	5	442-0358
Blue			
13	3	10	442-0423
13	8	10	442-0426
15	8	10	442-0429
22	8	10	442-0432
25	8	10	442-0435
38	8	10	442-0438
51	8	5	442-0441
75	13	5	442-0444
Red			
13	3	10	442-0424
13	8	10	442-0427
15	8	10	442-0430
22	8	10	442-0433
25	8	10	442-0436
38	8	10	442-0439
51	8	5	442-0442
75	13	5	442-0445
Yellow			
13	3	10	442-0425
13	8	10	442-0428
15	8	10	442-0431
22	8	10	442-0434
25	8	10	442-0437
38	8	10	442-0440
51	8	5	442-0443
75	13	5	442-0446

Magnetic stirring bars, elliptical, rare earth



PTFE covered, rare earth magnetic core. The magnetic core is made from a combination of samarium and cobalt. The stirrers will continue to function at full strength for many years as the magnetism remains for longer.

- Magnetic attraction is 1,5 to 2 times stronger than conventional stirrers
- Very good chemical resistance
- Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
10	6	10	442-0503
15	10	10	442-0504
25	14	10	442-0505
50	24	5	442-0506
70	28	5	442-0507

Magnetic stirring bars, double ended



PTFE covered, strong Alnico V magnetic core. Smooth surface. Very good centring, small footprint and high turbulence even at low speeds. Disc diameter 20 mm, rod diameter 8 mm.

- Very good chemical resistance
- Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
White			
35	8	10	442-0474
55	8	5	442-0478
Blue			
35	8	10	442-0475
55	8	5	442-0479
Red			
35	8	10	442-0476
55	8	5	442-0480
Yellow			
35	8	10	442-0477
55	8	5	442-0481

Note: Coloured PTFE coatings are not as inert as pure PTFE.

Magnetic stirring bars, cross-shaped

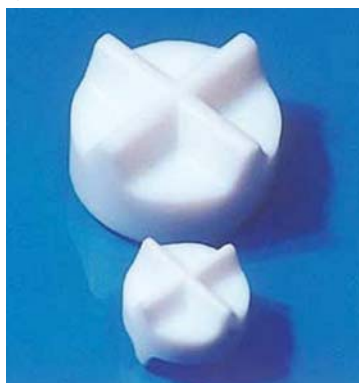


PTFE covered, strong Alnico V magnetic core. Smooth surface. Stable rotating position for optimal stirring effect.

- Very good chemical resistance
- Temperature resistant, suitable for high and low temperature applications (–200 to +250 °C)

Height (mm)	Ø (mm)	Pk	Cat. No.
5	10	10	442-0394
8	20	10	442-0395
9	25	10	442-0396
10	30	10	442-0397
11	38	10	442-0398
15	50	10	442-0399
20	60	10	442-0400

Magnetic stirrers, with crosshead

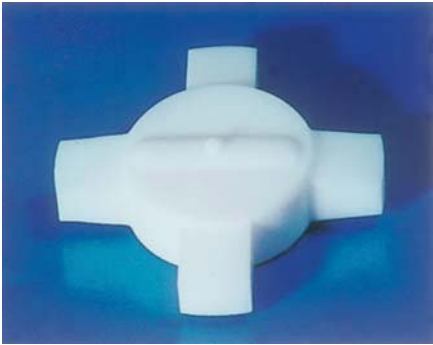


PTFE covered, strong Alnico V magnetic core. Smooth surface. Particularly suitable for small stirring vessels, extremely effective stirring action.

- Very good chemical resistance
- Very good temperature resistance, suitable for use at high and low temperatures (–200 to +250 °C)

Height (mm)	Ø (mm)	Pk	Cat. No.
With crosshead on one side			
8	10	10	442-0417
12	14	10	442-0418
13	17	10	442-0419
15	25	10	442-0420
17	40	10	442-0421
17	60	10	442-0422
With crosshead on both sides			
8	10	10	442-0411
10	14	10	442-0412
13	17	10	442-0413
14	40	5	442-0415
15	22	10	442-0414
15	60	5	442-0416

Magnetic stirring discs



PTFE covered, strong Alnico V magnetic core. The special shape with raised surface in the centre ensures very good agitation even at low speeds. Ideal for use in glass beakers.

- Very good chemical resistance
- Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
45	27	5	442-0490
62	37	5	442-0491
70	37	5	442-0492

Magnetic stirrer for cuvettes

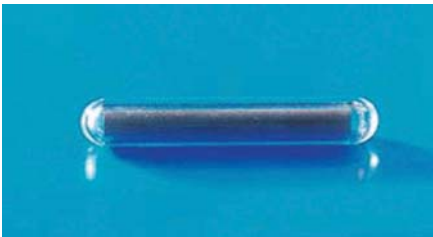


PTFE covered, strong Alnico V magnetic core. Designed for agitating in 10 mm standard cuvettes.

- Very good chemical resistance
- Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Height (mm)	Ø (mm)	Pk	Cat. No.
6	9	10	442-0502

Magnetic stirring bars, glass-covered



Cylindrical, with Alnico V magnetic core.

- Poreless, track neutral, extremely smooth surface
- Very good chemical resistance

Length (mm)	Ø (mm)	Pk	Cat. No.
6	5	10	442-0508
12	5	10	442-0509
25	6	10	442-0510
45	8	5	442-0511
60	8	5	442-0512



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Magnetic stirrers, boxed sets



Set Octahedral 1, PTFE covered, 12 octagonal magnetic stirring rods with centre ring, in practical, see-through box. Set includes two stirrers with each of following dimensions, LxØ (mm): 13x8, 15x8, 25x10, 38x10, 51x10 and 64x10.

Set Cross-Shaped, PTFE covered, cross-shaped magnetic stirring rods. Set of five. Set includes one stirrer with each of following dimensions, LxØ (mm): 10x10, 20x20, 25x25, 30x30, and 38x38.

Set Oval 1, PTFE covered, 12 oval magnetic stirring rods in practical, see-through box. Set includes two stirrers with each of following dimensions, LxØ (mm): 10x5, 15x6, 25x10, 30x10 and 35x13. Set also includes one stirrer with each of following dimensions, LxØ (mm): 50x17 and 70x27.

Set Oval 2, PTFE covered, 13 oval magnetic stirring rods in practical, see-through box. Set includes two stirrers with each of following dimensions, LxØ (mm): 20x10, 25x12, 30x16, 35x16, 40x20, and 50x20. Set also includes one stirrer with following dimensions, LxØ (mm): 70x20.

Set Coloured Micro, PTFE covered, 12 coloured micro magnetic stirring rods in practical, see-through box. Set includes one stirrer in each colour (blue/red/yellow) with following dimensions LxØ (mm): 8x1,5, 5x2, 7x2 and 10x3.

Set Coloured Standard, PTFE covered, 24 coloured octagonal magnetic stirring rods with centre ring in practical, see-through box. Set includes one stirrer in each colour (blue/red/yellow) with following dimensions LxØ (mm): 13x3, 13x8, 15x8, 22x8, 25x8, 38x8, 51x8 and 75x13.

Set Polygon 1, PTFE covered, 18 cylindrical magnetic stirring bars in practical, see-through box. Set includes two stirrers with each of following dimensions, LxØ (mm): 10x6, 15x4,5, 20x6, 25x6, 30x6, 40x8, 50x8, 60x10 and 70x10.

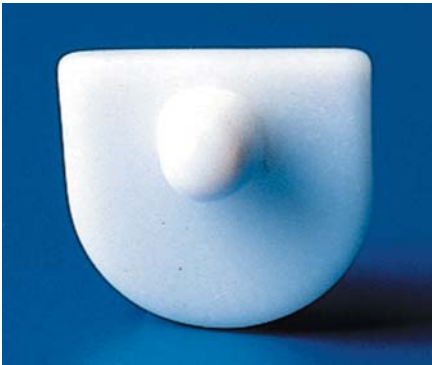
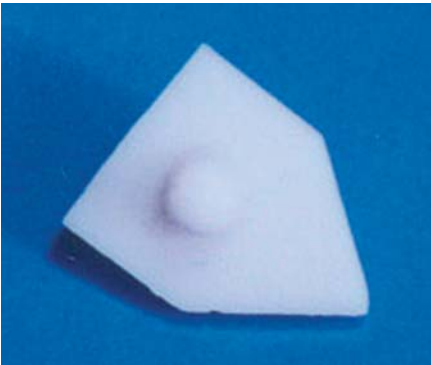
Set Polygon 2, PTFE covered, 18 cylindrical magnetic stirring bars in practical, see-through box. Set includes two stirrers with each of following dimensions, LxØ (mm): 10x6, 15x4,5, 20x6, 25x6, 30x6, 40x8, 50x8, 60x10 and 70x10.

Set Mix 1, PTFE covered, 22 cylindrical magnetic stirring bars, 16 with removable pivot ring, in practical, see-through box. Set includes two stirrers with each of following dimensions, LxØ (mm): 13x8, 13x10, 20x8, 25x8, 25x10, 38x8, 42x10, 51x8 and 51x10. Set also includes one stirrer with each of following dimensions, LxØ (mm): 32x8, 32x10, 38x10 and 45x8.

Set Mix 2, PTFE covered. Set of 14 magnetic stirring bars: Four micro and 10 octagonal with centre ring, in practical, see-through box. Set includes two stirrers with each of following dimensions, LxØ (mm): 7x2, 10x3, 13x8,15x8, 25x10, 38x10 and 51x10.

Type	Pk	Cat. No.
Octahedral 1	1 SET	442-0513
Cross-Shaped	1 SET	442-0522
Oval 1	1 SET	442-0514
Oval 2	1 SET	442-0517
Coloured Micro	1 SET	442-0516
Coloured Standard	1 SET	442-0518
Polygon 1	1 SET	442-0515
Polygon 2	1 SET	442-0519
Mix 1	1 SET	442-0520
Mix 2	1 SET	442-0521

Magnetic wing stirrers, micro



PTFE covered, Alnico V magnetic core. Smooth surface. For stirring in test tubes, centrifuge tubes and micro vials. The wings can also be cut to size if needed.

- Very good chemical resistance
- Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Height (mm)	Ø (mm)	Pk	Cat. No.
Triangular			
9	5,5	10	442-0493
11	8	10	442-0494
16	10	10	442-0495
Semicircular			
10	13	10	442-0496
20	13	10	442-0497



Magnetic stirring bar retrievers



- PTFE covered, rare earth magnetic core. For the removal of stirring magnets from vessels of all kinds.
- Very good chemical resistance
 - Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
150	10	1	442-4549
250	10	1	442-4550
350	10	1	442-4551
450	10	1	442-4552



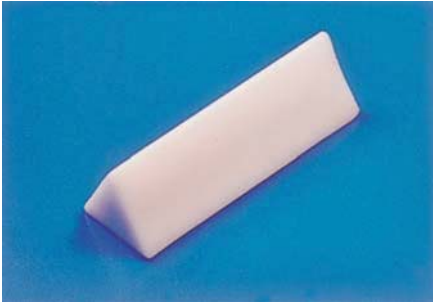
Magnetic Stirring Bar Retrievers



- PTFE covered, strong Alnico V magnetic core. For the removal of stirring magnets from vessels of all kinds.
- Very good chemical resistance
 - Temperature resistant, suitable for use at high and low temperatures (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
150	10	1	442-0523
250	10	1	442-0524
350	10	1	442-0525
450	10	1	442-0526

Magnetic stirring bars, triangular



- PTFE covered, strong Alnico V magnetic core. Smooth surface. Particularly effective for dissolving solids and mixing sediments because of the scraper like action on the base of the container.

- High turbulence, even at low speeds
- Very good chemical resistance
- Temperature resistant, suitable for high and low temperature applications (–200 to +250 °C)

Length (mm)	Ø (mm)	Pk	Cat. No.
12	6	10	442-0385
20	8	10	442-0386
25	8	10	442-0387
35	9	10	442-0388
40	14	5	442-0389
50	12	5	442-0390
80	18	5	442-0391
110	36	1	442-0392
136	36	1	442-0393

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Vortex mixer, lab dancer



Vortex mixer suitable for single small containers up to 30 mm in diameter, for example test tubes, centrifuge tubes and microtubes. The upper casing is PP and the test tube surface is made from inert TPU plastic; the bottom section is a coated, zinc die-casting.

- Small, compact and reliable
- Excellent mixing action

IP protection class according to DIN EN 60529: IP 40

Delivery Information: Supplied with 12 V power pack set.

Model	Lab Dancer
Max. capacity (ml)	50
Motor input/output (W)	1,2/0,8
Orbital diameter (mm)	4,5
Shaking motion	Orbital
Speed range (min ⁻¹)	2800 fixed
Weight (kg)	0,55
Ø×H (mm)	100×70

Description	Pk	Cat. No.
Test tube shaker, lab dancer, EU/UK-plug	1	444-0004

Description	Pk	Cat. No.
Accessories		
Replacement rubber head	1	444-0010



Vortex mixer, VV3



Vortex mixer suitable for a range of different applications due to 3 interchangeable attachments and various inserts. Microtubes, microtitre plates, even 250 ml Erlenmeyer flasks can be attached by means of the specially designed strap. Attachments click securely onto the unit in any position. The unit is sturdy with coated, zinc die-casting.

- Small and compact design
- Wide speed range, infinitely adjustable
- Touch or continuous mode

IP protection class according to DIN EN 60529: IP 21

* Depending on attachment and loading

Delivery Information: Supplied with standard attachment for test tubes or small beakers.



Model	VV3
Max. capacity (ml)	250
Motor input/output (W)	58/10
Orbital diameter (mm)	4
Shaking motion	Orbital
Speed range (min ⁻¹)	500 - 2500*
Weight (kg)	4,5
W×D×H (mm)	127×149×136

Description	Pk	Cat. No.
VV3 Vortex mixer, EU-plug	1	444-0007
VV3 Vortex mixer, UK-plug	1	444-0093
VV3 Vortex mixer, CH-plug	1	444-0094

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Description	For	Pk	Cat. No.
Accessories			
Flask attachment for Erlenmeyer or round bottom flasks, 100 up to 250 ml*	Continuous mode	1	412-0107
Attachment for single-handed operation, 88 mm round with rubber insert	Continuous or touch mode	1	412-0100
Universal attachment, 150 mm with rubber insert	Continuous mode	1	412-0101
Test tube attachment, for 18 reagent tubes, 10 mm*	Continuous mode	1	412-0103
Test tube attachment, for 12 reagent tubes, 12 mm*	Continuous mode	1	412-0104
Test tube attachment, for 8 reagent tubes, 16 mm*	Continuous mode	1	412-0105
Test tube attachment, for 8 reagent tubes, 20 mm*	Continuous mode	1	412-0106
Test tube attachment, for 54 microcentrifuge tubes, 1,5/2,0 ml*	Continuous mode	1	412-0102
Microtitre plate attachment for 1 standard microtitre plate*	Continuous mode	1	441-0036
Standard attachment for test tubes, or small beakers	Continuous or touch mode	1	412-0099

* Use in combination with 412-0101



Vortex shakers



Designed for vigorous, uniform vortexing action in a wide variety of applications with minimal vibration. Use with flasks, beakers, tubes and microtitre plates. Variable speed control allows low rpm start-up and gentle shaking of samples. Heavy base casting with corrosion resistant enamel finish; units will remain stable on the work bench. The Digital vortex mixer is ideal for applications that demand repeatable results. It features touch pad controls and LED displays for accurate speed and time results. Timer will display elapsed time or when programmed to a user-defined time limit, the unit will shut off when time reaches zero. Choose from two modes of operation; continuous mode when using accessory attachments or touch mode which activates mixing when depressing the cup head.

- Variable speed control
- Continuous or touch mode
- Digital model has microprocessor controls, LED display for speed and time
- Digital model has timer function

Delivery Information: Supplied with a cup head for touch mixing tubes and small vessels and 76 mm head with cover for easy touch mixing of beakers and flasks. Other accessories must be ordered separately.

Model	Digital vortex shaker	Vortex shaker
Motor input (W)	150	
Orbit (mm)	4,9	
Shaking motion	Orbital	
Speed range (min ⁻¹)	500 - 2500*	300 - 2500*
Weight (kg)	5	5,5
WxDxH (mm)	131x194x135	

Description	Pk	Cat. No.
Digital vortex mixer, EU-plug	1	444-0202
Digital vortex mixer, UK-plug	1	444-0203
Digital vortex mixer, CH-plug	1	444-0204
Analogue vortex mixer, EU-plug	1	444-2790
Analogue vortex mixer, UK-plug	1	444-2791
Analogue vortex mixer, CH-plug	1	444-7046

* Depending on attachment and loading. If foam inserts with the insert retainer are used, the maximum recommended speed is 900 min⁻¹.



Vortex shaker, pulsating



Powerful pulsing vortex action produces excellent cell disruption for glass bead procedures. The pulsing vortex mixer is capable of complete cell disruption of samples in only minutes. Unique pulsing action reduces heat generation while providing more effective mixing and disruption. System includes an easy to load holder for 12x1,5 ml or 2,0 ml microcentrifuge tubes. The microtube holder has a built-in cup head which allows the mixer to be used as a standard vortex mixer in touch mode. Microprocessor feedback control maintains set speed for strong, consistent mixing action. LED displays for both speed and time which provides better repeatability and accuracy.

- Glass bead cell disruption/homogenisation
- Continuous or touch modes
- Microprocessor controls
- LED display for speed and time

Delivery Information: Supplied with an easy to load holder for 12x1,5 ml or 2,0 ml microcentrifuge tubes with a built-in cup head, a standard cup head and one of Ø 76 mm.

Model	Pulsating Vortex Shaker
Motor input (W)	150
Orbit (mm)	2,5
Speed range (min ⁻¹)	500 - 2500
Weight (kg)	5
WxDxH (mm)	131x194x135

Description	Pk	Cat. No.
Pulsing vortex mixer, UK-plug	1	444-0205
Pulsing vortex mixer, EU-plug	1	444-0206
Pulsing vortex mixer, CH-plug	1	444-0207

Accessories for VWR analogue, digital, and pulsating vortex shakers



Tube holder kit (444-7047)

Consists of:

- Insert retainer
- Tube holder for 24 tubes of 1,5/2,0 ml, 16 tubes of 0,5 ml, 8 tubes of 0,2 ml
- Tube holder for 10 tubes of Ø 9 mm, 8 tubes of Ø 13 mm
- Tube holder for 8 tubes of Ø 14 mm, 8 tubes of Ø 19 mm
- Tube holder for 8 tubes of Ø 25/29 mm, 5 tubes of Ø 20 mm
- 2 vessel harnesses (e.g. Erlenmeyer)
- Foam insert without holes

Attachment and foam inserts for microplates (444-0210)

- Set of 2 foam inserts for microplates (444-0219) and 1 insert retainer (444-7048)

Insert holder and foam inserts for microtubes (444-0209)

- Set of 2 foam inserts for microtubes (444-0218) and 1 insert retainer (444-7048)

Single tube holder (444-0217)

Fits all vortex shakers and holds tubes 64 to 114 mm length, minimum Ø 19 mm. Hands-free mixing. Simple assembly, no tools required.

- Holds 15 or 50 ml centrifuge tubes

Description	Pk	Cat. No.
Cup head and cup head cover complete, 76 mm Ø	1	444-0208
Microtube holder kit with retainer (detailed above)	1	444-0209
Microplate holder kit with retainer (detailed above)	1	444-0210
Foam insert, blank without holes*	2	444-0211
Ampoule tube adapters 15 - 17 mm Ø (detailed above)	1	444-0212
Ampoule tube adapters 10 - 17 mm Ø (detailed above)	1	444-0213
Holder for 12 x 1,5/2,0 microcentrifuge tubes (included with pulsating vortex mixer 444-0206)	1	444-0214
Tube holder for 0,5 ml microtubes for continuous operation, holds 24 tubes**	1	444-0215
Tube holder for 1,5/2,0 ml microtubes for continuous operation, holds 18 tubes**	1	444-0216
Single tube holder for 15 and 50 ml tubes, hands-free shaking, accommodates tube up to 15 cm long or adaptor (444-0215 or 444-0216) for microtubes	1	444-0217
Foam insert for 48 x 0,25 - 2,0 ml microcentrifuge tubes, included in 444-0209*	2	444-0218
Foam insert microplate holder for 96 well plate or a deep well block, included in 444-0210*	2	444-0219
Tube holder kit with retainer (detailed above)	1	444-7047
Insert retainer that holds the accessories (tubes, microplates, microtubes, etc) and the vessel harnesses	1	444-7048
Set of inserts to be used with insert retainer (444-7048) consists of: 1x foam insert without holes (444-0211), 1x foam insert to hold 9 - 13 mm tubes (444-7051), 1x foam insert to hold 14 - 19 mm tubes (444-7052), 1x foam insert to hold 20 - 29 mm tubes (444-7053)	1 SET	444-7049
Vessel harness for use with e.g. Erlenmeyer flasks*	2	444-7050

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Description	Pk	Cat. No.
Foam insert for 9 – 13 mm Ø tubes (e.g. 5 ml culture tubes)*	1	444-7051
Foam insert for 14 – 19 mm Ø tubes (e.g. 15 ml centrifuge tubes)*	2	444-7052
Foam insert for 20 – 29 mm Ø tubes (e.g. 50 ml centrifuge tubes)*	2	444-7053
Cup head only, 76 mm Ø	1	444-7058
Head cover only for 444-7058, 76 mm Ø	1	444-7059
Small cup head	1	444-7060

* Can only be used with insert retainer 444-7048
** Can only be used with tube holder 444-0217



Vortex mixer



This vortex shaker combines state of the art electronics with design and comfort. Start the vortexing action by simply pressing down on the holder or platform. The heavy casing protects from splashes, while the round foot knobs ensure a secure positioning on the lab top and prevent “walking”.

- 5 mm orbital vibration
- Option of intermittent or continuous operating modes
- Analogue speed setting dial for infinitely variable speeds

IP protection class according to DIN EN 60529: IP 22

* With optional accessories 444-1388 and 444-1383

Delivery Information: Supplied with plate for 20 mm diameter test tubes. A large platform for flasks up to 50 ml is optionally available (see accessories).

Model	Vortex Mixer
Max. capacity (ml)	50*
Motor input (W)	51
Orbit (mm)	5
Speed range (min ⁻¹)	0 - 2500
Weight (kg)	2,8
WxDxH (mm)	134x105x172

Description	Pk	Cat. No.
Vortex mixer, EU-plug	1	444-1372
Vortex mixer, UK-plug	1	444-1378
Vortex mixer, CH-plug	1	444-1379

Description	For	Pk	Cat. No.
Accessories			
Replacement tray, small, 20 mm Ø		1	444-1382
Large tray for 50 ml flasks, 62 mm Ø		1	444-1383
Test tube holding device, holds one test tube securely during continuous shaking	A	1	444-1388



Multi-tube vortexers



Designed to hold multiple test tubes, test tube racks, vials or cylinders. Vortexing action is created by securing the top of the vessel in place while allowing the bottom to move freely in a defined orbit. Two stainless steel posts hold the support plate securely in place for quiet, rattle-free mixing. Support plate is easily adjustable by loosening knobs and moving support plate up and down. The circular groove around the top of the taller post allows the support plate to be swung away from the tray for easy removal of samples. The suction cup feet dampen motion and prevent «walking» on work bench. Made from stainless steel with corrosion resistant paint. Equipped with a powerful, permanent magnet motor with sealed ball bearings.

Motor is rated for continuous duty. VWR analogue vortexer (VX 2500, 444-7063) has adjustable speed with an automatic timer for simple repeat procedures and a conveniently angled front panel.

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VWR digital vortexer (DVX 2500, 444-7061) features microprocessor controller for digital programming of both speed and time and a pulse feature for difficult mixing applications. Ideal for applications that require accuracy and repeatability. Digital readouts of both speed and time are easily viewed from the easy to read LED display. Timer can be programmed or can be run in continuous mode. Versatile pulsing feature stops and starts the unit in predetermined increments to add further agitation to mixing process. Pulsing programme can be set from 1 second on/off up to 59 seconds on/off, allowing for a wide variety of pulsing combinations. The operator can set the pulsing features to run for 1 to 59 seconds and have a delay of 59 seconds, then the cycle repeats. Pulsing can be used in both timed and continuous mode.

- Ideal for mixing many tubes at one time
- Handles larger volumes than standard vortexers
- Analogue and digital models available

Delivery Information: Supplied with one 50×12 mm blue test tube rack (444-7066) and a matched tray pad set for mounting and support plates. Additional colour-coded foam test tube racks, post extension kit and replacement tray pad set are sold separately.

Model	Digital DVX 2500	Analogue VX 2500
Motor (W)	100	
Orbit (mm)	3,6	
Speed (min ⁻¹)	500 - 2500	1200 - 2400
Timer (min)	1 - 9999	0 - 1
Weight (kg)	18,6	
W×D×H (mm)	384×241×406	

Description	Pk	Cat. No.
Multi-tube vortex shaker, digital DVX 2500	1	444-7061
Multi-tube vortex shaker, analogue VX 2500	1	444-7063

Description	Pk	Cat. No.
Accessories		
Post extension kit, 150 mm	1	444-7062
Replacement tray pad set, grey	1	444-7064
Holder, foam rubber, for tubes 50×10 mm, grey	1	444-7065
Holder, foam rubber, for tubes 50×12 mm, blue	1	444-7066
Holder, foam rubber, for tubes 50×13 mm, yellow	1	444-7067
Holder, foam rubber, for tubes 50×16 mm, green	1	444-7068
Holder, foam rubber, for tubes 28×25 mm, white	1	444-7091
Holder, foam rubber, for conical tubes 15×50 ml, red	1	444-7092



Microplate shaker



Microplate shakers with microprocessor control which hold two or four microplates, deep well plates or two microtube racks. Variable speed across a wide range may be adjusted to suit the application; a low speed ensures that the well contents are not ejected, more vigorous agitation provides effective aeration across the small surface area of each of the wells. Ideal for use in immunology, biotechnology, microbiology and pharmacology applications.

- Two independent LED displays show speed and time
- Integral timer, 1 s to 160 h, shows elapsed time or counts down, automatic switch-off and audible alarm when programme is complete
- Can be used at –10 to +60 °C (80% relative humidity, non-condensing), in an incubator, CO₂ incubator or cold room

Ordering Information: The shaker can accommodate up to two optional accessory microtube racks. Each rack holds 70×1,5/2,0 ml microtubes.

No. of microplates held	2 or 4
Orbit (mm)	3,0
Power (W)	25
Speed (min ⁻¹)	100 - 900
Speed accuracy (%)	±2
Weight (kg)	10
W×D×H (mm)	280×430×100

Description	Pk	Cat. No.
Microplate shaker, EU-plug	1	444-0270
Microplate shaker, CH-plug	1	444-0271
Microplate shaker, UK-plug	1	444-7094

Description	For	Pk	Cat. No.
Microtube rack, PVC coated steel	1,5/2,0 ml tubes, holds 70 tubes	1	444-0276



Microplate shaker, high speed



Ideal for molecular biology applications, mechanical and chemical cell lysis, mixing tissue samples, mixing cytogenetic suspensions, and vortexing cell suspensions. Shaker is also ideal for emulsification of bi-polar viscous fluids and for mixing fluids in small diameter tubes. Specifically designed to shake and/or vortex microplates in timed or continuous modes. Shaker features programmable timed mode from 1 second to 160 hours. Speed and time are easily adjusted with the up/down arrows on the front panel. The 279x311 mm tray assembly includes a foam pad and accepts up to forty eight 96-well microplates. Tray assembly height is adjustable from 3,2 mm up to 127 mm, accommodating most microplates, especially deep-well microplates. Microplates can be stacked up to 6 plates high, to a maximum height of 127 mm. The unit's 12 suction cup feet and weight prevent the shaker from "walking" across the lab bench. Pulsing feature allows the user to programme the unit to stop and start at a wide range of intervals. The repetitive stopping and starting action is ideal for difficult mixing applications, such as emulsification of highly viscous liquids or bi-polar liquids.

- Holds up to six microplates without stacking, up to a maximum of 48 microplates with stacking (6 in layers horizontally, up to 8 in a vertical stack). Can be used with vessels up to 127 mm high
- Programmable digital speed control and timer
- Programmable "pulsing" feature to enhance mixing action
- Can be used at 4 to 40 °C, in an incubator or cold room
- RS232 interface

Ordering Information: Supplied with top plate and tray pad set. Tray pad set and replacement top plate are available separately. Each unit is supplied complete with three plugs: EU, UK and CH for use throughout Europe.

Max. load (kg)	3,2
Orbit (mm)	3,6
Power (W)	120
Speed (min ⁻¹)	600 to 2500 programmable in 1 min ⁻¹ increments
Speed accuracy (%)	±25
Weight (kg)	22
WxDxH (mm)	305x394x325

Description	Pk	Cat. No.
High speed microplate shaker	1	444-7016
Accessories		
Replacement tray	1	444-0201
Tray pad set	1	444-7014



Orbital mini shaker



General purpose shaker with microprocessor control which is ideal for a range of mixing applications. Variable speed control provides consistent, uniform shaking action. The speed is adjustable in 10 min⁻¹ increments up to 500 min⁻¹, and increments of 25 min⁻¹ up to 900 min⁻¹ and the ramping feature slowly increases speed to the set point for added safety.

- Two independent LED displays show speed and time
- Integral timer, 1 s to 160 h, shows elapsed time or counts down and enables automatic switch-off and audible alarm when programme is complete
- Range of interchangeable attachments
- Can be used at -10 to +60 °C (80% relative humidity), in an incubator, dry CO₂ incubator or cold room

Delivery Information: Supplied with perforated tray, non-slip rubber mat but without attachments, accessories must be ordered separately.

Max. load (kg)	4
Orbit (mm)	3
Power (W)	25

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Shaking motion	Orbital
Speed (min ⁻¹)	100 - 900
Speed accuracy (%)	±2
Weight (kg)	10
WxDxH (mm)	280x430x100

Description	Pk	Cat. No.
Orbital mini shaker, EU-plug	1	444-0268
Orbital mini shaker, CH-plug	1	444-0269
Orbital mini shaker, UK-plug	1	444-7093

Description	For	Pk	Cat. No.
Accessories			
Stainless steel dilution cap tray, WxD 175x254 mm	24x28 mm dilution vials	1	444-0514
Microtube rack, PVC coated steel	1,5/2,0 ml tubes, holds 70 tubes	1	444-0276
Test tube rack, PVC coated steel	10 - 13 mm Ø tubes, holds 63 tubes	1	444-0278
Test tube rack, PVC coated steel	14 - 16 mm Ø tubes, holds 48 tubes	1	444-0279
Test tube rack, PVC coated steel	18 - 20 mm Ø tubes, holds 35 tubes	1	444-0280
Test tube rack, PVC coated steel	22 - 25 mm Ø tubes, holds 24 tubes	1	444-0281
Centrifuge tube rack, PVC coated steel	15 ml tubes, holds 35 tubes	1	444-0283
Centrifuge tube rack, PVC coated steel	50 ml tubes, holds 12 tubes	1	444-0284
Flask clamps, stainless steel	10	1	444-7040
Flask clamps, stainless steel	25	1	444-7041
Flask clamps, stainless steel	50	1	444-7042
Flask clamps, stainless steel	125	1	444-7043
Flask clamps, stainless steel	250	1	444-7044
Flask clamps, stainless steel	500	1	444-7045
Clamps for media bottles, stainless steel	500	1	444-7035
Universal harness, attaches to tray to secure low profile plates	-	1	444-0277
Roller bar platform, which has 2 adjustable cushioned rollers to hold glassware securely, 297x218 mm, bar size 218 mm	-	1	444-0282
Spare single roller bar, 220 mm	Mounting on roller bar platform 444-0282	1	444-0565

Note: Shaker accommodates a maximum of 2 of the racks detailed and 35x10, 20x25, 15x50, 12x125, 6x250 or 4x500 ml flasks and 3x500 ml media bottles.



Orbital shaker, Standard 1000



General purpose shaker with microprocessor control which is ideal for basic mixing applications, blotting techniques, staining and destaining. Variable speed control provides consistent, uniform shaking action. The speed is adjustable via knob with 1 to 10 dial settings and the ramping feature slowly increases speed to the set point for added safety.

- Suitable for continuous operation
- Can be used at 0 to +40 °C (maximum 80% relative humidity, non-condensing), in an incubator, CO₂ incubator or cold room

Delivery Information: Supplied with non-slip rubber mat.

Max. load (kg)	3,6
Orbit (mm)	15
Platform WxD (mm)	222x299
Power (W)	25
Shaking motion	Orbital
Speed (min ⁻¹)	40 - 300
Weight (kg)	10
WxDxH (mm)	280x430x102

Description	Pk	Cat. No.
Standard 1000 orbital shaker, EU-plug	1	444-2900
Standard 1000 orbital shaker, UK-plug	1	444-2901
Standard 1000 orbital shaker, CH-plug	1	444-2902



Orbital shaker, Standard 3500



General purpose shaker with microprocessor control which is ideal for basic mixing applications, bacterial suspensions, staining and destaining. Variable speed control provides consistent, uniform shaking action. The speed is adjustable via knob with 1 to 10 dial settings and the ramping feature slowly increases speed to the set point for added safety.

- Continuous operation or timer operation from 0 to 120 min
- Range of interchangeable attachments available
- Can be used at 0 to +40 °C (maximum 80% relative humidity, non-condensing), in an incubator, CO₂ incubator or cold room

Delivery Information: Supplied with non-slip rubber mat but without attachments, accessories must be ordered separately. Please see entry ,Accessories for VWR Standard and Advanced series orbital shakers' for details on other platforms and accessories.

Max. load (kg)	15,8
Orbit (mm)	19
Platform WxD (mm)	330x279
Power (W)	75
Shaking motion	Orbital
Speed (min ⁻¹)	25 - 300
Weight (kg)	20
WxDxH (mm)	356x413x146

Description	Pk	Cat. No.
Standard 3500 orbital shaker, EU-plug	1	444-2903
Standard 3500 orbital shaker, UK-plug	1	444-2904
Standard 3500 orbital shaker, CH-plug	1	444-2905



Orbital shaker, Advanced 3500



Digital shaker with microprocessor control which is ideal for a range mixing applications, e.g. cell cultures, solubility studies and extraction procedures. Variable speed control provides consistent, uniform shaking action. The Accu-drive shaking system delivers exceptional speed control, accuracy, safety and durability; the shaking system continuously monitors shaking speed and will maintain the set point even under changing loads. Displayed speed is accurate to 1% of set speed. The ramping feature slowly increases speed to the set point for added safety. Built-in load sensor can detect an unbalanced condition and will automatically reduce the min⁻¹ to a safe speed to prevent spills and protect samples. Speed calibration mode allows the user to recalibrate the speed display and RS232 serial port provides two-way communication for data logging and unit control.

- Two independent LED displays show speed and time
- Integral timer, 1 s to 160 h, shows elapsed time or counts down, automatic switch-off and audible alarm when programme is complete
- Can be used at -10 to +60 °C (maximum 80% relative humidity, non-condensing), in an incubator, CO₂ incubator or cold room
- Five year warranty on motor and drive mechanism

Delivery Information: Supplied with non-slip rubber mat but without attachments, accessories must be ordered separately. Please see entry ,Accessories for VWR Standard and Advanced series orbital shakers' for details on other platforms and accessories.

Max. load (kg)	15,8
Orbit (mm)	19
Platform WxD (mm)	330x279
Power (W)	75
Shaking motion	Orbital
Speed (min ⁻¹)	15 - 300
Speed accuracy (min ⁻¹)	±1 below 100
Weight (kg)	20
WxDxH (mm)	356x413x146

Description	Pk	Cat. No.
Advanced 3500 orbital shaker, EU-plug	1	444-2906
Advanced 3500 orbital shaker, UK-plug	1	444-2907
Advanced 3500 orbital shaker, CH-plug	1	444-2908



Orbital shaker, Advanced 5000



Digital shaker with microprocessor control which is ideal for mixing applications with heavy loads, e.g. cell cultures, solubility studies and extraction procedures. Variable speed control provides consistent, uniform shaking action. The Accu-drive shaking system delivers exceptional speed control, accuracy, safety and durability, the system continuously monitors shaking speed and will maintain set point even under changing loads. Displayed speed is accurate to 1% of set speed. The ramping feature slowly increases speed to the set point for added safety. Built-in load sensor can detect an unbalanced condition and will automatically reduce the min⁻¹ to a safe speed to prevent spills and protect samples. Speed calibration mode allows the user to recalibrate the speed display and RS232 serial port provides two way communication for data logging and unit control.

- Two independent LED displays show speed and time
- Integral timer, 1 s to 160 h, shows elapsed time or counts down, automatic switch-off and audible alarm when programme is complete
- Can be used at -10 to +60 °C (maximum 80% relative humidity, non condensing), in an incubator, CO₂ incubator or cold room
- 5 year warranty on motor and drive mechanism

Delivery Information: Supplied with non slip rubber mat but without attachments, accessories must be ordered separately. Please see entry 'Accessories for VWR Standard and Advanced series orbital shakers' for details on other platforms and accessories.

Max. load (kg)	22,7
Orbit (mm)	25
Platform WxD (mm)	610x457
Power (W)	75
Shaking motion	Orbital
Speed (min ⁻¹)	20 - 300
Speed accuracy (min ⁻¹)	±1 below 100
Weight (kg)	45
WxDxH (mm)	676x597x155

Description	Pk	Cat. No.
Advanced 5000 orbital shaker, EU-plug	1	444-2915
Advanced 5000 orbital shaker, UK-plug	1	444-2916
Advanced 5000 orbital shaker, CH-plug	1	444-2917



Orbital shaker, Standard 5000



Heavy duty shaker with microprocessor control which is ideal for mixing applications with heavy loads, e.g. bacterial suspensions, staining and destaining. Variable speed control provides consistent, uniform shaking action. The speed is adjustable via knob with 1 to 10 dial settings and the ramping feature slowly increases speed to the set point for added safety.

- Continuous operation or timer operation from 0 to 120 min
- Range of interchangeable attachments available
- Can be used at 0 to +40 °C (maximum 80% relative humidity, non-condensing), in an incubator, CO₂ incubator or cold room

Delivery Information: Supplied with non-slip rubber mat but without attachments, accessories must be ordered separately. Please see entry 'Accessories for VWR Standard and Advanced series orbital shakers' for details on other platforms and accessories.

Max. load (kg)	22,7
Orbit (mm)	25
Platform WxD (mm)	610x457
Power (W)	75
Shaking motion	Orbital
Speed (min ⁻¹)	25 - 300
Weight (kg)	45
WxDxH (mm)	676x597x155

Description	Pk	Cat. No.
Standard 5000 orbital shaker, EU-plug	1	444-2912
Standard 5000 orbital shaker, UK-plug	1	444-2913
Standard 5000 orbital shaker, CH-plug	1	444-2914



Orbital shakers, Advanced 10000



Digital shakers with microprocessor control which are ideal for mixing applications with heavy loads, e.g. cell cultures, solubility studies and extraction procedures. Variable speed control provides consistent, uniform shaking action. The Accu-drive shaking system delivers exceptional speed control, accuracy, safety and durability, the system continuously monitors shaking speed and will maintain the set point even under changing loads. Displayed speed is accurate to 1% of set speed. The ramping feature slowly increases speed to the set point for added safety. Built-in load sensor can detect an unbalanced condition and will automatically reduce the min⁻¹ to a safe speed to prevent spills and protect samples. Speed calibration mode allows the user to recalibrate the speed display and RS232 serial port provides two-way communication for data logging and unit control.

- Two independent LED displays show speed and time
- Integral timer, 1 s to 160 h, shows elapsed time or counts down, automatic switch-off and audible alarm when programme is complete
- Can be used at -10 to +60 °C (maximum 80% relative humidity, non-condensing), in an incubator, CO₂ incubator or cold room
- 5 year warranty on motor and drive mechanism

Delivery Information: Supplied with non-slip rubber mat but without attachments, accessories must be ordered separately. Please see entry 'Accessories for VWR Standard and Advanced series orbital shakers' for details on other platforms and accessories.

Model	Advanced 10000-1	Advanced 10000-2
Max. load (kg)	45,4	
Orbit (mm)	25	51
Platform WxD (mm)	610x610	
Power (W)	75	
Shaking motion	Orbital	
Speed (min ⁻¹)	15 - 300	
Speed accuracy (min ⁻¹)	±1 below 100	
Weight (kg)	73	
WxDxH (mm)	676x719x178	

Description	Pk	Cat. No.
Advanced 10000-1 orbital shaker, EU-plug	1	444-2918
Advanced 10000-1 orbital shaker, UK-plug	1	444-2919
Advanced 10000-1 orbital shaker, CH-plug	1	444-2920
Advanced 10000-2 orbital shaker, EU-plug	1	444-2921
Advanced 10000-2 orbital shaker, UK-plug	1	444-2922
Advanced 10000-2 orbital shaker, CH-plug	1	444-2923



Orbital shakers, Advanced 15000



Digital shakers with microprocessor control which are ideal for mixing applications with very heavy loads and larger vessels, e.g. cell cultures, solubility studies and extraction procedures. Variable speed control provides consistent, uniform shaking action. The Accu-drive shaking system delivers exceptional speed control, accuracy, safety and durability, the system continuously monitors shaking speed and will maintain the set point even under changing loads. Displayed speed is accurate to 1% of set speed. The ramping feature slowly increases speed to the set point for added safety. Built-in load sensor can detect an unbalanced condition and will automatically reduce the min⁻¹ to a safe speed to prevent spills and protect samples. Speed calibration mode allows the user to recalibrate the speed display and RS232 serial port provides two-way communication for data logging and unit control.

- Two independent LED displays show speed and time
- Integral timer, 1 s to 160 h, shows elapsed time or counts down, automatic switch-off and audible alarm when programme is complete
- Can be used at -10 to +60 °C (maximum 80% relative humidity, non-condensing), in an incubator, CO₂ incubator or cold room
- 5 year warranty on motor and drive mechanism

Delivery Information: Supplied with non-slip rubber mat but without attachments, accessories must be ordered separately. Please see entry 'Accessories for VWR Standard and Advanced series orbital shakers' for details on other platforms and accessories.

Model	Advanced 15000-1	Advanced 15000-2
Max. load (kg)	68	
Orbit (mm)	25	51
Platform WxD (mm)	610x910	
Power (W)	75	
Shaking motion	Orbital	
Speed (min ⁻¹)	15 - 300	
Speed accuracy (min ⁻¹)	±1 below 100	

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Model	Advanced 15000-1	Advanced 15000-2
Weight (kg)	84	
WxDxH (mm)	676x719x178	
Description	Pk	Cat. No.
Advanced 15000-1 orbital shaker, EU-plug	1	444-2924
Advanced 15000-1 orbital shaker, UK-plug	1	444-2925
Advanced 15000-1 orbital shaker, CH-plug	1	444-2926
Advanced 15000-2 orbital shaker, EU-plug	1	444-2927
Advanced 15000-2 orbital shaker, UK-plug	1	444-2928
Advanced 15000-2 orbital shaker, CH-plug	1	444-2929

Accessories for VWR Standard and Advanced series orbital shakers

Universal platforms



Description	For	Pk	Cat. No.
Universal platform, 330x330 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2930
Universal platform, 457x457 mm*	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2931
Universal platform 330x279 mm	Standard/Advanced 3500, Incubating 3500, Advanced 3750, Professional 3500 shakers, mounting Erlenmeyer flask clamps and test tube racks	1	444-7087
Universal platform, 610x457 mm*	Standard/Advanced 3500, Advanced 3750**, Standard/Advanced 5000** shakers	1	444-2932
Universal platform, 610x610 mm	Advanced 10000-1/10000-2 shakers	1	444-2933
Universal platform, 762x457 mm*	Standard/Advanced 5000 shakers	1	444-2934
Universal platform, 914x610 mm	Advanced 15000-1/15000-2 shakers	1	444-2935

* Platforms are suitable for optional two tier braces, (444-2965) which allow stacking with 254 mm clearance between platforms (recommended for selected platform sizes)
** Platform stacking is not recommended for 3750 or 5000 models

Culture platforms



Description	For	Pk	Cat. No.
Culture platform, 457x457 mm*	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2936
Culture platform, 610x457 mm*	Standard/Advanced 3500, Advanced 3750**, Standard/Advanced 5000 shakers	1	444-2937

* Platforms are suitable for optional two tier braces, (444-2965) which allow stacking with 254 mm clearance between platforms (recommended for selected platform sizes)
** Platform stacking is not recommended for 3750 or 5000 models

Dedicated platforms



Description	For	Pk	Cat. No.
Dedicated platform with 16×125 ml flask clamps, 330×330 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2945
Dedicated platform with 12×250 ml flask clamps, 330×330 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2946
Dedicated platform with 8×500 ml flask clamps, 330×330 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2947
Dedicated platform with 4×1 litre flask clamps, 330×330 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2948
Dedicated platform with 27×125 ml flask clamps, 457×457 mm*	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2949
Dedicated platform with 20×250 ml flask clamps, 457×457 mm*	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2950
Dedicated platform with 13×500 ml flask clamps, 457×457 mm*	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2951
Dedicated platform with 9×1 litre flask clamps, 457×457 mm	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2952

* Platforms are suitable for optional two tier braces, (444-2965) which allow stacking with 254 mm clearance between platforms (recommended for selected platform sizes)
** Platform stacking is not recommended for 3750 or 5000 models

Tier braces

Description	For	Pk	Cat. No.
Set of 4 tier braces for stacking 2 platforms, clearance is 254 mm	Standard/Advanced 3500, Standard/Advanced 5000 shakers	1	444-2965

Replacement rubber mats



Description	For	Pk	Cat. No.
Rubber mat, 330×279 mm	Standard/Advanced 3500, Incubating 3500, Advanced 3750 shakers	1	444-2966
Replacement rubber mat, 610×457 mm	Standard/Advanced 5000 shakers	1	444-2967
Replacement rubber mat, 610×610 mm	Advanced 10000-1/10000-2 shakers	1	444-2968
Replacement rubber mat, 914×610 mm	Advanced 15000-1/15000-2 shakers	1	444-2969

Roller bar platforms



Description	For	Pk	Cat. No.
Roller bar platform, which has 4 adjustable cushioned rollers to hold glassware securely, 457×457 mm, bar size 457 mm	Standard/Advanced 3500 shakers	1	444-2938
Roller bar platform, which has 4 adjustable cushioned rollers to hold glassware securely, 610×457 mm, bar size 457 mm	Standard/Advanced 5000 shakers	1	444-2939

Platforms for separating funnels



Description	For	Pk	Cat. No.
Platform for separating funnels, 457×457 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2953
Clamp for separating funnels	Use with platforms 444-2931/444-2953	1	444-2970

Large vessel carrier platforms



Description	For	Pk	Cat. No.
Large vessel carrier platform, has 4 adjustable cushioned rollers to hold glassware securely, 764×459×353 mm, bar size 457 mm	Standard/Advanced 5000 shakers	1	444-2940
Large vessel carrier platform, has 4 adjustable cushioned rollers to hold glassware securely, 619×617×360 mm, bar size 610 mm	Advanced 10000-1/10000-2 shakers	1	444-2941
Large vessel carrier platform, has 5 adjustable cushioned rollers to hold glassware securely, 937×617×360 mm, bar size 610 mm	Advanced 15000-1/15000-2 shakers	1	444-2942
Replacement 457 mm roller bar with mounting hardware	Use with carrier 444-2940 or platforms 444-2938 / 444-2939	1	444-2943
Replacement 610 mm roller bar with mounting hardware	Use with carriers 444-2941 / 444-2942	1	444-2944

Microplate clamp



Number of microplate clamps held on universal platforms:		
Platform size (mm)	Platform Cat. No.	Number of microplate clamps (444-2954) held
330×279	444-7087	4
330×330	444-2930	6
457×457	444-2931	12
610×457	444-2932	18
610×610	444-2933	24
762×457	444-2934	21
914×610	444-2935	36

Description	For	Pk	Cat. No.
Microplate clamp, holds one standard microplate or one deepwell plate, 89×129 mm	Standard/Advanced 3500, 5000, 10000, 15000 shakers	1	444-2954

Stainless steel Erlenmeyer flask clamps



Tray or platform	Number of flask clamps per tray or platform										
	10 ml flask clamp	25 ml flask clamp	50 ml flask clamp	125 ml flask clamp	250 ml flask clamp	500 ml flask clamp	1l flask clamp	2 l flask clamp	2.8 l flask clamp	4 l flask clamp	6 l flask clamp
Mini shaker*	35	20	15	12	6	4	-	-	-	-	-
Incubating mini shaker*	35	20	12	8	5	-	-	-	-	-	-
Universal platform 444-7087											
Standard/Advanced 3500	60	25	13	10	9	7	4	-	-	-	-
Incubating orbital shaker, Professional 3500	60	25	13	10	9	7	4	-	-	-	-
Advanced 3750	60	25	13	10	9	7	4	-	-	-	-
Universal platform 444-2930											
Standard/Advanced 3500	60	30	15	12	12	8	4	3	1	1	1
Advanced 3750	60	30	15	12	12	8	4	3	1	1	1
Universal Platform 444-2931											
Standard/Advanced 3500	113	64	32	20	20	13	8	5	2	4	
Advanced 3750	113	64	32	20	20	13	8	5	2	4	2
Universal platform 444-2932											
Standard/Advanced 3500	158	88	44	28	28	20	12	6	3	4	3
Advanced 3750	158	88	44	28	28	20	12	6	3	4	3
Standard/Advanced 5000	158	88	44	28	28	20	12	6	3	4	3
Universal platform 444-2934											
Standard/Advanced 5000	203	112	56	36	36	26	15	8	3	6	4
Universal platform 444-2933											
Advanced 10000-1/10000-2	221	121	61	41	41	25	16	9	5	5	5
Universal platform 444-2935											
Advanced 15000-1/15000-2	336	160	94	61	64	40	24	14	7	9	7

Description	For	Pk	Cat. No.
Flask clamps, stainless steel	10	1	444-7040
Flask clamps, stainless steel	25	1	444-7041
Flask clamps, stainless steel	50	1	444-7042
Flask clamps, stainless steel	125	1	444-7043
Flask clamps, stainless steel	250	1	444-7044
Flask clamps, stainless steel	500	1	444-7045
Flask clamps, stainless steel, maximum 4 on platform	1000	1	444-7030
Flask clamps, stainless steel	2000	1	444-7031
Flask clamps, stainless steel (for Fernbach flasks)	2800	1	444-7032
Flask clamps, stainless steel	4000	1	444-7033
Flask clamps, stainless steel	6000	1	444-7034

* Platform supplied with mini shaker and incubating mini shaker. Note other shakers require an optional universal platform to enable flask clamps or test tube racks to be mounted which must be ordered separately.

Stainless steel media bottle clamps



Tray or platform	Number of bottle clamps per tray or platform	
	500 ml media bottle clamp	1 l media bottle clamp
Mini shaker*	3	-
Incubating mini shaker*	-	-
Universal platform 444-7087		
Standard/Advanced 3500	5	2
Incubating orbital shaker, Professional 3500	5	2
Advanced 3750	5	2
Universal platform 444-2930		
Standard/Advanced 3500	6	5
Advanced 3750	6	5
Universal Platform 444-2931		
Standard/Advanced 3500	16	10
Advanced 3750	16	10
Universal platform 444-2932		
Standard/Advanced 3500	20	13
Advanced 3750	20	13
Standard/Advanced 5000	20	13
Universal platform 444-2934		
Standard/Advanced 5000	28	18
Universal platform 444-2933		
Advanced 10000-1/10000-2	25	18
Universal platform 444-2935		
Advanced 15000-1/15000-2	40	30

Description	For	Pk	Cat. No.
Clamps for media bottles, stainless steel	500	1	444-7035
Clamps for media bottles, stainless steel	1000	1	444-7036

* Platform supplied with mini shaker and incubating mini shaker. Note other shakers require an optional perforated platform to enable flask clamps or test tube racks to be mounted which must be ordered separately.

Autoclavable PVC Erlenmeyer flask clamps



Tray or platform	Number of flask clamps per tray or platform				
	125 ml flask clamp	250 ml flask clamp	500 ml flask clamp	1 l flask clamp	2 l flask clamp
Mini shaker*	12	6	4	-	-
Incubating mini shaker*	8	4	-	-	-
Universal platform 444-7087					
Standard/Advanced 3500	10	8	5	2	-

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Tray or platform	Number of flask clamps per tray or platform				
Incubating orbital shaker, Professional 3500	10	8	5	2	-
Advanced 3750	10	8	5	2	-
Universal platform 444-2930					
Standard/Advanced 3500	12	10	6	4	3
Advanced 3750	12	10	6	4	3
Universal Platform 444-2931					
Standard/Advanced 3500	20	18	12	8	4
Advanced 3750	20	18	12	8	4
Universal platform 444-2932					
Standard/Advanced 3500	28	25	16	10	6
Advanced 3750	28	25	16	10	6
Standard/Advanced 5000	28	25	16	10	6
Universal platform 444-2934					
Standard/Advanced 5000	36	33	20	14	8
Universal platform 444-2933					
Advanced 10000-1/10000-2	41	35	24	13	9
Universal platform 444-2935					
Advanced 15000-1/15000-2	61	55	38	22	13

Description	For	Pk	Cat. No.
Autoclavable PVC flask clamp, 125 ml	125 ml Erlenmeyer flasks	1	444-2960
Autoclavable PVC flask clamp, 250 ml	250 ml Erlenmeyer flasks	1	444-2961
Autoclavable PVC flask clamp, 500 ml	500 ml Erlenmeyer flasks	1	444-2962
Autoclavable PVC flask clamp, 1000 ml	1000 ml Erlenmeyer flasks	1	444-2963
Autoclavable PVC flask clamp, 2000 ml	2000 ml Erlenmeyer flasks	1	444-2964

* Platform supplied with mini shaker and incubating mini shaker. Note other shakers require an optional perforated platform to enable flask clamps or test tube racks to be mounted which must be ordered separately.

Half-sized test tube racks



Tray or platform	Number of racks per tray or platform						
	1,5/2,0 ml microtube rack, capacity 70 tubes	10 to 13 mm test tube rack, capacity 63 tubes	14 to 16 mm test tube rack, capacity 48 tubes	18 to 20 mm test tube rack, capacity 35 tubes	22 to 25 mm test tube rack, capacity 24 tubes	15 ml centrifuge tube rack, capacity 35 tubes	50 ml centrifuge tube rack, capacity 12 tubes
Mini shaker*	2	2	2	2	2	2	2
Incubating mini shaker*	2	1	1	-	-	1	1
Microplate shaker*	2	-	-	-	-	-	-
Incubating microplate shaker*	2	-	-	-	-	-	-
Universal platform 444-7087							
Standard/Advanced 3500	2	2	2	2	2	2	2
Incubating orbital shaker, Professional 3500	2	2	2	2	2	2	2
Advanced 3750	2	2	2	2	2	2	2
Universal platform 444-2930							
Standard/Advanced 3500	2	2	2	2	2	2	2
Advanced 3750	2	2	2	2	2	2	2

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Tray or platform	Number of racks per tray or platform						
Universal Platform 444-2931							
Standard/Advanced 3500	4	4	4	4	4	4	4
Advanced 3750	4	4	4	4	4	4	4
Universal platform 444-2932							
Standard/Advanced 3500	6	6	6	6	6	6	6
Advanced 3750	6	6	6	6	6	6	6
Standard/Advanced 5000	6	6	6	6	6	6	6
Universal platform 444-2934							
Standard/Advanced 5000	8	8	8	8	8	8	8
Universal platform 444-2933							
Advanced 10000- 1/10000-2	8	8	8	8	8	8	8
Universal platform 444-2935							
Advanced 15000- 1/15000-2	7	7	7	7	7	7	7

Description	For	Pk	Cat. No.
Microtube rack, PVC coated steel	1,5/2,0 ml tubes, holds 70 tubes	1	444-0276
Test tube rack, PVC coated steel	10 - 13 mm Ø tubes, holds 63 tubes	1	444-0278
Test tube rack, PVC coated steel	14 - 16 mm Ø tubes, holds 48 tubes	1	444-0279
Test tube rack, PVC coated steel	18 - 20 mm Ø tubes, holds 35 tubes	1	444-0280
Test tube rack, PVC coated steel	22 - 25 mm Ø tubes, holds 24 tubes	1	444-0281
Centrifuge tube rack, PVC coated steel	15 ml tubes, holds 35 tubes	1	444-0283
Centrifuge tube rack, PVC coated steel	50 ml tubes, holds 12 tubes	1	444-0284

* Platform supplied with mini shaker, incubating mini shaker, microplate shaker and incubating microplate shaker. Note other shakers require an optional perforated platform to enable flask clamps or test tube racks to be mounted which must be ordered separately.

Test tube racks, PVC coated steel



Tray or platform	Number of racks per tray or platform		
	10 to 14 mm test tube rack, capacity 48 tubes	16 to 20 mm test tube rack, capacity 33 tubes	21 to 25 mm test tube rack, capacity 21 tubes
Mini shaker*	-	-	-
Incubating mini shaker*	-	-	-
Microplate shaker*	-	-	-
Incubating microplate shaker*	-	-	-
Universal platform 444-7087			
Standard/Advanced 3500	-	-	-
Incubating orbital shaker, Professional 3500	-	-	-
Advanced 3750	-	-	-
Universal platform 444-2930			
Standard/Advanced 3500	-	-	-
Advanced 3750	-	-	-
Universal Platform 444-2931			
Standard/Advanced 3500	3	3	3
Advanced 3750	3	3	3
Universal platform 444-2932			
Standard/Advanced 3500	5	5	5
Advanced 3750	5	5	5

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Tray or platform	Number of racks per tray or platform		
Standard/Advanced 5000	5	5	5
Universal platform 444-2934			
Standard/Advanced 5000	6	6	6
Universal platform 444-2933			
Advanced 10000-1/10000-2	7	7	7
Universal platform 444-2935			
Advanced 15000-1/15000-2	5	5	5

For	Pk	Cat. No.
48 tubes, 10 - 14 mm	1	444-7037
33 tubes, 16 - 20 mm	1	444-7038
21 tubes, 21 - 25 mm	1	444-7039

* Platform supplied with mini shaker, incubating mini shaker, microplate shaker and incubating microplate shaker. Note other shakers require an optional perforated platform to enable flask clamps or test tube racks to be mounted which must be ordered separately.

Test tube racks, pivoting stainless steel



Tray or platform	Number of racks per tray or platform				
	13 mm test tube rack, capacity 90 tubes	16 mm test tube rack, capacity 60 tubes	20 mm test tube rack, capacity 40 tubes	25 mm test tube rack, capacity 24 tubes	30 mm test tube rack, capacity 21 tubes
Mini shaker*	-	-	-	-	-
Incubating mini shaker*	-	-	-	-	-
Microplate shaker*	-	-	-	-	-
Incubating microplate shaker*	-	-	-	-	-
Universal platform 444-7087					
Standard/Advanced 3500	1	1	1	1	1
Incubating orbital shaker, Professional 3500	1	1	1	1	1
Advanced 3750	1	1	1	1	1
Universal platform 444-2930					
Standard/Advanced 3500	2	2	2	2	2
Advanced 3750	2	2	2	2	2
Universal Platform 444-2931					
Standard/Advanced 3500	2	2	2	2	2
Advanced 3750	2	2	2	2	2
Universal platform 444-2932					
Standard/Advanced 3500	3	3	3	3	3
Advanced 3750	3	3	3	3	3
Standard/Advanced 5000	3	3	3	3	3
Universal platform 444-2934					
Standard/Advanced 5000	4	4	4	4	4
Universal platform 444-2933					
Advanced 10000-1/10000-2	4	4	4	4	4
Universal platform 444-2935					
Advanced 15000-1/15000-2	6	6	6	6	6

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Description	For	Pk	Cat. No.
Pivoting stainless steel test tube rack, 13 mm	90 tubes, 13 mm	1	444-2955
Pivoting stainless steel test tube rack, 16 mm	60 tubes, 16 mm	1	444-2956
Pivoting stainless steel test tube rack, 20 mm	40 tubes, 20 mm (accommodates 15 ml centrifuge tubes)	1	444-2957
Pivoting stainless steel test tube rack, 25 mm	24 tubes, 25 mm	1	444-2958
Pivoting stainless steel test tube rack, 30 mm	21 tubes, 30 mm	1	444-2959

* Platform supplied with mini shaker, incubating mini shaker, microplate shaker and incubating microplate shaker. Note other shakers require an optional perforated platform to enable flask clamps or test tube racks to be mounted which must be ordered separately.



Reciprocating shaker, Advanced 3750



Digital shaker with microprocessor control which is ideal for a range mixing applications, e.g. solubility studies and extraction procedures. Variable speed control provides consistent, uniform shaking action. The shaking system continuously monitors shaking speed and will maintain the set point even under changing loads. Displayed speed is accurate to 1% of set speed. The ramping feature slowly increases speed to the set point for added safety. Built-in load sensor can detect an unbalanced condition and will automatically reduce the min⁻¹ to a safe speed to prevent spills and protect samples. Speed calibration mode allows user to recalibrate the speed display and RS232 serial port provides two-way communication for data logging and unit control.

- Two independent LED displays show speed and time
- Integral timer, 1 s to 160 h, shows elapsed time or counts down, automatic switch-off and audible alarm when programme is complete
- Can be used at -10 to +60 °C (maximum 80% relative humidity, non-condensing), in an incubator, CO₂ incubator or cold room
- Five year warranty on motor and drive mechanism

Delivery Information: Supplied with non-slip rubber mat, but without attachments, accessories must be ordered separately.

Model	Advanced 3750
Max. load (kg)	6,8
Platform WxD (mm)	330x279
Power (W)	40
Shaking motion	Reciprocating
Speed (min ⁻¹)	20 - 300
Speed accuracy (min ⁻¹)	±1 below 100
Stroke (mm)	19
Weight (kg)	20
WxDxH (mm)	356x413x146

Description	Pk	Cat. No.
Advanced 3750 reciprocating shaker, EU-plug	1	444-2909
Advanced 3750 reciprocating shaker, UK-plug	1	444-2910
Advanced 3750 reciprocating shaker, CH-plug	1	444-2911

Description	For	Pk	Cat. No.
Universal platforms			
Universal platform, 330x330 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2930
Universal platform, 457x457 mm*	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2931
Universal platform 330x279 mm	Standard/Advanced 3500, Incubating 3500, Advanced 3750, Professional 3500 shakers, mounting Erlenmeyer flask clamps and test tube racks	1	444-7087
Universal platform, 610x457 mm*	Standard/Advanced 3500, Advanced 3750**, Standard/Advanced 5000** shakers	1	444-2932
Culture platforms			
Culture platform, 457x457 mm*	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2936
Culture platform, 610x457 mm*	Standard/Advanced 3500, Advanced 3750**, Standard/Advanced 5000 shakers	1	444-2937
Dedicated platforms			
Dedicated platform with 16x125 ml flask clamps, 330x330 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2945
Dedicated platform with 12x250 ml flask clamps, 330x330 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2946
Dedicated platform with 8x500 ml flask clamps, 330x330 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2947
Dedicated platform with 4x1 litre flask clamps, 330x330 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2948
Dedicated platform with 27x125 ml flask clamps, 457x457 mm*	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2949
Dedicated platform with 20x250 ml flask clamps, 457x457 mm*	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2950
Dedicated platform with 13x500 ml flask clamps, 457x457 mm*	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2951
Dedicated platform with 9x1 litre flask clamps, 457x457 mm	Standard/Advanced 3500, Advanced 3750** shakers	1	444-2952
Replacement rubber mats			
Rubber mat, 330x279 mm	Standard/Advanced 3500, Incubating 3500, Advanced 3750 shakers	1	444-2966
Platforms for separating funnels			
Platform for separating funnels, 457x457 mm	Standard/Advanced 3500, Advanced 3750 shakers	1	444-2953
Clamp for separating funnels	Use with platforms 444-2931/444-2953	1	444-2970

* Platforms are suitable for optional two tier braces, (444-2965) which allow stacking with 254 mm clearance between platforms (recommended for selected platform sizes)

** Platform stacking is not recommended for 3750 or 5000 models



Mini nutating mixer



The mini nutating mixer that combines the action of an orbital shaker and a rocker to produce a three dimensional motion which provides gentle yet thorough mixing without foaming. Ideal for mixing samples in blood and centrifuge tubes. Speed and angle of tilt are fixed, providing the optimum conditions for mixing and re-suspending samples in blood and centrifuge tubes.

- Gentle movement keeps fragile tissue intact
- Can be used at 4 to 65 °C (85% relative humidity, non-condensing), in an incubator or cold room

IP protection class according to DIN EN 60529: IP 54

Delivery Information: Supplied with dimpled rubber mat.

Angle (°)	20 fixed
Input power (W)	3,6
Max. load (kg)	0,8
Platform WxD (mm)	248x172
Shaking motion	3-dimensional gyratory
Speed (min ⁻¹)	20
Weight (kg)	1
WxDxH (mm)	248x172x152

Description	Pk	Cat. No.
Mini nutating mixer, EU-plug	1	444-0148
Mini nutating mixer, UK-plug	1	444-0149
Mini nutating mixer, CH-plug	1	444-0150

Mini blot shaker



The Mini blot shaker combines the actions of a rocker and a shaker to produce a three dimensional motion that is gentle enough for fragile gels and blots, yet provides thorough mixing. Designed for processing blots and staining applications, the pitch and speed of the shaker are optimally set to allow for use of a minimal amount of solution while preventing the membrane or gel from drying out. Using a smaller amount of reagents helps to conserve valuable probes and antibodies.

- Gyratory action for gentle, efficient staining
- Optimal pitch and speed for processing Western blots
- Can be used in an incubator or cold room

Delivery Information: Supplied with a non-slip rubber mat and two large blot boxes. Two sizes are available to hold blots of 8x10 and 10x10 cm gels. The larger boxes will accommodate gels from VWR's modular Mini vertical PAGE systems.

Angle (°)	Fixed 5
Max. load (kg)	0,8
Operating temperature range (°C)	Ambient +4...65
Platform WxD (mm)	200x165
Shaking motion	3-dimensional
Speed (min ⁻¹)	Fixed 20
Weight (kg)	0,88
WxDxH (mm)	240x171x150

Description	Pk	Cat. No.
Mini blot shaker, EU-plug	1	700-0245
Mini blot shaker, UK-plug	1	700-0246
Mini blot shaker, CH-plug	1	700-0247

Description	Pk	Cat. No.
Large blot box, 117x89 mm	10	700-0248
Small blot box, 91x66 mm	10	700-0249



Rocking platform shakers



Rocking platform shakers have variable speed and adjustable tilt to provide optimum control of mixing conditions, a gentle wave motion is ideal for blotting membranes and gels. Shakers maintain constant speed regardless of load or voltage fluctuations. Durable shakers with choice of models with single- or double-tiered stainless steel platforms.

- Continuous or timer operation from 1 to 120 min, with automatic switch-off
- Model with double platform increases sample capacity when bench space is limited
- Can be used at 4 to 65 °C (80% relative humidity, non-condensing), in an incubator or cold room

IP protection class according to DIN EN 60529: IP 54

Delivery Information: Supplied with non-slip rubber mat.

Model	Single tier	Double tier
Angle (°)	±20	
Input power (W)	24	
Max. load (kg)	5	
Platform WxD (mm)	356x280	
Shaking motion	Rocking	
Speed (min ⁻¹)	6 - 120	
Weight (kg)	6,9	8,0
WxDxH (mm)	355x352x160	355x352x250

Description	Pk	Cat. No.
Rocking platform shaker, single tier, EU-plug	1	444-0142
Rocking platform shaker, single tier, UK-plug	1	444-0143
Rocking platform shaker, single tier, CH-plug	1	444-0144
Rocking platform shaker, double tier, EU-plug	1	444-0145
Rocking platform shaker, double tier, UK-plug	1	444-0146
Rocking platform shaker, double tier, CH-plug	1	444-0147



Tube rotators



A unique design of rotator makes this unit suitable for a wide range of mixing applications in biochemistry, molecular biology and histochemistry. The rotisserie assemblies allow for mixing tubes vertically, horizontally or any position in-between. Therefore gentle mixing using a horizontal position is easily accommodated for applications such as hybridisation. Alternatively rotation with vertically positioned tubes produces a tumbling motion suitable for mixing samples in blood tubes. The two halves of the rotisserie can be adjusted independently of each other to increase versatility and facilitate optimisation of mixing.

- Adjustable mixing angle changed with a simple turn of the plate - no tools required
- Can be used at 4 to 65 °C for cold room or incubator use
- Rotisserie assemblies available for a range of tube sizes
- Moulded housing and rotisserie plates are easy to clean
- Lightweight unit with a small footprint for easy manoeuvring and transport

Delivery Information: The tube rotator is supplied with a rotisserie assembly for 36x1,5/2,0 ml microtubes; other rotisseries must be ordered separately.

Angle (°)	Plates freely adjustable from horizontal to vertical
Capacity	36x1,5/2,0 ml tubes or 10x10/15 ml and 16x5/7 ml tubes or 6x50 ml tubes
Max. load (kg)	0,8
Operating temperature range (°C)	4 - 65
Shaking motion	Rotating
Speed (min ⁻¹)	20 fixed
Weight (kg)	2,0
WxDxH (mm)	239x127x153

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Description	Pk	Cat. No.
VWR rotator, EU-plug	1	444-0500
VWR rotator, CH-plug	1	444-0501
VWR rotator, UK-plug	1	444-0502
Description	Pk	Cat. No.
Accessories		
Spare rotisserie assembly for 36x1,5/2,0 ml tubes	1	444-0503
Rotisserie assembly for 10x10/15 and 16x5/7 ml tubes	1	444-0504
Rotisserie assembly for 6x50 ml tubes	1	444-0505



Rocking platform shaker



Rocking platform shaker with low profile design, can be used in most fume hoods and incubators. The cast aluminium base offers durability and stability, the spill resistant design channels fluids away from internal components. Precise speed control provides smooth, low-speed rocking motion down to 1rpm. Touch pad controls with easy to read LED display. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer displays elapsed time or, when programmed to user-defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off. Overload protection via audible and visual signals activated when system detects an obstruction or overload of the tray. Speed ramping feature slowly increases speed to desired set point to avoid splashing. Unit is ideal for cell culture work, staining and destaining gels, hybridisation procedures, hematology, and blotting techniques.

- Microprocessor control provides electronic tilt angle adjustment from 0 to 15° while unit is operating
- LED display shows speed, tilt angle and time simultaneously
- Timer from 1 sec to 160 h, with audible alarm when the time reaches zero
- Can be used at -10 to +60 °C (max 80% relative humidity, non-condensing) in cold rooms, incubators, and CO₂ environments

Delivery Information: Supplied with a 324x254 mm non-slip rubber mat. Stacking tray must be ordered separately.

Angle (°)	0 - 15*
Max. load (kg)	4,5**
Platform WxD (mm)	254x324
Shaking motion	Rocking
Speed range (min ⁻¹)	1 - 50*
Weight (kg)	6,5
WxDxH (mm)	279x432x127

Description	Pk	Cat. No.
Rocking platform shaker, EU-plug	1	444-0756
Rocking platform shaker, UK-plug	1	444-0757
Rocking platform shaker, CH-plug	1	444-0758

Description	For	Pk	Cat. No.
Accessories for Rocking Platform Shaker			
Spare dimpled mat to prevent tubes from rolling around	Rocking platform shaker	1	444-0768
Stacking tray	Rocking platform shaker	1	444-0772

* Note: Maximum speed/tilt angle may vary with heavy or unblanced loads
** Centred on tray

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3-D rotator waver



The low profile 3-D rotator waver provides precise speed control and a smooth, low foaming, three dimensional, wave motion. The cast aluminium base offers durability and added stability, the spill resistant design channels fluids away from internal components. The microprocessor control provides electronic tilt angle adjustment which allows user to easily adjust waving angle from 0 to 20° while unit is operating. Precise speed control provides smooth, low-speed waving motion down to 1rpm. Touch pad controls with easy to read LED display. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user-defined limit, will shut off unit when time reaches zero. Display will show last settings, even after power has been turned off. Overload protection via audible and visual signals activated when system detects an obstruction or overload of the tray. Speed ramping feature slowly increases speed to desired set point to avoid splashing. The unit easily fits into most fume hoods and incubators, and is ideal for blood samples, DNA extractions, blotting techniques, and general mixing.

- Electronic tilt adjustment from 0 to 15° while unit is operating
- LED display shows speed and tilt angle and time simultaneously
- Timer from 1 sec to 160 h, with audible alarm when the time reaches zero
- Can be used at -10 to +60 °C (max 80% relative humidity, non-condensing) in cold rooms, incubators, and CO₂ environments

Delivery Information: Supplied with a 299×222 mm non-slip rubber mat, suitable for holding Petri dishes. Stacking tray must be ordered separately.

Angle (°)	0 - 20*
Max. load (kg)	2,3**
Platform WxD (mm)	222×299
Shaking motion	3-Dimensional
Speed range (min ⁻¹)	1 - 30*
Weight (kg)	6,8
WxDxH (mm)	279×432×152

Description	Pk	Cat. No.
3-Dimensional rotator waver, EU-plug	1	444-0759
3-Dimensional rotator waver, UK-plug	1	444-0760
3-Dimensional rotator waver, CH-plug	1	444-0761

Description	For	Pk	Cat. No.
Accessories for 3-D Rotator Waver			
Spare dimpled mat for holding Petri dishes	3-D rotator waver	1	444-0770
Stacking tray	3-D rotator waver	1	444-0773

* Note: Maximum speed/tilt angle may vary with heavy or unblanaced loads
** Centred on tray



Symphony™ incubating rocking platform shaker



The Symphony™ incubating rocking platform shaker combines smooth rocking motion and general purpose incubation in one compact bench top unit. The spill resistant design channels fluids away from internal components. The microprocessor control provides electronic tilt angle adjustment which allows user to easily adjust rocking angle from 0 to 15° while unit is operating. The PID temperature controller maintains precise temperature control from ambient +5°C to 65°C. Easy to use controls allow users to adjust temperature in 1 °C increments. Precise speed control provides smooth, low-speed rocking motion down to 1rpm. Touch pad controls with easy to read LED displays for temperature, speed, tilt angle, and time allow operator to view all settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. A hot warning illuminates when the air temperature in the chamber reaches 40 °C and remains on until the temperature cools to below 40 °C. Polycarbonate lid allows viewing of samples without disturbing the internal temperature. Timer displays elapsed time or, when programmed to user-defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off. Overload protection via audible and visual signals activated when system detects an obstruction or overload of the tray. Speed ramping feature slowly increases speed to desired set point to avoid splashing. Unit is ideal for cell cultures, staining and destaining gels, hybridisation procedures, hematology, and blotting techniques.

- Electronic tilt adjustment from 0 to 15° while unit is operating
- LED display shows temperature, speed, tilt angle and time simultaneously
- Timer from 1 sec to 160 h, with audible alarm when the time reaches zero
- Can be used at 5 to 40 °C (max 80% relative humidity, non-condensing) in cold rooms, incubators, and CO₂ environments

Ordering Information: Supplied without accessories. Mat must be ordered separately.

Continued from previous page

Angle (°)	0 - 15*
Interior Dimensions	197×273×97
Max. load (kg)	4,5**
Platform WxD (mm)	191×273
Shaking motion	Rocking
Speed accuracy	±1 min ⁻¹
Speed range (min ⁻¹)	1 - 50*
Temperature range (°C)	Ambient +5...65
Uniformity at 37 °C (°C)	±0,5
Weight (kg)	9,5
WxDxH (mm)	279×432×267

Description	Pk	Cat. No.
Symphony™ incubating rocking platform shaker, EU-plug	1	444-0762
Symphony™ incubating rocking platform shaker, UK-plug	1	444-0763
Symphony™ incubating rocking platform shaker, CH-plug	1	444-0764

Description	For	Pk	Cat. No.
Mat for Symphony™ incubating rocking platform shaker			
Dimpled mat	Symphony™ incubating rocking platform shaker	1	444-0769

* Note: Maximum speed/tilt angle may vary with heavy or unblanced loads
** Centred on tray



Symphony™ incubating 3-D rotator waver



The Symphony™ incubating 3-dimensional rotator waver combines vertical and horizontal wave motion with general purpose incubation in one compact bench top unit. The spill resistant design channels fluids away from internal components. The microprocessor control provides electronic tilt angle adjustment which allows user to easily adjust rocking angle from 0 to 20° while unit is operating. The PID temperature controller maintains precise temperature control from ambient +5°C to 65°C. Easy to use controls allow users to adjust temperature in 1 °C increments. Precise speed control provides smooth, low-speed wave motion down to 1rpm. Touch pad controls with easy to read LED displays for temperature, speed, tilt angle, and time allow operator to view all settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. A hot warning illuminates when the air temperature in the chamber reaches 40 °C and remains on until the temperature cools to below 40 °C. Polycarbonate lid allows viewing of samples without disturbing the internal temperature. Timer displays elapsed time or, when programmed to user-defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off. Overload protection via audible and visual signals activated when system detects an obstruction or overload of the tray. Speed ramping feature slowly increases speed to desired set point to avoid splashing. Unit is ideal for cell cultures, hybridisation procedures and blotting techniques.

- Electronic tilt adjustment from 0 to 20° while unit is operating
- LED display shows temperature, speed, tilt angle and time simultaneously
- Timer from 1 sec to 160 h, with audible alarm when the time reaches zero
- Can be used at 5 to 40 °C (max 80% relative humidity, non-condensing) in cold rooms, incubators, and CO₂ environments

Ordering Information: Supplied without accessories. Mat must be ordered separately.

Angle (°)	0 - 20*
Interior Dimensions	197×273×86
Max. load (kg)	2,3**
Platform WxD (mm)	184×235
Shaking motion	3-Dimensional
Speed accuracy	±1 min ⁻¹
Speed range (min ⁻¹)	1 - 30*
Temperature range (°C)	Ambient +5...65
Uniformity at 37 °C (°C)	±0,5
Weight (kg)	9,5
WxDxH (mm)	279×432×267

Description	Pk	Cat. No.
Symphony™ incubating 3-dimensional waver, EU-plug	1	444-0765
Symphony™ incubating 3-dimensional waver, UK-plug	1	444-0766
Symphony™ incubating 3-dimensional waver, UK-plug	1	444-0767

Description	For	Pk	Cat. No.
Mat for Symphony™ incubating 3-D rotator waver			
Dimpled mat	Symphony™ incubating 3-dimensional waver	1	444-0771

* Note: Maximum speed/tilt angle may vary with heavy or unblanced loads
** Centred on tray



Mat for Symphony™ incubating 3-D rotator waver



Description	For	Pk	Cat. No.
Dimpled mat	Symphony™ incubating 3-dimensional waver	1	444-0771



Incubating microplate shaker



Incubating microplate shaker with microprocessor control which hold four microplates or two microtube racks. The speed can be adjusted across a wide range to suit the application; a low speed ensures that the well contents are not ejected, more vigorous agitation provides effective aeration across the small surface area of each of the wells. Ideal for use in immunoassays, hybridisations, biotechnology, microbiology and pharmacology applications.

- Three independent LED displays show speed, temperature and time
- Integral timer, 1 s to 160 h, shows elapsed time or counts down, automatic switch-off and audible alarm when programme is complete
- Microprocessor PID temperature controller maintains precise temperature from ambient +5 to 65 °C, adjustable in 1 °C increments
- Temperature calibration mode allows user to calibrate unit to an external temperature device
- Lexan® PC lid enables samples to be viewed, without altering internal temperature

Ordering Information: Supplied with non perforated tray. The shaker can accommodate up to two accessory microtube racks. Each rack holds 70×1,5/2,0 ml microtubes.

No. of microplates held	4
Orbit (mm)	3,0
Speed (min ⁻¹)	100 - 900
Speed accuracy (%)	±2
Temperature range (°C)	Ambient +5...65
Uniformity at 37 °C (°C)	±0,5
Weight (kg)	12,5
WxDxH (mm)	280×430×200

Description	Pk	Cat. No.
Incubating microplate shaker, EU-plug	1	444-0272
Incubating microplate shaker, CH-plug	1	444-0273
Incubating microplate shaker, UK-plug	1	444-7082

Description	For	Pk	Cat. No.
Microtube rack, PVC coated steel	1,5/2,0 ml tubes, holds 70 tubes	1	444-0276



Incubating orbital mini shaker



Incubating mini shaker with microprocessor control which is ideal for bacterial suspensions, hybridisations, staining and de-staining, metabolism studies and cell culturing. Variable speed control provides consistent, uniform shaking action. The speed is adjustable in 10 min⁻¹ increments up to 500 min⁻¹, and increments of 25 min⁻¹ up to 900 min⁻¹ and the ramping feature slowly increases speed to the set point for added safety. The platform accommodates up to 5×250 ml Erlenmeyer flasks or vessels up to 130 mm tall.

- Three independent LED displays show speed, temperature and time
- Integral timer, 1 s to 160 h, shows elapsed time or counts down, and enables automatic switch-off and audible alarm when programme is complete
- Microprocessor PID temperature controller maintains precise temperature from ambient +5 to +65 °C, adjustable in 1 °C increments
- Range of interchangeable attachments
- Lexan® PC lid enables samples to be viewed, without altering internal temperature

Ordering Information: Supplied with perforated tray but without attachments, accessories must be ordered separately.

Continued from previous page

Max. load (kg)	4
Orbit (mm)	3
Shaking motion	Orbital
Speed (min ⁻¹)	100 - 900
Speed accuracy (%)	±2
Temperature range (°C)	Ambient +5...65
Uniformity at 37 °C (°C)	±0,5
Weight (kg)	12,5
WxDxH (mm)	280x430x270

Description	Pk	Cat. No.
Incubating orbital mini shaker, EU-plug	1	444-0274
Incubating orbital mini shaker, CH-plug	1	444-0275
Incubating orbital mini shaker, UK-plug	1	444-7083

Accessories			
Description	For	Pk	Cat. No.
Microtube rack, PVC coated steel	1,5/2,0 ml tubes, holds 70 tubes	1	444-0276
Test tube rack, PVC coated steel	10 - 13 mm Ø tubes, holds 63 tubes	1	444-0278
Test tube rack, PVC coated steel	14 - 16 mm Ø tubes, holds 48 tubes	1	444-0279
Centrifuge tube rack, PVC coated steel	15 ml tubes, holds 35 tubes	1	444-0283
Centrifuge tube rack, PVC coated steel	50 ml tubes, holds 12 tubes	1	444-0284
Flask clamps, stainless steel	10	1	444-7040
Flask clamps, stainless steel	25	1	444-7041
Flask clamps, stainless steel	50	1	444-7042
Flask clamps, stainless steel	125	1	444-7043
Flask clamps, stainless steel	250	1	444-7044

Note: Shaker accommodates 1 of the racks detailed or 2 microtube racks (444-0276) or 35x10, 20x25, 12x50, 8x125, 5x250 ml flasks.



Incubating orbital shaker, Professional 3500



Designed for a variety of shaking applications such as cell cultures, solubility studies, bacterial suspensions and general mixing. Large capacity platform holds up to 15,9 kg. Variable speed, microprocessor control provides consistent, uniform mixing action. Ramping feature slowly increases speed to the set point for added safety. The Accu-drive shaking system delivers exceptional speed control, accuracy, safety, and durability. System continuously monitors shaking speed and will maintain the set point even under changing loads. Displayed speed is accurate to 1% of set speed. Built-in load sensor can detect an unbalanced condition and will automatically reduce min⁻¹ to a safe speed to prevent spills and protect samples. Powerful triple eccentric drive and brushless motor is designed for continuous duty and is able to handle heavy loads. Spill resistant design protects internal components from accidental spills and leaks. Removable tray design allows chamber to be cleaned easily. Opti-Flow forced ventilation system uses twin induction fans and air deflectors to deliver exceptional temperature uniformity and stability. Over-temperature sensor will shut down unit and activate audible and visual alarms if temperature limit is exceeded. Temperature calibration mode allows user to calibrate unit to an external temperature device and RS232 serial port provides two-way communication for data logging and unit control.

- Three independent LED displays show speed, temperature and time
- Integral timer, 1 s to 160 h, shows elapsed time or counts down, automatic switch-off and audible alarm when programme is complete

- Microprocessor PID temperature controller maintains precise temperature from ambient +5 to 65 °C, adjustable in 1 °C increments and recalls last set points, even when unit has been shut off. Will also restart if power is interrupted
- Opti-Flow forced ventilation system and triple eccentric drive with brushless motor
- Polycarbonate lid enables samples to be viewed, without altering internal temperature. When lid is opened, automatic shut off circuit will stop shaker platform to protect operator

Delivery Information: Supplied with non perforated tray, non-slip rubber mat and 2340 mm detachable power cord. Rubber mat fits into the non perforated platform tray, suitable for holding Petri dishes and cell culture flasks, required accessories must be ordered separately.

Internal WxDxH (mm)	305x340x241
Max. load (kg)	15,9
Orbit (mm)	19
Platform WxD (mm)	279x330
Shaking motion	Orbital
Speed (min ⁻¹)	15 - 300
Speed accuracy (min ⁻¹)	±1 below 100
Speed range (min ⁻¹)	15 - 300
Temperature range (°C)	Ambient +5...65
Uniformity at 37 °C (°C)	±0,5
Weight (kg)	34
WxDxH (mm)	356x648x406

Description	Pk	Cat. No.
Professional 3500 incubating shaker, EU-plug	1	444-7084
Professional 3500 incubating shaker, UK-plug	1	444-7085
Professional 3500 incubating shaker, CH-plug	1	444-7086

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Description	For	Pk	Cat. No.
Microtube rack, PVC coated steel	1,5/2,0 ml tubes, holds 70 tubes	1	444-0276
Test tube rack, PVC coated steel	10 - 13 mm Ø tubes, holds 63 tubes	1	444-0278
Test tube rack, PVC coated steel	14 - 16 mm Ø tubes, holds 48 tubes	1	444-0279
Test tube rack, PVC coated steel	18 - 20 mm Ø tubes, holds 35 tubes	1	444-0280
Test tube rack, PVC coated steel	22 - 25 mm Ø tubes, holds 24 tubes	1	444-0281
Centrifuge tube rack, PVC coated steel	15 ml tubes, holds 35 tubes	1	444-0283
Centrifuge tube rack, PVC coated steel	50 ml tubes, holds 12 tubes	1	444-0284
Flask clamps, stainless steel	10	1	444-7040
Flask clamps, stainless steel	25	1	444-7041
Flask clamps, stainless steel	50	1	444-7042
Flask clamps, stainless steel	125	1	444-7043
Flask clamps, stainless steel	250	1	444-7044
Flask clamps, stainless steel	500	1	444-7045
Flask clamps, stainless steel, maximum 4 on platform	1000	1	444-7030
Clamps for media bottles, stainless steel	500	1	444-7035
Clamps for media bottles, stainless steel	1000	1	444-7036
Universal platform 330x279 mm	Standard/Advanced 3500, Incubating 3500, Advanced 3750, Professional 3500 shakers, mounting Erlenmeyer flask clamps and test tube racks	1	444-7087



INSTRUMENT SERVICE AND MAINTENANCE

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Hotplates, VHP-C series



Compact hotplates with a chemically resistant ceramic top. The elevated control panel minimises contact with spills and enables easy reading and adjustment of the temperature. Units feature a digital error code display and «hot» top indicator to warn users that the surface is hot.

- VHP-C7 can be used with the VT-5 contact thermometer, enabling precise temperature control
- Fixed safety circuit shuts off heater if temperature rises above 550 °C
- Microprocessor control sends feedback to the hotplate to maintain set temperature
- Digital display ensures accurate and repeatable temperature settings

IP protection class according to DIN EN 60529: IP 21

Type	Heating area (mm)	Temp. (°C)	Heating capacity (W)	Plate size (mm)	WxDxH (mm)	Pk	Cat. No.
VHP-C4, EU-plug	100×100	50...500	250	120×120	150×260×105	1	453-0050
VHP-C4, UK-plug	100×100	50...500	250	120×120	150×260×105	1	453-0053
VHP-C4, CH-plug	100×100	50...500	250	120×120	150×260×105	1	453-0056
VHP-C7, EU-plug	180×180	50...500	1000	200×200	220×330×105	1	453-0051
VHP-C7, UK-plug	180×180	50...500	1000	200×200	220×330×105	1	453-0054
VHP-C7, CH-plug	180×180	50...500	1000	200×200	220×330×105	1	453-0057
Description						Pk	Cat. No.
Accessories							
Support rod, stainless steel, length 450 mm, Ø 10 mm, for all stirrers with M10 thread						1	442-2041
Bosshead clamp						1	442-2043
Extension cable, separates casing from the sensor, avoiding damage from vapours released by the medium						1	620-8104
VT-5 Electronic contact thermometer with PT1000 probe						1	442-0573



Hotplates, Advanced series



VWR Advanced hotplates deliver accurate and repeatable results. Units are microprocessor controlled and have an easy to read LED display for set point temperature. The control panel features easy to use controls which allow users to dial in adjustments for temperature. Rear housing features an off-centered, integral support rod holder with locking knob to accept the optional support rod and clamp kit. The low profile design takes up less space and fits into fume hoods. A spill resistant housing channels fluids away from internal components. A «hot» symbol warning light is illuminated when heat is turned on and remains on until top plate cools down. Enhanced electronics regulate heating and bring samples to temperature quickly and efficiently. Temperature measurement is controlled more accurately by using a resistance thermometer (RTD). Ceramic tops feature a chemically resistant, reflective white top plate surface that is easy to clean. Durable aluminium tops will not crack or chip, and provide a more even heating surface.

- Excellent temperature uniformity
- Microprocessor controlled with built-in memory allowing recall of last set temperature (even if unit has been turned off)
- Cool touch, chemically resistant housing
- LED display for temperature
- Choice of models with ceramic or aluminium top plates

Ordering Information: Optional support rod kit is available which includes a 457 mm stainless steel support rod, thermometer/temperature probe extension clamp, 3-prong medium swivel clamp, and hook connector.

Type	Heating area (mm)	Temp. (°C)	Heating capacity (W)	WxDxH (mm)	Pk	Cat. No.
Models with aluminium top plates						
Hotplate, aluminium, EU-plug	100×100	RT* +5...400	350	167×274×108	1	444-0578
Hotplate, aluminium, UK-plug	100×100	RT* +5...400	350	167×274×108	1	444-0579
Hotplate, aluminium, CH-plug	100×100	RT* +5...400	350	167×274×108	1	444-0580
Hotplate, aluminium, EU-plug	180×180	RT* +5...400	1000	250×375×108	1	444-0584
Hotplate, aluminium, UK-plug	180×180	RT* +5...400	1000	250×375×108	1	444-0585
Hotplate, aluminium, CH-plug	180×180	RT* +5...400	1000	250×375×108	1	444-0586
Hotplate, aluminium, EU-plug	250×250	RT* +5...400	1550	330×455×108	1	444-0590

Continued from previous page

Type	Heating area (mm)	Temp. (°C)	Heating capacity (W)	WxDxH (mm)	Pk	Cat. No.
Models with aluminium top plates						
Hotplate, aluminium, UK-plug	250×250	RT* +5...400	1550	330×455×108	1	444-0591
Hotplate, aluminium, CH-plug	250×250	RT* +5...400	1550	330×455×108	1	444-0592
Models with ceramic top plates						
Hotplate, ceramic, EU-plug	100×100	RT* +5...500	350	167×274×108	1	444-0575
Hotplate, ceramic, UK-plug	100×100	RT* +5...500	350	167×274×108	1	444-0576
Hotplate, ceramic, CH-plug	100×100	RT* +5...500	350	167×274×108	1	444-0577
Hotplate, ceramic, EU-plug	180×180	RT* +5...500	1000	250×375×108	1	444-0581
Hotplate, ceramic, UK-plug	180×180	RT* +5...500	1000	250×375×108	1	444-0582
Hotplate, ceramic, CH-plug	180×180	RT* +5...500	1000	250×375×108	1	444-0583
Hotplate, ceramic, EU-plug	250×250	RT* +5...500	1550	330×455×108	1	444-0587
Hotplate, ceramic, UK-plug	250×250	RT* +5...500	1550	330×455×108	1	444-0588
Hotplate, ceramic, CH-plug	250×250	RT* +5...500	1550	330×455×108	1	444-0589
Description		For			Pk	Cat. No.
Accessories						
Stirrer support rod clamping kit (rod, 2 clamps and hook connector)	444-0566, 444-0567, 444-0568,444-0569, 444-0570, 444-0571, 444-0572, 444-0573, 444-0574, 444-0575, 444-0576, 444-0577, 444-0578, 444-0579, 444-0580, 444-0581, 444-0582, 444-0583, 444-0584, 444-0585, 444-0586, 444-0587, 444-0588, 444-0589, 444-0590, 444-0591, 444-0592, 444-0593, 444-0594, 444-0595, 444-0596, 444-0597, 444-0598, 444-0599, 444-0600, 444-0601, 444-0602, 444-0603, 444-0604, 444-0605, 444-0606, 444-0607, 444-0608, 444-0609, 444-0610				1	444-2844
	Support plate for 100 mm stirrers and hotplate stirrers	444-0566, 444-0567, 444-0568,444-0575, 444-0576, 444-0577, 444-0578, 444-0579, 444-0580, 444-0593, 444-0594, 444-0595, 444-0596, 444-0597, 444-0598				1

* RT= Ambient



Hotplates, Professional series



VWR Professional hotplates are designed for applications that require exceptional accuracy, stability, and repeatability. Enhanced microprocessor control offers an external resistance thermometer (RTD) probe option that delivers superior temperature control of the sample. Touch pad controls with easy to read, independent LED displays for temperature and time, allow operator to view all settings at once. Rear housing features an off-centered, built-in support rod holder with locking knob that accepts the supplied probe kit. Low profile design takes up less space and fits into fume hoods. Spill resistant housing channels fluids away from internal components. A «hot» symbol warning light is illuminated when heat is turned on and remains on until the plate cools down. Plate over-temperature limit ensures plate temperature will never exceed users' programmed set temperature limit, allowing for control of sensitive flash points. An audible alarm will sound when time reaches zero or when unit reaches set point temperature in timed mode, and if the probe disengages from sample, unit will automatically shut off heater. Enhanced electronics regulate heating and bring samples to temperature quickly and efficiently. Ceramic tops feature a chemically resistant, reflective white top plate surface that's easy to clean. Durable aluminium tops will not crack or chip, and provide a more even heating surface.

- Excellent temperature uniformity

- Separate digital displays for temperature and time with indicators that toggle between actual and set point. Display will show last used settings, even after power has been turned off
- Cool touch, chemically resistant housing
- Includes external RTD temperature probe kit
- Choice of models with ceramic or aluminium top plates

Delivery Information: Each unit is supplied complete with a 203 mm stainless steel PT1000 temperature probe, 457 mm stainless steel support rod, thermometer/temperature probe extension clamp, hook connector and a PTFE coated magnetic stirring bar.

Type	Heating area (mm)	Temp. (°C)	Heating capacity (W)	Plate size (mm)	WxDxH (mm)	Pk	Cat. No.
Models with aluminium top plates							
Hotplate, aluminium, EU-plug	180x180	RT* +5...400	1000	180x180	250x375x108	1	444-0620
Hotplate, aluminium, UK-plug	180x180	RT* +5...400	1000	180x180	250x375x108	1	444-0621
Hotplate, aluminium, CH-plug	180x180	RT* +5...400	1000	180x180	250x375x108	1	444-0622
Hotplate, aluminium, EU-plug	250x250	RT* +5...400	1550	250x250	330x455x108	1	444-0626
Hotplate, aluminium, UK-plug	250x250	RT* +5...400	1550	250x250	330x455x108	1	444-0627
Hotplate, aluminium, CH-plug	250x250	RT* +5...400	1550	250x250	330x455x108	1	444-0628
Models with ceramic top plates							
Hotplate, ceramic, EU-plug	180x180	RT* +5...500	1000	180x180	250x375x108	1	444-0617
Hotplate, ceramic, UK-plug	180x180	RT* +5...500	1000	180x180	250x375x108	1	444-0618
Hotplate, ceramic, CH-plug	180x180	RT* +5...500	1000	180x180	250x375x108	1	444-0619

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Type	Heating area (mm)	Temp. (°C)	Heating capacity (W)	Plate size (mm)	WxDxH (mm)	Pk	Cat. No.
Models with ceramic top plates							
Hotplate, ceramic, EU-plug	250×250	RT* +5...500	1550	250×250	330×455×108	1	444-0623
Hotplate, ceramic, UK-plug	250×250	RT* +5...500	1550	250×250	330×455×108	1	444-0624
Hotplate, ceramic, CH-plug	250×250	RT* +5...500	1550	250×250	330×455×108	1	444-0625
Description			For			Pk	Cat. No.
Accessories							
Spare temperature probe, 200 mm, stainless steel			Professional series units			1	444-0641
Spare temperature probe, 200 mm, PTFE			Professional series units			1	444-0642
Spare temperature probe, 250 mm, stainless steel			Professional series units			1	444-0643
Spare temperature probe, 250 mm, PTFE			Professional series units			1	444-0644
Replacement probe kit, 200 mm, stainless steel			Professional series units			1	444-0645

* RT= Ambient

Crucibles



Porcelain, glazed inside and out, except base

- Withstand maximum temperature of 1000 °C

According to DIN 12904

Lids are available separately.

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Low form	6	30×19	5	459-0194
Low form	11	35×22	5	459-0195
Low form	15	40×25	5	459-0196
Low form	25	45×28	5	459-0197
Low form	29	50×32	5	459-0198
Low form	50	60×38	5	459-0199
Low form	85	70×44	5	459-0200
Medium form	12	30×24	5	459-0201
Medium form	15	35×28	5	459-0202
Medium form	20	40×32	5	459-0203
Medium form	38	45×36	5	459-0204
Medium form	49	50×40	5	459-0205
Medium form	90	60×48	5	459-0206
Medium form	150	70×56	5	459-0207
Medium form	250	80×70	5	459-0208
Tall form	15	30×38	5	459-0209
Tall form	24	35×44	5	459-0210
Tall form	40	40×50	5	459-0211
Tall form	50	45×56	5	459-0212
Tall form	75	50×62	5	459-0213
Tall form	120	60×75	5	459-0214
For Ø (mm)			Pk	Cat. No.
Lids for crucibles				
30			5	459-0215
35			5	459-0216
40			5	459-0217
45			5	459-0218
52			5	459-0219
60			5	459-0220
70			5	459-0221
80			5	459-0222

Crucibles



Isostatically moulded in pure PTFE, FDA approved

- Chemically resistant and inert
- Crack-free
- Withstand maximum temperature of 280 °C

Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
5	27×16	2	216-0450
25	44×26	2	216-0451
75	56×41	1	216-0452
100	60×45	1	216-0453

Crucibles



Stainless steel 304

- Highly resistant to chemicals and reagents
- Withstand maximum temperature of 800 °C

Without lid.

Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
15	30×30	1	459-4501
25	35×35	1	459-4502
50	45×45	1	459-4503

Combustion boats



Porcelain

- Glazed boats can withstand temperatures up to 1000 °C, unglazed up to 1350 °C
- With eyelet to aid recovery from furnace
- Glazed porcelain has high resistance to acids and bases

Type	W×D×H (mm)	Pk	Cat. No.
Unglazed	80×13×8	50	459-0226
Glazed	90×14×8	5	459-0223
Glazed	103×14×9	5	459-0224
Glazed	130×20×13	5	459-0225

Incinerating dishes



Porcelain, glazed, produced according to DIN 12904

- Dishes can withstand temperatures up to 1000 °C
- Stable with large flat unglazed base
- Glazed porcelain has high resistance to acids and bases

Capacity (ml)	Ø ext.×H (mm)	W×D×H	Pk	Cat. No.
Round				
21	42×23		3	459-0227
35	50×27		3	459-0228
64	61×31		3	459-0229
Rectangular				
6		50×35×12	3	459-0230
13		62×40×12	3	459-0231
28		74×49×14	3	459-0232
40		95×65×14	3	459-0233



Block heaters, analogue



These multipurpose units are ideal for incubation and activation of cultures, enzyme reactions, blood urea nitrogen determinations, immunoassays, melting or boiling points. Two separate temperature adjustment knobs provide low and high temperature control. Low range knob adjusts from above ambient to 100 °C and high range knob adjusts from 75 to 150 °C. High wattage, constant-temperature dry block heaters are economical, versatile and compact. Each of the five models accepts separate interchangeable modular heating blocks, which accommodate various sample containers such as microtubes, centrifuge tubes, vials, microplates, and PCR strips or tubes.

- Multipurpose device for a wide range of applications
- Temperature range from ambient +5 to 150 °C
- Accommodate VWR interchangeable modular heating blocks for tubes from 0,25 ml up to 50 ml capacity
- Analogue controls

Ordering Information: Heating blocks are not included, please order these separately.

Blocks	Temp. range (°C)	Temp. stability (°C)	Heating capacity (kW)	WxDxH (mm)	Weight (kg)	Pk	Cat. No.
1 **	RT* +5...150	±1,5	0,11	203×315×89	2,6	1	460-3249
1 ***	RT* +5...150	±1,5	0,11	203×315×89	2,6	1	460-3250
1 ****	RT* +5...150	±1,5	0,11	203×315×89	2,6	1	460-3251
2 **	RT* +5...150	±2,0	0,21	203×391×89	2,9	1	460-3252
2 ***	RT* +5...150	±2,0	0,21	203×391×89	2,9	1	460-3253
2 ****	RT* +5...150	±2,0	0,21	203×391×89	2,9	1	460-3254
3 **	RT* +5...150	±2,0	0,21	203×467×89	3,6	1	460-3255
3 ***	RT* +5...150	±2,0	0,21	203×467×89	3,6	1	460-3256
3 ****	RT* +5...150	±2,0	0,21	203×467×89	3,6	1	460-3257
4 **	RT* +5...150	±2,5	0,31	203×429×89	3,9	1	460-3258
4 ***	RT* +5...150	±2,5	0,31	203×429×89	3,9	1	460-3259
4 ****	RT* +5...150	±2,5	0,31	203×429×89	3,9	1	460-3260
6 **	RT* +5...150	±2,5	0,41	203×531×89	4,5	1	460-3261
6 ***	RT* +5...150	±2,5	0,41	203×531×89	4,5	1	460-3262
6 ****	RT* +5...150	±2,5	0,41	203×531×89	4,5	1	460-3263

* RT = Ambient
** EU-plug *** UK-plug **** CH-plug



Block heaters, digital



Designed for applications that require repeatable results and superior temperature stability. These multipurpose units are ideal for incubation and activation of cultures, enzyme reactions, blood urea nitrogen determinations, immunoassays, melting or boiling points. Easy to use controls with independent LED displays show actual and set point temperatures. Controls allow users to adjust temperature set point in ±0,1 °C increments. Timer function with audible alarm when time reaches zero. Optional external temperature probe kit monitors actual block or sample temperature. LED display on front panel will show actual probe temperature and adjust heater output to maintain user-defined set point. All dry block heaters include a built-in support rod holder for mounting the probe kit. Efficient heater features close tube-to-block contact with a low-density design for exceptional temperature uniformity.

- Exceptional temperature uniformity and stability. Units offer a temperature stability of ±0,2 °C
- Temperature range from ambient +5 to 120 °C
- Timer will display elapsed time or when programmed to user-defined limit, will count down to zero and shut off unit
- Accommodate VWR interchangeable modular heating blocks for tubes from 0,25 ml up to 50 ml capacity
- Two LED displays, timer with audible alarm and microprocessor control

Ordering Information: Heating blocks are not included, please order these separately.

Continued from previous page

Blocks	Temp. range (°C)	Temp. stability (°C)	Heating capacity (kW)	WxDxH (mm)	Weight (kg)	Pk	Cat. No.
1 **	RT* +5...120	±0,2	0,11	203×315×89	2,6	1	460-3264
1 ***	RT* +5...120	±0,2	0,11	203×315×89	2,6	1	460-3265
1 ****	RT* +5...120	±0,2	0,11	203×315×89	2,6	1	460-3266
2 **	RT* +5...120	±0,2	0,21	203×391×89	2,9	1	460-3267
2 ***	RT* +5...120	±0,2	0,21	203×391×89	2,9	1	460-3268
2 ****	RT* +5...120	±0,2	0,21	203×391×89	2,9	1	460-3269
3 **	RT* +5...120	±0,2	0,21	203×467×89	3,6	1	460-3270
3 ***	RT* +5...120	±0,2	0,21	203×467×89	3,6	1	460-3271
3 ****	RT* +5...120	±0,2	0,21	203×467×89	3,6	1	460-3272
4 **	RT* +5...120	±0,2	0,31	203×429×89	3,9	1	460-3273
4 ***	RT* +5...120	±0,2	0,31	203×429×89	3,9	1	460-3274
4 ****	RT* +5...120	±0,2	0,31	203×429×89	3,9	1	460-3275
6 **	RT* +5...120	±0,2	0,41	203×531×89	4,5	1	460-3276
6 ***	RT* +5...120	±0,2	0,41	203×531×89	4,5	1	460-3277
6 ****	RT* +5...120	±0,2	0,41	203×531×89	4,5	1	460-3278
Description						Pk	Cat. No.
Accessories							
External temperature probe kit. Kit includes stainless steel RTD probe, 457 mm vertical support rod, thermometer/probe extension clamp and hook connector.						1	460-3288

*RT = Ambient
** EU-plug *** UK-plug ****CH-plug

Modular heating blocks and accessories for VWR® block heaters

Constructed from a solid anodised aluminium block.

- Close contact of tubes to block walls allows for maximum heat transfer
- Each block has a thermometer well for measuring block temperature

Single block WxDxH: 95×76×51 mm

Double block WxDxH: 95×152×57 mm

Blocks for microcentrifuge tubes



Description	Well size (mm)	For	No. of holes	Depth (mm)	WxDxH (mm)	Pk	Cat. No.
Single block	Ø 7,9	0,5 ml PCR tubes	30	27,6	95×76×51	1	460-3211
Single block	Ø 11,1	1,5 ml VWR microtubes	20	39,1	95×76×51	1	460-3235
Single block	Ø 11,5	1,5 ml Eppendorf microtubes	20	36,9	95×76×51	1	460-3212
Single block	Ø 11,5	2,0 ml VWR/Eppendorf microtubes	20	38,1	95×76×51	1	460-3245
Single block	Ø 10,9	2,0 ml Corning micro-tubes	20	38,1	95×76×51	1	460-3246

Blocks for microtitre plates



Recessed well for better stability; flat surface is good for flat and round bottom plates. Fits 2/4/6 block heaters.

Description	Well size (mm)	For	No. of holes	Depth (mm)	WxDxH (mm)	Pk	Cat. No.
Double block	-	for 96- or 384-well plate	-	13,5	95×152×57	1	460-3238

Blocks for conical bottom centrifuge tubes



Description	Well size (mm)	For	No. of holes	Depth (mm)	WxDxH (mm)	Pk	Cat. No.
Single block	Ø 17,1	15 ml conical tubes	12	44,5	95x76x51	1	460-3221
Single block	Ø 29,0	50 ml conical tubes	5	47,6	95x76x51	1	460-3223

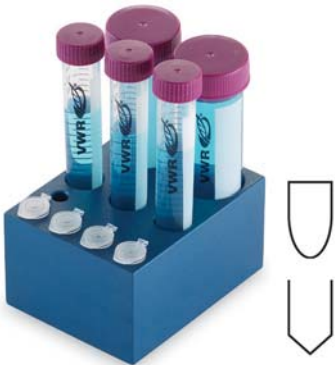
Blocks for standard test tubes



Description	Well size (mm)	For	No. of holes	Depth (mm)	WxDxH (mm)	Pk	Cat. No.
Single block	Ø 8,3	6 mm round bottom tubes	30	48,4	95x76x51	1	460-3213
Single block	Ø 10,7	10 mm round bottom tubes	24	48,4	95x76x51	1	460-3214
Single block	Ø 13,9	12/13 mm round bottom tubes	16	48,4	95x76x51	1	460-3215
Single block	Ø 13,9	12/13 mm round bottom tubes	20	48,4	95x76x51	1	460-3216
Single block	Ø 17,5	15/16 mm round bottom tubes	12	48,4	95x76x51	1	460-3217
Single block	Ø 19,1	17/18 mm round bottom tubes	12	48,4	95x76x51	1	460-3243
Single block	Ø 21,0	20 mm round bottom tubes	8	48,4	95x76x51	1	460-3218
Single block	Ø 26,2	25 mm round bottom tubes	6	48,4	95x76x51	1	460-3219
Single block	Ø 35,0	35 mm round bottom tubes	4	47,6	95x76x51	1	460-3222

Combination blocks

Designed for variable sample sizes.



Description	Well size (mm)	No. of holes	Depth (mm)	WxDxH (mm)	Pk	Cat. No.
Single block, microtube combination 0,5 ml, 1,5 ml, 2,0 ml	Ø 7,9 / Ø 11,1 / Ø 11,5	6/10/5	27,6/39,1/38,1	95x76x51	1	460-3248
Single block, centrifuge tube combination 1,5 ml, 15 ml, 50 ml	Ø 11,1 / Ø 17,1 / Ø 29,0	4/3/2	39,1/44,5/47,6	95x76x51	1	460-3247
Single block, test tube combination 6 mm, 12/13 mm, 25 mm	Ø 8,3 / Ø 13,9 / Ø 26,2	6/5/3	48,4/48,4/48,4	95x76x51	1	460-3220

Blocks for vials

Designed for sample/serum and scintillation vials.



Description	Well size (mm)	For	No. of holes	Depth (mm)	WxDxH (mm)	Pk	Cat. No.
Single block	Ø 12,7	12 mm vials	20	30,0	95x76x51	1	460-3279
Single block	Ø 15,8	15 mm vials	20	35,0	95x76x51	1	460-3280
Single block	Ø 16,4	16 mm vials	15	45,0	95x76x51	1	460-3287
Single block	Ø 17,8	17 mm vials	12	45,0	95x76x51	1	460-3281
Single block	Ø 19,7	19 mm vials	12	45,0	95x76x51	1	460-3282
Single block	Ø 21,7	21 mm vials	9	45,0	95x76x51	1	460-3283
Single block	Ø 23,8	23 mm vials	8	45,0	95x76x51	1	460-3284
Single block	Ø 25,8	25 mm vials	8	45,0	95x76x51	1	460-3285
Single block	Ø 28,8	28 mm vials	6	45,0	95x76x51	1	460-3286

Blocks for PCR – plates, tubes, strips

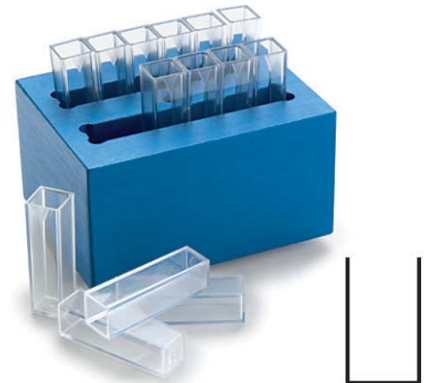
Tapered tube wells for 0,2 ml tubes. Spaced for easy access and removal.



Description	Well size (mm)	For	No. of holes	Depth (mm)	WxDxH (mm)	Pk	Cat. No.
Single block, 10x8-PCR tube strips	Ø 6,4	0,2 ml tubes	80	15,5	95x76x51	1	460-3224
Single block, 64xindividual PCR tubes	Ø 6,4	0,2 ml tubes	64	20,2	95x76x51	1	460-3225
Double block, 1x96-well PCR plate	Ø 6,4	0,2 ml tubes	96	15,5	95x76x51	1	460-3226

Blocks for cuvettes

Two parallel slots fit 6 cuvettes in each slot, side by side for excellent stability and heat transfer.



Description	Well size (mm)	No. of holes	Depth (mm)	WxDxH (mm)	Pk	Cat. No.
Single block, 2x6 cuvettes (12,5 mm)	-	-	25,4	95x76x51	1	460-3237

Solid blocks



For use as a low-temperature hotplate or for custom drilling.

Description	WxDxH (mm)	Pk	Cat. No.
Single block	95x76x51	1	460-3236
Double block	95x152x57	1	460-3239

Stainless steel sand baths

Ideal for irregular shaped vessels. Stainless steel construction for superior corrosion resistance. Designed to hold sand, stainless steel shot or non volatile liquids.

Description	WxDxH (mm)	Pk	Cat. No.
Sand bath for one-block heater	95x76x64	1	460-3227
Sand bath for two-block heater	95x149x64	1	460-3228
Sand bath for three-block heater	95x224x64	1	460-3229
Sand bath for four-block heater	147x191x64	1	460-3230
Sand bath for six-block heater	147x287x64	1	460-3231
Sand for sand bath	-	450 g	460-3232
Stainless steel shot for sand bath	-	450 g	460-3233

Low temperature covers



Plexiglas® covers with 2 open sides reduce air flow, providing additional temperature stability in low temperature applications.

Description	WxDxH (mm)	Pk	Cat. No.
2-Block cover, max. tube height 89 mm	165x165x41	1	460-3240
2-Block cover, max. tube height 206 mm	165x165x114	1	460-3289
4-Block cover, max. tube height 89 mm	178x216x41	1	460-3241
6-Block cover, max. tube height 89 mm	178x316x41	1	460-3242



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Thermo mixer, Cooling Thermal Shake Touch



Cooling thermoshaker, designed for applications that require consistent and precise results. With heating, cooling and shaking capabilities, the low profile unit uses interchangeable blocks to accommodate a wide variety of tubes and microplates. The LCD touch screen enables faster setting of temperature, speed and time, which can all be viewed at once. Display features on-screen help topics with operational tips. Touch screen is compatible with rubber gloves used in labs. Programme control capabilities allow user-programmable operation for automated use and memory for five separate, 5-step programmes. Adjustable temperature ramp rate feature separately defines the heating and cooling rates in increments of 0,5 °C/min. Single point calibration mode for maximum temperature accuracy, the single point calibration procedure allows the user to calibrate up to 6 different defined temperatures. Constructed from a high quality heat and chemical resistant polymer so the housing remains cool to the touch throughout normal operating temperatures. Maximum temperature limiting function ensures the temperature will not exceed user-defined limits allowing control of temperature-sensitive samples. A hot top warning illuminates when the temperature reaches 40 °C and remains on until the unit is cooled below 40 °C. The unit's enhanced electronics and dual temperature sensors provide accurate, dependable temperature settings across the operating range

from 5 to 35 °C, (maximum 80% relative humidity, non-condensing). Applications include cell cultures, DNA, RNA, hybridisation, and protein studies.

- Easy to use 109 mm colour LCD touch screen allows the user to save and visibly track progress through the live status bar for five user-defined programmes, each with five individual steps
- Suitable for rapid heating, cooling and high speed shaking and a pulse mode feature, ideal for quick vortex applications
- Timer with audible alarm, 1 min to 99 h, 59 min, heat function will automatically shut off if the unit recognises an internal issue
- USB port can transfer information to a flash drive for data logging, programme storage and software updates

Ordering Information: Supplied without blocks, blocks must be ordered separately. Note Eppendorf Thermomixer R® blocks are compatible on the VWR Cooling Thermal Shake Touch. Models with NIST traceable certificate are also available, this includes a 3 point NIST traceable calibration. The traceable certificate includes actual calibration measurement data and uncertainty. The calibration laboratory is ISO/IEC 17025 compliant.

Cooling rate(°C/min)	Above ambient: 2 - 3 Below ambient: 0,5 - 1,0
Heating speed (°C/min)	5
Orbit (mm)	3
Speed accuracy (%)	±2
Speed range (min ⁻¹)	300 - 3000
Temperature accuracy (°C)	±0,5 (between 20 and 45 °C) ±2 (below 20 °C and above ambient)
Temperature control range (°C)	From 13 below ambient to 100 °C
Weight	7,4
WxDxH (mm)	248x260x132

Description	Pk	Cat. No.
Cooling Thermal Shake Touch, EU-plug	1	460-0196
Cooling Thermal Shake Touch, UK-plug	1	460-0198
Cooling Thermal Shake Touch, CH-plug	1	460-0200
Cooling Thermal Shake Touch, NIST certificate, EU-plug	1	460-0197
Cooling Thermal Shake Touch, NIST certificate, EU-plug	1	460-0199
Cooling Thermal Shake Touch, NIST certificate, CH-plug	1	460-0201

Description	Well size (mm)	For	Depth (mm)	Pk	Cat. No.
Interchangeable blocks					
Interchangeable thermal microplate block with lid	129x86	1x96 well microplate	25	1	460-0208
Interchangeable tube block	Ø 7,9	0,5 ml tubes*	25,7	1	460-0209
Interchangeable tube block	Ø 11,1	1,5 ml tubes*	33,5	1	460-0210
Interchangeable tube block	Ø 11,5	2,0 ml tubes*	33,5	1	460-0211
Interchangeable tube block	Ø 12,0	5 - 7 ml tubes	34,3	1	460-0212
Interchangeable tube block	Ø 12,6	2,0 ml cryo tubes	34,0	1	460-0213
Interchangeable tube block	Ø 17,3	15 ml conical tubes	102	1	460-0214
Interchangeable tube block	Ø 30,0	50 ml conical tubes	98,8	1	460-0215



Thermoshakers, Thermal Shake Touch



Thermoshaker, designed for applications that require consistent and precise results. With heating and shaking capabilities, the low profile unit uses interchangeable blocks to accommodate a wide variety of tubes and microplates. The LCD touch screen enables faster setting of temperature, speed and time, which can all be viewed at once. Display features on-screen help topics with operational tips. Touch screen is compatible with rubber gloves used in labs. Programme control capabilities allow user-programmable operation for automated use and memory for five separate, 5-step programmes. Adjustable temperature ramp rate feature separately defines the heating and cooling rates in increments of 0,5 °C/min. Single point calibration mode for maximum temperature accuracy, the single point calibration procedure allows the user to calibrate up to 6 different defined temperatures. Constructed from a high quality heat and chemical resistant polymer so the housing remains cool to the touch throughout normal operating temperatures. Maximum temperature limiting function ensures the temperature will not exceed user-defined limits allowing control of temperature-sensitive samples. A hot top warning illuminates when the temperature reaches 40 °C and remains on until the unit is cooled below 40 °C. The unit's enhanced electronics and temperature sensor provide accurate, dependable temperature settings across the operating range from 5 to 35 °C, (maximum 80% relative humidity, non-condensing). Applications include cell cultures, DNA, RNA, and protein studies.

- Easy to use 109 mm colour LCD touch screen allows the user to save and visibly track progress through the live status bar for five user-defined programmes, each with five individual steps
- Suitable for rapid heating, cooling and high speed shaking and a pulse mode feature, ideal for quick vortex applications
- Timer with audible alarm, 1 min to 99 h, 59 min, heat function will automatically shut off if the unit recognises an internal issue
- USB port can transfer information to a flash drive for data logging, programme storage and software updates

Delivery Information: Supplied with 1,5 ml block, a rack and a cover, additional blocks must be ordered separately. Note Eppendorf Thermomixer R® blocks are compatible on the VWR Thermal Shake Touch. Models with NIST traceable certificate are also available, this includes a 3 point NIST traceable calibration. The traceable certificate includes actual calibration measurement data and uncertainty. The calibration laboratory is ISO/IEC 17025 compliant.

Heating speed (°C/min)	5
Mixing speed range (min ⁻¹)	300 - 3000
Orbit (mm)	3
Speed accuracy (%)	±2
Speed range (min ⁻¹)	300 - 3000
Temperature accuracy (°C)	±1 (between 20 and 45 °C) ±2 (above 45 °C)
Temperature control range (°C)	RT* +4...100
Weight (kg)	7,4
WxDxH (mm)	248x260x132

Description	Pk	Cat. No.
Thermal Shake Touch, EU-plug	1	460-0202
Thermal Shake Touch, NIST certificate, EU-plug	1	460-0203
Thermal Shake Touch, UK-plug	1	460-0204
Thermal Shake Touch, NIST certificate, UK-plug	1	460-0205
Thermal Shake Touch, CH-plug	1	460-0206
Thermal Shake Touch, NIST certificate, CH-plug	1	460-0207

Description	Well size (mm)	For	Depth (mm)	Pk	Cat. No.
Interchangeable blocks					
Interchangeable thermal microplate block with lid	129x86	1x96 well microplate	25	1	460-0208
Interchangeable tube block	Ø 7,9	0,5 ml tubes*	25,7	1	460-0209
Interchangeable tube block	Ø 11,1	1,5 ml tubes*	33,5	1	460-0210
Interchangeable tube block	Ø 11,5	2,0 ml tubes*	33,5	1	460-0211
Interchangeable tube block	Ø 12,0	5 - 7 ml tubes	34,3	1	460-0212
Interchangeable tube block	Ø 12,6	2,0 ml cryo tubes	34,0	1	460-0213
Interchangeable tube block	Ø 17,3	15 ml conical tubes	102	1	460-0214
Interchangeable tube block	Ø 30,0	50 ml conical tubes	98,8	1	460-0215

*RT = Ambient



Dry block heater, Advanced, digital, with heated lid



Advanced dry block heaters with heated lid are designed for applications that require repeatable results and superior temperature stability. These multipurpose units are ideal for isothermal incubation, enzyme reactions, immunoassays, nucleic acid denaturation and a wide variety of other laboratory procedures. Integral support rod holder with locking knob accepts optional external temperature probe kit. Block heater accepts one microplate block or two separate interchangeable modular blocks. Each block has a thermometer well for measuring block temperature. Efficient heating due to close tube and block contact with a low density design for exceptional temperature uniformity. The heated lid helps to regulate the temperature. PID temperature control, with optional external RTD probe. Samples are heated to temperature quickly and accurately. Temperature is adjusted in $\pm 0,1\text{ }^{\circ}\text{C}$ increments. Touch pad controls with easy to read, independent LED displays for temperature, and time, also shows set point and actual temperature. Display will show last used settings, even after power has been turned off. In timed mode, an alarm will sound when time reaches zero and when unit reaches set point temperature. Temperature calibration mode allows user to calibrate unit to an external temperature device. Hot warning symbol light is illuminated when the temperature is above 40°C . Over shoot protection means if the unit exceeds the set temperature by $10\text{ }^{\circ}\text{C}$ the unit will automatically stop heating. Units can be run in environments from $18\text{ to }33\text{ }^{\circ}\text{C}$ ($20\text{ to }80\%$ relative

humidity, non-condensing).

- Exceptional uniformity, stability, and regulation of temperature, offers temperature stability and temperature uniformity at $37\text{ }^{\circ}\text{C}$ of $\pm 0,2\text{ }^{\circ}\text{C}$ within the block and $\pm 0,1\text{ }^{\circ}\text{C}$ across similar blocks
- Temperature range from ambient $+5\text{ to }100\text{ }^{\circ}\text{C}$, heat up time to $100\text{ }^{\circ}\text{C}$ is 50 min
- Timer will display elapsed time or, when programmed to user-defined limit, will shut off unit when time reaches zero
- Heated lid reduces condensation on sample lids
- Optional external temperature probe kit monitors actual block or sample temperature
- Accommodates VWR interchangeable modular heating blocks for tubes from $0,2\text{ ml}$ microtubes to test tubes or vials up to 85 mm in height

Ordering Information: Modular blocks and optional temperature probe kit available, these must be ordered separately.

Blocks	Temp. range ($^{\circ}\text{C}$)	Temp. stability ($^{\circ}\text{C}$)	Heating capacity (kW)	WxDxH (mm)	Weight (kg)	Pk	Cat. No.
2 **	Ambient $+5\ldots 100$	$\pm 0,2$	0,4	203x391x178	2,7	1	460-0183
2 ***	Ambient $+5\ldots 100$	$\pm 0,2$	0,4	203x391x178	2,7	1	460-0184
2 ****	Ambient $+5\ldots 100$	$\pm 0,2$	0,4	203x391x178	2,7	1	460-0185
Description						Pk	Cat. No.
Accessories							
External temperature probe kit. Kit includes stainless steel RTD probe, 457 mm vertical support rod, thermometer/probe extension clamp and hook connector.						1	460-3288

*RT = Ambient
** EU-plug *** UK-plug ****CH-plug



Immersion thermostat, MX



The MX immersion thermostat is user friendly with three control buttons and on-screen prompts. The convenient slide control enables the flow rate to be easily adjusted, and it can clamp securely to straight or curved tank walls.

- Large EasyView™ LCD display with alarm or fault icons and English prompts and menus
- User-adjustable high and low temperature limits and low liquid level alarms
- Single speed pressure pump
- Integral pump and heater coil protection
- Single point calibration

Complies with DIN 12876-1, Safety class I

Maximum pump capacities:
 $10,6\text{ l/min}$, 100 mbar

Type	Temp. range ($^{\circ}\text{C}$)	Temp. stability ($^{\circ}\text{C}$)	Heating capacity (kW)	WxDxH (mm)	Weight (kg)	Pk	Cat. No.
MX	RT*...135	$\pm 0,07$	1,1	109x97x358	4,5	1	462-0205

* RT = Ambient

Cooling coils for VWR thermostats



For auxiliary cooling of VWR thermostats. The stainless steel coil, when connected to a water source, permits more rapid cooling from high temperatures or better control when operating close to ambient temperatures. Not recommended for use in circulator baths where fluid temperature exceeds the boiling point of water.

Description	Pk	Cat. No.
Cooling coil	1	461-0100



Baths, polycarbonate with MX temperature controller



Transparent polycarbonate baths keep samples visible, units feature user friendly MX temperature controller with three control buttons and on-screen prompts. The convenient slide control enables the flow rate to be easily adjusted, the elevated tank bottom gives secure handholds when lifting or positioning the bath and is stable on uneven surfaces. Controller bridge made from chemically resistant DuraTop™ is easily removed to clean the tank. The 17 and 28 litre models have a drain and opening with lid for optional cooling coil which is ideal for set points near ambient temperature.

- Large EasyView™ LCD display with alarm or fault icons and English prompts and menus
- User-adjustable high and low temperature limits and low liquid level alarms
- Single speed pressure pump
- Integral pump and heater coil protection
- Single point calibration

Complies with DIN 12876-1 Class I safety requirements for use with non flammable liquids

Maximum pump capacities:
10,6 l/min, 100 mbar

Delivery Information: Supplied with a bath cover.

Type	Temp. range (°C)	Temp. stability (°C)	Heating capacity (kW)	Capacity (l)	Bath WxDxH (mm)	WxDxH (mm)	Pk	Cat. No.
MX11P100	RT* +10...85	±0,07	1,1	11	156×210×203	208×532×441	1	462-0206
MX17P100	RT* +10...85	±0,07	1,1	17	305×105×203	345×457×441	1	462-0207
MX28P100	RT* +10...85	±0,07	1,1	28	300×315×203	345×562×441	1	462-0208

Description	For	Pk	Cat. No.
Coiling coil	Use with VWR baths, 462-0207, 462-0208, 462-0212, 462-0213 and 462-0214	1	462-0279

Lids for polycarbonate baths			
Replacement lid for VWR open bath systems	Polycarbonate baths with 11 litre capacity (462-0206)	1	462-0281
Replacement lid for VWR open bath systems	Polycarbonate baths with 17 litre capacity (462-0207)	1	462-0283
Replacement lid for VWR open bath systems	Polycarbonate baths with 28 litre capacity (462-0208)	1	462-0285

* RT = Ambient

Baths for immersion thermostats



Made from stainless steel or polycarbonate. Ideal for use with VWR immersion thermostats. To be used where the durability of stainless steel or the transparency of polycarbonate are advantageous.

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- Open baths, ideal for use with immersion thermostats from VWR or other manufacturers
- Available in stainless steel or polycarbonate
- Robust and durable
- Easy to clean

Note: The temperature ranges listed below apply only when the vessels are used with immersion thermostats; an immersion thermostat is required but not supplied with the bath.

Temp. range (°C)	Capacity (l)	Bath WxDxH (mm)	WxDxH (mm)	Pk	Cat. No.
Polycarbonate					
< 85	8	284×156×203	302×174×232	1	462-0265
< 85	11	389×156×203	406×174×232	1	462-0266
< 85	14	493×156×203	513×174×232	1	462-0267
< 85	17	312×305×203	351×324×232	1	462-0268
< 85	23	417×305×203	455×324×232	1	462-0269
< 85	28	523×305×203	561×324×232	1	462-0270
Stainless steel					
< 150	13	229×165×203	321×289×244	1	462-0263
< 150	28	419×216×203	530×327×244	1	462-0264



Bridge circulators, programmable



This versatile, programmable bridge circulator can be used for a wide range of applications. The expandable bridge can be extended from 381 to 635 mm and fits most baths.

The variable speed pressure and suction pump is designed for open and closed loop applications. Ten programmes for time and temperature can be stored in memory, each capable of up to 50 steps and 999 cycles. An RS232 interface and remote probe capability are standard. Adjustable optical and acoustic alarms alert the user to out-of-range conditions.

- Expandable bridge, adjustable from 381 to 635 mm for a wide range of baths
- Over-temperature and low liquid level protection to avoid any potential damage
- Suction and pressure pump for temperature control in open and closed loop applications
- RS232 interface and remote probe capability
- One-button operation for easy programming

Delivery Information: Each unit is supplied complete with 3 plugs: EU, UK and CH for use throughout Europe.

Type	Temp. range (°C)	Temp. stability (°C)	WxDxH (mm)	Weight (kg)	Pk	Cat. No.
Bridge circulator, programmable	RT* +5...200	±0,01	380×286×242	11	1	473-1160

* RT = Ambient



Baths and lids, stainless steel with MX temperature controller



Stainless steel baths with user friendly MX temperature controller with three control buttons and on-screen prompts. The convenient slide control enables the flow rate to be easily adjusted. Baths can be used for external circulation, the controller bridge made from chemically resistant DuraTop™ is easily removed to clean the tank. The 10 and 20 litre models have an opening with lid for optional cooling coil which is ideal for set points near ambient temperature.

- Large EasyView™ LCD display with alarm or fault icons and English prompts and menus
- User-adjustable high and low temperature limits and low liquid level alarms
- Single speed pressure pump
- Integral pump and heater coil protection
- Single point calibration

Complies with DIN 12876-1, Safety class I

Maximum pump capacities:
10,6 l/min, 100 mbar

Delivery Information: Supplied with a bath cover.

Type	Temp. range (°C)	Temp. stability (°C)	Heating capacity (kW)	Capacity (l)	Bath WxDxH (mm)	WxDxH (mm)	Pk	Cat. No.
MX06S135	RT* +10...135	±0,07	1,1	6	110×100×152	206×340×406	1	462-0211
MX10S135	RT* +10...135	±0,07	1,1	10	255×99×152	342×353×406	1	462-0212
MX20S135	RT* +10...135	±0,07	1,1	20	214×257×203	342×531×457	1	462-0213
Description							Pk	Cat. No.
Coiling coil							1	462-0279

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Description	For	Pk	Cat. No.
Lids for stainless steel baths			
Replacement lid for VWR open bath systems	Stainless steel baths with 6 litre capacity (462-0211)	1	462-0286
Replacement lid for VWR open bath systems	Stainless steel baths with 10 litre capacity (462-0212)	1	462-0287
Replacement lid for VWR open bath systems	Stainless steel baths with 20 litre capacity (462-0213)	1	462-0288

* RT = Ambient



Heating recirculators, Model 210



Small, low cost recirculator that handles applications such as thawing plasma and tempering photographic solutions. The sealed reservoir can control closed loop systems only.

Features stainless steel, PVC, brass and nylon wetted parts and ½" NPT pump inlet/outlet.

Low liquid and over-temperature cut-offs.

Max. flowrate: 6,3 l/min

Type	Temp. range (°C)	Temp. stability (°C)	Heating capacity (W)	Capacity (l)	WxDxH (mm)	Weight (kg)	Pk	Cat. No.
Model 210, UK-plug	RT*...70	±0,2	750	0,5	240×200×200	5,0	1	473-0029
Model 210, CH-plug	RT*...70	±0,2	750	0,5	240×200×200	5,0	1	473-0030
Model 210, EU-plug	RT*...70	±0,2	750	0,5	240×200×200	5,0	1	473-0031

* RT = Ambient



Heating circulators



Stainless steel circulating baths with choice of Advanced Programmable or Advanced Digital temperature controller. Both are easy to navigate with large, intuitive displays and multiple communication options including USB-A & B, RS232/485, Ethernet and external temperature probe. The reservoir drain can be accessed by removing the front panel. All models feature user-adjustable high temperature safety cut-off points as well as over-temperature protection. The DuraTop™ surface is cooler to the touch when operating at high temperatures.

Digital models feature an intuitive 9,5 cm display with touch pad control, single point calibration, menus and prompts in 4 languages: French, German, Spanish and English.

Programmable models have an intuitive 10,9 cm SmartTouch display, 5-point calibration capability, menus and prompts in 6 languages: French, German, Spanish, English, Chinese and Arabic, plus time/temperature programming (ten 100-step programmes).

- Working temperatures from ambient +10 to 200 °C with stability of ±0,01 °C
- Variable speed pressure/suction pump with external circulation and temperature control capability
- Swivel 180° rotating controllers, LidDock™ lid stowing system and DuraTop™ chemically resistant deck
- Event scheduling (time and date), real time clock and temperature trends for up to 10 days with Advanced Programmable models
- Selectable home screens and on-screen help
- Automatic and/or user-adjustable performance optimisation

Comply with DIN 12876-1, Safety Class III

Maximum pump capacities:

16,7 l/min, 250 mbar; suction: 12,2 l/min

Delivery Information: Supplied with a reservoir cover, bypass tubing, male inlet and outlet adapters for 47, 63 and 95 mm tubing, ¼" to M16 adapters are also included. For probes and accessories, please visit www.vwr.com.

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Type	Temp. range (°C)	Temp. stability (°C)	Heating capacity (kW)	Capacity (l)	Bath WxDxH (mm)	WxDxH (mm)	Description	Pk	Cat. No.
Models with Advanced Digital temperature controller									
AD07H200	RT* +10...200	±0,01	2,2	7	142×157×127	221×499×409	Digital	1	462-0215
AD15H200	RT* +10...200	±0,01	2,2	15	276×212×140	368×569×422	Digital	1	462-0217
AD20H200	RT* +10...200	±0,01	2,2	20	316×250×140	419×610×422	Digital	1	462-0219
AD28H200	RT* +10...200	±0,01	2,2	28	359×314×140	457×672×422	Digital	1	462-0221
Models with Advanced Programmable temperature controller									
AP07H200	RT* +10...200	±0,01	2,2	7	142×157×127	221×499×409	Programmable	1	462-0216
AP15H200	RT* +10...200	±0,01	2,2	15	276×212×140	368×569×422	Programmable	1	462-0218
AP20H200	RT* +10...200	±0,01	2,2	20	316×250×140	419×610×422	Programmable	1	462-0220
AP28H200	RT* +10...200	±0,01	2,2	28	359×314×140	457×672×422	Programmable	1	462-0222
Description								Pk	Cat. No.
Remote temperature probes for VWR circulators									
PT100 probe with 3 m cable								1	462-0272

(* RT = Ambient)

Remote temperature probes for VWR circulators



Stainless steel probes suitable for used with any instrument that has an Advanced Digital (AD) or Advanced Programmable (AP) controller.
Probe measurements: 152 mm length, 4,7 mm Ø.

Description	Pk	Cat. No.
PT100 probe with 0,6 m cable	1	462-0271
PT100 probe with 3 m cable	1	462-0272
PT100 probe with 7,6 m cable	1	462-0273
PT100 probe with 15 m cable	1	462-0274



Refrigerated circulating baths with MX temperature controller



Stainless steel baths with user friendly MX temperature controller with three control buttons and on-screen prompts. Baths can be used for external closed loop circulation. The controller rests on chemically resistant DuraTop™ deck and units feature LidDock™ lid stowing system. Cool Command™ technology regulates the amount of cooling required, saving energy while providing rapid cooling and precise control at elevated temperatures.

- Large EasyView™ LCD display with alarm or fault icons and English prompts and menus
- User-adjustable high and low temperature limits and low liquid level alarms
- Single speed pressure pump with external closed loop circulation capability
- Integral pump and heater coil protection
- Single point calibration

Complies with DIN 12876-1, Safety class I

Maximum pump capacities:
10,6 l/min, 100 mbar

Delivery Information: Supplied with a reservoir cover, bypass tubing, male inlet and outlet adapters for 47, 63 and 95 mm tubing, ¼" to M16 adapters are also included.

Type	Temp. range (°C)	Temp. stability	Heating capacity (kW)	Cooling capacity (kW)	Capacity (l)	Bath WxDxH (mm)	WxDxH (mm)	Pk	Cat. No.
MX7LR-20 (low profile)	-20...+135	±0,07	1,1	0,2	7	142×157×127	221×541×645	1	462-0223
MX07R-20	-20...+135	±0,07	1,1	0,2	7	142×157×127	411×589×439	1	462-0225

Note: Cooling capacity at 20 °C



Refrigerated circulators



Stainless steel circulating baths with choice of Advanced Programmable or Advanced Digital temperature controller. Both are easy to navigate with large, intuitive displays and multiple communication options including USB-A & B, RS232/485, Ethernet and external temperature probe. The reservoir drain can be accessed by removing the front panel. All models feature user-adjustable high temperature safety cut-off points as well as over-temperature protection. The DuraTop™ surface is cool to the touch when operating at high temperatures.

Digital models feature an intuitive 9,5 cm display with touch pad control, single point calibration, menus and prompts in 4 languages: French, German, Spanish and English.

Programmable models have an intuitive 10,9 cm SmartTouch display, 5-point calibration capability, menus and prompts in 6 languages: French, German, Spanish, English, Chinese and Arabic, plus time/temperature programming (ten 100-step programmes).

- Working temperatures from -40 to +200°C with stability of ±0.01 °C
- Variable-speed pressure/suction pump with external circulation and temperature control capability
- Swivel 180™ rotating controllers, LidDock™ lid stowing system, DuraTop™ chemically resistant deck and WhisperCool™ environmental control system reduces noise, increases refrigeration efficiency and lowers energy consumption

- Cool Command™ technology regulates the amount of cooling required, saving energy while providing rapid cooling and precise control at elevated temperatures
- Event scheduling (time & date), real-time clock and temperature trends for up to 10 days with Programmable models
- Selectable home screens and on-screen help
- Automatic and/or user-adjustable performance optimisation

Comply with DIN 12876-1, Safety class III
Maximum pump capacities:
16.7 l/min, 250 mbar, 12.2 l/min suction

Delivery Information: Supplied with a reservoir cover, bypass tubing, male inlet and outlet adapters for 47, 63 and 95 mm tubing, ¼" to M16 adapters are also included. For probes and accessories, please visit vwr.com or contact our Technical Office on 01342 337447.

Type	Temp. range (°C)	Temp. stability (°C)	Heating capacity (kW)	Cooling capacity (kW)	Capacity (l)	Bath WxDxH (mm)	WxDxH (mm)	Pk	Cat. No.
Models with Advanced Digital temperature controller									
AD7LR-20	-20...+200	±0,01	2,2	0,2	7	142×157×127	411×589×411	1	462-0224
AD07R-20	-20...+200	±0,01	2,2	0,2	7	142×157×127	221×541×617	1	462-0226
AD07R-40	-40...+200	±0,01	2,2	0,505	7	142×157×127	221×541×617	1	462-0228
AD15R-30	-30...+200	±0,01	2,2	0,915	15	276×212×140	368×569×683	1	462-0230
AD15R-40	-40...+200	±0,01	2,2	1,0	15	276×212×140	368×569×683	1	462-0232
AD20R-30	-30...+200	±0,01	2,2	0,915	20	316×250×140	419×610×683	1	462-0234
AD28R-30	-30...+200	±0,01	2,2	0,915	28	359×314×140	457×672×683	1	462-0236
AD45R-20	-25...+135	±0,01	2,2	1,4	45	398×549×140	568×909×1070	1	462-0238
Models with Advanced Programmable temperature controller									
AP07R-20	-20...+200	±0,01	2,2	0,2	7	142×157×127	221×541×617	1	462-0227
AP07R-40	-40...+200	±0,01	2,2	0,505	7	142×157×127	221×541×617	1	462-0229
AP15R-30	-30...+200	±0,01	2,2	0,915	15	276×212×140	368×569×683	1	462-0231
AP15R-40	-40...+200	±0,01	2,2	1,0	15	276×212×140	368×569×683	1	462-0233
AP20R-30	-30...+200	±0,01	2,2	0,915	20	316×250×140	419×610×683	1	462-0235
AP28R-30	-30...+200	±0,01	2,2	0,915	28	359×314×140	457×672×683	1	462-0237
AP45R-20	-25...+135	±0,01	2,2	1,4	45	398×549×140	568×909×1070	1	462-0239

Note: Cooling capacity at 20 °C

Tubing, high temperature for circulators



PTFE lined, stainless steel braid

Flexible PTFE lined, stainless steel over braided tubing with 6,3 mm NPT quick connectors at both ends. Maximum temperature is 300 °C.

Length (mm): 930

Description	Pk	Cat. No.
High temperature tubing	1	461-0106

Remote temperature probes for VWR circulators



Remote temperature probes for use with circulators with a programmable controller. Permit points of control to be switched from inside a programmable circulator bath to a remote location, such as an open tank. Compensates for heat loss through tubing between the circulator and the control point. Platinum RTD sensor with stainless steel sheath. Rubber coupling with 25,4 mm Ø, connects sheath to flexible cable. Probe cable ends in a DB9 female plug.

LengthxØ (mm): 152x4

Description	Pk	Cat. No.
Remote temperature probe, 3 metre cable	1	461-0101
Remote temperature probe, 7,6 metre cable	1	461-0102
Remote temperature probe, 15,25 metre cable	1	461-0103

Cooling coils for VWR bath circulators



For auxiliary cooling of VWR circulators. The stainless steel coil, when connected to a water source, permits more rapid cooling from high temperatures or better control when operating close to ambient temperatures. Not recommended for use in circulator baths where fluid temperature exceeds the boiling point of water.

Description	Pk	Cat. No.
Cooling coil	1	461-0105

Adapter, Digital to Analogue, for VWR Circulators

For use with VWR circulators with a programmable or digital controller when direct digital control is not required. Connects to the RS232 port and provides 10 mv/degree analogue signal for external monitoring or control.

Description	Pk	Cat. No.
Digital to analogue adapter	1	461-0417



Circulating chillers



These circulating chillers are an environmentally friendly, water-conserving and a reliable means of controlling the temperature of liquids in open tanks or closed loop systems. They provide high cooling performance at low cost. With a temperature range from –10 to +40 °C, they are ideally suited for many process and routine applications. There are two pump versions available, with a wide choice of cooling volumes and compressor sizes to suit special applications. The devices are characterised by readily programmable, bright LED displays that can be read easily and comfortably. The standard, magnetically-coupled centrifugal pumps (MD model series) generate a high flow rate at relatively low pressure. The positive displacement pumps (PD model series) have a lower flow rate, but provide higher, adjustable pressures for more demanding applications. The modulating system maintains stable temperatures, even under fluctuating load conditions. The circulating chillers provide a temperature stability of ±0,1 °C. Dimensions (WxHxD): 368x575x702 mm

- Exceptional cooling performance and wide temperature range from –10 to +40 °C
- Extra-large digital display for easy reading of the set temperature, the flow rate and/or the pressure even from a distance
- Optical and acoustic alarm function if any of the set parameters are not maintained
- Adjustable low and high temperature limits, low fluid level alarm function, temperature stability with easy to operate calibration function and optional interfaces for various functions, such as remote control

Delivery Information: Supplied with ½" lockable NPT inlet and outlet fittings, and lockable castors. Each unit is supplied complete with three plugs: EU, UK and CH for use throughout Europe.

Type	Cooling capacity (kW)	Pk	Cat. No.
1171PD	0,66/0,44/0,16*	1	462-7032
1171MD	0,66/0,44/0,16*	1	462-7033
1173PD	0,99/0,74/0,41*	1	462-7034
1173MD	0,99/0,74/0,41*	1	462-7035
1175MD	1,41/0,91/0,62*	1	462-7036

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Type	Cooling capacity (kW)	Pk	Cat. No.
1175PD	1,41/0,91/0,62*	1	462-7037
1177MD	2,07/1,41/0,63*	1	462-7038
1177PD	2,07/1,41/0,63*	1	462-7039
1179MD	2,40/1,59/0,83*	1	462-7040
1179PD	2,40/1,59/0,83*	1	462-7041

* Cooling capacity at +20, +10 and 0 °C



Shaking water baths, VKB series



Linear shaking water baths with stainless steel tank and simple, intuitive 3 button user interface. It is quick and easy to fit alternative shaking trays. Heating element is positioned on the underside of tank, no heating element in the bath means it is easier to clean and keep clean. Baths have an independent sample protection feature. Available ready to use in two sizes to suit a variety of applications including sample preparation, mixing and thawing.

- Intuitive user interface enabling quick changes to temperature and shaking speed
- Discrete, under tray, magnetically coupled shaking mechanism is reliable and quiet in operation
- Excellent temperature stability $\pm 0,2^{\circ}\text{C}$
- Temperature range: Ambient + 5 to 99°C
- Adjustable shaking speed range: 40 to 400 strokes per minute (dependant on load)
- Display: LED, resolution $0,1^{\circ}\text{C}$

Delivery Information: Supplied with a universal shaking tray and clear polycarbonate lid. A gabled lid is recommended when working at temperatures above 60°C , a wide choice of accessory trays and test tube racks are available, these must be ordered separately.

Model	VKB 12	VKB 18
Flask immersion depth (mm)	0/60 min/max	
Linear stroke length (mm)	18	
Shaker tray WxD (mm)	240x235	420x235
Uniformity ($^{\circ}\text{C}$)	$\pm 0,1$ (at 37°C)	
Weight (kg)	10	13
WxDxH (mm)	335x390x270	335x570x270

Description	Pk	Cat. No.
Shaking water bath, VKB 12, EU-plug	1	462-0356
Shaking water bath, VKB 12, UK-plug	1	462-0354
Shaking water bath, VKB 18, EU-plug	1	462-0355
Shaking water bath, VKB 18, UK-plug	1	462-0353

Description	For	Pk	Cat. No.
Trays for VKB shaking water baths			
Plain stainless steel tray for VKB 12	Containers, bags and other vessels	1	462-0358
Plain stainless steel tray for VKB 18	Containers, bags and other vessels	1	462-0357
Universal flask tray with springs, stainless steel for VKB 18	25x25 ml, 16x50 ml, 9x100 ml, 5x250 ml, 4x500 ml or 2x1000	1	462-0360
Universal flask tray with springs, stainless steel for VKB 18	45x25 ml, 28x50 ml, 18x100 ml, 11x250 ml, 6x500 ml or 3x1000	1	462-0359
Test tube tray, stainless steel for VKB 12	3 test tube racks	1	462-0361
Test tube tray, stainless steel for VKB 18	5 test tube racks	1	462-0362
Racks for VKB shaking water baths			
Stainless steel test tube rack for VKB 12/VKB 18*	119x0,5 ml microtubes	1	462-0369
Stainless steel test tube rack for VKB 12/VKB 18*	48x1,5 ml microtubes	1	462-0370
Stainless steel test tube rack for VKB 12/VKB 18*	48x10 mm \emptyset tubes	1	462-0363
Stainless steel test tube rack for VKB 12/VKB 18*	44x13 mm \emptyset tubes	1	462-0364
Stainless steel test tube rack for VKB 12/VKB 18*	24x16 mm \emptyset tubes	1	462-0365
Stainless steel test tube rack for VKB 12/VKB 18*	21x19 mm \emptyset tubes	1	462-0366
Stainless steel test tube rack for VKB 12/VKB 18*	12x25 mm \emptyset tubes	1	462-0367
Stainless steel test tube rack for VKB 12/VKB 18*	10x30 mm \emptyset tubes	1	462-0368
Lids for VKB shaking water baths			
Gabled stainless steel lid	VKB 12	1	462-0371
Gabled stainless steel lid	VKB 18	1	462-0372
Replacement gabled non drip polycarbonate lid	VKB 12	1	462-0373
Replacement gabled non drip polycarbonate lid	VKB 18	1	462-0374

* Note the tray racks must be used in conjunction with the appropriate stainless steel tray.

Water bath protective agent, Aquaresist



- Prevents the growth of algae and bacteria in baths and circulating thermostats, for optimally hygienic working conditions.
- Durable. Effective for weeks, as displayed by a colour indicator
 - Economical. Low consumption - only 1 ml solution per 1 litre of water

Description	Pk	Cat. No.
Water bath protective agent, Aquaresist	100 ml	462-7000

Anti-evaporation spheres for water baths



- Lightweight, economic PP spheres which form a blanket on the liquid surface. Spheres have 20 mm Ø, 275 spheres cover approximately 1000 cm².
- Reduce heat loss by 77%, and evaporation by 87%
 - Insulate like a solid, and still allow instant access to the liquid in the bath

Description	Pk	Cat. No.
Anti-evaporation spheres	100	462-7049
Anti-evaporation spheres	1.000	462-7050



Ovens with natural convection, DRY-Line®



- Drying ovens with natural convection used for thermal processes, heated storage and for convection drying applications with temperatures up to 220 °C. Exhaust duct at the back of the unit with manually adjustable slide.
- Microprocessor controller
 - Integrated timer can be set for continuous mode or timer operation: 0 to 999 min or 0 to 99,9 h
 - Over-temperature protection with visual alarm (Class 3,1 safety device)
 - Digital temperature setting with degree accuracy
- Delivery Information:** Supplied with two chrome plated shelves.

Model	DL 53	DL 115
Capacity (l)	53	115
Convection type	Natural convection	
External WxDxH (mm)	620x600x680	820x710x760
Internal WxDxH (mm)	401x330x401	600x400x480
Max. load per shelf (kg)	10	15
Nominal power consumption (W)	800	1000
Shelves supplied (max.)	2 (4)	
Temperature fluctuation (time) (°C)	At 150 °C: ±0,4	At 150 °C: ±0,3
Temperature range (°C)	Ambient +5...220	
Temperature variation (spatial) (°C)	At 150 °C: ±3,3	At 150 °C: ±3,0
Weight (kg)	41	62

Description	Pk	Cat. No.
DRY-Line 53	1	466-3510
DRY-Line 115	1	466-3513

Description	For	Pk	Cat. No.
Shelves			
Chrome plated shelf	DL 53/VL 53/IL 53	1	466-3522
Chrome plated shelf	DL 115/VL 115/IL 115	1	466-3523



Ovens with forced convection, VENTI-Line®



Drying ovens with forced air circulation, which are ideal for routine drying and heating applications when short drying times are required. Ovens feature adjustable ventilation by means of manually adjustable ventilation slide and 50 mm Ø exhaust duct at the rear of the unit.

- Microprocessor controller
- Integrated timer can be set for continuous mode or timer operation: 0 to 999 min or 0 to 99,9 h
- Over-temperature protection with visual alarm (Class 3,1 safety device)
- Digital temperature setting with degree accuracy

Delivery Information: Supplied with two chrome plated shelves.

Model	VL 53	VL 115
Capacity (l)	53	115
Convection type	Forced convection	
External WxDxH (mm)	620x640x680	820x710x760
Internal WxDxH (mm)	401x330x401	600x400x480
Max. load per shelf (kg)	10	15
Nominal power consumption (W)	800	1000
Shelves supplied (max.)	2 (4)	
Temperature fluctuation (time) (°C)	At 150 °C: ±0,4	At 150 °C: ±0,3
Temperature range (°C)	Ambient +12...220	Ambient +5...220
Temperature variation (spatial) (°C)	At 150 °C: ±2,7	At 150 °C: ±2,5
Temperature variation at 150 °C (°C)	±0,4	±0,3
Weight (kg)	40	59

Description	Pk	Cat. No.
VENTI-Line 53	1	466-3516
VENTI-Line 115	1	466-3519

Description	For	Pk	Cat. No.
Shelves			
Chrome plated shelf	DL 53/VL 53/IL 53	1	466-3522
Chrome plated shelf	DL 115/VL 115/IL 115	1	466-3523

Vacuum Desiccators



Borosilicate glass 3.3

- Tubulated lid
- Stopcock with PTFE spindle
- DIN 12491

Type	Nominal size (DN)	Ø ext.xH (mm)	Ø int. (mm)	Pk	Cat. No.
With stopcock	100	153x180	92	1	467-0086
With stopcock	150	215x250	143	1	467-0087
With stopcock	200	207x300	192	1	467-0088
With stopcock	250	320x355	239	1	467-0089
With stopcock	300	380x435	258	1	467-0090

Desiccators



Borosilicate glass 3.3

- With knobbed lids
- DIN 12491

Nominal size (DN)	Usable height (mm)	Ø ext.xH (mm)	Pk	Cat. No.
Desiccators				
100	65	153×195	1	467-0069
150	95	215×265	1	467-0070
200	130	207×315	1	467-0071
250	140	320×370	1	467-0072
300	165	380×445	1	467-0073
Type	Ø (mm)		Pk	Cat. No.
Desiccator plates				
Porcelain	90		1	467-0100
Porcelain	140		1	467-0101
Porcelain	190		1	467-0102
Porcelain	235		1	467-0103
Porcelain	280		1	467-0104



Silica gel, self-indicating, blue

Dessicant suitable for drying gases and removing water vapour from the atmosphere. For professional users but not for personal use.

- Blue colour which retains its colour when dry and changes to very pale pink when saturated with water
- Sachet format reduces hazard from exposure to dust
- Regeneration possible by heating at approx 150 °C in a drying oven

Note: Hazardous. Contains CoCl₂ as the colour agent - please see VWR website for full details of specification and Hazard information.

Description	Pk	Cat. No.
Silica gel, blue, self-indicating	500	92120.2500
Silica gel, blue, self-indicating	5 kg	92120.5000
Silica gel, blue, self indicating	8 kg	92120.9012
Silica gel, blue, self-indicating	18 kg	92120.0120



Silica gel, Chameleon® with saturation indicator

Non toxic dessicants for absorbing moisture from the atmosphere and gas streams which contains iron salts as a colour indicator. The dry material has an intense orange colour and changes to a pale beige/white colour on adsorption of water.

- Water absorption capacity at 50% RH is a minimum of 23%
- Loss on drying at 145 °C is less than 2%
- At concentration of 10% in water, pH is from 1,5 to 5
- Regeneration can be achieved by heating to 150 °C in a drying oven

Particle size (mm)	Pk	Cat. No.
1 - 3	500 g	83001.260
1 - 3	1 kg	83001.290
1 - 3	5 kg	83001.360
Silica gel Chameleon® C 2,5-6 mm granules with moisture indicator		
2,5 - 6	1 kg	83000.290
2,5 - 6	5 kg	83000.360

Desiccator plates



Porcelain desiccator plates. Central hole 20 mm Ø, filter holes 5 mm Ø. Suitable for use with any desiccators with corresponding diameter.

Conform to DIN 12911

Type	Ø (mm)	Pk	Cat. No.
Porcelain	90	1	467-0100
Porcelain	140	1	467-0101
Porcelain	190	1	467-0102
Porcelain	235	1	467-0103
Porcelain	280	1	467-0104



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Refrigerators, explosion-proof



Temperature: +2 to 10 °C

Refrigerators with explosion-proof interiors, for flammable materials. Ignition sources such as light switches or temperature controllers, which could cause flammable materials to ignite, must not be located in the interior.

Interior lining made from white, high impact special plastic. Smooth surfaces are easy to clean.

- Temperature controller attached to the outside
- Lockable door
- Automatic defrost-function with drip tray for condensation water (manual drainage)
- Depending on the model, three to five height adjustable glass shelves for flexible partitioning of the interior space
- Adjustable front feet for levelling and firm footing

Model	472-2186	472-2187	472-2188	471-0223
Capacity (l)	180	260	360	500
Defrost	+			
Door lock				
Door(s)	One interchangeable door			
Specifications	ABS tank			
Temperature (°C)	+2...10			
Weight (kg)	36	47	62	78
WxDxH ext. (mm)	602x600x884	602x600x1215	602x600x1589	755x715x1515

Type	Pk	Cat. No.
Three shelves	1	472-2186
Four shelves	1	472-2187
Five shelves	1	472-2188
Five shelves	1	471-0223



Upright, ultra-low temperature freezers, NOVAfreezer



Temperature range: -40 to -86 °C

These freezers are specially designed and manufactured for long-term storage of various products, including viruses, germs, leucocytes and cutis. Applications can be found in blood banks, hospitals, epidemic prevention services, research institutes, biological engineering institutes and marine fishery companies.

The frame is made of steel for maximum durability, insulating walls VIP limited thickness (cavity with polyurethane foam panels and vacuum) for maximum insulation of the structure and an optimum ratio between internal capacity and external dimensions.

Every freezer has a controller with built in software, on the front door, which shows all the necessary components (compressors, voltage, temperature sensor) to help quickly identify the cause of a fault. This is called System monitoring and reporting technology and can be easily accessed through the front panel.

- Cascade refrigeration system using two different CFC-free refrigerants (chlorofluorocarbons) and HCFCs (hydro chlorofluorocarbons)
- Solid door handle can be locked with a padlock for maximum security of the contents
- With retractable wheels to facilitate movement
- With heated triple gasket that provides maximum sealing between the door and swing mechanism
- Intelligent condenser design to save energy

Model	DW-86L388	DW-86L490	DW-86L628	DW-86L728
Air circulation	Ventilated			
Alarm	Audible and visible: high and low internal temperature, alarm power failure			
Capacity (l)	388	490	628	728
Defrost	Automatic			

Continued on next page

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Model	DW-86L388	DW-86L490	DW-86L628	DW-86L728
Display	LED			
Door lock	Yes			
Door(s)	4 inner/ outer	4 inner/2 outer	4 inner/ outer	
Material	Steel			
Shelves/drawers	3			
Temperature (°C)	– 50...– 86	– 40...– 86		
Weight (kg)	254	295	301	350
WxDxH ext. (mm)	890x870x1970	860x900x1970	1035x900x1960	1145x900x1970
WxDxH int. (mm)	620x540x1300	590x630x1310	760x620x1300	870x630x1310

Type	Pk	Cat. No.
ULT upright freezer, NOVAfreezer, CDW-86L388	1	471-0959
ULT upright freezer, NOVAfreezer with double solid outer doors, CDW-86L490	1	471-0961
ULT upright freezer, NOVAfreezer, CDW-86L628	1	471-0960
ULT upright freezer, NOVAfreezer, CDW-86L728	1	471-0958

Cryogenic storage vessels, CSS and XSS series



The CSS series tanks offer storage for small to medium capacity applications. The XSS series offer similar benefits and have extended storage capacity.

The tanks, manufactured from aluminium alloy with fibreglass/epoxy neck. High vacuum, multilayered super insulation limits nitrogen evaporation.

The samples are placed in stainless steel canisters directly in the liquid nitrogen inside the vessel.

- Extremely low liquid nitrogen evaporation
- Lid is lockable with padlock (not included)
- The vessels are equipped with stainless steel canisters with hook for easy retrieval from the vessel

Canisters which are 270 mm high can hold two goblets or canes with 6x1,8 ml vials

Canisters which are 110 mm high can hold one goblet or 1/2 height canes with 3x1,8 ml vials

Certification: CE - Medical

Model	CSS-4/6	CSS-10/6	CSS-21/6	CSS-36/6	XSS-13/6	XSS-26/10	XSS-36/6	XSS-48/10
Capacity (l)	4,1	10,5	21,7	35,9	13	26	35,9	48,5
No. of canisters	6				10		6	10
Static holding time (days)	42 (without canister)	93 (without canister)	238 (without canister)	365 (without canister)	59 (without canister)	104 (without canister)	211 (without canister)	180 (without canister)
Weight, empty (kg)	4,2	6,4	9,8	16	8,7	11,2	14,7	17,1
ØxH (mm)	245x433	368x455	395x673	480x652	380x450	480x482	480x688	500x707
ØxH canisters (mm)	37x110	110x37	37x270		66x110		66x270	73x270

Type	Neck-Ø (mm)	Pk	Cat. No.
CSS series; models with very low LN ₂ consumption			
CSS-4/6	51	1	478-0281
CSS-10/6	51	1	478-0282
CSS-21/6	51	1	478-0283
CSS-36/6	51	1	478-0284
XSS series; models with low LN ₂ consumption and increased storage capacity			
XSS-13/6	89	1	478-0285
XSS-26/10	89	1	478-0286
XSS-36/6	89	1	478-0287
XSS-48/10	119	1	478-0288

Description	Pk	Cat. No.
Accessories		
Roller base with 4 castors (max. load on a smooth floor: 60 kg)	1	478-0301
Roller base with 5 castors (max. load on a smooth floor: 250 kg)	1	478-0303
Roller base with 5 castors (max. load on a smooth floor: 120 kg)	1	478-0302

Box storage system, BSS-series



The tanks of the BSS-series offer various solutions for storage of vials or straws in liquid or gaseous phase. They provide extremely good temperature uniformity, even with as little as 2 cm liquid nitrogen remaining above the rack insulator (or 5 cm above the bottom of BSS-5100).

The tanks, manufactured from aluminium alloy with fibreglass / epoxy neck and a high vacuum multilayered super insulation limits the nitrogen evaporation.

- Extremely good temperature uniformity
- The lid can also padlocked shut (except BSS-5100 - padlock not included)

Certification: CE - Medical.

Accessories

S70-controller: Temperature read out (1 point), automatic filling procedure (up to desired LN₂ level), visible and audible alarms (high / low temperature and level, and time out fill error), 1 potential-free contact (with programmable function) for external alarm.

The newly developed **S-170 controller** offers maximum sample security and many features: Automatic filling procedure, temperature measurement (via 2 probes), regulation of liquid nitrogen level, providing visual and audible alarms (low level alarm, low level fill, normal level stop fill, high level alarm), display of the position of the cover (open/closed), management of the “defog” function (for better visibility inside the vessel), RS485 interface enables complete management and control of the system via a PC, (the software is included), 4 potential-free contacts for connection to an in-house alarm system or to a telephone dialing system (4 different alarm functions can be transferred).

Ordering Information: Stainless steel racks for standard type boxes (25, 81 or 100 tubes) are included.

For BSS-5100: Pie shaped drawers (for cryo-tubes) or canisters (for goblets and straws) must be ordered separately.

Model	BSS-750	BSS-3000	BSS-4800	BSS-5100	BSS-6000
Capacity (l)	48,5	100	148	75	197
No. of canisters	30		48	54 drawers	60
No. of test tube racks	6				
Static holding time (days)	180	155	227	30	303
Weight, empty (kg)	20,5	45	56	37	62
ØxH (mm)	500x707	680x748	680x920	480x915	680x1076

Type	Neck-Ø (mm)	Pk	Cat. No.
BSS-750	119	1	478-0274
BSS-3000	215	1	478-0279
BSS-4800	215	1	478-0280
BSS-5100	215	1	478-0275
BSS-6000	410	1	478-0367

Description	Pk	Cat. No.
Accessories		
Pie-shaped rack system, made of high quality polycarbonate, withstands extremely low temperatures, with 6 racks, each with 9 drawers, 95 vials per drawer (total 5130 vials)	6	478-0276
Plastic canisters, (ØxH: 70x660 mm); each canister can hold 5 goblets (not included), with goblet lifter	1	478-0324
S70 controller, with temperature and level monitoring and auto-fill function for BSS-750	1	478-0329
S70 controller, with temperature and level monitoring and auto-fill function for BSS-3000	1	478-0330
S70 controller, with temperature and level monitoring and auto-fill function for BSS-4800	1	478-0331
S70 controller, with temperature and level monitoring and auto-fill function for BSS-6000	1	478-0332
S170 controller for BSS-750, with temperature monitoring and auto-fill function	1	478-0352
S170 controller for BSS-3000, with temperature monitoring and auto-fill function	1	478-0353
S170 controller for BSS-4800, with temperature monitoring and auto-fill function	1	478-0354
S170 controller for BSS-6000, with temperature monitoring and auto-fill function	1	478-0355
S170 controller for BSS-5100, with temperature monitoring and auto-fill function	1	478-0356

Liquid nitrogen Dewars for storage and transport, LD-series



The LD-series aluminium Dewars are specially designed for storage and transport (not on public roads) of liquid nitrogen and are ideal for most miscellaneous laboratory and industrial applications.

- Lightweight, reliable and robust
- Very easy to handle

The bigger units (LD-25, LD-35 and LD-50) are fitted with an NW50 Pneurop-flange for mounting a pressure-head for LN₂ withdrawal.

The small LD-2M is fitted with a pouring spout.

Model	LD-2M	LD-5	LD-12	LD-25	LD-35	LD-50
Capacity (l)	2	5,5	12,4	25	35	50
Weight, empty (kg)	2,7	4,4	8,1	10	13	17
ØxH (mm)	190x465	245x494	310x600	395x684	480x591	500x675

Continued from previous page

Type	Neck-Ø (mm)	Pk	Cat. No.
Dewar, LD-2M	35	1	478-0289
Dewar, LD-5	50	1	478-0290
Dewar, LD-12	50	1	478-0291
Dewar, LD-25	50	1	478-0292
Dewar, LD-35	50	1	478-0293
Dewar, LD-50	50	1	478-0294
Description		Pk	Cat. No.
Accessories			
Phase separator, Ø×H: 30×100 mm		1	478-0316
Standard flexible hose; 1,20 m, 2×female ¾" connections		1	478-0315
Standard flexible hose; 2 m, 2×female ¾" connections		1	478-0371
Standard flexible hose; 3 m, 2×female ¾" connections		1	478-0372

Accessories



- 478-0296:** The basic withdrawal head can be connected to any model with a Pneurop NW50 flange. Small amounts of liquid nitrogen can be withdrawn from the Dewar until the inner pressure of the vessel has dropped to ambient pressure.
- 478-0297:** With the use of the TS-head, small amounts of liquid nitrogen can be withdrawn from the Dewar until the inner pressure of the vessel has dropped to ambient pressure. The head is equipped with a Pneurop NW50 flange, a filling/withdrawal valve, a pressure build-up valve, a relief valve set at 0,5 bar and a pressure gauge.
- 478-0298:** Transfer elbow phase separator, can be mounted on the withdrawal valve of the TS head
- 478-0299:** Flexible withdrawal tube with deflector shield and phase separator. Can be mounted on the withdrawal valve of the TS head
- 478-0300:** Liquid measuring rod, 62 cm
- 478-0301:** Roller base with 4 castors is extendable and can accommodate containers with an outside diameter of 360 to 490 mm. The maximum load on a smooth floor is 60 kg.
- 478-0302:** Roller base with 5 castors (2 equipped with brakes) is extendable and can accommodate containers with an outside diameter of 460 to 500 mm. The maximum load on a smooth floor is 120 kg.
- 478-0303:** Roller base with 5 castors (2 equipped with brakes) can accommodate containers with an outside diameter of 680 mm. The maximum load on a smooth floor is 250 kg.
- 478-0304:** Low level alarm, with voltage-free contact. Warns the user of any imminent shortage of nitrogen inside the container. Fits on all models, probe to be fixed on the canister to desired length.

For more details please contact VWR.

Description	Pk	Cat. No.
Withdrawal head for LN ₂ basic model	1	478-0296
Withdrawal head for LN ₂ TS model	1	478-0297
Transfer elbow with phase separator	1	478-0298
Withdrawal flexible (tube) with deflector shield and phase separator	1	478-0299
LN ₂ level indicator stick, 62 cm long, with grading in cm and inches	1	478-0300
Roller base with 4 castors (max. load on a smooth floor: 60 kg)	1	478-0301
Roller base with 5 castors (max. load on a smooth floor: 250 kg)	1	478-0303
Roller base with 5 castors (max. load on a smooth floor: 120 kg)	1	478-0302
Low level alarm, with voltage-free contact	1	478-0304

Dry shippers, DS-series



Dry shippers are used for the safe transportation of samples at cryogenic temperatures.

Hydrophobic absorbent material is fixed in the inner capacity of the vessel. After complete saturation of the material with liquid nitrogen, the vessels are ready to transport samples at cryogenic temperatures, without the risk of liquid nitrogen spilling, if the container is overturned.

- Safe transportation of samples

The model DS-24 can be equipped with removable absorbent cartridges to improve the holding time.

The shippers do not conform to International Air Transport Regulations (IATA) for transportation of infectious material.

Certification: CE - Medical

Model	DS-2	DS-5	DS-24
Capacity (l)	2	5,2	24
No. of canisters	1	1	7*
No. of test tube racks	-	-	1x6 boxes*
Static holding time (days)	23	19	11
Weight, empty (kg)	3,3	6,9	15,6
ØxH (mm)	190x407	251x497	400x664

Type	Neck-Ø (mm)	Pk	Cat. No.
Dry shipper, DS-2	35	1	478-0305
Dry shipper, DS-2 including datalogger (2 years average duration)	35	1	478-0358
Dry shipper, DS-5	70	1	478-0306
Dry shipper, DS-5 including datalogger (2 years average duration)	70	1	478-0359
Dry shipper, DS-24	215	1	478-0307
Dry shipper, DS-24 including datalogger (2 years average duration)	215	1	478-0360

Description	For	Pk	Cat. No.
Removable cartridges for DS-24			
60 mm cartridge to enlarge the capacity of absorbed LN ₂	DS-24	1	478-0317
120 mm cartridge to enlarge the capacity of absorbed LN ₂	DS-24	1	478-0318
Extractor for cartridges	DS-24	1	478-0319
Protective flight case for DS, with foam protection inside			
Case with 4 mm foam protection inside	DS-2	1	478-0308
Case with 4 mm foam protection inside	DS-5	1	478-0309
Case with 7 mm foam protection inside	DS-24	1	478-0310
Accessories			
Phase separator, ØxH: 30x100 mm		1	478-0316
Optional rack with 6 drawers, stainless steel for DS-24 without cartridge		1	478-0333
Optional rack with 5 drawers, stainless steel for DS-24 with 60 mm cartridge		1	478-0334
Optional rack with 4 drawers, stainless steel for DS-24 with 120 mm cartridge		1	478-0335
Optional rack with 3 drawers, stainless steel for DS-24 with 60+120 mm cartridge		1	478-0336
Standard flexible hose; 1,20 m, 2xfemale ¾" connections		1	478-0315
Standard flexible hose; 2 m, 2xfemale ¾" connections		1	478-0371
Standard flexible hose; 3 m, 2xfemale ¾" connections		1	478-0372
RECWIN software: CD-ROM with cables compatible with Windows 95, 98, 2000 NT and XP. Graphic user interface, multi-language (UK, FR, ES, D, I)		1	478-0361
Replacement battery (recommended every 2 years)		1	478-0362

* DS-24 is delivered without canister, rack or cartridge (must be ordered separately). For more details please contact VWR.

Liquid nitrogen cylinders, CryoCyl



Model	CryoCyl-60	CryoCyl-120	CryoCyl-230
Capacity (l)	58	120	230
Weight, empty (kg)	38	92	133
WxDxH ext. (mm)	-		
ØxH (mm)	460x1000 (without gauge)	570x1205	-

Type	Pk	Cat. No.
LN ₂ cylinder, CryoCyl-60	1	478-0312
LN ₂ cylinder, CryoCyl-120	1	478-0313
LN ₂ cylinder, CryoCyl-230	1	478-0314

Description	Pk	Cat. No.
Accessories for CryoCyl		
Level gauge for CryoCyl-60	1	478-0378
Level gauge for CryoCyl-120	1	478-0379
Level gauge for CryoCyl-230	1	478-0380

Liquid nitrogen auto-fill system, AF series



The AF series units are large capacity, auto-fill systems offering a fully-featured controller with an easy to use interface. The control module is designed to manage the cryogenic tank automatically. The units need LN₂ supply from a stand-alone pressurised vessel, or from a central LN₂ supply system.

The **AF-75**, **-200** and **-250** have an aluminium inner and outer vessel. The units can be mounted on optional castors. The **S-170** controller has a separate housing attached to the side of the vessels. The lids can be locked with a pad lock (not included, not possible on **AF-75**).

The **AF-110** has a round aluminium inner vessel and a square outer casing of powder coated metal. The unit is mounted on castors. The **AF-400** has a stainless steel inner vessel. The user can choose a rotating platform on this model (**AF-400P**). This facilitates access to the racks in the back, and reduces the number of racks. Castors and lock are standard mounted. On both models the S-170 controller is built-into the front panel for easy setting and reading.

The **AF-800P** and **AF-1200P** full stainless steel biological containers are designed for storage of samples in the most efficient and safe conditions in liquid or gaseous phase. Consumption of liquid nitrogen is reduced

and holding time is increased thanks to the narrow neck diameter. The valuable samples will be stored in gaseous phase even at -150 °C right under the lid. The samples are easily accessible thanks to an inner rotating tray, which can be turned around by means of a turning handle located on the top of the container. The newly developed **S-170 controller** is mounted in a separate housing on the top of the vessel and offers maximum sample security and many features: automatic filling procedure, temperature measurement (via 2 probes), regulation of liquid nitrogen level, providing visual and audible alarms (low level alarm, low level fill, normal level stop fill, high level alarm), display of the position of the cover (open/closed), management of the „defog“ function (for better visibility inside the vessel) and 4 potential-free contacts for connection to an in-house alarm system or to a telephone dialing system (4 different alarm functions can be transferred). The RS485 interface enables complete management and control of the system via a PC (the software is included).

Model	AF-75	AF-75P	AF-75DS	AF-110	AF-200	AF-200P	AF-200DS	AF-250	AF-250P	AF-250DS	AF-400	AF-400P	AF-800P	AF-1200P
Capacity (l)	75			110	198			236			401		790	1240
Weight, empty (kg)	37			80	70			72			300	320	315	460

Type	Pk	Cat. No.
Liquid storage container, AF-75	1	478-0382
Vapour storage container, AF-75P	1	478-0383
Dry storage in square racks, AF-75DS	1	478-0384
Liquid storage container, AF-110 (EU plug version)	1	478-0269
Liquid storage container, AF-110 (UK plug version)	1	478-0342
Liquid storage container, AF-110 (CH plug version)	1	478-0343
Liquid storage container, AF-200	1	478-0385
Vapour storage container, AF-200P	1	478-0386
Dry storage in square racks, AF-200DS	1	478-0387
Liquid storage container, AF-250	1	478-0388
Vapour storage container, AF-250P	1	478-0389
Dry storage in square racks, AF-250DS	1	478-0390
Liquid storage container, AF-400 (EU plug version)	1	478-0270
Liquid storage container, AF-400 (UK plug version)	1	478-0344
Liquid storage container, AF-400 (CH plug version)	1	478-0345
Vapour storage container, AF-400P (EU plug version), with rotating platform	1	478-0271
Vapour storage container, AF-400P (UK plug version), with rotating platform	1	478-0346
Vapour storage container, AF-800P (EU plug version), with rotating platform and narrow neck opening (420 mm)	1	478-0272
Vapour storage container, AF-800P (UK plug version), with rotating platform and narrow neck opening (420 mm)	1	478-0348
Vapour storage container, AF-1200P (EU plug version), with rotating platform and narrow neck opening (520 mm)	1	478-0273
Vapour storage container, AF-1200P (UK plug version), with rotating platform and narrow neck opening (520 mm)	1	478-0350

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Description	Pk	Cat. No.
Accessories		
Stainless steel rack to be used with cardboard boxes for blood bags, for 8 boxes (horizontally positioned) height: 688 mm	1	478-0467
Pie-shaped rack system, made of high quality polycarbonate, withstands extremely low temperatures, with 6 racks, each with 9 drawers, 95 vials per drawer (total 5130 vials)	6	478-0276
Plastic canisters, (ØxH: 70x660 mm); each canister can hold 5 goblets (not included), with goblet lifter	1	478-0324
Stainless steel rack for 10 boxes, to be used with standard cryo-boxes (not included), total height 655 mm	1	478-0327
Stainless steel rack for 12 boxes, to be used with standard cryo-boxes (not included), total height 655 mm	1	478-0337
Stainless steel rack for 13 boxes, to be used with standard cryo-boxes (not included), total height 708 mm	1	478-0338
Stainless steel rack to be used with cardboard boxes for blood bags; rack for 6 boxes for blood bags, height 586 mm	1	478-0339
Rack system for 2 ml vials, with 6 aluminium pie-shaped racks, each with 13 drawers, 130 vials per drawer (total: 10140), for AF-110	1	478-0320
Rack system with 3 x 2 aluminium triangular racks, each with 13 drawers and 130 vials per drawer (total 10140 vials), for AF-110	1	478-0321
Plastic canisters, to be used with goblets Ø 70 mm x H 515 mm for 4 goblets, with goblet lifter	1	478-0277
Stainless steel canisters, to be used with goblets: Ø 70 mm x H 525 mm for 4 goblets, with goblet lifter	1	478-0278
Stainless steel canister, (ØxH: 70x660 mm), each canister can hold 5 goblets (not included), with goblet lifter	1	478-0364
Phase separator, ØxH: 30x100 mm	1	478-0316
Cardboard box, each for 2 blood bags DF700	1	478-0340
Cassette for DF700 blood bag	1	478-0341
Hot-gas bypass	1	478-0376
Battery back-up (24 hours)	1	478-0377
Standard flexible hose; 1,20 m, 2xfemale ¾" connections	1	478-0315
Standard flexible hose; 2 m, 2xfemale ¾" connections	1	478-0371
Standard flexible hose; 3 m, 2xfemale ¾" connections	1	478-0372
Optional software to monitor all functions of the S-170 controller on PC (including 1 cable for 1 controller)	1	478-0500
Optional software to monitor all functions of the S-170 controller on PC (including 1 cable for 1 controller)	1	478-0501



Cryogenic vials



PP vial and closure, sterile

Designed for the storage of biological material, human or animal cells, at temperatures as low as -196 °C (but should be used only in the gas phase of liquid nitrogen).

- Certified RNase-, DNase-, pyrogen- and DNA- free
- With graduation and marking area

Round bottom vials can be centrifuged up to 17 000xg

Capacity (ml)	Base	Ø ext.xH (mm)	Pk	Cat. No.
With external thread and lip seal				
1,2	Self-standing	12,5x41	250	479-0822
2,0	Round bottom	12,5x46	250	479-0819
2,0	Self-standing	12,5x48	250	479-0821
5,0	Self-standing	12,5x90	250	479-0820
With internal thread and silicone O-ring				
1,2	Self-standing	12,5x41	250	479-0802
2,0	Round bottom	12,5x48	250	479-0817
2,0	Self-standing	12,5x49	250	479-0801
4,0	Round bottom	12,5x70	250	479-0816
4,0	Self-standing	12,5x72	250	479-0818
5,0	Round bottom	12,5x90	250	479-0800
Cryovials with lip seal and silicone washer - external threads				
1,2	Self-standing	12,5x43	250	479-0280
2,0	Round bottom	12,5x48	250	479-0281
2,0	Self-standing	12,5x49	250	479-0282
3,0	Self-standing	12,5x72	250	479-0283
4,0	Self-standing	12,5x76	250	479-0284
5,0	Self-standing	12,5x93	250	479-0285
Cryovials with silicone washer - internal threads				
1,2	Self-standing	12,5x41	250	479-0286
2,0	Round bottom	12,5x48	250	479-0288
2,0	Self-standing	12,5x49	250	479-0287
4,0	Round bottom	12,5x70	250	479-0289
4,0	Self-standing	12,5x72	250	479-0290
5,0	Round bottom	12,5x90	250	479-0291
5,0	Self-standing	12,5x92	250	479-0292
With external thread and silicone O-ring				
1,2	Self-standing	12,5x43	250	479-0829
2,0	Round bottom	12,5x48	250	479-0828
2,0	Self-standing	12,5x49	250	479-0827
3,0	Self-standing	12,5x72	250	479-0826
4,0	Self-standing	12,5x76	250	479-0825
5,0	Self-standing	12,5x93	250	479-0824
10,0	Self-standing	17,0x84	250	479-0823

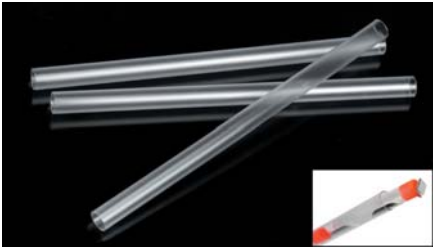
Coloured Capinsert™ for cryogenic vials



PP
Inserts fit precisely into the cap of the cryogenic vial for colour identification.
Set; assortment of white, blue, red, green and yellow (100 of each)

Colour	Pk	Cat. No.
Amber	500	479-0809
Blue	500	479-0814
Green	500	479-0812
Grey	500	479-0808
Lilac	500	479-0807
Orange	500	479-0806
Pink	500	479-0804
Red	500	479-0813
Violet	500	479-0805
White	500	479-0815
Yellow	500	479-0811
Set	500	479-0810

Sleeves for CryoCanes®



PVC
Protects cryocanes during handling and storage.

Length (mm)	Pk	Cat. No.
275	100	211-0229



Racks for cryogenic vials



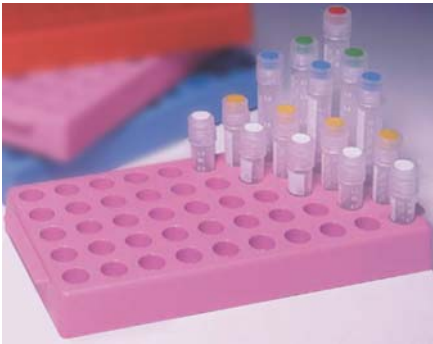
PC, autoclavable
Withstand both cryogenic freezing and autoclaving.

- With numeric index of the holes
- Moulded tabs in the bottom of each well to secure vials in place for easier opening and closing
- Ribbed grips make handling with gloves easier

For (ml)	No. of holes	WxDxH (mm)	Pk	Cat. No.
(Ø 12,5 mm) 1 - 5	50 (5x10)	199x104x24,5	1	211-0139



Workstation racks for cryogenic vials



PP
A universal locking system locks the vials in each well, so you can easily unscrew them with one hand.

- Alphanumeric identification of each well
- Strong handles make it easy and safe to carry
- Supported by five anti-skid rubber feet, stackable

For (ml)	No. of holes	WxDxH (mm)	Pk	Cat. No.
1 - 5	50 (5x10)	205x103x26	4	479-0803

Labtop coolers



–20 °C mini labtop cooler PC/non toxic gel

The –20 °C mini labtop cooler holds 12×0,5 or 1,5 ml microcentrifuge tubes at below –20 °C for over 1 hour. Ideal for bench top use or transport. Wire handle secures top while carrying. Filled with non toxic gel. Prior to use, place in –25 °C freezer for at least 24 hours, store at –25 °C between use.

–20 °C maxi labtop cooler PC/non toxic gel

The –20 °C maxi labtop cooler, holds 32×0,5 or 1,5 ml microcentrifuge tubes at below –20 °C for over 1 hour. Suitable for bench top use or transport. Wire handle secures top while carrying. Cooler and lid filled with non toxic gel. Store at –25 °C between use.

–20 °C labtop cooler PC/non toxic gel

The –20 °C labtop cooler maintains temperatures between –20 and –15 °C for up to four hours. Polycarbonate. Holds twenty 1,5 to 2,0 ml microcentrifuge tubes or cryovials. Inserts included hold 0,2 to 0,5 ml microcentrifuge tubes. Printed grid, keyed lid, locking handle, non skid feet. Store at –25 °C between use.

Description	No. of holes	Pk	Cat. No.
–20 °C mini labtop cooler	12	1	479-0642
–20 °C maxi labtop cooler	32	1	479-0641
–20 °C labtop cooler	20	1	479-0643

Cryo 1° C freezing container



Container PC, closure and vial holder HDPE, foam insert

Non mechanical device that uses isopropyl alcohol and a mechanical freezer to provide cooling rate of –1 °C per minute. Ideal for successful cell cryopreservation and recovery.

- Floating rigid insert prevents vials from contamination
- Withstands repeated use; Labelled with step by step instructions
- Holds up to 18 cryogenic vials (1; 1,2; 1,5 and 2 ml)

Description	I-Ø×H (mm)	No. of holes	Pk	Cat. No.
Cryo 1 °C freezing container	86×117	18	1	479-0640



Cryoboxes



PC, autoclavable

Can be used from –190 to +121 °C.

- Transparent cover with numeric grid and key to prevent misalignment
- Coloured grid or base

WxDxH ext. (mm)	Compartments	For (ml)	Colour	Pk	Cat. No.
76×76×52	5×5	cryotubes 1 - 2	Blue	8	479-0470
76×76×52	5×5	cryotubes 1 - 2	Green	8	479-0471
76×76×52	5×5	cryotubes 1 - 2	Red	8	479-0472
76×76×52	5×5	cryotubes 1 - 2	Yellow	8	479-0473
133×133×52	9×9	cryotubes 1 - 2	Blue	4	479-0474
133×133×52	9×9	cryotubes 1 - 2	Green	4	479-0475
133×133×52	9×9	cryotubes 1 - 2	Red	4	479-0476
133×133×52	9×9	cryotubes 1 - 2	Yellow	4	479-0477
133×133×95	9×9	cryotubes 3 - 5	Blue	5	479-0482
133×133×95	9×9	cryotubes 3 - 5	Green	5	479-0483
133×133×95	9×9	cryotubes 3 - 5	Red	5	479-0484
133×133×95	9×9	cryotubes 3 - 5	Yellow	5	479-0485
133×133×52	10×10	cryotubes 1 - 2	Blue	4	479-0486
133×133×52	10×10	cryotubes 1 - 2	Green	4	479-0487
133×133×52	10×10	cryotubes 1 - 2	Red	4	479-0488

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WxDxH ext. (mm)	Compartments	For (ml)	Colour	Pk	Cat. No.
133x133x52	10x10	cryotubes 1 - 2	Yellow	4	479-0489
133x133x81	9x9	cryotubes 3 - 4	Blue	3	479-0891
133x133x81	9x9	cryotubes 3 - 4	Green	3	479-0892
133x133x81	9x9	cryotubes 3 - 4	Red	3	479-0893
133x133x81	9x9	cryotubes 3 - 4	Yellow	3	479-0894

Crostorage boxes and dividers



Boxes and dividers are constructed from durable fibreboard with a protective, moisture-repellant coating. Liquid nitrogen (LN₂) freezer boxes feature slots for safe LN₂ drainage and reduced LN₂ consumption. Mechanical freezer boxes do not feature slots and cannot be used with LN₂.

Boxes with dividers feature a lid printed with a numbered grid for superior inventory control. Boxes without dividers can accommodate dividers (sold separately) for 16 to 100 places. Fibreboard dividers can fit in any 127x127 mm LN₂ cryogenic or mechanical freezer box.

WxDxH ext. (mm)	Compartments	Type	Pk	Cat. No.
Liquid nitrogen cryogenic freezer boxes with drain slots				
70x70x47,6	25	-	1	478-0248
127x125x47,6	100	-	1	478-0247
Mechanical cryogenic freezer boxes with or without dividers				
127x127x47,6	81	With dividers	1	478-0249
127x127x51	-	Without dividers	1	478-0239
127x127x73	-	Without dividers	1	478-0240
Fiberboard dividers				
125x125x25,4	16	-	12	478-0252
125x125x25,4	25	-	12	478-0253
125x125x25,4	49	-	1	478-0243
125x125x25,4	49	-	12	478-0254
125x125x25,4	64	-	1	478-0244
125x125x25,4	64	-	12	478-0255
125x125x25,4	81	-	1	478-0245
125x125x25,4	81	-	12	478-0256
125x125x25,4	100	-	1	478-0246
125x125x25,4	100	-	12	478-0257

Racks for cryoboxes



Stainless steel, with handles

Horizontal racks fit cryoboxes up to 133x133 mm.

Compartments	WxDxH ext. (mm)	Cryobox height (mm)	Pk	Cat. No.
12 (3x4)	556x140x245	75	1	211-0230
16 (4x4)	556x140x225	50	1	211-0231

Racks for cryoboxes



Cardboard

Economical coated cardboard racks for upright freezers.

- Stable and long lasting
- Lightweight - the 20 compartment rack weighs 1,1 kg without boxes
- For cryoboxes 50 mm height

Compartments	WxDxH ext. (mm)	Pk	Cat. No.
Racks without cryoboxes			
16 (4x4)	562x139x225	1	479-1169
20 (5x4)	562x139x285	1	479-0882
24 (6x4)	562x139x331	1	479-1171
Racks with standard white cardboard cryoboxes with 9x9 cell dividers			
16 (4x4)	562x139x225	1	479-1170
20 (5x4)	562x139x285	1	479-0883
24 (6x4)	562x139x331	1	479-1172

Labels, square



The labels and adhesive have been designed to withstand temperatures from –196 to +121 °C. VWR labels are ideal for all cryostorage and can also be used in most incubators.

- No need to laminate
- Use on tubes, racks and boxes

Description	Dimensions (mm)	Pk	Cat. No.
Labels, blue strips for 1,5 - 2,0 ml tubes	33×13	1.000	817-5011
Labels, green strips for 1,5 - 2,0 ml tubes	33×13	1.000	817-5015
Labels, multi-coloured strips for 1,5 ml tubes, suitable for laser printers	24×13	2.125	817-5005
Labels, multi-coloured strips for 96/384 well plates, suitable for laser printers	38×6	3.900	817-5019
Labels, purple strips for 1,5 - 2,0 ml tubes	33×13	1.000	817-5016
Labels, red strips for 1,5 - 2,0 ml tubes	33×13	1.000	817-5013
Labels, white strips for 0,2 ml PCR tubes	20×6	1.000	817-5007
Labels, white strips for 0,5 ml tubes, suitable for laser printers	24×13	2.380	817-5006
Labels, white strips for 1,5 - 2,0 ml tubes	33×13	1.000	817-5001
Labels, white strips for 1,5 ml tubes, suitable for laser printers	33×13	1.700	817-5000
Labels, white strips for 96/384 well plates, suitable for laser printers	38×6	3.120	817-5014
Labels, white strips for racks and boxes, suitable for laser printers	67×25	600	817-5003
Labels, yellow strips for 1,5 - 2,0 ml tubes	33×13	1.000	817-5008

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Autoclave, VWR VAPOUR-Line lite



AISI 340 stainless steel housing, easy to maintain and disinfect, aluminium inner chamber and ABS insulating lid with locking system.

- Microprocessor controlled automatic thermoregulation
- Digital temperature and sterilisation time display
- Automatic ventilation valve and electronic temperature cut-off safety protection system
- Reinforced heating element and PT100 accurate thermoprobe
- Automatic sterilisation programmes

Instructions are GLP and EN 17205 compliant.

Ordering Information: Basket has to be ordered separately.

Model	VWR VAPOUR-Line lite	VWR VAPOUR-Line lite P
Capacity (l)	23	
External ØxH (mm)	470x580	
Internal ØxH (mm)	310x290	
Material	exterior: stainless steel AISI 304 interior: aluminium	
Power rating (kW)	1300	
Temperature (°C)	121 (max)	
Weight (kg)	13,250	

Description	Pk	Cat. No.
Bench top vertical autoclave, VWR VAPOUR-Line lite	1	481-0667
Bench top vertical autoclave, with integrated printer, VWR VAPOUR-Line lite P	1	481-0666
Description	Pk	Cat. No.
Accessories		
LITEbox basket: (Øxh): 280x260, with transporting handle, in stainless steel	1	481-0670

Top Loading VAPOUR-Line Eco autoclaves



Inside pressure vessel and outside structure made in AISI 304 stainless steel mirror finished grade

Easy to use, automatic, flexible, reliable and convenient autoclave for all standard laboratory procedures with some special features as F₀ calculation and liquid sterilisation with flexible thermoprobe (for 50 l model).

- User friendly programmer, instructions printed on the panel
- Easy to install, easy to use, easy to maintain
- Fully automatic with GLP special functions
- Reliable: 10 years warranty against perforating corrosion
- Customisable programmes
- Safety: ABS insulating lid with vertical position lock – temperature dependent lid lock
- Flexible PT100 thermoprobe for eco 50 (fixed for eco 25), can be positioned into the liquid load (max 1 litre recommended)

Conform to European PED regulations, CE mark. IQ, OQ, PQ documentation available on request.

Model	VAPOUR-Line eco 25	VAPOUR-Line eco 50
Capacity (l)	25	50
Internal ØxH (mm)	250x450	320x600
Material	Stainless steel 304	
Max. pressure (bar)	2,1	
Power rating (kW)	1,7	3,7
Temperature (°C)	134	

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Model	VAPOUR-Line eco 25	VAPOUR-Line eco 50
Voltage (V)	220	380 (triphase)
Weight (kg)	45	60
WxDxH ext. (mm)	550x540x1005	550x570x1005

Description	Pk	Cat. No.
Autoclave, vertical, VAPOUR-Line eco 25, with 5 personal programmes, can hold 1 Ecobox-25 or 2 Ecobox-25-Mini	1	481-0671
Autoclave, vertical, VAPOUR-Line eco 25, with printer, with 5 personal programmes, can hold 1 Ecobox-25 or 2 Ecobox-25-Mini	1	481-0708
Autoclave, vertical, VAPOUR-Line eco 50, with 7 personal programmes, can hold 2 Ecobox 50 or 3 Ecobox-50-Mini	1	481-0665

Description	Pk	Cat. No.
Accessories for Beta Easy Lock Autoclaves		
Ecobox 50 basket: (Øxh): 310x285, in stainless steel AISI 304 (max. loading: 2 baskets)	1	481-0672
Ecobox-25-Mini: (Øxh): 240x210, in stainless steel AISI 304 (max. loading: 2 baskets)	1	481-0669
Ecobox-25 basket: (Øxh): 240x420, in stainless steel AISI 304 (max. loading: 1 basket)	1	710-0887
Ecobox-50-Mini basket: (Øxh): 310x190 in stainless steel AISI 304 (max. loading: 2 baskets)	1	481-0668
Data printer	1	481-0673

Vertical autoclaves, VAPOUR-line



The housing is made from powder coated steel

VAPOUR-Line autoclaves are ideal for different laboratory applications, such as: Liquids in open or slightly closed vessels, instruments and solids, unwrapped and waste sterilisation.

All VAPOUR-Line 80 and 135 models generate steam directly in the chamber. Heating elements are situated under the base of the chamber so there is no contact between them and feed water, ensuring long element lifetime and preventing contamination of the elements by spilt waste, broken bottles or similar. The elements are protected from overheating by a temperature limiter.

VAPOUR-Line 80M and 135M models are equipped with an effective air cooling system for liquid sterilisation. This speeds cooling time by up to 40% compared to standard models.

- Equipped as standard with a flexible PT100 temperature sensor
- Equipped with a microprocessor controller with 5 pre-programmed programmes
- TÜV approved safety locking mechanism and thermal lock according EN DIN 61010-2-43
- Air removal by gravity
- Integrated exhaust steam condensation, water cooled and temperature controlled

- Integrated memory chip for storing up to 150 cycles (later printout possible)
- RS 485 interface

Basic units

Model	VAPOUR- line 80/80M	VAPOUR- line 135/135M
Capacity (l)	80	135
Heating power (W)	300	600
Internal ØxH (mm)	410x600	500x660
Temperature (°C)	98...138	
Voltage (V)	230	
Weight (kg)	135/145	160/170
WxDxH ext. (mm)	740x915x600	840x965x700

Description	Pk	Cat. No.
Vertical autoclave, VAPOUR-Line 80, EU-plug	1	481-0689
Vertical autoclave, VAPOUR-Line 80, UK-plug	1	481-0690
Vertical autoclave, VAPOUR-Line 135, EU-plug	1	481-0691
Vertical autoclave, VAPOUR-Line 135, UK-plug	1	481-0692

Air cooled units

Model	VAPOUR- line 80/80M	VAPOUR- line 135/135M
Capacity (l)	80	135
Heating power (W)	300	600
Internal ØxH (mm)	410x600	500x660
Temperature (°C)	98...138	
Voltage (V)	230	
Weight (kg)	135/145	160/170
WxDxH ext. (mm)	740x915x600	840x965x700

Description	Pk	Cat. No.
Vertical autoclave, VAPOUR-Line 80 M, EU-plug, with integrated cooling system for liquid sterilisation	1	481-0693
Vertical autoclave, VAPOUR-Line 80 M, UK-plug, with integrated cooling system for liquid sterilisation	1	481-0694
Vertical autoclave, VAPOUR-Line 135 M, EU-plug, with integrated cooling system for liquid sterilisation	1	481-0695
Vertical autoclave, VAPOUR-Line 135 M, UK-plug, with integrated cooling system for liquid sterilisation	1	481-0696

Accessories

Continued on next page

Continued from previous page

Description	Pk	Cat. No.
Basket: 395×300 mm (Ø×height) for 80 and 80 M models	1	481-0698
Bin: 395×300 mm (Ø×height) for 80 and 80 M models	1	481-0699
Wire mesh basket with closed bottom: 395×250 mm (Ø×height) for 80 and 80 M models	1	481-0702
Wire mesh basket: 495×300 mm (Ø×height) for 135 and 135 M models	1	481-0700
Bin: 495×300 mm (Ø×height) for 135 and 135 M models	1	481-0701
Wire mesh basket with closed bottom: 495×250 mm (Ø×height) for 135 and 135 M models	1	481-0703
Exhaust steam collecting tank (requires installation), for 80, 80M, 135 and 135M models	1	481-0704
Printer	1	481-0697



Autoclave deodorant



This autoclave deodorant improves the working environment and neutralises odours associated with auto-claving. The capsule releases its contents automatically as the autoclave heats up.

- Easy to use

Description	Pk	Cat. No.
Autoclave deodorant		
Eucalyptus and mint fragrance	100	320101.100
Apple fragrance	100	320201.100
Lemon fragrance	100	320301.100
Floral fragrance	100	320401.100
Peach fragrance	100	320501.100



THE NEW BIOCHEMICALS
RANGE FROM VWR

pure | precise | performance

Separation and Concentration

The various separation techniques are based on three basic principles:

- Mechanical / physical separation for example sieve, filter, centrifuge
- Physical / thermal separation (evaporation, sublimation)
- Physical / chemical separation with chromatography

Sieving and Filtration

Sieves and Sieve Shakers	248
Filtration Accessories	257
Qualitative and Quantitative Filter Paper	257
Glass Fibre Filters	261
Analytical Filtration	262
Sterile and Venting Filtration	263
Centrifugal Filtration	264

Centrifuges and Sedimentation

Microcentrifuges	266
Centrifuges	269
Microcentrifuge Tubes	271
Centrifuge Tubes	275
Centrifuge Tube Stands	279

Evaporation, Sublimation and Extraction

Rotary Evaporators and Accessories	284
Separating Funnels	289
Extraction Thimbles	289

Chromatography - Sampling and Sample Preparation

Vials, Caps and Septa	290
Microlitre Syringes	313

Chromatography - Thin Layer and HPLC Columns

HPLC Accessories	316
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Chromatography Instruments and Accessories

HPLC Instruments and Accessories	318
Preparative HPLC Instruments	325
Gas Chromatography	327



Test sieve shakers, EML digital plus
VWR by Haver & Boecker



The three electromagnetically driven test sieve shakers are designed for sieve analysis with optimum three-dimensional sieving action. The self re-adjusting amplitude, which uses permanent acceleration measurement of the whole sieve tower, balances the oscillation of the shaker and its stand. This guarantees that amplitude stays the same, irrespective of the feed quantity and the installation position.

The EML 200 digital plus T for dry sieving has a built-in control panel. EML 200, 315 and 450 models for wet sieving have a separate control device.

Optional „TwinNut“ quick-release clamping system:

The “TwinNut” clamps for easy fixing and removal of the cover are an alternative to the standard “Classic” knurled nuts. The guide rods of the “Classic” system can also be used for the “TwinNut” system.

- Memory for 10 test sieve parameter sets
- Timer function: 0 - 99 min or continuous operation
- Intermittent or continuous shaking operation
- Digital display of all functions
- 3000 impulses per minute (50 Hertz)
- Sound emission: ≤70 dB(A) for EML 200 digital plus and EML 315 digital plus, EML 450 digital plus: 73 dB(A)
- Maximum loading: 3 kg

Ordering Information: IQ-OQ documentation on request.

Delivery Information: Included as standard with each shaker: Models with either „Classic“ clamping system or „TwinNut“ system are supplied with two 620 mm guide rods and two knurled nuts with handlebars, cover with inspection glass, water spray diffuser for wet sieving models and software for analysis of sieve results.

Type	Application	Pk	Cat. No.
EML 200 digital plus with “Classic” clamping system, for sieves up to 203 mm Ø			
EML 200 digital plus T, EU-plug	Dry sieving	1	510-0949
EML 200 digital plus T, UK-plug	Dry sieving	1	510-0950
EML 200 digital plus T, CH-plug	Dry sieving	1	510-0948
EML 200 digital plus N, EU-plug	Wet sieving	1	510-0952
EML 200 digital plus N, UK-plug	Wet sieving	1	510-0953
EML 200 digital plus N, CH-plug	Wet sieving	1	510-0951
EML 200 digital plus with “TwinNut” quick-release clamping system, for sieves up to 203 mm Ø			
EML 200 digital plus T with „TwinNut“ quick-release clamping system, EU-plug	Dry sieving	1	510-1284
EML 200 digital plus T with „TwinNut“ quick-release clamping system, UK-plug	Dry sieving	1	510-1285
EML 200 digital plus T with „TwinNut“ quick-release clamping system, CH-plug	Dry sieving	1	510-1283
EML 200 digital plus N with „TwinNut“ quick-release clamping system, EU-plug	Wet sieving	1	510-1287
EML 200 digital plus N with „TwinNut“ quick-release clamping system, UK-plug	Wet sieving	1	510-1288
EML 200 digital plus N with „TwinNut“ quick-release clamping system, CH-plug	Wet sieving	1	510-1286
EML 315 digital plus with “Classic” clamping system, for sieves up to 315 mm Ø			
EML 315 digital plus T, EU-plug	Dry sieving	1	510-0955
EML 315 digital plus T, UK-plug	Dry sieving	1	510-0956
EML 315 digital plus T, CH-plug	Dry sieving	1	510-0954
EML 315 digital plus N, EU-plug	Wet sieving	1	510-0958
EML 315 digital plus N, UK-plug	Wet sieving	1	510-0959
EML 315 digital plus N, CH-plug	Wet sieving	1	510-0957
EML 315 digital plus with “TwinNut” quick-release clamping system, for sieves up to 315 mm Ø			
EML 315 digital plus T with „TwinNut“ quick-release clamping system, EU-plug	Dry sieving	1	510-1290
EML 315 digital plus T with „TwinNut“ quick-release clamping system, UK-plug	Dry sieving	1	510-1291
EML 315 digital plus T with „TwinNut“ quick-release clamping system, CH-plug	Dry sieving	1	510-1289

Continued from previous page

Type	Application	Pk	Cat. No.
EML 315 digital plus with "TwinNut" quick-release clamping system, for sieves up to 315 mm Ø			
EML 315 digital plus N with „TwinNut“ quick-release clamping system, EU-plug	Wet sieving	1	510-1293
EML 315 digital plus N with „TwinNut“ quick-release clamping system, UK-plug	Wet sieving	1	510-1294
EML 315 digital plus N with „TwinNut“ quick-release clamping system, CH-plug	Wet sieving	1	510-1292
EML 450 digital plus with "Classic" clamping system, for sieves up to 450 mm Ø			
EML 450 digital plus T, EU-plug	Dry sieving	1	510-0961
EML 450 digital plus T, UK-plug	Dry sieving	1	510-0962
EML 450 digital plus T, CH-plug	Dry sieving	1	510-0960
EML 450 digital plus N, EU-plug	Wet sieving	1	510-0964
EML 450 digital plus N, UK-plug	Wet sieving	1	510-0965
EML 450 digital plus N, CH-plug	Wet sieving	1	510-0963
EML 450 digital plus with "TwinNut" quick-release clamping system, for sieves up to 450 mm Ø			
EML 450 digital plus T with „TwinNut“ quick-release clamping system, EU-plug	Dry sieving	1	510-1296
EML 450 digital plus T with „TwinNut“ quick-release clamping system, UK-plug	Dry sieving	1	510-1297
EML 450 digital plus T with „TwinNut“ quick-release clamping system, CH-plug	Dry sieving	1	510-1295
EML 450 digital plus N with „TwinNut“ quick-release clamping system, EU-plug	Wet sieving	1	510-1299
EML 450 digital plus N with „TwinNut“ quick-release clamping system, UK-plug	Wet sieving	1	510-1300
EML 450 digital plus N with „TwinNut“ quick-release clamping system, CH-plug	Wet sieving	1	510-1298
Description	For	Pk	Cat. No.
Accessories			
Reduction piece for cover, for sieve Ø 76 mm	EML 200	1	510-1017
Reduction piece for cover, for sieve Ø 100 mm	EML 200	1	510-1009
Reduction piece for cover, for sieve Ø 150 mm	EML 200	1	510-1013
Reduction piece for cover, for sieve pan with discharge nozzle <400 mm	EML 450	1	510-0997
Inspection glass with central hole	EML 315	1	510-1018
Inspection glass with central hole	EML 450	1	510-1014

Sieve pan and standard sieve set for EML 315 digital plus
VWR by Haver & Boecker

Description	Pk	Cat. No.
Stainless steel sieve pan, 300 mm Ø, 60 mm effective height, for dry sieving	1	510-3691
Stainless steel sieve pan with discharge nozzle and PVC water hose, 300 mm Ø, 60 mm effective height, for wet sieving	1	510-3692

Sieve pan and standard sieve set for EML 450 digital plus/UWL 400
VWR by Haver & Boecker

Description	Pk	Cat. No.
Stainless steel sieve pan, 400 mm Ø, 65 mm effective height, for dry sieving	1	510-3709
Stainless steel sieve pan with discharge nozzle and PVC water hose, 400 mm Ø, 65 mm effective height, for wet sieving	1	510-3710

Ultrasonic Sieving System
VWR by Haver & Boecker



Using ultrasonic frequency variation for test sieving, even powders with separating cuts of ≤ 300 micron can be sieved. Fitting at least one HAVER-Test Sieve with a frequency variation system enables such analyses.

The ultrasonic frequency variation system consists of a clamping ring, which is connected by a converter to a generator. The generator converts electrical energy into high frequency energy which is then converted to mechanical energy by the converter and transferred to the clamping ring. The sound waves cause the test sieve frame to oscillate at high frequency. These oscillations are transferred to the test sieve cloth where they are evenly distributed.

The oscillations of the test sieve cloth reduce the frictional resistance between the grains and the screen. This reduces the tendency towards blockage, resulting in increased throughput. The end of a test sieving period is clearly reached more rapidly. As a result, test sieving of some difficult products is easier and in some cases now becomes possible..

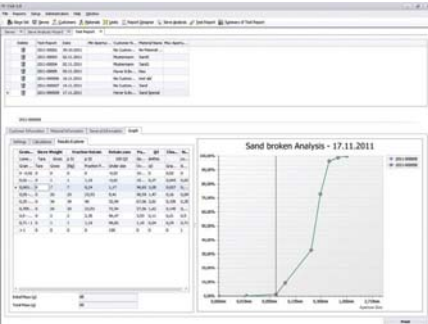
Continued from previous page

Description	Pk	Cat. No.
Ultrasonic sieving system to fit 200 mm test sieve, CH-plug	1	510-1274
Ultrasonic sieving system to fit 200 mm test sieve, EU-plug	1	510-1275
Ultrasonic sieving system to fit 200 mm test sieve, UK-plug	1	510-1276
Ultrasonic sieving system to fit 300 mm test sieve, CH-plug	1	510-1277
Ultrasonic sieving system to fit 300 mm test sieve, EU-plug	1	510-1278
Ultrasonic sieving system to fit 300 mm test sieve, UK-plug	1	510-1279
Ultrasonic sieving system to fit 400 mm test sieve, CH-plug	1	510-1280
Ultrasonic sieving system to fit 400 mm test sieve, EU-plug	1	510-1281
Ultrasonic sieving system to fit 400 mm test sieve, UK-plug	1	510-1282

IQ-OQ documentation for VWR-HAVER sieve shakers
VWR by Haver & Boecker

Description	For	Pk	Cat. No.
IQ/OQ documentation	EML 200 digital plus, EML 315 digital plus and EML 450 digital plus sieve shakers	1	510-1246

Evaluation Software for Sieve Analysis, HAVER CSA 5.0
VWR by Haver & Boecker



The HAVER CSA 5.0 software enables PC-aided analysis of standard sieve systems. Three versions are available which differ in the scale of functions. The results of measurements are documented for quality assurance purposes and can be introduced into statistics and reports due to the complex data processing.

- Simple and precise reports
- User friendly and self-explanatory user interface
- Complex graphical display and detailed documentation
- Operates using systems Windows® XP, 7,0 and Vista systems
- Connection to different types of scales and test sieve shakers

	BASIC	EXPERT	NETWORK
Input of sieve sets, materials and customers/ Analysis report /Protocol (DIN 2591 + DIN 66165) / Particle size account (DIN 66141)	X	X	X
Statistic functions e.g. for materials and customers		X	X
Expanded account e.g. for Sauter mean diameter		X	X
Account of AFS-numbers according to VDG-data sheet		X	X
Definition of particle limits / Loading of comparable data		X	X
Graphics: RRSB-net, cumulative oversize distribution curve		X	X
Data bank functions e.g. searching and reporting		X	X
Data export e.g. to Excel		X	X
Import of aged data		X	X
Take over of external data in the context of LIM's systems e.g. numbers of samples and charges			X
Transfer to external systems (LIMS) by txt-data connections			X

Description	Pk	Cat. No.
HAVER CSA 5.0 BASIC software	1	510-1622
HAVER CSA 5.0 EXPERT Software	1	510-1623
HAVER CSA 5.0 NETWORK Software	1	510-1624

Test sieves



Stainless steel, according ISO 3310, ASTM 11, BS 410, AFNOR

Optional: Inspection certificate of calibration 3.1 according to EN 10 204 with measuring results of a specific test.

Sieves and accessories of other dimensions (250×55 mm, 300×60 mm, 300×30 mm, 305×60 mm, 315×75 mm, 350×60 mm, 400×65 mm, and others) are available on request. For a full overview, please go to www.vwr.com.

Delivery Information: As standard, supplied with a certificate of compliance 2.1 according to EN 10 204.

Ø (mm)	Height (mm)	Mesh size (mm)	Pk	Cat. No.
Accessories				
200	32	0,020	1	510-0608
200	32	0,025	1	510-0609
200	32	0,032	1	510-0610
200	32	0,036	1	510-0611
200	32	0,038	1	510-0612
200	32	0,040	1	510-0613
200	32	0,045	1	510-0614
200	32	0,050	1	510-0615
200	32	0,053	1	510-0616
200	32	0,056	1	510-0617
200	32	0,063	1	510-0618
200	32	0,071	1	510-0619
200	32	0,075	1	510-0620
200	32	0,080	1	510-0621
200	32	0,090	1	510-0622
200	32	0,100	1	510-0623
200	32	0,106	1	510-0624
200	32	0,112	1	510-0625
200	32	0,125	1	510-0626
200	32	0,140	1	510-0627
200	32	0,150	1	510-0628
200	32	0,160	1	510-0629
200	32	0,180	1	510-0630
200	32	0,200	1	510-0631
200	32	0,212	1	510-0632
200	32	0,224	1	510-0633
200	32	0,250	1	510-0634
200	32	0,280	1	510-0635
200	32	0,300	1	510-0636
200	32	0,315	1	510-0637
200	32	0,355	1	510-0638
200	32	0,400	1	510-0639
200	32	0,425	1	510-0640
200	32	0,450	1	510-0641
200	32	0,500	1	510-0642
200	32	0,560	1	510-0643
200	32	0,600	1	510-0644
200	32	0,630	1	510-0645
200	32	0,710	1	510-0646
200	32	0,800	1	510-0647
200	32	0,850	1	510-0648
200	32	0,900	1	510-0649
200	32	1,00	1	510-0650
200	32	1,12	1	510-0651
200	32	1,18	1	510-0652
200	32	1,25	1	510-0653
200	32	1,40	1	510-0654
200	32	1,60	1	510-0655
200	32	1,70	1	510-0656
200	32	1,80	1	510-0657
200	32	2,00	1	510-0658
200	32	2,24	1	510-0659
200	32	2,36	1	510-0660
200	32	2,50	1	510-0661
200	32	2,80	1	510-0662
200	32	3,15	1	510-0663
200	32	3,35	1	510-0664

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Ø (mm)	Height (mm)	Mesh size (mm)	Pk	Cat. No.
Accessories				
200	32	3,55	1	510-0665
200	32	4,00	1	510-0666
200	32	4,50	1	510-0667
200	32	4,75	1	510-0668
200	32	5,00	1	510-0669
200	32	5,60	1	510-0670
200	32	6,30	1	510-0671
200	32	6,70	1	510-0672
200	32	7,10	1	510-0673
200	32	8,00	1	510-0674
200	32	9,00	1	510-0675
200	32	9,50	1	510-0676
200	32	10,00	1	510-0677
200	32	11,20	1	510-0678
200	50	0,020	1	510-0700
200	50	0,025	1	510-0701
200	50	0,032	1	510-0702
200	50	0,036	1	510-0703
200	50	0,038	1	510-0704
200	50	0,040	1	510-0705
200	50	0,045	1	510-0706
200	50	0,050	1	510-0707
200	50	0,053	1	510-0708
200	50	0,056	1	510-0709
200	50	0,063	1	510-0710
200	50	0,071	1	510-0711
200	50	0,075	1	510-0712
200	50	0,080	1	510-0713
200	50	0,090	1	510-0714
200	50	0,100	1	510-0715
200	50	0,106	1	510-0716
200	50	0,112	1	510-0717
200	50	0,125	1	510-0718
200	50	0,140	1	510-0719
200	50	0,150	1	510-0720
200	50	0,160	1	510-0721
200	50	0,180	1	510-0722
200	50	0,200	1	510-0723
200	50	0,212	1	510-0724
200	50	0,224	1	510-0725
200	50	0,250	1	510-0726
200	50	0,280	1	510-0727
200	50	0,300	1	510-0728
200	50	0,315	1	510-0729
200	50	0,355	1	510-0730
200	50	0,400	1	510-0731
200	50	0,425	1	510-0732
200	50	0,450	1	510-0733
200	50	0,500	1	510-0734
200	50	0,560	1	510-0735
200	50	0,600	1	510-0736
200	50	0,630	1	510-0737
200	50	0,710	1	510-0738
200	50	0,800	1	510-0739
200	50	0,850	1	510-0740
200	50	0,900	1	510-0741
200	50	1,00	1	510-0742
200	50	1,12	1	510-0743
200	50	1,18	1	510-0744
200	50	1,25	1	510-0745
200	50	1,40	1	510-0746
200	50	1,60	1	510-0747
200	50	1,70	1	510-0748
200	50	1,80	1	510-0749
200	50	2,00	1	510-0750
200	50	2,24	1	510-0751
200	50	2,36	1	510-0752
200	50	2,50	1	510-0753
200	50	2,80	1	510-0754
200	50	3,15	1	510-0755
200	50	3,35	1	510-0756
200	50	3,55	1	510-0757
200	50	4,00	1	510-0758
200	50	4,50	1	510-0759

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Ø (mm)	Height (mm)	Mesh size (mm)	Pk	Cat. No.
Accessories				
200	50	4,75	1	510-0760
200	50	5,00	1	510-0761
200	50	5,60	1	510-0762
200	50	6,30	1	510-0763
200	50	6,70	1	510-0764
200	50	7,10	1	510-0765
200	50	8,00	1	510-0766
200	50	9,00	1	510-0767
200	50	9,50	1	510-0768
200	50	10,00	1	510-0769
200	50	11,20	1	510-0770
200	50	12,50	1	510-0771
200	50	13,20	1	510-0772
200	50	14,00	1	510-0773
200	50	16,00	1	510-0774
200	50	18,00	1	510-0775
200	50	19,00	1	510-0776
200	50	20,00	1	510-0777
200	50	22,40	1	510-0778
200	50	25,00	1	510-0779
200	50	26,50	1	510-0780
200	50	28,00	1	510-0781
200	50	31,50	1	510-0782
200	50	35,50	1	510-0783
200	50	37,50	1	510-0784
200	50	40,00	1	510-0785
200	50	45,00	1	510-0786
200	50	50,00	1	510-0787
200	50	53,00	1	510-0788
200	50	56,00	1	510-0789
200	50	63,00	1	510-0790
200	50	71,00	1	510-0791
200	50	75,00	1	510-0792
200	50	80,00	1	510-0793
200	50	90,00	1	510-0794
200	50	100	1	510-0795
200	50	106	1	510-0796
200	50	112	1	510-0797
200	50	125	1	510-0798
203	32	0,020	1	510-0840
203	32	0,025	1	510-0841
203	32	0,032	1	510-0842
203	32	0,036	1	510-0843
203	32	0,038	1	510-0844
203	32	0,040	1	510-0845
203	32	0,045	1	510-0846
203	32	0,050	1	510-0847
203	32	0,053	1	510-0848
203	32	0,056	1	510-0849
203	32	0,063	1	510-0850
203	32	0,071	1	510-0851
203	32	0,075	1	510-0852
203	32	0,080	1	510-0853
203	32	0,090	1	510-0854
203	32	0,100	1	510-0855
203	32	0,106	1	510-0856
203	32	0,112	1	510-0857
203	32	0,125	1	510-0858
203	32	0,140	1	510-0859
203	32	0,150	1	510-0860
203	32	0,160	1	510-0861
203	32	0,180	1	510-0862
203	32	0,200	1	510-0863
203	32	0,212	1	510-0864
203	32	0,224	1	510-0865
203	32	0,250	1	510-0866
203	32	0,280	1	510-0867
203	32	0,300	1	510-0868
203	32	0,315	1	510-0869
203	32	0,355	1	510-0870
203	32	0,400	1	510-0871
203	32	0,425	1	510-0872
203	32	0,450	1	510-0873
203	32	0,500	1	510-0874

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Ø (mm)	Height (mm)	Mesh size (mm)	Pk	Cat. No.
Accessories				
203	32	0,560	1	510-0875
203	32	0,600	1	510-0876
203	32	0,630	1	510-0877
203	32	0,710	1	510-0878
203	32	0,800	1	510-0879
203	32	0,850	1	510-0880
203	32	0,900	1	510-0881
203	32	1,00	1	510-0882
203	32	1,12	1	510-0883
203	32	1,18	1	510-0884
203	32	1,25	1	510-0885
203	32	1,40	1	510-0886
203	32	1,60	1	510-0887
203	32	1,70	1	510-0888
203	32	1,80	1	510-0889
203	32	2,00	1	510-0890
203	32	2,24	1	510-0891
203	32	2,36	1	510-0892
203	32	2,50	1	510-0893
203	32	2,80	1	510-0894
203	32	3,15	1	510-0895
203	32	3,35	1	510-0896
203	32	3,55	1	510-0897
203	32	4,00	1	510-0898
203	32	4,50	1	510-0899
203	32	4,75	1	510-0900
203	32	5,00	1	510-0901
203	32	5,60	1	510-0902
203	32	6,30	1	510-0903
203	32	6,70	1	510-0904
203	32	7,10	1	510-0905
203	32	8,00	1	510-0906
203	32	9,00	1	510-0907
203	32	9,50	1	510-0908
203	32	10,00	1	510-0909
203	32	11,20	1	510-0910
203	50	0,020	1	510-0911
203	50	0,025	1	510-0912
203	50	0,032	1	510-0913
203	50	0,036	1	510-0914
203	50	0,038	1	510-0915
203	50	0,040	1	510-0916
203	50	0,045	1	510-0917
203	50	0,050	1	510-0918
203	50	0,053	1	510-0919
203	50	0,056	1	510-0920
203	50	0,063	1	510-0921
203	50	0,071	1	510-0922
203	50	0,075	1	510-0923
203	50	0,080	1	510-0924
203	50	0,090	1	510-0925
203	50	0,100	1	510-0926
203	50	0,106	1	510-0927
203	50	0,112	1	510-0928
203	50	0,125	1	510-0929
203	50	0,140	1	510-0930
203	50	0,150	1	510-0931
203	50	0,160	1	510-0932
203	50	0,180	1	510-0933
203	50	0,200	1	510-0934
203	50	0,212	1	510-0935
203	50	0,224	1	510-0936
203	50	0,250	1	510-0937
203	50	0,280	1	510-0938
203	50	0,300	1	510-0939
203	50	0,315	1	510-0940
203	50	0,355	1	510-2500
203	50	0,400	1	510-2501
203	50	0,425	1	510-2502
203	50	0,450	1	510-2503
203	50	0,500	1	510-2504
203	50	0,560	1	510-2505
203	50	0,600	1	510-2506
203	50	0,630	1	510-2507

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Ø (mm)	Height (mm)	Mesh size (mm)	Pk	Cat. No.
Accessories				
203	50	0,710	1	510-2508
203	50	0,800	1	510-2509
203	50	0,850	1	510-2510
203	50	0,900	1	510-2511
203	50	1,00	1	510-2512
203	50	1,12	1	510-2513
203	50	1,18	1	510-2514
203	50	1,25	1	510-2515
203	50	1,40	1	510-2516
203	50	1,60	1	510-2517
203	50	1,70	1	510-2518
203	50	1,80	1	510-2519
203	50	2,00	1	510-2520
203	50	2,24	1	510-2521
203	50	2,36	1	510-2522
203	50	2,50	1	510-2523
203	50	2,80	1	510-2524
203	50	3,15	1	510-2525
203	50	3,35	1	510-2526
203	50	3,55	1	510-2527
203	50	4,00	1	510-2528
203	50	4,50	1	510-2529
203	50	4,75	1	510-2530
203	50	5,00	1	510-2531
203	50	5,60	1	510-2532
203	50	6,30	1	510-2533
203	50	6,70	1	510-2534
203	50	7,10	1	510-2535
203	50	8,00	1	510-2536
203	50	9,00	1	510-2537
203	50	9,50	1	510-2538
203	50	10,00	1	510-2539
203	50	11,20	1	510-2540
203	50	12,50	1	510-2541
203	50	13,20	1	510-2542
203	50	14,00	1	510-2543
203	50	16,00	1	510-2544
203	50	18,00	1	510-2545
203	50	19,00	1	510-2546
203	50	20,00	1	510-2547
203	50	22,40	1	510-2548
203	50	25,00	1	510-2549
203	50	26,50	1	510-2550
203	50	28,00	1	510-2551
203	50	31,50	1	510-2552
203	50	35,50	1	510-2553
203	50	37,50	1	510-2554
203	50	40,00	1	510-2555
203	50	45,00	1	510-2556
203	50	50,00	1	510-2557
203	50	53,00	1	510-2558
203	50	56,00	1	510-2559
203	50	63,00	1	510-2560
203	50	71,00	1	510-2561
203	50	75,00	1	510-2562
203	50	80,00	1	510-2563
203	50	90,00	1	510-2564
203	50	100	1	510-2565
203	50	106	1	510-2566
203	50	112	1	510-2567
203	50	125	1	510-2568
Description	Ø (mm)	Height (mm)	Pk	Cat. No.
Sieve cover	200	-	1	510-3672
Accessories				
Sieve cover	203	-	1	510-3682
Sieve pan	200	50	1	510-3673
Sieve pan	200	32	1	510-3674
Sieve pan	203	50	1	510-3683
Sieve pan	203	32	1	510-3684
Sieve pan with discharge nozzle	200	50	1	510-3675
Sieve pan with discharge nozzle	203	50	1	510-3685
Intermediate pan (sieve frame with solid base)	200	50	1	510-3676
Intermediate pan (sieve frame with solid base)	200	32	1	510-3677

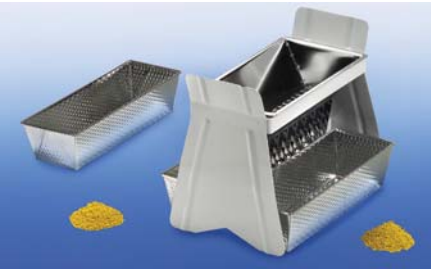
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Description	Ø (mm)	Height (mm)	Pk	Cat. No.
Accessories				
Intermediate pan (sieve frame with solid base)	203	50	1	510-3686
Intermediate pan (sieve frame with solid base)	203	32	1	510-3687
Intermediate ring (sieve frame without base)	200	50	1	510-3678
Intermediate ring (sieve frame without base)	200	32	1	510-3679
Intermediate ring (sieve frame without base)	203	50	1	510-3688
Intermediate ring (sieve frame without base)	203	32	1	510-3689

* All sieves are supplied with a certificate of compliance with the order 2.1 according to EN 10 204. Further certificates and calibration services are available. Contact your VWR office for further details.

Sample splitters
VWR by Haver & Boecker



For dividing sieved material into representative test sieve samples.

Type RT 6,3 and 12,5

Consists of 1 lacquered sheet steel rack, 300×250×270 mm, 1 stainless steel divider and 3 receivers which are tin sheet (1,75 litres) or laminated plastic (2 litres).

Description	Type	Pk	Cat. No.
12 partitions of 6,3 mm, 1,75 litre of tin sheet receivers	RT 6,3	1	510-0492
12 divisions of 6,3 mm, 2 litre laminated plastic receivers	RT 6,3	1	510-0494
18 partitions of 12,5 mm, 1,75 litre tin sheet receivers	RT 12,5	1	510-0491
18 partitions of 12,5 mm, 2 litre laminated plastic receivers	RT 12,5	1	510-0493

Type 25, 37,5, 50 and 75

Consists of 1 rack 620×260×420 mm, 1 divider and 3 receivers with grab handles (8 litres), all of galvanised steel

Description	Type	Pk	Cat. No.
16 partitions of 25 mm	RT 25	1	510-0490
12 partitions of 37,5 mm	RT 37,5	1	510-0489
8 partitions of 50 mm	RT 50	1	510-0488
6 partitions of 75 mm	RT 75	1	510-0487

Description	For	Pk	Cat. No.
Accessories			
Divider, stainless steel, 12 divisions, 6,3 mm	Sample splitter RT6.3	1	510-0944
Divider, stainless steel, 18 divisions, 12,5 mm	Sample splitter RT12.5	1	510-0499
Divider, galvanised sheet steel, 16 divisions, 25 mm	Sample splitter RT25	1	510-0497
Divider, galvanised sheet steel, 12 divisions, 37,5 mm	Sample splitter RT37.5	1	510-0943
Divider, galvanised sheet steel, 8 divisions, 50 mm	Sample splitter RT50	1	510-0496
Divider, galvanised sheet steel, 6 divisions, 75 mm	Sample splitter RT75	1	510-0942
Rack, lacquered sheet steel, 300×250×270 mm	Sample splitters RT6.3 and RT12.5	1	510-0498
Rack, galvanised sheet steel, 620×260×420 mm	Sample splitters RT25, RT37.5, RT50 and RT75	1	510-0495
Receiver, tin sheet, 1,75 litres	Sample splitters RT6.3 and RT12.5	1	510-1261
Receiver, laminated plastic, 2 litres	Sample splitters RT6.3 and RT12.5	1	510-1262
Receiver with grab handles, galvanised sheet steel, 8 litres	Sample splitters RT25, RT37.5, RT50 and RT75	1	510-1263

Büchner funnels



White glazed porcelain

For paper or membrane filtration discs.

Capacity (ml)	For filter Ø (mm)	Plate Ø (mm)	Pk	Cat. No.
10	27	29	1	511-0048
25	40	43	1	511-0049
40	45	48	1	511-0055
75	55	62	1	511-0056
135	70	77	1	511-0057
290	90	97	1	511-0058
580	110	116	1	511-0059
795	125	130	1	511-0065
1250	150	156	1	511-0066
1900	185	192	1	511-0067
4300	240	248	1	511-0068
5800	270	296	1	511-0069
10600	320	334	1	511-0075

Filtration crucibles



Porcelain, with porous bottom

Porosity	Capacity (ml)	Plate Ø (mm)	Pk	Cat. No.
1	8	25	2	511-0275
2	8	25	2	511-0276
3	8	25	2	511-0277
1	15	30	2	511-0278
2	15	30	2	511-0279
3	15	30	2	511-0280
1	25	35	2	511-0281
2	25	35	2	511-0282
3	25	35	2	511-0283
1	35	40	2	511-0284
2	35	40	2	511-0285
3	35	40	2	511-0286
1	50	45	2	511-0287
2	50	45	2	511-0288
3	50	45	2	511-0289

Qualitative filter papers



Grade (plain)	Grade (folded)	Application
402	302	General grade for qualitative tasks. Suitable for most sulphides. Determination of total fat content in dairy products.
403	313	Drugs, pharmaceuticals, liquors, tinctures, chromatography and protein-free filtrations in the clinical laboratory.
410	305	Filtration of copper(I) oxide, lead sulphate, barium sulphate, manganese carbonate and more for analytical work. Suitable for extremely difficult filtration and for clarification of wine.
413	303	For routine lab work, suitable for student requirements in general chemistry. Suitable for filtration of aluminium phosphate, barium carbonate, lead chromate and more.
415	301	Coarse precipitates such as aluminium hydroxide, cobalt carbonate, mercury iodide, magnesium hydroxide, and more.
417	NA	Rapid filtrations where fine particle retention is not required.
NA	307	For brewing industry. Embossed surface filter paper 70 g/m ² for malt analysis in breweries (according to EBC standard).
600	310	Qualitative filter paper for use in routine labs, universities and hospitals. Made of 100% cellulose with no binder.
NA	315	Gelatinous and coarse precipitates.

Plain filters

Dry burst strength	11 psi	17 psi	12,5 psi	22 psi	28 psi	8,5 psi	35 psi	19 psi
Filtration speed	70 s (Herzberg)	150 s (Herzberg)	500 s (Herzberg)	2500 s (Herzberg)	160 s (Herzberg)	70 s (Herzberg)	27 s (Herzberg)	110 s (Herzberg)
Grade	401	402	403	410	413	415	417	600
Max. pore size	50 µm	40 µm	30 µm	20 µm	45 µm	50 µm	-	60 µm
Min. pore size	31 µm	23 µm	15 µm	9 µm	20 µm	1 µm		25 µm
Particle retention	12 - 15 µm	8 - 12 µm	5 - 8 µm	2 - 3 µm	5 - 13 µm	12 - 15 µm	35 - 45 µm	13 µm
Thickness	0,2 mm	0,17 mm		0,15 mm	0,16 mm		-	0,15 mm
Weight	84 g/m²		87 g/m²	80 g/m²	73 g/m²	80 g/m²	110 g/m²	64 g/m²
Wet burst strength	2 psi	2,5 psi	0,5 psi	1 psi	9 psi	0,8 psi	15 psi	6,5 psi

Grade	Size	Pk	Cat. No.
401	55	100	516-0349
401	70	100	516-0350
401	70 mm x 80 m	1 Roll	516-0282
401	125	100	516-0351
402	150	100	516-0283
403	150	100	516-0289
410	75	100	516-0800
410	90	100	516-0801
410	110	100	516-0802
410	125	100	516-0803
410	150	100	516-0804
410	185	100	516-0805
413	15	100	516-0810
413	42,5	100	516-0811
413	55	100	516-0812
413	75	100	516-0813
413	90	100	516-0814
413	110	100	516-0815
413	125	100	516-0816
413	150	100	516-0817
413	185	100	516-0818
413	205	100	516-0819
413	240	100	516-0820
415	55	100	516-0830
415	75	100	516-0831
415	90	100	516-0832
415	110	100	516-0833
415	125	100	516-0834
415	150	100	516-0835
415	185	100	516-0836
415	205	100	516-0837
415	250	100	516-0838
415	330	100	516-0839
417	90	50	516-0821
417	110	50	516-0822
417	125	50	516-0823
417	150	50	516-0824
417	185	50	516-0825
417	205	50	516-0826
417	250	50	516-0827
417	330	50	516-0828
417	500	50	516-0829
600	420x520	500	516-0309
600	460x570	100	516-0880

Folded filters

Dry burst strength	11 psi	17 psi	28 psi	18 psi	-	19 psi	12,5 psi	17,5 psi
Filtration speed	70 s (Herzberg)	150 s (Herzberg)	160 s (Herzberg)	2500 s (Herzberg)	520 s (Herzberg)	110 s (Herzberg)	500 s (Herzberg)	60 s (Herzberg)
Grade	301	302	303	305	307	310	313	315
Max. pore size	50 µm	40 µm	45 µm	20 µm	40 µm	60 µm	30 µm	70 µm
Min. pore size	31 µm	23 µm	20 µm	9 µm	23 µm	25 µm	15 µm	40 µm
Particle retention	12 - 15 µm	8 - 12 µm	5 - 13 µm	2 - 3 µm	8 µm	13 µm	5 - 8 µm	17 - 30 µm
Thickness	0,2 mm	0,17 mm	0,16 mm	0,14 mm	-	0,15 mm	0,17 mm	
Weight	84 g/m²		73 g/m²	84 g/m²	70 g/m²	64 g/m²	87 g/m²	73 g/m²
Wet burst strength	2 psi	2,5 psi	9 psi	3,5 psi	-	6,5 psi	0,5 psi	6,5 psi

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Grade	Size (mm)	Pk	Cat. No.
301	125	100	516-0276
301	150	100	516-0277
301	185	100	516-0278
301	240	100	516-0279
301	270	100	516-0280
301	320	100	516-0281
302	125	100	516-0284
302	150	100	516-0285
302	185	100	516-0286
302	240	100	516-0287
302	320	100	516-0288
303	100	100	516-0294
303	110	100	516-0295
303	130	100	516-0296
303	150	100	516-0297
303	190	100	516-0298
303	250	100	516-0299
303	270	100	516-0300
303	330	100	516-0301
305	125	100	516-0290
305	150	100	516-0291
305	185	100	516-0292
305	240	100	516-0293
307	320	100	516-0310
310	70	100	516-0302
310	100	100	516-0303
310	130	100	516-0304
310	150	100	516-0305
310	190	100	516-0306
310	250	100	516-0307
310	330	100	516-0308
313	125	100	516-0806
313	150	100	516-0807
313	185	100	516-0808
313	240	100	516-0809
315	130	100	516-0840
315	150	100	516-0841
315	190	100	516-0842
315	250	100	516-0843
315	330	100	516-0844
315	400	100	516-0845

Nitrogen-free filters, grade 521



Nitrogen-free filter for determination of nitrogen content in steel and iron samples dissolved in acid. Filtration of fine precipitates to dissolve according Kjeldahl method

Filtration speed	650 s (Herzberg)
Thickness	0,17 mm
Weight	85 g/m²

Grade	Size (mm)	Pk	Cat. No.
521	90	100	516-0316
521	100×100	100	516-0317



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Phase separating paper, grade 511



Hydrophobic filter paper used for separation of aqueous solutions from organic solutions.

- Usable as a disposable separating funnel

Filtration speed	200 s (Herzberg)
Thickness	0,2 mm
Weight	85 g/m ²

Grade	Size (mm)	Pk	Cat. No.
511	90	100	516-0311
511	110	100	516-0312
511	125	100	516-0313
511	150	100	516-0314
511	185	100	516-0315

Quantitative filter papers



Grade	Application
424	Filtration of lead sulphide, iron sulphide, silver sulphide, alkali carbonate, lead chromate, arsenic, antimony, cadmium and food stuffs. Determination of sand content in dairy products. Determination of whiteness in pulp in paper mills.
434	Analysis of very fine precipitates such as lead dioxide, calcium fluoride, nickel sulphide, zinc sulphide, cold barium sulphate and cuprous oxide. Determination of insoluble impurities in greases, animal and vegetable oils.
454	Retention of zirconium hydroxide, aluminium hydroxide, cobalt sulphide and other coarse or gelatinous precipitate.
474	General quantitative analyses. Also for filtration of aluminium phosphate, zinc ammonium phosphate and silver chromate.

Dry burst strength	17 psi	18 psi	11 psi	12 psi
Filtration speed	150 s (Herzberg)	2500 s (Herzberg)	70 s (Herzberg)	450 s (Herzberg)
Grade	424	434	454	474
Max. pore size	40 µm	20 µm	50 µm	30 µm
Min. pore size	23 µm	9 µm	31 µm	15 µm
Particle retention	8 - 12 µm	2 - 3 µm	15 - 12 µm	5 - 8 µm
Thickness	0,17 mm	0,14 mm	0,18 mm	0,16 mm
Weight	84 g/m ²			
Wet burst strength	2,5 psi	3,5 psi	2 psi	3 psi

Grade	Size (mm)	Pk	Cat. No.
424	70	100	516-0264
424	90	100	516-0265
424	110	100	516-0266
424	125	100	516-0267
424	150	100	516-0268
424	185	100	516-0269
434	70	100	516-0270
434	90	100	516-0271
434	110	100	516-0272
434	125	100	516-0273
434	150	100	516-0274
434	185	100	516-0275
454	55	100	516-0851
454	70	100	516-0852
454	90	100	516-0853
454	110	100	516-0854
454	125	100	516-0855
454	150	100	516-0856

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Grade	Size (mm)	Pk	Cat. No.
454	185	100	516-0857
474	70	100	516-0846
474	90	100	516-0847
474	110	100	516-0848
474	125	100	516-0849
474	150	100	516-0850
474	185	100	516-0263

Glass fibre filters



Binder-free glass fibre filters feature fast flow rates, high-loading capacity, wide thermal tolerance, and excellent precipitate retention.

Grade	Application
691	Ideal for radioimmunoassy of weak beta-emitters by scintillation counting and for filtration of precipitated proteins, cells and cell debris. Also used for gravimetric determination of airborne particulates and air pollution monitoring.
692	Recommended for use in filtration of suspended solids in industrial effluents, and also as pre-filters for membranes.
693	Used for clarification and monitoring of suspended solids in wastewater and water, and in marine chemistry to filter particulate components in sea water, and in biochemistry for cell harvesting in radioimmunoassy procedures and for binders analysis.
696	Used for filtration and monitoring of air pollution and water, and also cell harvesting.
698	Due to its higher efficiency, in particle retention for smaller particles, than other glass fibre grades, 698 is suitable for the clarification of protein solutions, filtration of liquids prior to HPLC and critical applications.

Dry burst strength	1,75 psi	7 psi	2,2 psi	2,5 psi	5 psi
Filtration speed	60 s (Herzberg)	200 s (Herzberg)	100 s (Herzberg)	60 s (Herzberg)	310 s (Herzberg)
Grade	691	692	693	696	698
Particle retention	1,6 µm	1,0 µm	1,2 µm	1,5 µm	0,7 µm
Thickness	0,26 mm	0,7 mm	0,26 mm	0,28 mm	0,45 mm
Weight	52 g/m²	143 g/m²	52 g/m²	65 g/m²	75 g/m²

Grade	Size (mm)	Pk	Cat. No.
691	21	100	516-0858
691	24	100	516-0859
691	42,5	100	516-0860
691	47	100	516-0861
691	55	100	516-0862
691	70	100	516-0863
691	90	100	516-0864
691	110	100	516-0865
691	125	100	516-0866
691	150	100	516-0867
692	24	100	516-0881
692	47	100	516-0882
692	55	100	516-0883
692	70	100	516-0884
692	90	100	516-0885
693	21	100	516-0886
693	24	100	516-0868
693	42,5	100	516-0887
693	47	100	516-0869
693	55	100	516-0870
693	70	100	516-0871
693	90	100	516-0872
693	110	100	516-0888
693	125	100	516-0889
693	150	100	516-0890
696	24	100	516-0873
696	42,5	100	516-0874
696	47	100	516-0875
696	55	100	516-0876
696	90	100	516-0877
696	110	100	516-0878
696	125	100	516-0879
698	25	100	516-0343

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Grade	Size (mm)	Pk	Cat. No.
698	42,5	100	516-0344
698	47	100	516-0345
698	55	100	516-0346
698	70	100	516-0347
698	90	25	516-0348

Syringe filters



Membranes with pore size of 0,2 µm are used for filtration of fine particles, those of 0,45 µm are appropriate for clarifications.

According to USP Class VI

Cellulose acetate membrane

Surface not treated by wetting agents. Especially useful for cell culture applications.

Certified non pyrogenic and non cytotoxic

Delivered with certificate

Pore size (µm)	Ø (mm)	Pk	Cat. No.
0,2* **	25	50	514-0061
0,2 **	25	100	514-0060
0,45	25	100	514-0062
0,45*	25	50	514-0063

* Sterile, individually wrapped

** Retains 10⁷ Brevundimonas diminuta per cm² according to modified ASTM F838-8

PES membrane

Very low level of extractables and high flow rate. For cell culture applications.

Certified non-pyrogenic and non-cytotoxic

Delivered with certificate

Pore size (µm)	Ø (mm)	Pk	Cat. No.
0,2	25	100	514-0072
0,2*	25	50	514-0073
0,45	25	100	514-0074
0,45*	25	50	514-0075

* sterile, individually wrapped

PP membrane

For HPLC sample preparation.

Chemically resistant to organic solvents.

Low or no extractables prevent erroneous peaks with UV detection.

Pore size (µm)	Ø (mm)	Pk	Cat. No.
0,2	25	100	514-0064
0,45	25	100	514-0065

PTFE membrane

For HPLC sample preparation.

Chemically resistant to organic solvents.

Low or no extractables prevent erroneous peaks with UV detection.

Pore size (µm)	Ø (mm)	Pk	Cat. No.
0,2	13	100	514-0068
0,2	25	100	514-0070
0,45	13	100	514-0069
0,45	25	100	514-0071

Nylon membrane

For HPLC sample preparation.

Chemically resistant to organic solvents.

Low or no extractables prevent erroneous peaks with UV detection.

Pore size (µm)	Ø (mm)	Pk	Cat. No.
0,2	25	100	514-0066
0,45	25	100	514-0067



Bottle top filtration systems



Designed for the preparation of buffers, tissue culture media, microbiological media and other biological fluids. These vacuum filtration systems feature large diameter Pall membranes for guaranteed performance and maximum throughput. The bottle-top filtration system design includes a receiver bottle with an ergonomic shape, moulded finger grips and a patented bottle cap. The centrifuge tube and funnel system, allows the user to filter fluids directly into a 15 ml or 50 ml tube.

Each separate piece is compatible with the Quick-Connect™ pedestal base, which allows for a convenient one-time vacuum hose connection and one handed operation. A cradle ring is also available for use with existing laboratory stands. Systems are available with 0,1 µm (mycoplasma filtering grade), 0,2 µm (sterilising grade) or 0,45 µm (clarification grade) asymmetric PES membranes. All items are made from FDA-grade, Class VI materials and are gamma sterilised.

- Quick-Connect™ pedestal base or cradle ring allows for hands-free filtration. Weighted for extra stability
- Quick-Connect™ pedestal base ensures that the unit is always correctly placed
- Forward-facing, large, raised graduation marks allow for easy visualisation of volumes
- Vacuum on/off switch located at the front
- Vacuum hose adapter to use with conventional filtration set ups

Delivery Information: Complete system includes filtration funnel, media bottle or centrifuge tube and hose adapter.

Description	Membrane	Capacity (ml)	Pore size (µm)	Membrane Ø (mm)	Pk	Cat. No.
Complete filtration units						
Complete filtration unit	PES	15	0,1	40	24	514-0367
Complete filtration unit	PES	15	0,2	40	24	514-0317
Complete filtration unit	PES	15	0,45	40	24	514-0318
Complete filtration unit	PES	50	0,1	40	24	514-0366
Complete filtration unit	PES	50	0,2	40	24	514-0308
Complete filtration unit	PES	50	0,45	40	24	514-0309
Complete filtration unit	PES	250	0,1	66	12	514-0348
Complete filtration unit	PES	250	0,2	66	12	514-0296
Complete filtration unit	PES	250	0,45	66	12	514-0299
Complete filtration unit	PES	500	0,1	90	12	514-0349
Complete filtration unit	PES	500	0,2	90	12	514-0297
Complete filtration unit	PES	500	0,45	90	12	514-0300
Complete filtration unit	PES	1000	0,1	90	12	514-0350
Complete filtration unit	PES	1000	0,2	90	12	514-0298
Complete filtration unit	PES	1000	0,45	90	12	514-0301
Filtration funnels only						
Filtration funnel	PES	15	0,1	40	30	514-0363
Filtration funnel	PES	15	0,2	40	30	514-0364
Filtration funnel	PES	15	0,45	40	30	514-0365
Filtration funnel	PES	50	0,1	40	30	514-0359
Filtration funnel	PES	50	0,2	40	30	514-0360
Filtration funnel	PES	50	0,45	40	30	514-0362
Filtration funnel	PES	250	0,1	66	24	514-0354
Filtration funnel	PES	250	0,2	66	24	514-0302
Filtration funnel	PES	250	0,45	66	24	514-0305
Filtration funnel	PES	500	0,1	90	24	514-0355
Filtration funnel	PES	500	0,2	90	24	514-0303
Filtration funnel	PES	500	0,45	90	24	514-0306
Filtration funnel	PES	1000	0,1	90	24	514-0358
Filtration funnel	PES	1000	0,2	90	24	514-0304
Filtration funnel	PES	1000	0,45	90	24	514-0307
Description					Pk	Cat. No.
Accessories for bottle-top filtration systems						
Quick-Connect™ pedestal base					1	514-0319
Cradle ring					1	514-0324



Vacuum filtration systems



PS funnel and collection reservoir

Systems for vacuum filtration of aqueous solutions including cell culture media, buffers or other biological fluids. Once filtration is complete, solution can be stored in the collection reservoir until needed. PES membrane: Low protein binding and low extractables. Ideal for tissue culture applications. 0,2 µm: Ideal for sterilisation applications and media preparation 0,45 µm: Ideal for buffer clarification

- Each individual unit is lot numbered for traceability
- Once filtration is complete, solution can be stored in the collection reservoir until needed

Non pyrogenic, non cytotoxic
ISO 10993-5, 1999

Delivery Information: Includes the filtration funnel with either 0,2 µm, or 0,45 µm PES membrane, vacuum port, lid, collection reservoir and cap for storage.

Packaging Information: Individually packaged in easy to peel bags, receiver bottle cap is individually wrapped.

Description	Capacity (ml)	Pore size (µm)	Membrane Ø (mm)	Pk	Cat. No.
Complete filtration units					
Complete filtration unit	150	0,20	50	12	514-0328
Complete filtration unit	150	0,45	50	12	514-0329
Complete filtration unit	250	0,20	50	12	514-0330
Complete filtration unit	250	0,45	50	12	514-0331
Complete filtration unit	500	0,20	75	12	514-0332
Complete filtration unit	500	0,45	75	12	514-0333
Complete filtration unit	1000	0,20	91	12	514-0334
Complete filtration unit	1000	0,45	91	12	514-0335
Filtration cups only					
Filtration cup	150	0,20	50	24	514-0336
Filtration cup	150	0,45	50	24	514-0337
Filtration cup	250	0,20	50	24	514-0338
Filtration cup	250	0,45	50	24	514-0339
Filtration cup	500	0,20	75	24	514-0340
Filtration cup	500	0,45	75	24	514-0341
Filtration cup	1000	0,20	91	24	514-0342
Filtration cup	1000	0,45	91	24	514-0343
PS reservoir bottles (caps included)					
Reservoir bottle with cap	150			24	514-0344
Reservoir bottle with cap	250			24	514-0345
Reservoir bottle with cap	500			24	514-0346
Reservoir bottle with cap	1000			24	514-0347

Centrifugal filters



PP insert and receiver tube

MWCO filters are ideal to concentrate, purify and desalt peptides, proteins, oligonucleotides, DNA and RNA. The 0,2 and 0,45 µm centrifugal filters are used for particulate removal, sample clarification or pre-filtration clean-up of large agarose or acrylamide gel debris prior to further purification with a MWCO device.

- Low binding, typical recovery >90%
- Sealed membrane

Fits rotors that accept 1,5 ml tubes

PES (polyethersulfone) membrane

Dead volume	<5 µl
Filtration area (cm²)	0.28
Max. RCF (xg)	14000
Sample volume (µl)	max. 500
Temperature (°C)	0 - 40

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MWCO (kD)	Colour code	Pk	Cat. No.
3	Grey	100	516-0227
3	Grey	500	516-0228
10	Blue	100	516-0229
10	Blue	500	516-0230
30	Red	100	516-0231
30	Red	500	516-0232

Nylon membrane

Dead volume	<5 µl
Filtration area (cm²)	0.28
Max. RCF (×g)	14000
Sample volume (µl)	max. 500
Temperature (°C)	0 - 40

Pore size (µm)	Colour code	Pk	Cat. No.
0,2	Aqua	100	516-0233
0,2	Aqua	500	516-0234
0,45	Lilac	100	516-0235
0,45	Lilac	500	516-0236



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Microcentrifuge, Micro Star 12



Safe and easy to use centrifuge delivering optimum performance in a compact unit. All operating parameters, including rpm, RCF and remaining time, are set and displayed digitally. It has an automatic door release, pulse spin function for fast, convenient quick spins and an unique internal airflow design to reduce the heating up of samples.

- Compact design with small footprint
- Rapid acceleration and deceleration together with quiet operation characteristics
- Automatic detection for imbalance
- Alarms for over speed and over heat
- Autoclavable rotor for 12×1,5/2,0 ml tubes includes biosafety rotor lid

Ordering Information: Supplied with adapters for 0,2 ml PCR tubes (pack of 12).

Model	Micro Star 12
Max. capacity	12×1,5/2,0 ml
Max. RCF (xg)	12300
Max. speed (min ⁻¹)	13500
Power supply	230 V / 50-60 Hz
Timer	1–30 min
Weight (kg)	4,4
W×D×H (mm)	208×245×1454

Description	Pk	Cat. No.
Microcentrifuge Micro Star 12	1	521-1651
Description	Pk	Cat. No.
Accessories		
Rotor for 4×(8×0,2 ml) PCR strips	1	521-1652
Adapters for 0,2 ml PCR tubes (pack of 12)	12	521-1653
Adapters for 0,5 ml microtubes (pack of 12)	12	521-1654

Microcentrifuge, MiniArray



Ideal for drying microscope slides. It can also be used in a cold room. On closing the lid, the rotor quickly accelerates to maximum speed. Pressing the button stops the operation and opens the lid. Alternatively, the unit can be turned on and off with the switch on the back.

- Quiet and compact design
- Two slides dry in as little as 10 seconds without splashing
- Reusable cassettes catch liquid from the slide while centrifuging

Ordering Information: MiniArray supplied with rotor and two slide cassettes.

Model	MiniArray
Max. capacity	2 standard microscope slides
Max. RCF (xg)	1216
Max. speed (min ⁻¹)	4000
Noise level (dB(A))	57
Weight (kg)	0.75
W×D×H (mm)	132×155×110

Description	Pk	Cat. No.
MiniArray with rotor and two slide cassettes, EU-plug	1	521-2849
MiniArray with rotor and two slide cassettes, UK-plug	1	521-2850
MiniArray with rotor and two slide cassettes, CH-plug	1	521-2851
Description	Pk	Cat. No.
Accessories		
Slide cassettes	2	521-2852

Microcentrifuge, MiniStar silverline



This centrifuge was developed for applications that do not require high speed centrifugation, such as micro-filtration and cell separation, and can also be used in a cold room. Metal base with ABS body and transparent safety cover. On closing the lid, the rotor quickly accelerates to maximum speed. Pressing the button on the front of the unit stops operation and opens the lid. Alternatively, the unit can be turned on and off with the switch on the back.

- Quiet and compact design
- Starts and stops in seconds
- Easy to operate, for eight microtubes or four strip tubes

Ordering Information: MiniStar silverline supplied with 8×1,5/2,0 ml rotor, 4×(8×0,2 ml) strip tube rotor, eight adapters for 0,5 ml and eight adapters for 0,4 ml tubes.

Model	MiniStar silverline	
Max. capacity	8×1,5/2,0 ml tubes or 4×(8×0,2 ml) tube strips	
Max. RCF (×g)	2000	
Max. speed (min ⁻¹)	6000	
Noise level (dB(A))	57	
Weight (kg)	0,75	
W×D×H (mm)	132×155×110	
Description	Pk	Cat. No.
MiniStar silverline with rotors and adapters, EU-plug	1	521-2844
MiniStar silverline with rotors and adapters, UK-plug	1	521-2845
MiniStar silverline with rotors and adapters, CH-plug	1	521-2846
Description	Pk	Cat. No.
Accessories		
Rotor for 8×1,5/2,0 ml tubes	1	521-2847
Rotor for 4 strips of 8×0,2 ml tubes	1	521-2848



Microcentrifuges, digital



Three models are available with maximum speed range from 7200×g, (ideal for microfiltration and pelleting of small cell cultures) to 16 000×g suitable for working with proteins and DNA, and they can also be used in a cold room. In addition the models 1814 and 2416 feature brushless, maintenance-free motors for faster acceleration and quieter performance.

- Quiet and compact design
- Large digital displays and membrane keypads allow for precise setting of operating parameters and accurate representation
- Speed/RCF can be set and displayed in min⁻¹ or ×g

Ordering Information: Supplied with a fixed angle microtube rotor.

Model	Digital 1207	Digital 1814	Digital 2416
Max. capacity	12×1,5/2,0 ml	18×1,5/2,0 ml	24×1,5/2,0 ml
Max. RCF (×g)	7200	14000	16000
Max. speed (min ⁻¹)	10000	13000	13300
Noise level (dB(A))	62	59	61
Timer	1 - 99 minutes		
Weight (kg)	1,5	5,5	5,9
W×D×H (mm)	191×178×127	267×236×178	
Description	Pk	Cat. No.	
1207 for 12×1,5/2,0 ml tube, EU-plug	1	521-2830	
1207 for 12×1,5/2,0 ml tube, CH-plug	1	521-2831	
1207 for 12×1,5/2,0 ml tubes, UK-plug	1	521-2832	
1814 for 18×1,5/2,0 ml tube, EU-plug	1	521-2833	
1814 for 18×1,5/2,0 ml tube, CH-plug	1	521-2834	
1814 for 18×1,5/2,0 ml tubes, UK-plug	1	521-2835	

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Description	Pk	Cat. No.
2416 for 24x1,5/2,0 ml tube, EU-plug	1	521-2839
2416 for 24x1,5/2,0 ml tube, CH-plug	1	521-2840
2416 for 24x1,5/2,0 ml tubes, UK-plug	1	521-2841
Description	Pk	Cat. No.
Accessories		
Adapters for 0.5 ml tubes (set of 6)	6	521-2817
Adapters for 0.4 ml tubes (set of 6)	6	521-2818
Adapters for 0.2 ml tubes (set of 6)	6	521-2819



Microcentrifuges, ventilated/refrigerated, Micro Star 17 / 17R



The Micro Star 17 and 17R microcentrifuges combine power, versatility and convenience in a safe, compact, easy to use lab instrument. Both the ventilated Micro Star 17 and the refrigerated Micro Star 17R are designed to accelerate your routine sample preparation process. The special bio-containment rotor lid for one click rotor opening and closing shortens retrieval time compared to screw-on lids.

- Quiet and powerful performance up to 17000xg
- 'Click' bio-containment rotor lid keeps the user and the samples safe
- Easy operation; intuitive controls and bright, easy to read displays

Ordering Information: Supplied with 24-place rotor for 1,5/2,0 ml tubes and aerosol-tight rotor lid.

Model	Micro Star 17	Micro Star 17R
Max. RCF (xg)		17000
Max. speed (min ⁻¹)		13300
Noise level (dB(A))	<56	<50
Temperature (°C)	-	-9...+40
Timer	1-99 min (in increments of 1 min) + Hold mode	
WxDxH (mm)	225x243x352	330x295x445
Description	Pk	Cat. No.
Microcentrifuge Micro Star 17	1	521-1646
Microcentrifuge Micro Star 17R	1	521-1647



Microcentrifuges, high speed, ventilated/refrigerated, CT15E / CT15RE



High technology tabletop centrifuges, ventilated or refrigerated, designed for standard applications, as well as biosafety or molecular biology applications.

- Exceptionally low noise
- Compact and safe - door interlock, dual overspeed detector, imbalance detector, abnormal motor temperature detector, automatic door closure system
- Easy to use front panel
- Autoclavable rotors (T15A62 and T15A63 rotors can also be used for biosafety applications)

Compliance with CE marking requirements for mechanical and electrical safety, and electromagnetic compatibility (61010-1, 61010-2-020, EN 61326)

Ordering Information: Supplied with T15A61 angle rotor, 24x2 ml, 21 500xg, and plastic lid. T15A62 and T15A63 rotors available separately.

Model	CT15E	CT15RE
Acceleration/braking ramps	2 stage variable acceleration, 2 stage braked deceleration plus coasting deceleration	
Drive motor	Brushless DC motor (inverter control)	
Max. capacity	24x2 ml and 24x0,5 ml (when using T15A62 angle rotor)	

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Model	CT15E	CT15RE
Max. RCF (xg)	21500	
Max. speed (min ⁻¹)	15000	
Memory	Up to 3 sets of operating parameters can be stored	
Noise level (dB(A))	<50	
Power consumption (W)	300	500
Power supply	AC 220/240 V, 50/60 Hz 10 A	AC 220/230 V, 50 Hz 10 A
Programmes	SPEED/RCF, TIME, TEMP (CT15RE only), ACCEL, DECEL and stop melody	
Temperature (°C)	-	-20...+40
Timer	1 - 99 minutes (in increments of 1 minute) with a HOLD function (continuous operation)	
Weight (kg)	17	40
WxDxH (mm)	240x320x250	290x538x307

Description	Pk	Cat. No.
CT15E Microcentrifuge, ventilated, with fixed-angle rotor for 24x2 ml	1	521-3600
CT15RE Microcentrifuge, refrigerated, with fixed-angle rotor for 24x2 ml	1	521-3601

Description	Pk	Cat. No.
Accessories		
T15A61 Angle rotor, autoclavable, with plastic lid, 24x2 ml, 21500xg (supplied with centrifuge)	1	521-3602
T15A62 Angle rotor, autoclavable, with lid for biosafety applications, 24x2 ml or 0,5 ml, 21500xg	1	521-3603
T15A63 Angle rotor, autoclavable, with lid for biosafety applications, 32x0,2 ml (4x8 strips), 21500xg	1	521-3604
Biosafety shield cover for T15A61	1	521-3653



Centrifuge, CompactStar CS4



CompactStar CS4 centrifuge is designed for the separation of various samples in the fields of chemistry, life science, clinical research and routine diagnosis. The combination tube adapters are suitable for running 5 ml (12x75 mm) and 7 ml (13x100 mm) tubes, and also conical and standard 15 ml tubes.

- High speed: Up to 6500 min⁻¹ / 4000xg
- Control panel featuring easy turn knobs and large digital displays for time and speed
- Timer can be set up to 30 minutes and to the 'On' position for a continuous run
- The compact footprint makes it ideal for almost any laboratory and it can easily be transported from lab to lab

Ordering Information: Supplied with 6x15 ml angle rotor with adapter set as detailed below. All available adapters are already included at no extra cost.

Model	CompactStar CS4
Max. capacity	6x15 ml conical / 6x15 ml standard / 6x10 ml blood tube
Max. RCF (xg)	4000
Max. speed (min ⁻¹)	6500
Timer	0,5 to 30 minutes, or continuous
Weight (kg)	4,75
WxDxH (mm)	210x240x180

Description	Pk	Cat. No.
CompactStar CS4 centrifuge, with angle rotor, EU plug	1	521-2853
CompactStar CS4 centrifuge, with angle rotor, UK plug	1	521-2854
CompactStar CS4 centrifuge, with angle rotor, CH plug	1	521-2855

Description	Pk	Cat. No.
Accessories		
Spare adapter set for 5 ml (12x75 mm) and 7 ml (13x100 mm) tube sizes (included in standard delivery)	6	521-2856



Centrifuges, universal, CT6E / CT6EL



Universal tabletop centrifuges with new design and selectable options (rotors and buckets) to suit a wide range of applications. Type CT6E with swing-out rotor

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has a maximum capacity up to 1000 ml (4×250 ml) and CT6EL has a maximum capacity up to 2000 ml (4×500 ml) with swing-out rotor.

- Easy to use front panel
- Compact for smooth and speedy loading/unloading of samples
- Environmentally friendly - more recyclable, energy saving and resource saving than conventional models
- Exceptionally low noise
- Two models are available with different rotors and adapters

Compliance with CE marking requirements for mechanical and electrical safety, also electromagnetic compatibility (61010-2-020, EN 61326).

Optional accessories:

Ordering Information: Round and rectangular buckets as well as associated adapters for various centrifuge tubes and flasks and filter units are available on request.

Model	CT6E	CT6EL
Angle rotors	T6AP (8×50 ml)	T6AP2 (8×50 ml)
Swing-out rotors (buckets)	T4SS / T5SS (4×250 ml)	T3S6 (4×500 ml)
Swing-out rotors (microplates)	T5SS3 (up to 75 mm high microplates)	T3S8 (up to 90 mm high microplates)

Model	CT6E	CT6EL
Acceleration/braking time (s)	2-stage variable acceleration, 2-stage braked deceleration and coasting deceleration	
Colour	Silver	Mint blue
Max. capacity	1000 ml (4×250 ml) (T5SS swing rotor)	2000 ml (4×500 ml) (T3S6 swing rotor)
Max. RCF (×g)	4770	
Max. speed (min ⁻¹)	6000 with fixed angle rotor T6AP	6000 with fixed angle rotor T6AP2
Motor	Brushless DC motor (inverter control)	
Power consumption (W)	600	
Power supply	220/240 V 50/60 Hz 10 A	
Programmes	5 programmed operations possible (speed, run time, acceleration/deceleration settings and rotor stop signal)	
Rotor stop signal	Selectable from 5 melodies, a beep tone and mute setting	
Timer	1 - 99 min (in increments of 1 min) with a HOLD function (continuous operation)	
Weight (kg)	45	55
W×D×H (mm)	440×595×330	540×720×330

Description	Pk	Cat. No.
CT6E centrifuge, without rotor	1	521-3605
CT6EL centrifuge, without rotor	1	521-3610

Description	Pk	Cat. No.
Rotors for CT6E centrifuge		
T4SS swing-out rotor, rectangular buckets, 4×250 ml, 4170×g	1	521-3608
T5SS swing-out rotor, round buckets, 4×250 ml, 4170×g	1	521-3607
T5SS3 rotor for 2 microplates, 3120×g	1	521-3609
T6AP angle rotor, 8×50 ml, 4770×g	1	521-3606
Aerosol-tight cap shields for round buckets	4	521-3666
Adapter for rectangular bucket, 8×15 ml tubes, Ø 16,5×100 mm	4	521-3643
Adapter for rectangular bucket, 10×10 ml tubes, Ø 15,4×100 mm	4	521-0762
Adapter for rectangular bucket, 8×7/10 ml tubes, Ø 13,2×100 mm	4	521-3642
Adapter for rectangular bucket, 6×15 ml conical tubes, Ø 17×120 mm	4	521-3644
Adapter for rectangular bucket, 2×50 ml conical tubes, Ø 30×115 mm	4	521-3645
Adapter for rectangular bucket, 8×4/5 ml blood tubes, Ø 13,2×78 mm	4	521-3641
Adapter for round bucket, 7×10/15 ml tubes, Ø 16/16,5×100/110 mm	4	521-3657
Adapter for round bucket, 4×160 ml tubes, Ø 52×120 mm	4	521-3665
Adapter for round bucket, 1×50 ml round bottom tubes, Ø 35×100 mm	4	521-3659
Adapter for round bucket, 1×50 ml conical tubes, Ø 30×115 mm	4	521-3661
Adapter for round bucket, 4×15 ml conical tubes, Ø 17×120 mm (can be used without sealing cap)	4	521-3660
Adapter for round bucket, 7×4/5 ml blood tubes, Ø 13,3×78 mm	4	521-3668
Adapter for round bucket, 28×7 ml blood tubes, Ø 12,4/12,7/13,2×100 mm	4	521-3658
Rotors for CT6EL centrifuge		
T3S6 swing-out rotor, 4×500 ml, without bucket, 2000×g	1	521-3612
T3S8 swing-out rotor for 4 microplates, 2150×g	1	521-3613
T6AP2 angle rotor, 8×50 ml, 4770×g	1	521-3611
Rectangular buckets for T3S6 rotor	4	521-3682
Buckets for MP2, deepwell/microplates (2000×g)	4	521-3630
Adapter for rectangular bucket, 7×50 ml conical tubes, Ø 29×115 mm	4	521-3631
Buckets for M2, microplates (850×g)	4	521-3617
Adapter for rectangular bucket, 12×15 ml conical tubes, Ø 17×120 mm	4	521-3632
Adapter for rectangular bucket, 20×5/7 ml blood tubes, Ø 13,3×75/100 mm	4	521-3623
Tube, 500 ml, PA, for water analysis	4	521-3626
Adapter for rectangular bucket, 20×6/10 ml blood tubes, Ø 15,6×75/100 mm	4	521-3624
Adapter for square bucket, 64×4/5 ml blood tubes, Ø 13,2×100 mm	4	521-3651
Adapter for rectangular bucket, 30×5/7 ml tubes, Ø 13/14×120 mm	4	521-3619
Adapter for rectangular bucket, 20×15 ml tubes, Ø 16,5×120 mm	4	521-3681
Adapter for rectangular bucket, 4×50 ml round bottom tubes, Ø 36×120 mm	4	521-3620
Adapter for rectangular bucket, 144×10 ml round tubes, Ø 12×120 mm	4	521-3618

* adapters for tubes and other accessories available on request

Microplate centrifuge, PCR Plate Spinner



The PCR Plate Spinner offers a personal sized centrifuge designed to spin down PCR plates. This unique centrifuge is equipped with a dual position vertical rotor that accepts a wide variety of PCR plates; 96-well, 384-well, skirted and non skirted plates are compatible with the Plate Spinner. The rotor features integral plate guides, ensuring that the plates stay vertical and do not tip inside the rotor.

- Space saving design; quiet, simple operation
- Easy plate loading system
- Quickly spin down droplets and condensation
- Use before and after thermal cycling to improve PCR yield
- Cold-room compatible

Model	PCR Plate Spinner
Max. capacity	2 PCR plates
Max. RCF (xg)	500
Max. speed (min ⁻¹)	2500
Power supply	230 V / 50-60 Hz
Weight (kg)	3
WxDxH (mm)	190x2210x183

Description	Pk	Cat. No.
PCR plate spinner, EU-plug	1	521-1648
PCR plate spinner, UK-plug	1	521-1649

Description	Pk	Cat. No.
Accessories		
Adapter for strips, tubes or half plates	2	521-1650



Microcentrifuge tubes and screw caps



Ultra-clear PP resin microtubes, graduated, autoclavable and freezable with screw caps

- Can withstand centrifugation to 20 000xg
- With universal screw threads that will work with all major brands of caps
- Caps include an ethylene propylene O-ring seal for secure storage
- Caps have smooth surface for applying labels
- Sterile tubes are sterilised by radiation

Packaging Information: Non sterile microtubes and caps are packed in resealable bags. Sterile microtubes with attached caps are in sterile bags of 50 tubes, 10 bags/package.

Microcentrifuge tubes with natural colour caps in separate resealable bags

Capacity (ml)	Type	Pk	Cat. No.
0,5	without skirt	500	211-0121
0,5	skirted	500	211-0096
1,5	without skirt	500	211-0090
1,5	skirted	500	211-0098
2,0	without skirt	500	211-0100
2,0	skirted	500	211-0093

Sterile microcentrifuge tubes with natural colour screw caps

Capacity (ml)	Type	Pk	Cat. No.
0,5	without skirt	500	211-0122
0,5	skirted	500	211-0097
1,5	without skirt	500	211-0091
1,5	skirted	500	211-0099
2,0	without skirt	500	211-0101
2,0	skirted	500	211-0094

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Microcentrifuge tubes only

Table with 4 columns: Capacity (ml), Type, Pk, Cat. No. Rows include capacities from 0,5 to 2,0 ml and types without skirt and skirted.

Screw caps for microcentrifuge tubes

Table with 5 columns: Capacity, Type, Colour, Pk, Cat. No. Rows list various colors (Transparent, Orange, Red, Assorted, Yellow, Green, Blue, Violet, White) for different capacities.



Microcentrifuge tubes, DNase-/RNase-free

- PP, natural, graduated
- Flat cap can be easily labelled and pierced

Table with 3 columns: Capacity (ml), Pk, Cat. No. Rows show capacities 0,5 and 1,5 ml with corresponding pack sizes and catalog numbers.



Microcentrifuge tubes, 0,65 ml, SuperClear™ boil-proof



- Ultra-clear PP, graduated, autoclavable and freezable with flat cap
- Can withstand centrifugation to 30 000×g
- Fits all standard and high capacity rotors
- Flat cap can be easily labelled and pierced, includes a special 90° hinge, making it easier to close while pipetting one handed
- Every lot is tested and guaranteed free of RNase and DNase

Packaging Information: Microtubes packed in resealable bags. Assorted colours pack includes red, blue, green, yellow, orange tubes in separate 200 tube bags.

Table with 4 columns: Capacity (ml), Colour, Pk, Cat. No. Rows list various colors (Transparent, Yellow, Orange, Red, Violet, Blue, Green, Assorted) for 0,65 ml capacity.



INSTRUMENT SERVICE AND MAINTENANCE

Please contact your local VWR sales office for more information



Microcentrifuge tubes, 1,5 ml, SuperSpin™



Ultra-clear PP, graduated, autoclavable and freezable with flat caps, easy to open

- Can withstand ultra-high centrifugation to RCF 40 000×g
- Fits all standard and high capacity rotors
- Flat cap can be easily labelled and pierced, includes a special 90° hinge, making it easier to close while pipetting one handed
- Good for phenol/chloroform vortexing
- Every lot is tested and guaranteed free of RNase and DNase

Packaging Information: Microtubes packed in resealable bags. Assorted colours pack includes red, blue, green, yellow, orange tubes in separate 100 tube bags.

Capacity (ml)	Colour	Pk	Cat. No.
1,5	Transparent	500	211-0015
1,5	Amber	500	211-0016
1,5	Yellow	500	211-0017
1,5	Orange	500	211-0018
1,5	Red	500	211-0019
1,5	Violet	500	211-0020
1,5	Blue	500	211-0021
1,5	Green	500	211-0022
1,5	Assorted	500	211-0023



Microcentrifuge tubes, 1,7 ml, SuperClear™



Ultra-clear PP, sterile, graduated, autoclavable and freezable with flat cap

- Can withstand centrifugation to 14 000×g
- Fits all standard and high capacity rotors
- Flat cap can be easily labelled and pierced, including a special 90° hinge, making it easier to close while pipetting one handed
- Every lot is tested and guaranteed free of RNase and DNase

Packaging Information: 50 microtubes/sterile bag.

Capacity (ml)	Colour	Packed	Pk	Cat. No.
1,7	Transparent	1000/bag	500	211-0033



Microcentrifuge tubes, 1,7 ml, SuperClear™



Ultra-clear PP, graduated, autoclavable and freezable, with flat cap

- Can withstand centrifugation to 14 000×g
- Fit all standard and high capacity rotors
- Flat cap can be easily labelled and pierced, including a special 90° hinge, making it easier to close while pipetting one handed
- Every lot is tested and guaranteed free of RNase and DNase

Capacity (ml)	Colour	Pk	Cat. No.
1,7	Transparent	500	211-0319



Microcentrifuge tubes, 1,7 ml, SuperClear™ boil-proof



Ultra-clear PP, graduated, autoclavable and freezable with or without flat cap

- Can withstand centrifugation to 20 000×g
- Fits all standard and high capacity rotors
- Flat cap can be easily labelled and pierced, includes a special 90° hinge, making it easier to close while pipetting one handed
- Every lot is tested and guaranteed free of RNase and DNase

Packaging Information: Microtubes packed in resealable bags. Assorted colours pack includes red, blue, green, yellow, orange tubes in separate 100 tube bags.

Capacity (ml)	Colour	Pk	Cat. No.
With cap			
1,7	Transparent	500	211-0007
1,7	Yellow	500	211-0008
1,7	Orange	500	211-0009
1,7	Red	500	211-0010
1,7	Violet	500	211-0011
1,7	Blue	500	211-0012
1,7	Green	500	211-0013
1,7	Assorted	500	211-0014
Without cap			
1,7	Transparent	500	211-0032



Microcentrifuge tubes, 2,0 ml, SuperClear™



Ultra-clear PP, graduated, autoclavable and freezable with flat cap

- Can withstand centrifugation to 14 000×g
- Fits all standard and high capacity rotors
- Tubes have frosted side labelling surface and flat cap can be easily labelled and pierced
- Every lot is tested and guaranteed free of RNase and DNase

Packaging Information: In resealable bag. Assorted colours pack includes red, blue, green, yellow, orange tubes in separate 100 tube bags.

Capacity (ml)	Colour	Pk	Cat. No.
2,0	Transparent	500	211-0034
2,0	Amber	500	211-0035
2,0	Blue	500	211-0036
2,0	Green	500	211-0037
2,0	Assorted	500	211-0038
2,0	Yellow	500	211-0116
2,0	Orange	500	211-0117
2,0	Red	500	211-0118
2,0	Violet	500	211-0119

Centrifuge tubes



PS, conical, with graduations

- Disposable
- Fits standard centrifuge heads
- Caps are made from LDPE

Capacity (ml)	ØxL (mm)	Packed	Pk	Cat. No.
Centrifuge tubes				
15	17x120	100/box, 10 boxes/case	1.000	525-0146
Caps for centrifuge tubes				
-	-	500/bag, 2 bags/case	1.000	525-0145

Centrifuge tubes, SuperClear™



SuperClear™ PP or PS, conical, printed graduation, with flat or plug caps

- Extra thick walls to allow centrifugation up to 15000xg
- With extra large, solvent resistant, white labelling area and black graduations
- Flat PE caps can be closed with a quick ¾ turn, allowing one handed opening and closing; leakproof plug seal caps (50 ml tubes only) are perfect for use with horizontal shakers or for extended storage
- Patented Earth Friendly® racks can be labelled with lab markers
- Sterile tubes are radiation sterilised to ensure non cytotoxicity
- Certified non cytotoxic, nuclease, and pyrogen-free
- Patented ViewPoint™ labelling areas that help reduce smearing of lab markers and also helps protect sample labelling from damage during procedures

Capacity (ml)	ØxL (mm)	Packed	Type	Pk	Cat. No.
Centrifuge tubes, 50 ml, PP, conical bottom, 15000xg, with printed graduations and flat caps					
50	29x115	50/bag, 10 bags/case	Non sterile	500	525-0155
50	29x115	50/bag, 10 bags/case	Sterile	500	525-0156
50	29x115	25/rack, 20 racks/case	Non sterile	500	525-0157
50	29x115	25/rack, 20 racks/case	Sterile	500	525-0158
50	29x115	bulk (tubes & caps in separate bags)	Non sterile	500	525-0159
Centrifuge tubes, 50 ml, PP, conical bottom, 15000xg, with printed graduations and plug seal caps					
50	29x115	50/bag, 10 bags/case	Non sterile	500	525-0303
50	29x115	50/bag, 10 bags/case	Sterile	500	525-0304
50	29x115	25/rack, 20 racks/case	Non sterile	500	525-0305
50	29x115	25/rack, 20 racks/case	Sterile	500	525-0306
50	29x115	bulk (tube & caps in separate bags)	Non sterile	500	525-0307
Centrifuge tubes, 50 ml, PP, 9400xg, freestanding, with printed graduations and flat caps					
50	29x115	bulk (tubes caps in separate bags)	Non sterile	500	525-0160
50	29x115	50/bag, 10 bags/case	Sterile	500	525-0224
Centrifuge tubes, 15 ml, PP, conical bottom, 15000xg, with printed graduations and flat caps					
15	17x118	50/bag, 10 bags/case	Non sterile	500	525-0149
15	17x118	50/bag, 10 bags/case	Sterile	500	525-0150
15	17x118	25/rack, 2 racks/pack, 10 packs/case	Non sterile	500	525-0152
15	17x118	25/rack, 2 racks/pack, 10 packs/case	Sterile	500	525-0153
15	17x118	bulk (tubes&caps in separate bags)	Non sterile	500	525-0154
Centrifuge tubes, 15 ml, PP, conical bottom, 15000xg, with printed graduations and plug caps					
15	17x118	50/bag, 10 bags/case	Non sterile	500	525-0308
15	17x118	50/bag, 10 bags/case	Sterile	500	525-0309

Continued from previous page

Capacity (ml)	ØxL (mm)	Packed	Type	Pk	Cat. No.
Centrifuge tubes, 15 ml, PP, conical bottom, 15000xg, with printed graduations and plug caps					
15	17x118	25/rack, 2 racks/pack, 10 packs/case	Non sterile	500	525-0310
15	17x118	25/rack, 2 racks/pack, 10 packs/case	Sterile	500	525-0311
15	17x118	bulk (tubes&caps in separate bags)	Non sterile	500	525-0312
Centrifuge tubes, 15 ml or 50 ml, conical bottom, PP, 15000xg, Viewpoint™ writing spot and flat caps					
50	29x115	50/bag, 10 bags/case	Sterile	500	525-0496
50	29x115	25/rack, 20 racks/case	Sterile	500	525-0497
15	17x118	50/bag, 10 bags/case	Sterile	500	525-0498
15	17x118	25/rack, 2 racks/pack, 10 packs/case	Sterile	500	525-0499
Centrifuge tubes, 15 ml, PS, conical bottom, 3000 xg, with moulded graduations and flat caps					
15	17x118	Bulk	Non sterile	1.000	525-0147
15	17x118	50/bag, 10 bags/case	Sterile	500	525-0148
15	17x118	25/rack, 2 racks/pack, 10 packs/case	Sterile	500	525-0151



Centrifuge tubes, high performance



Clear PP, with purple HDPE flat screw or plug seal caps

These disposable conical bottom and freestanding tubes are extremely versatile, and can be used for routine tasks as well as high speed centrifuging. Rack-packed tubes are packaged in freezable, recyclable, autoclavable racks. Tubes are sterilised by gamma irradiation (except freestanding tubes in bags or bulk). Tubes and caps are autoclavable and freezable.

- Certified non cytotoxic, nuclease and pyrogen-free
- Caps available in two styles: Flat screw caps with a smooth surface for additional labelling options, or plug seal caps for a secure seal when using shakers and horizontal incubators
- Easy to read black graduations and white writing area on the side for permanent coding
- Can be used for storing and freezing samples at temperatures down to –80 °C
- Can be centrifuged up to 12500xg

Packaging Information: In bulk, in bags, or on plastic, autoclavable racks.

Capacity (ml)	Packed	Version	Type	Pk	Cat. No.
Conical bottom					
15	50/bag, 10 bags/case	Flat screw cap	Sterile	500	525-0400
15	25 tubes per rack, 2 racks/pack, 10 packs/case	Flat screw cap	Sterile	500	525-0401
15	50/bag, 10 bags/case	Plug seal cap	Sterile	500	525-0449
15	25 tubes per rack, 2 rack/pack, 10 packs/case	Plug seal cap	Sterile	500	525-0450
50	50/bag, 10 bags/case	Flat screw cap	Sterile	500	525-0402
50	25 tubes per rack, 1 rack/pack, 20 packs/case	Flat screw cap	Sterile	500	525-0403
50	50/bag, 10 bags/case	Plug seal cap	Sterile	500	525-0447
50	25 tubes per rack, 1 rack/pack, 20 packs/case	Plug seal cap	Sterile	500	525-0448
Freestanding					
50	50/bag, 10 bags/case	Plug seal cap	Non sterile	500	525-0417
50	bulk (tubes & caps in separate bags)	Plug seal cap	Non sterile	500	525-0416
50	50/bag, 10 bags/case	Plug seal cap	Sterile	500	525-0418



Centrifuge tubes, ultra-high performance, light-sensitive



PP, dark amber

Designed to provide protection for light-sensitive samples.

- Printed labeling area for quick and convenient sample identification
- HDPE caps are included
- Available in 15 or 50 ml sizes and offered in a variety of packaging formats
- Certified non cytotoxic, nuclease and pyrogen-free

Capacity (ml)	Packed	Pk	Cat. No.
15	Bulk (tubes & caps in separate bags)	500	525-0440
15	50/bag, 10 bags/case	500	525-0441
15	25/rack, 2 racks/pack, 10 racks/case	500	525-0442
50	Bulk (tubes & caps in separate bags)	500	525-0437
50	50/bag, 10 bags/case	500	525-0438
50	25/rack, 20 racks/case	500	525-0439



Centrifuge tubes, metal-free



PP

Ideal for environmental uses such as water analysis and other applications wherein tubes have the potential to contaminate samples. Tubes are certified free of major critical trace metals to less than 1 ppb.

- Available in two sizes with natural flat caps for easy labeling
- Tubes and caps are made of ultra-high purity CFR 21 compliant resins
- Printed graduation marks and large white writing area

Packaging Information: Tubes packaged in bulk bags are supplied 50 tubes per bag, 10 bags per case. SBS recyclable rack packaged tubes are supplied 25 per rack, 2 racks per pack, 10 packs per case.

Capacity (ml)	Packed	Pk	Cat. No.
15	Bulk bag	500	525-0460
15	SBS recyclable rack	500	525-0461
50	Bulk bag	500	525-0462
50	SBS recyclable rack	500	525-0463

Centrifuge tubes, large volume



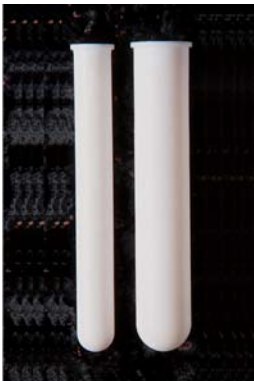
Pure medical grade resins

Perfect for clarifying large volume solutions or concentrating live cells in tissue culture. Resins are pre-tested, and are free of Oleamide and Pthalates. These tubes come in a unique balanced packages of 2 tubes. The tubes include attached screw caps with integral elastomeric sealing ring that eliminates leaking.

- For standard centrifuge rotors
- Non pyrogenic, RNase/DNase-free
- Sterile and non sterile available
- Tubes fit standard storage racks

Capacity (ml)	Version	Pk	Cat. No.
175	Non sterile	48	525-0503
175	Sterile	48	525-0504
225	Non sterile	48	525-0505
225	Sterile	48	525-0506

Centrifuge tubes



PTFE, round bottom, smooth surface, without screw cap

- Inert
- Withstand forces up to 12 500×g
- Very good chemical resistance
- Suitable for use at high and low temperatures (–200 to +280 °C)

Capacity (ml)	Ø×L (mm)	Pk	Cat. No.
8	12×100	1	525-0178
13	16×100	1	525-0179
17	18×100	1	525-0180
50	25×145	1	525-0181
85	40×100	1	525-0182

Centrifuge tubes



PTFE, smooth surface, with or without screw cap

- Inert
- Withstand forces up to 12 500×g
- Very good chemical resistance
- Suitable for use at high and low temperatures (–200 to +280 °C)

Capacity (ml)	Ø×L (mm)	Pk	Cat. No.
Round bottom			
8	12×100	1	525-0183
17	18×100	1	525-0184
50	25×140	1	525-0185
Conical bottom			
13	16×110	1	525-0189
18	18×120	1	525-0190
45	25×150	1	525-0191
Conical bottom, without cap			
13	16×110	1	525-0186
18	18×120	1	525-0187
45	25×150	1	525-0188



Rack, microcentrifuge tube, Rota-Rack® Duo



Work with PCR® tubes right next to centrifuge tubes, dilute or take off concentrate using one rack.

- Rotate half the rack to suit particular requirements
- 48 wells for PCR tubes and 48 wells for microcentrifuge tubes
- Plate format and therefore compatible with 8-channel multipipette
- Tapered wells with alphanumeric grid to help identification

For tubes (ml)	No. of holes	WxDxH (mm)	Colour	Pk	Cat. No.
0,2 ml / 0,5 ml / 1,5	96 (2x48)	296x118x34	Purple and Blue	1	211-0369



Racks, microcentrifuge tube



PP, colour coded

Space for up to 80x1,5 or 2,0 ml microcentrifuge tubes. 5x16 array with conical shaped holes to hold microtubes securely.

- Perfect for freezer use
- Side handles for secure handling
- Numbered for easy sample identification

Ordering Information: The colour coded set includes one rack each in blue, green, pink, yellow and orange.

No. of holes	WxDxH (mm)	Colour	Pk	Cat. No.
80 (5x16)	225x67x29	Natural	5	211-0204
80 (5x16)	225x67x29	Orange	5	211-0205
80 (5x16)	225x67x29	Yellow	5	211-0206
80 (5x16)	225x67x29	Blue	5	211-0207
80 (5x16)	225x67x29	Green	5	211-0208
80 (5x16)	225x67x29	Pink	5	211-0209
80 (5x16)	225x67x29	Set	5	211-0210



Racks, microcentrifuge tube



PP, coloured

For 96 (8x12) microtubes with 0,5 ml capacity or 96 microtubes with 1,5/2 ml capacity. Conical tapered openings to hold tubes securely. Complete with snap-on lid, which can also be used as protective base.

- Perfect for freezer use
- Side handles for secure handling
- Numbered for easy sample identification

Ordering Information: The colour coded set includes one rack each in blue, green, pink, yellow and orange.

No. of holes	WxDxH (mm)	Colour	Pk	Cat. No.
96 (8x12)	246x121x51	Natural	5	211-0213
96 (8x12)	246x121x51	Yellow	5	211-0214
96 (8x12)	246x121x51	Blue	5	211-0215
96 (8x12)	246x121x51	Green	5	211-0216
96 (8x12)	246x121x51	Pink	5	211-0217
96 (8x12)	246x121x51	Set	5	211-0218

Organisers for microcentrifuge tube racks



Clear acrylic

Organiser for up to eight racks, designed to hold VWR microcentrifuge tube racks Cat. Nos. 211-0204 to 211-0210. These racks help you keep large numbers of microtubes organised on your benchtop. Holds up to eight 80-well microtube racks filled with either 1,5 or 2,0 ml microtubes.

- Stable and sturdy construction, space saving, stackable
- Safe storage, quick and easy access to reaction vessel racks
- Easy to clean

Form	WxDxH (mm)	Colour	Pk	Cat. No.
Horizontal	310x236x122	Transparent	1	211-0211
Vertical	157x236x234	Transparent	1	211-0212



Racks and boxes for microcentrifuge tubes and cryogenic vials



Recycled plastic, autoclavable

24- and 48-place microcentrifuge tube and cryovial storage system. For 1,5 ml and 2,0 ml tubes. Fully autoclavable (122 °C) and freezable (–90 °C).

- Racks fit into VWR pipette tip boxes
- Stackable racks that float, ideal for water baths
- Boxes with clear cover

For (ml)	No. of holes	Pk	Cat. No.
1,5/2,0	48	5	479-0075
1,5/2,0	24	10	479-0076
1,5/2,0	24	10	479-0077
1,5/2,0	-	5	479-0078

Microtube racks, Mega



PP

- For tubes of diameter 10 - 13 mm
- Storage of high quantity of samples eliminates the need for multiple racks
- Alpha-numeric grid for quick location and retrieval of tubes
- Sturdy, lightweight material for easy transport

For tubes (ml)	No. of holes	WxDxH (mm)	Colour	Pk	Cat. No.
0,2/0,5/1,5/2,0	216	337x267x91	White	1	211-0364
0,2/0,5/1,5/2,0	216	337x267x91	Blue	1	211-0363

Microtube racks, floating



PP

For maintaining reaction vessels with capacities from 0,5 to 2 ml at constant temperature in water baths. Racks float even when full. The reaction vessels are held firmly in place in the frame and do not float. Handles are provided for easier insertion and removal from the water bath and carrying. Non autoclavable.

- Removable feet enable reaction vessels to be removed quickly and easily
- Also suitable for cryotubes with up to 2 ml capacity
- Stable, good chemical resistance

Continued from previous page

For tubes (ml)	No. of holes	Form	Ø (mm)	WxDxH (mm)	Colour	Pk	Cat. No.
1,5/2,0	8	Round	68	-	White	4	211-0225
0,4/0,5	16 (4x4)	Square	-	102x102x60	Black	4	211-0224
1,5/2,0	16 (4x4)	Square	-	102x102x60	White	4	211-0223
1,5/2,0	20	Round	98	-	White	4	211-0226



Racks, centrifuge tube



Steel with an epoxy powder coating, autoclavable

For 50 ml centrifuge tubes. Can also be used for all other types of tubes.

- Accepts tubes up to 30 mm diameter
- Ribbed base for better stability of the tubes
- Very good chemical resistance

For tubes	No. of holes	WxDxH (mm)	Colour	Pk	Cat. No.
50 ml	8	77x88x140	Blue	1	211-0197

Racks, centrifuge tube



PP, coloured

Suitable for VWR centrifuge tubes with conical bottom. The interlocking design of each rack makes them ideal for creating a user friendly workstation.

- Available for 15 or 50 ml tubes
- Freezable, recyclable, autoclavable
- Stackable to minimise storage space

Ordering Information: Assorted colour rack cases include one blue, green, orange, red, and yellow rack per case.

For tubes (ml)	No. of holes	Colour	Pk	Cat. No.
15	25	Blue	5	525-0434
15	25	Green	5	525-0435
15	25	Natural	5	525-0428
15	25	Orange	5	525-0431
15	25	Purple	5	525-0433
15	25	Red	5	525-0432
15	25	White	5	525-0429
15	25	Yellow	5	525-0430
15	25	Assorted	5	525-0436
50	25	Blue	5	525-0425
50	25	Green	5	525-0426
50	25	Natural	5	525-0419
50	25	Orange	5	525-0422
50	25	Purple	5	525-0424
50	25	Red	5	525-0423
50	25	White	5	525-0420
50	25	Yellow	5	525-0421
50	25	Assorted	5	525-0427

Centrifuge tube racks, Pop-Up™



PP

Close flat for storage and 'pop up' for quick use.

- Simple easy action to open and close
- Designed to help organise storage of 15 and 50 ml tubes
- Stackable in open or closed position
- Imprinted grid aides quick identification and retrieval
- Collapse flat (height 21 mm) for compact storage

Note: Robust PP construction but not recommended for cleaning in an autoclave

For tubes (ml)	No. of holes	WxDxH (mm)	Colour	Pk	Cat. No.
15	45	255×137×72	Purple	2	525-0510
50	18	255×137×72	Green	2	525-0511
15/50	33 (21+12)	255×137×72	Blue	2	211-0367
15/50	33 (21+12)	255×137×72	Pink	2	211-0368

Racks, centrifuge and test tube, puzzle rack

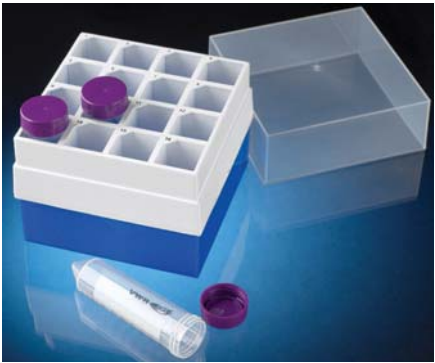


Two-sided puzzle-shaped pieces hold an assortment of 1,5, 2,0, 15 and 50 ml tubes. Pieces can be used separately for small sample applications or connected in a square or row configuration. Set of four pieces.

For tubes (ml)	No. of holes	WxDxH (mm)	Colour	Pk	Cat. No.
1,5/2,0 ml; 15 ml; 50	17/8	151×135×66	Assorted colours	1 SET	211-0377



Cryo boxes for centrifuge tubes, 15 or 50 ml



PP, autoclavable

Perfect for long-term storage of samples

- With labelled zone and numerical reference grid
- Clear cover
- Autoclavable (122 °C), temperature resistant to –90 °C

WxDxH ext. (mm)	For	Pk	Cat. No.
138×138×151	36 tubes 15 ml with lid	2	212-0043
138×138×151	16 tubes 50 ml with lid	2	479-0079



Boxes for 15 or 50 ml tubes, Transformer™ Cube



PP, with clear lid

Robust, rugged construction for repeated storage. Snap-in one of the two included grids, either 15 ml tube grid or the 50 ml tube grid.

- Deep grid wells securely hold tubes upright
- Locate tubes easily with keyed lid, imprinted grid and first tube orientation
- View tube storage through clear lid and transparent sides

Colour	WxDxH (mm)	Pk	Cat. No.
Purple	132×132×129	5	211-0370



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Rotary evaporators, RV 10 control
VWR by IKA



All models have motorised lift with safety stop function

Rotary evaporators with integrated heating bath and vacuum controller; units feature USB interface, central display for automatic distillation and ramp programming. A motorised lift with 140 mm stroke with «safety stop» function - if the power cuts out the evaporator flask is automatically lifted out of the heating bath. Units can be programmed to reverse the direction of rotation of the evaporation flask at intervals to assist the drying process. Volume controlled distillation processes can be programmed.

- Built-in solvent library, can be added to by the user
- Specific distillation parameters can be stored for standard distillation; measurements and distillation type can be automatically transferred by the press of a key
- Automatic boiling point recognition
- Operated via colour graphic display which shows distillation curves and has a choice of multiple languages
- Environmentally efficient; cooling water and heating bath are automatically switched off at the end of the cycle; units have integrated monitoring of cooling water and automatic heating bath monitoring which stops the distillation in the event of temperature errors

Delivery Information: Supplied with water/oil bath, magnetic valve laboratory vacuum (531-3485), 1 l evaporation flask (NS 29/32), 1 l receiving flask (KS 35/20) and condensing glassware set.

Table with 10 columns: Model, RV 10 Control, RV 10 Control, RV 10 Control, RV 10 Control, RV 10 Control, RV 10 Control, RV 10 Control, RV 10 Control, RV 10 Control. Rows include Bath capacity (l), Cooling surface (cm²), Heating capacity (W), Protection class DIN EN 60529, Rotation speed (min⁻¹), Rotation speed setting, Temperature range (°C), and WxDxH (mm).

Table with 5 columns: Type, Version, Glassware, Pk, Cat. No. Rows list various RV 10 control models with different plug types and glassware options.

* With transparent plastic coating
** Delivered only with bath, vapour tube, clamps for glassware and Woulf bottle. This package enables the customer to select the glassware set up for their specific application.



Rotary evaporators, RV 10 digital
VWR by IKA



All models have motorised lift with safety stop function

Rotary evaporators with integrated heating bath, safe and simple operation via ergonomic controls in the front. A motorised lift with 140 mm stroke with «safety stop» function - if the power cuts out the evaporator flask is automatically lifted out of the heating bath. Units can be programmed to reverse the direction of rotation of the evaporation flask at intervals to assist the drying process. Temperature control of the heating bath is via a microprocessor controller.

- Digital speed display and digital bath temperature display
- Infrared interface transfers data from heating bath to the drive unit
- Digital heating bath with microprocessor controller can be used with oil or water, features integrated carrying handles for increased safety
- RS232 interface for remote PC operation using labworldsoft® software (optional), to allow for operation in automatic mode

Delivery Information: Supplied with water/oil bath, 1 l evaporation flask (NS 29/32), 1 l receiving flask (KS 35/20) and condensing glassware set.

Table with 2 columns: Model, RV 10 Digital. Row 1: Bath capacity (l), 4.

Continued from previous page

Model	RV 10 Digital
Cooling surface (cm²)	1200
Heating capacity (W)	1300
Protection class DIN EN 60529	IP 21
Rotation speed (min⁻¹)	20 - 280
Rotation speed setting	Digital
Temperature range (°C)	Ambient to 180
WxDxH (mm)	500x410x430 (without glassware)

Type	Version	Glassware	Pk	Cat. No.
Rotary evaporators				
RV 10 digital, EU-plug	Vertical condenser	standard	1	531-0293
RV 10 digital, UK-plug	Vertical condenser	standard	1	531-3410
RV 10 digital, CH-plug	Vertical condenser	standard	1	531-3417
RV 10 digital, EU-plug	Flex Package	without*	1	531-0781
RV 10 digital, UK-plug	Flex Package	without*	1	531-0782
RV 10 digital, CH-plug	Flex Package	without*	1	531-0783

* Delivered only with bath, vapour tube, clamps for glassware and Woulf bottle. This package enables the customer to select the glassware set up for their specific application.
Please contact VWR for details on RV 10 digital model with plastic coated glassware.



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Continued from previous page

Glassware and accessories for rotary evaporators RV 10
VWR by IKA

Glassware sets and protection cover and shield



Glassware sets include 1000 ml evaporation and receiving flasks. The solvent being distilled can be continuously fed in through the PTFE inlet tube. Coated versions are available and offer additional user protection.

Other options include a heating bath shield for optimal protection against splashes of hot liquid. A protective cover which is essential when it is not possible to work in an extractor hood (protects the user against splashes of hot liquid and in the event of the evaporator flask breaking - coated glassware should also be used).

Description	Pk	Cat. No.
Set of glassware, vertical, standard	1	531-3476
Set of glassware, vertical, coated*	1	531-3478
Set of glassware, diagonal, standard	1	531-3477
Set of glassware, diagonal, coated*	1	531-3479
Shield for heating bath	1	531-0299
Protective cover for heating bath	1	531-0298

* With transparent plastic coating

Condensers



Description	Pk	Cat. No.
Vertical intensive condenser with double jacket and manifold, standard	1	531-0460
Vertical intensive condenser with double jacket and manifold, coated*	1	531-0461
Dry ice condenser, standard	1	531-0462
Dry ice condenser, coated*	1	531-0463
Vertical condenser with manifold and cut-off valve for reflux distillation, standard	1	531-0464
Vertical condenser with manifold and cut-off valve for reflux distillation, coated*	1	531-0465
Vertical intensive condenser with manifold and cut-off valve for reflux distillation, standard	1	531-0466
Vertical intensive condenser with manifold and cut-off valve for reflux distillation, coated*	1	531-0467

* With transparent plastic coating

Vapour tubes, evaporation flasks and additional accessories



Description	Pk	Cat. No.
Vapour tube NS 29/32	1	531-0468
Evaporation flask NS 29/32, 50 ml, borosilicate glass	1	531-3004
Evaporation flask NS 29/32, 100 ml, borosilicate glass	1	531-3005
Evaporation flask NS 29/32, 250 ml, borosilicate glass	1	531-3006
Evaporation flask NS 29/32, 500 ml, borosilicate glass	1	531-3007
Evaporation flask NS 29/32, 1000 ml, borosilicate glass	1	531-3008
Evaporation flask NS 29/32, 2000 ml, borosilicate glass	1	531-3009
Evaporation flask NS 29/32, 3000 ml, borosilicate glass	1	531-3010
Powder flask NS 29/32, 500 ml, borosilicate glass	1	531-3025
Powder flask NS 29/32, 1000 ml, borosilicate glass	1	531-3026
Powder flask NS 29/32, 2000 ml, borosilicate glass	1	531-3027
Evaporation cylinder NS 29/32 500 ml, borosilicate glass	1	531-3028
Evaporation cylinder NS 29/32 1500 ml, borosilicate glass	1	531-3029

Receiving flasks and additional accessories



Description	Pk	Cat. No.
Foam brake NS 29/32	1	531-3000
Distilling spider with 6 distilling sleeves 20 ml	1	531-3001
Distilling spider with 12 distilling sleeves 20 ml	1	531-3002
Distilling spider with 20 distilling sleeves 20 ml	1	531-3003
Distilling sleeve 20 ml	1	531-0676
Distilling spider with 5 flasks NS 29/32 of 50 ml	1	531-3011
Distilling spider with 5 flasks NS 29/32 of 100 ml	1	531-3012
Evaporation flask 50 ml	1	531-0674
Evaporation flask 100 ml	1	531-0675
Receiving flask KS 35/20, 100 ml, borosilicate glass, standard	1	531-3013
Receiving flask KS 35/20, 250 ml, borosilicate glass, standard	1	531-3014
Receiving flask KS 35/20, 500 ml, borosilicate glass, standard	1	531-3015
Receiving flask KS 35/20, 1000 ml, borosilicate glass, standard	1	531-3016
Receiving flask KS 35/20, 2000 ml, borosilicate glass, standard	1	531-3017
Receiving flask KS 35/20, 3000 ml, borosilicate glass, standard	1	531-3018
Receiving flask KS 35/20, 100 ml, borosilicate glass, coated*	1	531-3019
Receiving flask KS 35/20, 250 ml, borosilicate glass, coated*	1	531-3020
Receiving flask KS 35/20, 500 ml, borosilicate glass, coated*	1	531-3021
Receiving flask KS 35/20, 1000 ml, borosilicate glass, coated*	1	531-3022
Receiving flask KS 35/20, 2000 ml, borosilicate glass, coated*	1	531-3023
Receiving flask KS 35/20, 3000 ml, borosilicate glass, coated*	1	531-3024

* With transparent plastic coating

Miscellaneous accessories



Description	Pk	Cat. No.
Extension plate (required when using foam brake and 3 l evaporating flask)	1	531-0672
Seal	1	531-0842

Magnetic valves



Description	Pk	Cat. No.
Magnetic valve, in-house vacuum, for RV10 control	1	531-3487
Magnetic valve, laboratory vacuum, for RV10 control	1	531-3485
Pump control including magnetic valve, for RV10 control	1	531-3486
Choke water valve to regulate the water flow, for RV10 control	1	531-3488
Filter to prevent contamination of the water pipes, for RV10 control	1	531-3489
Pressure regulating valve for adjusting the cooling water pressure, for RV10 control	1	531-0673



Recirculating chillers, RC-10 range



VWR recirculating chillers are ideal for use with rotary evaporators, as they ensure constant, reproducible cooling conditions and avoid wasting tap water thereby increasing cost savings. Designed to be user friendly, the units have an easily accessible filling port on top of the unit and a drain tap at the back. The chillers have a stainless steel reservoir, operate using R 134 a refrigerant and can be used in the permitted ambient temperature range of 15 to 32 °C.

- Temperature set point can be adjusted by using the keys on the command panel (except the Basic model which has a fixed set point at 7 °C)
- The Duo chiller can cool two cooling cycles directly connected on the double out and inlets
- Regulate the temperature of the cooling cycle between -10 °C and +40 °C (use water and glycol mixture (70:30 mixture) for temperatures below +5 °C)
- Indicator on front panel for perfect visualisation of liquid level

Max. flow rate (with no counter pressure)/max. pressure (at zero flow)
RC-10 Basic 14 l/min, 0,4 bar
RC-10 Digital 8 l/min, 0,6 bar
RC-10 Duo 11 l/min, 1,0 bar

Delivery Information: Basic and Digital units supplied with 2x8 Ø mm hose connections, 2 x screw nuts M 16 x 1, 2 x PVC hose (1500 mm) and 2 x hose clamps, Duo models have four of each of these. Includes EU, UK and CH power cable.

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Type	Temp. range (°C)	Temp. stability	Cooling capacity (kW)	Capacity (l)	WxDxH (mm)	Pk	Cat. No.
RC-10 Basic	7*	±2 K	0,5	3,5	280×360×520	1	462-0137
RC-10 Digital	-10...+40	±0,5 K	0,5	3,5	280×370×490	1	462-0138
RC-10 Duo	-10...+40	±0,5 K	0,95	3,5	350×420×600	1	462-0139

* Fixed
Note: Cooling capacity at +15 °C

Conical separating funnels



Borosilicate glass 3.3, with NS-PE stopper

Capacity (ml)	Socket size (NS)	Pk	Cat. No.
Without graduation, with PTFE key			
50	19/26	1	532-0006
100	19/26	1	532-0007
250	19/26	1	532-0008
500	29/32	1	532-0009
1000	29/32	1	532-0010
2000	29/32	1	532-0011
With graduation and PTFE key			
50	19/26	1	532-0012
100	19/26	1	532-0013
250	19/26	1	532-0014
500	29/32	1	532-0015
1000	29/32	1	532-0016
2000	29/32	1	532-0017

Separating funnels, Squibb



Borosilicate glass 3.3, with NS-PE stopper

Capacity (ml)	Socket size (NS)	Pk	Cat. No.
Without graduation, with PTFE key			
50	19/26	1	532-0018
100	19/26	1	532-0019
250	19/26	1	532-0020
500	29/32	1	532-0021
1000	29/32	1	532-0022
2000	29/32	1	532-0023
With graduation and PTFE key			
50	19/26	1	532-0024
100	19/26	1	532-0025
250	29/32	1	532-0026
500	29/32	1	532-0027
1000	29/32	1	532-0028
2000	29/32	1	532-0029

Extraction thimbles, Grade 501



Pure cellulose cotton

Suitable for all types of extractors (Soxhlet, Büchi, Gerhardt, and more).

- Determination of free lipids content in foods and fat content in milk powder
- Determination of oil content in oleaginous products
- Extraction and quantification of various components

I-ØxH (mm)	Pk	Cat. No.
19×90	25	516-0000
22×80	25	516-0252
25×80	25	516-0253
25×100	25	516-0254
28×80	25	516-0255
30×80	25	516-0256
30×100	25	516-0257
33×60	25	516-0258
33×80	25	516-0259
33×100	25	516-0260
33×118	25	516-0261
41×123	25	516-0262

Crimp neck vials, ND8



Vials, closures, septa and tools

Flat, round bottom and conical micro-vials available with volumes of 0,3 to 1,2 ml in clear or amber glass.

Broad selection of crimp closures with different types of septa.

Crimp neck vials, ND8

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass, flat bottom	0,8	8,2×30	1.000	548-0035
Clear glass, flat bottom	0,7	7×40	1.000	548-0036
Amber glass, flat bottom	0,7	7×40	1.000	548-0037
Clear glass, conical	0,2	5,5×31,5	1.000	548-0078
Clear glass, round bottom	0,3	5,5×31,5	1.000	548-0080
Amber glass, conical	0,6	7×40	1.000	548-0339
Clear glass, conical	0,6	7×40	1.000	548-0340
Clear glass, flat bottom	1,2	8,2×40	1.000	548-0341
Amber glass, flat bottom	1,2	8,2×40	1.000	548-0783
Amber glass, conical	0,4	7×30	1.000	548-0831

Aluminium crimp caps, ND8 with central hole, 4 mm and septum

Type	Hardness	Septum	Septum	Thickness (mm)	Pk	Cat. No.
Clear lacquered aluminium	45° shore A	PTFE red/silicone white/ PTFE red	PTFE red/silicone white/ PTFE red	1,0	1.000	548-0038
Clear lacquered aluminium	45° shore A	Silicone white/PTFE red	Silicone white/PTFE red	1,3	1.000	548-0040
Clear lacquered aluminium	60° shore A	Natural rubber red-orange/ TEF transparent	Natural rubber red-orange/ TEF transparent	1,0	1.000	548-0041
Clear lacquered aluminium	70° shore A	Viton black	Viton black	1,5	1.000	548-0323
Clear lacquered aluminium	55° shore A	Silicone beige/PTFE red	Silicone beige/PTFE red	1,5	1.000	548-0324
Clear lacquered aluminium	53° shore D	PTFE virginal	PTFE virginal	0,25	1.000	548-0325
Clear lacquered aluminium	45° shore A	Silicone blue transparent/ PTFE white	Silicone blue transparent/ PTFE white	1,3	1.000	548-0326
Clear lacquered aluminium	45° shore A	Silicone dark blue/ PTFE white	Silicone dark blue/ PTFE white	1,3	1.000	548-0328
Clear lacquered aluminium	45° shore A	Silicone white/PTFE red, with slit	Silicone white/PTFE red, with slit	1,3	1.000	548-0813
Clear lacquered aluminium	70° shore A	Viton black	Viton black	1,0	1.000	548-0829
Clear lacquered aluminium	60° shore A	Natural rubber red-orange/ TFE transparent	Natural rubber red-orange/ TFE transparent	1,0	1.000	548-3290
Clear lacquered aluminium	45° shore A	Red rubber/PTFE beige	Red rubber/PTFE beige	1,0	1.000	548-3291

Crimpers and decappers

Description	Pk	Cat. No.
Crimper for 8 mm aluminium caps	1	548-0069
Decapper for 8 mm aluminium caps	1	548-0070

Vial racks

Hole Ø (mm)	W×D×H (mm)	Pk	Cat. No.
3 - 8,5	173×95×20	1	548-0130

Other caps and seals for crimp neck vials, ND8

Type	Hardness	Septum	Septum	Thickness (mm)	Pk	Cat. No.
PE caps with central hole 4 mm	60° shore A	Natural rubber red-orange/ TFE transparent	Natural rubber red-orange/ TFE transparent	1,0	1.000	548-0374
PE caps with central hole 4 mm	45° shore A	Silicone white /PTFE red	Silicone white /PTFE red	1,3	1.000	548-0375
PE Push-On caps with penet- ration point	-	-	-	-	1.000	548-0810

Screw neck vials, ND8



Standard vials with a small opening for GC and HPLC, micro-inserts, closures, kits and tools.

- Broad range of small opening micro-inserts available
- Kits with vials (10×100) and closures available for convenience
- Especially suitable for VWR-Hitachi equipment

Screw neck vials, ND8

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass	1,5	11,6×32	1.000	548-0018
Amber glass with label	1,5	11,6×32	1.000	548-0019
Clear glass, conical	1,1	11,6×32	1.000	548-0419
Clear glass with label	1,5	11,6×32	1.000	548-0420
Amber glass	1,5	11,6×32	1.000	548-0448
Clear glass, silanised	1,5	11,6×32	100	548-1366

Micro-inserts, ND8 for small opening

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass, conical, top 15 mm	0,1	5×31	1.000	548-0020
Clear glass, conical, with separate metal spring	0,05	4×27,5	1.000	548-0021
Clear glass, conical, with assembled plastic spring	0,1	5×29	1.000	548-0083
Clear glass, conical, top 9 mm	0,1	5×31	1.000	548-0308
Clear glass, flat bottom	0,2	5×31	1.000	548-0780

Screw caps, ND8 black PP with septa

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
With central hole 5,5 mm	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0022
With central hole 5,5 mm	60° shore A	Natural rubber red-orange/TEF transparent	1,3	1.000	548-0023
With central hole 5,5 mm	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0024
With central hole 5,5 mm	55° shore A	Butyl red/PTFE grey	1,3	1.000	548-0106
With central hole 5,5 mm	55° shore A	Silicone beige/PTFE red	1,5	1.000	548-0354
Closed top	60° shore A	Natural rubber red-orange/TEF transparent	1,3	1.000	548-0355
With central hole 5,5 mm	45° shore A	Silicone blue transparent/PTFE white	1,3	1.000	548-0357
White, with central hole 5,5 mm	60° shore A	Natural rubber red-orange/TEF transparent	1,3	1.000	548-0358
With central hole 5,5 mm	45° shore A	Silicone dark blue/PTFE white	1,3	1.000	548-0359
Closed top	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0360
With central hole 5,5 mm	45° shore A	Silicone white/PTFE red, slitted	1,3	1.000	548-0834
Closed top	55° shore A	Butyl red/PTFE grey	1,3	1.000	548-0836
Closed top	55° shore A	Silicone beige/PTFE red	1,5	1.000	548-3176
With central hole 5,5 mm	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3322

Septa, ND8

Type	Hardness	Thickness (mm)	Pk	Cat. No.
Silicone white/PTFE blue, slitted	55° shore A	0,9	1.000	548-0026
PTFE virginal	53° shore D	0,25	1.000	548-0027
Butyl red/PTFE grey	55° shore A	1,3	1.000	548-0115
PTFE red/silicone white/PTFE red	45° shore A	1,0	1.000	548-0312
Silicone beige/PTFE red	55° shore A	1,5	1.000	548-0313
Silicone white/PTFE red	45° shore A	1,3	1.000	548-0314
Viton black	70° shore A	1,5	1.000	548-0315
Natural rubber red-orange/TEF transparent	60° shore A	1,0	1.000	548-0316
Natural rubber red-orange/TEF transparent	60° shore A	1,3	1.000	548-0318
Silicone blue transparent/PTFE white	45° shore A	1,3	1.000	548-0320

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Type	Hardness	Thickness (mm)	Pk	Cat. No.
Silicone dark blue/PTFE white	45° shore A	1,3	1.000	548-0322
PTFE grey/Butyl red/PTFE grey	55° shore A	1,3	1.000	548-0782
Viton black	70° shore A	1,0	1.000	548-0828

Screw caps PP, ND8 without septum

Type	Pk	Cat. No.
Black, central hole 5,5 mm	1.000	548-0025
Black, closed	1.000	548-0335
White, closed	1.000	548-0336
White, with central hole 5,5 mm	1.000	548-0337

Kits

Kits include: 1,5 ml glass screw cap vial, (11,6×32 mm), screw cap PP black with 5,5 mm central hole and septum.

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass, septum: Silicone white/PTFE blue, 55° shore A, 0,9 mm, slitted	1,5	11,6×32	1.000	548-0095
Clear glass, septum: Silicone white/PTFE red, 45° shore A, 1,3 mm	1,5	11,6×32	1.000	548-0175
Clear glass, septum: PTFE red/silicone white/PTFE red, 45° shore A, 1,0 mm	1,5	11,6×32	1.000	548-0176
Amber glass with label and filling lines, septum: Silicone white/PTFE red, 45° shore A, 1,3 mm	1,5	11,6×32	100	548-0852
Amber glass, septum: Silicone white/PTFE blue, 55° shore A, 0,9 mm, slitted	1,5	11,6×32	100	548-0853
Clear glass, septum: PTFE virginal, 53° shore D, 0,25 mm	1,5	11,6×32	1.000	548-0913
Amber glass, septum: Silicone white/PTFE red, 45° shore A, 1,3 mm	1,5	11,6×32	1.000	548-0914
Clear glass, septum: Natural rubber red-orange/TEF transparent, 60° shore A, 1,3 mm	1,5	11,6×32	1.000	548-0915
Clear glass with label and filling lines, septum: Silicone white/PTFE red, 45° shore A, 1,3 mm	1,5	11,6×32	100	548-3283

Vial racks

Hole Ø (mm)	No. of holes	W×D×H (mm)	Pk	Cat. No.
12	50	173×95×20	1	548-0131

Screw neck vials, ND8 with pre-assembled seals

Type	Capacity (ml)	Ø×H (mm)	Septum	Pk	Cat. No.
Clear glass, pre-assembled with black cap	1,5	11,6×32	Silicone white/PTFE blue, 55° shore A, 0,9 mm, slitted	1.000	548-0819
Clear glass, pre-assembled with black cap	1,5	11,6×32	Silicone white/PTFE red, 45° shore A, 1,3 mm, slitted	1.000	548-0850

Short thread vials, ND9



Standard glass or plastic vials for GC and HPLC, micro-inserts, closures and kits. Can be used universally on almost all autosamplers, preferred type of vial for Waters and Agilent.

- Wide opening enables easy filling
- Closures with different types of septa can be supplied in differently coloured caps; blue cap also available with closed top
- Pre-cut closures for HPLC needles available, where only the silicone is slitted, but the PTFE remains intact (no concentration changes; no contamination due to impurities extracted from the silicone)
- Synthetic material often used in Agilent red rubber/PTFE septa has been added to the product line (this is softer material with less fragmentation than natural rubber/TEF)

Continued from previous page

Short thread vials, ND9

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass	1,5	11,6x32	1.000	548-0028
Clear glass with label	1,5	11,6x32	1.000	548-0029
Amber glass with label	1,5	11,6x32	1.000	548-0030
Clear glass, inner cone in the solid glass bottom	1,1	11,6x32	1.000	548-0081
Clear glass with label, integrated 0,2 ml micro-insert	0,2	11,6x32	1.000	548-0425
Clear glass, silanised	1,5	11,6x32	1.000	548-0426
Amber glass with label, silanised	1,5	11,6x32	1.000	548-0427
Clear Topsert TPX with integrated glass micro-insert 0,2 ml	0,2	11,6x32	1.000	548-0428
Clear TopSert TPX with integrated glass micro-insert 0,2 ml, silanised	0,2	11,6x32	1.000	548-0430
Amber Topsert TPX with integrated glass micro-insert	0,2	11,6x32	1.000	548-0791
Amber TopSert, TPX with integrated 0,2 ml glass micro-insert, silanised	0,2	11,6x32	1.000	548-0849
Clear glass with integrated micro-insert, „base bonded“	0,3	11,6x32	1.000	548-1442
Amber glass with label, integrated 0,2 ml micro-insert	0,2	11,6x32	1.000	548-3308

Micro-inserts for wide opening

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Amber glass, 1,5 ml, with label, transparent cap, septum silicone white/PTFE red, 55° shore A, 1,0 mm	1,5	11,6x32	1.000	548-0912
Micro-insert, clear glass, flat bottom	0,2	6x31	1.000	548-0001
Micro-insert, clear glass, with assembled plastic spring	0,1	6x29	1.000	548-0002
Micro-insert, clear glass, 15 mm top	0,1	6x31	1.000	548-0006
Micro-insert, clear glass, 12 mm top	0,1	6x31	1.000	548-0310
Micro-insert, clear glass, 15 mm top, silanised	0,1	6x31	1.000	548-0311
Micro-insert, clear glass, with assembled plastic spring, silanised	0,1	6x29	1.000	548-0812

Short thread vials in plastic, ND9

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
PP transparent, conical insert	0,3	11,6x32	1.000	548-0440
TPX crystal clear, conical insert	0,3	11,6x32	1.000	548-0450
PP transparent with filling lines	1,5	11,6x32	1.000	548-0452
PP amber, conical insert	0,3	11,6x32	1.000	548-0453
PP amber with filling lines	1,5	11,6x32	1.000	548-0455
PP transparent, cylindrical insert	0,7	11,6x32	1.000	548-0894

Short screw caps with central hole, 6 mm and septa, ND9

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PP transparent	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0032
PP transparent	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0033
PP transparent	55° shore A	Silicone white/PTFE red	1,0	1.000	548-0034
PP transparent	55° shore A	Silicone white/PTFE blue, slitted	1,0	1.000	548-0084
PP blue	55° shore A	Silicone white/PTFE red	1,0	1.000	548-0085
PP blue	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0086
PP blue	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0087
PP blue	55° shore A	Silicone white/PTFE blue, slitted	1,0	1.000	548-0088
PP blue	53° shore D	PTFE virginal	0,2	1.000	548-0089
PP yellow	55° shore A	Silicone white/PTFE red	1,0	1.000	548-0162
PP green	53° shore D	PTFE virginal	1,0	1.000	548-0163
PP yellow	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0164
PP transparent	53° shore D	PTFE virginal	0,2	1.000	548-0377
PP red	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0379
PP red	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0380
PP red	55° shore A	Silicone white/PTFE red	1,0	1.000	548-0381
PP red	55° shore A	Silicone white/PTFE blue, slitted	1,0	1.000	548-0382
PP green	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0383
PP black	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0784
PP black	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0785
PP black	55° shore A	Silicone white/PTFE red	1,0	1.000	548-0786
PP black	53° shore D	PTFE virginal	0,2	1.000	548-0787

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Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PP black	55° shore A	Silicone white/PTFE blue, slitted	1,0	1.000	548-0788
PP red	53° shore D	PTFE virginal	0,2	1.000	548-0839
PP green	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0840
PP yellow	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0841
PP blue	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-0896
PP blue, closed top	55° shore A	Silicone white/PTFE red	1,0	1.000	548-0898
PP green	55° shore A	Silicone white/PTFE red	1,0	1.000	548-3179
PP yellow	55° shore A	Silicone white/PTFE blue, slitted	1,0	1.000	548-3182
PP green	55° shore A	Silicone white/PTFE red, slitted	1,0	1.000	548-3183
PP blue, closed top	53° shore D	PTFE virginal	0,2	1.000	548-3184
PP blue, closed top	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-3185
Magnetic, for CTC GC PAL and Thermo Scientific TriPlus	55° shore A	Silicone white/PTFE red	1,0	1.000	548-3294
PP green	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3295
PP transparent	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3296
PP red	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3297
PP black	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3298
PP yellow	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3299
PP blue	55° shore A	Silicone white/PTFE red, pre-cut (Y)	1,0	1.000	548-3300
PP transparent	55° shore A	Silicone white/PTFE red, pre-cut (Y)	1,0	1.000	548-3301

UltraBond™ short thread seals, ND9 with central hole

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PP black	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0371
PP blue (compatible with Waters)	45° shore A	Silicone beige/PTFE white	1,3	1.000	548-0372
PP blue (compatible with Waters)	45° shore A	Silicone beige/PTFE white, slitted	1,3	1.000	548-0373

Special short thread cap for LC/MS and GC/MS applications

- One component closure
- No bleeding, absolutely inert
- Tight, pierceable and chemical resistant like PTFE

Description	Pk	Cat. No.
MS short thread cap, transparent, with thinned penetration area + diaphragm	1.000	548-0902

Septa 9 mm for short thread caps

Type	Hardness	Thickness (mm)	Pk	Cat. No.
Red rubber/PTFE beige	45° shore A	1,0	1.000	548-3293
PTFE virginal	53° shore D	0,2	1.000	548-3323
Natural rubber red-orange/TEF transparent	60° shore A	1,0	1.000	548-3324
Silicone white/PTFE red	55° shore A	1,0	1.000	548-3325
PTFE red/silicone white/PTFE red	45° shore A	1,0	1.000	548-3326

Kits

Kits include: 1,5 ml short thread vial (11,6×32 mm), short thread cap PP blue, red or transparent with 6 mm central hole and septum.

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass, 1,5 ml, blue cap, septum silicone white/PTFE red, 55° shore A, 1,0 mm	1,5	11,6×32	1.000	548-0177
PP transparent, 0,3 ml, blue cap, septum PTFE red/silicone white/PTFE red, 60° shore A, 1,0 mm	0,3	11,6×32	100	548-0189
Clear glass, 1,1 ml, cone in the solid glass bottom, blue cap, septum silicone white/PTFE blue, 55° shore A, 1,0 mm, with slit	1,1	11,6×32	100	548-0463
PP transparent 0,3 ml, blue cap, septum silicone white/PTFE blue slitted, 60° shore A, 1,0 mm	0,3	11,6×32	100	548-0464
Clear glass, 1,5 ml, transparent cap, septum natural rubber red-orange/TEF transparent, 60° shore A, 1,0 mm	1,5	11,6×32	1.000	548-0854
PP transparent 1,5 ml, blue cap, septum silicone white/PTFE blue, 55° shore A, 1,0 mm, slitted	1,5	11,6×32	1.000	548-0855
Clear glass, 1,5 ml, blue cap, septum natural rubber red-orange/TEF transparent, 60° shore A, 1,0 mm	1,5	11,6×32	1.000	548-0907
Clear glass, 1,5 ml, blue cap, septum silicone white/PTFE blue, 55° shore A, 1,0 mm, slitted	1,5	11,6×32	1.000	548-0908
Clear glass, 1,5 ml, blue cap, septum PTFE red/silicone white/PTFE red, 45° shore A, 1,0 mm	1,5	11,6×32	1.000	548-0909
Clear glass, 1,5 ml, with label, blue cap, septum silicone white/PTFE blue, 55° shore A, 1,0 mm, slitted	1,5	11,6×32	1.000	548-0910
Clear glass, 1,5 ml, transparent cap, septum silicone white/PTFE red, 55° shore A, 1,0 mm	1,5	11,6×32	1.000	548-0911
Clear glass, 1,1 ml, cone in the solid glass bottom, blue cap, septum silicone beige/PTFE white, 45° shore A, 1,3 mm, slitted	1,1	11,6×32	1.000	548-1083
Clear glass, 1,5 ml, with label, blue cap, septum silicone beige/PTFE white, 45° shore A, 1,3 mm	1,5	11,6×32	1.000	548-1092

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Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass, 1,5 ml, silanised, blue cap, septum silicone beige/PTFE white, 45° shore A, 1,3 mm, slitted	1,5	11,6×32	1.000	548-1363
Clear glass, 1,5 ml, blue cap, septum PTFE virginal, 53° shore D, 0,2 mm	1,5	11,6×32	1.000	548-1396
PP transparent 0,7 ml, blue cap UltraBond, septum silicone beige/PTFE white, 45° shore A, 1,3 mm, slitted	0,7	11,6×32	1.000	548-1398
Amber glass, 1,5 ml, with label, blue cap UltraBond, septum silicone beige/PTFE white, 45° shore A, 1,3 mm, slitted	1,5	11,6×32	1.000	548-3047
Clear glass, 1,5 ml, with label, transparent cap, septum silicone white/PTFE red, 55° shore A, 1,0 mm	1,5	11,6×32	1.000	548-3213
Clear glass, 1,5 ml, blue cap UltraBond, septum silicone beige/PTFE white, 45° shore A, 1,3 mm, slitted	1,5	11,6×32	100	548-3214
Amber glass, 1,5 ml, with label, blue cap, septum silicone white/PTFE red, 55° shore A, 1,0 mm	1,5	11,6×32	1.000	548-3253
Clear glass, 1,5 ml, red cap, septum silicone white/PTFE red, 55° shore A, 1,0 mm	1,5	11,6×32	1.000	548-3255
Amber glass, 1,5 ml, with label, blue cap, septum silicone white/PTFE blue, 55° shore A, 1,0 mm, slitted	1,5	11,6×32	1.000	548-3259
Clear glass, 1,5 ml, with label, blue cap, septum PTFE red/silicone white/PTFE red, 45° shore A, 1,0 mm	1,5	11,6×32	1.000	548-3275
Clear glass, 1,5 ml, with label, blue cap UltraBond, septum silicone beige/PTFE white, 45° shore A, 1,3 mm, slitted	1,5	11,6×32	1.000	548-3276
Amber glass, 1,5 ml, with label, transparent cap, PTFE virginal, 53° shore D, 0,2 mm	1,5	11,6×32	1.000	548-3342
Clear glass, 1,5 ml, with label, blue cap, septum silicone white/PTFE red, 55° shore A, 1,0 mm	1,5	11,6×32	1.000	548-3343

Short thread vials, ND9 with pre-assembled seals

Type	Capacity (ml)	Ø×H (mm)	Septum	Pk	Cat. No.
Clear glass, pre-assembled with green cap	1,5	11,6×32	Natural rubber red-orange/TEF transparent, 60° shore A, 1,0 mm	1.000	548-0706
Amber glass, pre-assembled with blue cap	1,5	11,6×32	Silicone white/PTFE blue, 55° shore A, 1,0 mm, slitted	1.000	548-1055
Clear glass, pre-assembled with blue cap	1,5	11,6×32	RedRubber/PTFE beige, (Agilent quality), 45° shore A, 1,0 mm	1.000	548-1056
Amber glass, pre-assembled with Ultrabond blue cap	1,5	11,6×32	Silicone beige/PTFE white, 45° shore A, 1,3 mm, slitted	1.000	548-3201
Clear glass, pre-assembled with blue cap	1,5	11,6×32	Silicone white/PTFE blue, 55° shore A, 1,0 mm, slitted	1.000	548-3309

HPLC and GC certified vial kits

HPLC and GC certified vial kits certifications are getting more and more important, in order to make processes more reproducible and avoid possible sources of errors from the beginning.

- Each batch of HPLC and GC certified kits is tested on 15 critical parameters. In a realistic method, an HPLC/UV and GC/FID test of vials/closure combination of blanks and contaminations will be carried out
- The batch specific test certificate with the HPLC and GC-chromatograms can be handed out upon request
- The HPLC and GC certified kits are delivered completely shrinkwrapped for reasons of originality, purity and transport safety

Type	Capacity (ml)	Pk	Cat. No.
HPLC/GC certified vial kit, clear glass, 1,5 ml, with label, UltraClean seal: 9mm PP short thread cap, blue, centre hole, septum silicone white/PTFE red, 55° shore A, 1,0 mm	1,5	1.000	548-1488
HPLC/GC certified vial kit, amber glass, 1,5 ml, with label, UltraClean seal: 9mm PP short thread cap, blue, centre hole, septum silicone white/PTFE red, 55° shore A, 1,0 mm	1,5	1.000	548-1489

Total microlitre vials



Total microlitre vials provide a precise tapered internal design for a maximum recovery without the need for a separate micro-insert. They ensure maximum recovery for GC and HPLC/UHPLC with a residual volume <1 µl.

- Usable as concentration vial, because the solid glass bottom offers excellent heat transfer and vial-stability
- Autosampler compatibility because of the flat glass bottom and "standard" vial design
- Flexible volume from 1,6 ml (max. possible volume) down to 25 µl (min. recommended working volume)
- First hydrolytic class

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Short thread vials ND9, clear glass	0,9	11,6×32	100	548-1386
Snap ring/crimp vials ND9, clear glass	0,9	11,6×32	100	548-1387

Screw neck vials, ND10



Vials, micro-inserts, closures and septa. Used on Perkin Elmer, Shimadzu, Varian, Waters, Jasco.

- Wide opening enables easy filling
- Vials are packed in a cleanroom class 10 000

Screw neck vials, ND10

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass	1,5	11,6x32	1.000	548-0385
Clear glass with label	1,5	11,6x32	1.000	548-0386
Amber glass with label	1,5	11,6x32	1.000	548-0387

Micro-inserts for wide opening

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Micro-insert, clear glass, flat bottom	0,2	6x31	1.000	548-0001
Micro-insert, clear glass, with assembled plastic spring	0,1	6x29	1.000	548-0002
Micro-insert, clear glass, 15 mm top	0,1	6x31	1.000	548-0006
Micro-insert, clear glass, 12 mm top	0,1	6x31	1.000	548-0310
Micro-insert, clear glass, 15 mm top, silanised	0,1	6x31	1.000	548-0311
Micro-insert, clear glass, with assembled plastic spring, silanised	0,1	6x29	1.000	548-0812

PP screw caps, ND10 with septum

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PP black, central hole 7 mm	45° shore A	Silicone white/PTFE beige	1,5	1.000	548-0388
PP black, central hole 7 mm	60° shore A	Natural rubber red-orange/TEF transparent	1,3	1.000	548-0389
PP black, central hole 7 mm	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0390
PP black, central hole 7 mm	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0391
PP black, central hole 7 mm	55° shore A	Silicone white/PTFE blue, slitted	1,5	1.000	548-0392
PP black, closed top	60° shore A	Natural rubber red-orange/TEF transparent	1,3	1.000	548-3256

Kits

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass, screw cap PP black, central hole 7 mm with septum PTFE virginal, 53° shore D, 0,25 mm	1,5	11,6x32	800	548-1397
Clear glass, screw cap PP black, central hole 7 mm with septum silicone white/PTFE red, 45° shore A, 1,3 mm	1,5	11,6x32	1.000	548-3187
Clear glass, screw cap PP black, central hole 7 mm with septum silicone white/PTFE blue, 55° shore A, 1,5 mm, slitted	1,5	11,6x32	1.000	548-3260
Clear glass, screw cap PP black, central hole 7 mm with septum silicone white/PTFE beige, 45° shore A, 1,5 mm	1,5	11,6x32	1.000	548-3281



HIPERSOLV® CHROMANORM®

- High purity solvents for HPLC applications
- Designed to meet your requirements in analysis and quality control

Crimp neck vials, ND11



Standard vials for GC and HPLC with wide opening, micro-inserts, closures, kits and tools.

- Magnetic crimp caps for CTC PAL and Thermo Scientific TriPlus autosamplers
- Wide opening enables easy filling
- Broad range of micro-inserts and microvials available
- Vials with label and filling lines for easy handling

Packed in a cleanroom class 10 000.

Crimp neck vials, ND11

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass, wide opening	1,5	11,6×32	1.000	548-0003
Clear glass with label, wide opening	1,5	11,6×32	1.000	548-0004
Amber glass with label, wide opening	1,5	11,6×32	1.000	548-0005
Clear glass, inner cone in solid glass bottom	1,1	11,6×32	1.000	548-0092
Clear glass, conical	1,1	11,6×32	1.000	548-0418
Clear glass, conical	0,9	10×32	1.000	548-0421
Clear glass, wide opening	2,5	11,6×41	1.000	548-0423
Clear glass with label and integrated 0,2 ml micro-insert	0,2	11,6×32	1.000	548-0424
Clear TopSert, TPX snap ring vial with integrated 0,2 ml glass micro-insert	0,2	11,6×32	1.000	548-0429
Clear TopSert, TPX snap ring vial with integrated 0,2 ml glass micro-insert, silanised	0,2	11,6×32	1.000	548-0431
Clear glass, small opening	1,5	11,6×32	1.000	548-0447
Amber TopSert, TPX snap ring vial with integrated 0,2 ml glass micro-insert	0,2	11,6×32	1.000	548-0792
Clear glass, wide opening, silanised	1,5	11,6×32	100	548-1368
Amber TopSert, TPX snap ring vial with integrated 0,2 ml glass micro-insert, silanised	0,2	11,6×32	1.000	548-3198
Amber glass with label and integrated 0,2 ml micro-insert	0,2	11,6×32	1.000	548-3307

Micro-inserts for wide opening

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Micro-insert, clear glass, flat bottom	0,2	6×31	1.000	548-0001
Micro-insert, clear glass, with assembled plastic spring	0,1	6×29	1.000	548-0002
Micro-insert, clear glass, 15 mm top	0,1	6×31	1.000	548-0006
Micro-insert, clear glass, 12 mm top	0,1	6×31	1.000	548-0310
Micro-insert, clear glass, 15 mm top, silanised	0,1	6×31	1.000	548-0311
Micro-insert, clear glass, with assembled plastic spring, silanised	0,1	6×29	1.000	548-0812

Aluminium crimp caps, ND11 with central hole, 5,5 mm and septum

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
Clear lacquered aluminium	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0007
Clear lacquered aluminium	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0008
Clear lacquered aluminium	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0009
Clear lacquered aluminium	45° shore A	Natural rubber red-orange/butyl red/TEF	1,0	1.000	548-0010
Green lacquered aluminium	45° shore A	Natural rubber red-orange/butyl red/TEF transparent	1,0	1.000	548-0403
Red lacquered aluminium	45° shore A	Natural rubber red-orange/butyl red/TEF transparent	1,0	1.000	548-0404
Blue lacquered aluminium	45° shore A	Natural rubber red-orange/butyl red/TEF transparent	1,0	1.000	548-0405

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Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
Gold lacquered aluminium	45° shore A	Natural rubber red-orange/butyl red/TEF transparent	1,0	1.000	548-0406
Clear lacquered aluminium	53° shore D	PTFE virginal	0,25	1.000	548-0408
Clear lacquered aluminium	55° shore A	Silicone beige/PTFE red	1,5	1.000	548-0409
Clear lacquered aluminium	70° shore A	Viton black	1,5	1.000	548-0410
Clear lacquered aluminium	55° shore A	Silicone white/PTFE blue, cross-slitted	1,5	1.000	548-0411
Clear lacquered aluminium	45° shore A	Silicone blue transparent/PTFE white	1,3	1.000	548-0412
Red lacquered aluminium	55° shore A	Silicone cream/PTFE red	1,5	1.000	548-0443
Clear lacquered aluminium	45° shore A	Silicone dark blue/PTFE white	1,3	1.000	548-0444
Clear lacquered aluminium	55° shore A	Butyl red/PTFE grey	1,3	1.000	548-0790
Clear lacquered aluminium	55° shore A	PTFE grey/butyl red/PTFE grey	1,3	1.000	548-0804
Red lacquered aluminium	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0844
Blue lacquered aluminium	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0845
Clear lacquered aluminium	70° shore A	Viton black	1,0	1.000	548-0846
Gold lacquered aluminium	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0847
Green lacquered aluminium	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0848
Clear lacquered aluminium, central hole, with roll groove		Aluminium liner, sealed by o-ring	0,06	1.000	548-1505
Clear lacquered aluminium	53° shore D	PTFE virginal (sealed by o-ring)	0,25	1.000	548-1506
Clear lacquered aluminium	60° shore A	Natural rubber red-orange/butyl red/TEF transparent	1,3	1.000	548-3261
Clear lacquered aluminium	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3272
Green lacquered aluminium	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3303
Red lacquered aluminium	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3304
Blue lacquered aluminium	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3305
Gold lacquered aluminium	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3306

Magnetic crimp caps, ND11 with central hole, 5 mm and septum for CTC PAL and Thermo Scientific TriPlus autosamplers

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
Gold lacquered	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0082
Gold lacquered	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0407

Septa 11 mm

Type	Hardness	Thickness (mm)	Pk	Cat. No.
Silicone white/PTFE red	45° shore A	1,3	1.000	548-0393
PTFE red/silicone white/PTFE red	45° shore A	1,0	1.000	548-0394
Silicone beige/PTFE red	55° shore A	1,5	1.000	548-0395
PTFE virginal	53° shore D	0,25	1.000	548-0396
Viton black	70° shore A	1,5	1.000	548-0397
Silicone white/PTFE blue, cross-slitted	55° shore A	1,5	1.000	548-0398
Natural rubber red-orange/TEF transparent	60° shore A	1,0	1.000	548-0400
Silicone blue transparent/PTFE white	45° shore A	1,3	1.000	548-0401
Butyl red/PTFE grey	55° shore A	1,3	1.000	548-0789
Red rubber/butyl red/PTFE grey	55° shore A	1,3	1.000	548-0843
Red rubber/PTFE beige	45° shore A	1,0	1.000	548-3302

Kits

Kits include: 1,5 ml glass crimp neck vial (11,6×32 mm) crimp cap aluminium, clear lacquered with 5,5 mm central hole and septum.

Capacity (ml)	Ø×H (mm)	Description	Pk	Cat. No.
1,5	11,6×32	Clear glass, natural rubber red-orange/TEF transparent, 60° shore A, 1,0 mm	1.000	548-0171
1,5	11,6×32	Clear glass, natural rubber/butyl red/TEF, 45° shore A, 1,0 mm	1.000	548-0172
1,5	11,6×32	Clear glass, silicone white/PTFE red, 45° shore A, 1,3 mm	1.000	548-0173
1,5	11,6×32	Clear glass, PTFE red/silicone white/PTFE red, 45° shore A, 1,0 mm	1.000	548-0174
1,5	11,6×32	Clear glass, silicone beige/PTFE red, 55° shore A, 1,5 mm	1.000	548-0467
1,5	11,6×32	Amber glass with label, natural rubber red-orange/TEF transparent, 60° shore A, 1,0 mm	1.000	548-0905
1,5	11,6×32	Clear glass, magnetic crimp cap, PTFE red/silicone white/PTFE red, 45° shore A, 1,0 mm	1.000	548-0906
1,5	11,6×32	Clear glass with label, natural rubber red-orange/butyl red/TEF transparent, 45° shore A, 1,0 mm	1.000	548-1361
1,5	11,6×32	Amber glass with label, natural rubber red-orange/butyl red/TEF transparent, 45° shore A, 1,0 mm	1.000	548-1362

Crimpers and decappers

Description	Feature	Pk	Cat. No.
Crimper for 11 mm aluminium caps	Height and pressure adjustable	1	548-0071
Decapper for 11 mm aluminium caps	-	1	548-0072

Other caps

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PE Push-On caps with penetration point, blue	-	-	-	1.000	548-0187
PE caps with central hole 4,5 mm	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0513
PE caps with central hole 4,5 mm	55° shore A	Silicone white /PTFE red	1,0	1.000	548-0517

Crimp neck vials, ND11, wide opening, with pre-cripped aluminium cap and septum

Type	Capacity (ml)	Ø×H (mm)	Septum	Pk	Cat. No.
Clear glass, clear lacquered aluminium with 5,5 mm central hole	1,5	11,6×32	Natural rubber red-orange/TEF transp, 60° shore A, 1,0 mm	1.000	548-0474
Clear glass, blue lacquered aluminium with 5,5 mm central hole	1,5	11,6×32	Natural rubber red-orange/butyl red/TEF transp, 45° shore A, 1,0 mm	1.000	548-0705
Clear glass, clear lacquered aluminium with 5,5 mm central hole	1,5	11,6×32	Natural rubber red-orange/butyl red/TEF transp, 45° shore A, 1,0 mm	1.000	548-0856
Amber glass, clear lacquered aluminium with 5,5 mm central hole	1,5	11,6×32	Natural rubber red-orange/TEF transp, 60° shore A, 1,0 mm	1.000	548-3310
Clear glass, clear lacquered aluminium with 5,5 mm central hole	1,5	11,6×32	Natural rubber red-orange/butyl red/TEF transp, 60° shore A, 1,3 mm	1.000	548-3311

Snap ring vials, ND11



Vials, micro-inserts, closures and kits.

- Recommended for HPLC only
- Wide opening enables easy filling
- Vials can alternatively also be crimped with 11 mm aluminium crimp caps

Transparent and blue caps also available in a soft PE version.

Kits with 100 vials and closures can be obtained as well.

Snap ring vials, ND11

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass	1,5	11,6×32	1.000	548-0011
Clear glass with label	1,5	11,6×32	1.000	548-0422
Amber glass with label	1,5	11,6×32	1.000	548-0012
Clear glass with integrated micro-insert, „base bonded“	0,25	11,6×32	1.000	548-1441
Clear TopSert, TPX snap ring vial with integrated 0,2 ml glass micro-insert	0,2	11,6×32	1.000	548-0429
Clear TopSert, TPX snap ring vial with integrated 0,2 ml glass micro-insert, silanised	0,2	11,6×32	1.000	548-0431
Amber TopSert, TPX snap ring vial with integrated 0,2 ml glass micro-insert	0,2	11,6×32	1.000	548-0792
Amber TopSert, TPX snap ring vial with integrated 0,2 ml glass micro-insert, silanised	0,2	11,6×32	1.000	548-3198

Micro-inserts for wide opening

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Micro-insert, clear glass, flat bottom	0,2	6×31	1.000	548-0001
Micro-insert, clear glass, with assembled plastic spring	0,1	6×29	1.000	548-0002
Micro-insert, clear glass, 15 mm top	0,1	6×31	1.000	548-0006
Micro-insert, clear glass, 12 mm top	0,1	6×31	1.000	548-0310
Micro-insert, clear glass, 15 mm top, silanised	0,1	6×31	1.000	548-0311
Micro-insert, clear glass, with assembled plastic spring, silanised	0,1	6×29	1.000	548-0812

Plastic snap ring vials, ND11

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
PP transparent, conical insert	0,3	11,6×32	1.000	548-0120
TPX transparent, conical insert	0,3	11,6×32	1.000	548-0451
PP amber, conical insert	0,3	11,6×32	1.000	548-0454
PP transparent, cylindrical insert	0,7	11,6×32	1.000	548-0895

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Snap ring caps, ND11 PE with central hole, 6 mm and septa

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PE transparent, hard version	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0014
PE transparent, hard version	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0015
PE transparent, hard version	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0016
PE transparent, hard version	55° shore A	Silicone white/PTFE blue, cross-slitted	1,0	1.000	548-0017
PE green, hard version	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0165
PE yellow, hard version	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0166
PE blue, hard version	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0432
PE blue, hard version	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0433
PE blue, hard version	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0434
PE blue, hard version	55° shore A	Silicone white/PTFE blue, cross-slitted	1,0	1.000	548-0435
PE red, hard version	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-0436
PE red, hard version	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0437
PE red, hard version	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0438
PE red, hard version	55° shore A	Silicone white/PTFE blue, cross-slitted	1,0	1.000	548-0439
PE yellow, hard version	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-0851
PE yellow, hard version	55° shore A	Silicone white/PTFE blue, cross-slitted	1,0	1.000	548-0892
PE green, hard version	55° shore A	Silicone white/PTFE blue, cross-slitted	1,0	1.000	548-0893
PE blue, soft version	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-0897
PE transparent, soft version	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-3203
PE transparent, soft version	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-3204
PE transparent, soft version	45° shore A	Silicone white/PTFE red	1,3	1.000	548-3205
PE transparent, soft version	55° shore A	Silicone white/PTFE blue, cross-slitted	1,0	1.000	548-3206
PE blue, soft version	60° shore A	Natural rubber red-orange/TEF transparent	1,0	1.000	548-3207
PE blue, soft version	45° shore A	Silicone white/PTFE red	1,3	1.000	548-3208
PE blue, soft version	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-3209
PE blue, soft version	55° shore A	Silicone white/PTFE blue, cross-slitted	1,0	1.000	548-3210
PE yellow, hard version	45° shore A	Silicone white/PTFE red	1,3	1.000	548-3211
PE transparent, soft version	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3330
PE transparent, hard version	45° shore A	Silicone white/PTFE red, pre-cut (Y)	1,3	1.000	548-3331
PE blue, hard version	45° shore A	Silicone white/PTFE red, pre-cut (Y)	1,3	1.000	548-3332
PE transparent, soft version	45° shore A	Silicone white/PTFE red, pre-cut (Y)	1,3	1.000	548-3333
PE blue, soft version	45° shore A	Silicone white/PTFE red, pre-cut (Y)	1,3	1.000	548-3334
PE green, hard version	45° shore A	PTFE red/silicone white/PTFE red	1,0	1.000	548-3346
PE transparent, hard version	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3358
PE blue, soft version	45° shore A	Red rubber/PTFE beige	1,0	1.000	548-3360

Other caps

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PE Push-On caps with penetration point, blue	-	-	-	1.000	548-0187

Kits

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass, septum natural rubber red-orange/TEF transparent, 60° shore A, 1,0 mm	1,5	11,6x32	100	548-0470
Clear glass, septum silicone white/PTFE red, 45° shore A, 1,3 mm	1,5	11,6x32	100	548-0471
Clear glass, septum silicone white/PTFE blue, cross-slitted 55° shore A, 1,0 mm	1,5	11,6x32	100	548-0472
Clear glass, septum PTFE red/silicone white/PTFE red, 45° shore A, 1,0 mm	1,5	11,6x32	100	548-0473

Screw neck vials, ND13



Vials, micro-inserts and closures.

- If used for sample storage purposes, closures with closed top caps are available
- Product line includes vials with label and filling lines
- Primarily for HPLC with carousel 48 positions, Shimadzu and Waters

Screw neck vials, ND13

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass	4	14,7x45	1.000	548-0051
Amber glass	4	14,7x45	1.000	548-0052
Clear glass with label	4	14,7x45	1.000	548-0509
Amber glass with label	4	14,7x45	1.000	548-0510

Micro-insert for 4 ml screw neck vials

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass, 15 mm top (needs 548-0094)	0,3	6x40	1.000	548-0093
Metallic spring for 548-0093		7,5x50	1.000	548-0094

Screw cap PP with central hole, 8,5 mm and septa, ND13

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PP black	60° shore A	Natural rubber red-orange/TEF transparent	1,3	1.000	548-0053
PP black	55° shore A	Silicone beige/PTFE red	1,5	1.000	548-0054
PP black	55° shore A	Silicone white/PTFE blue, slitted	1,5	1.000	548-0191
PP black	45° shore A	PTFE red/ silicone white/PTFE red	1,0	1.000	548-0511
PP black, closed top	60° shore A	Natural rubber red-orange/TEF transparent	1,3	1.000	548-0512
PP black, closed top	55° shore A	Silicone cream/PTFE red	1,5	1.000	548-0514
PP black	45° shore A	Silicone dark blue/PTFE white	1,3	1.000	548-0516
PP black	55° shore A	Butyl red/PTFE grey	1,3	1.000	548-0794
PP black, closed top	55° shore A	Butyl red/PTFE grey	1,3	1.000	548-0805

Screw cap PP, ND13 without septum

Type	Pk	Cat. No.
Black, central hole 8,5 mm	1.000	548-0096
Black, closed	1.000	548-0097
White, closed	1.000	548-0506

Kits

Delivery Information: Kits include: 4 ml glass screw cap vial, (14,7x45 mm), screw cap PP black with 8,5 mm central hole or closed top and septum.

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass, screw cap PP black, central hole 8,5 mm with septum natural rubber red-orange/TEF transparent, 60° shore A, 1,3 mm	4	14,7x45	100	548-0519
Clear glass, screw cap PP black, central hole 8,5 mm with septum silicone beige/PTFE red, 55° shore A, 1,5 mm	4	14,7x45	100	548-0521
Clear glass, screw cap PP black, central hole 8,5 mm with septum PTFE red/ silicone white/PTFE red, 45° shore A, 1,0 mm	4	14,7x45	100	548-0522
Clear glass, screw cap PP black, central hole 8,5 mm with septum PTFE virginial 53° shore D, 0,25 mm	4	14,7x45	100	548-0523
Amber glass, screw cap PP black, central hole 8,5 mm with septum natural rubber red-orange/TEF transparent, 60° shore A, 1,3 mm	4	14,7x45	100	548-0524
Amber glass, screw cap PP black, central hole 8,5 mm with septum silicone beige/PTFE red, 55° shore A, 1,5 mm	4	14,7x45	100	548-0526
Amber glass, screw cap PP black, central hole 8,5 mm with septum PTFE red/silicone white/PTFE red, 45° shore A, 1,0 mm	4	14,7x45	100	548-0527
Amber glass, screw cap PP black, central hole 8,5 mm with septum PTFE virginial, 53° shore D, 0,25 mm	4	14,7x45	100	548-0528

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Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass, screw cap PP black, closed top with septum PTFE virginal, 53° shore D, 0,25 mm	4	14,7x45	100	548-0529
Clear glass, screw cap PP black, central hole 8,5 mm with septum PTFE virginal, 53° shore D, 0,25 mm	4	14,7x45	840	548-1395
Clear glass, screw cap PP black, central hole 8,5 mm with septum natural rubber red-orange/TEF transparent, 60° shore A, 1,3 mm	4	14,7x45	924	548-3314

Special crimp neck vials, ND13



Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass	2	16x32	1.000	548-0859

Aluminium crimp caps ND13

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
Clear lacquered, central hole	50° shore A	Pharma-Fix (butyl/PTFE)	2,0	1.000	548-0488
Clear lacquered, center tear-off	50° shore A	Pharma-Fix (butyl/PTFE)	2,0	1.000	548-0489
Clear lacquered, complete tear-off	50° shore A	Pharma-Fix (butyl/PTFE)	2,0	1.000	548-0490
Clear lacquered, central hole	55° shore A	Butyl red/PTFE grey	2,0	1.000	548-0496
Clear lacquered, complete tear-off	55° shore A	Butyl red/PTFE grey	2,0	1.000	548-0497
Clear lacquered, center tear-off	55° shore A	Butyl red/PTFE grey	2,0	1.000	548-0498

Headspace screw neck vials with precision thread, ND18



Vials, closures, septa and kits.

- No risk of incorrectly sealed vials as is the case with crimping
- More convenient to close and to open, especially as magnetic crimp caps are very hard to crimp
- Lower coring and protection for the needle due to thinner septa
- Universal use for Headspace and SPME due to thinner septa
- Special pre-cut septa (silicone layer is slitted but PTFE remains intact) for safe penetration of the sensitive SPME phase with hardly any coring

Tested and approved by CTC for their Combi PAL (Gerstel, Atas, Agilent), also recommended by Agilent for their G1888A samplers, by Shimadzu for AOC5000 and for Perkin Elmer Turbomatrix autosamplers (models after 1/9/2006).

Headspace screw neck vials with precision thread, ND18 (only suitable for magnetic caps)

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass (CTC PAL: Varian, Gerstel, Atas, Shimadzu, Agilent)	10	22,5x46	100	548-0247
Clear glass (CTC PAL: Varian, Gerstel, Atas, Shimadzu, Agilent)	20	22,5x75,5	100	548-0248
Amber glass (CTC PAL: Varian, Gerstel, Atas, Shimadzu)	10	22,5x46	100	548-0552
Amber glass (CTC PAL: Varian, Gerstel, Atas, Shimadzu, Agilent)	20	22,5x75,5	100	548-0553

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Magnetic screw caps, ND18 and septum, ND18

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
Silver, central hole 8 mm	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0193
Silver, central hole 8 mm	55° shore A	Silicone white/PTFE blue	1,5	1.000	548-0245
Silver, central hole 8 mm	55° shore A	Butyl red/PTFE grey	1,6	1.000	548-0246
Silver, central hole 8 mm	45° shore A	Silicone blue transparent/PTFE white	1,3	1.000	548-0543
Silver, closed top	55° shore A	Butyl red/PTFE grey	1,6	1.000	548-0811
Silver, closed top	45° shore A	Silicone white/PTFE red	1,3	1.000	548-0822
Silver, central hole 8 mm	50° shore A	Silicone white/aluminium foil silver	1,3	1.000	548-3316
Silver, central hole 8 mm	55° shore A	Silicone white/PTFE red, precut for SPME	1,5	1.000	548-3339

Septa 17,5 mm

Type	Hardness	Thickness (mm)	Pk	Cat. No.
Butyl red/PTFE grey	55° shore A	1,6	1.000	548-0866
Silicone blue transparent/PTFE white	45° shore A	1,3	1.000	548-0867
Silicone white/PTFE blue	55° shore A	1,5	1.000	548-3221
Silicone white/PTFE red	45° shore A	1,3	1.000	548-3223
Silicone white/aluminium foil silver	50° shore A	1,3	1.000	548-3315

Headspace screw caps vial, ND18 (only suitable for PP caps)

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass	20	23×75,5	100	548-0549

PP screw caps, ND18 with septum for 548-0549

Type	For	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PP black, central hole 12 mm, without septum	-	-	-	-	1.000	548-0547
PP black, closed, without septum	-	-	-	-	1.000	548-0548
PP black, central hole 12 mm		45° shore A	Silicone blue transparent/PTFE white	1,7	1.000	548-0557
PP black, closed		45° shore A	Silicone blue transparent/PTFE white	1,7	1.000	548-0558
PP black, central hole 12 mm		55° shore A	Butyl red/PTFE grey	1,6	1.000	548-0559
PP black, closed		55° shore A	Butyl red/PTFE grey	1,6	1.000	548-0560
PP black, central hole 12 mm		55° shore A	Butyl red/PTFE grey	2,0	1.000	548-0561
PP black, closed		55° shore A	Butyl red/PTFE grey	2,0	1.000	548-1061
PP black, central hole 12 mm		55° shore A	Silicone white/PTFE red	1,5	1.000	548-1062
PP black, closed	548-3027, 548-0549	55° shore A	Silicone white/PTFE red	1,5	1.000	548-3363

Septa 16 mm

Type	Hardness	Thickness (mm)	Pk	Cat. No.
Natural rubber red-orange/TEF transparent	60° shore A	1,3	1.000	548-0533
Silicone white/PTFE red	45° shore A	1,3	1.000	548-0534
PTFE red/silicone white/PTFE red	45° shore A	1,0	1.000	548-0537
Silicone blue transparent/PTFE white	45° shore A	1,7	1.000	548-0538
Butyl red/PTFE grey	55° shore A	1,6	1.000	548-0539
Butyl red/PTFE grey	55° shore A	2,0	1.000	548-0540
Butyl red/PTFE grey	55° shore A	1,3	1.000	548-0795
Silicone white/PTFE red	55° shore A	1,5	1.000	548-1063

Kits

Delivery Information: Kits include 20 ml clear glass precision screw neck headspace vial (22.5x75.5 mm), magnetic screw cap silver with 8 mm central hole and septum.

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass, magnetic cap silver, central hole 8 mm with septum silicone white/PTFE blue, 60° shore A, 1,5 mm	20	22,5×75,5	100	548-0562
Clear glass, magnetic cap silver, central hole 8 mm with septum butyl red/PTFE grey, 55° shore A, 1,6 mm	20	22,5×75,5	100	548-0563
Clear glass, magnetic cap silver, central hole 8 mm with septum silicone blue transparent/PTFE white, 45° shore A, 1,3 mm	20	22,5×75,5	100	548-0564

Headspace crimp vials, ND20



Clear and amber glass vials with rounded or flat bottom and volumes from 5 to 20 ml, closures and tools. A rounded bottom vial is more sturdy and resistant to high pressure during the heating process. Flat bottom vials are more appropriate for certain instruments.

- Pressure release safety caps with a broad range of different septa available
- Magnetic and magnetic bimetal caps for CTC Combi PAL and Shimadzu AOC5000 autosamplers
- Caps with Pharma-Fix septa (Butyl/PTFE) achieve the best sealing properties
- Vials can withstand high internal pressure due to their wall thickness of 1,2 mm

Headspace crimp vials, ND20

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass, bevel type, rounded bottom (Perkin Elmer, Tekmar)	20	23x75,5	1.000	548-0055
Clear glass, bevel type, rounded bottom (Perkin Elmer)	5	22x38,2	1.000	548-0057
Clear glass, flat bottom, long neck (Carlo Erba, Dani, Fisons, Agilent)	10	22,5x46	1.000	548-0090
Clear glass, flat bottom, long neck (Carlo Erba, Dani, Fisons, Agilent)	20	22,5x75,5	1.000	548-0091
Clear glass, rounded bottom (Carlo Erba, Fisons, CTC, Varian (CPI))	10	22,5x46	1.000	548-0133
Clear glass, rounded bottom (CTC PAL Varian, Gerstel, Atas, Shimadzu)	20	22,5x75,5	1.000	548-0151
Clear glass, bevel type, rounded bottom, with label (Perkin Elmer, Tekmar)	20	23x75,5	100	548-0610
Clear glass, flat bottom (Varian)	5	20x38	1.000	548-0611
Clear glass, flat bottom	10	20x54	1.000	548-0612
Amber glass, bevel type, rounded bottom (Perkin Elmer, Tekmar)	20	23x75,5	100	548-0614
Amber glass, rounded bottom (CTC PAL Varian, Gerstel, Atas, Shimadzu)	20	22,5x75,5	1.000	548-0798
Amber glass, rounded bottom (Carlo Erba, Fisons, CTC, Varian (CPI))	10	22,5x46	1.000	548-0799

Other crimp neck vials, ND20

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass, flat neck, flat bottom	50	31x101	100	548-0608
Clear glass, flat neck, flat bottom	100	51,6x94,5	88	548-0609

Aluminium crimp cap, ND20 with central hole, 10 mm and septa

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
Aluminium, central hole 10 mm	-	Butyl stopper, grey (unassembled)	-	1.000	548-0058
Aluminium, central hole 10 mm	50° shore A	Pharma-Fix butyl/PTFE	3,0	1.000	548-0059
Aluminium, central hole 10 mm	50° shore A	Butyl/PTFE, grey	3,0	1.000	548-0060
Aluminium, central hole 10 mm	45° shore A	Silicone blue transparent/PTFE white	3,0	1.000	548-0061
Aluminium gold, central hole 10 mm	50° shore A	Pharma-Fix butyl/PTFE	3,0	1.000	548-0578
Aluminium, central hole 10 mm	50° shore A	Butyl dark grey	3,0	1.000	548-0580
Aluminium, central hole 10 mm	50° shore A	Silicone aluminium foil silver	3,0	1.000	548-0587
Aluminium, central hole 10 mm	45° shore A	Silicone white/PTFE beige	3,2	1.000	548-0593

Alumium headspace cap, ND20 with septa

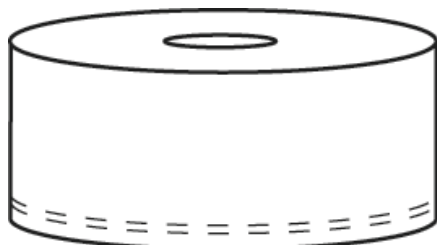
Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
Clear lacquered aluminium	50° shore A	Butyl/PTFE, grey	3,0	1.000	548-0062
Clear lacquered aluminium	45° shore A	Silicone blue transparent/PTFE white	3,0	1.000	548-0063
Clear lacquered aluminium	50° shore A	Pharma-Fix butyl/PTFE	3,0	1.000	548-0064
Clear lacquered aluminium	50° shore A	Silicone white/aluminium foil silver	3,0	1.000	548-0065
Clear lacquered aluminium	55° shore A	Butyl dark grey	3,0	1.000	548-0579
Clear lacquered aluminium	45° shore A	Silicone white/PTFE beige	3,25	1.000	548-0592

Magnetic crimp caps, ND20 with central hole and septa (CTC Combi PAL)

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
Gold, central hole 5 mm	45° shore A	Silicone blue transparent/PTFE transparent	3,0	1.000	548-0066
Gold, central hole 5 mm	50° shore A	Butyl/PTFE, grey	3,0	1.000	548-0067
Gold, central hole 5 mm	50° shore A	Pharma-Fix butyl/PTFE	3,0	1.000	548-0068
Gold, central hole 8 mm	50° shore A	Butyl/PTFE grey	3,0	1.000	548-0116
Gold, central hole 8 mm	50° shore A	Pharma-Fix butyl/PTFE	3,0	1.000	548-0117
Gold, central hole 8 mm	45° shore A	Silicone blue transparent/PTFE transparent	3,0	1.000	548-0152
Bimetal red/silver, central hole 8 mm	45° shore A	Silicone blue transparent/PTFE transparent	3,0	100	548-0194
Gold, central hole 5 mm	50° shore A	Silicone aluminium foil silver	3,0	1.000	548-0590
Gold, central hole 5 mm	55° shore A	Butyl dark grey	3,0	1.000	548-0591
Gold, central hole 8 mm	55° shore A	Butyl dark grey	3,0	1.000	548-0595
Bimetal red/silver, central hole 8 mm	50° shore A	Butyl/PTFE grey	3,0	100	548-0809
Gold, central hole 8 mm	45° shore A	Silicone white/PTFE beige	3,2	1.000	548-1058
Bimetal red/silver, central hole 8 mm	45° shore A	Silicone white/PTFE beige	3,2	1.000	548-3320

Other aluminium crimp caps, ND20

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
Centre Tear-off cap, clear lacquered	50° shore A	Pharma-Fix butyl/PTFE	3,0	1.000	548-0576
Complete Tear-off cap, clear lacquered	50° shore A	Pharma-Fix butyl/PTFE	3,0	1.000	548-0577
Complete Tear-off cap, clear lacquered	50° shore A	Butyl/PTFE grey	3,0	1.000	548-0581
Centre Tear-off cap, clear lacquered	50° shore A	Butyl/PTFE grey	3,0	1.000	548-0582
Centre Tear-off cap, clear lacquered	55° shore A	Butyl dark grey	3,0	1.000	548-0583
Complete Tear-off cap, clear lacquered	55° shore A	Butyl dark grey	3,0	1.000	548-0584
Centre Tear-off cap, clear lacquered	45° shore A	Silicone blue transparent/PTFE white	3,0	1.000	548-0585
Complete Tear-off cap, clear lacquered	45° shore A	Silicone blue transparent/PTFE white	3,0	1.000	548-0586

Other caps for crimp neck ND20 with septum**PE, transparent**

Combinations of PE caps with central hole 4,3 mm and septa.

For vials with bevelled neck, cap Ø×h: 22×8,4 mm

For vials with flat neck, cap Ø×h: 22×9,1 mm

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
For bevelled neck	55° shore A	Butyl red/PTFE grey	1,3	1.000	548-0870
For bevelled neck	60° shore A	Natural rubber red-orange/TEF transparent	1,3	1.000	548-0153
For bevelled neck	45° shore A	Silicone blue transparent/PTFE white	1,3	1.000	548-0629
For flat neck	55° shore A	Butyl red/PTFE grey	1,3	1.000	548-0800
For flat neck	60° shore A	Natural rubber red-orange/TEF transparent	1,3	1.000	548-0631
For flat neck	45° shore A	Silicone blue transparent/PTFE white	1,3	1.000	548-0632
For flat neck	45° shore A	Silicone blue transparent/PTFE white, Y-slitted	1,3	1.000	548-3263
For flat neck	45° shore A	Silicone blue transparent/PTFE white, Y-slitted *	1,3	1.000	548-1399

* with central hole 6 mm

SPME crimp neck vial, ND20

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass for CTC PAL	20	22,5×75,5	100	548-0613

Magnetic seals for SPME-vial 548-0613

Type	Hardness	Septum	Thickness	Pk	Cat. No.
Gold, central hole 8 mm	60° shore A	Silicone white/PTFE blue	1,5	1.000	548-0596
Gold, central hole 8 mm	70° shore A	Viton black	1,0	1.000	548-1081

Septa/stoppers 20 mm

Type	Hardness	Thickness (mm)	Pk	Cat. No.
Pharma-Fix butyl/PTFE	50° shore A	3,0	1.000	548-0568
Butyl/PTFE grey	50° shore A	3,0	1.000	548-0569
Butyl dark grey	55° shore A	3,0	1.000	548-0570
Silicone blue transparent/PTFE white	45° shore A	3,0	1.000	548-0571
Silicone white/aluminium	50° shore A	3,0	1.000	548-0572
Silicone white/PTFE beige	45° shore A	3,25	1.000	548-0573
Silicone blue transparent/PTFE transparent	45° shore A	3,0	1.000	548-1059
Butyl injection stopper, grey			1.000	548-3369

Crimpers and decappers

Description	Feature	Pk	Cat. No.
Crimper for 20 mm aluminium caps	Height and pressure adjustable	1	548-0073
Decapper for 20 mm aluminium caps	-	1	548-0074

EPA screw neck vials, ND24



Supplied pre-assembled, upon request.

Certificate of cleanliness (for TOC analysis) also available on request - surcharges apply.

EPA screw neck vials, ND24

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass	20	27,5x57	100	548-0154
Clear glass	30	27,5x72,5	100	548-0155
Clear glass	40	27,5x95	100	548-0156
Amber glass	30	27,5x72,5	100	548-0637
Amber glass	20	27,5x57	100	548-0638
Amber glass	40	27,5x95	100	548-0639
Clear glass	60	27,5x140	100	548-0640
Amber glass	60	27,5x140	100	548-0641
Clear glass, with certificate	40	27,5x95	100	548-1390

UltraBond™ seals, ND24: PP screw caps with silicone white/PTFE beige septa

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PP white with central hole 15 mm	45° shore A	Silicone natural/PTFE beige	3,2	1.000	548-0157
PP white, closed	45° shore A	Silicone natural/PTFE beige	3,2	1.000	548-0636

PP screw caps, ND24 without septum

Type	Pk	Cat. No.
PP white with central hole 12,5 mm	1.000	548-0160
PP white, closed	1.000	548-0161

Septa 22 mm

Type	Hardness	Thickness (mm)	Pk	Cat. No.
Butyl red/PTFE grey	55° shore A	2,5	1.000	548-0134
Silicone natural/PTFE beige (EPA-quality)	45° shore A	3,2	1.000	548-0159
Silicone white/PTFE blue, cross-slitted	55° shore A	1,5	1.000	548-0615
Silicone aluminium foil silver	50° shore A	3,0	1.000	548-0616

PP screw caps, ND24 with septum

Ready to use combination seals, avoid time consuming manual assembly and potential contamination.

Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
PP white, with 12,5 mm central hole	45° shore A	Silicone natural/PTFE beige	3,2	1.000	548-0031
PP white, closed	45° shore A	Silicone natural/PTFE beige	3,2	100	548-0196
PP white, closed	55° shore A	Butyl red/PTFE grey	2,5	1.000	548-0642
PP white, with 12,5 mm central hole	55° shore A	Butyl red/PTFE grey	2,5	1.000	548-0872

EPA screw neck vials, ND24 pre-assembled, with screw seals ND24

Type	Capacity (ml)	Ø×H (mm)	Septum	Pk	Cat. No.
Clear glass, pre-assembled with screw cap central hole	40	27,5×95	Silicone natural/PTFE beige (EPA quality), 45° shore A, 3,2 mm	1.000	548-0825
Clear glass, pre-assembled with UltraBond screw cap central hole	20	27,5×57	Silicone natural/PTFE beige (EPA quality), 45° shore A, 3,2 mm	1.000	548-1057
Clear glass, pre-assembled with UltraBond screw cap closed top	40	27,5×95	Silicone natural/PTFE beige (EPA quality), 45° shore A, 3,2 mm	1.000	548-1090
Amber glass, pre-assembled with screw cap central hole	40	27,5×95	Silicone natural/PTFE beige (EPA quality), 45° shore A, 3,2 mm	1.000	548-3235
Clear glass, pre-assembled with screw cap central hole	60	27,5×140	Silicone natural/PTFE beige (EPA quality), 45° shore A, 3,2 mm	1.000	548-3236
Clear glass, pre-assembled with UltraBond screw cap central hole	40	27,5×95	Silicone natural/PTFE beige (EPA quality), 45° shore A, 3,2 mm	1.000	548-3237

Snap-cap vials, ND18, ND22 and ND28

For sample storage.

- Quick and easy to open and close, caps included

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Snap-cap vials, ND18, ND22 and ND28				
Clear glass with snap-cap, PE transparent, 18 mm	3	18×30	200	548-0554
Clear glass with snap-cap, PE transparent, 18 mm	5	20×40	200	548-0555
Clear glass with snap-cap, PE transparent, 22 mm	15	24×52	200	548-0620
Clear glass with snap-cap, PE transparent, 22 mm	10	22×50	200	548-0621
Clear glass with snap-cap, PE transparent, 22 mm	20	26×70	200	548-0622
Clear glass with snap-cap, PE transparent, 22 mm	20	26×55	200	548-0623
Clear glass with snap-cap, PE transparent, 22 mm	30	28×75	200	548-0624
Clear glass with snap-cap, PE transparent, 22 mm	10	22×45	200	548-0625
Clear glass with snap-cap, PE transparent, 28 mm	25	30×50	250	548-0649
Clear glass with snap-cap, PE transparent, 28 mm	40	30×80	200	548-0650
Clear glass with snap-cap, PE transparent, 28 mm	50	30×100	200	548-0651
Clear glass with snap-cap, PE transparent, 28 mm	100	34×145	100	548-0652
Vials without cap				
Clear glass ND18	5	20×40	1.000	548-0141
Clear glass ND18	10	22×50	1.000	548-0142
Clear glass ND22	15	26×48	1.000	548-0143
Clear glass ND22	25	26×65	1.000	548-0144
Separate snap caps				
Snap-cap PE ND18, transparent, closed			1.000	548-0145
Snap-cap PE ND22, transparent, closed			1.000	548-0146
Snap-cap PE ND28, transparent, closed			1.000	548-0648

Screw neck vials, ND40



Cylindrical jars ND40 for soil samples.

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass	50	44×69,5	85	548-0660

Type	Hardness	Septum	Septum	Thickness (mm)	Pk	Cat. No.
Screw caps, ND40 with septa						
Screw cap black, closed top	53° shore D	PTFE virginal	PTFE virginal	0,5	85	548-0661

Shell vials with PE plug



Handy and inexpensive vial and closure combination for non critical analysis in HPLC.

- Micro-insert can be fixed in PE-plug, no spring required
- Star-shaped diaphragm enables easy penetration of the plug with an injection needle
- 1 ml Shell Vials with no inner barrier for micro-insert are more convenient in handling and safer to penetrate

Shell vials with PE plug

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass, 8 mm plug for Waters/Shimadzu with inner barrier for micro-insert	1	8,2×40	1.000	548-0042
Amber glass, 8 mm plug for Waters/Shimadzu with inner barrier for micro-insert	1	8,2×40	1.000	548-0043
Clear glass, 12 mm plug	2	11,6×31,5	1.000	548-0045
Amber glass, 12 mm plug	2	11,6×31,5	1.000	548-0046
Clear glass, 15 mm plug for Waters	4	14,65×44,6	1.000	548-0048
Amber glass, 15 mm plug for Waters	4	14,65×44,6	1.000	548-0049
Clear glass, 6 mm plug for Alcott	1	7,8×35	1.000	548-0347
Clear glass, 8 mm plug for Waters/Shimadzu no inner barrier for micro-insert	1	8,2×40	1.000	548-0352
Amber glass, 8 mm plug for Waters/Shimadzu no inner barrier for micro-insert	1	8,2×40	1.000	548-0353
Clear glass	2	11,6×31,5	1.000	548-0449

Separate plugs

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Micro-insert, clear glass, flat bottom	0,2	6×31	1.000	548-0001
Micro-insert, clear glass, 15 mm top	0,1	6×31	1.000	548-0006
Micro-insert, clear glass, 13 mm top	0,1	5×34	1.000	548-0044
Micro-insert, clear glass, 13 mm top	0,3	6×43	1.000	548-0050
Micro-insert, clear glass, 12 mm top	0,1	6×31	1.000	548-0310
Micro-insert, clear glass, 15 mm top, silanised	0,1	6×31	1.000	548-0311

Shell vials with PE plug



These vials are suitable for use with instruments from the following manufacturers: Alcott, Gilson, Shimadzu, Waters® (Wisp 96 respectively 48 position carousel).

- Vial/closure combination for non critical analyses
- Star-shaped diaphragm enables easy penetration of the PE plug
- Recommended for HPLC usage

Continued from previous page

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear, 8 mm plug	1	8×40	100	548-1383
Clear, with inner cone, 15 mm plug	3	14,65×44,6	100	548-1384
Clear, 15 mm plug	4	14,65×44,6	100	548-1385

Micro-inserts for shell vials



Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear, 10 mm top, with filling lines	0,1	6×29	1.000	548-1380
Clear, 10 mm top, with filling lines and attached plastic spring	0,1	6×29	1.000	548-1381
Clear, flat bottom	0,2	6×31	1.000	548-1382

Micro-inserts for wide opening



Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Micro-insert, clear glass, flat bottom	0,2	6×31	1.000	548-0001
Micro-insert, clear glass, with assembled plastic spring	0,1	6×29	1.000	548-0002
Micro-insert, clear glass, 15 mm top	0,1	6×31	1.000	548-0006
Micro-insert, clear glass, 12 mm top	0,1	6×31	1.000	548-0310
Micro-insert, clear glass, 15 mm top, silanised	0,1	6×31	1.000	548-0311
Micro-insert, clear glass, with assembled plastic spring, silanised	0,1	6×29	1.000	548-0812

Silanised vials



Improve sample analysis sensitivity by eliminating sample/glass reactions.

- Ideal for high sensitivity HPLC applications
- Deactivated glass surface, eliminating reactions between polar compounds and the glass
- Ideal for amino acids, proteins or phenols
- First hydrolytic class

Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Amber glass crimp neck vials with wide opening, with label and graduations	1,5	11,6×32	1.000	548-1364
Amber glass screw neck vials with small opening, thread 8 - 425, with label and graduations	1,5	11,6×32	100	548-1367
Amber glass snap ring vials with wide opening, with label and graduations	1,5	11,6×32	100	548-1371
Clear glass microliter crimp neck vials with wide opening	1,1	11,6×32	100	548-1372
Clear glass microliter short thread vials with small opening	1,1	11,6×32	100	548-1373
Clear glass snap ring vials with wide opening	1,5	11,6×32	100	548-1370

Special septa



Type	Hardness	Septum	Thickness (mm)	Pk	Cat. No.
Septa for Schott GL screw caps					
For screw caps Schott GL 14	55° shore A	Silicone cream/PTFE beige	3,2	100	548-0480
For screw caps Schott GL 18	55° shore A	Silicone cream/PTFE beige	3,2	100	548-0532
For screw caps Schott GL 25	55° shore A	Silicone cream/PTFE beige	3,2	100	548-0633
For screw caps Schott GL 32	55° shore A	Silicone cream/PTFE beige	3,2	100	548-0654
For screw caps Schott GL 45	55° shore A	Silicone cream/PTFE beige	3,2	100	548-0662
For screw caps Schott GL 45	55° shore A	Butyl red/PTFE grey	1,6	1.000	548-3321
Septa 13 mm					
Septum 13 mm	50° shore A	Pharma-Fix (butyl/PTFE)	2,0	1.000	548-0482
Septum 13 mm	60° shore A	Natural rubber red-orange/TEF transparent	1,3	1.000	548-0483
Septum 13 mm	55° shore A	Butyl red/PTFE grey	2,0	1.000	548-0487
Septum 13 mm	55° shore A	PTFE grey/butyl red/PTFE grey	1,3	1.000	548-0793

Crimpers and decappers



Manual crimping tools

- Chemical resistant hardened crimping jaws made of a special alloy
 - Easy and convenient handling
 - Adjustable in crimping pressure
- Additionally 11, 13 and 20 mm crimpers are adjustable in crimping height.

Description	Pk	Cat. No.
Crimper for 13 mm aluminium caps	1	548-0499
Crimper for 13 mm flip top/flip off seals	1	548-0500
Crimper for 13 mm flip tear up seals	1	548-0503
Crimper for 20 mm flip top/flip off seals	1	548-0602
Crimper for 20 mm flip tear up seals	1	548-0605
Crimper for 28 mm flip top/flip off seals	1	548-0643
Crimper for 28 mm aluminium caps	1	548-0645
Crimper for 32 mm aluminium caps	1	548-0655

Description	Pk	Cat. No.
Crimper for 8 mm aluminium caps	1	548-0069
Decapper for 8 mm aluminium caps	1	548-0070
Crimper for 11 mm aluminium caps	1	548-0071
Decapper for 11 mm aluminium caps	1	548-0072
Crimper for 20 mm aluminium caps	1	548-0073
Decapper for 20 mm aluminium caps	1	548-0074
Decapper for 13 mm aluminium caps	1	548-0504
Decapper for 28 mm aluminium caps	1	548-0646
Decapper for 32 mm aluminium caps	1	548-0658

Cleanroom crimping tools



Made entirely of stainless steel for maximum durability during dry heat sterilisation or autoclaving.

- Corrosion and heat resistant, no need for any protective coating on the handle or crimp head
- Withstand repeated sterilisation for cleanroom use without the risk of damage
- Adjustable crimping pressure and height

Description	Pk	Cat. No.
Crimper for 11 mm crimp caps	1	548-1374
Crimper for 13 mm crimp caps	1	548-1376
Crimper for 20 mm crimp caps	1	548-1378

Description	Pk	Cat. No.
Decapper for 11 mm crimp caps	1	548-1375
Decapper for 13 mm crimp caps	1	548-1377
Decapper for 20 mm crimp caps	1	548-1379

Vial racks



In clear transparent acrylic

- Easy handling and transportation of sample vials
- Solid construction
- Safe storage of conical vials

Hole Ø (mm)	No. of holes	WxDxH (mm)	Pk	Cat. No.
3 - 8,5	50	173x95x20	1	548-0130
12	50	173x95x20	1	548-0131
24	25	160x160x30	1	548-0132
15,1	40	175,8x115,5x20	1	548-0192

Rack for chromatography vials



PP

For tubes (ml)	No. of holes	WxDxH (mm)	Pk	Cat. No.
1,5	50	200x105x17	5	548-1388

Storage vials



Screw neck vials in clear or in amber, 1st hydrolytic class glass for sample storage. A broad range of closed top screw caps available with different types of septa.

Screw neck vials for storage purposes

Type	Capacity (ml)	ØxH (mm)	Pk	Cat. No.
Clear glass	12	18,5x66	1.000	548-0820
Clear glass	8	16,6x61	1.000	548-0821
Amber glass	8	16,6x61	1.000	548-0889
Amber glass	12	18,5x66	1.000	548-0903
Clear glass	16	20,6x71	1.000	548-3027
Clear glass	20	22,7x86	1.000	548-3231
Clear glass	1,5	11,6x32	1.000	548-0018
Clear glass	4	14,7x45	1.000	548-0051
Amber glass	4	14,7x45	1.000	548-0052
Clear glass	20	27,5x57	100	548-0154
Clear glass	30	27,5x72,5	100	548-0155

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Type	Capacity (ml)	Ø×H (mm)	Pk	Cat. No.
Clear glass	40	27,5×95	100	548-0156
Amber glass	1,5	11,6×32	1.000	548-0448
Amber glass	30	27,5×72,5	100	548-0637
Amber glass	20	27,5×57	100	548-0638
Amber glass	40	27,5×95	100	548-0639
Clear glass	60	27,5×140	100	548-0640
Amber glass	60	27,5×140	100	548-0641
Clear glass, with certificate	40	27,5×95	100	548-1390

Closed top PP screw caps for storage vials

Type	Septum	Hardness	Thickness (mm)	For	Pk	Cat. No.
PP black, closed	Butyl red/PTFE grey	55° shore A	1,3	548-0821, 548-0889, 548-0820, 548-0903	1.000	548-0861
PP black, closed	Natural rubber red-orange/TEF transparent	60° shore A	1,3	548-0821, 548-0889, 548-0820, 548-0903	1.000	548-0862
PP black, closed	Silicone white/PTFE red	45° shore A	1,3	548-0821, 548-0889, 548-0820, 548-0903	1.000	548-0863
PP white, closed	PTFE/EPDM black/PTFE	-	2,0	548-0154, 548-0638, 548-0155, 548-0637, 548-0156, 548-0639, 548-0640, 548-0641	1.000	548-0871
PP white, closed	Natural rubber red-orange/TEF transparent	60° shore A	1,3	548-0890	1.000	548-0899
PP white, closed	Silicone white/PTFE red	45° shore A	1,3	548-0890	1.000	548-0900
PP white, closed	Butyl red/PTFE grey	45° shore A	1,3	548-0890	1.000	548-0901
PP black, closed	Silicone white/PTFE red	55° shore A	1,5	548-3027, 548-0549	1.000	548-3363

PP screw caps with 9 mm centre hole for storage vials

Septum	Hardness	Thickness (mm)	For	Pk	Cat. No.
Butyl red/PTFE grey	55° shore A	1,6	548-0821, 548-0889, 548-0820, 548-0903	1.000	548-1393
Silicone white/PTFE red	45° shore A	1,3	548-0821, 548-0889, 548-0820, 548-0903	1.000	548-3335
Natural rubber red-orange/TEF transparent	60° shore A	1,3	548-0821, 548-0889, 548-0820, 548-0903	1.000	548-3364

96-Position block systems



96-Position systems (Ritter) with glass inserts are used in HTS (high throughput screening) chemistry when the pure PP block is not inert enough. The inserts can be sealed with a PE cap seal or over the whole block with a Sealmat block cover made of silicone laminated with a PTFE film.

Description	Pk	Cat. No.
96-Position block systems with glass inserts, sealed individually		
Deepwell "riplate", PP, filled with 0,35 ml micro-insert, 42,5×6 mm, clear glass, 17 mm top, with assembled 9 mm PE cap red, 4 mm centre hole, silicone white/PTFE red, with slit, 45° shore A, 1,9 mm	1	548-0361
Square Well "riplate", PP, filled with 1ml micro-insert, 45,9×7,6 mm, clear glass, round bottom, with assembled 9 mm PE cap red, 4 mm centre hole, silicone white/PTFE red, with slit, 45° shore A, 1,9 mm	1	548-0363
Microtube-rack-system, PP, filled with 0,8 ml micro-insert, 40×7,6 mm, clear glass, U-shaped bottom, with assembled 8 mm PE plug blue	1	548-0362
Microtiter-plate, PP, filled with 0,1 ml micro-insert, 15,5×5,7 mm, clear glass, flat bottom, with assembled 9 mm PE cap red, 4 mm centre hole, silicone white/PTFE red, with slit, 45° shore A, 1,9 mm	1	548-0364
Micro-insert 0,35 ml for Deepwell with cap	960	548-0349
Micro-insert 1 ml for square Well with cap	960	548-0351
Micro-insert 0,8 ml for microtube-rack-system with plug	960	548-0350
Micro-insert 0,15 ml for microtiter-plate with cap	960	548-0348
Micro-insert 0,35 ml for Deepwell without cap	960	548-0343
Micro-insert 1 ml for square Well without cap	960	548-0345
Micro-insert 0,8 ml for microtube-rack-system without plug	960	548-0344
Micro-insert 0,15 ml for microtiter-plate without cap	960	548-0342
9 mm PE cap red, 4 mm centre hole, silicone white/PTFE red, with slit	960	548-0376
8 mm PE plug blue	960	548-0338
Deepwell "riplate", PP	1	548-0329
Square Well "riplate", PP	1	548-0330
Microtube-rack-system, PP	1	548-0331
Microtiter-plate, PP	1	548-0332

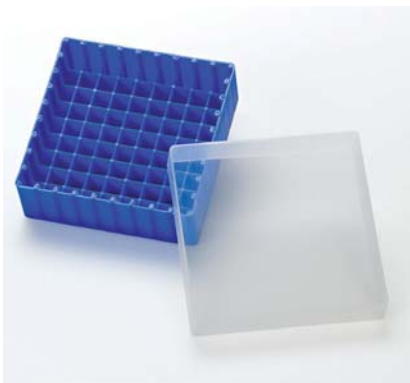
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Description	Pk	Cat. No.
96-Position block systems with glass inserts, sealed with a Sealmat block cover		
Square Well Block "riplate", PP, filled with 1 ml micro-insert, 45×7,6 mm, clear glass, 8 mm top, covered with Sealmat with welled plugs for easy penetration	1	548-0365
Square Well Block "riplate", PP, filled with 1 ml micro-insert, 45×7,6 mm, clear glass, 8 mm top, covered with Sealmat with welled plugs and slit for pipettes	1	548-0366
Square Well Block "riplate", PP, filled with 1 ml micro-insert, 45×7,6 mm, clear glass, 8 mm top, covered with Sealmat with solid plugs for sample storage	1	548-0367
Sealmat with welled plugs	1	548-0368
Sealmat with welled plugs and slit	1	548-0369
Sealmat with solid plugs	1	548-0370
Micro-insert 1 ml, 45×7,6 mm, clear glass, 8 mm top	960	548-0346



Storage boxes for sample vials/bottles



PP, coloured

Storage boxes for convenient and safe storage and transportation of sample vials and sample bottles. Safe standing position on the laboratory table and during transport due to specific cavities related to the vial/ bottle diameter. Ideal for space saving storage in fridges, as the transparent lid prevents condensations on the closures and thus avoids a possible contamination in the cooling unit.

- Temperature resistant from –80 up to +100 °C
- Alphanumeric coding (1,5 ml, 4ml) for clear sample identification
- Chemically resistant and fairly robust, stackable

81 Cavities for 1.5 ml (1.8 ml, 2 ml) crimp, snap and screw neck vials (ND8, ND9, ND10, ND11) 2 ml shell vials

Colour	WxDxH (mm)	Pk	Cat. No.
Blue	130×130×45	1	548-1443
Orange	130×130×45	1	548-1444
Pink	130×130×45	1	548-1445
Yellow	130×130×45	1	548-1446
Green	130×130×45	1	548-1447
Transparent	130×130×45	1	548-1448

49 Cavities for 4 ml vials or 4 ml shell vials

Colour	WxDxH (mm)	Pk	Cat. No.
Red	130×130×52	1	548-1487

25 Cavities for 5 ml, 10 ml and 20 ml Headspace-vials

Colour	WxDxH (mm)	Pk	Cat. No.
Blue	130×130×102	1	548-1511

16 Cavities for 20 ml EPA-vials

Colour	WxDxH (mm)	Pk	Cat. No.
Violet	130×130×102	1	548-1512

10 Cavities for 30 ml and 40 ml EPA-vials

Colour	WxDxH (mm)	Pk	Cat. No.
Violet	130×130×105	1	548-1513

Micro syringe ultra-minute volume



Micro syringe with fixed needle for high sensitivity GC analysis and ultra-minute volume.

- Zero dead volume between plunger and needle
- Fixed needle with bevelled tip for smooth septum penetration

Volume (µl)	Length (mm)	Type of tip	Pk	Cat. No.
1	50	Bevelled	1	549-0197
5	75	Bevelled	1	549-0198

Length in ordering table refers to needle length.

Standard micro syringes



Standard micro syringes for GC with fixed needle.

- All parts in contact with liquid are made of stainless steel and neutral borosilicate glass

Description	Volume (µl)	Length (mm)	Type of tip	Pk	Cat. No.
Standard micro syringe	10	50	Bevelled	1	549-0199
Standard micro syringe	25	50	Bevelled	1	549-0522
Standard micro syringe	50	50	Bevelled	1	549-0523
Standard micro syringe	100	50	Bevelled	1	549-0524

Length in ordering table refers to needle length.

HPLC micro syringes, Rheodyne



The fine fixed needle with special polished blunt tip, specific length and diameter ensures a complete seal, preventing damage to needle seals and rotor.

Volume (µl)	Length (mm)	Type of tip	Pk	Cat. No.
10 *	51	LC	1	549-0534
100	51	LC	1	549-0535

* with super flexible plunger

Length in ordering table refers to needle length.

Gas-tight micro syringes



Micro syringes without needle

General purpose Luer lock connector for use with autosamplers and liquid handling instruments.

All parts in contact with sample are made from neutral borosilicate glass and PTFE. This provides excellent performance and inert sample environment.

Ordering Information: Needles must be ordered separately.

Description	Volume (ml)	Pk	Cat. No.
Gas-tight micro syringe	1	1	549-0536
Gas-tight micro syringe	2,5	1	549-0537
Gas-tight micro syringe	5	1	549-0538
Gas-tight micro syringe	10	1	549-0539

Micro syringe with interchangeable needle

Description	Volume (µl)	Length (mm)	Type of tip	Pk	Cat. No.
Gas-tight micro syringe	100	50	Bevelled	1	549-0559

Interchangeable Luer lock needles

Made from 304 stainless steel

549-0560 needles for 1, 2,5, 5 and 10 ml gas-tight syringes. 549-0565 needles for 0,1 ml gas-tight syringes.

Gauge	Length (mm)	Type of tip	Pk	Cat. No.
24	50	Bevelled	5	549-0560
-	50	Bevelled	5	549-0565

PTFE tips

Provides a complete leak-tight seal for both liquid and gases.

For	Pk	Cat. No.
1 ml micro syringe	5	549-0561
2,5 ml micro syringe	5	549-0562
5 ml micro syringe	5	549-0563
10 ml micro syringe	5	549-0564

Microsyringes for GC autosampler Agilent 7673A



Gauge	Volume (µl)	Length (mm)	Type of tip	Pk	Cat. No.
23	5	43	AS	1	549-0566
23	10	43	AS	1	549-0567
23	10 *	43	AS	1	549-0568

* with super flexible plunger
Length in ordering table refers to needle length.



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Safety caps



Extract the solvent safely from reservoirs and bottles, without being exposed to hazardous gases and solvent vapours. With air valve and air filter. High quality materials (PTFE and PP) ensure maximum safety for your laboratory staff and environment.

- Recommended for HPLC systems
- Chemically resistant against aggressive organic solvents

Air filter and valves should be changed every six month for maximum safety.

Delivery Information: Delivered with an air valve/filter and corresponding fitting.

Safety caps standard

Description	Connector	Pk	Cat. No.
Safety cap, GL 45	1× for tubing 3,2 mm (1/8") OD	1	590-1501
Safety cap, GL 45	2× for tubing 3,2 mm (1/8") OD	1	590-1507
Safety cap, GL 45	3× for tubing 3,2 mm (1/8") OD	1	590-1508

Safety caps with shut-off function

The shut-off on the safety caps can be closed to keep capillaries and inlet filters in the solvent during HPLC pump maintenance and ensure that the frits are not in contact with the ambient air. The pump can then be quickly and easily flushed during purging. Safety caps with shut-off also prevent air ingress into the tubing during solvent changes and guarantees that the analysis continues without a problem.

Description	Connector	Pk	Cat. No.
Safety cap, GL 45	1× for tubing 3,2 mm (1/8") OD	1	590-1502
Safety cap, GL 45	2× for tubing 3,2 mm (1/8") OD	1	590-1514
Safety cap, GL 45	3× for tubing 3,2 mm (1/8") OD	1	590-1515

Accessories

Description	Pk	Cat. No.
Air valve for safety caps	1	590-1500
PP fitting for 1,6, 2,3 and 3,2 mm OD tubing	10	590-1503
PTFE ferrules for fitting 1,6 mm	10	590-1504
PTFE ferrules for fitting 2,3 mm	10	590-1505
PTFE ferrules for fitting 3,2 mm	10	590-1506
Air filter for air valve	10	590-1519

Safety waste caps

Collect your solvent waste safely without being exposed to solvent vapours or hazardous gases. High quality materials (PTFE, PP) ensure maximum safety for your laboratory staff and environment.

- Recommended for HPLC systems
- Chemically resistant against aggressive organic solvents

Delivery Information: Fittings and ferrules for tubing with 2,3 and 3,2 mm (1/8") OD are included. Exhaust air filter has to be ordered separately. Bottle not included.

Safety waste caps, standard



Description	Connector	Pk	Cat. No.
Safety waste cap, GL 45	3× for tubing 2,3/3,2 mm (1/8") OD	1	590-1510
Safety waste cap, S 55	3× for tubing 2,3/3,2 mm (1/8") OD	1	590-1512
Safety waste cap, S 60/61	3× for tubing 2,3/3,2 mm (1/8") OD	1	590-1513

Safety waste caps with tube connections



Tubing connector for e.g. leak connection of HPLC instruments.

Description	Connector	Pk	Cat. No.
Safety waste cap, GL 45	2× for tubing 2,3/3,2 mm (1/8") OD + 1 for tubing 6,4 mm ID	1	590-1516
Safety waste cap, S 55	2× for tubing 2,3/3,2 mm (1/8") OD + 1 for tubing 6,4 mm ID	1	590-1517
Safety waste cap, S 60/61	2× for tubing 2,3/3,2 mm (1/8") OD + 1 for tubing 6,4 mm ID	1	590-1518

Accessories



Description	Pk	Cat. No.
Exhaust filter S for safety waste caps, ±30000 m² filtering surface (for container <5 l)	1	590-1509
Exhaust filter M for safety waste caps, ±60000 m² filtering surface (for container <20 l)	1	590-1511



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CHEMICALS

HIPERSOLV® CHROMANORM®

- High purity solvents for HPLC applications
- Designed to meet your requirements in analysis and quality control



UHPLC systems, ChromasterUltraRs™



The ChromasterUltraRs™ is the result of many years of research, development and customer consultation leading to the introduction of the most advanced, robust and easy to use UHPLC system available on the market today.

Resolution - Very high pressure rating for 250 mm UHPLC columns

The ChromasterUltraRs™ allows the use of extra long UHPLC columns for very high resolution.

Sensitivity - Extra long total internal reflection flow cell

The diode array detector is equipped with a 65 mm total internal flow cell with very low noise and the highest sensitivity meaning that you get the best in resolution and sensitivity with the ChromasterUltraRs™.

Compatibility

With new gradient emulation software as well as easy to use instrument design features, such as the tool-less column coupling for all types of HPLC and UHPLC columns, the ChromasterUltraRs™ runs standard HPLC methods with ease.

To arrange a demonstration with one of our experts, please email chromatography@eu.vwr.com.

Description	Pk	Cat. No.
Main modules		
ChromasterUltraRs™ UHPLC system including 6170 binary pump, 6270 autosampler with cooling, 6310 column oven, 6430 diode array detector, organiser (including interface control board)	1	903-0400
ChromasterUltraRs™ UHPLC system including 6170 binary pump, 6270 autosampler with cooling, 6310 column oven, 6420 UV-VIS detector, organiser (including interface control board)	1	903-0401
ChromasterUltraRs™ 6420 UHPLC UV-VIS detector	1	903-0402
ChromasterUltraRs™ 6430 UHPLC diode array detector	1	903-0403

Description	For	Pk	Cat. No.
Options for main modules for UHPLC systems, ChromasterUltraRs™			
ChromasterUltraRs™ plunger washing pump	ChromasterUltraRs™ 6170 binary pump	1	903-0404
ChromasterUltraRs™ sample loop kit (1 µl)	ChromasterUltraRs™ 6270 autosampler	1	903-0405
ChromasterUltraRs™ sample loop kit (2 µl)	ChromasterUltraRs™ 6270 autosampler	1	903-0409
ChromasterUltraRs™ sample loop kit (100 µl)	ChromasterUltraRs™ 6270 autosampler	1	903-0410
ChromasterUltraRs™ sample loop kit (1000 µl)	ChromasterUltraRs™ 6270 autosampler	1	903-0411
ChromasterUltraRs™ syringe kit (70 µl)	ChromasterUltraRs™ 6270 autosampler	1	560-0032
ChromasterUltraRs™ syringe kit (175 µl)	ChromasterUltraRs™ 6270 autosampler	1	903-0415
ChromasterUltraRs™ syringe kit (700 µl)	ChromasterUltraRs™ 6270 autosampler	1	903-0416
ChromasterUltraRs™ 2-position, 6-port valve	ChromasterUltraRs™ 6310 oven	1	903-0417
ChromasterUltraRs™ column management system	ChromasterUltraRs™ 6310 oven	1	903-0418
ChromasterUltraRs™ high sensitivity 65 mm total internal reflection flow cell	ChromasterUltraRs™ 6430 diode array detector	1	903-0419
ChromasterUltraRs™ graphical user interface (GUI) controller	ChromasterUltraRs™ operation of all modules	1	903-0420



HPLC system, Chromaster™



The VWR Hitachi Chromaster™ delivers highly reliable results. This is achieved with the high precision delivered by the pump, the low carryover and high precision of the autosampler, the stability of the column oven and the sensitivity of the detectors.

VWR's cooperation with Hitachi started 25 years ago as a Merck Hitachi cooperation. During this time, the robustness and reliability of the Hitachi HPLC instruments over the years has helped to build and develop a strong partnership.

Chromaster™ key parameters:

- 600 bar (60 MPa) maximum operating pressure as standard
- Very low carryover (<0,003%)
- Highly sensitive fluorescence detector (optimised 30 nm slit)
- Very low drift diode array detector (1,0 × 10⁻⁴ AU hr⁻¹)
- Excellent gradient reproducibility
- Automatic wavelength check in UV and DAD detectors
- Unique touch screen user interface

Chromaster™ HPLC 5160 pump	Key features
Pumping system	Dual plunger reciprocating pump system Series connection, pulsation elimination system
Operating flow late range	0,001 to 5,000 ml/min
Maximum operating pressures	60 MPa (0,001 to 2,500 ml /min) 30 MPa (2,501 to 5,000 ml /min)

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Chromaster™ HPLC 5260 autosampler	Key features
Sample capacity	195×1 ml (optional) 120×1,5 ml (standard) 72×4 ml (optional) 2×MTP (in 96 well or 384 well) (optional)
Sample injection system	Loop injection method (Cut injection, all volume injection, full loop injection method)
Syringe volume	175 µl (standard)
Chromaster™ HPLC 5310 column oven	Key features
Temperature control system	Heating/cooling block with air circulation system
Temperature setting range	1 to 85 °C (1 °C step)
Temperature control range	RT -15 °C to RT +60 °C and range of the temperature setting
Chromaster™ HPLC 5410 UV detector	Key features
Optical system	Double beam ratio photometric system
Light source	D2 lamp, Hg lamp for checking wavelength
Wavelength range	190 - 600 nm
Chromaster™ HPLC 5420 UV-VIS detector	Key features
Optical system	Double beam ratio photometric system
Light source	D2 lamp, W lamp, Hg lamp for checking wavelength
Wavelength range	190 - 900 nm
Chromaster™ HPLC 5430 diode array detector	Key features
Detection type	1,024 bit PDA
Light source	D2 lamp, W lamp, Hg lamp for checking wavelength
Wavelength range	190 - 900 nm
Chromaster™ HPLC 5440 fluorescence detector	Key features
Light source	Xe lamp, Hg lamp for checking wavelength
Wavelength range	Ex: 200 to 850 nm Em: 250 to 900 nm (change photomultiplier at 731 nm or more)
Wavelength accuracy	±3 nm
Chromaster™ HPLC 5450 RI detector	Key features
Refractive index range	1 - 1,75
Noise	≤2,5 x 10 ⁻⁹ RIU
Drift	≤0,2 x 10 ⁻⁶ RIU/h
Chromaster™ HPLC System Manager Software	Key features
For control of	VWR Hitachi Chromaster™ 400 bar system configuration only
PC requirements	Windows 7 Professional English 32 bit version
Functions	Method creation, data acquisition, chromatograph data processing, DAD data processing and report generation

Description	Pk	Cat. No.
Main modules		
Chromaster™ 5110 pump with manual purge valve. 400 bar max. operating pressure	1	903-0500
Chromaster™ 5110 pump with auto-purge valve. 400 bar max. operating pressure	1	903-0501
Chromaster™ 5160 pump with manual purge valve. 600 bar max. operating pressure	1	903-0554
Chromaster™ 5160 pump with auto-purge valve. 600 bar max. operating pressure	1	903-0555
Chromaster™ 5210 autosampler with 700 µl syringe. 400 bar max. operating pressure	1	903-0509
Chromaster™ 5210 autosampler with thermostat and 700 µl syringe. 400 bar max. operating pressure	1	903-0510
Chromaster™ 5260 autosampler with 700 µl syringe. 600 bar max. operating pressure	1	903-0556
Chromaster™ 5260 autosampler with thermostat and 700 µl syringe. 600 max. max operating pressure	1	903-0557
Chromaster™ 5310 column oven	1	903-0520
Chromaster™ 5410 UV detector	1	903-0524
Chromaster™ 5420 UV-VIS detector	1	903-0525
Chromaster™ 5430 diode array detector	1	903-0526
Chromaster™ 5440 fluorescence detector	1	903-0527
Chromaster™ 5450 refractive index detector	1	903-0528
Chromaster™ organiser for solvent placement and power supply	1	903-0537

Description	For	Pk	Cat. No.
Chromaster™ System Manager			
Chromaster™ system manager software for control and data acquisition		1	906-0144
System accessories for HPLC system, Chromaster™			
Chromaster™ HPLC low-pressure internal gradient unit. Includes proportioning valves, conventional mixer and capillaries	Chromaster™ HPLC 5110 and 5160 pumps (built into the pump upon installation in laboratory)	1	903-0562
Chromaster™ HPLC 6-channel degassing unit. 6-channel (4 for solvents, 2 for AS washing solution), 480 µl/flow path	Chromaster™ HPLC 5110 and 5160 pumps (built into the pump upon installation in laboratory)	1	903-0503
Chromaster™ HPLC built-in dedicated mini pump for washing the plunger of the main pump	Chromaster™ HPLC 5110 and 5160 pumps (built into the pump upon installation in laboratory)	1	903-0563
Chromaster™ HPLC Interface Control Board for Chromaster™ 5000 series control. USB cable and e-line cable (0,5 m) included. Built into the autosampler upon installation in laboratory. If no autosampler is used, then the interface box (S) must be ordered instead	Chromaster™ HPLC connection of all modules via one USB connection (built into the module upon installation in laboratory)	1	903-0545
Chromaster™ HPLC graphical user interface (GUI) touchscreen controller for Chromaster™ 5000 series. Built into the autosampler upon installation in laboratory. Connects via Interface Control Board	Chromaster™ HPLC operation of all modules	1	903-0546

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Description	For	Pk	Cat. No.
Accessories for HPLC system, Chromaster™			
Chromaster™ HPLC dynamic mixer 2000 µl	Chromaster™ HPLC 5110 and 5160 pumps (built into the pump upon installation in laboratory)	1	903-0564
Chromaster™ HPLC 200 µl semi-micro filter mixer for flow rates of 0,4 ml/min or less	Chromaster™ HPLC 5110 and 5160 pumps (built into the pump upon installation in laboratory)	1	903-0507
Chromaster™ HPLC 700 µl static mixer for conventional use with flow rates between 0,4 and 1,8 ml/min	Chromaster™ HPLC 5110 and 5160 pumps (built into the pump upon installation in laboratory)	1	903-0565
Chromaster™ HPLC manual injector holder panel. Manual injector valve must be ordered separately	Chromaster™ HPLC 5110 and 5160 pumps (built into the pump upon installation in laboratory)	1	903-0508
Chromaster™ HPLC hexane and other non polar solvents resistant 6-channel degassing unit	Chromaster™ HPLC 5110 and 5160 pumps (built into the pump upon installation in laboratory)	1	903-0567
Chromaster™ HPLC THF resistant check valve	Chromaster™ HPLC 5110 pumps with manual purge valve (built into the pump upon installation in laboratory)	1	903-0568
Chromaster™ HPLC THF resistant check valve	Chromaster™ HPLC 5110 pumps with auto-purge valve (built into the pump upon installation in laboratory)	1	903-0569
Chromaster™ HPLC THF resistant Low Pressure Gradient accessory including proportioning valves, conventional mixer and capillaries	Chromaster™ HPLC 5110 pumps (built into the pump upon installation in laboratory)	1	903-0570
Chromaster™ HPLC user interface key pad. Mounting parts included	Chromaster™ HPLC 5110 and 5160 pumps	1	903-0540
Chromaster™ HPLC sample rack for 120 × 1,5 ml sample vials. Supplied as standard with the 5210 and 5260 autosamplers	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0511
Chromaster™ HPLC sample rack for 72 × 4 ml sample vials	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0512
Chromaster™ HPLC sample rack for 195 × 1 ml sample vials. Rack for ambient use	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0513
Chromaster™ HPLC sample rack for 2 × 96-well or 384-well micro titre plates	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0514
Chromaster™ HPLC sample rack for 120 × 1,5 ml sample vials. Supplied as standard with the 5210 and the 5260 thermostat autosamplers	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0515
Chromaster™ HPLC sample rack for 72 × 4 ml sample vials	Chromaster™ HPLC 5210 and 5260 autosamplers with thermostat	1	903-0516
Chromaster™ HPLC sample rack for 195 × 1 ml sample vials	Chromaster™ HPLC 5210 and 5260 autosamplers with thermostat	1	903-0517
Chromaster™ HPLC sample rack for 2 × 96-well or 384-well microtitre plates	Chromaster™ HPLC 5210 and 5260 autosamplers with thermostat	1	903-0518
Chromaster™ HPLC 700 µl syringe kit	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0560
Chromaster™ HPLC hexane resistant autosampler washing pump	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0571
Chromaster™ HPLC sample loop kit (5 µl)	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0573
Chromaster™ HPLC sample loop kit (10 µl)	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0574
Chromaster™ HPLC sample loop kit (20 µl)	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0575
Chromaster™ HPLC sample loop kit (100 µl)	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0576
Chromaster™ HPLC sample loop (200 µl)	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0577
Chromaster™ HPLC sample loop (1000 µl)	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0561
Chromaster™ HPLC sample loop (4000 µl)	Chromaster™ HPLC 5210 and 5260 autosamplers	1	903-0578
Chromaster™ HPLC 2-channel degassing unit. Only needed if pump degasser is not used	Chromaster™ HPLC 5210 and 5260 autosamplers (built into the autosampler upon installation in laboratory)	1	903-0519
Chromaster™ HPLC THF resistant autosampler kit	Chromaster™ HPLC 5210 autosamplers (built into the autosampler upon installation in the laboratory)	1	903-0572
Chromaster™ HPLC user interface key pad. Mounting parts included	Chromaster™ HPLC 5210 and 5260 autosamplers (built into the autosampler upon installation in laboratory)	1	903-0541
Chromaster™ HPLC AC adapter (60 W)	Chromaster™ HPLC interface boxes (S) and (L)	1	903-0539
Chromaster™ HPLC 3-column selection valve. Pressure stability to 345 bar. For 1/16" capillaries. Power unit, control board and tubes are included. One valve per oven only	Chromaster™ HPLC 5310 column ovens (built into the column oven upon installation in laboratory)	1	903-0521
Chromaster™ HPLC valve mounting kit	Chromaster™ HPLC 3-column selection valve	1	903-0579
Chromaster™ HPLC 2-position, 6-port valve. Power unit, control board and tubes are included	Chromaster™ HPLC 5310 column ovens (built into the column oven upon installation in laboratory)	1	903-0522
Chromaster™ HPLC column management system. Three column electronic data tags are included	Chromaster™ HPLC 5310 column ovens (built into the column oven upon installation in laboratory)	1	903-0523
Chromaster™ HPLC column holder	Chromaster™ HPLC use when an oven is not ordered (built into the detector upon installation in laboratory)	1	903-0566
Chromaster™ HPLC user interface key pad. Mounting parts included	Chromaster™ HPLC 5310 column ovens (built into the column oven upon installation in laboratory)	1	903-0542
Chromaster™ HPLC thermo cell. Flow cell control unit for 5440 fluorescence detector is required	Chromaster™ HPLC 5410 UV detectors and 5420 UV-VIS detectors (built into the detector upon installation in laboratory)	1	903-0529
Chromaster™ HPLC thermostat cell control unit. Necessary for thermo cell for 5410 UV detectors and 5420 UV-VIS detectors	Chromaster™ HPLC 5410 UV detectors and 5420 UV-VIS detectors (built into the detector upon installation in laboratory)	1	903-0535
Chromaster™ HPLC high pressure semi-micro flow cell, 150 bar, 3,2 µl, 5 mm	Chromaster™ HPLC 5410 UV detectors and 5420 UV-VIS detectors	1	903-0581
Chromaster™ HPLC preparative flow cell, 5 mm, 2,6 µl, 10 bar	Chromaster™ HPLC 5410 UV detectors and 5420 UV-VIS detectors	1	903-0583
Chromaster™ HPLC semi-micro flow cell kit	Chromaster™ HPLC 5410 UV detectors and 5420 UV-VIS detectors	1	903-0589
Chromaster™ HPLC user interface key pad. Mounting parts included	Chromaster™ HPLC 5410 UV detectors and 5420 UV-VIS detectors (built into the detector upon installation in laboratory)	1	903-0543
Chromaster™ HPLC thermo cell. The thermostat cell control unit for 5430 diode array detector is also required	Chromaster™ HPLC 5430 diode array detectors (built into the detector upon installation in laboratory)	1	903-0530
Chromaster™ HPLC thermostat cell control unit. Necessary for thermo cell for 5430 diode array detector	Chromaster™ HPLC 5430 diode array detectors (built into the detector upon installation in laboratory)	1	903-0536
Chromaster™ HPLC high pressure semi-micro flow cell, 150 bar, 3,2 µl, 5 mm	Chromaster™ HPLC 5430 diode array detectors	1	903-0584
Chromaster™ HPLC preparative flow cell, 5 mm, 2,6 µl, 10 bar	Chromaster™ HPLC 5430 diode array detectors	1	903-0586
Chromaster™ HPLC 2-channel analogue signal output unit	Chromaster™ HPLC 5430 diode array detectors (built into the detector upon installation in laboratory)	1	903-0531

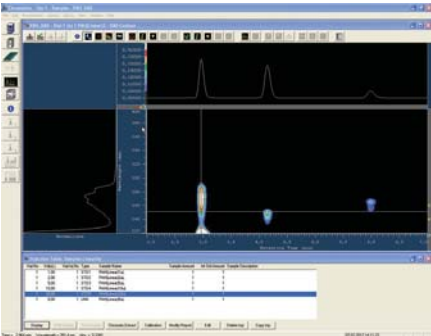
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Description	For	Pk	Cat. No.
Accessories for HPLC system, Chromaster™			
Chromaster™ HPLC semi-micro flow cell kit	Chromaster™ HPLC 5430 diode array detector	1	903-0590
Chromaster™ HPLC thermostat flow cell. Thermostat flow cell control unit for 5440 fluorescence detectors is also required	Chromaster™ HPLC 5440 fluorescence detectors (built into the detector upon installation in laboratory)	1	903-0532
Chromaster™ HPLC thermostat flow cell control unit. For use with thermostat flow cell for 5440 fluorescence detectors	Chromaster™ HPLC 5440 fluorescence detectors (built into the detector upon installation in laboratory)	1	903-0533
Chromaster™ HPLC user interface key pad. Mounting parts included	Chromaster™ HPLC 5440 fluorescence detectors (built into the detector upon installation in laboratory)	1	903-0544
Chromaster™ HPLC AC adapter (150 W)	Chromaster™ HPLC 5110/5160 pumps, 5210/5260 autosamplers, 5410 UV detectors, 5420 UV-VIS detectors, 5430 diode array detectors and 5450 refractive index detectors. When no organiser is used	1	903-0538
Chromaster™ HPLC 1-channel analogue signal output unit	Chromaster™ HPLC 5410 UV detectors, 5420 UV-VIS detectors and 5440 fluorescence detectors (built into the detector upon installation in laboratory)	1	903-0534
Chromaster™ HPLC interface box (L) with Interface Control Board (ICB), USB-analogue input device (AID). AC adapter (60 W) is required	Chromaster™ HPLC systems without autosampler	1	903-0547
Chromaster™ HPLC interface box (S). AC adapter (60 W) is required	Chromaster™ HPLC systems without autosampler	1	903-0548
Chromaster™ HPLC tubing kit. Includes tubing and cables	Chromaster™ HPLC system in a two tower configuration	1 KIT	903-0587
Chromaster™ HPLC USB-analogue input device. Maximum 2 USB-AID allowed per system. Interface Control Board is required	Chromaster™ HPLC with 1 channel for analogue signal acquisition for Chromatography Data System	1	903-0549
Chromaster™ HPLC adaption plate	Chromaster™ HPLC assembling a LaChrom Elite® or LaChromUltra™ module into the configuration	1	903-0588

* Low pressure gradient, degasser and piston wash pump for 5110 and 5160 pumps must be order separately as required.

VWRHITACHI
Chromaster™ System Manager



Chromatography Data System (CDS) for control of the VWR Hitachi Chromaster™ 400 bar system only.
Functions for: Method creation, data acquisition, chromatograph data processing, DAD data processing and report generation.
PC requirements: Windows 7 Professional English 32 bit version (64 bit and XP mode of Windows 7 are not supported).
Delivery Information: Supplied with software CD with serial number, CD with instruction manuals, installation manual, release note Chromaster™ System Manager Version 1.0 and software validation certificate.

Description	Pk	Cat. No.
Chromaster™ system manager software for control and data acquisition	1	906-0144

VWRHITACHI
HPLC system, Primaide™



The Primaide™ is a standard HPLC system designed and manufactured to the highest quality by Hitachi. Suitable for academic and other small laboratories that need a sturdy and reliable standard HPLC system.

- Flexible modular system
- Auto calibrating UV and DAD detectors
- Easy to use and simple software
- Direct injection autosampler
- Highly robust and proven technology

Delivery Information: All main system modules include an accessory set, an E-line cable, an instruction manual, a validation certificate and a test report.

Primaide™ 1110 pump	Key features
Flow rate	0,001 - 9,999 ml/min
Max. pressure	400 bar (5 ml/min), 200 bar (5 - 10 ml/min)
Low pressure gradient	Up to 4 solvents with 0 to 100% mixing ratio
Primaide™ 1210 direct injection autosampler	Key features
Capacity	200 vials (1,5 ml) (microtitre plates available)
Sample injection volumes	0,1 to 4500 µl (dependant on syringe)
Injection volume linearity	>0,999
Primaide™ 1310 column oven	Key features
Temperature setting range	1 to 65 °C in 1 °C steps
Capacity	3 columns (max. 250 mm)

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Primaide™ 1110 pump	Key features
Temperature control system	Block heating with peltier
Primaide™ 1410 variable wavelength UV detector	Key features
Light source	Deuterium lamp
Auto calibration source	Mercury lamp
Wavelength range	190 - 600 nm
Primaide™ 1430 diode array detector	Key features
Light source	Deuterium lamp, tungsten lamp
Auto calibration source	Mercury lamp
Wavelength range	190 - 900 nm
Detecting element	1024 channel photo diode array
Primaide™ System Manager Software	Key features
Acquisition channels	2
Sampling period	50 ms to 3,200 ms
No. of concentration on calibration curve	max: 20

Description		Pk	Cat. No.
Main modules			
Primaide™ PM1110 low-pressure gradient pump, programmable		1	903-0700
Primaide™ PM1110 isocratic pump, programmable		1	903-0701
Primaide™ PM1210 autosampler		1	903-0703
Primaide™ PM1210TS autosampler with cooling unit		1	903-0702
Primaide™ PM1310 column oven		1	903-0704
Primaide™ PM1410 UV detector, programmable		1	903-0705
Primaide™ PM1430 diode array detector		1	903-0706
Description	For	Pk	Cat. No.
Primaide™ system manager			
System Manager HPLC software for full control and data acquisition		1	903-0708
Primaide™ organiser			
PMORG organiser		1	903-0707
Primaide™ interface board			
HPLC USB interface board for communication between Primaide™ modules and PC		1	903-0709
Options for main modules for HPLC system, Primaide™			
Primaide™ HPLC solvent degasser	Primaide™ PM1110 pumps	1	903-0710
Primaide™ HPLC low pressure gradient accessory with mixer	Primaide™ PM1110 pumps	1	903-0711
Primaide™ HPLC pump seal washing kit	Primaide™ PM1110 pumps	1	903-0712
Primaide™ HPLC UI control keypad	Primaide™ PM1110 pumps	1	903-0713
Primaide™ HPLC UI control keypad	Primaide™ PM1210 autosamplers	1	903-0714
Primaide™ HPLC UI control keypad	Primaide™ PM1310 column ovens	1	903-0715
Primaide™ HPLC UI control keypad	Primaide™ PM1410 UV detectors	1	903-0716
System accessories for HPLC system, Primaide™			
Primaide™ HPLC manual injector holder	Attaching to Primaide™ PM1110 pumps. Used instead of Primaide™ PM1210 autosampler	1	903-0717
Primaide™ HPLC syringe kit 5,0 ml for semi-preparative HPLC applications		1	903-0720
Primaide™ HPLC syringe kit 0,5 ml		1	903-0721
Primaide™ HPLC sample rack for 128x4 ml vials	Use with Primaide™ PM1210 autosamplers	1	903-0722
Primaide™ HPLC sample rack for 128x4 ml vials	Use with Primaide™ PM1210TS cooled autosamplers	1	903-0723
Primaide™ HPLC preparative flow cell	Use with Primaide™ PM1410 UV detectors	1	903-0724
Primaide™ HPLC preparative flow cell	Use with Primaide™ PM1430 diode array detectors	1	903-0725
Primaide™ HPLC analogue output	UV detectors (1 channel) to use the detector as a standalone or to connect to a different manufacturer's instrument	1	903-0726
Primaide™ HPLC analogue output	UV detectors (2 channels) to use the detector as a standalone or to connect to a different manufacturer's instrument	1	903-0727
Primaide™ HPLC IQ/OQ draft (English)	Installation qualification and operational qualification certification needed in regulated laboratories	1	903-0728
Primaide™ HPLC AID (analogue input device)	Connection of external devices such as another manufacturer's detector to the Primaide™ system	1	903-0729
Primaide™ HPLC 60 W AC adaptor		1	903-0731
Primaide™ HPLC 150 W AC adaptor		1	903-0730
Primaide™ HPLC EDIO 3 part e-line start, stop, busy cable	Connection with other manufacturer's modules	1	903-0732
Primaide™ HPLC e-line cable, 50 cm		1	903-0733
Primaide™ HPLC e-line cable, 80 cm		1	903-0734
Primaide™ HPLC e-line cable, 200 cm		1	903-0735
Primaide™ HPLC e-dio cable		1	903-0736
Primaide™ HPLC e-dio cable with M4 connection		1	903-0737
Primaide™ HPLC e-dio cable with M3 connection		1	903-0738
Primaide™ HPLC signal cord (3P - M4x3)		1	903-0739
Primaide™ HPLC signal cord (3P - 3P)		1	903-0740

Software for validation of analytical methods, Validation Manager



Validation Manager software checks whether your analytical method is suitable for the use intended and automatically produces the validation report you need. In this way, Validation Manager can save you days or even weeks of validation work for any analytical technique.

- Based on the international guidelines for method validation
- Versatile configuration for all analytical techniques
- Ease of operation and easy data entry
- Automatic calculation and evaluation of the method characteristics
- Automatic report compilation
- Validated and fully FDA compliant

For further information on Validation Manager software, please contact our specialists at VWR or email chromjournal@eu.vwr.com.

Description	Pk	Cat. No.
Validation Manager 3, single user license	1	908-0036
Validation Manager 3, multi-user license	1	908-0037
SMA (Software Maintenance Agreement) Validation Manager, single user license	1	908-0038
Validation Manager 3, single upgrade	1	908-0040
EZChrom Elite™ toolbox runtime licence	1	906-0092



Low temperature evaporative light scattering detectors



These detectors include a number of innovative features including the ability to select the best nebuliser and a unique LT technology. The evaporation drift tube design optimises both resolution and sensitivity. In addition, you can control the system locally or via a PC. A remote shut down mode is provided to minimise cost and enhance system lifetime.

These systems allow for detection of essentially all compounds. Detection is based on a universal property of all analytes and does not require the presence of a chromophoric group, electroactive group, etc.

- Complete remote control
- Sensitivity is enhanced by digital signal treatment
- Full SOP protocols are provided for GLP compliance and validation procedures

Model	ELSD 90 LT	ELSD 85 LT	ELSD 80 LT
Components			
Detector	High sensitivity photomultiplier	High sensitivity photomultiplier	High sensitivity photomultiplier
Light source	10 mW – 405 nm laser (class 3B) Elapsed time counter	Selected high efficiency blue LED (470 nm) Elapsed time counter	Selected high efficiency blue LED (470 nm) Elapsed time counter
Temperature range	Ambient to 100 °C	Ambient to 100 °C	Ambient to 100 °C
Nebuliser	Standard HPLC: 5 µl/min to 5 ml/min with 4 nebulisers UHPLC with 1 nebuliser SFC with 1 nebuliser	Standard HPLC: 5 µl/min to 5 ml/min with 4 nebulisers UHPLC with 1 nebuliser SFC with 1 nebuliser	HPLC: 100 µl/min to 2,5 ml/min Combined chemistry: 1 ml/min to 4 ml/min Flash chromatography: 100 µl/min to 5 ml/min
Sensitivity	Mid-picogram level (LOD stearic acid = 500 pg)	<1 ng caffeine (LOD)	<5 ng caffeine (LOD)
Dynamic range	Over 4 orders of magnitude	-	-
Linearity	Correlation coefficient on full range R² > 0,99	-	-
Data			
Analogue output	0 – 1 V	0 – 1 V	0 – 1 V
Gain setting	1 – 12 factor 2 ¹¹ (2048)	1 – 12 factor 2 ¹¹ (2048)	1 – 12 factor 2 ¹¹ (2048)
Filter	Moving average (0 – 10 s)	Moving average (0 – 10 s)	Moving average (0 – 10 s)
Date rate	Analogue: 100 Hz Digital: 60 Hz	Analogue: 100 Hz Digital: 60 Hz	Analogue: 40 Hz
Communication			
Selection and display	Liquid crystal display and keypad	Liquid crystal display and keypad	Liquid crystal display and keypad

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Model	ELSD 90 LT	ELSD 85 LT	ELSD 80 LT
Event	Contact closure, TTL for ready, auto-zero, power down	Contact closure for ready, auto-zero	Contact closure for ready, auto-zero
Power down methods	Shut-off: Gas, led, heating and/or PMT cleaning method	Shut-off: Gas, led, heating and/or PMT cleaning method	Shut-off: Gas, led, heating and/or PMT cleaning method
Computer interface	RS232, USB	RS232	RS232
Software	Drivers available for EZChrom Elite™, Chem-Station™, Xcalibur™ and Clarity™ with full control of ELSD parameters	Drivers	Drivers
External requirements			
Power	230 V/50 Hz – 115 V/60 Hz	230 V/50 Hz – 115 V/60 Hz	230 V/50 Hz – 115 V/60 Hz
Gas pressure (nitrogen or air)	3,5 bar with gas control and patented auxiliary gas flow (less than 3 l/min, less than 4 l/min for CC nebuliser)	3,5 bar (less than 3 l/min)	3,5 bar (less than 3 l/min)
WxDxH (mm)	250x550x480	250x550x480	250x550x480
Weight (kg)	16	18,5	18,5

Description	Pk	Cat. No.
ELSD 90 LT HPLC, 230 V, with driver for EZE, EU-plug	1	903-0267
ELSD 90 LT HPLC, 230 V, EU-plug	1	903-0271
ELSD 90 LT U-HPLC, 230 V, with driver for EZE, EU-plug	1	903-0269
ELSD 90 LT U-HPLC, 230 V, EU-plug	1	903-0273
ELSD 85 LT HPLC, 230 V, with driver for EZE, EU-plug	1	903-0220
ELSD 85 LT HPLC, 230 V, EU-plug	1	903-0234
ELSD 85 LT HPLC, 115 V, with driver for EZE, EU-plug	1	903-0221
ELSD 85 LT HPLC, 115 V, EU-plug	1	903-0235
ELSD 85 LT U-HPLC, 230 V, with driver for EZE, EU-plug	1	903-0222
ELSD 85 LT U-HPLC, 230 V, EU-plug	1	903-0236
ELSD 85 LT U-HPLC, 115 V, with driver for EZE, EU-plug	1	903-0223
ELSD 85 LT U-HPLC, 115 V, EU-plug	1	903-0237
ELSD 85 LT low flow, 230 V, with driver for EZE, EU-plug	1	903-0224
ELSD 85 LT low flow, 230 V, EU-plug	1	903-0238
ELSD 85 LT low flow, 115 V, with driver for EZE, EU-plug	1	903-0225
ELSD 85 LT low flow, 115 V, EU-plug	1	903-0239
ELSD 85 LT micro HPLC, 230 V, with driver for EZE, EU-plug	1	903-0226
ELSD 85 LT micro HPLC, 230 V, EU-plug	1	903-0240
ELSD 85 LT micro HPLC, 115 V, with driver for EZE, EU-plug	1	903-0227
ELSD 85 LT micro HPLC, 115 V, EU-plug	1	903-0241
ELSD 85 LT CC, 230 V, with driver for EZE, EU-plug	1	903-0228
ELSD 85 LT CC, 230 V, EU-plug	1	903-0242
ELSD 85 LT CC, 115 V, with driver for EZE, EU-plug	1	903-0229
ELSD 85 LT CC, 115 V, EU-plug	1	903-0243
ELSD 85 LT SFC, 230 V, with driver for EZE, EU-plug	1	903-0230
ELSD 85 LT SFC, 230 V, EU-plug	1	903-0244
ELSD 85 LT SFC, 115 V, with driver for EZE, EU-plug	1	903-0231
ELSD 85 LT SFC, 115 V, EU-plug	1	903-0245
ELSD 80 LT HPLC, 230 V, with driver for EZE, EU-plug	1	903-0232
ELSD 80 LT HPLC, 230 V, EU-plug	1	903-0247
ELSD 80 LT HPLC, 115 V, with driver for EZE, EU-plug	1	903-0233
ELSD 80 LT HPLC, 115 V, EU-plug	1	903-0248
ELSD 80 LT CC, 230 V, EU-plug	1	903-0249
ELSD 80 LT CC, 115 V, EU-plug	1	903-0250

Description	Pk	Cat. No.
Accessories		
Service manual for ELSD 85 LT	1	560-0030
Short user manual for ELSD 85 LT	1	560-0029
User manual for ELSD 85 LT	1	560-0028
Service manual for ELSD 80 LT	1	560-0025
Short user manual for ELSD 80 LT	1	560-0027
User manual for ELSD 80 LT	1	560-0026
Control software for ELSD 80-85 LT	1	903-0246
Gas regulator with 0,01 µm filter and manometer	1	903-0251
Nebuliser for ELSD 90 LT HPLC	1	903-0275
Nebuliser for ELSD 90 LT U-HPLC	1	903-0276
Nebuliser for ELSD 85 LT HPLC	1	903-0252
Nebuliser for ELSD 85 LT U-HPLC	1	903-0253
Nebuliser for ELSD 85 LT low flow	1	903-0254
Nebuliser for ELSD 85 LT micro flow	1	903-0255
Nebuliser for ELSD 85 LT CC	1	903-0256
Nebuliser for ELSD 80 LT HPLC	1	903-0258
Nebuliser for ELSD 80 LT CC	1	903-0259
Nebuliser for ELSD 80 LT flash	1	903-0260
SFC nebuliser	1	903-0257
Glassware for ELSD 80-85 LT	1	903-0261
Glassware for ELSD 85 LT micro HPLC	1	903-0262
Complete glassware for ELSD 85 LT micro HPLC	1	903-0263

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Description	Pk	Cat. No.
Accessories		
Packing for ELSD 80/85 LT	1	560-0031
Laser for ELSD 90 LT	1	903-0277
Power cable, CH-plug	1	903-0264
Power cable, UK-plug	1	903-0265
Cable, E-DIO (green connector)	1	903-0057

The E-DIO cable is necessary for transferring the start signal.

PTFE AF degassers



On-Line degassing has been shown to be more effective at removing dissolved gas from mobile phases than sonication or helium sparging. Up to five solvent lines can be degassed simultaneously by one unit. The extremely low volume of each PTFE AF channel (480 µl) offers very quick equilibration and very short start-up times.

ZHCR® (Zero Hysteresis Constant Run) stepper motor driven vacuum pump, specifically designed and developed for membrane degassing of HPLC mobile phase. This patented control strategy allows the On-Line Degasser to maintain a virtually constant vacuum that is unaffected by varying degassing loads. As a consequence, fluctuations in baseline due to vacuum hysteresis are eliminated by not having the pump repeatedly stop and start as is done in many older and existing systems.

- Considerably shorter equilibration / re-equilibration times
- Very easy to prime
- Short vacuum pull-down times, typically 3 minutes
- PTFE AF has the ability to remove pre-pump bubbles

Degassing capacity: ~2 ppm O₂ at 1 ml/min

Max. flow (l/min)	0,01
Power input (VDC)	15 – 24; 0,85 A max.
WxDxH (mm)	273x249x127

Description	Pk	Cat. No.
Model 2003, 3-channel degasser, universal power supply, tubes, fittings and ferrules included	1	903-0134
Model 2004, 4-channel degasser, universal power supply, tubes, fittings and ferrules included	1	903-0135
Model 2005, 5-channel degasser, universal power supply, tubes, fittings and ferrules included	1	903-0136
Model 2003, 3-channel degasser, universal power supply, tubes, fittings and ferrules included, for GPC and normal phase	1	903-0156
Model 2004, 4-channel degasser, universal power supply, tubes, fittings and ferrules included, for GPC and normal phase	1	903-0157
Model 2005, 5-channel degasser, universal power supply, tubes, fittings and ferrules included, for GPC and normal phase	1	903-0158

Description	Pk	Cat. No.
Accessories		
Tubing kit (5 m FEP tube, ID 1/16")	1	903-0147
Connection kit (10 fittings, 12 ferrules)	1	903-0139

Preparative HPLC system, LaPrep Sigma



The LaPrep Sigma is a highly robust and compact preparative chromatography system running on the intuitive EZChrom platform. Being a truly modular system with many possible configurations, it has one of the smallest foot prints in the market (242x352 mm). With an easy to use touch screen panel and ethernet connection, it is an ideal addition to any laboratory needing a flexible preparative HPLC solution.

The LaPrep Sigma has capabilities ranging from analytical to preparative scale, pump capacity from 1 ml to 600 ml/min as well as easy connection to a fully automated fraction collector. Along with the option of a single or multiple wavelength UV detector and options for autosampler or single injection sample delivery, the LaPrep Sigma is an excellent choice for any prep lab whatever the configuration requirements.

Key to the flexibility of LaPrep Sigma is the assistant module. The assistant houses the fractionation valve, injection valve and automated injection pump, meaning that minimal bench space is used. A variety of configuration options are available.

For further information, demo requests or application support please do get in touch with your local VWR chromatography specialist.

Main modules

Description	Pk	Cat. No.
LaPrep Sigma LP 1100 semi-preparative solvent pump with 50 ml titanium pump head and integrated quaternary low pressure gradient	1	905-0502
LaPrep Sigma LP 1200 preparative solvent pump with 200 ml titanium pump head	1	905-0503
LaPrep Sigma LP 1200 preparative solvent pump with 600 ml titanium pump head	1	905-0504
LaPrep Sigma LP 3101 UV detector, 1 channel	1	905-0505
LaPrep Sigma LP 3104 UV detector, 4 channel	1	905-0506
LaPrep Sigma assistant module for sample delivery and fractionation. Includes: 1/8": LP 1000 pump with 50 ml pump head without pressure sensor, LP 2002 injection valve, LP 2012 fractionation valve	1	905-0515

Continued from previous page

Description	Pk	Cat. No.
LaPrep Sigma assistant module for sample delivery and fractionation. Includes: 1/16": LP 1000 pump with 10 ml pump head without pressure sensor, LP 2002 injection valve, LP 2016 fractionation valve	1	905-0514
LaPrep Sigma assistant module, 1/8": two LP 2002 valves, for fractionation, solvent selection or column switching, 242×352×137 mm	1	905-0516
LaPrep Sigma assistant module, 1/16": two LP 2002 valves, for fractionation, solvent selection or column switching, 242×352×137 mm	1	905-0517

LaPrep Sigma ethernet module connector

Description	Pk	Cat. No.
LaPrep Sigma ethernet module connector, type Netgear FVS318. An ethernet cable is delivered with each LaPrep Sigma module. For connection of all modules to a PC running the EZ Prep software	1	905-0536
EZPrep driver for EZChrom Elite™	1	905-0012

Flow cells for LaPrep Sigma UV detectors

Description	For	Pk	Cat. No.
LaPrep Sigma analytical flow cell, 1/16", 3 mm path length, max. flow rate 50 ml/min, 2 µl volume, max. pressure 300 bar	LaPrep Sigma LP 3101 and LP 3104 UV detectors	1	905-0529
LaPrep Sigma preparative flow cell, 1/8", 0,5/1,25/2 mm selectable path length, max. flow rate 1000 ml/min, 25 µl volume, max. pressure 200 bar	LaPrep Sigma LP 3101 and LP 3104 UV detectors	1	905-0530
LaPrep Sigma semi-preparative flow cell, 1/16", 0,5 mm path length, max. flow rate 250 ml/min, 3 µl volume, max. pressure 200 bar	LaPrep Sigma LP 3101 and LP 3104 UV detectors	1	905-0531

Accessories

Description	For	Pk	Cat. No.
LaPrep Sigma LPG accessory with ternary low pressure gradient flow rate of 10 to 220 ml/min	LaPrep Sigma LP 1200 preparative solvent pump with 200 ml titanium pump head	1	905-0522
LaPrep Sigma LPG accessory with binary low pressure gradient flow rate of 10 to 1000 ml/min	LaPrep Sigma LP 1200 preparative solvent pump with 600 ml titanium pump head	1	905-0521
Dynamic mixing chamber, 5,9 ml, with 1/8" tubing and adapter for 1/16", max. pressure 250 bar	Use with LP 1200 or LP 1100 with flow rates up to 250 ml/min	1	905-0014
Extension for dynamic mixing chamber, 4,8 ml, max. pressure 250 bar, for flow rates >250 ml/min	Up to two extensions with dynamic mixing chamber	1	905-0015

Capillary start up kits for LaPrep Sigma

Description	For	Pk	Cat. No.
LaPrep Sigma start-up kit, 1/8", necessary for 1/8" systems. Contains all fittings and tubing needed for 1/8" set up	The connection of modules with a 1/8" flow path	1	905-0519
LaPrep Sigma start-up kit, 1/16", necessary for 1/16" systems. Contains all fittings and tubing needed for 1/16" set up	The connection of modules with a 1/16" flow path	1	905-0520

Other modules and accessories - Modules with single LP1000 pump in one module

Description	Pk	Cat. No.
LaPrep Sigma LP 1000 sample injection pump with 10 ml titanium pump head	1	905-0500
LaPrep Sigma LP 1000 sample injection pump with 50 ml titanium pump head	1	905-0501

Other modules and accessories - LaPrep Sigma single valves in one module

Description	Pk	Cat. No.
LaPrep Sigma manual injection valve, 6 port/3 channel/2 positions, 1/16", with signal cable and mounting bracket. For LaPrep Sigma LP 1000 sample injection pumps	1	905-0512
LaPrep Sigma mounting bracket. For manual injection valve	1	905-0513
LaPrep Sigma LP 2002 injection valve and drive, 6 port/3 channel/2 positions, 1/16", 122×188×140 mm	1	905-0507
LaPrep Sigma LP 2002 injection valve and drive, 6 port/3 channel/2 positions, 1/8", 122×188×140 mm	1	905-0508
LaPrep Sigma injection valve module with 6-port/3-channel, 1/8". For injection with LP 1000 pump	1	905-0525
LaPrep Sigma injection valve module with 6-port/3-channel, 1/16". For injection with LP 1000 pump	1	905-0524
LaPrep Sigma switching valve module, 17-port/1-channel, 1/16"	1	905-0523
LaPrep Sigma switching valve module, 13-port/1-channel, 1/8"	1	905-0526
LaPrep Sigma switching valve module, 7-port/1-channel, 1/16"	1	905-0527
LaPrep Sigma switching valve module, 7-port/1-channel, 1/8"	1	905-0528
LaPrep Sigma LP 2006 fractionation valve module, 7 port/1 channel/7 positions, 1/8", 122×188×140 mm	1	905-0509
LaPrep Sigma LP 2012 fractionation valve module, 13 port/1 channel/13 positions, 1/8", 122×188×140 mm	1	905-0510
LaPrep Sigma LP 2016 fractionation valve module, 17 port/1 channel/17 positions, 1/16", 122×188×140 mm	1	905-0511
Description	Pk	Cat. No.
LaPrep Sigma pump extension required to allow stacking of units of different suppliers	1	905-0518

Accessories for P202 and manual injection valves

Description	Pk	Cat. No.
Automatic preparative sample loop, 10 ml, 1/8", filling volume 1 - 10 ml, flow rate 1 - 1000 ml/min	1	905-0031
Automatic preparative sample loop, 40 ml, 1/8", filling volume 1 - 40 ml, flow rate 1 - 1000 ml/min	1	905-0032
Automatic preparative sample loop, 10 ml, 1/16", filling volume 1 - 10 ml, flow rate 1 - 250 ml/min	1	905-0029
Automatic preparative sample loop, 40 ml, 1/16", filling volume 1 - 40 ml, flow rate 1 - 250 ml/min	1	905-0030

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Flow cells for LaPrep Sigma UV detectors

Description	For	Pk	Cat. No.
LaPrep Sigma analytical flow cell, 1/16", 3 mm path length, max. flow rate 50 ml/min, 2 µl volume, max. pressure 300 bar	LaPrep Sigma LP 3101 and LP 3104 UV detectors	1	905-0529
LaPrep Sigma preparative flow cell, 1/8", 0,5/1,25/2 mm selectable path length, max. flow rate 1000 ml/min, 25 µl volume, max. pressure 200 bar	LaPrep Sigma LP 3101 and LP 3104 UV detectors	1	905-0530
LaPrep Sigma semi-preparative flow cell, 1/16", 0,5 mm path length, max. flow rate 250 ml/min, 3 µl volume, max. pressure 200 bar	LaPrep Sigma LP 3101 and LP 3104 UV detectors	1	905-0531

LaPrep and LaPrep Sigma driver for EZChrom Elite™

Description	Pk	Cat. No.
EZChrom Elite™ software license for preparative chromatography systems	1	905-0535

LaPrep Sigma software

The software provides a platform for all VWR chromatography systems such as LaPrep Sigma, LaChrom Elite® and LaChrom. The software includes modules that have been specifically developed for preparative HPLC.

It caters for all key functions such as peak identification, fraction collection, sample recycling and solvent recovery.

- The software features Direct-Control as well as a Teach-In function that will deal with individual work steps, to save both time and money

Description	Pk	Cat. No.
EZPrep driver for EZChrom Elite™	1	905-0012
LaPrep driver upgrade from Eurochrom to EZChrom Elite™	1	905-0013

Special Accessories, LaPrep

Description	Pk	Cat. No.
Manual injection valves		
6-port/3-channel injection valve 1/8", manual, stainless steel, thermo stability up to 160 °C, REED contact that is connected to the detector input	1	561-0000
6-port/3-channel injection valve 1/8", manual, PEEK, REED contact that is connected to the detector input	1	905-0041
Universal bracket that can be fitted on all LaPrep devices, can also be used as a column holder for analytical and semi-preparative columns	1	905-0055
Accessories for P202 and manual injection valves		
Automatic preparative sample loop, 10 ml, 1/8", filling volume 1 - 10 ml, flow rate 1 - 1000 ml/min	1	905-0031
Automatic preparative sample loop, 40 ml, 1/8", filling volume 1 - 40 ml, flow rate 1 - 1000 ml/min	1	905-0032
Automatic preparative sample loop, 10 ml, 1/16", filling volume 1 - 10 ml, flow rate 1 - 250 ml/min	1	905-0029
Automatic preparative sample loop, 40 ml, 1/16", filling volume 1 - 40 ml, flow rate 1 - 250 ml/min	1	905-0030

GC capillary connectors

For precise connections of capillary columns in GC with inner diameter of 0,2 to 0,53 mm and outer diameter of 0,3 to 0,75 mm

Type	Pk	Cat. No.
For 2 columns	10	548-0306
Y-capillary for 3 columns	1	548-0307

GC injection port septa



Long-life GC-septa for inlet temperature of up to 340 °C.

- Low bleeding
- Easy exchange, no sticking to hot surfaces
- Good penetration and sealing properties

Description	Pk	Cat. No.
Shimadzu plug, transparent	25	548-0181
Universal high temperature injection port septa, transparent, 9,5 mm	25	548-0182
Universal high temperature injection port septa, transparent, 10 mm	25	548-0183
Universal high temperature injection port septa, transparent, 11 mm	25	548-0184
Universal high temperature injection port septa, transparent, 12,5 mm	25	548-0185
Universal high temperature injection port septa, transparent, 17 mm	25	548-0186

VWR's multi-brand pipette calibration and maintenance is accurate and reliable

VWR's pipette services is our total care programme for pipette calibration and service of single and multichannel pipettes, steppers, burettes, volumetric glassware, titrators and other liquid handling equipment. To remain compliant, regular pipette calibration is required by GLP, GMP, FDA and ISO.

A complete service solution – in-house or on-site

VWR's calibration service of pipettes, steppers, burettes and volumetric glassware covers:

- Calibration procedures according to ISO 8655/ISO 4787
- Adjustment
- Preventative maintenance
- Corrective maintenance/repair
- Troubleshooting and diagnosis
- Calibration certificate
- Due date reminder system

We set the highest standards – officially trained technicians and full ISO 17025 accredited facilities

- Calibration according to ISO 8655
- Genuine spare parts for repairs
- Accredited Competence Centre compliant with ISO 17025
- VWR technicians fully certified and trained by the manufacturers

Traceable from beginning to end...

Every calibration is registered with a free calibration certificate including individual calibration results. If an accredited calibration according to ISO/IEC 17025 is required, the certificate is provided with the accreditation logo which gives direct traceability to a National Standard. In case of an adjustment of your pipette you always receive two calibration certificates from us, one from before adjustment and one after.

For all **GLP laboratories** we perform an '**as found**' and an '**as left**' calibration. This means that we perform a calibration before preventative maintenance and after.

Every calibrated pipette gets a calibration label with calibration date and recalibration date. To keep your pipette in a calibrated status we have our due date reminder system. This system will inform you about the date to send the pipette in again for service.



For more information on any of our technical and validation services, please contact your local VWR sales office.
technical.services@eu.vwr.com

Measurement and Analysis

Measurement and analysis are critical in the laboratory. We've classified the apparatus in this chapter into five categories:
time, mechanical, thermal, optical and electrochemical.

Time Measurement and Counters

Timers and Stopwatches 330

Weight and Volume

Balances - Analytical and Precision Balances 335

Balances - Portable Balances 338

Balances - Moisture Analysers 339

Balances - Weights and Accessories 339

Volume - Volumetric Flasks and Measuring Cylinders 355

Volume - Graduated and Bulb Pipettes 356

Volume - Pasteur and Micro Pipettes 358

Volume - Pipette Accessories 363

Volume - Burettes 367

Liquid Handling - Bottle Top Dispensers and Digital Burettes 367

Liquid Handling - Single/Multi Channel Pipettes 369

Liquid Handling - Hand Dispensers, Repetitive Pipettes 374

Liquid Handling - Pipette, Filter and Robotic Tips 376

Thermal and Climate Analysis

Temperature Indicator Strips, Glass Thermometers 392

Temperature Testers and Sticks, IR-Thermometers 401

Precision Thermometers and Probes 408

Temperature and Humidity 421

Data Loggers 424

Meteorology 425

Optical Analysis

Magnifiers, Standard and Inverted Microscopes 429

Stereo Microscopes and Microscope Cameras 438

Microscope Cameras 442

Microscope Accessories 443

Single/Split Beam Spectrophotometers UV/VIS 453

Double Beam Spectrophotometers 455

Cuvettes for Spectrophotometers 456

Refractometers, Polarimeters 457

Optical Analysis, Other 457

Mechanical Analysis and Others

Density and Hydrometers 459

Capillary Viscometers 460

Electrochemistry and Titration

pH, mV and Ion Meters 461

pH, mV and Ion Selective Electrodes, Standards and Solutions 465

Conductivity Meters 474

Dissolved Oxygen Meters 478

Multi-Parameter Systems 480



Analogue stopwatch



- Copper chromium plated casing
- Crown stopper with frame ring
- Separate side reset button
- 1/5 s timing
- Counts up to 30 minutes

Size (mm)	Colour	Pk	Cat. No.
48x16x68	Chrome	1	609-0132

Analogue stopwatch



- Copper chromium plated casing, crown stopper with frame ring
- 1/100 s timing
- Counts up to 15 minutes

Size (mm)	Colour	Pk	Cat. No.
48x16x68	Chrome	1	609-0130

Analogue stopwatch



- Minute scale and central second hand
- 1/5 s readings up to 60 min
- Side reset button

Size (mm)	Colour	Pk	Cat. No.
82x48x93	White	1	609-0133

Digital stopwatch



- Water resistant, three line display for time, countdown and pacer
- Up to 99 split/lap, 30 memories and alarm function
- 1/100 s reading

Colour	Pk	Cat. No.
Black	1	609-0131

Digital stopwatch



- Time/calendar display
- 1/100 s chronograph with memory

Colour	Pk	Cat. No.
Black	1	609-0139

Digital stopwatch, waterproof/shock-proof, Traceable®



- O-ring-sealed and shock-proof plastic case for lab and plant use
- Unit is waterproof to a pressure of three atmospheres
- LCD display shows time of day in hours, minutes, and seconds, AM/PM, date and day of the week
- Cumulative split timing

Colour	Pk	Cat. No.
Yellow	1	609-0054

Digital timer



- Square design
- Loud alarm
- For noisy environments

Delivery Information: Supplied with a magnet, a stand, and a clip.

Size (mm)	Colour	Pk	Cat. No.
65×15×67	Black/Grey	1	609-0185

Digital timer/stopwatch



- LCD and alarm
- Count down from 99 min 59 s
- Count up to 99 min 59 s with setting memory
- Clip, stand and magnetic attachment

Colour	Pk	Cat. No.
White	1	609-0128

Digital timer/stopwatch



- With LCD-display and alarm
- Count down from 99 min 59 s, with setting memory
- Count up to 99 min 59 s

Delivery Information: Supplied with pocket clip stand, magnetic attachment and upgraded battery.

Colour	Pk	Cat. No.
White	1	609-0129

Digital timer/stopwatch



- LCD
- Count down from 99 h 59 min 59 s, in steps of 1 s
- Count up to 99 h 59 min 59 s, in steps of 1 s
- Individual numbered keys and reset key
- Clip and stand

Colour	Pk	Cat. No.
Black	1	609-0135

Digital timer



- Large LCD of 34x13 mm
- Memory
- Loud 30 second alarm
- Magnet
- Maximum count down range from 99 minutes 59 seconds

Size (mm)	Colour	Pk	Cat. No.
46x12x88	White	1	609-0184

Digital timer



- Count up or down simultaneously
- 12/24 hour clock
- Ability to preset any value up to 100 hours into memory
- Loud alarm
- Count up of elapsed time

RoHS compliant

Delivery Information: Supplied with a multi-language instruction sheet and a fold-away stand.

Colour	Pk	Cat. No.
Grey	1	609-0181

Digital timer



- Timer clock with 12/24 hour display
- Count down from 23 h 59 min 59 s, with setting memory
- Count up 24 hours
- Separate hour, minute, second, start/stop and reset keys
- Clip, stand and magnetic attachment

Colour	Pk	Cat. No.
White	1	609-0136

Digital timer/stopwatch



- RoHS compliant
- 19 hours 59/99 minutes 59 seconds
- Fold-away stand, pocket clip and magnetic back
- Includes a statement of traceability indicating accuracy to NIST and DAKKS
- Individually test and inspected, exclusive triple accredited/registered ISO/IEC 17025:2005, A2LA accredited laboratory against equipment

Accuracy: Three seconds

Size (mm)	Colour	Pk	Cat. No.
64x64	White	1	609-0190

Digital timer, DURAC®



- Digital triple count up/down timer
- Three channel display
- Count up and down from 19 h 59 min 59 s
- Setting memory
- 1/100 s display, 12/24 hour time format

WxH: 65x89 mm

Delivery Information: Supplied with stand, magnetic attachment, pocket clip, multi-language instructions and statement of traceability.

Size (mm)	Colour	Pk	Cat. No.
65x89	White	1	609-0137

Digital timer/stopwatch, Jumbo, Traceable®



This timer allows simultaneous programming of two different activities from 24 hours to 1 second. Each channel has a distinct electronic alarm and display indicator when zero is reached. The alarm may be turned off or it is silenced automatically after 1 minute. A second display mode shows time of day and a stopwatch (for count-up timing).

- Jumbo display and 25 mm high LCD digits are easy to read
- Can be used flat, in the sit-up position, or wall-mounted with a bracket
- Functions as a stopwatch and a clock

WxDxH (mm): 95x140x13

Delivery Information: Supplied with a bracket for wall-mounting and an AAA battery providing 2 years of normal usage.

Colour	Pk	Cat. No.
Black	1	609-0090

Mechanical timer



- Count down from 60 minutes
- With alarm

Colour	Pk	Cat. No.
White	1	609-0127

Pedometer, SPORT-Tech



For personal fitness

This individual workout programme can count the calories burnt, distance travelled or number of steps taken (up to 99,999). It saves your personal data such as sex, weight, stride length. It is suitable for applications in pharmaceutical industries, schools, universities, hospitals, fitness centers and dieticians.

- "Hold" function
- Visual and audible alarm
- Real time clock and 1/10 second timer with lap function

Delivery Information: Supplied with batteries and a clip back.

Description	Pk	Cat. No.
Target calorie pedometer	1	620-1718



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Analytical balances, LA and LAG series



An economical range of reliable, high performance balances.

- Selectable filter levels
- Selectable measuring units
- Check weighing (alarm function), weight totalising and piece counting functions
- LAG models have large graphic displays with added functionality for formulation, GLP, date and time
- Option of external or internal calibration

Ordering Information: For details of the full range of accessories including printer, software, density determination kit for LAG series, external keypad and PC connection cable please visit www.vwr.com or contact your local VWR sales office. The balances are also available with a calibration certificate. Please contact VWR for details of this option.

Delivery Information: Supplied with mains adapter with universal plug. Calibration weights are provided for models with external calibration.

Model	Readability (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
Models with standard LCD and external calibration					
LA 124	0,1	120	Ø 80	1	611-2258
LA 164	0,1	160	Ø 80	1	611-2259
LA 214	0,1	220	Ø 80	1	611-2260
Models with standard LCD and internal calibration					
LA 124i	0,1	120	Ø 80	1	611-2261
LA 164i	0,1	160	Ø 80	1	611-2262
LA 214i	0,1	220	Ø 80	1	611-2263
LA 254i	0,1	250	Ø 80	1	611-2264
LA 314i	0,1	310	Ø 80	1	611-2265
LAG models with large graphic display and external calibration					
LAG 124	0,1	120	Ø 80	1	611-2266
LAG models with large graphic display and internal calibration					
LAG 124i	0,1	120	Ø 80	1	611-2267
LAG 164i	0,1	160	Ø 80	1	611-2268
LAG 214i	0,1	220	Ø 80	1	611-2269
LAG 254i	0,1	250	Ø 80	1	611-2270
LAG 314i	0,1	310	Ø 80	1	611-2271
Description				Pk	Cat. No.
Accessories					
Thermal printer with RS232 connection for VWR LA and LP balances, MB moisture analysers				1	630-1485
Labels, self-adhesive, 500 on a roll for thermal printer				1	630-1487
Paper roll for thermal printer				1	630-1488



Precision balances, LP series



Rugged, economical, balances that are ideal for educational establishments and laboratory use. A series that ranges from simple weighing to operation with automated internal calibration and with GLP date/time functionality.

- Selectable filter levels and measuring units
- Choice of simple LC display or large graphic display (G) with added functionality for GLP and formulation
- Many models feature an internal rechargeable battery (IRB) for portable operation

Continued from previous page

Balances with automatic internal calibration and 3 door draught shield

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Power supply	Pk	Cat. No.
LPW-213i	0,001	± 0,003	210	Ø 110	AC Mains	1	611-2296
LPWG-213i	0,001	± 0,003	210	Ø 110	AC Mains	1	611-2297
LPW-503i	0,001	± 0,002	500	Ø 110	AC Mains	1	611-2278
LPWG-503i	0,001	± 0,002	500	Ø 110	AC Mains	1	611-2286
LPW-723i	0,001	± 0,002	720	Ø 110	AC Mains	1	611-2279
LPWG-723i	0,001	± 0,002	720	Ø 110	AC Mains	1	611-2287

Balances with automatic internal calibration and circular draught shield

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Power supply	Pk	Cat. No.
LPC-213i	0,001	± 0,003	210	Ø 110	AC Mains	1	611-2293
LPCG-213i	0,001	± 0,003	210	Ø 110	AC Mains	1	611-2295
LPC-503i	0,001	± 0,002	500	Ø 110	AC Mains	1	611-2274
LPCG-503i	0,001	± 0,002	500	Ø 110	AC Mains	1	611-2282
LPC-723i	0,001	± 0,002	720	Ø 110	AC Mains	1	611-2275
LPCG-723i	0,001	± 0,002	720	Ø 110	AC Mains	1	611-2283

Balances with external calibration and 3 door draught shield

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Power supply	Pk	Cat. No.
LPW-503	0,001	± 0,002	500	Ø 110	AC Mains	1	611-2276
LPWG-503	0,001	± 0,002	500	Ø 110	AC Mains	1	611-2284
LPW-723	0,001	± 0,002	720	Ø 110	AC Mains	1	611-2277
LPWG-723	0,001	± 0,002	720	Ø 110	AC Mains	1	611-2285

Balances with external calibration and circular draught shield

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Power supply	Pk	Cat. No.
LPC-123	0,001	± 0,003	120	Ø 110	AC Mains/IRB	1	611-2312
LPC-163	0,001	± 0,003	160	Ø 110	AC Mains/IRB	1	611-2292
LPC-213	0,001	± 0,003	210	Ø 110	AC Mains/IRB	1	611-2313
LPC-313	0,001	± 0,003	310	Ø 110	AC Mains/IRB	1	611-2314
LPC-503	0,001	± 0,002	500	Ø 110	AC Mains	1	611-2272
LPCG-503	0,001	± 0,002	500	Ø 110	AC Mains	1	611-2280
LPC-723	0,001	± 0,002	720	Ø 110	AC Mains	1	611-2273
LPCG-723	0,001	± 0,002	720	Ø 110	AC Mains	1	611-2281

Balances with automatic internal calibration without draught shield

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Power supply	Pk	Cat. No.
LP 2102i	0,01	± 0,03	2100	Ø 160	AC Mains	1	611-2302
LPG 2102i	0,01	± 0,03	2100	Ø 160	AC Mains	1	611-2307
LP 4102i	0,01	± 0,04	4200	Ø 160	AC Mains	1	611-2289
LPG 4102i	0,01	± 0,04	4200	Ø 160	AC Mains	1	611-2291

Balances with external calibration without draught shield

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Power supply	Pk	Cat. No.
LP 1002	0,01	± 0,02	1000	Ø 160	AC Mains/IRB	1	611-2298
LPG 1002	0,01	± 0,02	1000	Ø 160	AC Mains/IRB	1	611-2303
LP 1502	0,01	± 0,02	1500	Ø 160	AC Mains/IRB	1	611-2299
LPG 1502	0,01	± 0,02	1500	Ø 160	AC Mains/IRB	1	611-2304
LSP* 1502	0,01	± 0,02	1500	Ø 130	AC Mains/IRB	1	611-2315
LP 2102	0,01	± 0,03	2100	Ø 160	AC Mains/IRB	1	611-2300
LPG 2102	0,01	± 0,03	2100	Ø 160	AC Mains/IRB	1	611-2305
LP 2202	0,01	± 0,03	2200	Ø 160	AC Mains	1	611-2288
LPG 2202	0,01	± 0,03	2200	Ø 160	AC Mains	1	611-2290
LP 3102	0,01	± 0,03	3100	Ø 160	AC Mains/IRB	1	611-2301
LPG 3102	0,01	± 0,03	3100	Ø 160	AC Mains/IRB	1	611-2306
LSP* 3102	0,01	± 0,03	3100	Ø 130	AC Mains/IRB	1	611-2316
LP 4102	0,01	± 0,04	4200	Ø 160	AC Mains/IRB	1	611-2319
LP 6501	0,1	± 0,1	6500	195×175	AC Mains/IRB	1	611-2308
LPG 6501	0,1	± 0,1	6500	195×175	AC Mains/IRB	1	611-2310
LP 12001	0,1	± 0,2	12000	195×175	AC Mains/IRB	1	611-2309
LPG 12001	0,1	± 0,2	12000	195×175	AC Mains/IRB	1	611-2311
LP 16001	0,1	± 0,3	16000	195×175	AC Mains/IRB	1	611-2320
LP 20001	0,1	± 0,4	21000	195×175	AC Mains/IRB	1	611-2321

* Small footprint

Accessories

Description	Pk	Cat. No.
Thermal printer with RS232 connection for VWR LA and LP balances, MB moisture analysers	1	630-1485
Labels, self-adhesive, 500 on a roll for thermal printer	1	630-1487
Paper roll for thermal printer	1	630-1488



Precision balances, Science Education

Competitively priced electronic balances for the education sector.

Common benefits to all models below:

- Easy to use
- Small footprint
- Selectable measuring units and counting function
- Mains supply or battery operation (rechargeable batteries are supplied for balances with a draught shield)

Ordering Information: The balances are also available with a calibration certificate. Please contact VWR for details of this option.

Balances without draught shield



Additional benefits for the SE 622 only:

- RS232 serial interface
- Hook for underbalance weighing
- Optional software for liquid and solid density determination

Model	Readability (g)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
SE 202	0,01	200	Ø 130	1	611-2605
SE 622	0,01	620	Ø 130	1	611-2602
SE 1501	0,1	1500	150×140	1	611-2606

Balances with draught shield



Balances for more precise (mg) weighing.

Additional benefits include:

- Round glass shield with top access for the 611-2600 and 611-2601
- Conventional 'square' draught shield with sliding doors for 611-2610
- RS232 serial interface
- Hook for underbalance weighing
- Optional software for liquid and solid density determination requires optional density kit (please ask for details)

Model	Readability (g)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
SE 300 D	0,001 / 0,01	150/310	Ø 80	1	611-2601
SE 203 LR	0,001	210	Ø 110	1	611-2600
SE 203 LW	0,001	210	Ø 110	1	611-2610

Precision balances, Science Education

Model	Readability (g)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
SE 1202	0,01	1200	Ø 130	1	611-2604
SE 2201 EU	0,1	2200	150×140	1	611-2607

Traceable® SpatulaBalance™



A unique product that combines the simplicity of a spatula with a balance, to quickly and more accurately measure the sample. Particularly useful in food and veterinary applications. Detachable, translucent scoop, graduated for liquid measurement, made of corrosion resistant ABS plastic which is dishwasher safe for effortless cleaning.

- Digital LCD in the easy grip handle with low battery indicator
- 5 - 30 ml graduations on scoop in 5 ml increments
- 3 position soft-touch keys for tare, freezing display and conversion from grams to ounces
- Accuracy $\pm 0,2$ g or 0,25% in the level position
- Traceable® certificate (indicates traceability to standards provided by NIST)

Spoon volume: 32 ml

WxDxH: 230x30x15 mm

Weight: 85 g

Delivery Information: Supplied with Traceable® Certificate and 2x AAA batteries.

Model	Weighing cap. (g)	Readability (g)	Pan (mm)	Pk	Cat. No.
SpatulaBalance™	0 - 300	0,1	-	1	611-1565
Description				Pk	Cat. No.
Accessories					
Replacement plastic scoop				1	611-1876



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Moisture analysers, MB 160 and MBT 160



- Rugged compact instruments for moisture determination of raw materials and finished products in the food, cosmetics, dairy, pharmaceutical, chemical and ceramics industries.
- Halogen-infrared heat source
 - Double case design to protect the weighing unit from irradiated heat
 - PT100 temperature sensor ensures process repeatability
 - Time and date information is available with printed output

MBT 160 moisture analyser with remote touchscreen indicator

The remote indicator gives the option of improved and immediate monitoring of the drying process, potentially in a cleaner remote location.

- Very user friendly interface
- Graphical display of the drying process
- Ideal for in process quality control near the production line

Ordering Information: The balances are also available with a calibration certificate. Please contact VWR for details of this option.

Model	MB 160	MBT 160
Capacity (g)	160	
Display	LCD, backlit	Remote, large, graphical, colour touch screen
Displayed results	Moisture %, dry residual %, ATRO, temperature	
Endpoint/analysis mode	Manual, timer, autostop%	Manual, timer, autostop% absolute autostop
Heater calibration	2 points, 80 - 150 (°C) selectable, with optional temperature calibration kit	1 or 2 points, default values 80 and 150 (°C), with optional temperature calibration kit
Heater type	Halogen-infrared lamp	
Moisture precision (%)	0,5 for 2 g sample; 0,05 for 10 g sample	0,05 for 2 g sample 0,02 for 10 g sample
Moisture range (%)	0 - 100	
Pan size (Ø mm)	100	
Programme memory	5 programmes	300 programmes
Readability (%) / (mg)	0,01% / 1 mg	
Repeatability (Std. Dev. %)	0,02%	0,02% (10 g sample)
Temperature programmes	5	standard, rapid, ramp, levels
Temperature range (°C)	35 - 160	
Timer	1 - 99 min (1 min intervals)	
WxDxH (mm)	205x325x200	

Description	Pk	Cat. No.
Moisture analyser MB 160	1	611-2318
Moisture analyser MBT 160 with remote touch screen indicator	1	611-2578

Description	Pk	Cat. No.
Accessories		
Thermal printer with RS232 connection for VWR LA and LP balances, MB moisture analysers	1	630-1485
Labels, self-adhesive, 500 on a roll for thermal printer	1	630-1487
Paper roll for thermal printer	1	630-1488

Calibration weights, class E2



Weights made from solid, anti-magnetic, polished stainless steel. Suitable for high resolution electronic balances.

- Wire weights up to 500 mg
- Identification number guarantees traceability for weights from 1 g upwards

Continued from previous page

- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.

Ordering Information: All weights from 1 mg to 20 kg are available with or without COFRAC certificate - please visit www.vwr.com or contact your local VWR sales office. A range of weight sets are also available - please search for product „Calibration weight sets, class E2“.

Weight	Tolerance (± mg)	Pk	Cat. No.
E2 weights in plastic cases with certificate			
1 mg	0,006	1	611-8131
2 mg	0,006	1	611-8132
5 mg	0,006	1	611-8133
10 mg	0,008	1	611-8134
20 mg	0,010	1	611-8135
50 mg	0,012	1	611-8136
100 mg	0,016	1	611-8137
200 mg	0,020	1	611-8138
500 mg	0,025	1	611-8139
1 g	0,03	1	611-8140
2 g	0,04	1	611-8141
5 g	0,05	1	611-8142
10 g	0,06	1	611-8143
20 g	0,08	1	611-8144
50 g	0,10	1	611-8145
100 g	0,16	1	611-8146
200 g	0,30	1	611-8147
500 g	0,75	1	611-8148
1 kg	1,6	1	611-8149
2 kg	3,0	1	611-8150
5 kg	7,5	1	611-8151
10 kg	16,0	1	611-8152
20 kg	30,0	1	611-8428
E2 weights in wooden boxes with certificate			
500 g	0,75	1	611-8399
1 kg	1,6	1	611-8400
2 kg	3	1	611-8423
5 kg	7,5	1	611-8424
10 kg	16	1	611-8425
20 kg	30	1	611-8426
50 kg	50	1	611-8427
E2 weights in plastic cases without certificate			
1 mg	0,006	1	611-8101
2 mg	0,006	1	611-8102
5 mg	0,006	1	611-8103
10 mg	0,008	1	611-8104
20 mg	0,010	1	611-8105
50 mg	0,012	1	611-8106
100 mg	0,016	1	611-8107
200 mg	0,020	1	611-8108
500 mg	0,025	1	611-8109
1 g	0,03	1	611-8110
2 g	0,04	1	611-8111
5 g	0,05	1	611-8112
10 g	0,06	1	611-8113
20 g	0,08	1	611-8114
50 g	0,10	1	611-8115
100 g	0,16	1	611-8116
200 g	0,30	1	611-8117
500 g	0,75	1	611-8118
1 kg	1,6	1	611-8119
2 kg	3,0	1	611-8120
5 kg	7,5	1	611-8121
10 kg	16,0	1	611-8122
20 kg	30,0	1	611-8398
E2 weights in wooden boxes without certificate			
500 g	0,75	1	611-8391
1 kg	1,6	1	611-8392
2 kg	3	1	611-8393
5 kg	7,5	1	611-8394
10 kg	16	1	611-8395
20 kg	30	1	611-8396
50 kg	50	1	611-8397

Calibration weight sets, class E2



Weights made from solid, anti-magnetic, polished stainless steel. Suitable for high resolution electronic balances.

- Wire weights up to 500 mg
- Identification number guarantees traceability for weights from 1 g upwards
- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.

Ordering Information: All weight sets listed in the ,set contents' table are available with or without COFRAC certificate - please visit www.vwr.com or contact your local VWR sales office. Weights are also available individually - please search for product „Calibration weights, class E2“.

Set	Weights included														
		1 mg	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg	200 mg	500 mg					
1 - 500 mg		1	2	1	1	2	1	1	2	1					
20 - 500 mg						2	1	1	2	1					
	Includes	1 g	2 g	5 g	10 g	20 g	50 g	100 g	200 g	500 g	1 kg	2 kg	5 kg	10 kg	
1 mg - 100 g	1 - 500 mg set	1	2	1	1	2	1	1							
1 mg - 200 g	1 - 500 mg set	1	2	1	1	2	1	1	2						
1 mg - 500 g	1 - 500 mg set	1	2	1	1	2	1	1	2	1					
1 mg - 1 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1				
1 mg - 2 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1	2			
1 mg - 5 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1	2	1		
1 mg - 10 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1	2	1	1	
1 g - 100 g		1	2	1	1	2	1	1							
1 g - 200 g		1	2	1	1	2	1	1	2						
1 g - 500 g		1	2	1	1	2	1	1	2	1					
1 g - 1 kg		1	2	1	1	2	1	1	2	1	1				
1 g - 2 kg		1	2	1	1	2	1	1	2	1	1	2			
1 g - 5 kg		1	2	1	1	2	1	1	2	1	1	2	1		
1 g - 10 kg		1	2	1	1	2	1	1	2	1	1	2	1	1	

Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
E2 weight sets in wooden boxes with certificate				
1 mg - 500 mg	12	1,11	1	611-8742
20 mg - 500 mg	7	1,09	1	611-8741
1 mg - 50 g	20	111,11	1	611-8743
1 mg - 100 g	21	211,11	1	611-8744
1 mg - 200 g	23	611,11	1	611-8745
1 mg - 500 g	24	1111,11	1	611-8746
1 mg - 1 kg	25	2111,11	1	611-8747
1 mg - 2 kg	27	6111,11	1	611-8748
1 mg - 5 kg	28	11111,11	1	611-8749
1 mg - 10 kg	29	21111,11	1	611-8750
1 g - 50 g	8	110	1	611-8751
1 g - 100 g	9	210	1	611-8752
1 g - 200 g	11	610	1	611-8753
1 g - 500 g	12	1110	1	611-8754
1 g - 1 kg	13	2110	1	611-8755
1 g - 2 kg	15	6110	1	611-8756
1 g - 5 kg	16	11110	1	611-8757
1 g - 10 kg	17	21110	1	611-8758
E2 weight sets in plastic cases with certificate				
1 mg - 500 mg	12	1,11	1	611-8454
1 mg - 100 g	21	211,11	1	611-8455
1 mg - 200 g	23	611,11	1	611-8456
1 mg - 500 g	24	1111,11	1	611-8457
1 g - 100 g	9	210	1	611-8458
1 g - 200 g	11	610	1	611-8459

Continued from previous page

Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
E2 weight sets in plastic cases with certificate				
1 g - 500 g	12	1110	1	611-8460
E2 weight sets in wooden boxes without certificate				
1 mg - 500 mg	12	1,11	1	611-8722
20 mg - 500 mg	7	1,09	1	611-8721
1 mg - 50 g	20	111,11	1	611-8723
1 mg - 100 g	21	211,11	1	611-8724
1 mg - 200 g	23	611,11	1	611-8725
1 mg - 500 g	24	1111,11	1	611-8726
1 mg - 1 kg	25	2111,11	1	611-8727
1 mg - 2 kg	27	6111,11	1	611-8728
1 mg - 5 kg	28	11111,11	1	611-8729
1 mg - 10 kg	29	21111,11	1	611-8730
1 g - 50 g	8	110	1	611-8731
1 g - 100 g	9	210	1	611-8732
1 g - 200 g	11	610	1	611-8733
1 g - 500 g	12	1110	1	611-8734
1 g - 1 kg	13	2110	1	611-8735
1 g - 2 kg	15	6110	1	611-8736
1 g - 5 kg	16	11110	1	611-8737
1 g - 10 kg	17	21110	1	611-8738

Calibration weights, class F1, Cal-Box, 3-weight set, certified



An economical range of calibration sets, with only three stainless steel weights, to meet routine calibration requirements of precision and analytical balances.

- Class F1 tolerances
- Each set has a individual serial number and calibration certificate
- Each weight, from 1 g upwards, has a unique identification number for traceability

Delivery Information: Weights supplied in modern aluminium case with tweezers and balance brush

Weight set	No. of weights	Type	Pk	Cat. No.
200 mg; 5 g; 50 g	3	With certificate	1	611-2428
200 mg; 10 g; 100 g	3	With certificate	1	611-2429
200 mg; 20 g; 200 g	3	With certificate	1	611-2430
200 mg; 50 g; 500 g	3	With certificate	1	611-2432
2 g; 20 g; 200 g	3	With certificate	1	611-2431
2 g; 50 g; 500 g	3	With certificate	1	611-2433
2 g; 100 g; 1 kg	3	With certificate	1	611-2434
20 g; 100 g; 1 kg	3	With certificate	1	611-2435
20 g; 200 g; 2 kg	3	With certificate	1	611-2436
20 g; 500 g; 5 kg	3	With certificate	1	611-2437

Calibration weights, class F1



Weights made from anti-magnetic, polished stainless steel. Suitable for medium resolution precision electronic balances. Weights have adjustment cavities for weights of more than 20 g.

- Wire weights up to 500 mg
- Identification number guarantees traceability for weights from 1 g upwards
- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.

Ordering Information: All weights from 1 mg to 20 kg are available with or without COFRAC certificate - please visit www.vwr.com or contact your local VWR sales office. A range of sets of weights are also available - please search for product „Calibration weight sets, class F1“.

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Weight	Tolerance (± mg)	Pk	Cat. No.
F1 weights in plastic cases with certificate			
1 mg	0,020	1	611-8231
2 mg	0,020	1	611-8232
5 mg	0,020	1	611-8233
10 mg	0,025	1	611-8234
20 mg	0,03	1	611-8235
50 mg	0,04	1	611-8236
100 mg	0,05	1	611-8237
200 mg	0,06	1	611-8238
500 mg	0,08	1	611-8239
1 g	0,10	1	611-8240
2 g	0,12	1	611-8241
5 g	0,15	1	611-8242
10 g	0,20	1	611-8243
20 g	0,25	1	611-8244
50 g	0,30	1	611-8245
100 g	0,50	1	611-8246
200 g	1,0	1	611-8247
500 g	2,5	1	611-8248
1 kg	5	1	611-8249
2 kg	10	1	611-8250
5 kg	25	1	611-8251
10 kg	50	1	611-8252
20 kg	100	1	611-8094
F1 weights in wooden boxes with certificate			
500 g	2,5	1	611-8040
1 kg	5	1	611-8041
2 kg	10	1	611-8042
5 kg	25	1	611-8049
10 kg	50	1	611-8058
F1 weights in plastic cases without certificate			
20 kg	100	1	611-8071
50 kg	250	1	611-8093
1 mg	0,020	1	611-8201
2 mg	0,020	1	611-8202
5 mg	0,020	1	611-8203
10 mg	0,025	1	611-8204
20 mg	0,03	1	611-8205
50 mg	0,04	1	611-8206
100 mg	0,05	1	611-8207
200 mg	0,06	1	611-8208
500 mg	0,08	1	611-8209
1 g	0,10	1	611-8210
2 g	0,12	1	611-8211
5 g	0,16	1	611-8212
10 g	0,20	1	611-8213
20 g	0,25	1	611-8214
50 g	0,30	1	611-8215
100 g	0,50	1	611-8216
200 g	1,0	1	611-8217
500 g	2,5	1	611-8218
1 kg	5	1	611-8219
2 kg	10	1	611-8220
5 kg	25	1	611-8221
10 kg	50	1	611-8222
20 kg	100	1	611-8039
F1 weights in wooden boxes without certificate			
500 g	2,5	1	611-8028
1 kg	2,5	1	611-8029
2 kg	10	1	611-8033
5 kg	25	1	611-8035
10 kg	50	1	611-8036
20 kg	100	1	611-8037
50 kg	150	1	611-8038

Calibration weight sets, class F1



Weights made from anti-magnetic, polished stainless steel. Suitable for medium resolution precision electronic balances. Weights have adjustment cavities for weights of more than 20 g.

- Wire weights up to 500 mg
- Identification number guarantees traceability for weights from 1 g upwards
- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.

Ordering Information: All weight sets listed in the 'set contents' table are available with or without COFRAC certificate - please visit www.vwr.com or contact your local VWR sales office. Weights are also available individually - please search for product „Calibration weights, class F1“.

Set	Weights included												
		1 mg	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg	200 mg	500 mg			
1 - 500 mg		1	2	1	1	2	1	1	2	1			
	Includes	1 g	2 g	5 g	10 g	20 g	50 g	100 g	200 g	500 g	1 kg	2 kg	5 kg
1 mg - 100 g	1 - 500 mg set	1	2	1	1	2	1	1					
1 mg - 200 g	1 - 500 mg set	1	2	1	1	2	1	1	2				
1 mg - 500 g	1 - 500 mg set	1	2	1	1	2	1	1	2	1			
1 mg - 1 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1		
1 mg - 2 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1	2	
1 mg - 5 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1	2	1
1 mg - 10 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1	2	1
1 g - 100 g		1	2	1	1	2	1	1					
1 g - 200 g		1	2	1	1	2	1	1	2				
1 g - 500 g		1	2	1	1	2	1	1	2	1			
1 g - 1 kg		1	2	1	1	2	1	1	2	1	1		
1 g - 2 kg		1	2	1	1	2	1	1	2	1	1	2	
1 g - 5 kg		1	2	1	1	2	1	1	2	1	1	2	1
1 g - 10 kg		1	2	1	1	2	1	1	2	1	1	2	1

Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
F1 Weight sets in wooden boxes with certificate				
1 mg - 500 mg	12	1,11	1	611-8632
1 mg - 50 g	20	111,11	1	611-8633
1 mg - 100 g	21	211,11	1	611-8634
1 mg - 200 g	23	611,11	1	611-8635
1 mg - 500 g	24	1111,11	1	611-8636
1 mg - 1 kg	25	2111,11	1	611-8637
1 mg - 2 kg	27	6111,11	1	611-8638
1 mg - 5 kg	28	11111,11	1	611-8639
1 mg - 10 kg	29	21111,11	1	611-8640
1 g - 100 g	9	210	1	611-8642
1 g - 200 g	11	610	1	611-8643
1 g - 500 g	12	1110	1	611-8644
1 g - 50 g	8	110	1	611-8641
1 g - 1 kg	13	2110	1	611-8645
1 g - 2 kg	15	6110	1	611-8646
1 g - 5 kg	16	11110	1	611-8647
1 g - 10 kg	17	21110	1	611-8648
F1 Weight sets in plastic cases with certificate				
1 mg - 500 mg	12	1,11	1	611-8461
1 mg - 100 g	21	211,11	1	611-8462
1 mg - 200 g	23	611,11	1	611-8463
1 mg - 500 g	24	1111,11	1	611-8464
1 mg - 2 kg	27	6111,11	1	611-8469
1 mg - 5 kg	28	11111,11	1	611-8650
1 g - 100 g	9	210	1	611-8465

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Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
F1 Weight sets in plastic cases with certificate				
1 g - 200 g	11	610	1	611-8466
1 g - 500 g	12	1110	1	611-8467
1 g - 2 kg	15	6110	1	611-8651
1 g - 5 kg	16	11110	1	611-8652
F1 Weight sets in wooden boxes without certificate				
1 mg - 500 mg	12	1,11	1	611-8602
1 mg - 50 g	20	111,11	1	611-8603
1 mg - 100 g	21	211,11	1	611-8292
1 mg - 200 g	23	611,11	1	611-8604
1 mg - 500 g	24	1111,11	1	611-8605
1 mg - 1 kg	25	2111,11	1	611-8606
1 mg - 2 kg	27	6111,11	1	611-8607
1 mg - 5 kg	28	11111,11	1	611-8608
1 mg - 10 kg	29	21111,11	1	611-8609
1 g - 50 g	8	110	1	611-8610
1 g - 100 g	9	210	1	611-8611
1 g - 200 g	11	610	1	611-8612
1 g - 500 g	12	1110	1	611-8613
1 g - 1 kg	13	2110	1	611-8614
1 g - 2 kg	15	6110	1	611-8615
1 g - 5 kg	16	11110	1	611-8616
1 g - 10 kg	17	21110	1	611-8617
F1 Weight sets in plastic cases without certificate				
1 mg - 2 kg	27	6111,11	1	611-8618
1 mg - 5 kg	28	11111,11	1	611-8619
1 g - 2 kg	15	6110	1	611-8620
1 g - 5 kg	16	11110	1	611-8621

Calibration weights, class F2

Stainless steel

Class F2 weights for users who require moderate levels of tolerance values in their calibration and day to day weighing.

- Wire weights up to 500 mg
- Identification number guarantees traceability for weights from 1 g upwards
- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.

Ordering Information: All weights from 1 mg to 20 kg are available with or without COFRAC certificate - please visit www.vwr.com or contact your local VWR sales office. A range of sets of weights are also available - please search for product „Calibration weight sets, class F2“.

Weight	Tolerance (± mg)	Pk	Cat. No.
F2 weights in plastic cases with certificate			
1 mg	0,06	1	611-8179
2 mg	0,06	1	611-8180
5 mg	0,06	1	611-8181
10 mg	0,08	1	611-8182
20 mg	0,10	1	611-8183
50 mg	0,12	1	611-8184
100 mg	0,16	1	611-8185
200 mg	0,20	1	611-8186
500 mg	0,25	1	611-8187
1 g	0,3	1	611-8188
2 g	0,4	1	611-8189
5 g	0,5	1	611-8190
10 g	0,6	1	611-8195
20 g	0,8	1	611-8196
50 g	1,0	1	611-8197
100 g	1,6	1	611-8198
200 g	3,0	1	611-8199
500 g	7,5	1	611-8200
1 kg	15	1	611-8223
2 kg	30	1	611-8224
5 kg	75	1	611-8225
10 kg	150	1	611-8226
20 kg	300	1	611-8227
F2 weights in wooden boxes with certificate			
500 g	7,5	1	611-8172
1 kg	15	1	611-8173
2 kg	30	1	611-8174
5 kg	75	1	611-8175
10 kg	150	1	611-8176
20 kg	300	1	611-8177
50 kg	750	1	611-8178

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Weight	Tolerance (± mg)	Pk	Cat. No.
F2 weights in plastic cases without certificate			
1 mg	0,06	1	611-8126
2 mg	0,06	1	611-8127
5 mg	0,06	1	611-8128
10 mg	0,08	1	611-8129
20 mg	0,10	1	611-8130
50 mg	0,12	1	611-8154
100 mg	0,16	1	611-8155
200 mg	0,20	1	611-8156
500 mg	0,25	1	611-8157
1 g	0,3	1	611-8158
2 g	0,4	1	611-8159
5 g	0,5	1	611-8160
10 g	0,6	1	611-8161
20 g	0,8	1	611-8162
50 g	1,0	1	611-8163
100 g	1,6	1	611-8164
200 g	3,0	1	611-8165
500 g	7,5	1	611-8166
1 kg	15	1	611-8167
2 kg	30	1	611-8168
5 kg	75	1	611-8169
10 kg	150	1	611-8170
20 kg	300	1	611-8171
F2 weights in wooden boxes with certificate			
500 g	7,5	1	611-8095
1 kg	15	1	611-8096
2 kg	30	1	611-8097
5 kg	75	1	611-8098
10 kg	150	1	611-8099
20 kg	300	1	611-8100
50 kg	750	1	611-8125

Calibration weight sets, class F2



Stainless steel

- Wire weights up to 500 mg
- Identification number guarantees traceability for weights from 1 g upwards
- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.

Set	Weights included														
		1 mg	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg	200 mg	500 mg					
1 - 500 mg		1	2	1	1	2	1	1	2	1					
20 - 500 mg						2	1	1	2	1					
	Includes	1 g	2 g	5 g	10 g	20 g	50 g	100 g	200 g	500 g	1 kg	2 kg	5 kg	10 kg	
1 mg - 100 g	1 - 500 mg set	1	2	1	1	2	1	1							
1 mg - 200 g	1 - 500 mg set	1	2	1	1	2	1	1	2						
1 mg - 500 g	1 - 500 mg set	1	2	1	1	2	1	1	2	1					
1 mg - 1 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1				
1 mg - 2 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1	2			
1 mg - 5 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1	2	1		
1 mg - 10 kg	1 - 500 mg set	1	2	1	1	2	1	1	2	1	1	2	1	1	
1 g - 100 g		1	2	1	1	2	1	1							
1 g - 200 g		1	2	1	1	2	1	1	2						
1 g - 500 g		1	2	1	1	2	1	1	2	1					

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Set	Weights included													
1 g - 1 kg		1	2	1	1	2	1	1	2	1	1			
1 g - 2 kg		1	2	1	1	2	1	1	2	1	1	2		
1 g - 5 kg		1	2	1	1	2	1	1	2	1	1	2	1	
1 g - 10 kg		1	2	1	1	2	1	1	2	1	1	2	1	1
Weight set	No. of weights					Total weight (g)					Pk	Cat. No.		
F2 weight sets in wooden boxes with certificate														
1 mg - 500 mg	12					1,11					1	611-8692		
20 mg - 500 mg	7					1,09					1	611-8691		
1 mg - 50 g	20					111,11					1	611-8693		
1 mg - 100 g	21					211,11					1	611-8694		
1 mg - 200 g	23					611,11					1	611-8695		
1 mg - 500 g	24					1111,11					1	611-8696		
1 mg - 1 kg	25					2111,11					1	611-8697		
1 mg - 2 kg	27					6111,11					1	611-8698		
1 mg - 5 kg	28					11111,11					1	611-8699		
1 mg - 10 kg	29					21111,11					1	611-8700		
1 g - 50 g	8					110					1	611-8701		
1 g - 100 g	9					210					1	611-8702		
1 g - 200 g	11					610					1	611-8703		
1 g - 500 g	12					1110					1	611-8704		
1 g - 1 kg	13					2110					1	611-8705		
1 g - 2 kg	15					6110					1	611-8706		
1 g - 5 kg	16					11110					1	611-8707		
1 g - 10 kg	17					21110					1	611-8708		
F2 weight sets in plastic cases with certificate														
1 mg - 2 kg	27					6111,11					1	611-8709		
1 mg - 5 kg	28					11111,11					1	611-8710		
1 g - 2 kg	15					6110					1	611-8711		
1 g - 5 kg	16					11110					1	611-8712		
F2 weight sets in wooden boxes without certificate														
1 mg - 500 mg	12					1,11					1	611-8662		
1 mg - 50 g	20					111,11					1	611-8663		
1 mg - 100 g	21					211,11					1	611-8664		
1 mg - 200 g	23					611,11					1	611-8665		
1 mg - 500 g	24					1111,11					1	611-8666		
1 mg - 1 kg	25					2111,11					1	611-8667		
1 mg - 2 kg	27					6111,11					1	611-8668		
1 mg - 5 kg	28					11111,11					1	611-8669		
1 mg - 10 kg	29					21111,11					1	611-8670		
1 g - 50 g	8					110					1	611-8671		
1 g - 100 g	9					210					1	611-8672		
1 g - 200 g	11					610					1	611-8673		
1 g - 500 g	12					1110					1	611-8674		
1 g - 1 kg	13					2110					1	611-8675		
1 g - 2 kg	15					6110					1	611-8676		
1 g - 5 kg	16					11110					1	611-8677		
1 g - 10 kg	17					21110					1	611-8678		
F2 weight sets in plastic cases without certificate														
1 mg - 2 kg	27					6111,11					1	611-8679		
1 mg - 5 kg	28					11111,11					1	611-8680		
1 g - 2 kg	15					6110					1	611-8681		
1 g - 5 kg	16					11110					1	611-8682		

Calibration weights, class M1

Weights from 1 g to 50 g are monobloc weights, with larger weights having an adjusting cavity. All weights are supplied in plastic cases.

Weight	Tolerance (± mg)	Pk	Cat. No.
Aluminium sheet weights with certificate, M1			
1 mg	0,2	1	611-8272
2 mg	0,2	1	611-8273
5 mg	0,2	1	611-8274
10 mg	0,25	1	611-8275
20 mg	0,3	1	611-8276
50 mg	0,4	1	611-8277
100 mg	0,5	1	611-8278
200 mg	0,6	1	611-8279
500 mg	0,8	1	611-8280
Stainless steel weights with certificate, M1			
1 g	1,0	1	611-8281
2 g	1,2	1	611-8282
5 g	1,6	1	611-8283
10 g	2,0	1	611-8284
20 g	2,5	1	611-8285

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Weight	Tolerance (± mg)	Pk	Cat. No.
Stainless steel weights with certificate, M1			
50 g	3,0	1	611-8286
100 g	5	1	611-8287
200 g	10	1	611-8288
500 g	25	1	611-8289
1 kg	50	1	611-8294
2 kg	100	1	611-8295
5 kg	250	1	611-8296
10 kg	500	1	611-8297
Aluminium sheet weights without certificate, M1			
1 mg	0,2	1	611-8228
2 mg	0,2	1	611-8229
5 mg	0,2	1	611-8230
10 mg	0,25	1	611-8253
20 mg	0,3	1	611-8254
50 mg	0,4	1	611-8255
100 mg	0,5	1	611-8256
200 mg	0,6	1	611-8257
500 mg	0,8	1	611-8258
Stainless steel weights without certificate, M1			
1 g	1,0	1	611-8259
2 g	1,2	1	611-8260
5 g	1,6	1	611-8261
10 g	2,0	1	611-8262
20 g	2,5	1	611-8263
50 g	3,0	1	611-8264
100 g	5	1	611-8265
200 g	10	1	611-8266
500 g	25	1	611-8267
1 kg	50	1	611-8268
2 kg	100	1	611-8269
5 kg	250	1	611-8270
10 kg	500	1	611-8271

Block weights, class M1



- Rectangular weights made from cast iron (density 7,2 g/cm³).
- Indelible unique identification number guarantees traceability
- Colour: Grey
- Conforms to OILM, COFRAC accredited

Weight (kg)	Tolerance (± mg)	Type	Pk	Cat. No.
5	250	Without certificate	1	611-8298
5	250	With certificate	1	611-8324
10	500	Without certificate	1	611-8299
10	500	With certificate	1	611-8325
20	1000	Without certificate	1	611-8300
20	1000	With certificate	1	611-8326
50	2500	Without certificate	1	611-8323
50	2500	With certificate	1	611-8327

Block weights, iron, class M2

- Rectangular weights made from cast iron, permanently magnetised.
- Indelible unique identification number guarantees traceability
 - Painted grey
 - Adjustment cavity sealed with a lead plug
- Conforms to OILM, COFRAC accredited

Weight (kg)	Tolerance (± mg)	Pk	Cat. No.
Block weights with certificate			
5	750	1	611-8387
10	1600	1	611-8388
20	3000	1	611-8389
50	7500	1	611-8390

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Weight (kg)	Tolerance (± mg)	Pk	Cat. No.
Block weights without certificate			
5	750	1	611-8383
10	1600	1	611-8384
20	3000	1	611-8385
50	7500	1	611-8386

Calibration weights, class M2

Weight	Tolerance (± mg)	Pk	Cat. No.
Aluminium sheet weights with certificate, M2			
100 mg	1,6	1	611-8367
200 mg	2,0	1	611-8368
500 mg	2,5	1	611-8369
Stainless steel weights with certificate, M2			
1 g	3	1	611-8370
2 g	4	1	611-8371
5 g	5	1	611-8372
10 g	6	1	611-8373
20 g	8	1	611-8374
50 g	10	1	611-8375
100 g	16	1	611-8376
200 g	30	1	611-8377
500 g	75	1	611-8378
1 kg	160	1	611-8379
2 kg	300	1	611-8380
5 kg	750	1	611-8381
10 kg	1600	1	611-8382
Aluminium sheet weights without certificate, M2			
100 mg	1,6	1	611-8328
200 mg	2,0	1	611-8329
500 mg	2,5	1	611-8330
Stainless steel weights without certificate, M2			
1 g	3	1	611-8353
2 g	4	1	611-8354
5 g	5	1	611-8355
10 g	6	1	611-8356
20 g	8	1	611-8357
50 g	10	1	611-8358
100 g	16	1	611-8359
200 g	30	1	611-8361
500 g	75	1	611-8362
1 kg	160	1	611-8363
2 kg	300	1	611-8364
5 kg	750	1	611-8365
10 kg	1600	1	611-8366

Calibration weights, ASTM class 1

Stainless steel masses adjusted to ASTM Class 1, for precise checking and adjustment of electronic balances.

Delivery Information: Individual weights are supplied in a plastic storage box without certificate.

Weight (g)	Tolerance (± mg)	Pk	Cat. No.
50	120	1	611-8759
100	250	1	611-8760
200	500	1	611-8761
500	1200	1	611-8762
1000	2500	1	611-8763
2000	5000	1	611-8764
5000	12000	1	611-8765
10000	25000	1	611-8766

School weights



Brass

Weights that are ideal for schools to introduce concepts of weights and forces.

Single weight

Weight (g)	Tolerance	Pk	Cat. No.
1	3%	1	611-1843
2	3%	1	611-1844
5	3%	1	611-1845
10	3%	1	611-1846
20	3%	1	611-1847
50	3%	1	611-1848
100	3%	1	611-1849
200	3%	1	611-1850
500	3%	1	611-1851

Set of weights in plastic case

Set	Weights included								
	1 g	2 g	5 g	10 g	20 g	50 g	100 g	200 g	500 g
500 g	1	2	1	2	1	1	2	1	
1 kg	1	2	1	2	1	1	2	1	1

Weight (g)	Pk	Cat. No.
1 - 500	1	611-1852
1 - 1000	1	611-1853

Disposable weighing boats



PS, square

These sturdy weighing boats with smooth surfaces are ideal for weighing solid products. Biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bases.

- Shallow form with wide, flat bottom to resist tipping
- Temperature resistant up to +70 °C

WxDxH (mm)	Pk	Cat. No.
90x90x7	500	611-2249

Disposable weighing boats



PS, diamond shaped

These flexible boats feature smooth surfaces to provide accurate pour-outs with minimal sample loss. They are biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bases. Ideal for use with microwaves and moisture analysers.

- Wide, flat bottom avoids tipping
- Temperature resistant up to +70 °C

Capacity (ml)	WxDxH (mm)	Colour	Pk	Cat. No.
Standard				
5	55x35x6	Black	500	611-1996
5	55x35x6	White	500	611-1993
25	80x50x14	Black	500	611-9184
25	80x50x14	White	500	611-0097
30	80x60x14	Black	500	611-9185
30	80x60x14	White	500	611-9161
100	125x100x19	Black	500	611-9186
100	125x100x19	White	500	611-9162
Anti-static version				
5	55x35x6	Black	500	611-1995
5	55x35x6	White	500	611-1994
25	80x50x14	Black	500	611-9190
25	80x50x14	White	500	611-9187
30	80x60x14	Black	500	611-9191
30	80x60x14	White	500	611-9188
100	125x100x19	Black	500	611-9192
100	125x100x19	White	500	611-9189

Disposable weighing boats



PS, square

These flexible weighing boats with smooth surfaces enable accurate pour-out with minimal sample loss. They are biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bleaches. Ideal for use with microwaves, balances or moisture analysers.

- Shallow form with wide, flat bottom avoids tipping
- Rounded corners simplify transfer
- Temperature resistant up to +70 °C

Capacity (ml)	WxDxH (mm)	Colour	Pk	Cat. No.
Standard				
7	46x46x8	Blue	500	611-9168
7	46x46x8	Black	500	611-9175
7	46x46x8	White	500	611-0093
100	85x85x24	Blue	500	611-9169
100	85x85x24	Black	500	611-9176
100	85x85x24	White	500	611-0094
250	140x140x22	Blue	500	611-9170
250	140x140x22	Black	500	611-9177
250	140x140x22	White	500	611-0095
Anti-static version				
7	46x46x8	Black	500	611-9181
7	46x46x8	White	500	611-9178
100	85x85x24	Black	500	611-9182
100	85x85x24	White	500	611-9179
250	140x140x22	Black	500	611-9183
250	140x140x22	White	500	611-9180

Disposable, anti-static weighing boats



PS, hexagonal

These boats feature smooth surfaces to enable accurate pour-outs with minimal sample loss. Biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bases. These flexible boats bend at points to form pouring spouts.

- Flat bottom avoids tipping
- Sloping sides provide accurate transfer
- Temperature resistant up to +70 °C

Size	I-Ø bottom (mm)	I-Ø top (mm)	Pk	Cat. No.
S	25	38	500	611-9171
M	51	64	500	611-9172
L	76	102	500	611-9173
XL	89	127	500	611-9174

Pour-boat weighing dishes



PS

Samples are easily dispensed with the pour spout design without flexing the dish. These flat bottomed dishes are made from 12 mm thick polystyrene for better strength, stability and handling.

- Flat bottom avoids tipping
- Temperature resistant to +70 °C

WxDxH (mm)	Pk	Cat. No.
43x58x13	500	611-9163
83x132x26	500	611-9164
108x183x26	500	611-9165

Weighing paper, Grade 531



For weighing of a range of substances (viscous products, powders, paste and liquids)

Thickness (mm)	0,06 mm
Weight	45 g/m ²

Size (mm)	Pk	Cat. No.
100x100	250	516-0318

Micro-weighing dishes



Aluminium

These micro-weighing boats are compatible with most commercially available analysers and microbalances, and are packaged in easy to use plastic containers for storage and dispensing.

Round form

Capacity (ml)	I-ØxH (mm)	WxDxH (mm)	Pk	Cat. No.
0,035	6x2,5	-	250	611-1355
0,35	13x3,5	-	100	611-1356

Oval form

Capacity (ml)	I-ØxH (mm)	WxDxH (mm)	Pk	Cat. No.
0,04	-	6,5x3,5x2,5	250	611-1357
0,11	-	10x4x4,5	250	611-1358
1,12	-	25x7x7	50	611-1359
0,12	-	12x4x2,7	250	611-1360
0,12	-	12x2x4,5	250	611-1361

Disposable weighing dishes



Aluminium, light gauge

Ideal for weighing, sampling, dispensing, storage, food processing, evaporating or general laboratory use.

- Flanged edge with curled lip for increased stability
- Contaminant- and oil-free
- Stackable

Capacity (ml)	I-ØxH (mm)	Pk	Cat. No.
20	44x13	100	611-1374
70	63x19	100	611-1373
75	65x30	100	611-1376
200	110x29	50	611-1377
500	180x25	50	611-1375

Disposable weighing and drying dishes



Aluminium

Sturdy, disposable pans. Ideal for general purpose weighing, dispensing, storage, and drying applications.

- Compatible with most balances and dryers
- Oil-free
- Slightly tapered for easy stacking

Capacity (ml)	I-ØxH (mm)	Description	Pk	Cat. No.
40	70x6	Weighing pan	50	611-1354
50	120x5	Weighing pan	100	611-1350
60	100x8	Weighing pan	50	611-1353
80	70x16	Weighing pan	100	611-1380
30	110x11	Drying pan with hole (for solids)	25	611-1351
50	110x16	Drying pan with hole (for liquids)	25	611-1352

Disposable weighing dishes with tabs



Aluminium

Sturdy, disposable dishes feature crimped sides and tabs. Ideal for general purpose weighing, dispensing and storage applications. Dishes can also serve as evaporating dishes, parts containers, or dust covers.

- Flat bottom and crimped sides for rigidity
- Dishes feature tabs for easy handling
- Oil-free
- Slightly tapered for easy stacking

Capacity (ml)	I-ØxH (mm)	Pk	Cat. No.
8	28x10	500	611-1362
60	57x16	144	611-1371
60	57x16	100	611-1372
20	43x13	100	611-1378
80	70x16	100	611-1379

Weighing boats and scoops



Borosilicate 3,3 glass

- Ideal for weighing small samples
- Powders can be tapped or rinsed through the tubular stem of the weighing boats into the receiving vessel

Capacity (ml)	Length (mm)	Pk	Cat. No.
3	70	3	611-9194
6	85	3	611-9195
10	100	3	611-9196

Weighing boats



Porcelain, glazed

Length (mm)	Width (mm)	Pk	Cat. No.
31	17	3	611-2386
53	23	3	611-2387
64	29	3	611-2388

Anti-vibration weighing surface



Polished granite

Four absorbing feet dampen the transmission of extraneous vibrations to this slab making it suitable for not only high precision weighing but also microscopy and other similar delicate instrumentation.

Weight: 44 kg

Description	WxDxH (mm)	Pk	Cat. No.
Anti-vibration weighing surface, granite	560x450x65	1	611-2536

Weighing table, granite, for micro and analytical balances



High performance microbalances and analytical balances should be placed in an environment where interfering vibration is at a minimum, to give fast stabilisation of the reading. The VWR weighing table features a sturdy stable frame.

- Granite weighing surface
- Adjustable feet
- Meets highest standards of anti-vibration with 4 vibration dampers
- Facilitates fast stabilisation times

Description	Colour	WxDxH (mm)	Pk	Cat. No.
Balance table, granite, with vibration dampers and adjustable feet	Grey-White	900x 600x760	1	611-2549

Volumetric flasks, class A, blue graduation



Borosilicate glass, with PE stopper

- Marks in white and inscriptions in blue enamel
- Certificate of conformity with batch number
- Calibrated to contain (TC, In)

DIN EN ISO 1042

Capacity (ml)	NS	Tolerance	Wide mouth	Pk	Cat. No.
5	10/19	± 0,040 ml	-	2	612-3738
10	10/19	± 0,040 ml	-	2	612-3740
20	10/19	± 0,040 ml	-	2	612-3741
25	10/19	± 0,040 ml	-	2	612-3742
50	12/21	± 0,060 ml	-	2	612-3743
100	14/23	± 0,100 ml	-	2	612-3744
200	14/23	± 0,150 ml	-	2	612-3745
250	14/23	± 0,150 ml	-	2	612-3746
500	19/26	± 0,250 ml	-	2	612-3818
1000	24/29	± 0,400 ml	-	1	612-3819
2000	29/32	± 0,600 ml	-	1	612-3820

Volumetric flasks, class A, white graduation



Borosilicate glass, amber, with PE stopper

- Marks and inscriptions in white enamel
- Certificate of conformity with batch number
- Calibrated to contain (TC, In)

DIN EN ISO 1042

Capacity (ml)	NS	Tolerance (± ml)	Wide mouth	Pk	Cat. No.
5	10/19	0,040	-	2	612-3821
10	10/19	0,040	-	2	612-3822
20	10/19	0,04	-	2	612-3823
25	10/19	0,04	-	2	612-3824
50	12/21	0,06	-	2	612-3825
100	14/23	0,1	-	2	612-3826
200	14/23	0,15	-	2	612-3827
250	14/23	0,15	-	2	612-3828
500	19/26	0,25	-	2	612-3829
1000	24/29	0,4	-	1	612-3830
2000	29/32	0,6	-	1	612-3831

Measuring cylinders



Borosilicate glass, tall form, class A

- Calibrated to contain (TC, In)
- Hexagonal glass base, with spout
- Blue graduations with ring marks at major graduations
- Certificate of conformity with batch number

DIN 12680

Capacity (ml)	Division (ml)	Tolerance (± ml)	Pk	Cat. No.
5	0,1	0,05	2	612-3832
10	0,2	0,1	2	612-3833
25	0,5	0,25	2	612-3834
50	1	0,5	2	612-3835
100	1	0,5	2	612-3836
250	2	1	2	612-3837
500	5	2,5	2	612-3838
1000	10	5	1	612-3839
2000	20	10	1	612-3840

Measuring cylinders



Borosilicate glass, low form, class B

- Hexagonal glass base, with spout
- High contrasting amber stain graduations with ring marks at major graduations
- Certificate of conformity with batch number

DIN 12680

Capacity (ml)	Division (ml)	Tolerance (± ml)	Pk	Cat. No.
10	1	0,3	2	612-3841
25	1	0,5	2	612-3842
50	2	1,0	2	612-3843
100	2	1,0	2	612-3844
250	5	2,0	2	612-3845
500	10	5,0	2	612-3846
1000	10	10,0	1	612-3847



Measuring cylinders



PP, translucent, tall form, autoclavable, class B

Non wetting properties mean no loss of liquid. The measured liquid quantity is the same as the quantity dispensed.

- Ring moulded graduations, overprinted in blue
- Large hexagonal base for better stability
- Anti-drip lip
- Autoclavable at 121 °C for 20 minutes

DIN 12681, ISO 6706

Capacity (ml)	Division (ml)	Tolerance (± ml)	Height (mm)	Ø (mm)	Pk	Cat. No.
25	0,5	0,5	169	21	12	612-4401
50	1,0	1,0	199	28	12	612-4402
100	1,0	1,0	260	34	12	612-4403
250	2,0	2,0	315	47	6	612-4404
500	5,0	5,0	350	61	1	612-4405
1000	10,0	10,0	440	76	1	612-4406
2000	20,0	20,0	482	97	1	612-4407

Graduated pipettes, total delivery



AR-Glas®, class B

- Calibrated to deliver (TD)
- Graduation and inscriptions in high contrast amber stain
- With cotton plug upper end

DIN 12696

Capacity (ml)	Division (ml)	Tolerance (± ml)	Pk	Cat. No.
0,5	0,01	0,008	3	612-4121
1	0,01	0,01	3	612-4122
2	0,02	0,015	3	612-4123
5	0,05	0,045	3	612-4124
10	0,1	0,075	3	612-4125
20	0,1	0,15	2	612-4126
25	0,1	0,15	2	612-4127
50	0,2	0,3	2	612-4128



Serological pipettes, Standard Line



PS, graduated, sterile

- Graduations are calibrated for accurate dispensing to within $\pm 2\%$
- Colour coded stripes for quick volume identification
- Non pyrogenic
- With cotton plug

Packaging Information: Individually wrapped in paper-plastic bags or bulk packed in bags.

Capacity (ml)	Division (ml)	Colour code	Packed	Pk	Cat. No.
1	0,01	Yellow	Individual	1.000	612-3707
1	0,01	Yellow	25/bag	1.000	612-3705
2	0,01	Green	Individual	800	612-3704
2	0,01	Green	25/bag	700	612-3703
5	0,10	Blue	Individual	300	612-3702
5	0,10	Blue	25/bag	500	612-3701
10	0,10	Red	Individual	200	612-3700
10	0,10	Red	25/bag	350	612-3699
25	0,20	Lilac	Individual	200	612-3698
25	0,20	Lilac	25/bag	350	612-3697
50	1,00	Black	Individual	100	612-3696
50	1,00	Black	25/bag	250	612-3695



Serological pipettes



PS, crystal clear, graduated

Smooth, shiny, transparent pipettes with smooth ends and raised, bright, permanent graduations.

- Coloured top for easy identification; sterile pipettes with cotton plug, non sterile pipettes without cotton plug
- Negative and double graduations: Ascending and descending (for 5, 10, 25 ml) unchangeable and very precise
- Integral construction, preventing any risk of leakage or retention at the weld seam, and shorter for improved ergonomics and greater comfort during use, particularly when working within a fume hood
- Non pyrogenic, non cytotoxic, non haemolytic

Ordering Information: Supplied in stackable dispensing boxes.

Packaging Information: Bulk or individually wrapped in paper/plastic peel-pack with 'fibre-free' paper - no fibre in suspension while opening the wrap.

Capacity (ml)	Division (ml)	Packed	Pk	Cat. No.
Sterile				
1	0,01	Single	500	612-1240
1	0,01	25 per bags	1.000	612-1271
2	0,02	Single	500	612-1243
2	0,02	25 per bags	1.000	612-1274
5	0,10	Single	250	612-1245
5	0,10	25 per bags	375	612-1276
10	0,10	Single	200	612-1248
10	0,10	25 per bags	250	612-1279
25	0,20	Single	100	612-1270
25	0,20	10 per bags	100	612-1600
50	0,50	Single	100	612-3982
Non sterile				
1	0,01	Bulk	2.000	612-1288
2	0,02	Bulk	1.000	612-1289
5	0,10	Bulk	400	612-1290
10	0,10	Bulk	250	612-1291

Bulb pipettes



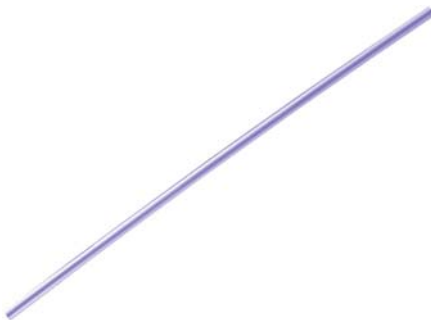
- AR-Glas®, 1 mark, class AS
- Calibrated to deliver, total delivery
- Ring mark and inscriptions in high contrast amber stain
- Conformity certified, with dated batch identification
- Batch certificate included
- Not available with individual certificate

DIN EN ISO 648

Capacity (ml)	Tolerance (± ml)	Length (mm)	Pk	Cat. No.
1	0,007	300	3	612-4129
2	0,010	330	3	612-4130
3	0,010	350	3	612-4131
4	0,015	410	3	612-4132
5	0,015	410	3	612-4133
10	0,020	450	3	612-4134
20	0,030	520	2	612-4135
25	0,030	530	2	612-4136
50	0,050	550	2	612-4137
100	0,080	600	2	612-4138



Straw pipettes



- PP, irradiated, disposable, sterile, without graduation
- Traceability including the expiry date on the secondary packaging
- Zip bag can be pressed closed thus ensuring the protection of the products
- Tamper evident seal guarantees the sterility of the product when it is first opened

Description	Capacity (ml)	Packed	Pk	Cat. No.
Straw pipettes	1	25 per bag	1.000	612-1675



Pasteur pipettes

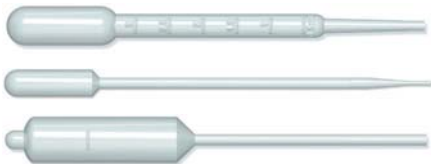


- Glass, disposable, non sterile
- Automated manufacturing process ensuring total uniformity of production
- Tapered upper opening for cotton ball plugging
- Top body outer diameter: 7,1 mm, wall thickness: 0,53 mm, jet outer diameter: 1,50 mm

Description	Capacity (ml)	Length (mm)	Pk	Cat. No.
Non plugged	2,0	150	250	612-1701
Non plugged	2,0	230	250	612-1702
Pre-plugged	2,0	150	250	612-1798
Pre-plugged	2,0	230	250	612-1799
Pre-plugged, breakable tip	2,0	230	250	612-3849
Non plugged, breakable tip	2,0	230	250	612-3850
Non plugged, breakable tip	2,0	270	250	612-3860
Pre-plugged, breakable tip	2,0	270	250	612-3861



Transfer pipettes, High Performance



- LDPE, disposable
 - Non toxic and can be incinerated
 - Can be heat-sealed and frozen at very low temperatures such as in liquid nitrogen
- Packaging Information: Sterile pipettes are packaged in medical grade paper and non toxic film.

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Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Stem Ø (mm)	Length (mm)	Graduation (ml)	Sterile	Packed	Pk	Cat. No.
General purpose									
1,5	40	1,0	5	87	-	-	Bulk	1.000	612-2846
1,5	35,7	1,0	5	123	-	-	Bulk	1.000	612-2849
23,0	45,5	10,0	9	300	-	-	Bulk	600	612-2859
Graduated									
3,0	45,4	1,0	5	138	1,0	-	Bulk	500	612-2851
5,0	43,4	1,0	5	150	1,0	-	Bulk	500	612-1684
5,0	43,4	1,0	5	150	1,0	+	Individual	500	612-1685
5,0	43,4	1,0	5	150	1,0	+	5 per bag	500	612-1686
5,0	43,4	1,0	5	150	1,0	+	10 per bag	500	612-1687
6,0	45,4	1,5	5	230	1,5	-	Bulk	400	612-2842
6,0	45,4	1,5	5	230	1,5	+	Individual	500	612-2843
6,0	45,4	1,5	5	230	1,5	+	5 per bag	500	612-2844
6,0	45,4	1,5	5	230	1,5	+	10 per bag	500	612-2845
7,0	47,6	3,0	7,8	150	3,0	-	Bulk	500	612-1681
7,0	47,6	3,5	7,8	150	3,0	+	Individual	500	612-1747
7,0	47,6	3,0	7,8	150	3,0	+	5 per bag	500	612-1682
7,0	47,6	3,0	7,8	150	3,0	+	10 per bag	500	612-1683
Extra large									
14,0	55,6	10,0	4	170	-	-	Bulk	200	612-2847
Narrow stem									
1,2	40	0,9	2,5	63	-	-	Bulk	500	612-2848
4,0	35,7	3,5	2,5	83	-	-	Bulk	1.000	612-2841
4,0	35,7	3,5	2,5	150	-	-	Bulk	500	612-1688
4,0	35,7	3,5	2,5	150	-	+	Individual	500	612-1756
4,0	35,7	3,5	2,5	150	-	+	5 per bag	500	612-1689
4,0	35,7	3,5	2,5	150	-	+	10 per bag	500	612-1690
Fine tip									
1,5	20	1,0	3	104	-	-	Bulk	400	612-2853
5,0	15,4	3,5	5	144	-	-	Bulk	500	612-2856
5,0	15,4	3,5	5	144	-	+	Individual	500	612-2857
5,0	15,4	3,5	5	144	-	+	10 per bag	500	612-2858
7,0	15,1	6,0	6,3	150	-	-	Bulk	400	612-4464
7,0	15,1	6,0	6,3	150	-	+	Individual	500	612-4465
7,0	15,1	6,0	6,3	150	-	+	5 per bag	500	612-2854
7,0	15,1	6,0	6,3	150	-	+	10 per bag	500	612-2855
Blood bank									
5,0	45,4	2,0	6,7	155	2,0	-	Bulk	500	612-2850
Paddle									
3,0	30,3	0,2	3,8	130	-	-	Bulk	500	612-2852



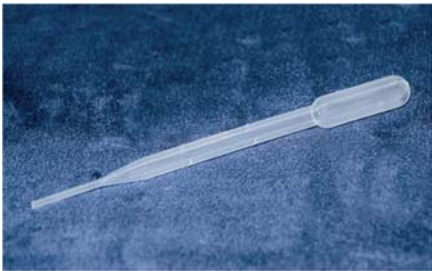
Transfer pipettes, Standard Line

LDPE, disposable

These unbreakable all-in-one pipettes eliminate the hazard of broken glass and exposure to infectious materials. The low-affinity surface reduces the loss of cells and valuable proteins due to binding. They work well whenever there is a need for quick, safe transfer of fluids.

- Will not shatter or break
- Non toxic and inert to biological fluids and most acids
- Can be sealed and refrigerated; can be gas sterilised
- No bulb to insert or remove
- Uniform drop size

Graduated, large bulb



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Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Graduation (ml)	Sterile	Packed	Pk	Cat. No.
5,8	40	3,4	155	0,25	-	Bulk	500	612-4494
5,8	40	3,4	155	0,25	-	Peel-off pouch (100×5)	500	612-4542
5,8	40	3,4	155	0,25	-	Peel-off pouch (50×10)	500	612-4533
5,8	40	3,4	155	0,25	+	Peel-off pouch (50×10)	500	612-4523
5,8	40	3,4	155	0,25	+	20 per bag	500	612-4491
5,8	40	3,4	155	0,25	+	Individually wrapped	500	612-4497
7,0	50	3,0	153	1,0	-	Bulk	500	612-4472
7,0	50	3,0	153	1,0	+	Individually wrapped	500	612-4473
7,5	50	3,2	155	0,5	-	Bulk	500	612-4545
7,5	50	3,2	155	0,5	+	Peel-off pouch (100×5)	500	612-4536
7,5	50	3,2	155	0,5	+	Peel-off pouch (50×10)	500	612-4538
7,5	50	3,2	155	0,5	+	20 per bag	500	612-4502
7,5	50	3,2	155	0,5	+	Individually wrapped	500	612-4543

Graduated, small bulb



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Graduation (ml)	Sterile	Packed	Pk	Cat. No.
3,0	40	2,1	140	0,25	-	Bulk	500	612-4520

Non graduated, standard



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
7,5	50	3,2	155	-	Bulk	500	612-4504
7,5	50	3,2	155	+	20 per bag	500	612-4505
7,5	50	3,2	155	+	Individually wrapped	500	612-4506
15,0	53	8,0	155	-	Bulk	250	612-4512
15,0	53	8,0	155	+	Individually wrapped	250	612-4513

Non graduated, general purpose



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
1,7	40	0,9	87	-	Bulk	500	612-3608
1,7	40	0,9	87	+	20 per bag	500	612-4470

Non graduated, general purpose, large bulb



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
1,7	40	0,9	87	+	Individually wrapped	500	612-4471
8,0	50	4,6	152	+	20 per bag	400	612-4508
8,0	50	4,6	152	+	Individually wrapped	400	612-4509
9,3	56	4,8	137	-	Bulk	250	612-4511

Non graduated, narrow stem, standard



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
4,6	45	3,3	155	-	Bulk	500	612-3609
4,6	45	3,3	155	+	Peel-off pouch (100×5)	500	612-4526
4,6	45	3,3	155	+	Peel-off pouch (50×10)	500	612-4527
4,6	45	3,3	155	+	20 per bag	500	612-4479
4,6	45	3,3	155	+	Individually wrapped	500	612-4481

Non graduated, narrow stem, large bulb



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
4,0	40	3,0	86	-	Bulk	500	612-4476

Non graduated, thin stem



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
1,5	48	0,8	116	-	Bulk	500	612-3399
1,5	48	0,8	116	+	20 per bag	500	612-4468
1,5	48	0,8	116	+	Individually wrapped	500	612-4469

Non graduated, long



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
5,5	40	2,3	230	-	Bulk	500	612-3610
5,5	40	2,3	230	+	20 per bag	400	612-4499
5,5	40	2,3	230	+	Individually wrapped	400	612-4500

Non graduated, extra long



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
23,0	50	7,3	300	-	Bulk	100	612-3627
23,0	50	7,3	300	+	20 per bag	100	612-4514
23,0	50	7,3	300	+	Individually wrapped	100	612-4515

Non graduated, fine tip, standard



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
5,8	20	3,3	147	-	Bulk	500	612-4492
5,8	20	3,3	147	-	Peel-off pouch (50x10)	500	612-4530
5,8	20	3,3	147	+	20 per bag	500	612-4495
5,8	20	3,3	147	+	Individually wrapped	500	612-4496

Non graduated, extended fine tip, large bulb



Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
5,0	20	3,3	153	-	Bulk	250	612-4486
5,0	20	3,3	153	+	20 per bag	500	612-4490

Non graduated, extended fine tip, small bulb



Continued from previous page

Capacity (ml)	Drop vol. (µl)	Suction volume (ml)	Length (mm)	Sterile	Packed	Pk	Cat. No.
1,5	20	1,0	104	-	Bulk	400	612-3619
1,5	20	1,0	104	+	20 per bag	500	612-4466
1,5	20	1,0	104	+	Individually wrapped	400	612-4518



Pipette filler, Manupette



For glass and plastic pipettes from 1 to 100 ml

The Manupette pipette filler facilitates the pipetting of a wide range of liquids. The practical arrangement of the controls makes work easier and gives maximum safety during serial pipetting.

- Replaceable hydrophobic membrane filter to protect the instrument from liquid penetration
- Separate buttons for aspirating/dispensing and discharging
- Silicone adapter for leakproof positioning of each pipette

Ordering Information: Supplied with three separate nose cones in three different colours.

Description	Pk	Cat. No.
Pipette filler Manupette	1	612-4548

Description	Pk	Cat. No.
Accessories		
Replacement filter set 0,2 µm	5	612-3681
Replacement filter set 0,45 µm	5	612-3678
Replacement silicone pipette holder	1	612-3679



Pipette filler, Smoothie™



For glass and plastic pipettes from 1 to 25 ml

The Smoothie™ pipette filler is a simple manual pipetting aid for convenient single handed operation. The unique range control allows selection from a choice of two dispense resolutions. One range setting delivers fast filling with optimal accuracy when used with 10 to 25 ml pipettes, the other setting is for use with pipettes from 1 to 10 ml where accuracy of fill can sometimes be difficult to control.

- Comfortable and simple to use
- Smooth and controllable thumb action
- Silicone adapter for leakproof positioning of each pipette

Description	Pk	Cat. No.
Pipette filler Smoothie™	1	612-4546

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Pipette controller, Accurpette



For glass and plastic pipettes from 1 to 100 ml

The Accurpette pipette controller delivers efficient performance with a powerful but quiet motor to speed up large volume pipetting. The mode selection switch enables the user to choose between high or low aspirate/dispense speed. An additional gravity dispense mode is designed for use with 'To Deliver' (TD) pipettes. The Accurpette is now supplied with additional coloured nose cones to allow laboratory, application or user colour coding to minimise the risk of cross-contamination.

- Lightweight UV resistant body (180 g) and nose cones
- Fills a 25 ml pipette in under three seconds on its fastest setting
- Autoclavable silicone pipette holder
- Replaceable hydrophobic membrane filter protects the unit against liquid influx and protects samples against contamination
- Environmentally friendly rechargeable NiMH battery allow continuous usage for 4 hours; low battery light, rechargeable during use

Ordering Information: Supplied with charger, two spare hydrophobic filters (1x0,45 µm, 1x0,2 µm), bench stand/wall bracket and a coloured nose cone set.

Description	Pk	Cat. No.
Pipette controller Accurpette, EU-charger	1	612-4552
Pipette controller Accurpette, UK-charger	1	612-4553
Description	Pk	Cat. No.
Accessories		
Replacement filter set 0,2 µm	5	612-3681
Replacement filter set 0,45 µm	5	612-3678
Replacement silicone pipette holder	1	612-3679



Safety pipette fillers, Standard/Universal/Flip



Natural rubber

- For measuring and volumetric pipettes up to 10 ml (Standard) or 100 ml (Universal/Flip)
- Standard/Universal: Three ventilation valves
- Flip: Only two operating points for easier usage (release through an automatic removable valve)

Description	Colour	Pk	Cat. No.
Safety pipette filler Standard	Red	1	612-1930
Safety pipette filler Standard	Blue	1	612-2008
Safety pipette filler Universal	Red	1	612-1931
Safety pipette filler Universal	Blue	1	612-2004
Safety pipette filler Flip	Red	1	612-1920
Safety pipette filler Flip	Blue	1	612-1947



Bulbs for pipettes



Natural latex

- For Pasteur pipettes, small pipettes, and medical drop counters

Capacity: 1 - 2 ml

Length: 38/57 mm

Description	Pk	Cat. No.
Dropper bulbs, 1 ml, 38 mm	72	612-2691
Dropper bulbs, 2 ml, 57 mm	72	612-2693

Bulbs for large pipettes and syringes



Red rubber

- For large capacity pipettes and syringes
- Thick walls
- Easy to operate

Capacity: 12 - 150 ml

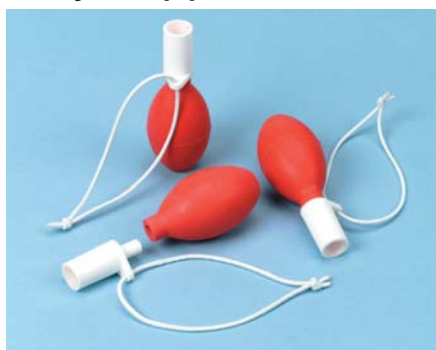
Open end diameter: 4,0 - 6,3 mm

Colour: Red

Description	Pk	Cat. No.
Bulb, rubber, red, 12 ml, opening Ø 4,0 mm	1	612-2698
Bulb, rubber, red, 15 ml, opening Ø 4,0 mm	1	612-2699
Bulb, rubber, red, 30 ml, opening Ø 6,3 mm	1	612-2700
Bulb, rubber, red, 60 ml, opening Ø 6,3 mm	1	612-2701
Bulb, rubber, red, 150 ml, opening Ø 6,3 mm	1	612-2702



Safety bulb pipette fillers



Red rubber with white plastic connector and silicone conical adapter, autoclavable

- For large and small capacity pipettes
- Conical adapter for connecting pipettes more securely, avoids breakages because it requires less force to fit on the bulb
- Elastic cord for attaching the bulb to a reagent vessel or to the user's wrist

Capacity: 15 ml

Description	Pk	Cat. No.
Safety bulb pipette fillers, 15 ml	3	612-2703

Vacuum/pressure Bulb



Black rubber with PVC connectors

- For collecting gas-phase samples or aspirating gases through instruments
- Two thick-walled rubber valves

Capacity: 85 ml

Colour: Black

Ordering Information: Supplied without tubing.

Description	Pk	Cat. No.
Vacuum/pressure bulb without tubing	1	612-2705





Sterilisation boxes for pipettes



Stainless steel, with square base, autoclavable

- Can be autoclaved at +121 °C and sterilised at +180 °C
- Bottom and underside of the lid are coated in silicone to minimise the risk of damaging the pipettes during transport and sterilisation

WxDxH (mm)	Pk	Cat. No.
50x50x300	1	612-2061
70x70x210	1	612-2062
70x70x290	1	612-2063
70x70x340	1	612-2064
70x70x430	1	612-2065
70x70x490	1	612-2066
70x70x400	1	612-2067



Sterilisation boxes for pipettes



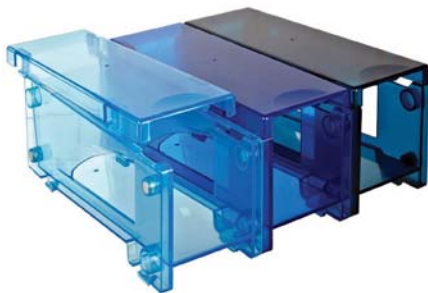
Stainless steel, with round base, autoclavable

- Can be autoclaved at +121 °C and sterilised at +180 °C
- Bottom and underside of the lid are coated in silicone to minimise the risk of damaging the pipettes during transport and sterilisation

ØxL (mm)	Pk	Cat. No.
64x407	1	612-2068
64x457	1	612-2069
64x280	1	612-2070



Cargo manual pipette rack



Ideal for serological pipettes.

- Click together horizontally with side connections
- Securely lock in place with top connections
- Magnets on both sides of units connect securely and safely to metal surface such as filling cabinets, fume hoods, refrigerators, and freezers
- Angled shelves store 0,1 to 50 ml pipettes within arm's reach for use
- Protective lid encloses the unit to prevent dust build-up and provides an additional shelf for extra space when connected horizontally

Description	WxDxH (mm)	Pk	Cat. No.
Cargo manual pipette rack, blue (pack of 3)	95x127,5x301	3	612-3848



INSTRUMENT SERVICE AND MAINTENANCE

Please contact your local VWR sales office for more information

Burettes, straight stopcock



Borosilicate 3.3 glass, class AS

- Schellbach stripe, stopcock with glass key
- High contrast blue enamel graduations
- Batch certificate included

DIN EN ISO 385

Capacity (ml)	Division (ml)	Tolerance (± ml)	Scale length (mm)	Pk	Cat. No.
10	0,05	0,02	500	1	612-4139
25	0,1	0,03	500	1	612-4140
50	0,1	0,05	500	1	612-4141

Burettes, lateral stopcock



Borosilicate 3.3 glass, class AS

- Schellbach stripe, stopcock with glass key
- High contrast blue enamel graduations
- Batch certificate included

DIN EN ISO 385

Capacity (ml)	Division (ml)	Tolerance (± ml)	Scale length (mm)	Pk	Cat. No.
10	0,05	0,02	500	1	612-4142
25	0,1	0,03	500	1	612-4143
50	0,1	0,05	500	1	612-4144



Bottle-top dispensers, Volupette



Variable volume, autoclavable

The Volupette is a variable bottle-top dispenser that can be used as a manually primed unit or, once fitted with the supplied spring, converted to a fully self-priming dispenser. The dispense volume is easily adjusted by rotating the top knob to move the indicator to the desired setting.

- Wetted parts autoclavable at 121 °C
- Easily removable PTFE piston for smooth action and easy cleaning
- Safety pedestal valve allows the Volupette to be turned off to prevent accidental delivery, whilst ensuring it is drip-free
- Easy to disassemble glass barrel for thorough cleaning
- With standard 30 mm bottle neck fitting

Ordering Information: Supplied with three bottle neck adapters (38, 40 and 45 mm), spring, calibration certificate and instruction manual.

Volume (ml)	Accuracy (%)	Imprecision (%)	Pk	Cat. No.
0 - 30	±0,3	<0,1	1	613-5281



Bottle-top dispensers



Variable volume, autoclavable

The standard PP unit with glass cylinder is suitable for aqueous liquids, dilute acids and alkalis - not for use with solvents and hydrofluoric acid which attack PP. For bottles with GL 32 thread.

- Valve system with steel spring
- PP with precision glass cylinder
- Quick and easy to use volume setting system
- Additional rotating fine volume adjustment for right or left handed use
- Adaptor allows rotation of the dispenser on bottles to the desired position

Delivery Information: Supplied with two adaptors (GL 40 and GL 45), certificate and individually numbered.

Bottle-top dispensers

Volume (ml)	Division (ml)	Pk	Cat. No.
2 - 10	0,50	1	612-4750
10 - 50	1,00	1	612-4751

Glass cylinder and PTFE encased glass piston with PP body

Aqueous solutions, weakly concentrated acids, alkaline solutions and crystallizing liquids compatible with PP.

Volume (ml)	Division (ml)	Pk	Cat. No.
2 - 10	0,50	1	612-3669
10 - 50	1,00	1	612-3670

Amber glass cylinder, clear glass piston with PP body

Suitable for light-sensitive liquids, compatible with PP.

Volume (ml)	Division (ml)	Pk	Cat. No.
2 - 10	0,50	1	612-3671
10 - 50	1,00	1	612-3672



Bottle-top dispensers, Zippette Classic



Variable volume, autoclavable

Accurate dispensing from an easy to use dispenser. The specially designed delivery spout ensures exact dispensing into narrow neck containers and the anti-drip safety valve makes sure the Zippette does not leak when not in use.

- Fine adjustment for exact and reproducible dispensing
- All wetted parts are chemically resistant and autoclavable at 121 °C
- Easily removable PTFE piston for smooth action and easy cleaning
- Borosilicate glass barrel protected with a transparent PP sleeve can be easily removed and cleaned
- Easy priming and minimum waste with no leakage back into the reservoir - the Zippette stays fully primed all day

Delivery Information: The Zippette™ Classic has a standard 30 mm neck fitting and is supplied with three bottle neck adapters (38, 40 and 45 mm), and an individual calibration certificate. Please note that the Zippette™ Classic is not supplied with a reservoir.

Continued from previous page

Volume (ml)	Division (ml)	Accuracy (%)	Imprecision (%)	Pk	Cat. No.
2,5	0,05	±0,3	0,1	1	612-4176
0,5 - 5	0,10	±0,3	0,1	1	612-4177
1 - 10	0,20	±0,3	0,1	1	612-4178
3 - 30	1,00	±0,3	0,1	1	612-4179
5 - 50	1,00	±0,3	0,1	1	612-4180



Digital burette, Titrax Pro



The Titrax Pro digital burette combines modern design, convenient use and accuracy in one instrument. The robust outer casing does not move during the priming or dispensing sequences whilst its PTFE plunger and borosilicate glass barrel allow dispensing of aqueous solutions and some aggressive liquids. Powered by a 3,6 V lithium battery for a minimum life of 60 000 three minute titrations.

- Continuous display of volume dispensed with zero reset feature for multiple titrations
- Automatic switch-off when left unattended without losing the previous titration volume
- Automatic low battery indicator shows on the large, easy to read LCD window
- Simple user calibration and factory reset for ISO 9000 and GLP requirements
- Chemically resistant and autoclavable liquid-path components
- Safety pedestal valve allows the burette to be turned off to prevent accidental delivery
- With standard 30 mm bottle neck fitting

Delivery Information: Supplied with three bottle neck adapters (38, 40 and 45 mm), calibration certificate and instruction manual.

Volume (ml)	Division (ml)	Accuracy (%)	Imprecision (%)	Pk	Cat. No.
0 - 50	0,01	±0,2	<0,1	1	613-5287



Automatic straw pipette, SP100



Fixed volume, autoclavable

Air displacement pipette with two pre-calibrated steps allows subsequent pipetting of 1 and 0,1 mL of the same liquid. Ideal alternative to graduated glass pipettes when performing serial 1:10 dilutions in bacteriology.

- Smooth activation, excellent ergonomics; easy maintenance, cleaning and disinfection
- Two pre-calibrated fixed volumes – no setting required
- Both volumes calibrated independently
- Interchangeable PE nozzle protection filter
- Justip™ system for height adjustment of tip ejector

Description	Capacity (ml)	Division	Accuracy (%)	Imprecision (%)	Pk	Cat. No.
Automatic straw pipette SP100 for 1:10 dilutions, autoclavable	0,1 / 1	-	±2,0 / ±0,5	<2,5 / <0,4	1	710-1021

Description	Pk	Cat. No.
Accessories		
Nozzle protection filter, PE	100	613-5041
Straw pipettes	1.000	612-1675



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Single channel pipettes, mechanical, Ergonomic High Performance (EHP)



Variable volume, fully autoclavable

The new Ergonomic High Performance pipettes provide accuracy and precision you can rely on. The new upgraded ergonomic features deliver comfortable pipetting even during extensive periods of use.

- Significantly reduced plunger forces
- Effortless volume adjustment with volume lock
- Superior accuracy and precision for critical applications
- Tapered shaft and adjustable 'Easy Grip' ejector for universal tip fit
- Extended finger rest for convenient pipetting

Without ejector

Capacity (µl)	Accuracy (%)	Imprecision (%)	Pk	Cat. No.
0,2 - 2	±12,0 - ±1,5	<6,0 - <0,7	1	613-5268
0,5 - 10	±1,2 - ±0,6	<2,8 - <0,4	1	613-5269
2 - 20	±1,0 - ±0,6	<1,5 - <0,3	1	613-5270
5 - 50	±0,9 - ±0,6	<2,0 - <0,4	1	613-5271
10 - 100	±0,6 - ±0,5	<0,8 - <0,2	1	613-5272
20 - 200	±2,5 - ±0,5	<0,6 - <0,2	1	613-5273
50 - 250	±1,0 - ±0,6	<0,4 - <0,3	1	613-5274
100 - 1000	±0,9 - ±0,6	<0,4 - <0,15	1	613-5275
1000 - 5000	±0,6 - ±0,5	<0,25 - <0,15	1	613-5276
1000 - 10000	±2,5 - ±0,5	<0,6 - <0,2	1	613-5277

With ejector

Capacity (µl)	Accuracy (%)	Imprecision (%)	Pk	Cat. No.
0,2 - 2	±12,0 - ±1,5	<6,0 - <0,7	1	613-5258
0,5 - 10	±1,2 - ±0,6	<2,8 - <0,4	1	613-5259
2 - 20	±1,0 - ±0,6	<1,5 - <0,3	1	613-5260
5 - 50	±0,9 - ±0,6	<2,0 - <0,4	1	613-5261
10 - 100	±0,6 - ±0,5	<0,8 - <0,2	1	613-5262
20 - 200	±2,5 - ±0,5	<0,6 - <0,2	1	613-5263
50 - 250	±1,0 - ±0,6	<0,4 - <0,3	1	613-5264
100 - 1000	±0,9 - ±0,6	<0,4 - <0,15	1	613-5265
1000 - 5000	±0,6 - ±0,5	<0,25 - <0,15	1	613-5266
1000 - 10000	±2,5 - ±0,5	<0,6 - <0,2	1	613-5267

Starter Kits

Description	Pk	Cat. No.
Starter Kit 1 incl. 3 single channel pipettes (2 - 20 µl / 20 - 200 µl / 100 - 1000 µl)	1	613-5278
Starter Kit 2 incl. 3 single channel pipettes (0,1 - 2 µl / 0,5 - 10 µl / 10 - 100 µl)	1	613-5279
Starter Kit 3 incl. 3 single channel pipettes (0,5 - 10 µl / 10 - 100 µl / 100 - 1000 µl)	1	613-5280

Accessories

Description	Pk	Cat. No.
Carousel stand for 6 pipettes	1	613-0085
Linear stand for 6 pipettes	1	613-0086
Shelf clip for 3 pipettes	1	613-0090



Single channel pipettes, mechanical, Ultra-High Performance (UHP)



Variable volume, fully autoclavable

The VWR Ultra-High Performance pipettes offer superior accuracy and precision, with unmatched and proven ergonomic design which is both lightweight and durable.

- Lowest plunger force tested
- Universal tip capability
- Automatic locking volume adjustment wheel
- Levered tip ejection and colour coded for volume identification
- Easy in-house calibration and maintenance

Ordering Information: Starter Kit also available, including 4 single channel pipettes (0,5 - 10, 2 - 20, 20 - 200, 100 - 1000 µl).

Capacity (µl)	Accuracy (%)	Imprecision (%)	Pk	Cat. No.
0,1 - 2	±12,0 - ±1,5	<6,0 - <0,7	1	613-1488
0,5 - 10	±4,0 - ±0,5	<2,8 - <0,4	1	613-1489
2 - 20	±3,0 - ±0,8	<1,5 - <0,3	1	613-1490
5 - 50	±3,0 - ±0,8	<2,0 - <0,4	1	613-1628
10 - 100	±1,6 - ±0,8	<1,5 - <0,3	1	613-1491
20 - 200	±1,2 - ±0,6	<0,8 - <0,2	1	613-1492
100 - 1000	±0,9 - ±0,6	<0,6 - <0,2	1	613-1493

Description	Pk	Cat. No.
Starter Kit		
Starter Kit (incl. 4 UHP pipettes (0,5 - 10, 2 - 20, 20 - 200, 100 - 1000), 4-position stand (613-1589) and 3 racks of tips)	1 KIT	613-1609

Description	Pk	Cat. No.
Accessories		
Linear stand for 6 UHP micropipettes	1	613-1587
Shelf clip for 1 UHP pipette	1	613-1588
Stand for 4 UHP pipettes	1	613-1589
Stand for 1 UHP pipette	1	613-1590



Single channel pipettes, mechanical



Fixed volume, fully autoclavable

- Ergonomically designed to fit large or small hands for extra comfort while working, for left or right handed operation
- Slim tip mounting cone compatible with all tips
- With stainless steel, movable and height adjustable tip ejector
- Maintenance-free seals, polished plungers for superior precision

Ordering Information: Supplied with a key for calibrating in the laboratory.

Capacity (µl)	Accuracy (%)	Imprecision (%)	For pipette tips (µl)	Pk	Cat. No.
5	±1,6	<1,0	10	1	613-0166
10	±1,0	<0,6	10	1	613-0167
20	±0,8	<0,4	200	1	613-0168
25	±0,8	<0,4	200	1	613-0169
50	±0,8	<0,4	200	1	613-0170
100	±0,8	<0,3	200	1	613-0171
200	±0,6	<0,3	200	1	613-0172

Continued from previous page

Capacity (µl)	Accuracy (%)	Imprecision (%)	For pipette tips (µl)	Pk	Cat. No.
250	±0,6	<0,3	1000	1	613-0173
500	±0,5	<0,3	1000	1	613-0174
1000	±0,4	<0,3	1000	1	613-0175
Description				Pk	Cat. No.
Accessories					
Carousel stand for 6 pipettes				1	613-0085
Linear stand for 6 pipettes				1	613-0086
Shelf clip for 3 pipettes				1	613-0090



Multi channel pipettes, mechanical, Ergonomic High Performance (EHP)



Variable volume, fully autoclavable

The new Ergonomic High Performance pipettes from VWR provide accuracy and precision you can rely on. The new upgraded ergonomic features deliver comfortable pipetting even during extensive periods of use.

- Significantly reduced plunger forces
- Effortless volume adjustment with volume lock
- Superior accuracy and precision for critical applications
- Tapered shaft and adjustable 'Easy Grip' ejector for universal tip fit
- Extended finger rest for convenient pipetting

Capacity (µl)	Accuracy (%)	Imprecision (%)	Pk	Cat. No.
8-Channel				
1 - 10	±8,0 - ±2,0	<8,0 - <2,0	1	613-5250
5 - 50	±4,0 - ±1,6	<4,0 - <1,6	1	613-5251
20 - 200	±2,0 - ±1,0	<1,5 - <0,8	1	613-5252
50 - 300	±1,6 - ±1,0	<1,5 - <0,8	1	613-5253
12-Channel				
1 - 10	±8,0 - ±2,0	<8,0 - <2,0	1	613-5254
5 - 50	±4,0 - ±1,6	<4,0 - <1,6	1	613-5255
20 - 200	±2,0 - ±1,0	<1,5 - <0,8	1	613-5256
50 - 300	±1,6 - ±1,0	<1,5 - <0,8	1	613-5257
Description			Pk	Cat. No.
Accessories				
Stand for one 8-channel pipette			1	613-0087
Stand for one 12-channel pipette			1	613-0088

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Multi channel pipettes, mechanical, Ultra-High Performance (UHP)



Variable volume, fully autoclavable

The VWR Ultra-High Performance pipettes offer superior accuracy and precision, with unmatched and proven ergonomic design both lightweight and durable.

- Lowest plunger force tested
- Universal tip capability
- Automatic locking volume adjustment wheel
- Levered tip ejection and colour coded for volume identification
- Easy in-house calibration and maintenance

Capacity (µl)	Accuracy (%)	Imprecision (%)	Pk	Cat. No.
8-Channel				
1 - 10	±8,0 - ±2,0	<6,0 - <1,2	1	613-1494
5 - 50	±4,0 - ±1,6	<2,5 - <0,6	1	613-1495
20 - 200	±3,0 - ±1,0	<1,5 - <0,6	1	613-1496
50 - 300	±1,6 - ±1,0	<1,5 - <0,6	1	613-1497
12-Channel				
1 - 10	±8,0 - ±2,0	<6,0 - <1,2	1	613-1498
5 - 50	±4,0 - ±1,6	<2,5 - <0,6	1	613-1499
20 - 200	±3,0 - ±1,0	<1,5 - <0,6	1	613-1500
50 - 300	±1,6 - ±1,0	<1,5 - <0,6	1	613-1506
Description			Pk	Cat. No.
Accessories				
Linear stand for 6 UHP micropipettes			1	613-1587
Shelf clip for 1 UHP pipette			1	613-1588
Stand for 4 UHP pipettes			1	613-1589
Stand for 1 UHP pipette			1	613-1590



Single channel pipettes, electronic



Light, ergonomically designed micropipettes prevent hands from becoming tired during repetitive operations. They are equipped with a microprocessor controlled stepper motor for dispensing extremely precise volumes with the help of a piston and an optical coupler that monitors the position of the piston to guarantee that the movement is repeated with absolute precision every time.

- Wide LCD screen and convenient interface
- Memory is capable of storing up to nine configurations of functional parameters
- Permanent self-test programme ensures the precision of the pipetted volumes and battery dependence
- Auto-calibration function

Ordering Information: Supplied with one lithium ion battery, one clip for fixing to a shelf, and an adapter for recharging the battery in the micropipette.

Capacity (µl)	Division (µl)	Accuracy (%)	Imprecision (%)	Pk	Cat. No.
With EU-plug					
0,5 - 10	0,1	±4,0 - ±1,0	<2,5 - <0,4	1	613-0400
2 - 20	0,1	±5,0 - ±1,0	<2,0 - <0,3	1	613-0402
10 - 200	1	±2,0 - ±0,6	<1,0 - <0,15	1	613-0404
100 - 1200	1	±1,5 - ±0,5	<0,6 - <0,15	1	613-0406
With UK-plug					
0,5 - 10	0,1	±4,0 - ±1,0	<2,5 - <0,4	1	613-0401
2 - 20	0,1	±5,0 - ±1,0	<2,0 - <0,3	1	613-0403
10 - 200	1	±2,0 - ±0,6	<1,0 - <0,15	1	613-0405
100 - 1200	1	±1,5 - ±0,5	<0,6 - <0,15	1	613-0407

Continued from previous page

Table with 3 columns: Description, Pk, Cat. No.
Accessories
Lithium ion battery 1 613-0424
Shelf clip for 1 electronic single channel or multi channel pipette 1 613-0427
Acrylic stand for 3 electronic single channel or multi channel pipettes 1 613-0428
Carousel for 6 electronic single channel or multi channel pipettes 1 613-0429



Multi channel pipettes, electronic



Light, ergonomically designed micropipettes prevent hands from becoming tired during repetitive operations. They are equipped with a microprocessor controlled stepper motor for dispensing extremely precise volumes with the help of a piston and an optical coupler that monitors the position of the piston to guarantee that the movement is repeated with absolute precision every time.

- Wide LCD screen and convenient interface
- Memory is capable of storing up to nine configurations of functional parameters
- Permanent self-test programme ensures the precision of the pipetted volumes and battery dependence
- Auto-calibration function

Ordering Information: Supplied with one lithium-ion battery, one clip for fixing to a shelf, and one adapter for recharging the battery in the micropipette.

Table with 6 columns: Capacity (µl), Division (µl), Accuracy (%), Imprecision (%), Pk, Cat. No.
8-Channel
0,5 - 10 0,1 ±4,0 - ±1,0 <2,5 - <0,4 1 613-0408
0,5 - 10 0,1 ±4,0 - ±1,0 <2,5 - <0,4 1 613-0409
2 - 20 0,1 ±5,0 - ±1,0 <2,0 - <0,3 1 613-0410
2 - 20 0,1 ±5,0 - ±1,0 <2,0 - <0,3 1 613-0411
10 - 200 1,0 ±2,0 - ±0,6 <1,0 - <0,15 1 613-0412
10 - 200 1,0 ±2,0 - ±0,6 <1,0 - <0,15 1 613-0413
100 - 1200 1,0 ±1,5 - ±0,5 <0,6 - <0,15 1 613-0414
100 - 1200 1,0 ±1,5 - ±0,5 <0,6 - <0,15 1 613-0415
12-Channel
0,5 - 10 0,1 ±4,0 - ±1,0 <2,5 - <0,4 1 613-0416
0,5 - 10 0,1 ±4,0 - ±1,0 <2,5 - <0,4 1 613-0417
2 - 20 0,1 ±5,0 - ±1,0 <2,0 - <0,3 1 613-0418
2 - 20 0,1 ±5,0 - ±1,0 <2,0 - <0,3 1 613-0419
10 - 200 1,0 ±2,0 - ±0,6 <1,0 - <0,15 1 613-0420
10 - 200 1,0 ±2,0 - ±0,6 <1,0 - <0,15 1 613-0421
100 - 1200 1,0 ±1,5 - ±0,5 <0,6 - <0,15 1 613-0422
100 - 1200 1,0 ±1,5 - ±0,5 <0,6 - <0,15 1 613-0423

Table with 3 columns: Description, Pk, Cat. No.
Accessories
Lithium ion battery 1 613-0424
Shelf clip for 1 electronic single channel or multi channel pipette 1 613-0427
Acrylic stand for 3 electronic single channel or multi channel pipettes 1 613-0428
Carousel for 6 electronic single channel or multi channel pipettes 1 613-0429



Repetitive pipette, Stepper



The Stepper in combination with the VWR dispenser tips is a proven system solution for the complete range of dispensing volumes from 1 to 5000 µl.

- Lightweight (105 g) - suitable for long dispensing series
- Reliable device with low maintenance requirements achieved by robust design and construction with a minimum of wearing parts
- Ergonomic design with dosage button positioned in the upper part of the device for single-handed volume selection, loading and dispensing
- Possibility to choose between the highest precision or a maximum of repetitions of the desired dosage volume, according to the requirements of the application
- Tested for function and precision after manufacture - serial number is only attributed if the requirements of DIN EN ISO 86551 are met

Ordering Information: Supplied with an adapter for 25 ml and 50 ml dispenser tips.

Continued from previous page

Chart of dosage volumes per tip-size (when used in a system with VWR dispenser tips): Dispenser tips classic in VWR Stepper					
Adjustment dial	1	2	3	4	5
No. of steps	48	23	15	11	8
0,05 ml	1 µl	2 µl	3 µl	4 µl	5 µl
0,50 ml	10 µl	20 µl	30 µl	40 µl	50 µl
1,25 ml	25 µl	50 µl	75 µl	100 µl	125 µl
2,50 ml	50 µl	100 µl	150 µl	200 µl	250 µl
5,00 ml	100 µl	200 µl	300 µl	400 µl	500 µl
12,50 ml	250 µl	500 µl	750 µl	1000 µl	1250 µl
25 ml	500 µl	1000 µl	1500 µl	2000 µl	2500 µl
50 ml	1000 µl	2000 µl	3000 µl	4000 µl	5000 µl
Chart of dosage volumes per tip-size (when used in a system with VWR dispenser tips): Dispenser tips universal in VWR Stepper					
Adjustment dial	1	2	3	4	5
No. of steps	48	23	15	11	8
0,10 ml	2 µl	4 µl	6 µl	8 µl	10 µl
0,20 ml	4 µl	8 µl	12 µl	16 µl	20 µl
0,50 ml	10 µl	20 µl	30 µl	40 µl	50 µl
100 ml	20 µl	40 µl	60 µl	80 µl	1,00 µl
2,50 ml	50 µl	100 µl	150 µl	200 µl	250 µl
5,00 ml	100 µl	200 µl	300 µl	400 µl	500 µl
10,00 ml	200 µl	400 µl	600 µl	800 µl	1000 µl
25,00 ml	500 µl	1000 µl	1500 µl	2000 µl	2500 µl
50,00 ml	1000 µl	2000 µl	3000 µl	4000 µl	5000 µl

Description	Pk	Cat. No.
VWR Stepper including adapter for 25 ml and 50 ml dispenser tips	1	613-0964

Description	Pk	Cat. No.
Starter Kit		
Stepper Starter Kit	1	613-1262

Repetitive pipette, mechanical



This pipette is designed for the dispensing of contaminated fluids and volatile liquids. The exclusive acceptance of dispenser tips with plunger helps to avoid a contamination by ascending aerosols in the tip and guarantees a long-term secure use.

- Flexible: Pipette allows 12 tip sizes, 10 volume adjustments and 120 programme steps
- Volume adjustable from 1 to 5500 µl
- Most suitable for long dispensing series thanks to low weight (85 g)
- Ergonomic design allows one hand operation of volume selection, loading and dispensing of liquids
- Volume adjustments and dosing volumes for different tips are visible in a vision panel

Ordering Information: Available as an individual pipette or as a starter kit. The kit contains one pipette and five tips of each size: 0,05/0,1/0,2/0,5/1,0/1,25/2,5/5,0/10/12,5/25/50 ml.

Description	Pk	Cat. No.
Individual pipette, mechanical	1	613-2169
Starter kit, including tips	1	613-2174

Pipette stands



Transparent acrylic

- Three, four or six-place racks, accommodate most micropipettes
- Width of upper notches: 25 mm
- Width of lower notches: 20 mm

Description	For	Material	Colour	Pk	Cat. No.
Pipette stand	3 pipettes	Acrylic	Clear	1	631-0723
Pipette stand	4 pipettes	Acrylic	Clear	1	631-0724
Pipette stand	6 pipettes	Acrylic	Clear	1	631-0725

Racks for pipettes

- Acrylic
• Racks for two or four pipettes

Table with 3 columns: Description, Pk, Cat. No.
Row 1: Rack for 4 pipettes, acrylic | 1 | 211-0232
Row 2: Rack for 2 pipettes, acrylic | 1 | 211-0233



Reagent reservoirs



Designed for use in multi channel pipetting applications, these disposable reservoirs accommodate all types of pipettes up to 12-channel width.

- Trough design, graduation marks on interior walls, and pour-off spouts on each corner
- Lot-certified, non pyrogenic, DNase- and RNase-free
- Non sterile or electron beam sterilised

Ordering Information: 25 ml reservoirs also available in a unique divided format that features three distinct mini reservoir chambers, each with a 5 ml capacity; 50 ml reservoirs available in clear FDA grade PVC or virgin modified PS; all other sizes manufactured from virgin modified PS.

Table with 6 columns: Type, Capacity (ml), Sterile, Packed, Pk, Cat. No.
Rows include various sizes (25 ml, 50 ml, 100 ml, 12x5 ml) and materials (PS, PVC) with their respective packaging and catalog numbers.

VWR's multi-brand pipette calibration and maintenance is accurate and reliable

VWR's pipette services is our total care programme for pipette calibration and service of single and multichannel pipettes, steppers, burettes, volumetric glassware, titrators and other liquid handling equipment. To remain compliant, regular pipette calibration is required by GLP, GMP, FDA and ISO.

A complete service solution – in-house or on-site

VWR's calibration service of pipettes, steppers, burettes and volumetric glassware covers:

- Calibration procedures according to ISO 8655/ISO 4787
- Adjustment
- Preventative maintenance
- Corrective maintenance/repair
- Troubleshooting and diagnosis
- Calibration certificate
- Due date reminder system

We set the highest standards – officially trained technicians and full ISO 17025 accredited facilities

- Calibration according to ISO 8655
- Genuine spare parts for repairs
- Accredited Competence Centre compliant with ISO 17025
- VWR technicians fully certified and trained by the manufacturers

Traceable from beginning to end...

Every calibration is registered with a free calibration certificate including individual calibration results. If an accredited calibration according to ISO/IEC 17025 is required, the certificate is provided with the accreditation logo which gives direct traceability to a National Standard. In case of an adjustment of your pipette you always receive two calibration certificates from us, one from before adjustment and one after.

For all **GLP laboratories** we perform an '**as found**' and an '**as left**' calibration. This means that we perform a calibration before preventative maintenance and after.

Every calibrated pipette gets a calibration label with calibration date and recalibration date. To keep your pipette in a calibrated status we have our due date reminder system. This system will inform you about the date to send the pipette in again for service.



For more information on any of our technical and validation services, please contact your local VWR sales office.
technical.services@eu.vwr.com

Pipette tips - Compatibility chart

SC: Single channel pipette / MC: Multichannel pipette
For more compatibility information, please contact VWR Customer Services.

Description	Channels	Volume (µl)	A	B	C	D	E	F	G	H	I	K	L	O	Q	R	S	Y
Sartorius eLine	SC	0,2-10	√															
		5-120			√		√			√								
		50-1000									√		√					
	MC	0,2-10	√															
		5-120			√		√		√	√								
		50-1200										√						
Sartorius ePet	SC	0,2-10	√															
		5-100			√					√								
	MC	0,2-10	√															
		5-100			√													
		25-250					√		√									
		50-1200										√						
Sartorius mLine	SC	0,1-3	√															
		0,5-10	√															
		2-20			√													
		10-100			√	√				√								
		20-200			√	√	√		√	√								
		100-1000											√					
		1000-10000																√
	MC	0,5-10	√															
		5-100			√					√								
		20-200			√													
		30-300							√									
Sartorius Proline Electronic	SC	0,2-10	√															
		5-100			√		√			√								
		25-250							√									
		50-1000									√		√					
		50-1200										√						
	MC	0,2-10	√															
		5-100			√		√											
		10-250							√									
Sartorius Proline	SC	0,1-2,5	√															
		0,5-10	√															
		2-20			√													
		5-50			√					√								
		10-100			√	√												
		20-200				√	√	√										
		50-200							√	√								
		50-250							√									
	MC	100-1000									√							
		0,5-10	√															
Sartorius Proline Plus	SC	0,1-3	√															
		0,5-10	√															
		2-20			√					√								
		10-100			√					√								
		20-200			√	√	√		√									
		20-300							√									
		100-1000									√		√					
	MC	0,5-10	√															
		10-100			√					√								
		20-200			√													
		5-250						√	√									
		30-300							√									

Continued from previous page

Description	Channels	Volume (µl)	A	B	C	D	E	F	G	H	I	K	L	O	Q	R	S	Y
Thermo Finnpipette Digital/F1	SC	0,2-2	√															
		0,5-10	√		√													
		2-20			√		√			√								
		5-50			√		√			√								
		10-100			√		√			√								
		20-200			√		√			√								
		100-1000									√							
Thermo Finnpipette Digital	MC	0,5-10	√															
		5-50			√		√			√								
		50-300							√									
Thermo Finnpipette F1	MC	1-10			√													
		5-50			√		√			√								
		50-300							√									
Thermo Focus	SC	0,3-3	√															
		0,5-5	√															
		1-10	√		√					√								
		3-30			√					√								
		5-50			√					√								
		10-100			√					√								
		30-300							√									
	MC	100-1000									√		√					
		1-10	√															
		5-50			√													
Thermo Novus	SC	30-300							√									
		1-10	√		√													
		5-50			√													
		10-100			√					√								
	MC	30-300							√									
		100-1000									√		√					
		1-10	√															
Eppendorf Electronic	SC	5-50			√					√								
		30-300							√									
		100-1000																
		0,5-10	√															
		0,5-20		√														
Eppendorf Reference	SC	5-100			√	√	√			√								
		20-200			√	√	√	√	√	√								
		50-200			√	√	√		√	√								
		100-1000									√		√					
		0,1-2,5	√															
		0,5-10	√															
Eppendorf Research Pro	SC	2-20		√	√	√	√			√								
		10-100			√	√	√			√								
		50-200			√	√	√		√	√								
		100-1000									√		√					
	MC	50-1200									√							
		0,5-10	√	√														
		5-100			√	√	√			√								
Eppendorf Research & Research Plus	SC	20-300							√									
		50-1000									√		√					
		0,1-2,5	√															
		0,5-10	√															
		2-20			√	√	√			√								
		10-100			√	√	√	√		√								
	MC	20-200			√	√	√	√		√								
		100-1000									√		√					
		0,5-10	√															

Weight and Volume
Liquid Handling - Pipette Tips

Continued from previous page

Description	Channels	Volume (µl)	A	B	C	D	E	F	G	H	I	K	L	O	Q	R	S	Y
Gilson Pipetman, P	SC	0,2-2	✓															
		1-10	✓															
		2-20			✓													
		20-200			✓					✓								
		50-200			✓		✓		✓	✓								
		20-1000									✓		✓					
		1000-5000												✓				
		1000-10000																✓
Gilson Pipetman Ultra	SC	0,2-2	✓															
		1-10	✓															
		2-20			✓													
		20-100			✓					✓								
		20-200			✓				✓	✓								
		50-200					✓											
		20-1000									✓		✓					
		1000-10000																✓
	MC	1-20			✓													
		20-300							✓									
Gilson Neo	SC	0,2-2	✓															
		1-10	✓															
		2-20			✓													
		20-100			✓													
		20-200			✓					✓								
		100-1000									✓		✓					
Gilson Concept	SC	0,5-10	✓															
		5-100			✓					✓								
		20-300							✓									
	MC	1-10	✓															
		10-100			✓					✓								
Rainin Pipet Classic	SC	0,1-2	✓															
		0,5-10	✓															
		2-20			✓													
		10-100			✓					✓								
		20-200			✓		✓			✓								
		100-1000									✓		✓					
		1000-5000												✓				
		5000-10000																✓
Rainin Pipet Lite & Plus with LTS / E-Man Hybrid	SC/MC	0,1-2													✓			
		0,5-10													✓			
		2-20													✓			
		10-100														✓		
		20-200														✓		
		100-1000																
VWR Collection EHP/UHP	SC/MC	0,2-2	✓															
		0,5-10	✓															
		2-20			✓													
		5-50			✓													
		10-100			✓		✓											
		20-200			✓		✓											
		50-250							✓									
		100-1000									✓		✓					
		1000-5000												✓				
VWR Collection Electronic	SC	0,5-10	✓															
		2-20			✓													
		10-200			✓		✓			✓								
		100-1200									✓							

Pipette tips



All the tips are made of high quality 100% pure virgin medical grade PP. Made in the highest quality moulds, these tips can be used whenever the work demands a higher standard. Sterile products are tested for endotoxin (pyrogen) contamination and certified to USP standards. Resins are pre-tested for metal contamination. Certificates are on file by lot number for all test results.

- A wider seal ensures that tips will seal easily and consistently without leaking, on old as well as new pipettes
- Guaranteed free of detectable DNA, DNase/RNase, endotoxins and heavy metals
- Autoclavable

Bulk

Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™, extended	0,1 - 10	A	Bulk	1.000	613-0259
UltraFine™, graduated, siliconised	0,1 - 10	A	Bulk	1.000	613-0276
UltraFine™, graduated	0,1 - 10	A	Bulk	1.000	613-0364
Bevel Point™, graduated	0,5 - 10	B	Bulk	1.000	613-0254
UltraFine™	0,5 - 20	Q	Bulk	1.000	613-0578
Graduated	0,1 - 30	A	Bulk	1.000	613-0636
Bevel Point™	1 - 100	D	Bulk	1.000	613-0252
Bevel Point™, graduated	1 - 200	C	Bulk	10.000	525-0144
Standard	1 - 200	C	Bulk	1.000	613-0287
Standard (yellow)	1 - 200	C	Bulk	1.000	613-0246
Bevel Point™	1 - 200	C	Bulk	1.000	613-0239
Bevel Point™	1 - 200	C	Bulk	10.000	613-0240
Bevel Point™, graduated	1 - 200	C	Bulk	1.000	613-0298
Bevel Point™, siliconised	1 - 200	C	Bulk	1.000	613-0277
Bevel Point™	1 - 200	C	Bulk	1.000	613-0890
Bevel Point™, Low binding	1 - 200	C	Bulk	1.000	613-0891
UltraFine™, graduated	1 - 200	R	Bulk	1.000	613-0581
UltraFine™, FlexTop™, extended	1 - 200	C	Bulk	1.000	732-0500
UltraFine™, FlexTop™, graduated	1 - 200	C	Bulk	1.000	732-0504
Bevel Point™, wide orifice	1 - 250	E	Bulk	1.000	736-0204
Low Binding, wide orifice	1 - 250	E	Bulk	1.000	613-0370
UltraFine™	1 - 250	F	Bulk	1.000	613-0892
UltraFine™, Low binding	1 - 250	F	Bulk	1.000	613-0373
Bevel Point™	1 - 300	G	Bulk	1.000	613-0265
Bevel Point™, Low binding	1 - 300	G	Bulk	1.000	613-0380
UltraFine™, FlexTop™, graduated	1 - 300	G	Bulk	1.000	613-0331
Bevel Point™	100 - 1000	L	Bulk	1.000	613-0340
Bevel Point™, graduated	100 - 1000	L	Bulk	1.000	613-0343
UltraFine™	100 - 1000	S	Bulk	1.000	613-0584
UltraFine™, FlexTop™, extended	100 - 1250	I	Bulk	1.000	613-0272
UltraFine™, Low binding	100 - 1250	I	Bulk	1.000	613-0377
Wide orifice	100 - 1250	I	Bulk	1.000	613-0749
Macro	1000 - 5000	O	Bulk	250	613-0830
Macro, graduated (Gilson Pipetman)	1000 - 5000	O	Bulk	250	613-0338
Macro, graduated (Biohit/Eppendorf)	1000 - 5000	O	Bulk	250	613-0339
Standard	5000 - 10000	Y	Bulk	250	613-0831

Racked



Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™, graduated, siliconised (12x96)	0,1 - 10	A	12 racks, 96 each	1.152	613-0336
UltraFine™, graduated (12x96)	0,1 - 10	A	12 racks, 96 each	1.152	613-0334
UltraFine™, extended (10x96)	0,1 - 10	A	10 racks, 96 each	960	613-0260
Graduated (10x96)	0,1 - 30	A	10 racks, 96 each	960	613-0637
Bevel Point™, graduated (10x96)	0,5 - 10	B	10 racks, 96 each	960	613-0255

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Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™ (10×96)	0,5 - 20	Q	10 racks, 96 each	960	613-0576
UltraFine™ (10x384)	1 - 50	A	10 racks, 384 each	3.840	732-0499
Bevel Point™ (10×96)	1 - 100	D	10 racks, 96 each	960	613-0253
Bevel Point™ (5×192)	1 - 100	D	5 racks, 192 each	960	613-0251
Standard (10×96)	1 - 200	C	10 racks, 96 each	960	613-0288
Standard (10×96, yellow)	1 - 200	C	10 racks, 96 each	960	613-0247
Bevel Point™ (10×96)	1 - 200	C	10 racks, 96 each	960	613-0241
Bevel Point™ (10×96)	1 - 200	C	10 racks, 96 each	960	613-0889
Bevel Point™ (5×192)	1 - 200	C	5 racks, 192 each	960	613-0369
Bevel Point™ (5×192, yellow)	1 - 200	C	5 racks, 192 each	960	613-0237
Bevel Point™, Low binding (10×96)	1 - 200	C	10 racks, 96 each	960	613-0285
Bevel Point™, siliconised (10×96)	1 - 200	C	10 racks, 96 each	960	613-0278
Bevel Point™, graduated (10×96)	1 - 200	C	10 racks, 96 each	960	613-0299
Bevel Point™, graduated (5×192)	1 - 200	C	5 racks, 192 each	960	613-0296
UltraFine™, graduated (10×96)	1 - 200	R	10 racks, 96 each	960	613-0579
UltraFine™, FlexTop™, extended (6×96)	1 - 200	C	6 racks, 96 each	576	732-0501
UltraFine™, FlexTop™, graduated (10×96)	1 - 200	C	10 racks, 96 each	960	732-0505
UltraFine™, FlexTop™, graduated	1 - 200	C	10 racks, 96 each	960	613-1634
Bevel Point™, wide orifice (10×96)	1 - 250	E	10 racks, 96 each	960	736-0205
Low binding, wide orifice (10×96)	1 - 250	E	10 racks, 96 each	960	613-0371
UltraFine™ (10×96)	1 - 250	F	10 racks, 96 each	960	613-0304
UltraFine™, Low binding (10×96)	1 - 250	F	10 racks, 96 each	960	613-0374
Bevel Point™ (10×96)	1 - 300	G	10 racks, 96 each	960	613-0266
Bevel Point™ (5×192)	1 - 300	G	5 racks, 192 each	960	613-0357
Bevel Point™, Low binding (10×96)	1 - 300	G	10 racks, 96 each	960	613-0381
UltraFine™, FlexTop™, graduated (6×96)	1 - 300	G	6 racks, 96 each	576	613-0332
Bevel Point™ (6×96)	100 - 1000	L	6 racks, 96 each	576	613-0341
Bevel Point™, graduated (5×96)	100 - 1000	L	5 racks, 96 each	480	613-0366
Bevel Point™, graduated (6×96)	100 - 1000	L	6 racks, 96 each	576	613-0344
UltraFine™ (6×96)	100 - 1000	S	6 racks, 96 each	576	613-0582
UltraFine™, FlexTop™, extended (6×96)	100 - 1250	I	6 racks, 96 each	576	613-0273
UltraFine™, Low binding (6×96)	100 - 1250	I	6 racks, 96 each	576	613-0378
Wide orifice (6×96)	100 - 1250	I	6 racks, 96 each	576	613-0750

Racked, sterile



Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™, extended (10×96)	0,1 - 10	A	10 racks, 96 each	960	613-0261
UltraFine™, graduated (12×96)	0,1 - 10	A	12 racks, 96 each	1.152	613-0335
UltraFine™, graduated, siliconised (12×96)	0,1 - 10	A	12 racks, 96 each	1.152	613-0337
Bevel Point™, graduated (10×96)	0,5 - 10	B	10 racks, 96 each	960	613-0256
UltraFine™ (10×96)	0,5 - 20	Q	10 racks, 96 each	960	613-0577
Graduated (10×96)	0,1 - 30	A	10 racks, 96 each	960	613-0638
UltraFine™ (10x384)	1 - 50	A	10 racks, 384 each	3.840	732-0557
Bevel Point™ (10×96)	1 - 100	D	10 racks, 96 each	960	613-0352
Bevel Point™ (5×192)	1 - 100	D	5 racks, 192 each	960	613-0353
Standard (10×96)	1 - 200	C	10 racks, 96 each	960	613-0360
Standard (10×96, yellow)	1 - 200	C	10 racks, 96 each	960	613-0248
Bevel Point™ (10×96)	1 - 200	C	10 racks, 96 each	960	613-0242
Bevel Point™ (5×192)	1 - 200	C	5 racks, 192 each	960	613-0238
Bevel Point™, graduated (10×96)	1 - 200	C	10 racks, 96 each	960	613-0300
Bevel Point™, graduated (5×192)	1 - 200	C	5 racks, 192 each	960	613-0297
Bevel Point™, Low binding (10×96)	1 - 200	C	10 racks, 96 each	960	613-0286
Bevel Point™, siliconised (10×96)	1 - 200	C	10 racks, 96 each	960	613-0279
UltraFine™, graduated (10×96)	1 - 200	R	10 racks, 96 each	960	613-0580
UltraFine™, FlexTop™, extended (6×96)	1 - 200	C	6 racks, 96 each	576	732-0502
UltraFine™, FlexTop™, graduated (10×96)	1 - 200	C	10 racks, 96 each	960	732-0506
Bevel Point™, wide orifice (10×96)	1 - 250	E	10 racks, 96 each	960	736-0206
Low binding, wide orifice (10×96)	1 - 250	E	10 racks, 96 each	960	613-0372
UltraFine™ (10×96)	1 - 250	F	10 racks, 96 each	960	613-0362
UltraFine™, Low binding (10×96)	1 - 250	F	10 racks, 96 each	960	613-0375
Bevel Point™ (10×96)	1 - 300	G	10 racks, 96 each	960	613-0267
Bevel Point™ (5×192)	1 - 300	G	5 racks, 192 each	960	613-0358

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Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
Bevel Point™, Low binding (10×96)	1 - 300	G	10 racks, 96 each	960	613-0382
UltraFine™, FlexTop™, graduated (6×96)	1 - 300	G	6 racks, 96 each	576	613-0333
Bevel Point™ (6×96)	100 - 1000	L	6 racks, 96 each	576	613-0342
Bevel Point™, graduated (6×96)	100 - 1000	L	6 racks, 96 each	576	613-0345
UltraFine™ (6×96)	100 - 1000	S	6 racks, 96 each	576	613-0583
UltraFine™, FlexTop™, extended (6×96)	100 - 1250	I	6 racks, 96 each	576	613-0274
UltraFine™, Low binding (6×96)	100 - 1250	I	6 racks, 96 each	576	613-0379
Wide orifice (6×96)	100 - 1250	I	6 racks, 96 each	576	613-0751

Stack rack



Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
Bevel Point™ (5×192)	1 - 100	D	5 Stack racks, 192 each	960	613-0250
Bevel Point™ (10×96)	1 - 200	C	10 Stack racks, 96 each	960	613-0368
Bevel Point™ (10×96, yellow)	1 - 200	C	10 Stack racks, 96 each	960	613-0243
Bevel Point™ (5×192)	1 - 200	C	5 Stack racks, 192 each	960	613-0235
Bevel Point™, graduated (10×96)	1 - 200	C	10 Stack racks, 96 each	960	613-0301
Bevel Point™, graduated (5×192)	1 - 200	C	5 Stack racks, 192 each	960	613-0294

Stack rack refill



Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
Bevel Point™ (10×96)	1 - 200	C	10 Stack rack refills, 96 each	960	613-0244
Bevel Point™ (5×192)	1 - 200	C	5 Stack rack refills, 192 each	960	613-0236
Bevel Point™, graduated (10×96)	1 - 200	C	10 Stack rack refills, 96 each	960	613-0302
Bevel Point™, graduated (5×192)	1 - 200	C	Stack rack refill, 192 each	960	613-0295
Bevel Point™, graduated, sterile (160×96)	1 - 200	C	Stack rack refill, 96 each	15.360	613-0350

Individually wrapped, sterile



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Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
Bevel Point™	1 - 200	C	Individually wrapped	200	613-0230
Bevel Point™, graduated	1 - 200	C	Individually wrapped	200	613-0289
Bevel Point™	1 - 300	G	Individually wrapped	200	613-0264
Bevel Point™, graduated	100 - 1000	L	Individually wrapped	200	613-0359
UltraFine™, FlexTop™, extended	100 - 1250	I	Individually wrapped	200	613-0367



Pipette tips, refill, Next Generation



Tips made from pure resins, packaging made from renewable materials

The Next Generation pipette tip refill system is a revolution in pipette tip refills. It goes far beyond other reload systems to bring a complete refilling solution to the lab. With a simple lift, place and snap, the user can refill VWR and other brands of pipette tip racks with 17 different styles of tips.

Far beyond simple recycle coding, the Next Generation is a complete system designed with a low carbon footprint that includes the first ever use of bioplastic (non petroleum) compostable resin in pipette tip refills. Next Generation's small footprint extends to the package, with a reclosable box that helps maximise storage space in crowded labs.

- Easy to use refill system - new pipette tip racks, inserts and transfer cover prevent tip wobbling during refill and keeps tips clean
- 95% renewable materials - compostable tip base from organic non petroleum resin, carton made from 100% recycled fibres, soy-based vegetable ink
- Certified DNA-/RNase-/DNase-free

Packaging Information: Compact, reclosable packaging with reduced overall weight.

Type	Capacity (µl)	Compatibility	Sterile	Packed	Pk	Cat. No.
Standard	0,1 - 10	A	+	13 racks, 96 each	1.248	613-1647
Graduated	0,1 - 10	A	-	6 racks, 96 each	576	613-2104
UltraFine™	0,1 - 10	A	-	13 racks, 96 each	1.248	613-1646
Low binding	0,1 - 10	A	-	13 racks, 96 each	1.248	613-1644
Low binding	0,1 - 10	A	+	13 racks, 96 each	1.248	613-1645
Low binding	0,1 - 10	A	-	6 racks, 96 each	576	613-2133
Extended, micro	0,1 - 10	A	-	14 racks, 96 each	1.344	613-0735
Extended, micro	0,1 - 10	A	+	14 racks, 96 each	1.344	613-0736
Extended, micro, Ultrafine™	0,1 - 10	A	-	5 racks, 96 each	480	613-2105
Rainin® LTS™ style	0,2 - 20	O	-	5 racks, 96 each	480	613-2109
Rainin® LTS™ style	0,2 - 20	O	-	11 racks, 96 each	1.056	613-0721
Rainin® LTS™ style	0,2 - 20	O	+	11 racks, 96 each	1.056	613-0722
Low binding	0,5 - 250	F	-	5 racks, 96 each	480	613-2134
Rainin® LTS™ style	0,5 - 250	R	-	10 racks, 96 each	960	613-0727
Rainin® LTS™ style	0,5 - 250	R	+	10 racks, 96 each	960	613-0728
Eppendorf® style, yellow	1 - 100	E	-	10 racks, 96 each	960	613-0734
Yellow	1 - 200	B	-	10 racks, 96 each	960	613-0732
Yellow	1 - 200	B	+	10 racks, 96 each	960	613-0733
Yellow	1 - 200	B	-	5 racks, 96 each	480	613-2106
Standard	1 - 200	C	-	10 racks, 96 each	960	613-0740
Graduated	1 - 200	D	-	10 racks, 96 each	960	613-0742
Graduated	1 - 200	D	+	10 racks, 96 each	960	613-0743
Graduated	1 - 200	D	-	5 racks, 96 each	480	613-2107
Rainin® LTS™ style	1 - 200	R	-	5 racks, 96 each	480	613-2110
Low binding	1 - 200	L	-	5 racks, 96 each	480	613-2132
Low binding	1 - 200	L	-	10 racks, 96 each	960	613-0741
Wide orifice	1 - 200	G	-	10 racks, 96 each	960	613-0731
Ultrafine™	1 - 200	I	-	10 racks, 96 each	960	613-0725
Ultrafine™	1 - 200	I	+	10 racks, 96 each	960	613-0726
Ultrafine™, FlexTop™	1 - 200	I	-	5 racks, 96 each	480	613-2108
Low binding	1 - 250	F	-	10 racks, 96 each	960	613-0745
Ultrafine™	1 - 250	F	-	10 racks, 96 each	960	613-0744
Ultrafine™	1 - 300	G	-	6 racks, 96 each	576	613-0723
Ultrafine™	1 - 300	G	+	6 racks, 96 each	576	613-0724
Low binding, Slik, mini	10	A	-	6 racks, 96 each	576	613-2279
Low binding, Slik	10	A	-	13 racks, 96 each	1.248	613-2292
Low binding, Slik	10	A	+	13 racks, 96 each	1.248	613-2293
Rainin® LTS™ style	100 - 1000	Q	-	5 racks, 96 each	480	613-0729
Rainin® LTS™ style	100 - 1000	Q	+	5 racks, 96 each	480	613-0730
Wide orifice	100 - 1250	H	-	5 racks, 96 each	480	613-0737
Low binding	100 - 1250	I	-	5 racks, 96 each	480	613-0746
Low binding	100 - 1250	I	+	5 racks, 96 each	480	613-0747
Ultrafine™	100 - 1250	I	-	5 racks, 96 each	480	613-0738
Ultrafine™	100 - 1250	I	+	5 racks, 96 each	480	613-0739



Refillable boxes/racks for VWR Pak Rak™/Pak Rak™ Plus Loaders



Hinged, refillable, autoclavable boxes/racks for pipette tip refills. Used with Pak Rak™ and Pak Rak™ Plus Loaders. Boxes/racks for 100 - 1250 µl tips are only suitable for Pak Rak™ Plus Loaders.

- Strong enough to be autoclaved many times
- Separate insert includes a bevelled top and extra sturdy surface for multi channel pipetting
- Vented sides ensure effective tip sterilisation during autoclaving

Description	Pk	Cat. No.
Boxes/racks for 10 µl tips, empty	12	613-0383
Boxes/racks for 1 - 250 µl tips, empty	10	613-0307
Boxes/racks for 100 - 1250 µl tips, empty	6	613-0306



Refillable boxes/racks for VWR Pak Rak™/Pak Rak™ Plus Loaders, assorted colours



Hinged, refillable, autoclavable boxes/racks for pipette tip refills. Used with Pak Rak™ and Pak Rak™ Plus Loaders. Boxes/racks for 100 - 1250 µl tips are only suitable for Pak Rak™ Plus Loaders.

- Strong enough to be autoclaved many times
- Separate insert includes a bevelled top and extra sturdy surface for multi channel pipetting
- Vented sides ensure effective tip sterilisation during autoclaving

Ordering Information: Includes yellow, white, blue, green and purple in the same package.

Description	Pk	Cat. No.
Boxes/racks for 1-250 µl tips, empty, assorted	10	613-0346
Boxes/racks for 100-1250 µl tips, empty, assorted	6	613-0348



Pipette tips, reload system

Clear PP, sterile or non sterile, autoclavable

- Non sterile tips are free from DNA, DNase and RNase; E-beam sterilised tips are free from DNA, DNase and RNase, pyrogens, PCR inhibitors and endotoxins
- Robust, traceable racks are easy to grab with their ergonomic clips
- Reload boxes including racks or empty reload boxes are also available and feature flip lock latch for one handed opening and closing, reversible lid with lip, flush fitting and click clip to stabilise the racks

Description	Channels	Volume (µl)	613-1068 613-1075 613-1082 613-1093 613-1100	613-1069 613-1076 613-1083	613-1067 613-1074 613-1081	613-1064 613-1065 613-1072 613-1079 613-1089 613-1090 613-1096 613-1097	613-1066 613-1073 613-1080 613-1091 613-1092 613-1098 613-1099	613-1063 613-1071 613-1078 613-1088 613-1095	613-1062 613-1070 613-1077 613-1087 613-1094
VWR Collection EHP/UHP	SC	0,2-2	√	√	√				
VWR Collection EHP/UHP	SC	0,5-10	√	√					
VWR Collection EHP/UHP	SC	2-20				√	√	√	
VWR Collection EHP/UHP	SC	10-100				√	√		
VWR Collection EHP/UHP	SC	20-200				√	√	√	
VWR Collection EHP/UHP	SC	100-1000							√
VWR Collection EHP/UHP	MC8	1-10	√	√	√				
VWR Collection EHP/UHP	MC8-12	20-200				√	√		
Eppendorf Reference 2000 (yellow)	SC	2-20				√	√		
Eppendorf Reference & Reference 2000	SC	0,5-10	√	√	√				
Eppendorf Reference & Reference 2000 (grey)	SC	2-20	√	√	√				
Eppendorf Reference & Reference 2000	SC	50-200				√	√		
Eppendorf Reference & Reference 2000	SC	200-1000							√
Eppendorf Research 2100	MC	0,5-10	√	√	√				

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Description	Channels	Volume (µl)	613-1068 613-1075 613-1082 613-1093 613-1100	613-1069 613-1076 613-1083	613-1067 613-1074 613-1081	613-1064 613-1065 613-1072 613-1079 613-1089 613-1090 613-1096 613-1097	613-1066 613-1073 613-1080 613-1091 613-1092 613-1098 613-1099	613-1063 613-1071 613-1078 613-1088 613-1095	613-1062 613-1070 613-1077 613-1087 613-1094
Eppendorf Research & Research 2100	SC	2-20				√	√		
Eppendorf Research & Research 2100	SC	20-200				√	√		
Eppendorf Research & Research 2100	SC	100-1000							√
Finnpipette	SC	40-200				√	√	√	
Finnpipette	MC	5-50				√	√	√	
Finnpipette & Finnpipette II	SC	5-50				√	√	√	
Finnpipette & Finnpipette II	SC	20-200				√	√	√	
Finnpipette & Finnpipette II	SC	200-1000							√
Finnpipette & Finnpipette II	MC	0,5-10	√	√	√				
Finnpipette & Finnpipette II	MC	50-300						√	
Finnpipette Focus	SC	1-10				√	√		
Finnpipette Focus	SC	10-100				√	√	√	
Finnpipette Focus	SC	30-300				√			
Finnpipette Focus	SC	100-1000							√
Finnpipette Focus	MC	1-10	√	√	√				
Finnpipette Focus	MC	5-50				√	√	√	
Finnpipette II	SC	100-1000							√
Finnpipette Micro & Finnpipette II	SC	0,5-10	√	√	√				
Gilson Pipetman P-10	SC	0,5-10	√	√					
Gilson Pipetman P-20	SC	2-20				√	√		
Gilson Pipetman P-100	SC	10-100				√	√	√	
Gilson Pipetman P-200	SC	50-200				√	√	√	
Gilson Pipetman P-1000	SC	100-1000							√

SC: Single channel pipette / MC: Multi channel pipette
For more compatibility information, please contact VWR Customer Services.

Bulk (1000 tips per pack)



Type	Capacity (µl)	Packed	Pk	Cat. No.
Micro, graduated	0,1 - 10	Bulk	1.000	613-1068
Micro, extra long, graduated	0,1 - 10	Bulk	1.000	613-1069
Micro, Eppendorf type	0,5 - 20	Bulk	1.000	613-1067
Graduated, bevelled	1 - 200	Bulk	1.000	613-1065
Graduated, bevelled (yellow)	1 - 200	Bulk	1.000	613-1064
Micro	1 - 200	Bulk	1.000	613-1066
Graduated, bevelled	5 - 300	Bulk	1.000	613-1063
Graduated	100 - 1250	Bulk	1.000	613-1062

Racked (10 racks of 96 tips per pack)



Type	Capacity (µl)	Packed	Pk	Cat. No.
Micro, graduated	0,1 - 10	10 racks, 96 each	960	613-1075
Micro, extra long, graduated	0,1 - 10	10 racks, 96 each	960	613-1076
Micro, Eppendorf type	0,5 - 20	10 racks, 96 each	960	613-1074
Graduated, bevelled	1 - 200	10 racks, 96 each	960	613-1072
Micro	1 - 200	10 racks, 96 each	960	613-1073
Graduated, bevelled	5 - 300	10 racks, 96 each	960	613-1071
Graduated	100 - 1250	10 racks, 96 each	960	613-1070

Racked, sterile (10 racks of 96 tips per pack)



Type	Capacity (µl)	Packed	Pk	Cat. No.
Micro, graduated	0,1 - 10	10 racks, 96 each	960	613-1082
Micro, extra long, graduated	0,1 - 10	10 racks, 96 each	960	613-1083
Micro, Eppendorf type	0,5 - 20	10 racks, 96 each	960	613-1081
Graduated, bevelled	1 - 200	10 racks, 96 each	960	613-1079
Micro	1 - 200	10 racks, 96 each	960	613-1080
Graduated, bevelled	5 - 300	10 racks, 96 each	960	613-1078
Graduated	100 - 1250	10 racks, 96 each	960	613-1077

Reload (5 inserts of 96 tips per stack / 2 stacks per pack)



Type	Capacity (µl)	Packed	Pk	Cat. No.
Micro, graduated	0,1 - 10	Stack rack includes 5 racks, 96 each	960	613-1093
Graduated	1 - 200	Stack rack includes 5 racks, 96 each	960	613-1090
Graduated (yellow)	1 - 200	Stack rack includes 5 racks, 96 each	960	613-1089
Micro	1 - 200	Stack rack includes 5 racks, 96 each	960	613-1091

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Type	Capacity (µl)	Packed	Pk	Cat. No.
Micro (yellow)	1 - 200	Stack rack includes 5 racks, 96 each	960	613-1092
Standard	5 - 300	Stack rack includes 5 racks, 96 each	960	613-1088
Graduated	100 - 1250	Stack rack includes 5 racks, 96 each	960	613-1087

Reload, sterile (5 inserts of 96 tips per stack / 2 stacks per pack)



Type	Capacity (µl)	Packed	Pk	Cat. No.
Micro, graduated	0,1 - 10	Stack rack includes 5 racks, 96 each	960	613-1100
Graduated	1 - 200	Stack rack includes 5 racks, 96 each	960	613-1097
Graduated (yellow)	1 - 200	Stack rack includes 5 racks, 96 each	960	613-1096
Micro	1 - 200	Stack rack includes 5 racks, 96 each	960	613-1098
Micro (yellow)	1 - 200	Stack rack includes 5 racks, 96 each	960	613-1099
Bevelled	5 - 300	Stack rack includes 5 racks, 96 each	960	613-1095
Micro, graduated	100 - 1250	Stack rack includes 5 racks, 96 each	960	613-1094

Empty rack for reload (10 empty racks per pack)

Type	Capacity (µl)	Packed	Pk	Cat. No.
Empty rack	10 - 20	10 boxes/pack	10	613-1086
Empty rack	200 - 300	10 boxes/pack	10	613-1085
Empty rack	1000 - 1250	10 boxes/pack	10	613-1084

Speciality pipette tips



Clear PP, sterile or non sterile

Type	Capacity (µl)	Sterile	Packed	Pk	Cat. No.
Gel loading	0,1 - 10	-	5 racks, 204 each	1.020	613-1044
Gel loading	0,1 - 10	+	5 racks, 204 each	1.020	613-1045
Large orifice	1 - 200	-	Bulk	1.000	613-0993
Large orifice	1 - 200	-	10 racks, 96 each	960	613-0994
Large orifice	1 - 200	+	10 racks, 96 each	960	613-0995
Gel loading	1 - 200	-	Bulk	1.000	613-1046
Gel loading	1 - 200	-	10 racks, 96 each	960	613-1047
Gel loading	1 - 200	+	10 racks, 96 each	960	613-1048
Extended length	1 - 200	-	Bulk	1.000	613-1060
Extended length	1 - 200	-	10 racks, 96 each	1.632	613-1061
Extended length	1 - 200	+	10 racks, 96 each	1.632	613-1109
Large orifice	100 - 1000	-	Bulk	1.000	613-0997
Large orifice	100 - 1000	-	10 racks, 96 each	960	613-0998
Large orifice	100 - 1000	+	10 racks, 96 each	960	613-0999



Capillary tips for gel loading



Non bevelled capillary section, non graduated, compatibility type H

- The thin capillary fits between gel plates to allow the user to accurately fill the wells between the teeth of the gel comb
- With wide sealing areas to also fit older pipette barrels

Length: 65/70 mm

Continued from previous page

Capacity (µl)	Sterile	Packed	Pk	Cat. No.
1 - 200	-	Bulk	1.000	613-0257
1 - 200	-	6 racks, 96 each	576	732-0508
1 - 200	+	6 racks, 96 each	576	732-0509



Pipette tips, universal



PP, autoclavable

- Manufactured without lubricants
- Cadmium-free pigments
- Environmentally friendly packaging systems

Colour: Yellow (2 - 200 µl), blue (50 - 1000 µl)

Length: 50 mm (2 - 200 µl), 70 mm (50 - 1000 µl)

Capacity (µl)	Colour code	Sterile	Packed	Pk	Cat. No.
2 - 200	Yellow	-	Bulk	1.000	612-5755
50 - 1000	Blue	-	Bulk	1.000	612-5756
Description		For		Pk	Cat. No.
Accessories					
Tip-Box N, PP, with push on lid, stackable and autoclavable		2 - 200 µl tips		1	613-2287
Tip-Box N, PP, with push on lid, stackable and autoclavable		50 - 1000 µl tips		1	613-2288

Pipette tips, Macro



Transparent, sterile or non sterile

These pipette tips fit most popular Macro pipettes. They are available graduated or non graduated.

- Every lot tested: RNase/DNase, Endotoxin, Protease, ATP- and BPA-free
- Reclosable and recyclable low carbon packaging

Type	Capacity (ml)	Sterile	Packed	Pk	Cat. No.
For VWR®, Gilson® (Classic, G and L), Rainin® Classic, Oxford® Benchmate, Labnet discovery					
Graduated	1 - 5	-	49/rack	49	613-2143
Graduated	1 - 5	+	49/rack	49	613-2144
For Eppendorf® (Research®, Research® Plus/Pro), BIOHIT (Proline®)					
Graduated	1 - 5	-	49/rack	49	613-2145
Graduated	1 - 5	+	49/rack	49	613-2146
For BIOHIT (mLine®, Proline® Plus), Gilson® (Classic, G and L), Rainin® Classic, Nichiryo® and Acura 835®					
Clear	1 - 5	-	49/rack	49	613-2147
Clear	1 - 5	+	49/rack	49	613-2148
For VWR®, Gilson® (Classic and Ultra), Rainin® Classic, BIOHIT (mLine®, Proline® Plus)					
Clear	10	-	49/rack	36	613-2149
Clear	10	+	49/rack	36	613-2150

Dispenser tips, classic



- Compatible with: Ritter® ripette® and ripette® pro, Eppendorf® Multipette® 4780, Brand® HandyStep® and HandyStep®electronic, Minilab 100/101, EasyStep, Distriman®
- Eight different tip sizes from 0,05 to 50 ml
- Sterile tips guaranteed free of DNA, DNase, RNase, ATP and pyrogens

Capacity (ml)	Sterile	Packed	Pk	Cat. No.
0,05	-	Bulk	100	613-1000
0,05	+	Individual blister	100	613-1008
0,5	-	Bulk	100	613-1001
0,5	+	Individual blister	100	613-1009
1,25	-	Bulk	100	613-1002
1,25	+	Individual blister	100	613-1010
2,5	-	Bulk	100	613-1003

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Capacity (ml)	Sterile	Packed	Pk	Cat. No.
2,5	+	Individual blister	100	613-1011
5,0	-	Bulk	100	613-1004
5,0	+	Individual blister	100	613-1012
12,5	-	Bulk	100	613-1005
12,5	+	Individual blister	100	613-1013
25,0	-	Bulk	25	613-1006
25,0	+	Individual blister	25	613-1014
50,0	-	Bulk	25	613-1007
50,0	+	Individual blister	25	613-1015
Description			Pk	Cat. No.
Accessories				
Adapters for 25 and 50 ml tips			3	613-1034



Dispenser tips, universal



- Compatible with: Ritter® ripette®, Eppendorf® Multipette® plus and Multipette® 4780, Brand® HandyStep® and HandyStep®electronic, STEPMATE (when these are used with the Multipette® plus, the display does not work)
- Nine different tip sizes from 0,1 to 50 ml
- Sterile tips guaranteed free from DNA, DNase, RNase, ATP and pyrogens

Capacity (ml)	Sterile	Packed	Pk	Cat. No.
0,1	-	Bulk	100	613-1016
0,1	+	Individual blister	100	613-1025
0,2	-	Bulk	100	613-1017
0,2	+	Individual blister	100	613-1026
0,5	-	Bulk	100	613-1018
0,5	+	Individual blister	100	613-1027
1,0	-	Bulk	100	613-1019
1,0	+	Individual blister	100	613-1028
2,5	-	Bulk	100	613-1020
2,5	+	Individual blister	100	613-1029
5,0	-	Bulk	100	613-1021
5,0	+	Individual blister	100	613-1030
10,0	-	Bulk	100	613-1022
10,0	+	Individual blister	100	613-1031
25,0	-	Bulk	25	613-1023
25,0	+	Individual blister	25	613-1032
50,0	-	Bulk	25	613-1024
50,0	+	Individual blister	25	613-1033
Description			Pk	Cat. No.
Accessories				
Adapters for 25 and 50 ml tips			3	613-1034

Filter tips - Compatibility chart

SC: Single channel pipette / MC: Multichannel pipette
For more compatibility information, please contact VWR Customer Services.

Description	Channels	Volume (µl)	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF11	AF12	AF13	AF16	AF19
Sartorius eLine	SC	0,2-10	√					√								
	MC	0,2-10	√													
Sartorius ePet	SC	0,2-10	√	√												
		50-1200									√					
	MC	0,2-10	√													
		25-250								√						
Sartorius mLine	SC	50-1200									√					
		0,1-3	√													
		0,5-10	√													
		2-20			√	√										
		10-100					√									
		20-200							√	√						
		100-1000									√					
	MC	5-100														√
Sartorius Proline Electronic	SC	0,2-10	√													√
		5-100							√							√
		50-1000									√					
	MC	0,2-10	√													
Sartorius Proline	SC	5-100														√
		0,5-10	√													
		5-50				√										
		10-100														√
		50-200							√							
		10-250								√						
		200-1000									√					
	MC	0,5-10	√													
Sartorius Proline Plus	SC	5-50				√										
		0,1-3	√													
		0,5-10	√													
		2-20		√	√											
		10-100														√
		20-200							√							
Eppendorf Electronic	SC	100-1000									√					
		0,2-10	√													
Eppendorf Reference	SC	5-100			√				√							
		0,1-2,5	√													
		0,5-10		√												
		2-20		√	√											
		10-100					√									√
		50-200							√	√						
Eppendorf Research Pro	SC	100-1000									√					
		0,5-10	√	√												
		5-100					√									√
	MC	50-1000									√					
Eppendorf Research & Research Plus	SC	0,5-10	√	√												
		0,5-10	√													
		2-20			√											
		10-100					√									√
		20-200							√	√						
		100-1000									√					
Gilson Pipetman, P	SC	0,5-10	√													
		10-100					√									√
		20-200							√	√						
		50-200									√					
		200-1000									√					
		0,2-2	√													
Gilson Pipetman Ultra	SC	1-10	√													
		2-20			√											
		20-100														√
		20-200							√	√						
		200-1000									√					
	MC	1-20			√											

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Description	Channels	Volume (µl)	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF11	AF12	AF13	AF16	AF19
Gilson Neo	SC	0,2-2	√													
		1-10	√													
		2-20			√											
		20-100														√
		20-200							√							
		100-1000									√					
Gilson Concept	SC	0,5-10	√													
		5-100							√							√
	MC	1-10	√													
		10-100														√
Thermo Finnpiquette Digital	SC	0,2-10	√													
		0,5-10	√												√	
		2-20			√											
		5-50				√										
		100-1000									√					
		200-1000									√					
	MC	0,5-10	√													
		5-50				√										
Thermo Finnpiquette F1	SC	0,2-2	√													
		0,5-5	√													
		1-10	√												√	
		2-20			√											
		10-100					√									
		100-1000									√					
		200-1000									√					
	MC	1-10	√													
		5-50				√										
		10-100					√									
Thermo Finnpiquette Focus	SC	0,3-3	√													
		0,5-5	√													
		1-10	√													√
		3-30			√											
		10-100					√									
		100-1000									√					
	MC	1-10	√													
Thermo Finnpiquette Novus	SC	1-10	√													
		5-50				√										
		100-1000									√					
Rainin Classic	SC	0,1-2	√													
		0,5-10	√													
		2-20			√											
		10-100														√
		20-200							√							
Rainin Pipet Lite & Plus with LTS / E-Man Hybrid	SC/MC	0,1-2												√		
		0,5-10												√		
		2-20												√		
		10-100										√				
		20-200										√				
		100-1000											√			
VWR Collection EHP/UHP	SC/MC	0,2-2	√													
		0,5-10	√													
		2-20			√											
		5-50				√										
		10-100					√									
		20-200							√							
VWR Collection Electronic	SC	100-1000									√					
		0,5-10	√													
		5-50				√										
		20-200							√							
		100-1000								√						



Filter tips

All the tips are made of high quality 100% pure virgin medical grade PP. Made in the highest quality moulds, these tips can be used whenever the work demands a higher standard. Sterile products are tested for endotoxin (pyrogen) contamination and certified to USP results. Resins are pre-tested for metal contamination. Certificates are on file by lot number for all test results.

- A wider seal ensures that tips will seal easily and consistently without leaking on old as well as new pipettes
- Guaranteed free of detectable DNA, DNase/RNase, endotoxins and heavy metals

Bulk



Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™, extended	0,1 - 10	AF1	Bulk	1.000	732-0565
UltraFine™, graduated	0,1 - 10	AF1	Bulk	1.000	732-0561
Bevel Point™, graduated	0,5 - 10	AF2	Bulk	1.000	732-0517
Bevel Point™	1 - 40	AF3	Bulk	1.000	732-0526
Bevel Point™	1 - 50	AF4	Bulk	1.000	732-0567
Bevel Point™	1 - 100	AF5	Bulk	1.000	732-0521
Bevel Point™	1 - 160	AF6	Bulk	1.000	732-0571
Bevel Point™, wide orifice	1 - 200	AF7	Bulk	1.000	732-0558
UltraFine™	1 - 200	AF7	Bulk	1.000	732-0539
Bevel Point™	1 - 300	AF8	Bulk	1.000	732-0535
UltraFine™	100 - 1000	AF9	Bulk	1.000	732-0532

Racked



Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™, extended	0,1 - 10	AF1	10 racks, 96 each	960	732-0542
UltraFine™, graduated	0,1 - 10	AF1	12 racks, 96 each	1.152	732-0515
Bevel Point™, graduated	0,5 - 10	AF2	10 racks, 96 each	960	732-0518
Bevel Point™	1 - 40	AF3	10 racks, 96 each	960	732-0527
Bevel Point™	1 - 50	AF4	10 racks, 96 each	960	732-0568
Bevel Point™	1 - 100	AF5	10 racks, 96 each	960	732-0522
Bevel Point™	1 - 160	AF6	10 racks, 96 each	960	732-0529
Bevel Point™, wide orifice	1 - 200	AF7	10 racks, 96 each	960	732-0559
UltraFine™	1 - 200	AF7	10 racks, 96 each	960	732-0540
Bevel Point™	1 - 300	AF8	10 racks, 96 each	960	732-0536
UltraFine™	100 - 1000	AF9	6 racks , 96 each	576	732-0533

Racked, sterile



Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™, extended	0,1 - 10	AF1	10 racks, 96 each	960	732-0543
UltraFine™, graduated	0,1 - 10	AF1	12 racks, 96 each	1.152	732-0516
HighRecovery™	0,1 - 20	AF13	10 racks, 96 each	960	732-0799

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Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
Micro	0,1 - 30	AF1	10 racks, 96 each	960	732-1100
Bevel Point™, graduated	0,5 - 10	AF2	10 racks, 96 each	960	732-0519
UltraFine™, graduated	0,5 - 10	AF16	10 racks, 96 each	960	732-1101
Bevel Point™ (10×96)	1 - 40	AF3	10 racks, 96 each	960	732-0528
Bevel Point™ (5×192)	1 - 40	AF3	5 racks, 192 each	960	732-0525
Bevel Point™	1 - 50	AF4	10 racks, 96 each	960	732-0520
UltraFine™, FlexTop™, graduated	1 - 50	AF4	10 racks, 96 each	960	732-1105
Standard	1 - 100	AF5	10 racks, 96 each	960	732-1103
Bevel Point™, graduated	1 - 100	AF5	10 racks, 96 each	960	732-1102
UltraFine™, extended	1 - 100	AF5	6 racks, 96 each	576	732-1107
Bevel Point™	1 - 100	AF5	10 racks, 96 each	960	732-0523
Bevel Point™ (5×192)	1 - 160	AF6	5 racks, 192 each	960	732-0573
Bevel Point™ (10×96)	1 - 160	AF6	10 racks, 96 each	960	732-0530
HighRecovery™	1 - 200	AF13	10 racks, 96 each	960	732-0800
UltraFine™	1 - 200	AF7	10 racks, 96 each	960	732-0541
UltraFine™, extended	1 - 200	AF7	6 racks , 96 each	576	732-0610
Bevel Point™, wide orifice	1 - 200	AF7	10 racks, 96 each	960	732-0544
Bevel Point™	1 - 300	AF8	10 racks, 96 each	960	732-0537
UltraFine™, extended	1 - 300	AF8	6 racks , 96 each	576	732-0611
HighRecovery™	100 - 1000	AF13	6 racks, 96 each	576	732-0801
UltraFine™, FlexTop™	100 - 1000	AF9	6 racks, 96 each	576	732-1106
UltraFine™	100 - 1000	AF9	6 racks , 96 each	576	732-0534

Pak Rak™ refill

Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™, graduated	0,1 - 10	AF1	Reload system	864	732-0563

Pak Rak™ refill, sterile

Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™, graduated	0,1 - 10	AF1	Pak Rak™ Express Refill	864	613-0275

Pak Rak™ Express refill



Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™, graduated	0,1 - 10	AF1	Pak Rak™ Express Refill	864	732-0564

Individually wrapped, sterile



Type	Capacity (µl)	Compatibility	Packed	Pk	Cat. No.
UltraFine™, extended	0,1 - 10	AF1	Individually wrapped	200	732-0566
UltraFine™, graduated	0,1 - 10	AF1	Individually wrapped	200	732-0562
Bevel Point™	1 - 40	AF3	Individually wrapped	200	732-0524
Bevel Point™	1 - 50	AF4	Individually wrapped	200	732-0569
Bevel Point™	1 - 100	AF5	Individually wrapped	200	732-0570
Bevel Point™	1 - 160	AF6	Individually wrapped	200	732-0572
Bevel Point™, wide orifice	1 - 200	AF7	Individually wrapped	200	732-0560
UltraFine™	1 - 200	AF7	Individually wrapped	200	732-0538
Bevel Point™	1 - 300	AF8	Individually wrapped	200	732-0574
UltraFine™	100 - 1000	AF9	Individually wrapped	200	732-0531



Filter tips, Next Generation refill



Tips made from pure resins with PE filter, packaging made from renewable materials

ZAP™ Premier™ aerosol filter tips, with their patented filters made from high molecular weight polyethylene, offer complete protection from sample carry over. The filter pores have an average size of 10 µm, so even radionucleotides are captured before reaching the pipette barrel. The tips are ideal for PCR and DNA manipulation.

The Next Generation is a complete system designed with a low carbon footprint that includes the first ever use of bio-plastic (non petroleum) compostable resin in pipette tip refills. Next Generation's small footprint extends to the package, with a reclosable box that helps maximise storage space in crowded labs.

- Easy to use refill system - new pipette tip racks, inserts and transfer cover preventing tip wobbling during refill and keeping tips clean
- 95% renewable materials - compostable tip base from organic non petroleum resin, carton made from 100% recycled fibres, soy-based vegetable ink
- Certified DNA-/RNase-/DNase-free

Ordering Information: Compact, reclosable packaging with reduced overall weight.

Type	Capacity (µl)	Compatibility	Sterile	Packed	Pk	Cat. No.
Extended, Tubegard™ ring	0,1 - 10	AF1	-	10 racks, 96 each	960	732-1481
UltraFine™, graduated	0,1 - 10	AF1	-	10 racks, 96 each	960	732-1476
Rainin LTS®	1 - 20	AF13	+	10 racks, 96 each	960	732-1483
Bevel Point™	1 - 40	AF3	-	10 racks, 96 each	960	732-1477
Bevel Point™, graduated	1 - 100	AF19	+	10 racks, 96 each	960	732-1482
UltraFine™	1 - 200	AF7	-	10 racks, 96 each	960	732-1479
Rainin LTS®	1 - 200	AF11	+	10 racks, 96 each	960	732-1484
Bevel Point™	1 - 300	AF8	-	10 racks, 96 each	960	732-1478
UltraFine™	100 - 1000	AF9	-	8 racks, 96 each	768	732-1480
Rainin LTS®	100 - 1000	AF12	+	8 racks, 96 each	768	732-1485



Filter tips, reload system



Clear PP, sterile, autoclavable

- E-beam sterilised tips are free from DNA, DNase and RNase, pyrogens, PCR inhibitors and endotoxins
- Robust, traceable racks are easy to grab with their ergonomic clips
- Reload boxes including racks feature flip lock latch for one handed opening and closing, reversible lid with lip, flush fitting and click clip to stabilise the racks

Description	Channels	Volume (µl)	613-0984	613-0985	613-0986	613-0987	613-0988	613-0989	613-0991	613-0992
Eppendorf Research/Research Plus	SC	0,1-2,5	✓	✓	✓	✓				
Eppendorf Research/Research Plus	SC	2-20			✓	✓	✓	✓		
Eppendorf Research/Research Plus	SC	10-100					✓	✓		
Eppendorf Research/Research Plus	SC	20-200					✓	✓	✓	
Eppendorf Research/Research Plus	SC	100-1000								✓
Gilson Pipetman P-2	SC	0,1-2 µl	✓	✓						
Gilson Pipetman P-10	SC	0,5-10 µl	✓	✓						
Gilson Pipetman P-20	SC	2-20 µl			✓	✓	✓			
Gilson Pipetman P-100	SC	10-100 µl					✓			
Gilson Pipetman P-200	SC	50-200 µl						✓	✓	
Gilson Pipetman P-1000	SC	100-1000 µl								✓
Thermo Finnpiptette F1 & F2	SC	0,2-2	✓	✓						
Thermo Finnpiptette F1 & F2	SC	0,5-5	✓	✓						
Thermo Finnpiptette F1 & F2	SC	1-10 (Micro)	✓	✓						
Thermo Finnpiptette F1 & F2	SC	2-20					✓			
Thermo Finnpiptette F1 & F2	SC	10-100						✓		
Thermo Finnpiptette F1 & F2	SC	20-200							✓	
Thermo Finnpiptette F1 & F2	SC	100-1000								✓
Thermo Finnpiptette F1 & F2	MC	1-10	✓	✓						
Thermo Finnpiptette F1 & F2	MC	5-50							✓	
Thermo Finnpiptette F1 & F2	MC	10-100						✓		

Type	Capacity (µl)	Sterile	Packed	Pk	Cat. No.
Ultra-Micro, graduated (2 µl)	0,1 - 10	+	10 racks, 96 each	960	613-0984
Ultra-Micro, graduated (2,5 µl)	0,5 - 10	+	10 racks, 96 each	960	613-0985
Ultra-Micro	0,1 - 10	+	10 racks, 96 each	960	613-0986
Ultra-Micro	2 - 20	+	10 racks, 96 each	960	613-0987
Bevelled	2 - 20	+	10 racks, 96 each	960	613-0988
Bevelled	1 - 100	+	10 racks, 96 each	960	613-0989
Bevelled	2 - 200	+	10 racks, 96 each	960	613-0991
Graduated (250 / 500 / 1000 µl)	100 - 1000	+	10 racks, 96 each	960	613-0992

SC: Single channel pipette / MC: Multi channel pipette
For more compatibility information, please contact VWR Customer Services.



Filter tips, ZAP™ Slik Low Retention



Transparent PP resins, with PE filter, sterile, autoclavable

Low Retention tips offering unsurpassed fluid retention performance and proven aerosol blocking with the endotoxin-free, 10 micron patented porous hydrophobic filter. Ideal for PCR and DNA manipulation.

- Up to 10 times less fluid retention than standard tips
- Sample can be completely recovered without cutting into tip
- Lot certified purity (free from RNase/DNase, human DNA and endotoxin, non pyrogenic)

Type	Capacity (µl)	Sterile	Packed	Pk	Cat. No.
ZAP™ Slik, extended	10	+	10 racks, 96 each	960	732-1487
ZAP™ Slik	10	+	12 racks, 96 each	1.152	732-1486
ZAP™ Slik	20	+	10 racks, 96 each	960	732-1488
ZAP™ Slik	200	+	10 racks, 96 each	960	732-1489
ZAP™ Slik	300	+	10 racks, 96 each	960	732-1490
ZAP™ Slik	1000	+	6 racks, 96 each	576	732-1491



Speciality filter tips



PP

- Sterilised by gamma irradiation
- Certified RNase-, DNase-, DNA- and pyrogen-free



Type	Capacity (µl)	Sterile	Packed	Pk	Cat. No.
Large orifice	1 - 200	+	10 racks, 96 each	960	613-0996
Large orifice, graduated (250 / 500 / 1000 µl)	100 - 1000	+	10 racks, 96 each	960	613-1037




Robotic tips for Beckman® Biomek FX/NX



- Transparent PP, autoclavable
- RNase/DNase, DNA and endotoxin-free

Type	Capacity (µl)	Filter	Sterile	Packed	Pk	Cat. No.
Standard	90	-	-	10 racks, 96 each	960	736-0609
Standard	90	-	+	10 racks, 96 each	960	736-0610
Standard	100	-	-	10 racks, 96 each	960	736-0611
Standard	100	-	+	10 racks, 96 each	960	736-0612
Standard	220	-	-	10 racks, 96 each	960	736-0599
Standard	220	-	+	10 racks, 96 each	960	736-0608

VWR
PIPET SERVICES™



PIPETTE CALIBRATION AT VWR INTERNATIONAL

All brands and all models calibrated by certified technicians

General purpose thermometers



Organic liquid
These thermometers meet all requirements for physical dimensions and accuracy.
• Meniscus visible in the appropriate low temperature application
• Possible magnification for more readability
• White background, fused markings
Division: 1 °C
Accuracy: ±2 °C
Traceable to NIST/DKD. Compliant with ANSI/SAMA Z236.1-1983

Packaging Information: Individually protected in Safety-Pak® packaging.

Table with 5 columns: Range (°C), Length (mm), Immersion depth, Pk, Cat. No. It lists three temperature ranges: -200...+30, -100...+50, and -100...+50, with their respective lengths, immersion depths, and catalog numbers.

General purpose PTFE coated thermometer



Mercury
This thermometer is subjected to strict quality control measures. A highly transparent PTFE covering protects it in the event of routine accidents.
• Indelible graduations
• Button on top for safer handling
• Low risk of mercury contamination or glass breakage
Ø: 6 mm

Table with 6 columns: Range (°C), Division (°C), Length (mm), Ø (mm), Pk, Cat. No. It lists a single temperature range: -35...+65, with its division, length, diameter, and catalog number.

Precision thermometers

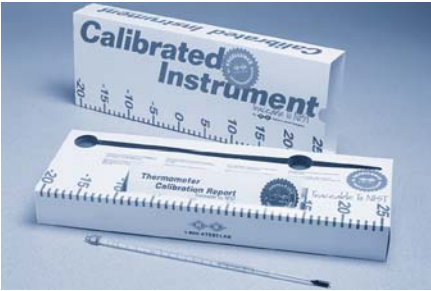


Red spirit
These accurate thermometers are individually calibrated.
• Partial or total immersion
• White back glass
• Permanently fused markings
Division: 1 °C
Length: 305 mm
Traceable to NIST/DKD. Compliant with ANSI/SAMA Z236.1-1983

Packaging Information: Individually protected in Safety-Pak®.

Table with 7 columns: Range (°C), Division (°C), Accuracy (°C), Length (mm), Immersion depth (mm), Pk, Cat. No. It lists multiple temperature ranges from -35...+50 to -10...+200, along with their accuracy, length, immersion depths, and catalog numbers.

Precision thermometers



Red spirit

These thermometers are graduated with fractional degrees.

- Fused markings
- White back glass
- Individual serial numbers

Traceable to NIST/DKD

Delivery Information: Supplied with laminated report with individual temperature point corrections and storage box.

Description	Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Immersion depth (mm)	Pk	Cat. No.
Certified at -78; -20; 0; +4; +37 °C	-100...+50	1	±3,0	305	76	1	620-0885
Certified at 0; 50; 100 °C	-1...+101	0,1	±0,3	610	Total	1	620-0937

Precision thermometers



Red spirit

These thermometers feature guaranteed accuracy.

- Fractional degrees
- White background
- Individual serial numbers

Traceable to NIST/DKD. Compliant with ANSI/SAMA Z236.1-1983

Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Immersion depth (mm)	Pk	Cat. No.
-1...+51	0,1	±1,0	460	76	1	620-0896
-1...+51	0,1	±0,3	460	Total	1	620-0806
-1...+101	0,1	±1,0	610	76	1	620-0897
-1...+101	0,1	±0,3	610	Total	1	620-0807
-1...+201	0,1	±1,0 (1,5>100)	610	76	1	620-0805
-1...+201	0,2	±0,4 (0,5>100)	610	Total	1	620-0808

Precision thermometers



Range (°C)	Accuracy (%)	Length (mm)	Pk	Cat. No.
-2...+32	±0,1	363	1	620-0642
-25...+5	±0,1	363	1	620-0643
-5...+25	±0,1	363	1	620-0644
20...45	±0,1	363	1	620-0645
40...65	±0,1	363	1	620-0646
60...85	±0,1	363	1	620-0647
80...105	±0,1	363	1	620-0648
-35...+25	±0,2	363	1	620-0649
35...85	±0,2	363	1	620-0651
75...125	±0,2	363	1	620-0652
115...165	±0,2	363	1	620-0653
155...205	±0,2	363	1	620-0654
-35...+115	±0,5	363	1	620-0655
90...210	±0,5	363	1	620-0656
-30...+270	±1,0	363	1	620-0658
-10...+68	±0,5	363	1	620-0659
-10...+110	±1,0	363	1	620-0660
-10...+170	±1,0	363	1	620-0661
-10...+420	±2,0	363	1	620-0662
-20...+170	±1,0	355	1	620-0663
-20...+260	±1,0	355	1	620-0664
-5...+105	±0,5	220	1	620-0633
0...200	±1,0	220	1	620-0634

Precision thermometers, FRIO-Temp®



Black spirit

These thermometers are suitable for applications with freezers, refrigerators, incubators, ovens and blood banks. Simple to use, screw thermometer with cap into bottle and attach to test sample.

- Very accurate
- No hazard of mercury
- Individual serial number

Division: 0,1 °C
Traceable to NIST/DKD

Delivery Information: Supplied with a statement of accuracy plus Velcro® and magnetic attachments in recyclable packaging.

Table with 7 columns: Description, Range (°C), Division (°C), Accuracy (°C), Length (mm), Pk, Cat. No. Rows include data for freezers, refrigerators, incubators, and ovens.

Precision thermometers, FRIO-Temp®

Enviro-Safe® liquid or red spirit

This series of thermometers can be used to take readings in freezers, refrigerators, incubators, ovens and blood banks.

- Enviro-Safe® non toxic and biodegradable liquid
- Individual serial number
- Wide choice

Traceable to NIST/DKD

Delivery Information: Supplied with a statement of accuracy plus Velcro® and magnetic attachments in recyclable packaging.

Table with 8 columns: Description, Range (°C), Division (°C), Accuracy (°C), Length (mm), Filling, Pk, Cat. No. Rows include data for refrigerators, blood banks, freezers, ultra-low freezers, incubators, and ovens.

* division: 3 °C (>130 °C) ** division: 2 °C (<-50 °C)

Precision thermometers, FRIO-Temp®



Black spirit

These thermometers are designed for applications in freezers, refrigerators, incubators, ovens and blood banks. To use, simply screw thermometer with cap into bottle and attach to test sample.

- Very accurate
- No hazard of mercury
- Individual serial number

Division: 0,1 °C
Accuracy: ±0,2 °C
Traceable to NIST/DKD

Delivery Information: Supplied with a statement of accuracy plus Velcro® and magnetic attachments in recyclable packaging.

Continued from previous page

Description	Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Pk	Cat. No.
For freezers, calibrated at 0, -10 °C	-5...+5	0,1	±0,2	210	1	620-0938
For refrigerators, calibrated at 0, 5 °C	-2...+10	0,1	±0,2	180	1	620-0939
For incubators, calibrated at 20, 25 °C	15...30	0,1	±0,2	180	1	620-0940
For incubators, calibrated at 30, 40 °C	25...45	0,1	±0,2	190	1	620-0941
For ovens, calibrated at 100, 110 °C	95...115	0,1	±0,2	200	1	620-0942



Environmentally friendly certified thermometers, Enviro-Safe®



Enviro-Safe® liquid

These thermometers are made with 100% non toxic, non hazardous, biodegradable liquid. Easy to read thanks to a high contrast green against white back.

- Lead-free glass
- Individual serial numbers
- Accuracy without any of the hazards of mercury

Traceable NIST/DKD. Compliant with Envirokleen®

Delivery Information: Supplied with a statement of accuracy in SafetyPak® recyclable packaging.

Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Immersion depth (mm)	Pk	Cat. No.
Partial immersion						
-10...+110	1,0	±1	200	50	1	620-0880
-10...+150	1,0	±1 (1,5>105)	200	50	1	620-0882
-20...+110	1,0	±1	305	76	1	620-0831
-20...+150	1,0	±1 (1,5>105)	305	76	1	620-0832
-10...+260	1,0	±1 (1,5>105)	355	76	1	620-0834
Total immersion						
-10...+110	1,0	±1	200	Total	1	620-0881
-10...+150	1,0	±1 (1,5>105)	200	Total	1	620-0883
-20...+110	1,0	±1	305	Total	1	620-0836
-20...+150	1,0	±1 (1,5>105)	305	Total	1	620-0835
-10...+225	1,0	±1 (1,5>105; 2>200)	355	Total	1	620-0833

Environmentally friendly high contrast thermometers, Easy-Read®



Enviro-Safe® liquid

These thermometers are easy to read quickly and accurately due to the high contrast black numbering against a yellow background.

- Individual serial numbers - except pocket thermometers
- Eliminates reading errors
- Non toxic, non hazardous, biodegradable liquid

Traceable to NIST/DKD. Compliant with Envirokleen®

Delivery Information: Supplied in individually protected Safety-Pak® packaging with a statement of accuracy.

Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Immersion depth (mm)	Filling	Pk	Cat. No.
Partial immersion							
-10...+150	1,0	±1	200	50	Enviro-Safe®	1	620-0781
-10...+110	1,0	±1	200	50	Enviro-Safe®	1	620-0783
-10...+260	1,0	±1 (1,5>105; 2>200)	355	76	Enviro-Safe®	1	620-0784
-20...+150	1,0	±1	305	76	Enviro-Safe®	1	620-0786
-20...+110	1,0	±1 (1,5>105)	305	76	Enviro-Safe®	1	620-0788
Total immersion models							
-10...+110	1,0	±1	200	Total	Enviro-Safe®	1	620-0782
-10...+225	1,0	±1	355	Total	Enviro-Safe®	1	620-0785
-20...+150	1,0	±1 (1,5>105)	305	Total	Enviro-Safe®	1	620-0787
-20...+110	1,0	±1	305	Total	Enviro-Safe®	1	620-0789
Pocket models							
-5...+50	0,5	±0,5	160	Total	Enviro-Safe®	1	620-0779
-10...+110	1,0	±1	160	Total	Enviro-Safe®	1	620-0780
-30...+50	1,0	±1	160	Total	Enviro-Safe®	1	620-0903



Environmentally friendly high contrast thermometers, Double-Safe™

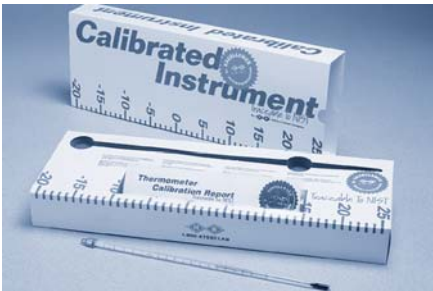


Enviro-Safe® liquid
These thermometers are easy to read quickly and accurately due to the high contrast black numbering against a yellow background. The numbers are printed larger than on a standard thermometer.
• Individual serial numbers
• Non toxic, non hazardous, biodegradable liquid
• PTFE coating to prevent any contamination of liquid or glass
Traceable to NIST/DKD
Delivery Information: Supplied with a statement of accuracy indicating accuracy traceability and individually protected in Safety-Pak® packaging.

Table with 8 columns: Range (°C), Division (°C), Accuracy (°C), Length (mm), Immersion depth (mm), Filling, Pk, Cat. No. It lists various thermometer models under partial and total immersion categories.



Environmentally friendly thermometers, Easy-Read®



Enviro-Safe® liquid
These thermometers are easy to read quickly and accurately due to the high contrast black numbering against a yellow background. Numbers are printed larger than on a standard thermometer.
• Eliminate reading errors
• Individual serial numbers
• Non toxic, non hazardous, biodegradable liquid
Traceable to NIST/DKD
Delivery Information: Supplied with Traceable® report of calibration and deluxe storage box. Individually protected in Safety-Pak® packaging.

Table with 9 columns: Description, Range (°C), Division (°C), Accuracy (%), Length (mm), Immersion depth (mm), Filling, Pk, Cat. No. It lists various Easy-Read thermometer models.



GPR® RECTAPUR® REAGENTS

- For general laboratory work
- Solvents for organic synthesis
- Performance at an affordable price

Certified thermometer, Enviro-Safe®



Enviro-Safe® liquid

Environmentally safe, these thermometers are made with 100% non toxic, non hazardous, and biodegradable liquid. It is suitable for use in chemical industry, universities, scientific institutions, food and beverage processing, petrochemical, pharmaceutical and medical industry, manufacturers, dairies, breweries and distilleries.

- Lead-free glass
- Accuracy equal to similar mercury types
- Individual serial numbers

Traceable to NIST/DKD

Packaging Information: Supplied with a report of calibration and individually protected in Safety-Pak® packaging.

Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Immersion depth (mm)	Pk	Cat. No.
-1...+61	0,1	±1	420	76	1	620-0801

Pocket thermometers



Red spirit

Optional PTFE coating helps to prevent contamination and contains liquid and glass in the event of breakage.

- Bulbous glass body
- Increased stability
- Individual serial number
- Total immersion
- PTFE coating for 620-0820

Accuracy: ±1 °C

Delivery Information: Supplied with a window plastic case. 620-0820 is supplied with a closed metal case.

Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Immersion depth	Pk	Cat. No.
-15...+105	1,0	±1	152	Total	1	620-0820
-35...+50	1,0	±1	160	Total	1	620-0853
-10...+110	1,0	±1	160	Total	1	620-0810
-5...+45	0,5	±1	160	Total	1	620-0809

General purpose thermometers



Red spirit

These thermometers feature a round glass bulge in the body to hold them in place. Optional PTFE coating helps prevent liquid and glass contamination if thermometer is broken.

Range (°C)	Division (°C)	Length (mm)	Immersion depth (mm)	Filling	Pk	Cat. No.
Standard coating						
0...200	1	280	76	Red spirit	1	620-0823
20...130	2	135	Total	Red spirit	1	620-0894
PTFE coating						
0...200	1	405	125	Red spirit	1	620-0825
20...130	2	135	Total	Red spirit	1	620-0826
0...200	1	280	76	Red spirit	1	620-0893

General purpose thermometers



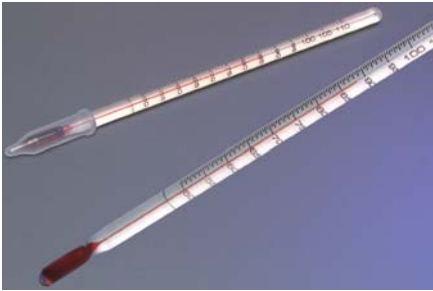
Red spirit

This thermometer has been designed to indicate critical temperature range. The critical temperature range from 4 to 6 °C is marked with arrows.

- Total immersion
- Individual serial numbers
- PTFE coating helps prevent liquid and glass contamination

Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Immersion depth	Pk	Cat. No.
-5...+20	1	±1	152	Total	1	620-0892

General purpose thermometers



Enviro-Safe® liquid, red or blue spirit

Designed for use in all standard heating blocks and water baths, these thermometers include a glass bead filled microtube.

- Partial immersion
- Individual serial numbers
- PTFE coating helps prevent liquid and glass contamination

Immersion depth: 35 mm

Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Immersion depth (mm)	Filling	Pk	Cat. No.
Standard coating							
24...57	0,5	±1	175	35	Enviro-Safe®	1	620-0790
0...100	1	±2	225	35	Red spirit	1	620-0821
0...100	1	±2	225	35	Red spirit	1	620-0891
PTFE coating							
24...57	0,5	±1	175	35	Enviro-Safe®	1	620-0791
18...60	0,5	±1	125	35	Spirit (blue)	1	620-0814
50...110	0,5	±1	150	35	Spirit (blue)	1	620-0815
0...100	1	±2	225	35	Red spirit	1	620-0822

General purpose thermometers



Red spirit

These thermometers with optional PTFE coating help preventing liquid and glass contamination. 620-0818 is marked with arrows at the critical temperature points 25, 30, 37 and 56 °C.

- High stability
- Individual serial numbers
- Glass bulge in body holds thermometer in place

Accuracy: ±1 °C (620-0888: ±0,5 °C)

Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Immersion depth (mm)	Pk	Cat. No.
Standard coating						
20...100	1	±1	305	76	1	620-0816
0...80	0,5	±1	250	100	1	620-0817
25; 37; 56	0,5	±1	240	76	1	620-0818
0...70	1	±1	305	150	1	620-0889
PTFE coating						
20...100	1	±1	305	76	1	620-0887
0...80	1	±0,5	250	100	1	620-0888
0...70	1	±1	305	150	1	620-0890

Maximum/minimum thermometer



Plastic

This unit features colour coded dual scales on white background and reset knob for fast and multiple readings. It can be used for any indoor/outdoor function.

- Three distinct arrows
- Freestanding or wall mountable
- Maximum/minimum feature for various applications

Range (°C)	Division (°C)	Accuracy (°C)	WxH (mm)	Pk	Cat. No.
-30...+60	2	±1	230x200	1	620-0920

Bi-metallic dial thermometer, Fridge II

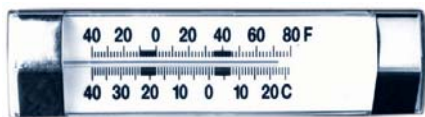


This thermometer with analog dial indicates freezer, refrigerator, or spoilage temperatures.

- Dual scale (°F/°C)
- Red arrow for easier reading
- Round, black and modern design

Range (°C)	Ø (mm)	Pk	Cat. No.
-30...+30	76	1	620-2146

Wall-mounting thermometer



Red spirit

Dual scale thermometer (°C/°F) with completely enclosed bulb for accurate readings. Easy to read on white backed glass.

- Rust-proof case
- Stainless steel hangers
- Enamelled aluminum scale

Range (°C)	Division (°C)	Accuracy (°C)	WxD (mm)	Pk	Cat. No.
-40...+27	1	±1	28x124	1	620-0876

Digital wall-mounting thermometer



Internal or external thermometer

This compact thermometer provides a good alternative to mercury models. A reset button allow for a new monitoring period.

- Current, maximum/minimum values displayed
- Keyhole for mounting
- Easy to read

Compliant with RoHS

Delivery Information: Supplied with two AAA batteries.

Range (°C)	Accuracy (%)	WxD (mm)	Pk	Cat. No.
-10...+50	±1	100x215	1	620-1722

Window thermometer



This window thermometer displays the outdoor temperature instantly.

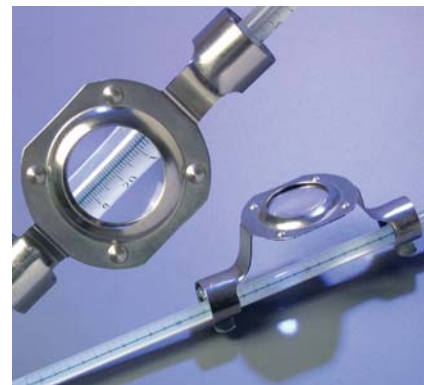
- Water resistance
- Easy installation
- No wiring

Compliant with RoHS

Delivery Information: Supplied individually with batteries and adhesive pads.

Range (°C)	Accuracy (°C)	WxD (mm)	Pk	Cat. No.
-10...+50	±1	44x127	1	620-1723

Thermometer magnifier

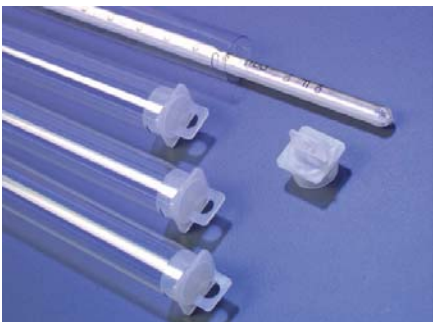


This simple and solid accessory is suitable for any application where fine divisions are read and accuracy counts. Thermometers in fractional degrees are easier to read than ever with this magnifier.

- Eliminates distortion and reading errors
- Markings are three times larger than actual size
- Mounts on to any thermometer with diameter of 6 to 7 mm

Description	Pk	Cat. No.
Magnifier	1	620-0777

Thermometer tube storage case



Plastic

These tubes with twist lock cap hold one thermometer (305 mm length).

- For storage or transport

Packaging Information: 25 cases per box.

Length (mm)	Pk	Cat. No.
305	25	620-0812

Thermometer armor cases



Nickel plated brass

This case protects your thermometers from accidental breakage during use and storage.

- Screw cap for easy access
- Ring for hanging
- Lower section surrounding the bulb with small openings for circulation

Length (mm)	Pk	Cat. No.
300	1	620-0899
150	1	620-0900

Temperature indicating strips



These indicators are designed for rapid measurements where conventional thermometers are impractical. For use with equipment such as heating chambers and products which are sensitive at high temperatures.

- Self-adhesive and irreversible (eight points)
- Fast response within one second
- Storage at maximum 25 °C for up to two years

Range (°C)	Accuracy (°C)	Pk	Cat. No.
37...65	±1	10	620-9102
71...110	±1	10	620-9103
116...154	±1	10	620-9104
160...199	±1	10	620-9105
204...260	±1	10	620-9106

Keychain micro infrared thermometer, Traceable®



Pocket size for field use

This thermometer captures temperature readings of any liquid, solid and semi-solid surfaces in less than a second. The non invasive, «no-touch» temperature measurements are suitable for food preparation, life sciences, cleanrooms, and other fast inspections.

- "HOLD" function
- Emissivity of 0,95
- Field of view: 1:1
- Minimum only/maximum only readings
- Continuously on mode and low battery alert

Delivery Information: Supplied with a Traceable® certificate, soft-touch keys, a flip-open stand, keychain and battery for 40 hours of use.

Range (°C)	Accuracy	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-22...+110	±1 (15...40) °C; otherwise ±1,5 °C	0,1	63,5×38×13	28,3	1	620-2102



Infrared and thermocouple thermometer, Traceable®



Stainless steel probe (152×12 mm)

This HACCP - Hazard Analysis and Critical Control Point - thermometer is designed for food laboratories, food processing, food preparation and brewing. The waterproof construction allows it to be used in labs, plants and wash-down areas.

- Field of view ratio: 2,5:1
- Current, minimum and maximum temperatures
- Emissivity adjustable from 0,1 to 1,0 - by default: 0,95
- LEDs indicate the HACCP zones: green under 4 °C and over 60 °C and red light between 4 to 60 °C

Delivery Information: Supplied with a battery and a low battery indicator, a serial-numbered Traceable® certificate that indicates traceability to standards provided by NIST.

Range (°C)	Accuracy (%)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-55...+250*; -55...+330**	±0,6* ±0,5** (5...65 °C)	0,2 (-10...+200); 1	165×38×2,5	100	1	620-1806

* infrared ** probe

Infrared thermometer gun with laser beam, Traceable®



This lightweight unit takes readings in liquids and solids in one second. The laser beam permits perfect temperature target sighting in petroleum, electronics, plants, and outdoors. The thermometer provides average and differential readings.

- Field of view of 8:1
- Adjustable emissivity from 0,3 to 1,0
- Backlight, data HOLD function, low-battery indicator, °C/°F button
- Maximum/minimum memory that can store up to nine values
- High/low audible alarm

Delivery Information: Supplied with wrist-strap, soft-sided carrying case, nine-volt battery, and Traceable® certificate.

Range (°C)	Accuracy (%)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-20...+420	±2	1,0	152,4×32×51	170	1	620-2101

Infrared thermometer, Traceable®



This thermometer takes instant temperature readings of any surface. It can be used for food, pharmaceuticals, electronics, safety inspection, and any liquid or solid. The unique design permits one handed point-and-shoot readings. Laser-sighting beam permits precise aiming at target surface.

- Field of view is 11:1
- Backlighting at the touch of a button
- Emissivity is fixed at 0,95
- Data hold function, automatic maximum recording, °C/°F button, low-battery indicator
- Auto-Off function (after 15 seconds) can be switched on or off

Delivery Information: Supplied with two AAA batteries and Traceable® Certificate.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-60...+500	2% of reading or ±2	0,1	178x38x76,2	170	1	620-2100

Infrared thermometer gun, Traceable®



Infrared sensor and type-K beaded probe

This infrared thermometer provides the widest possible range for accurately measuring different surface temperatures.

- Field of view of 7:1
- Adjustable emissivity from 0,2 to 1,0 in increments of 0,01
- Data HOLD, maximum/minimum memory, and one-second sampling

Delivery Information: Includes Traceable® certificate, K-type beaded probe, carrying case, and nine-volt battery.

Range	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-100...+1300 °C (Type K)	Type K: ±(1% + 2°F) or (1% + 1°C)	0,1	197x59x121	273	1	620-2096
-20...+400 °C (infrared)	Infrared: ±3 % of the reading or ±3					

Infrared thermometer with laser sighting



Thermometer for non contact surface temperature measurement from a distance. Ideal for use in pharmaceutical and other laboratories, colleges and universities, food service and storage, and anywhere contamination is detrimental and temperature readings are critical or difficult to reach.

- Laser beam with circular 12 dot target outline
- High/low alarm and temperature lock
- Average, difference and maximum/minimum temperature readings

Delivery Information: Supplied with a carrying case, multi-language instructions (English, French, German, Italian, Portuguese and Spanish) and battery.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-20...+537	±2,5 (-20...+50); ±1 (51...537)	0,1	56x162x190	272	1	620-1258

Dual infrared and core thermometer gun, Traceable®



Type-K probe

This easy to use thermometer allows the unit to take readings in less than one second. Non invasive, no-touch measurements for food preparation, life sciences, pharmaceuticals, petroleum products, cleanrooms, electronics, and field use. Readings of solids, semi-solids, and liquids.

- Field of view of 11:1
- Emissivity adjustable from 0,1 to 1,0 in 0,01 steps
- Minimum/maximum feature allows viewing of highest and lowest readings at any time
- Memory recalls individually captured temperatures and displays the average of all readings made and the difference between two readings
- Audible, user-settable, high and low alarms signal out-of-range conditions. Hold freezes the display at the current reading
- Backlighting permits viewing in low light conditions
- Display indicates low battery

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Pk	Cat. No.
-60...+500	±1	0,1	178x70x38	1	620-2203

Dual infrared and core thermometer gun, Traceable®



Type-K probe

This thermometer is suitable for applications in food, life sciences, pharmaceuticals, petroleum products, cleanrooms, electronics, and field use.

- Field of view of 12:1
- Minimum/maximum viewing at any time
- Audible, user-settable, high and low alarms

Traceable to NIST

Delivery Information: Supplied with a certificate of conformity provided by NIST, a type-K beaded sensor, and two AAA batteries.

Range (°C)	Accuracy (%)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-60...+550	±2	0,1	178x95x50	255	1	620-1924

Metal thermometers



Stainless steel probe, 50 mm

These thermometers are adapted to applications in heating, ventilation, air conditioning, food and beverage processing and storage, pharmaceutical and educational use.

- Quick and accurate
- Easy to read instrument
- Suitable alternative to mercury thermometers

Delivery Information: The 125 mm stem thermometers have a protective probe cover with pocket clip. The 200 mm stem thermometers have a beaker clip.

Range (°C)	Division (°C)	Accuracy (°C)	Length (mm)	Immersion depth (mm)	Pk	Cat. No.
Ø: 25 mm						
-10...+110	1	±1	125	50	1	620-0866
0...150	2	±2	125	50	1	620-0867
0...250	5	±5	125	50	1	620-0868
Ø: 44 mm						
0...50	1	±1	200	50	1	620-0870
-50...+100	2	±2	200	50	1	620-0871
-10...+110	2	±2	200	50	1	620-0873
0...100	2	±2	200	50	1	620-0872
0...150	2	±2	200	50	1	620-0874
0...250	2	±2	200	50	1	620-0875

Digital core thermometer, pen-shaped, DURAC®



Stainless steel probe (Ø 3,5 mm)

General purpose electronic thermometer in convenient pocket size. The user can switch between °C and °F scales.

- Automatic switch-off
- Data "HOLD" function

- Minimum/maximum temperature memory

Delivery Information: Supplied with a probe cover and a pocket clip, a LR44 battery, RoHS compliant, multi-language (English, French, German, Italian, Portuguese and Spanish) instructions and statement of traceability.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Pk	Cat. No.
-50...+300	±2 (-50...-20); ±1 (-20...+150); ±3 (150...250); ±4 (250...300)	0,1	190x17x20	1	620-0912

Core thermometers



Stainless steel probe

These thermometers are designed for different applications. The penetration probe is suitable for veterinaries. The pen style thermometer serves general purposes. The surface thermometer can be used for cooking.

- Automatic power off (620-2200 and 620-2202)

LxW: 190x19 mm
Conform to RoHS

Delivery Information: Supplied with batteries, a cover probe and a pocket clip.

Description	Range (°C)	Accuracy (°C)	Resolution (°C)	Pk	Cat. No.
Penetration thermometer, blunt tip	-50...+200	±0.5 (-20...70)	0,1	1	620-2134
		±1.0 (70...120)			
		±2.0 (-50...20/120...150)			
		±4.0 (150...200)			
Thermometer, pen style	-50...+200	±0.5 (-20...70)	0,1	1	620-2200
		±1.0 (70...120)			
		±2.0 (-50...20/120...150)			
		±4.0 (150...200)			
Surface thermometer	-50...+200	±0.5 (-20...70)	0,1	1	620-2202
		±1.0 (70...120)			
		±2.0 (-50...20/120...150)			
		±4.0 (150...200)			

Waterproof food thermometers



Stainless steel probe, 125 mm or 203 mm

These thermometers are suitable for measurements in food, beverage processing and storage applications, agriculture, education or pharmaceutical use.

- Maximum/minimum memory
- Quick, accurate, easy to read
- Automatic power off after 10 minutes of non-use

Delivery Information: Supplied with a probe, a plastic probe cover, pocket clip and a LR44 battery.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Probe	Pk	Cat. No.
-50...+200	±0,5 °C (-20...+70); ±1 °C (-50...-20; 70...150); ±2 °C>150	0,1	19x19x209,6	68	125 mm	1	620-0910
-50...+280	±0,5 °C (-20...+70); ±1 °C (70...120); ±2 °C (-50...-20; 120...150)	0,1	19x10x285,8	68	203 mm	1	620-0914

Core thermometer with timer



Stainless steel probe, 127 mm

This digital thermometer is completed with a timer.

- Dual scale (°F/°C)
- Timer up to 99 hours 59 minutes
- High temperature alarm

Compliant with RoHS

Delivery Information: Supplied with a battery, a probe with pocket clip and magnetic attachment.

Range (°C)	Accuracy (°C)	Resolution (°C)	Pk	Cat. No.
-50...+300	±0.5 (-20...70)	1,0	1	620-1719
	±1.0 (70...120)			
	±2.0 (-50...20/120...150)			
	±4.0 (150...200)			
	±6.0 (200...300)			

Pocket thermometers, Traceable® and Traceable® Ultra™



Stainless steel probe (ØxL: 3,5x89 mm)

Safe thermometer for soil, cuvetts, test tubes, food products, incubators, petroleum hydrocarbons, and virtually all lab tests. Readings are updated every second.

- Unique, flat-profile design, lightweight and built-in pocket clip make it ideal to carry in a shirt pocket
- "HOLD" button freezes a reading for later observation; another button switches from °F to °C
- Memory function recalls minimum/maximum readings over any time period
- Large, bright LCD that is easily readable

Delivery Information: Supplied with protective case, silver oxide battery, probe and Traceable® certificate.

Description	Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
Traceable®	-50...+300	±1,5	0,1 (-20...+200); otherwise 1,0	Length: 178	28,5	1	620-2025
Traceable® Ultra™	-50...+300	±0,4	0,1 (-20...+200); 1,0	Length: 178	28,5	1	620-2077

Waterproof thermometer, Traceable®



Stainless steel probe with piercing tip (LxØ: 203x4,8 mm)

Piercing thermometer measures the internal temperature of stored, frozen, or prepared food. For use in soil, brewing, food processing, refrigeration, and pharmaceutical applications.

- Waterproof construction allows it to be used in labs, plants, wash-down areas, and the field
- Manufactured to be drop-proof from 1,5 m
- Large, bright, highly readable LCD
- Reading (°C/°F) is updated every second

Delivery Information: Supplied with probe, silver oxide battery and Traceable® Certificate.

Range (°C)	Accuracy (°C)	Resolution	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+280	±1,0	0,1 °C (-20...+200); other- wise 1 °C	89x25,4x241	34	1	620-2091

Digital dial thermometer, Traceable® Ultra™



Stainless steel probe (Length: 120 mm; Ø 4,8 mm)

Dial thermometer that combines the ranges of more than 90 different mercury thermometers for use in soil, cuvetts, test tubes, food products, incubators, biomedical reagents and petroleum hydrocarbons.

- Stainless steel and plastic construction; no glass or mercury used
- Large, bright LCD display is easily readable
- Readings are updated every 10 seconds

Delivery Information: Supplied with a protective case, a silver oxide battery and a Traceable® certificate.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+300	±0,4	0,1	Ø 38,1	31,8	1	620-1665
-50...+300	±1,4	0,1	Ø 38,1	31,8	1	620-2020

Waterproof thermometers, Traceable® Lollipop™ and Ultra™



Stainless steel probe (LxØ: 203x3,5 mm)
This waterproof and shockproof thermometer is a safe replacement for any hazardous mercury instrument. The probe is resistant to most chemicals.
• Waterproof construction for wet labs, wash-down areas and all field applications
• Memory recalls maximum/minimum temperatures
• Reading updates every second

Delivery Information: Supplied with probe, probe cover, silver oxide battery and Traceable® certificate.

Table with 8 columns: Description, Range (°C), Accuracy (°C), Resolution (°C), WxDxH (mm), Weight (g), Pk, Cat. No. It lists specifications for Traceable® Lollipop™ and Traceable® Ultra™.

Waterproof thermometer



Waterproof NTC immersion/penetration probe, 115 mm and 1.2 m cable
This thermometer suits for measurements in food and beverage processing, storage applications, agricultural, educational or pharmaceutical use.
• Easy to read
• Quick and accurate
• Automatic power off after 10 minutes of non-use
Delivery Information: Supplied with a probe, a plastic probe cover, a pocket clip and a LR44 battery.

Table with 8 columns: Range (°C), Accuracy (°C), Resolution (°C), WxDxH (mm), Weight (g), Probe, Pk, Cat. No. It lists specifications for a waterproof NTC immersion/penetration probe.

Waterproof thermometers, Cal-Temp



Stainless steel probe (127 mm)
Submersible and waterproof, the Cal-Temp provides Quick Tip™ rapid response and Self-Set™ calibration.
• "Hold" function
• Maximum/minimum memory
• Auto-off function after ten minutes of non-use
Compliant to NSF/RoHS. Traceable to standards from NIST/DKD
Delivery Information: Supplied with batteries, probe cover and pocket clip.

Table with 6 columns: Range (°C), Accuracy (°C), WxDxH (mm), Probe, Pk, Cat. No. It lists specifications for a Cal-Temp waterproof thermometer.

Advertisement for VWR BDH PROLABO® BIOCHEMICALS featuring a green background with laboratory glassware and the text: 'VWR BDH PROLABO® BIOCHEMICALS MORE THAN 100 YEARS EXPERIENCE' and 'Please contact your local VWR sales office for more information'.

Shockproof thermometer, Traceable® Flip-Stick™



Foldable stainless steel probe (LxØ: 114x3,5 mm)

This thermometer with a flip-to-open design and a probe may be positioned at any angle. Folded up the probe is protected and this allows the thermometer to be carried on the wrist strap or in a pocket.

- Easy reading on the large display with big digits
- "HOLD" function
- Minimum/maximum memory readings over any time period

Delivery Information: Supplied with a probe, a battery and a Traceable® certificate.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
–50...+300	±0,3	0,1 (–20...+200); otherwise 1	280x16x38 (folded: 152,4)	60,5	1	620-2065

Digital thermometer



This thermometer provides a water resistant thermometer body and a waterproof sensor. Solar powered, a back-up battery is suitable for weak light areas.

- Dual scale °F/°C
- Maximum/minimum memory
- Easy-mounting bracket

Conforms to RoHS

Delivery Information: Supplied individually with batteries.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Pk	Cat. No.
–50...+70	±1	0,1	114x36	1	620-1720



High accuracy digital thermometers, TD 10, TD 11 and TD 12



Stainless steel probe

These hand held thermometers deliver good performance and a high level of accuracy.

- Fast measurement
- Robust and impact resistant
- One-point factory calibration certificate (TD 10/TD 11: 0 °C; TD 12: 100 °C)

WxDxH: 20x90x42 mm

Conform to IEC 584 - IP 55 (620-1638 and 620-1639), IP 40 (620-1640)

Delivery Information: Supplied with a clip holder to carry the thermometer safely on the belt and a replaceable lithium 3 V CR 2032 battery for approx. 100 hours when used continuously. 620-1640 should be ordered with an appropriate type K probe.

Description	Range (°C)	Accuracy (°C)	Resolution	WxDxH (mm)	Probe	Pk	Cat. No.
TD 11, 600 mm cable and type T probe (110x3 mm)	–50...+350	±0,8	0,1 °C (–60...+199,9) 1 °C (>200)	20x90x42	Type T (LxØ: 110x3 mm) and cable	1	620-1638
TD 10, type T probe (110x3 mm)	–50...+350	±0,8	0,1 °C (–60...+199,9) 1 °C (>200)	20x90x42	Type T (LxØ: 110x3 mm)	1	620-1639
TD 12, SMP connection	–60...+1200	±1	0,1 °C (–60...+199,9) 1 °C (>200)	20x90x42	Type K	1	620-1640

Description	Range (°C)	ØxL	Pk	Cat. No.
Probes for core thermometers				
Type K probe with handle and 1 m cable, TKS 100	–200...+400	3x130	1	620-1648
Type K probe with paddle, handle and 1 m cable, TKS 200	–200...+400	7x40	1	620-1649
Type K probe with handle and 1 m cable, TKS 300	–200...+400	3x130	1	620-1650
Type K probe, with handle and 100 mm cable, TKS 400	–200...+400	4,7x130	1	620-1651

Solar powered thermometers, Traceable®



Internal ambient / External probe sensor (Ø 4,7 mm with three metre cable)

These thermometers are always on and run for years powered by light in laboratories or plant. Depending on the sensor, they monitor the ambient temperature or temperatures of liquids, air/gas, and semisolids. The external probe is ideal for food inspection, petroleum tests, quality control, biomedical studies, R/D analysis, and wastewater tests.

- Large LCD is easily readable from across the room
- Sensor and cable perform accurately even when under water
- Display updates every ten seconds

Delivery Information: Supplied with internal or external sensor, solar panels, backup battery for dim areas, Velcro® to attach to any surface, and Traceable® Certificate.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Probe	Pk	Cat. No.
0...50	±1	0,1	70x19x70	56,7	Internal ambient sensor	1	620-2040
-50...+70	±1	0,1	70x19x70	56,7	External probe sensor with cable	1	620-2041

Digital thermometers, long stem, Traceable® and Traceable® Ultra™



Stainless steel stem probe, 203/289 mm, Ø 3,5 mm

These thermometers fit into flasks, cuvettes, test tubes and beakers. They read temperatures in food, gases, samples, reagents, water baths, ovens, incubators and semi-solids. The long stem allows user to make measurements while stirring solutions in deep vessels.

- Probe resistant to most chemicals
- Readings in °C updated every second
- Safe for application - Almost unbreakable plastic and stainless steel construction

Delivery Information: Supplied with a one year battery, a Traceable® certificate and a protective sleeve.

Description	Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Probe	Pk	Cat. No.
Traceable®	-50...+300	±1,0	0,1 (-20...+200); otherwise 1	Length: 365	< 28	289 mm	1	620-2080
Traceable® Ultra™	-50...+300	±0,5	0,1 (-20...+200); otherwise 1	Length: 365	< 28	289 mm	1	620-2081
Traceable® Ultra™	-50...+150	±0,2	0,1 (-20...+200); otherwise 1	Length: 279,4	< 28	203 mm	1	620-2079

Alarm thermometers



Stainless steel probe with 1,5 m cable / glass bead bottle

These thermometers allow for measurements for heating, ventilation, air conditioning, education, food and beverage processing and storage, pharmaceutical use.

- Dual scale LCD
- "HOLD" function
- Maximum/minimum memory

Conform to NIST, DKD and RoHS

Delivery Information: Supplied with a Traceability® certificate, a multi-language user manual, a probe, a flip-out desk stand, a magnetic attachment and a AAA battery. 620-0904 has a unique serial number.

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Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Probe	Pk	Cat. No.
-50...+200	±0,5*	0,1	63,5×20×95,3	136	Glass bead recyclable bottle	1	620-0904
-50...+200	±0,5*	0,1	63,5×20×95,3	136	Stainless steel	1	620-0916
Description	Range (°C)	Accuracy (°C)	Length (mm)	Pk	Cat. No.		
Probe							
Replacement probe	-50...+200	±0,5	125	1	620-1666		

* ±1 (70...150; -50...-20); ±2 (>150) °C

Digital mini-thermometer, Traceable®



External stainless steel probe, LxØ: 178x3,5 mm, with 45 cm cable

Small but powerful thermometer that displays readings in °F and °C. The probe can be used to measure temperatures in liquid, air/gas, or semi-solids.

- Stainless steel probe is resistant to most chemicals
- Business card size is perfect for carrying it with you: Fits in toolkit, briefcase or coat pocket
- Three-switch operation: "HOLD" button, On/Off button and button to switch between °C/°F

Delivery Information: Supplied with a Traceable® certificate and one year silver oxide battery.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+150	±1,0 (0...100); otherwise ±2,0	0,1 (-20...+200)	76×13×51	28,3	1	620-2055

Digital thermometer, with timer and alarm, Traceable®



External stainless steel probe (LxØ: 184x3,6 mm) with 90 mm cable

This thermometer is designed to monitor temperatures in food, soils, cuvetts, water baths, wastewater, or incubators around the clock. Both a high and low alarm may be programmed in 1° increments. When temperature rises above or falls below set points, a one minute audible alarm signals an out-of-range condition.

- Countdown timer set in one minute increments: Audible alarm when time is up
- Programmable alarms
- Maximum/minimum temperature readings
- Dual scale °F/°C

Conforms to NIST standards.

Delivery Information: Supplied with a flip-open stand for bench use, a probe, a AAA battery, and a Traceable® certificate.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+260	±1	0,1	51×13×102	85	1	620-2021

Digital dial thermometers, jumbo display, Traceable® / Traceable® Ultra™



Stainless steel probe (LxØ: 133x3,8 mm)

This thermometer is safer than mercury thermometers. The smooth probe of 620-2024 is suitable for gunky and viscous solutions or semi-solids thanks to its piercing tip.

- Readings are updated every second
- Bright and extra large LCD is easy to read
- 620-2082 features an additional metal disk (Ø 12,7 mm) at the end of the probe for surface measurements

Delivery Information: Supplied with silver oxide battery and Traceable® certificate.

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Description	Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Probe	Pk	Cat. No.
Traceable®	−50...+150	±1,0	0,1 (−20...+150); otherwise 1	LxØ: 165x29	28	For surfaces	1	620-2082
Traceable®	−50...+150	±1,0	0,1 (−20...+150); otherwise 1	LxØ: 165x29	28	For viscous solutions	1	620-2024
Traceable® Ultra™	−50...+150	±0,3	0,1 (−20...+150); otherwise 1	LxØ: 165x29	28	For viscous solutions	1	620-2095

Digital thermometer, pocket size, Traceable®



Two K-type beaded probes with 120 mm cable

This small, lightweight, and shockproof thermometer is designed for simple operation in plant and field use.

- Two probes for simultaneous monitoring of two events
- Three-position switch indicates probe 1, probe 2, or Off
- Expanded range, fast response, and one-switch operation make it the perfect routine thermometer

Delivery Information: Supplied with two fast response sensors and a cable, a nine volt battery and a Traceable® certificate according to NIST standards.

Range (°C)	Accuracy	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
−40...+250	±1 °C +1 % (0...750 °C)	1,0	76x25,4x127	113,4	1	620-2010

Values are valid for included K-type beaded probes. The thermometer can measure temperatures from −40 to +1200 °C with suitable probes that need to be ordered separately.

Digital snap-in thermometer, Traceable®



Stainless steel probe (LxØ: 70x3,5 mm) with handle and three metre cable

Versatile panel-mount module that snaps into place or is used as a stand-alone unit.

- Four digit LCD is easy to read
- Maximum/minimum temperature memory
- Reading is available in °F or °C and updates every second

Delivery Information: Supplied with a Traceable® certificate, probe, cable, and battery.

Range	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Pk	Cat. No.
−50...+300 °C	±1 (−20...+100)	0,1 (−20...+200); otherwise 1	189x12,7x38	1	620-2097

Digital key-chain thermometer, Traceable®



Fixed stainless steel probe (25,4 mm)

This lightweight, pocket-sized thermometer can be easily carried. Thanks to its attached key chain, users can clip it to a lab coat buttonhole, jacket zipper, or their keys. It can also be hung in storerooms or fume hoods for easy monitoring.

- Fast, one second response makes it ideal for measuring ambient air temperature
- Stainless steel probe is designed for penetration of semisolids and liquid measurements
- Provides accurate readings when immersed only 8,5 mm
- Provides readings in °F and °C

Delivery Information: Supplied with key chain, probe, battery powers unit for 1 year of continuous operation, and Traceable® Certificate.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
−50...+150	±1 (−20...+100)	0,1	LxØ: 95,2x19	14,2	1	620-2078

Alarm Thermometer



Stainless steel probe (LxØ: 125x3,5 mm) and one metre cable

This digital thermometer permits applications that include measurements for heating, ventilation, air conditioning, education, food and beverage processing, storage and pharmaceutical use.

- Maximum/minimum alarm
- Key tone for operation confirmation
- "HOLD" and maximum/minimum memory functions

Delivery Information: Supplied with a statement indicating accuracy traceable to NIST/DKD, a probe, a fold-away stand and a AAA battery.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+200	±0,5 (-20...+70) ±1 (70...120) ±2 (-50...-20; 120...150)	0,1	89x25x178	90,7	1	620-0917

Alarm thermometer, Traceable®



External probe, LxØ: 20x5 mm with flexible three-metre cable and internal sensor

This thermometer with dual display permits reading ambient and probes temperature simultaneously. Stable and accurate, the unit requires no adjustment or maintenance. Both cable and sensor perform accurately when under water.

- View from up to 7,6 metres: Jumbo digits
- Maximum/minimum memory
- Reset at the touch of a button
- 'Always-on' for constant readings
- Alarms

Delivery Information: Supplied with a Traceable® certificate and AAA battery for one year ,always-on' monitoring, a flip-open stand, a slot for wall-mounting and Velcro® to attach to any surface.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+70 (out); -5...+50 (in)	±1	0,1	70x95x19	114	1	620-2042

Alarm thermometer / timer



Probe and 1.5-metre cable or glass bead bottle

These thermometers are suitable for measurements for heating, ventilation, air conditioning, education, food and beverage processing, storage and pharmaceutical use.

- High and low temperature alarm setting
- "HOLD" and maximum/minimum memory functions
- Dual display: Time (99 h 59 min) and temperature

Traceable to NIST/DKD. Compliant to RoHS

Delivery Information: Supplied with a statement of accuracy, a probe, a fold-away stand, a magnetic backing and a AAA battery. 620-0918 has a unique serial number.

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Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Probe	Pk	Cat. No.
-50...+300	± 0.5 (-20...70) ± 1.0 (-50...-20/70...150) Otherwise ± 2.0	0,1	63,5×20×95,3	136	Stainless steel	1	620-0918
-50...+300	± 0.5 (-20...70) ± 1.0 (-50...-20/70...150) Otherwise ± 2.0	0,1	63,5×20×95,3	136	Glass bead recyclable bottle	1	620-1724
Description						Pk	Cat. No.
Thermometer probes							
Replacement probe for 620-0918						1	620-1754
Replacement probe						1	620-1969

Alarm thermometer / timer, Traceable®



Curved stainless steel probe (ØxL: 4x215 mm)

This thermometer with timer is designed to monitor liquids, air, gas or semi-solids.

- Adjustable display - 70x63x12 mm - that shows time and temperature settings simultaneously
- Timer function
- Alarm

Traceable to NIST

Delivery Information: Supplied with a Traceable® certificate and a AAA battery for one year of use.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Pk	Cat. No.
0...200	±2	1	70×76×12,7	1	620-1662

Digital refrigerator and freezer thermometers



Stainless steel waterproof probe and one-metre cable or bottle

These instruments allow for applications in fridges and freezers for food and beverage processing and storage.

- Timer function
- Dual scale for fridge and room values
- Maximum/minimum temperature memory and alarm setting (buzzer)

Traceable to NIST/DKD/PTB. Compliant with RoHS

Delivery Information: Supplied with a statement of accuracy, a multi-languages user manual, Velcro™ attachment, a waterproof sensor, a magnetic backing and a AAA battery. 620-2148 has a unique serial number.

Range (°C)	Accuracy (%)	Resolution (°C)	WxDxH (mm)	Weight (g)	Probe	Pk	Cat. No.
-50...+70	±1	0,1	89×20×44	68	Waterproof	1	620-0919
-10...+50*, -50...+70**	±1	0,1	63×64×19	180	Bottle filled with glass beads	1	620-2148

* air; ** fridge

Digital refrigerator and freezer thermometers, with alarm



Waterproof dual probes with one-metre cable or glass bead bottles

These thermometers permit applications in freezers, refrigerators, incubators, ovens and blood banks. They are used in colleges and universities, grocery stores and hospitals.

- Dual display and two probes for fridge and freezer readings
- Programmable alarm: Light and buzzer alarm with alarm duration counter
- "HOLD" function and maximum/minimum temperature memory

Traceable to NIST/DKD. Compliant with RoHS

Delivery Information: Supplied with a probe, a foldaway stand, Velcro™ attachment and built-in magnetic attachment, a statement of accuracy, a multi-languages user manual and a low battery indicator.

Range (°C)	Accuracy (%)	WxDxH (mm)	Probe	Pk	Cat. No.
-40...+70	±1	133×44	Two waterproof sensors	1	620-2140
-40...+70	±1	135×45×23	Two glass bead recyclable bottles	1	620-2149

Digital freezer thermometer, Traceable® Sentry™



Internal ambient sensor and external waterproof probe, with three metre cable (Ø 1,6)

This thermometer features a triple display that constantly shows minimum/maximum, and current temperatures. Users can instantly see if a freezer, water bath, or incubator is within the desired temperature range. For monitoring temperatures of an experiment for any period of time.

- Sensor and cable may be placed under water, in a refrigerator or freezer
- Small cable diameter allows the refrigerator doors to close on it with no effect
- Unplugging the cable activates a sensor inside the unit for monitoring ambient room temperature
- Simple, single button operation resets the min./max. memories

Delivery Information: Supplied with flip-open stand, wall hanging hook, magnet, Velcro® mounting tape, battery and Traceable® Certificate.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+70	±1	1	66,5×19×63,5	47,5	1	620-2039

Dual scale refrigerator thermometers, Traceable®



Chemical resistant, waterproof sensor or non toxic glycol bottle probes

These dual thermometer monitor temperatures in refrigerator and freezer simultaneously or two refrigerator locations. Temperature-buffered bottle sensor eliminates transient temperature changes when refrigerator door is opened. Patented unit fulfils all CDC thermometer and vaccine thermometer requirements. They may be used in water baths, heating blocks, and incubators.

- Displays date and time
- Minimum/maximum temperature values
- High and low user-settable alarms (visual and audio)

Solution recognised as safe by the FDA.

Delivery Information: Supplied with an individually serial-numbered Traceable® certificate indicating traceability to NIST, a stand, Velcro® and magnetic strips and wall mount, two AAA batteries for one year ,always-on' monitoring replacement battery.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Probe	Pk	Cat. No.
-50...+70	±0,3	0,01	70×108×19	Two bottle probes	1	620-1822
-50...+70	±0,3	0,01	70×108×19	Bottle probe	1	620-1823
-50...+70	±0,3	0,01	70×108×19	Two waterproof sensors	1	620-1827

Digital monitoring thermometer with alarm, Traceable®



Temperature-buffered sensor (LxØ: 19x8 mm), with three metre microcable
This thermometer accurately monitor temperatures in freezers, water baths, heating blocks, incubators and refrigerators. Measurements are possible overnight, on weekends, or for any other time period.
• Triple display simultaneously shows high, low, and current temperatures (either in °F or °C)
• Programmable alarm feature provides alert when temperature rises above or falls below a set point
• Visual and audible alarm signal continues even if temperature returns to non alarm range
• Long microcable permits refrigerator doors to close on it
Delivery Information: Supplied with Traceable® Certificate, flip-open stand for lab bench, slot for wall-mounting, and Velcro® and magnetic strips for attaching it to any surface.

Table with 7 columns: Range (°C), Accuracy (°C), Resolution (°C), WxDxH (mm), Weight (g), Pk, Cat. No.
Row 1: -50...+70, ±1, 1, 70x19x108, 113,4, 1, 620-2023

Digital refrigerator and freezer thermometer with memory-card, Traceable®



Readings from once a minute to once every 12 hours
Stand-alone unit to record readings on a removable SD card. Memory card reader (supplied) plugs into any USB port for an instant report. Text report includes date/time of day and sensor readings. A Traceable® certificate is provided from an ISO 17025 cal lab accredited by A2LA. It indicates traceability to standards provided by NIST.
• Captures 5,9 million readings
• Sealed bottle sensor insulated from temperature changes when refrigerator is opened
• Solution in sealed bottle is GRAS - generally recognised as safe by FDA - with thin cable for refrigerator door to close and seal
• Minimum/maximum feature displays highest/lowest readings for any time period
• Alarm beeps and flashes a bright red LED when temperature rises above or falls below user-set trip points, alarm sets in 0,1° increments
• Four-line display shows temperature of bottle probe, ambient temperature, humidity and time of day
WxDxH: 110x91x30 mm (two metre cable)
Weight: 200 g
Delivery Information: Supplied with a thermometer, a probe, a cable, a 256 mb SD memory card, a USB memory card reader, magnetic mounting strips, Velcro®, wall mount, bench stand, three AA batteries, an adaptor and a Traceable® certificate.

Table with 6 columns: Range, Accuracy, Resolution, Probe, Pk, Cat. No.
Row 1: 0...50 °C; -30...+70 °C (Probe); 0 - 99 % RH, ±1 °C, ±5 % RH (@ 25 °C. 20 - 85 % RH, ±7 % RH elsewhere), 0,1 °C; 0,1 % RH, Bottle (25x63 mm), 1, 620-1963
Row 2: 0...50 °C; -30...+70 °C (Probe); 0 - 99 % RH, ±1 °C, ±5 % RH (@ 25 °C. 20 - 85 % RH, ±7 % RH elsewhere), 0,1 °C; 0,1 % RH, Stainless steel (Øxl: 4x25 mm), 1, 620-1964

Digital refrigerator thermometer, Traceable®, Digital-Bottle™



Waterproof, non toxic glycol bottle probe
This thermometer accurately monitors temperatures in freezers, refrigerators, incubators, and environmental chambers. Bottle and solution insulate the sensor from transient temperature changes.
• Easy to read digital display
• High, low and current temperatures
• Minimum/maximum monitoring of high/low readings for any time period
Solution recognised as safe by the FDA.
Delivery Information: Supplied with an individually serial numbered Traceable® certificate indicating traceability to NIST, a plastic holder, Velcro® and double back tape for wall-mounting and a replaceable silver oxide battery.

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Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Probe	Pk	Cat. No.
-30...+50	±1	0,1	56x25x110	Bottle probe	1	620-1826

Digital thermometer, Traceable®



Bottle sensor in glycol solution

This digital thermometer is suitable for the monitoring of temperatures in freezers, water baths, heating blocks, incubators, and refrigerators. The bottle enclosed temperature-buffered sensor is insulated from transient temperature changes.

- High, low and current temperatures displayed simultaneously
- Programmable alarm in 1 °C increments
- Signals continue even if temperature returns to non alarm range

Conforms to NIST and ISO 17025

Patented unit fulfills all CDC thermometer and vaccine thermometer requirements.

Delivery Information: Supplied with supplied with a Traceable® certificate, a flip-open stand, a wall bracket, Velcro® mounting strips and batteries.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+70	±1	1	70x120x20	113	1	620-1661

Digital monitoring thermometer, Traceable®



Internal ambient sensor and external probe (Ø 4,7 mm) with three metre cable

This 'always-on' thermometer is perfect for monitoring reagents or solutions in tanks, water baths, incubators, and refrigerators. The unit displays the ambient temperature and probe temperature at the touch of a button. The external sensor performs accurately in liquid, gas/air, and semi-solids.

- Dual scale: °F/°C
- Ambient sensor and probe sensor for comparative readings
- Large LCD updates every 10 seconds and is easily readable, even from greater distance
- Velcro® tabs on back allow unit to be placed on ovens, water baths, desiccators, or refrigerators

Delivery Information: Supplied with a Traceable® Certificate, probe bracket, Velcro® tabs, flip-open stand for bench use, and AAA battery.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+70	±1	0,1	82,5x16x57	71	1	620-2022

Digital thermometer, wireless, Traceable®



Ambient sensor, external sensor and three-metre cable

This digital thermometer provides four channels. The unit can control up to three remote wireless modules.

- Minimum/Maximum memory display for each channel
- Jumbo digits: Temperature readable from up to 30 metres
- Audible and programmable alarms on each module, when the temperature rises above or falls below the 2 sets points

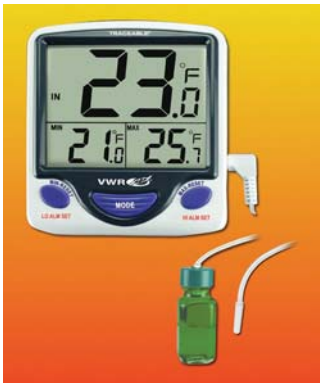
Conforms to NIST

Delivery Information: Supplied with a remote module and its external sensor, a Traceable® certificate, a flip-open stand, a wall bracket, Velcro™ strips, two AA and two AAA batteries.

Description	Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Pk	Cat. No.
Radio signal thermometer, Traceable®	-5...+70	±1	0,1	103x117x25	1	620-1669
Remote sensor module	-50...+70	±1	0,1	60x90x20	1	620-1670

Description	Pk	Cat. No.
Remote thermometer sensors		
Stainless steel probe with 150 mm cable	1	620-1671
External sensor sealed in a mini-bottle filled with a patented non toxic glycol solution	1	620-1672

Large digit triple display thermometers, Traceable® Jumbo



Bottle sensor in glycol solution

The Jumbo digital thermometers are suitable for monitoring freezers, water baths, heating blocks, incubators and refrigerators. A bottle insulates the sensor from transient temperature changes when the refrigerator door is opened.

- Triple display: Maximum/minimum and current probes plus room temperature
- Out of range alarm programmable in 1 °C increments
- Eliminates concerns about incidental contact with food or drinking water

Conform to NIST
Fulfils CDC and vaccine thermometer requirements

Delivery Information: Supplied with a Traceable® certificate, a slot for wall mounting, Velcro™ and magnetic stripes to attach to any surface, one AAA battery, with sensor and solid state probe.

Description	Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
Digital thermometer, Traceable® Jumbo, with bottle sensor	–50...+70	±1	0,1	99×111×22	113	1	620-1584
Digital thermometer, Traceable® Jumbo, with 20 mm long sensor	–50...+70	±1	0,1	99×111×22	113	1	620-1585

Large digit triple display thermometers, Traceable® Plus™



Bottle sensor in glycol solution

The digital thermometers Traceable® Plus™ monitor temperatures in freezers, water baths, heating blocks, incubators and refrigerators. A bottle insulates the sensor from transient temperature changes when the refrigerator door is opened.

- Maximum/minimum memory
- Triple display: High, low and current temperatures
- Out of range alarm programmable in 1 °C increments

Conform to NIST
Fulfils all CDC thermometer and vaccine thermometer requirements

Delivery Information: Supplied with a Traceable® certificate from ISO 17025 calibration laboratory, one AAA battery, resistant plastic case, probe and 3-metre cable, flip-open stand for lab bench, slot for wall mounting, and Velcro™ and magnetic strips to attach to any surface.

Description	Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
With bottle	–50...+70	±0,5	0,1	75×62×15	113	1	620-1582
With 20 mm long sensor	–50...+70	±0,5	0,1	75×62×15	113	1	620-1583

Water resistant thermometer, Traceable®



Type K beaded probe and 1.20-metre cable

The case of this thermometer can stop dirt, dust, fumes and water. A fast-response microprocessor updates the display twice a second.

- Extra large digits (16 mm) readable from two metres away
- Minimum and maximum readings captured at any time
- Alarm in 1 °C increments above or below set points
- Timer from 23 hours 59 minutes to 1 minute
- "Hold" button

Conforms to NIST

Delivery Information: Supplied with protective casing with a flip-out stand, a certificate, three AAA batteries and a fast-response probe.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.	
–40...+250	±1 ±2 (>740)	0,1; 1	83×38×178	227	1	620-2006	
Description					Range (°C)	Pk	Cat. No.
Traceable® probes							
Stainless steel probe with 1 m cable		–50...+700			1	620-2005	
Type-K fast response probe with 120 mm coated cable		–40...+250			1	620-2012	

* Values are valid for the included Type K (NiCr-NiAl) beaded probe with a PTFE coated wire. The thermometer can measure temperatures from –200 to 1370 °C with suitable probes that need to be ordered separately.

Digital thermometer, two channels, Traceable®



Two replaceable type-K beaded probes with 120 mm cable

This thermometer provides recessed front panel adjustable offsets on two channels allowing the user to adjust the thermometer exactly to a specific temperature, in-house calibration, or particular sensor for increased accuracy. The rubberised case makes it a virtually environment-proof instrument for all weather, shock, and abusive conditions.

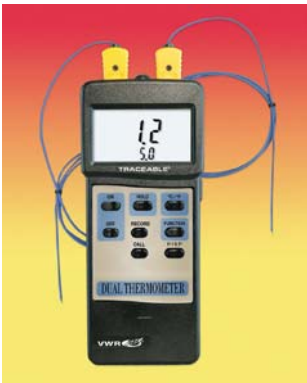
- Large LCD shows temperatures of probe 1, probe 2, or the difference (delta) between them
- Readout in °F and °C
- "MAX" button captures the highest reading achieved, "HOLD" button freezes display to capture current reading
- The two probes indicate temperature changes in less than one second

Delivery Information: Supplied with two probes, Velcro® wrist strap, built-in stand and Traceable® Certificate.

Range	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-40...+250 °C*	0,3 % plus 0,1	Switchable: 0,1 or 1,0	70x32x133,5	156	1	620-2047

* Values are valid for the included stainless steel probe. The thermometer can measure temperatures from -200 to 1370 °C with suitable probes that need to be ordered separately.

Digital thermometer, two channels, Traceable®



Two instant (< 1 s) response probes with 120 mm cable

This dual channel thermometer permits monitoring two separate probes. The dual display simultaneously shows the temperature of both probes or the temperature of one probe and the difference between the two (T1-T2). The thermometer can be used with all type-K thermocouple probes.

- Serial computer output allows connection to computer or data logger for capturing and storing results
- Memory recalls Maximum/Minimum readings, "HOLD" button freezes the current display
- Readings in °F and °C

Delivery Information: Supplied with two probes, a nine volt battery and a Traceable® certificate.

Range	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-40...+250 °C*	±0,75 % +1	0,1 (-50...+199,9); otherwise 1	178x32x76	269,5	1	620-2049

Description	Range	ØxL (mm)	Pk	Cat. No.
K-type thermometer probes				
Beaded probe with metal wire cable	-73...+982	4,8x3048	1	620-2106

* Values are valid for the included beaded probes. The thermometer can measure temperatures from -50 to +1270 °C with suitable probes that need to be ordered separately.

Digital thermometer, wide range, Traceable®



Stainless steel type-K thermocouple probe for any type-J, K, or T probe

For quality control, routine monitoring, measuring temperatures in cuvettes, gas systems, reagents, chemical solutions, soil, water baths, ovens, incubators, petroleum products, foods and wastewater. Instant memory key recalls minimum and maximum readings over any time period.

- Computer output allows thermometer to be connected to a computer or data logger for capturing and storing readings
- Large, backlit LCD display: Values may be read even in poor lighting
- Count-up timer provides a relative time measurement while taking temperatures and recording min./max. memories

Traceable to NIST and conforms to International Temperature Standard, ITS-90.

Delivery Information: Supplied with a probe, a nine volt battery, and a Traceable® certificate.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+700	±1	0,1 (-200...+640); otherwise 1,0	70x32x178	184	1	620-2004

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Table with 5 columns: Description, Range (°C), ØxL (mm), Pk, Cat. No.
Row 1: K-type thermometer probes
Row 2: Stainless steel probe with 240 mm cable, -240...+220, 4,3x304,8, 1, 620-2104

* Values are valid for the included stainless steel probe. The thermometer can measure temperatures from -200 to 1370 °C with suitable probes that need to be ordered separately.

Digital thermometer, triple display, Traceable®



Internal ambient sensor and external probe sensor (LxØ: 38x4,7 mm) with 180 mm cable
This thermometer displays current, minimum, maximum temperatures and it captures and shows the exact time and date when these Minimum/Maximum values occurred. For monitoring solutions and room temperature.
• Sensor and cable perform accurately even when both are under water
• Bright LCD show Minimum/Maximum of the probe temperature or ambient temperature, time of day and month/day
• Wire mounting bracket permits easy probe placement
Delivery Information: Supplied with probe, a flip-open stand for the bench, a slot for wall-mounting, Velcro® to attach to any surface, a Traceable® certificate, and a AAA alkaline battery for continuous one year monitoring.

Table with 7 columns: Range (°C), Accuracy (°C), Resolution (°C), WxDxH (mm), Weight (g), Pk, Cat. No.
Row 1: -40...+80, ±1,5, 0,5, 90,4x24x90,4, 99, 1, 620-2032

Digital thermometer, Full Scale (Plus), Traceable® and Traceable® Ultra™



Stainless steel probe (Ø 3,5 mm) and three metre cable
Full scale thermometer with LCD and magnetic back, which allows for placement on a metallic surface (incubators, freezers, water baths). The unit also incorporates a flip-open easel for use on a lab bench and a spring fastener for clipping it to any edge.
• Piercing tip
• Readings are updated every second
• Only Plus models: high/low alarm, minimum/maximum memories and "HOLD" function
Delivery Information: Supplied with Traceable® certificate and 1,5 volt silver oxide battery for 12 to 18 months of continuous use.

Table with 7 columns: Description, Range (°C), Accuracy (°C), Resolution (°C), WxDxH (mm), Pk, Cat. No.
Row 1: Traceable® Full Scale Plus, -50...+300, ±1 (-20...+100), 0,1 (-20...+200); 1, Ø 53,3, 1, 620-1664
Row 2: Traceable® Full Scale, -50...+250, ±1 (-20...+100), 0,1 (-20...+200); 1, Ø 53,3, 1, 620-2058
Row 3: Traceable® Ultra™ Full Scale, -50...+250, ±0,5, 0,1 (-20...+200); otherwise 1, Ø 53,3, 1, 620-2064
Row 4: Traceable® Ultra™ Full Scale Plus, -50...+300, ±0,5, 0,1 (-20...+200); otherwise 1, Ø 53,3, 1, 620-2089

Waterproof and shockproof thermometers, Traceable®



Stainless steel probe (LxØ: 127x3,6 mm) with three metre cable
These thermometers for wet areas can be used for monitoring of liquids, air/gas, or semi-solids in freezers, water baths, outdoor tanks, incubators, and refrigerators. At the touch of a button, the memory recalls highest and lowest temperature readings over any time period. Reading updates every second. Unit is engineered to be shockproof in drop tests up to 1,5 meters.
• Waterproof LCD
• Shockproof for all field applications
• Easy reading, large digits may be read with a glance
Traceable to NIST and conforms to ISO 17025
Delivery Information: Supplied with a cable, a probe, a suction cups, a magnetic strip, Velcro® to attach to any surface, certificate and 1,5 volt silver oxide battery.

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Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+300	±1,0	0,1 (-19,9...+199,9); otherwise 1,0	Ø 44,5	57	1	620-2017
-50...+300	±0,5	0,1 (-19,9...+199,9); otherwise 1,0	Ø 44,5	57	1	620-2073

Digital waterproof thermometer



Sensor and three metre cable

This dual scale thermometer indicates indoor and outdoor temperature values. The IN symbol indicates that the reading is for room temperature and the OUT symbol indicates that the reading is for outer sensor temperature.

- Large display with backlight
- High and low temperature alarm setting
- Max./min. temperature memory
- Ideal for agriculture, soil testing, food processing and storage, brewing, asphalt testing etc.

Delivery Information: Supplied with one 1,5 V AAA battery, multi-language instructions and foldaway stand.

Range	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-10...+50 °C (I); -50...+70 °C (O)	±1	0,1	72x52	60	1	620-2199

Precision digital thermometer, Traceable®



Stainless steel probe (ØxL: 3x160 mm) with cable (150 mm)

This thermometer can record up to 50 values per hour during 24 hours. The membrane keys provide a splash-proof design for rough handling.

- Large, easy to read, high contrast LCD
- Memory key to recall minimum/maximum readings
- "HOLD" function and computer USB output

Traceable to NIST and conforms to International Temperature Standard, ITS-90

Delivery Information: Supplied with a PVC protective casing, a certificate, a nine-volt battery and a probe.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
−50...+150	±0,05	0,001	89×32×140	227	1	620-2000
Description	Range (°C)		Ø×L		Pk	Cat. No.
Thermometer probes						
Stainless steel micro probe	−50...+150		1,27×127		1	620-2008

Digital thermometer with recorder output, Traceable®



Type-K beaded probe with 120 mm cable

This thermometer monitors conditions in chambers, clean rooms, food processing, scientific labs, and all temperature-sensitive manufacturing operations. It features a recorder jack that provides a millivolt signal output. This enables the thermometer to be used with any chart recorder, strip recorder, or computer that accepts millivolt signals. Output specifications are 1 mV output per degree in 0,1° display mode and 0,1 mV output per degree in the 1° display mode.

- Recorder output provides a hard copy for today's stringent QC documentation requirements
- Maximum button captures the highest reading achieved, "Hold" button freezes display to capture current reading
- Large, bright 4-digit LCD displays °F or °C values
- Handheld unit is completely portable and designed for years of dependable and reliable service

Delivery Information: Supplied with fast-response probe, nine-volt battery, recorder output jack, and Traceable® certificate.

Range (°C)	Accuracy (°C)	Resolution	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+1300	±0,3 % of the reading plus 1	0,1 (-50...199,9); otherwise 1 °C	70x32x133,5	156	1	620-2046

Ultra-accurate digital thermometers, Traceable®



Stainless steel probe (Ø 3,2 mm) with 150 mm cable

These International Standard digital thermometers provide exact readings required for critical requirements, quality control checks and routine measurements. The stainless steel probe shows the slightest temperature change in liquid, air/gas and semi-solids.
• Minimum/maximum monitors readings for any time period and displays the exact time and date when the limits occurred
• Programmable alarm provides two visual (LED) and two audio alerts when temperature rises above or falls below high and low set points
• Visual and audible alarms signal continuously (for days) even if temperature returns to non alarm range
Certificate indicates traceability to standards provided by NIST.
Delivery Information: Supplied with a Traceable® certificate, a stainless steel probe, two AA batteries, a stand, Velcro® and magnetic strips plus a wall mount.

Table with 7 columns: Range (°C), Accuracy (°C), Resolution (°C), WxDxH (mm), Weight (g), Pk, Cat. No. It lists specifications for three different temperature ranges and a combined range.

Calibratable ultra-accurate digital thermometers



Ready to use thermometers with probe.
• Low battery indicator
• Calibratable: Offset and slope input
• Minimum/maximum memory and "HOLD" function

Delivery Information: Supplied with a nine volt battery, a calibration certificate and a transport case.

Table with 5 columns: Range (°C), Resolution (°C), Probe, Pk, Cat. No. It lists specifications for three different probe configurations.



Calibratable ultra-accurate digital thermometers



Ready to use thermometers with probe.
• Low battery indicator
• Calibrateable: Offset and slope input
• Minimum/maximum memory and "HOLD" function

Delivery Information: Supplied with a nine volt battery, a calibration certificate and a plastic case (630-1931 only).

Table with 6 columns: Description, Range (°C), Resolution (°C), Probe, Pk, Cat. No. It lists specifications for three different thermometer models.

Software, Traceable®

Data capture programme for instruments with computer output

The software allows connection of up to eight instruments all running simultaneously on one computer. Records interval readings from 1 to 10 000 seconds; displays minimum/maximum readings; and utilizes an alarm mode that permits the user to be notified visually, audibly, and by email when an alarm is triggered. Readings are saved to a file that can be viewed and printed as is, or may be printed in any report or spreadsheet format. The software is designed to work with Windows® 98/Me/NT/2000/XP/Vista/Windows 7.

- 24/7 notification of audible/visual alarms are sent to user's computer, remote computer, or via email anywhere
- Simply connect the cable to the instrument and to a USB port (or serial port) and data is captured
- Captures data in the background which enables the user to work on other programs

Delivery Information: Includes a CD, a 180 mm cable (USB, serial, and instrument connections), cable plugs into the instrument and computer.

Description	Pk	Cat. No.
Data capture software for Traceable® digital instruments	1	620-2048

Analogue thermo-hygrometer



This instrument provides humidity and temperature readings in an easy to read dial format. It is designed for constant monitoring, fume hoods, walk-ins, plant areas and storage facilities.

- Large analogue display
- Dual temperature scale (°C/°F)
- Self-contained, stable, accurate unit that requires no adjustment, maintenance or battery

Delivery Information: Supplied with screw for wall-mounting.

Range	Division	Ø (mm)	Pk	Cat. No.
-40...+50 °C; 0 - 100 % RH	1 °C; 1 % RH	152,4	1	628-0033

RH = Relative Humidity

Analogue thermo-hygrometer clock



For environments involving timed applications such as offices and class rooms. Features white case and dial face with red hour, minute, and second hands.

- Three functions in one
- Contemporary design with bold markings

Delivery Information: Supplied with a hook for wall-mounting. Requires a AA battery - Not included.

Range	Division	Ø (mm)	Pk	Cat. No.
-30...+50 °C; 0 - 100% RH	2 °C; 5 % RH	250	1	620-0921

RH = Relative Humidity

Analogue thermo-hygrometer



For all environments, it can withstand use inside incubators, refrigerators and freezers. This thermo-hygrometer features contrasting black temperature dial and red humidity dial against a white background.

- Round design
- Stainless steel casing
- Large easy to read dial

Delivery Information: Supplied with a hook for wall-mounting.

Range	Division	Ø (mm)	Pk	Cat. No.
0...120 °C; 0 - 100 % RH	1 °C; 2 % RH	127	1	620-0923

RH = Relative Humidity

Digital thermo-hygrometer



Internal and external sensor with cable (three metres)

This instrument is designed for fridges and freezers temperature and humidity measurements. It is suitable for use in food and beverage processing, storage and chemistries.

- Switch the temperature readings from the internal sensor to the external probe
- Maximum/minimum values memory switchable daily reset function
- Large display showing all values simultaneously

Delivery Information: Supplied with a waterproof sensor, a magnetic backing and a AAA battery.

Range	Accuracy	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
–50...+70 °C; 20 - 99 % RH	±1 °C ±3 % RH	0,1	63,5×95,3	136	1	620-0915

RH = Relative Humidity

Digital thermo-hygrometer, Traceable® Pen



This instrument continuously displays both relative humidity and temperature.

- Memory displays last readings
- Fast response in less than 30 seconds
- Handy pocket clip for easy carrying

Delivery Information: Supplied with an individually serial-numbered Traceable® certificate that indicates traceability to NIST and a 1,5 volt battery.

Range	Accuracy (°C)	Resolution	WxDxH (mm)	Pk	Cat. No.
0...50 °C; 2 - 98 % RH	±1 °C ±3,5 % HR	0,1 °C 1 % RH	23×140×11	1	620-1586

RH = Relative Humidity

Digital thermo-hygrometer, Traceable®



This digital thermo-hygrometer provides three displays simultaneously.

- Modern design
- Easy to read
- Clock display (AM / PM)
- Memory recalls the highest and lowest readings

Certificate indicates traceability to standards provided by NIST.

Delivery Information: Supplied with a Traceable® certificate, a built-in stand and a AAA battery.

Range	Accuracy (°C)	Resolution	WxDxH (mm)	Pk	Cat. No.
0...50 °C; 20 - 90% RH	±1 °C; ±5 % RH	0,1 °C; 1 % RH	59×108×15	1	620-1673

RH = Relative Humidity

Digital thermo-hygrometer, Traceable®



This instrument is suitable for routine measurements, monitoring round-the-clock, quality controls, and critical experimental requirements. It shows the exact air conditions in hoods, cleanrooms, storage rooms, environmental chambers and chemicals storage areas.

- Continuous and simultaneous display of relative humidity and temperature
- Minimum/maximum memories
- Fast response

Conforms to ISO 17025 accredited by A2LA. Traceable to NIST.

Delivery Information: Supplied with a Traceable® certificate, a wall mount, a bench stand, solid sensors and two AAA batteries.

Range	Accuracy	Resolution	WxDxH (mm)	Weight (g)	Pk	Cat. No.
0...50 °C; 25 - 95 % RH	±1 °C; 2 % RH	1 °C; 1 % RH	57x85x6	70	1	620-1921

Alarm digital thermo-hygrometer, Traceable®



Wireless

This thermo-hygrometer readable from up to 30 metres can receive and display data from up to three remote modules. They can be connected to one base unit, which displays the temperature and humidity of the base unit and of the three different remote modules.

- Minimum/maximum display
- Audible alarms on modules
- Jumbo digits

Traceable® certificate indicates traceability to standards provided by NIST

Delivery Information: Supplied with a remote module.

Range	Accuracy (°C)	Resolution	WxDxH (mm)	Pk	Cat. No.
-20...+60 °C; 25 - 90% RH	±1 °C; ±2 % RH	0,1 °C; 1 % RH	103x117x25	1	620-1674
Description		WxDxH (mm)	Pk	Cat. No.	
Probe					
Remote sensor		60x90x20	1	620-1675	

RH = Relative Humidity

Digital thermo-hygrometer, Traceable® Jumbo



Internal sensor and external probe with cable (three metre)

This unit continuously and simultaneously displays ambient relative humidity and temperatures. The changes are shown in less than 30 seconds, for monitoring conditions overnight, on week-ends, or any other time period.

- Easy to read jumbo display
- Probe and cable perform accurately under water
- Minimum/maximum memories displayed or cleared at any time with the touch of a button

Delivery Information: Supplied with a flip-open stand, a wall mount, AAA batteries and a Traceable® certificate.

Range	Accuracy (%)	Resolution	WxDxH (mm)	Weight (g)	Pk	Cat. No.
I: 0...50 °C; E: -50...+70 °C; RH: 25 - 95 %	±1 °C; ±2 % RH (mid-range); otherwise ±4	1 °C; 1 %	108x19x107	152,5	1	628-0031

Digital auto-range multimeter, Traceable®



The instrument is dedicated to check the electrical functions of scientific equipment in laboratories. This unit is used to test batteries, fuses, recorder outputs, cables, wall plugs, probes, printed circuit boards, and complex electronic instrumentation.

- Instant display of the measurement value on a four digit LCD
- Audible beep for checking continuity
- Intuitive operation

Delivery Information: Supplied with a serial-numbered Traceable® certificate to indicate standards provided by NIST, a case, batteries, pairs of needle probes, pair of alligator probes and instructions.

Model	Digital Auto-Range Multimeter
Accuracy	2%
Display	LCD
Resistance	0,1 Ω - 2 MΩ
Voltage AC - true RMS	1 mV - 400 V
Voltage DC	
Weight (g)	85
WxDxH (mm)	54x100x13

Description	Pk	Cat. No.
Digital auto-range multimeter, Traceable®	1	620-1920

Digital thermo-hygrometer with memory, Traceable®



With computer output

This hygrometer/thermometer measures relative humidity and temperature and displays both on its dual LCD. The unit reads °F and °C, an audible click confirms each key entry. Ideal for monitoring conditions in clean-rooms, computer rooms, storage facilities — virtually anywhere temperature and RH affect vital components and tests.

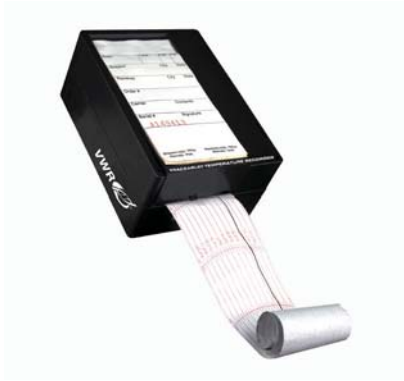
- Recalls the min./max. humidity and temperature readings captured during any time period
- "Hold" button permits freezing the display to capture readings
- Features an auto-off battery saving function which may be deactivated
- Features output receptacle for transferring data to a computer

Delivery Information: Supplied with probe (LxØ: 216x17 mm) and 91 cm cable, Traceable® Certificate, hard plastic carrying case, and 9 volt battery for 100 hours of continuous use. The data acquisition software incl. cable (620-2048) needs to be ordered separately.

Range	Accuracy	Resolution	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-18...+93 °C; 10 - 95 % RH	±1 °C (0...40); otherwise 2 °C ±2 % RH (mid-range); otherwise ±4 % RH	0,1 °C; 0,1 % RH	181x31,7x69,8	305	1	620-1874

Description	Pk	Cat. No.
Software, Traceable®		
Data capture software for Traceable® digital instruments	1	620-2048

Temperature chart recorders, disposable, Traceable®



These disposable recorders can monitor temperature measurements in refrigerators, supply rooms, food storage, chemical warehouses, animal quarters, incubators, goods-in-transit, walk-in chambers, biological materials and manufacturing plants.

- Charted copy of temperature
- Records for 10 or 40 days
- Tamper evident seal to maintain the integrity of unit and results

Certificate indicates traceability to standards provided by NIST

Delivery Information: Supplied with chart, marker and AA alkaline battery.

Continued from previous page

Description	Range (°C)	Accuracy (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
10 days	-28...+38	±1	146×98×63	283	1	620-1667
40 days	-28...+38	±1	146×98×63	283	1	620-1668

Digital thermometer, with data-log memory, Traceable®



Stainless steel probe with 55 cm cable, LxØ: 190,5×6,4 mm

This waterproof thermometer captures ten temperature readings, stores them in memory, and recalls them on command. Perfect for food, agricultural, petrochemical, and pharmaceutical applications. The waterproof construction allows use in wet labs, wash-down areas, and outside.

- °F/°C switch
- Min./max. memory readings over any time period
- "Hold" function freezes the display to capture temperature to memory
- Both high and low audible alarm may be programmed in 1° increments
- Bold digits on display are easy to read

Delivery Information: Supplied with silver oxide battery and Traceable® Certificate.

Range (°C)	Accuracy (°C)	Resolution (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-50...+300	±1 (-20...100)	0,1 (-20...200); otherwise 1	73×25,4×117,3	113,4	1	620-2094

Temperature/humidity/dew point logger with memory-card, Traceable®



From once a minute to once every 12 hours for recording continuously for years

Stand-alone unit with data logging capabilities that records readings on a removable SD memory card. Memory card reader (supplied) plugs into any USB computer port for an instant report. Text report includes date/time and sensor readings. A Traceable® certificate ISO 17025 accredited by A2LA indicates traceability to standards provided by NIST.

- Portable card reader with USB connector for any computer - No software to install
- Memory card text file shows date, time of day, and all sensor readings
- Minimum/maximum feature displays highest/lowest readings for any time period
- Alarm features beeps and flashes a bright red LED when temperature, humidity, and dew point rise above or fall below user-set trip points, alarm sets in 0.1 increments
- Four-line readout display, LCD height of 17 mm

WxDxH: 110×91×30 mm

Weight: 200 g

Delivery Information: Supplied with a 256 mb SD card, a USB memory card reader, magnetic mounting strips, Velcro®, wall mount, bench stand, three AA batteries, an adaptor, and a Traceable® certificate.

Range	Accuracy	Resolution	Pk	Cat. No.
0...50 °C; 0 - 90 % RH; -20...+50 °C Td	±1 °C; ±5 % RH (@ 25°C 20 - 85 % RH, ±7 % RH elsewhere)	0,1 °C; 0,1 % RH	1	620-1965

Precision dial barometer, Traceable®



Corrosion-proof nickel-chrome

Barometer with triple scale that provides a sensitive measure of atmospheric pressure from 954 to 1073 millibars, 28,1 to 31,7 inches of mercury, and 715 to 805 millimeters of mercury.

- Three scales
- Housing is made of rugged corrosion-proof nickel-chrome
- Adjustable pointer may be set to indicate changes
- Response time is 1 to 4 hours

Delivery Information: Supplied with altitude adjustment screw (use at locations as high as 1000 m), notched desk stand, and wall mount.

Range	Accuracy (%)	Resolution	WxDxH (mm)	Weight (g)	Pk	Cat. No.
954 – 1073 mbar; 28,1 – 31,7 inHg; 715 – 805 mmHG	±0,5	0,5 mbar; 0,05 inHg; 0,5 mmHg	Ø 114	453	1	628-0041

Barometer with thermometer and hygrometer



Brass, stainless steel case

This barometer features three scale ranges for temperature, humidity and pressure.

- Black lines and numbers for improved readability
- Unit can be recalibrated to the official local barometric pressure value

Ø: 152 mm

Range	Accuracy	Weight (g)	Pk	Cat. No.
940 - 1058 mbar; 70,5 - 79,4 Hgcm; 27,75 - 31,25 Hgin; -30...+50 °C; 0 - 100% RH	±3,5 mbar; ±0,3 Hgcm; ±0,1 Hgin	476	1	620-2126

Handheld barometer, Traceable®



This compact and lightweight unit measures barometric pressure, temperature and altitude. It graphically displays the barometric pressure trend; and has a stopwatch/clock.

- Rugged shock resistant case

Conforms ISO 17025. Traceable to NIST.

Delivery Information: Supplied with a lanyard, two batteries, and a manual of instructions.

Range	Accuracy	Resolution	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-10...+60 °C; 225 - 824 inHg; 300 - 1100 mbar; -700...9000 m	±1,5 °C; ±8 mbar	0,1 °C; 0,01 inHg; 1 mbar; 0,1 m	95×70×19	100	1	620-1922

Digital barometer, Traceable®



This instrument can measure temperature, humidity, dew point and barometric pressure.

- User selectable dual display
- "HOLD" key to freeze the reading on the display
- Unit can recall minimum/maximum readings at the press of a key
- Electronic capacitance polymer film sensor not affected by condensation
- O-ring seal and membrane keypad assure a long life in severe lab or harsh plant environment

Traceable to standard provided by NIST

Delivery Information: Supplied with a Traceable® certificate and four AAA batteries.

Range	Accuracy	Resolution	Pk	Cat. No.
0...50 °C; 10 - 95 % RH; -25...+49	±1 °C; ±3 % RH; 0,29 - 32,48 inHg; 10,0 - 1100 hPa; 7,5 - 825 mmHg; ±4 hPa; 0,1	0,1 °C; 0,1 % RH; 0,01 inHg; 0,1/1 hPa; 0,1 mmHg	1	620-1923

Weather system



Remote wireless sensors

This model is suitable for industrial plants, schools, and others needing to monitor conditions, forecast weather, and check environmental air parameters.

- Programmable alarms
- Minimum/maximum readings displayed
- Temperature, humidity, dew point, UV index, heat index, barometric pressure/pressure bar graph, weather forecast, wind direction/speed, windchill, rainfall amount, and atomic clock/calendar/moon phase

Delivery Information: Supplied complete with instructions, all equipment, sensors, an AC adaptor, and four AA backup batteries.

WxDxH (mm)	Pk	Cat. No.
190x146x38	1	620-1918

Weather station, Traceable®



Wireless

This weather station is designed for use in agriculture, offices and universities. Includes internal temperature sensor.

- Dual scale and maximum/minimum memory
- User preset temperature alert setting with calendar
- RF 433 MHz, max 30 metres range for remote sensor, wireless thermometer links up to three remote sensors

WxH: 76,2x191 mm
Weight: 363 g

Delivery Information: Supplied with a remote sensor, two AA and two AAA batteries and a wall or desk mount.

Range	Accuracy (°C)	Weight	Pk	Cat. No.
0...50; -50...+70*	±1 (0...40) ±2 (-50...0; 40...70)	360 g	1	620-0906

* remote sensor

Weather station, Cumulus



Cumulus is designed for use in agriculture, offices and universities. Weather station with snooze alarm, moon phase display, dual scale thermometer (°C/°F) for indoor and outdoor temperature readings, humidity display, maximum/minimum memory for temperature, calendar, digital quartz clock.

- Two metre cable for outdoor temperature measurements
- Display indoor and outdoor temperature
- Wall or desk mount

Compliant with RoHS

Delivery Information: Supplied with two AAA batteries.

Range	Accuracy (°C)	WxDxH (mm)	Weight (g)	Pk	Cat. No.
-20...+65 °C; 20 - 90 % RH	±1; ±2 (0...5; 41...50)	81x177	270	1	620-2120

Weather station, PRO



Wireless

Thanks to its calendar up to the year 2050 with date and day of week in seven languages (English, German, French, Italian, Spanish, Dutch and Danish), a 12/24-hour selectable time with snooze alarm, moon phase, an animation weather forecast, this instrument is a feature laden product.

- Comfortable index icons
- Links up to three remote modules (maximum distance 30 meters)
- Dual display to show the temperature of the main unit and one external sensor at a time

Compliant with RoHS

Delivery Information: Supplied with a remote sensor and batteries.

Range	Accuracy (°C)	WxDxH (mm)	Pk	Cat. No.
0...50 °C (in); -20...+60 °C (out); 20 - 90 % RH	±1,5	117×193	1	620-2127
Description			Pk	Cat. No.
Probe				
Probe for weather stations 620-2127 and 620-2128			1	620-2147

Weather station, Ultimate



Wireless

This complete weather station features a perpetual calendar up to year 2099 with date, 12/24 hour selectable time with snooze alarm, moon phase, tide indicator, sunset and sunrise times, barometric pressure animated weather forecast, maximum/minimum memory for hygro-thermometer. RF wireless hygro-thermometer links up to three remote sensors.

- Pressure bar chart, history and trend indicator
- Easy to read icons
- Indoor/outdoor thermo-hygrometer trend indicator

Compliant with RoHS. Traceable to NIST/DKD. Conforms to ISO/IEC 17025:2005

Delivery Information: Supplied with one remote sensor including batteries and two AA batteries for the main unit.

Range	Accuracy (°C)	WxDxH (mm)	Pk	Cat. No.
0...50 °C (in); -20...+60 °C (ut); 20 - 90% RH	±1,5	127×201	1	620-2128
Description			Pk	Cat. No.
Probe				
Probe for weather stations 620-2127 and 620-2128			1	620-2147



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Illuminated stand magnifiers



These magnifiers are manoeuvrable for precision work and quality control.

- Standard table bracket
- Polished glass lens for a large viewing area
- A cover protects the lens from dust when the magnifier is not used and protects against scratches
- Articulated arm (800 mm) provides 200° head rotation
- Energy saving, compact fluorescent lamp

Cable: 1,8 metre

Round lens - Ø: 127 mm

Description	Magnification	Pk	Cat. No.
22 W, EU-plug	1,5x	1	630-1053
22 W, UK-plug	1,5x	1	630-1054
22 W, CH-plug	1,5x	1	630-1055

Square lens - WxD: 190x157 mm

Description	Magnification	Pk	Cat. No.
2x9 W, EU-plug	1,5x	1	630-1050
2x9 W, UK-plug	1,5x	1	630-1051
2x9 W, CH-plug	1,5x	1	630-1052

Description	Pk	Cat. No.
Accessories		
Bulb for square lens magnifiers	1	630-1070
Bulb for round lens magnifiers	1	630-1071
Floorstand with four wheels	1	630-1075

Illuminated table magnifiers



These illuminated tabletop magnifiers - gooseneck or articulated arm type - include highly polished glass.

- Large viewing area
- Cover protects lens from dust and scratches
- Articulated arm models provide 200° head rotation

Delivery Information: Supplied with 11 W energy saving compact fluorescent bulb. 630-1086 comes with 2 LEDs and batteries.

Description	Magnification	Ø (mm)	Pk	Cat. No.
Gooseneck, EU-plug	3/8x	88	1	630-1056
Gooseneck, UK-plug	3/8x	88	1	630-1057
Gooseneck, CH-plug	3/8x	88	1	630-1058

Continued from previous page

Description	Magnification	Ø (mm)	Pk	Cat. No.
Articulated arm, rectangular base, EU-plug	3/8x	88	1	630-1059
Articulated arm, rectangular base, UK-plug	3/8x	88	1	630-1060
Articulated arm, rectangular base, CH-plug	3/8x	88	1	630-1061
Articulated arm, round base, EU-plug	3/8x	100	1	630-1062
Articulated arm, round base, UK-plug	3/8x	100	1	630-1063
Articulated arm, round base, CH-plug	3/8x	100	1	630-1064
Gooseneck, with two LEDs	2/4x	110	1	630-1086

Description	Pk	Cat. No.
Bulbs		
Bulb for gooseneck table magnifiers	1	630-1072
Bulb for rectangular base table magnifiers	1	630-1073
Bulb for round base table magnifiers	1	630-1074

Reading magnifiers



These three reading magnifiers are suitable for everyday applications.

- Black handle
- Three sizes
- Magnification according to the model

Magnification	Ø (mm)	Pk	Cat. No.
5x	60	1	630-1094
3x	75	1	630-1095
2x	90	1	630-1096

Reading magnifiers, LED



These illuminated magnifiers are suitable for everyday use.

- LED illumination
- Choice of square, round or rectangular shape
- Different magnifications according to the model

Delivery Information: Supplied in a pouch with battery - only for 630-1068 and 630-1066. For the other articles, two batteries are needed, but not supplied.

Round

Description	Magnification	Ø (mm)	Pk	Cat. No.
Folding	2/8x	88	1	630-1067
Folding	5x	50	1	630-1078

Other shapes

Description	Magnification	WxD (mm)	Pk	Cat. No.
Square	3x	80x80	1	630-1065
Rectangular	2/8x	50x100	1	630-1066
Rectangular	4,5x	30x38	1	630-1068

Illuminated stand magnifiers



These magnifiers provide a highly defined view of surface for precise scientific, plant, and fieldwork.

- High powered magnification
- Suitable for universal application
- Uniform illumination over the field of observation

Delivery Information: Supplied with AA batteries.

Description	Magnification	WxD (mm)	Pk	Cat. No.
Illuminated magnifier	2x/4x	70x70	1	630-1619
Dual illuminated magnifier	3x/10x	44,5x44,5	1	630-1620

Folding magnifiers



Aluminium handle

These precision magnifiers are specifically suitable for jewellers.

- LED illumination
- High precision
- Available in two sizes

Colour: Black

Delivery Information: Supplied in a transparent box with three LR 1130 batteries.

Description	Magnification	Ø (mm)	Pk	Cat. No.
Jeweller magnifier, LED	10x	17	1	630-1091
Jeweller magnifier, LED	10x	21	1	630-1092

Dome magnifiers



Plastic

The user can directly put the magnifier onto the surface for easier and more comfortable reading.

- Handy and compact
- Suitable for educational use

Ordering Information: For article 630-1180, you need to order a battery separately. For 630-1084, four batteries (1130 button cell) are supplied.

Description	Magnification	Ø (mm)	Pk	Cat. No.
Dome magnifier, LED illumination	3x	90	1	630-1080
Dome magnifier, LED illumination	2,5x	75x50	1	630-1084

Folding linen testers



These linen testers are widely used in the fields of industrial electronics, laboratories and photography.

- Glass lens
- Different sizes and magnifications
- Folding instruments

Colour: Black

Delivery Information: A battery (927 button cell) is supplied with article 630-1090.

Continued from previous page

Description	Magnification	Ø (mm)	Pk	Cat. No.
Folding magnifier, plastic	10×	10	1	630-1087
Folding magnifier, aluminium	6×	25	1	630-1088
Folding magnifier, adjustable, aluminium	6×	25	1	630-1089
Folding magnifier, LED, plastic	8×	22	1	630-1090

Precision magnifiers



Plastic

These magnifiers can be used for every type of application.

- Three versions available
- Accurate instruments
- Adapted to technical applications

Colour: Black

Magnification	Ø (mm)	Pk	Cat. No.
15×	22	1	630-1081
6×	25	1	630-1082
10×	25	1	630-1083

Pocket microscope



Plastic

This pocket microscope can be used in industrial electronics and in the medical field.

- LED source
- Easy to use instrument
- Knob to adjust magnification

Colour: White

Ordering Information: Two AA batteries are required - Not included.

Delivery Information: Supplied in a black pouch.

Magnification	WxD (mm)	Pk	Cat. No.
40/100×	50x140	1	630-1093



Illuminated microscopes



These handheld units are suitable for inspection, quality control, field use, electronics, metal analysis, clinical observation, cloth / paper examination, and plant studies.

- Adjustable light source onto the area to examine
- Adjustable focus control knob for an accurate view
- Zoom microscope with a snap-on microscope slide holder

Delivery Information: Supplied with AA batteries and a vinyl carrying case.

Description	Magnification	Pk	Cat. No.
Illuminated pocket microscope	30×	1	630-1621
Illuminated zoom microscope	60 - 100×	1	630-1622



Mono and binocular microscopes, VisiScope, Serie 100



Advanced biological polarisation

These microscopes fullfill all education purposes for students. The optics quality, the reliability of the mechanics are combined to an excellent price/quality ratio.

- Large choice of accessories - Additional stage for 630-1550 and 630-1556 only
- Interpupillary adjustment from 48 to 75 mm
- Interchangeable objectives: Achromatic / Plan-achromatic
- One watt illumination with external power supply for low electric consumption
- Focusing mechanism with limit stop to prevent the contact between the objective and specimen

Conforms EUP 205/32/EC

Model	ML 103	DML 103	MP 103 POL	ML 114	ML 124	BL 103 POL	BL 114	BL 124	DBL 124
Camera	-	Built-in 1,3 MPx camera	-						Built-in 3,14 MPx camera
Condenser	0,65 N.A. with diaphragm		1,20 N.A. with diaphragm						
Contrasting technique	Brightfield		Brightfield and polarisation	Brightfield		Brightfield and polarisation	Brightfield		
Eyepiece	WF 10x/18								
Focusing system	Coaxial coarse and fine knobs								
Head	30° inclined, 360° rotating								
Illumination	LED								
Nosepiece	Triple			Quadruple		Triple	Quadruple		
Objectives	Achromatic 4x, 10x, 40x			Achromatic 4x, 10x, 40x, 60x	Achromatic 4x, 10x, 40x, 100x	Achromatic 4x, 10x, 40x	Achromatic 4x, 10x, 40x, 60x	Achromatic 4x, 10x, 40x, 100x	
Stage	Plain. 125x120 mm with sample clips		Rotable. Ø 120 mm	Mechanical. 125x116 mm with sample holder		Rotable. Ø 120 mm	Mechanical. 125x116 mm with specimen holder		
Type	Monocular					Binocular			

Description	Pk	Cat. No.
Monocular microscope, ML 103	1	630-1550
Monocular microscope, DML 103	1	630-1556
Monocular microscope, MP 103 POL	1	630-1555
Monocular microscope, ML 114	1	630-1551
Monocular microscope, ML 124	1	630-1552
Binocular microscope, BL 103 POL	1	630-1802
Binocular microscope, BL 114	1	630-1553
Binocular microscope, BL 124	1	630-1554
Binocular microscope, DBL 124	1	630-1623

Description	Pk	Cat. No.
Eyepieces		
Eyepiece H5x	1	630-1624
Eyepiece WF 10x/18	1	630-1625
Eyepiece WF 16x/12	1	630-1626
Eyepiece micrometer WF 10x/18	1	630-1627

Description	Magnification	Pk	Cat. No.
Objectives			
Achromatic	4x/0,10	1	630-1628
Achromatic	10x/0,25	1	630-1629
Achromatic	20x/0,40	1	630-1630
Achromatic	40x/0,65	1	630-1631
Achromatic	60x/0,85	1	630-1632
Achromatic	100x/1,25	1	630-1633
E-plan-achromatic IOS	4x	1	630-1639
E-plan-achromatic IOS	10x	1	630-1640

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Description	Magnification	Pk	Cat. No.
Objectives			
E-plan-achromatic IOS	20×	1	630-1641
E-plan-achromatic IOS	40×	1	630-1642
E-plan-achromatic IOS	100×	1	630-1643
Description			
Stage			
Mechanical stage		1	630-1634
Description			
Filters			
Polarisation filter		1	630-1635
Description			
Protecting covers			
Dust cover		1	630-1636
Wooden box with sliding front cover, 27×27×46 mm		1	630-1809
Description			
Accessories			
Solar battery pack, SBP 10		1	630-1637
Cleaning and maintenance set, incl. lens tissue, cleaning solution, brush		1	630-1803



Mono, bino and trinocular microscopes, VisiScope, 200 Series



A modern and ergonomic design are the primary features of this series, which also offers reliability and innovation for biological teaching.

- Objectives conform to DIN
- High contrast and excellent resolution
- P-LED powered illumination system with adjustable intensity
- Easy to carry: The large opening behind the revolving nosepiece can be used as a handle
- The optical components have been treated to prevent the formation of moulds and fungi
- Increased reliability: Strict controls on materials and production processes optimised by ISO 9001:2008 quality system

Model	ML 214	ML 224	BL 214	BL 224	BL 224 PI	TL 224
Condenser	Abbe 1,25 N.A. with diaphragm					
Contrasting technique	Brightfield					
Eyepiece	WF 10×/18					
Focusing system	Coaxial coarse and fine knobs					
Head	30° inclined, 360° rotating					
Illumination	LED					
Nosepiece	Quadruple, reversed					
Objectives	Achromatic 4×, 10×, 40×, 60×	Achromatic 4×, 10×, 40×, 100×	Achromatic 4×, 10×, 40×, 60×	Achromatic 4×, 10×, 40×, 100×	Plan achromatic 10×, 20×, 40×, 100×	Achromatic 4×, 10×, 40×, 100×
Stage	Double layer. 125×115 mm, 70×30 mm movement					
Type	Monocular		Binocular			Trinocular

Description	Pk	Cat. No.
Monocular microscope, ML 214	1	630-1558
Monocular microscope, ML 224	1	630-1557
Binocular microscope, BL 214	1	630-1560
Binocular microscope, BL 224	1	630-1559
Binocular microscope, IOS, BL 224 PI	1	630-1562
Trinocular microscope, TL 224	1	630-1859

Description	Magnification	Pk	Cat. No.
Objectives			
Achromatic	4×/0,10	1	630-1628
Achromatic	10×/0,25	1	630-1629
Achromatic	20×/0,40	1	630-1630
Achromatic	40×/0,65	1	630-1631
Achromatic	60×/0,85	1	630-1632
Achromatic	100×/1,25	1	630-1633
E-plan-achromatic IOS	4×	1	630-1639
E-plan-achromatic IOS	10×	1	630-1640

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Description	Magnification	Pk	Cat. No.
Objectives			
E-plan-achromatic IOS	20×	1	630-1641
E-plan-achromatic IOS	40×	1	630-1642
E-plan-achromatic IOS	100×	1	630-1643
Description			
Camera adapters			
CCD camera adapter 0,5×		1	630-1644
Description			
Filters			
Polarisation filter		1	630-1638
Description			
Protecting covers			
Dust cover		1	630-1636
Wooden box with sliding front cover, 27×27×46 mm		1	630-1809
Description			
Accessories			
Solar battery pack, SBP 10		1	630-1637
Cleaning and maintenance set, incl. lens tissue, cleaning solution, brush		1	630-1803



Bino and Trinocular Microscopes, VisiScope, 300 Series



These microscopes can be used in advanced biology teaching. The series includes six models featuring achromatic, plan-achromatic and infinity corrected plan achromatic objectives.

- P-LED source: Brightness can be adjusted by a rheostat
- Abbe condenser with iris diaphragm and graduated scale
- Interpupillary distance control: 55 - 75 mm with dioptric compensation
- Modern and ergonomic stand, adjustable focusing tension and limit stop
- Two types of optical system: Standard 160 mm vs. infinity corrected system (IOS) (630-1566 and 630-1804)

Model	BL 324	BL 324 P	BL 324 PI	BL 324 PH	TL 324 P	TL 324 PI	TL 324 PH
Condenser	Abbe 1,25 N.A.						
Contrasting technique	Brightfield			Phase contrast	Brightfield		Phase contrast
Eyepiece	WF 10×/20						
Focusing system	Coaxial coarse and fine knobs						
Head	30° inclined, 360° rotating						
Illumination	LED						
Nosepiece	Quadruple, reversed	Quintuple, reversed					
Objectives	Achromatic 4×, 10×, 40×, 100× (oil immersion)	Plan achromatic 4×, 10×, 40×, 100× (oil immersion)		Plan achromatic 4×, Ph 10×, 40×, 100× (oil immersion)	Plan achromatic 4×, 10×, 40×, 100× (oil immersion)		Plan achromatic 4×, Ph 10×, 40×, 100× (oil immersion)
Stage	160×142 mm, movement 76×52 mm						
Type	Binocular				Trinocular		

Description	Pk	Cat. No.
Binocular microscope, BL 324	1	630-1563
Binocular microscope, BL 324 P	1	630-1564
Binocular microscope, IOS, BL 324 PI	1	630-1566
Binocular microscope, BL 324 PH	1	630-1567
Trinocular microscope, TL 324 P	1	630-1565
Trinocular microscope, IOS, TL 324 PI	1	630-1804
Trinocular microscope, TL 324 PH	1	630-1568

Continued from previous page

Description	Contrasting technique	Magnification	Pk	Cat. No.
Objectives				
Plan achromatic	Brightfield	20×/0,40	1	630-1659
Plan achromatic	Brightfield	40×/0,65	1	630-1660
Plan achromatic	Brightfield	60×/0,80	1	630-1661
Plan achromatic	Brightfield	100×/1,25	1	630-1662
IOS plan achromatic	Brightfield	4×/0,10	1	630-1663
IOS plan achromatic	Brightfield	10×/0,25	1	630-1664
IOS plan achromatic	Brightfield	20×/0,40	1	630-1665
IOS plan achromatic	Brightfield	40×/0,65	1	630-1666
IOS plan achromatic	Brightfield	100×/1,25	1	630-1667
Plan achromatic with iris diaphragm	Brightfield	100×	1	630-1668
Plan achromatic	Phase contrast	10×/0,25	1	630-1669
Plan achromatic	Phase contrast	40×/0,65	1	630-1670
Plan achromatic	Phase contrast	100×/1,25	1	630-1671
IOS plan achromatic	Phase contrast	10×/0,25	1	630-1672
IOS plan achromatic	Phase contrast	20×/0,40	1	630-1673
IOS plan achromatic	Phase contrast	40×/0,65	1	630-1674
IOS plan achromatic	Phase contrast	100×/1,25	1	630-1675
Filters				
Blue filter, Ø: 32 mm			1	630-1690
Frosted glass filter, Ø: 32 mm			1	630-1693
Polarisation filter			1	630-1678
Protecting covers				
Wooden case with a lock, 27×34×46 mm			1	630-1810
Accessories				
Rotating table for polarising set			1	630-1679
Phototube adapter for APS-C sensor			1	630-1645
Cleaning and maintenance set, incl. lens tissue, cleaning solution, brush			1	630-1803
Phase contrast set with plan-achromatic objectives 10×, 40×, 100× and DF condenser for dry objectives			1	630-1676



Bino and trinocular microscopes, VisiScope, Serie 500

High quality microscopes



These microscopes have been designed to deliver excellent performance in routine use. Two different optical systems are available: InfiniFix models, which use a true infinity-corrected optical path, implemented with standard 160 mm objectives and IOS (Infinity Optical System i.e. Infinity Corrected Objectives).

- Optical system and objectives: S-Plan and Plan 160 mm Finity Corrected Objectives on InfiniFix models and Plan Infinity corrected objectives on all IOS models
- Modern design, accessible and ergonomic controls for hours of use without eye fatigue
- P-LED illuminator, which allows light-intensive applications, such as phase contrast or darkfield, without the need of complex active cooling whilst keeping the electrical consumption at lowest levels
- Two swing-out condensers available for better performances: N.A. 0,10/1,20 with high magnifications; N.A. 0,22/0,90 with low magnifications (pathology)
- Double layer stage for two specimen slides (175×145 mm, X-Y range: 76×51 mm)

Model	BL 524 P	BL 524 PI	BL 524 PH	TL 524 P	TL 524 PI	TL 524 PH
Condenser	Swing-out N.A. 1,20	Swing-out N.A. 0,90	Abbe N.A. 1,25 with disc for phase contrast	Swing-out N.A. 1,20	Swing-out N.A. 0,90	Abbe N.A. 1,25 with centring system and disc condenser for phase contrast
Contrasting technique	Brightfield		Phase contrast	Brightfield		Phase contrast
Eyepiece	WF 10×/22					
Focusing system	Coaxial coarse and fine knobs					
Head	30° inclined, 360° rotating	35° inclined, 360° rotating	30° inclined, 360° rotating	35° inclined, 360° rotating	30° inclined, 360° rotating	
Illumination	LED					
Nosepiece	Quintuple, reversed					
Objectives	Plan achromatic 4×, 10×, 40×, 100× (oil immersion)					
Stage	Two-layer mechanical sliding stage, 175×145 mm					
Type	Binocular			Trinocular		
Description					Pk	Cat. No.
Binocular microscope, InfiniFix, BL 524 P					1	630-1569
Binocular microscope, IOS, BL 524 PI					1	630-1571
Binocular microscope, InfiniFix, BL 524 PH					1	630-1573
Trinocular microscope, InfiniFix, TL 524 P					1	630-1570
Trinocular microscope, IOS, TL 524 PI					1	630-1572
Trinocular microscope, InfiniFix, TL 524 PH					1	630-1574

Description	Pk	Cat. No.
Eyepieces		
Eyepiece WF 10x/22	1	630-1695
Eyepiece WF 15x/16	1	630-1696
Eyepiece micrometer WF 10x/22	1	630-1697
Eyecups	1	630-1756

Description	Contrasting technique	Magnification	Pk	Cat. No.
Objectives				
Plan achromatic	Brightfield	4x/0,10	1	630-1704
Plan achromatic	Brightfield	10x/0,25	1	630-1705
Plan achromatic	Brightfield	20x/0,25	1	630-1706
Plan achromatic	Brightfield	40x/0,65	1	630-1707
Plan achromatic	Brightfield	60x/0,80	1	630-1709
Plan achromatic	Brightfield	100x/1,25	1	630-1721
IOS plan achromatic	Brightfield	4x/0,10	1	630-1722
IOS plan achromatic	Brightfield	10x/0,25	1	630-1723
IOS plan achromatic	Brightfield	20x/0,40	1	630-1727
IOS plan achromatic	Brightfield	40x/0,65	1	630-1728
IOS plan achromatic	Brightfield	60x/0,80	1	630-1729
IOS plan achromatic	Brightfield	100x/1,25	1	630-1730
Plan achromatic	Phase contrast	10x/0,25	1	630-1731
Plan achromatic	Phase contrast	20x/0,40	1	630-1732
Plan achromatic	Phase contrast	40x/0,65	1	630-1733
Plan achromatic	Phase contrast	100x/1,25	1	630-1734
IOS plan achromatic	Phase contrast	10x/0,25	1	630-1735
IOS plan achromatic	Phase contrast	20x/0,40	1	630-1736
IOS plan achromatic	Phase contrast	40x/0,65	1	630-1737
IOS plan achromatic	Brightfield	100x/1,25	1	630-1738

Description	Pk	Cat. No.
Filters		
Blue filter, Ø: 32 mm	1	630-1690
Yellow filter, Ø: 32 mm	1	630-1692
Yellow filter, Ø: 45 mm	1	630-1754
Green filter, Ø: 45 mm	1	630-1753
Blue filter, Ø: 45 mm	1	630-1752
Frosted glass filter, Ø: 45 mm	1	630-1755
Polarisation filter	1	630-1739

Description	Pk	Cat. No.
Accessories		
Darkfield condenser for dry objectives	1	630-1741
Complete phase contrast set with plan achromatic objectives 10x, 20x, 40x, 100x (immersion oil)	1	630-1742
Complete phase contrast set with plan achromatic IOS objectives 10x, 20x, 40x, 100x (immersion oil)	1	630-1743
Phase contrast set and single plan achromatic objective 40x	1	630-1744
Set phase contrast and single IOS plan achromatic objective 40x	1	630-1745



Trinocular microscope, VisiScope, IT 404



The inverted microscope IT 404 is equipped with a series of objectives for most standard applications of cell culture in vivo. The focusing and specimen translation controls are designed to allow to rest the wrists on the table. A specimen stage fitted with a special glass insert allows to see the objectives, for immediate identification of the magnification setup.

- Every control is easy to reach, ergonomic head
- Special eyepieces designed for eyeglass wearers
- WD of 72 mm. The condenser can be removed to increase the WD to 150 mm
- Set of four objectives: 4x and 40x for brightfield; 10x and 20x for phase contrast
- Extremely innovative design, interchangeable inserts for specimen slides, Petri dishes and flasks

Condenser	N.A. 0.30
Focusing system	Coaxial coarse and fine knobs
Head	30° inclined, 360° rotating
Illumination	LED
Stage	250x230 mm. movement of 119x70 mm.

Description	Pk	Cat. No.
Trinocular microscope, IT 404	1	630-1575

Description			Pk	Cat. No.
Eyepieces				
Eyepiece EWF 10×/22			1	630-1759
Eyepiece micrometer EWF 10×/22			1	630-1760
Description			Pk	Cat. No.
Contrasting technique			Magnification	
Objectives				
Plan-achromatic IOS WD: 18 mm	Brightfield	4×/0,10	1	630-1761
Plan-achromatic IOS WD: 10 mm	Brightfield and phase contrast	10×/0,25	1	630-1762
Plan-achromatic IOS WD: 5,1 mm	Brightfield and phase contrast	20×/0,40	1	630-1763
Plan-achromatic IOS WD: 2,6 mm	Brightfield	40×/0,60	1	630-1764
Plan-achromatic IOS LWD	Brightfield and phase contrast	40×	1	630-1765
Description			Pk	Cat. No.
Camera adapters				
Phototube adapter for SLR full-frame cameras			1	630-1767
CCD camera adapter			1	630-1768
Description			Pk	Cat. No.
Accessories				
Ergonomic trinocular head			1	630-1757
Trinocular attachment for ergonomic trinocular head			1	630-1758
Phase ring 40×			1	630-1766
Dust cover			1	630-1769
Cleaning and maintenance set, incl. lens tissue, cleaning solution, brush			1	630-1803



Binocular microscopes, STB series



These stereo microscopes can be used in education, life science applications and electronics inspection.

- Large 3D image of the specimen
- Adjustable interpupillary distance
- Slip-clutch mechanism that prevents gear damage

Delivery Information: Supplied with protective dust cover, spare halogen bulb and fuse.

Model	STB 100	STB 200
Eyepiece	WF 10×/20	
Focusing system	Separated micro and macro drive	
Head	45° inclined, 360° rotating	
Illumination	Halo 12 V/10 W Fluo 5 W	
Objectives	1×, 2×	1×, 3×
Type	Binocular	

Description	Pk	Cat. No.
STB 100, binocular, EU-plug	1	630-0741
STB 100, binocular, UK-plug	1	630-0767
STB 100, binocular, CH-plug	1	630-0793
STB 200, binocular, EU-plug	1	630-0742
STB 200, binocular, UK-plug	1	630-0768
STB 200, binocular, CH-plug	1	630-0794



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Binocular microscopes, VisiScope, STB and SZB 250



These two models have been designed for demanding applications.

- Adjustable interpupillary distance between 51 and 75 mm
- Dioptric compensation adjustable on both eyepiece tubes
- Model STB 250 with double magnification that can be selected by rotating the lens unit. Working distance of 80 mm
- Model SZB 250 with continuous zoom 0,7 - 4,5x - Zoom factor of 6,43:1. Working distance of 85 mm
- Incident and transmitted light with two high efficiency LEDs, adjustable angle of the incident illuminator

Model	STB 250	SZB 250
Eyepiece	WF 10x/20	
Focusing system	Coaxial coarse and fine knobs	
Head	45° inclined, 360° rotating	
Illumination	LED	
Objectives	2x, 4x	-
Stage	Semi-transparent disc for transmitted light with specimen clips	
Type	Binocular	
Zoom	-	0,7 - 4,5x

Description	Pk	Cat. No.
Binocular microscope, STB 250	1	630-1576
Binocular microscope, SZB 250	1	630-1577
Description	Pk	Cat. No.
Lenses		
Lens 0,5x. WD: 170 mm	1	630-1775
Lens 1,5x. WD: 42 mm	1	630-1776
Dust cover		
Dust cover	1	630-1778
Eyepieces		
Eyepieces WF 10x/20	2	630-1771
Eyepieces WF 15x/15	2	630-1772
Eyepieces WF 20x/10	2	630-1773
Eyepiece micrometric WF 10x/20	1	630-1774
Eyecups	1	630-1777
Accessories		
Cleaning and maintenance set, incl. lens tissue, cleaning solution, brush	1	630-1803

Bino and trinocular microscopes, VisiScope, Series SZB and SZT 300



This series can be used in advanced teaching situations and in industry. Professional users will value the technical features: resistance and reliability.

- Two different types of optical system: Standard 160 mm one and infinity corrected system (IOS). Field diameter of the eyepieces is 20 mm
- Modern and ergonomic stand made of die-cast aluminium. Adjustable focusing tension and limit stop
- Heads equipped with interpupillary distance control (55 - 75 mm) as well as with dioptric compensation
- P-LED source : The brightness can be adjusted by a rheostat located on the right side of the microscope base
- Abbe condenser : Double-control system and adjustment in height through a rack-and-pinion mechanism (control knobs located on both sides of the microscope stand). The condenser is also fitted with an iris diaphragm whose aperture can be adjusted by a graduated reference scale

Model	SZB 350	SZBL 350	SZB 350 OH	SZT 350	SZTL 350	SZT 350 OH
Eyepiece	WF 10x/20					
Focusing system	Coaxial coarse and fine knobs					
Head	45° inclined, 360° rotating					
Illumination	Halogen 12V/15W	Incident: high power LED - Transmitted: LED diffusing disc	-	Halogen 12V/15W	Incident: high power single LED - Transmitted: LED diffusing disc	-
Type	Binocular			Trinocular		
Zoom	0,7 - 4,5x					

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Description	Pk	Cat. No.
Binocular microscope, SZB 350	1	630-1578
Binocular microscope, SZBL 350	1	630-1579
Binocular microscope, SZB 350 OH	1	630-1583
Trinocular microscope, SZT 350	1	630-1580
Trinocular microscope, SZTL 350	1	630-1582
Trinocular microscope, SZT 350 OH	1	630-1584
Description	Pk	Cat. No.
Eyepieces		
Eyepieces WF 10x/20	2	630-1779
Eyepieces WF 15x/15	2	630-1780
Eyepieces WF 20x/10	2	630-1781
Eyepiece micrometric WF 10x/20	1	630-1782
Eyecups, Ø 95 mm	1	630-1794
Lenses		
Lens 0,5x. WD: 165 mm	1	630-1783
Lens 0,75x. WD: 117 mm	1	630-1784
Lens 1,5x. WD: 47 mm	1	630-1785
Lens 2x. WD: 26 mm	1	630-1786
Stages		
Moving stage	1	630-1790
White and black plate, Ø 95 mm	1	630-1795
Glass stage, Ø 95 mm	1	630-1796
Heating stage with digital temperature controller	1	630-1800
Dust cover		
Dust cover	1	630-1799
Accessories		
Polarising set (filters and rotating stage)	1	630-1787
Darkfield condenser	1	630-1788
Sample clip	1	630-1789
Halogen bulbs		
Halogen bulb, 12V/15W	1	630-1797
Halogen bulb, 12V/15W with dichroic mirror	1	630-1798
Camera adapters		
Reflex camera adapter for full frame sensor	1	630-1791
CCD camera adapter (for 1/3" sensors)	1	630-1792
CCD camera adapter (for 1/2" sensors)	1	630-1793
APS-C reflex camera adapter	1	630-1801
Protecting covers		
Wooden case with a lock, 27x34x46 mm	1	630-1810
Accessories		
Cleaning and maintenance set, incl. lens tissue, cleaning solution, brush	1	630-1803

Cold light sources, VisiLight® CL 150



These cold light sources feature modularity and flexibility. Fulfilling scientific and engineering requirements, they provide sample protection and improved homogeneity compared to standard halogen lighting. The lightweight aluminium housing maintains a low temperature.

- System and vibration-free operation
- Continuously variable light intensity from 0 to 100% (150 watts)
- Optional daylight filter (631-1758) to raise the standard 3200 °K colour temperature to 5400 °K

Ordering Information: Supplied without light guides, focus optics and filters, which must be ordered separately.

Description	Pk	Cat. No.
Cold light source, VisiLight® CL 150, EU-plug	1	631-1751
Cold light source, VisiLight® CL 150, UK-plug	1	631-1772

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Description	Pk	Cat. No.
Ring light guides		
Ring light, ØxL: 8x750 mm	1	631-1753
Ring light adapter, Ø: 50 mm	1	631-1779
Ring light adapter, Ø: 58 mm	1	631-1782
Focus for fibre optic light guides	1	631-1763
Filters		
Blue filter	1	631-1762
Green filter	1	631-1759
Yellow filter	1	631-1760
Red filter	1	631-1761
Daylight filter	1	631-1758
Halogen bulbs		
Replacement halogen bulb, 15V/150W	1	631-1769
Accessories		
Lamp socket GZ 6,35	1	631-0963
Fine fuse, 250 V/2,5 A	10	631-0903

Cold light sources, VisiLight® LED



This LED cold light source has been developed for technical applications such as quality assurance and industrial endoscopy. It has no fan and therefore is free of vibration and noise and is also suitable for cleanrooms.

- Energy saving and environmentally friendly
- Digital brightness control and flicker-free illumination
- Constant colour temperature of typically 5600 K

Description	WxDxH (mm)	Weight (kg)	Pk	Cat. No.
Cold light source, VisiLight® LED	174x250x81	3,45	1	631-0931
Gooseneck light guides				
Two-arm gooseneck, 400 mm			1	631-0933

LED illumination, VisiLight®



The I-LED spotlight can be positioned on a stand, attached on a microscope or fixed on the wall.

- Low energy consumption: Three watt LEDs for five years of work
- Colour temperature of 5500 °K, similar to daylight
- Standard intensity control unit

Description	Pk	Cat. No.
I-LED 1, one arm, EU-plug	1	631-1754
I-LED 2, two arms, EU-plug	1	631-1755
I-LED 1, one arm, UK-plug	1	631-1773
I-LED 2, two arms, UK-plug	1	631-1774
Accessories		
Frosted glass diffuser	1	631-1757
Microscope stand and holder, 200 mm	1	631-1770
Holder for stereo microscope stand, Ø 25 mm	1	631-1776
Holder for stereo microscope stand, Ø 32 mm	1	631-1777
Wall holder for I-LED	1	631-1778

LED illumination

These state-of-the-art lighting modules are designed as plug-and-play spare parts and are easy to install in the existing microscope. The five-watt power LED has an average life span of approximately 50 000 hours. The housing is made of aluminium.

- Colour temperature given as 6500 K, similar to daylight
- Light can be dimmed continuously
- Last dimming position can be stored with memory function for the next use

Description	Pk	Cat. No.
LED microscope light, EU-plug	1	631-1780
LED microscope light, UK-plug	1	631-1781

LED ring lights, R-Led-4



Anodised aluminium

These models are designed for lighting tasks in industrial applications. They are suitable for precision tasks as the segments can be manually controlled. This enables the user to have flexible illumination with different illumination directions and contrast settings.

- High quality bright LEDs (48)
- Homogeneous and flicker-free lighting
- Power saving and eco friendly lighting system (7 W)
- Adaptable with reducing rings to diameters up to 50 mm
- Infinitely variable and well balanced brightness control between 0 and 100% with control box

Inner Ø 66 mm; outer Ø 100 mm; height 30 mm

Colour temperature: 7000 Kelvin

LED life span: Five years

Description	Pk	Cat. No.
Standard ring lights		
Ring light, white light, EU-plug	1	631-1756
Ring light, white light, UK-plug	1	631-1775
Ring lights with four segments		
Four segment ring light, neutral, white light, EU-plug	1	631-0993
Four segment ring light, neutral, white light, UK-plug	1	631-0994
Standard ring lights with neutral light		
Ring light, neutral light, EU-plug	1	631-0976

Description	Pk	Cat. No.
Ring light guides		
Ring light adapter, Ø: 50 mm	1	631-1779
Ring light adapter, Ø: 58 mm	1	631-1782
Ring light adapter, Ø: 60 mm	1	631-0955
Ring light adapter, Ø: 62 mm	1	631-0956

Analogue camera, VisiCam® TV



Camera with video output that can be connected to video projectors, external monitors or to a computer (via the optional USB kit).

Ordering Information: Storage and analysis of images is possible via the optional USB converter kit, which needs to be ordered separately.

Description	Pk	Cat. No.
Camera with video output, CCD, 0,4 MPx	1	630-1120

Description	For	Pk	Cat. No.
Camera adapter			
TV/USB converter for connection to a PC incl. image analysis software	VisiCam® TV camera	1	630-1125



Digital cameras, VisiCam®



These cameras are high resolution colour instruments, which provide a USB 2.0 interface and a large image sensor for a large field of view. These features allow capture of high quality images and videos.

The VisiCam® analyser software provides most standard functions for image analysis in microscopy such as marking, counting, measuring, storage, auto/manual white balance and objectives calibration.

- Capture format: .JPG, .PNG, .TIF, .TGA, .PCX, .JP2, .JPC, .PGX, .RAS, .PNM
- Compatible with Windows® XP, Windows® Vista and Windows® 7

Delivery Information: Supplied with a C-mount adapter (for VWR Collection microscopes only), an eyepiece adapter with 0,5x magnification, a calibration slide, VisiCam® analyser software and drivers.

Continued from previous page

Model	VisiCam® 1,3	VisiCam® 3,0	VisiCam® 5,0	VisiCam® 10
Max resolution	1,3 MPx	3,0 MPx	5,0 MPx	10 MPx
Sensor	1/3" colour CMOS		1/2" colour CMOS	

Description	Pk	Cat. No.
VisiCam® 1.3, 1,3 MPx	1	630-1030
VisiCam® 3.0, 3,0 MPx	1	630-1031
VisiCam® 5.0, 5,0 MPx	1	630-1032
VisiCam® 10, 10 MPx	1	630-1484

Description	Pk	Cat. No.
Accessories		
Calibration slide	1	630-1123
CCTV lens, 16 mm	1	630-1124
CS-C mount adapter	1	630-1122
C-mount eyepiece adapter 0,5x and 30 mm ring	1	630-1121
C-mount adapter for Zeiss microscopes	1	630-1490
C-mount adapter for Olympus microscopes	1	630-1489
C-mount adapter for Leica microscopes	1	630-1497
C-mount adapter for Nikon microscopes	1	630-1498



Eyepiece camera, MC-280



This eyepiece colour camera for biological and stereo microscopes is able to provide a live preview and to deliver images directly onto a computer, making the work easier for the user. The camera is suitable for 23 mm and 30 mm diameter eyepieces.

- Resolution of 331584 Pixel
- USB 2.0 output
- CMOS sensor 1/3"
- Exposure control: auto/manual

Delivery Information: Supplied with software for image acquiring and a CD with drivers.

Description	Pk	Cat. No.
USB camera, 331.584 pixel, for Ø 23/30 mm eyepieces	1	611-2257

Camera adapters

These adapters enable cameras with different chip sizes to be connected to microscopes with a C-mount thread.

Description	For	Pk	Cat. No.
C-mount adapter 0,5x	Stereo microscopes	1	630-0865
C-mount adapter 1,0x	Stereo microscopes	1	630-0866
C-mount adapter 0,4x	Standard microscopes	1	630-0867
C-mount adapter 1,0x	Standard microscopes	1	630-0868

Microscope slides



Glass

These slides with cut or ground edges are either plain or frosted.

WxDxH: 76x26x1 mm

Description	Pk	Cat. No.
Cut edges		
Plain	50	631-1550
Frosted	50	631-1551
Ground edges		
Plain	50	631-1552
Frosted	50	631-1553

Microscope slides



Clear white glass

- Frosted ends in six different colours
- Available with either cut or ground edges
- Writing surface is resistant to all common dyes and solvents

WxDxH: 76x26x1 mm

Colour	Pk	Cat. No.
Cut edges		
White	50	631-1554
Blue	50	631-1555
Pink	50	631-1556
Yellow	50	631-1557
Green	50	631-1558
Orange	50	631-1559
Ground edges 45°		
White	50	631-1560
Pink	50	631-1561
Blue	50	631-1562
Yellow	50	631-1563
Green	50	631-1564
Orange	50	631-1565

Microscope slides



White glass

These slides are made from low iron content - ground 90°, washed and polished.

- Resistant to common solvents
- Twinfrost slides with embossed surface, for easier writing on and reading
- Frosted surface separates the slides in storage preventing scratching

WxD: 76x26 mm

Packaging Information: Packed in a lift top box with an inner cellophane liner and an outer cellophane wrap to prevent contamination. The box itself has fold down tabs to keep the slides permanently upright during use.

Description	Thickness (mm)	Pk	Cat. No.
No frosted end, BS 7011	0,8 - 1,0	50	631-0908
No frosted end, BS 7011	1,0 - 1,2	50	631-0905
No frosted end, ISO 8037/1	0,8 - 1,0	50	631-0113
No frosted end, ISO 8037/1	1,0 - 1,2	50	631-0114
Frosted end, BS 7011	0,8 - 1,0	50	631-0907
Frosted end, BS 7011	1,0 - 1,2	50	631-0906
Frosted end, ISO 8027/1	0,8 - 1,0	50	631-0116
Frosted end, ISO 8037/I	1,0 - 1,2	50	631-0117
White frosted end	1,0	50	631-0909

Microscope slides



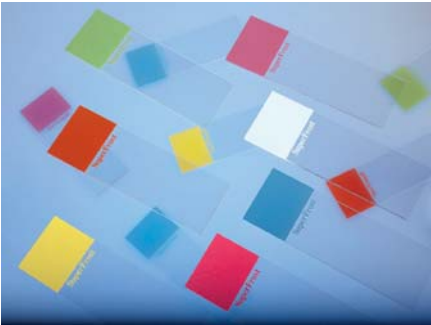
Plain microscope slide without frosted or printink tab. 90° / ISO 26x76 mm.

Thickness: 1,2 - 1,5 mm

Packaging Information: 50 pieces per box.

Description	Pk	Cat. No.
Plain, Super PREMIUM	50	631-0110

Microscope slides



These microscope slides come with a light opaque coating in different colours. Each colour codes different specimens at a glance according to urgency, processing or staining technique, etc.

- Resistant to commonly used solvents
- Resistant to scratching or sticking when stacked together
- Label areas on the top of the slide for quick and easy identification of the “right” side

WxDxH: 76x26x1 mm

Description	Colour	Pk	Cat. No.
Ground 90°	Blue	50	631-0910
Ground 90°	Pink	50	631-0911
Ground 90°	Yellow	50	631-0912
Ground 90°	Green	50	631-0913

Adhesion slides



These slides are coated with a permanent adhesive and provide excellent cell and tissue adhesion. Designed using the latest technology with built-in properties that electrostatically and chemically attract freshly frozen tissue sections, formalin-fixed paraffin-embedded tissue sections or cytocentrifuge preparations and cytology smears.

- With 90° ground edges and colour frosted end for labelling
- Adhesion superior to glue, protein or silane treated slides
- Washed and polished

WxDxH: 76x26x1 mm

Colour	Pk	Cat. No.
White	72	631-0107
Blue	72	631-0683
Pink	72	631-0684
Green	72	631-0686

Adhesion slides



These adhesion slides virtually eliminate background staining in standard HE stains. Superior for cell adhesion in cytocentrifuge preparations in standard Papanicolaou smears.

- Permanent positive charge binding fresh frozen tissue sections and cytology preparations to the slide
- With 90° ground edges and colour frosted ends for labelling
- Washed and polished

WxDxH: 76x26x1 mm

Colour	Pk	Cat. No.
White	72	631-0108
Blue	72	631-0446
Pink	72	631-0447
Yellow	72	631-0448
Green	72	631-0449

Slide dispenser



The dispenser holds up to 91 standard slides 76x26 mm.

- Easy to load
- By turning side wheel slides are dispensed one at a time

Colour: Red and blue

Description	Pk	Cat. No.
Microscope slide dispenser	1	631-0716

Slide holders



PE
Sturdy slide holder designed for 15, 40 or 90 standard slides (76×26 mm).
• For drying and cleaning
Colour: White

Description	Pk	Cat. No.
Slide holder for 15 slides	1	631-0717
Slide holder for 40 slides	1	631-0718
Slide holder for 90 slides	1	631-0719

Slide holder



Cardboard
• Rigid, plastic laminated and stackable
• For a long term storage
• Four drawers
W×D×H: 290×295×90 mm
Colour: Yellow

Description	Pk	Cat. No.
Slide cabinets for 1860 slides	10	631-1064

Slide folders



Cardboard
Slide trays hold 20 or 30 standard microscopy slides (76×26 mm).
• Thumb cut for easy slide removal
• Horizontal compartments are recessed protecting the specimens when the cover is closed

Description	Pk	Cat. No.
Tray for 20 slides	1	631-0689
Tray for 30 slides	1	631-0690

Slide trays, Flip Top



Plastic
These models are available with or without lid allow for a safe transportation of slides.
Colour: White or blue

Description	Pk	Cat. No.
White flip tray for 20 slides with lid	1	631-1060
White flip tray for 20 slides	10	631-1061
Blue flip tray for 20 slides with lid	1	631-1062

Rack for slide trays



ABS

Sturdy rack for five 20-place slide trays.

- Ideal for microbiology, histology, and pathology applications
- Matching clasps provide area for identification labels
- Can be placed in refrigerator for cold storage of samples

WxDxH (mm): 226x340x125

Description	Colour	Pk	Cat. No.
Stackable rack for five slide folders (with 20 slides each)	Blue	1	631-0964

Slide box



ABS plastic with cork lining

This heavy duty, two piece microscope slide box stores up to 100 standard slides (75x25 mm). The box is made of durable ABS, secured with a rust resistant nickel plated clasp and hinge pin. Perfect for storage or transport.

- Each slot is numbered to correspond to the slide inventory sheet on the inside cover of the box
- Moulded, rigid box: Securely holds slides in grooved slots
- Stackable: Ideal for long-term storage

WxDxH: 208x175x34 mm

Description	Pk	Cat. No.
Slide box for 100 slides, grey	1	631-9113

Slide box, True North®



PC folder, rugged stainless steel closure

Durable and stackable slide box for safe storage and transport of 75x25 mm slides.

- Grooved slide slots separate slides and prevent slide contact
- Temperature resistant foam lining: Protects slides in low temperature ranges, down to -80 °C
- For easy slide retrieval, identification sheet, lining, and grooved slots are numbered

WxDxH: 208x175x34 mm

Description	Pk	Cat. No.
Box for 100 slides, purple	1	631-1527

Slide boxes



Plastic

This box for five slides prevents the items from breaking or sticking. It can be used for applications in cytology i.e. conventional smear.

WxDxH: 82x30x18 mm

Description	Colour	Pk	Cat. No.
Plastic slide boxes for 5 slides	Translucent	500	631-1063



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- High quality at an affordable price

Slide boxes



Plastic

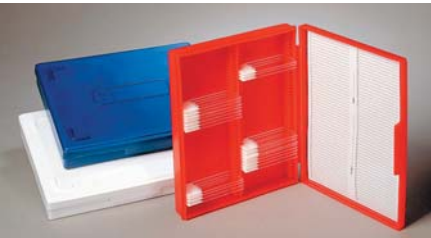
These heavy duty, two piece microscope slide boxes store 25, 50 or 100 standard slides (76×26 mm) for transport.

- Stack securely on top of each other
- Colour coded for easy identification
- Slide inventory sheet on inside of the cover
- Separate lid (box for 25), lid with plastic snap closure (box for 50) or with nickel-plated clasp and hinge pin (box for 100)

W×D×H: 89×140×31 mm (25), 85×210×31 mm (50), 171×222×33 mm (100)

Colour	Pk	Cat. No.
Cork lined, for 25 slides		
Blue	1	631-1506
Green	1	631-1507
Red	1	631-1508
White	1	631-1510
Foam lined, for 25 slides		
Blue	1	631-1522
Red	1	631-1524
White	1	631-1526
Cork lined, for 50 slides		
Blue	1	612-2706
Red	1	612-2707
White	1	612-2708
Cork lined, for 100 slides		
Blue	1	631-1500
Green	1	631-1501
Red	1	631-1502
Yellow	1	631-1503
White	1	631-1504
Foam lined, for 100 slides		
Blue	1	631-1517
Red	1	631-1519
White	1	631-1521

Slide boxes



PP

Slide boxes holding either 25 or 100 standard slides (76×26 mm).

- Hinged lids are held securely closed by latch lock
- Stacking feet maximise stability when placed on top of one another
- Slide inventory sheet on the inside of the lid

W×D×H: 90×140×35 mm (for 25), 165×210×35 mm (for 100)

Colour	Pk	Cat. No.
For 25 slides		
White	1	631-0738
Blue	1	631-0739
Red	1	631-0740
For 100 slides		
White	1	631-0735
Blue	1	631-0736
Red	1	631-0737

Rack for slide boxes



Acrylic

These storage racks make organisation of samples easy. Non skid rubber feet allow for secure bench top placement and pre-drilled holes for under counter or under wall-mounted cabinet.

- Clear acrylic allows the labels on the slide boxes to be seen
- Boxes can be placed in rows or columns sorted by colour to create an easy coding system

W×D×H: 227×264×118 mm

Description	Pk	Cat. No.
Stackable drawers for 50 or 100 place boxes	1	631-0742

Slide mailers



Cardboard

These disposable holders are suitable for the transport of one or two standard slides.

Description	Colour	Pk	Cat. No.
Single slide mailer	Beige	25	631-0687
Double slide mailer	Beige	24	631-0688

Slide mailer



PP

These boxes are designed for shipping, storing, or staining slides (75×25 mm). Each of the containers hold five standard slides.

- Inside wall features slotted channels to keep slides separated and to make removal easier
- Closes securely to keep slides safe - Side opening
- Assorted colours (red, yellow, blue, purple, and orange) for easier identification

W×D×H: 81×19×31 mm

Description	Colour	Pk	Cat. No.
Slide mailer with side opening	Assorted	25	631-1515

Slide mailers



PP, natural or coloured

This secure protection for two standard slides (76×26 mm) is designed for storage and shipping.

- Large, easy to secure snap caps
- Particularly suitable for mailing by standard mail
- Colourful designs make them easy to identify and sort

Ordering Information: The range contains slide mailers in red, yellow, blue, purple and orange.

Description	Colour	Pk	Cat. No.
Slide mailers	Assorted	25	211-0341
Slide mailers	Natural	25	211-0342

Slide mailers



Plastic

These mailers are designed for cytology applications. They are available in six different colours: Brown, blue, green, red, white and black.

- Two formats
- Rigid material
- For clinical studies

Description	Pk	Cat. No.
Two compartments, 95×85 mm	600	631-1056
Three compartments, 95×104 mm	600	631-1057

Slide cabinets



Cardboard

This model with lid is designed for the storage of 1000 slides. It can be used in cytology and histology applications.

WxDxH: 84x155x310 mm

Description	Pk	Cat. No.
Cardboard slide cabinets for 1000 slides	10	631-1066

Slide cabinet with holders



Steel

This cabinet stores 100 microscope slide holders (up to 400 slides). The cardboard microscope slide holders offer instant reference and fast fingertip retrieval. They sort, classify, or arrange slides in any order. Cards can be added, removed or changed for fast updating.

- Durable holder is 75x125 mm cardboard fitted with a protective plastic frame, which provides secure protection of specimens
- Each slide holder card accepts four 75x25mm slides of any thickness
- Visible, four position tabs provide 'in-sight' indexing, and ruled data lines keyed to numbered slots allow complete slide identification and comments

LxWxD (cabinet): 413x130x165 mm

Weight (cabinet): 450 g

Description	Pk	Cat. No.
Microscope slide holders	12	631-0823
Microscope slide holder cabinet	1	631-0824

Filling cabinet for cassettes



Filling cabinet in kraft cardboard.

- Supplied unassembled
- Capacity of 500 cassettes

Description	Dimensions	Pk	Cat. No.
Filling cabinet	225x460x51	10	631-1067

Filling cabinet for cassettes with 2 drawers



Filling cabinet in white cardboard.

- Supplied assembled
- Capacity of 410 cassettes

Packaging Information: Two filling cabinets

Description	Colour	Dimensions	Pk	Cat. No.
Filling cabinet	White	315x255x120	2	631-1065

Slide drawers



Metal

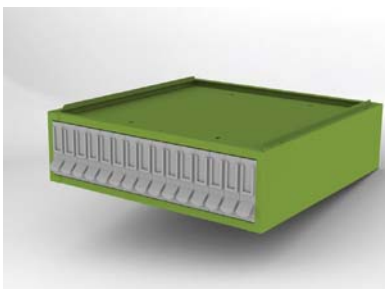
These metallic drawers are suitable for the storage of 50×50 mm or 80×57 mm microscopy slides.

- For 2700 slides

Weight: 9 kg

Description	Pk	Cat. No.
Organiser Q-Path for transparencies with seven metal drawers	1	631-1049
Base Q-Path for organisers with 2, 8 or 14 drawers	1	631-1071
Lid Q-Path for organisers with 2, 8 or 14 drawers	1	631-1073

Slide organisers



These robust organisers allow for archiving a large number of microscope slides.

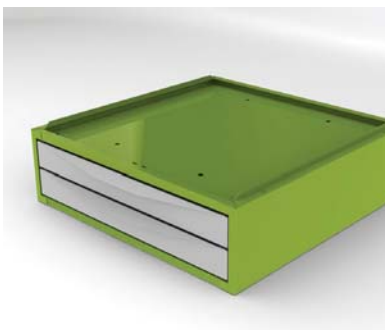
- Stackable

W×D×H: 480×480×140 mm

Delivery Information: Supplied with a locking rack.

Description	Pk	Cat. No.
PVC slide drawers (14) for 5500 slides, 12 kg	1	631-1068
Metal slide drawers (14) for 5500 slides, 17 kg	1	631-1069
Locking rack for 76×26 mm slides	10	631-1070

Storage drawer



Storage organiser for two metal drawers to store embedding cassettes.

- For 2×700 cassettes
- Weight: 16 kg

Description	Pk	Cat. No.
Organiser for two metal drawers, grey	1	631-1072

Storage drawer



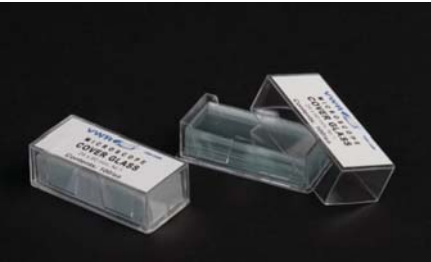
Storage organiser for 2×4 metal drawers for embedding cassettes.

- For 2600 cassettes
- Weight: 18 kg

Description	Dimensions	Pk	Cat. No.
Organiser for eight metal drawers, grey	560×560×220	1	631-1050

IVD

Cover glasses



The cover slips are made from transparent hydrolytic class 1 glass and are suitable for in vitro diagnostic applications.

- Free of bubbles and flaws
- Cleaned and polished
- Rectangular or round

Thickness: 0.13 - 0.16 mm

Packaging Information: 10×100 slips packed in plastic dispenser boxes.

Rectangular

L×W (mm)	Thickness (mm)	Pk	Cat. No.
21×26	0,13 - 0,16	2.000	631-1569
24×32	0,13 - 0,16	1.000	631-1572
24×40	0,13 - 0,16	1.000	631-1573
24×50	0,13 - 0,16	1.000	631-1574
24×60	0,13 - 0,16	1.000	631-1575

Round

Ø (mm)	Thickness (mm)	Pk	Cat. No.
10	0,13 - 0,16	1.000	631-1576
12	0,13 - 0,16	1.000	631-1577
13	0,13 - 0,16	1.000	631-1578
15	0,13 - 0,16	1.000	631-1579
18	0,13 - 0,16	1.000	631-1580
20	0,13 - 0,16	1.000	631-1581
22	0,13 - 0,16	1.000	631-1582
24	0,13 - 0,16	1.000	631-1583
25	0,13 - 0,16	1.000	631-1584
30	0,13 - 0,16	1.000	631-1585

Square

L×W (mm)	Thickness (mm)	Pk	Cat. No.
15×15	0,13 - 0,16	1.000	631-1566
18×18	0,13 - 0,16	1.000	631-1567
20×20	0,13 - 0,16	1.000	631-1568
22×22	0,13 - 0,16	1.000	631-1570
24×24	0,13 - 0,16	1.000	631-1571

Cover glasses



Pure white glass, hydrolytic class I

- Without bubbles or flaws
- Cleaned and polished

Delivery Information: Packed in plastic hinged lid dispenser boxes.

Rectangular

L×W (mm)	Thickness (mm)	Pk	Cat. No.
18×24	0,13	1.000	631-0130
20×20	0,13	1.000	631-0122
22×32	0,13	1.000	631-0133
22×32	0,16	1.000	631-0134
22×40	0,13	1.000	631-0135
22×40	0,16	1.000	631-0136
22×50	0,13	1.000	631-0137
22×50	0,16	1.000	631-0138
24×32	0,13	1.000	631-0143
24×32	0,16	1.000	631-0144
24×40	0,13	1.000	631-0145

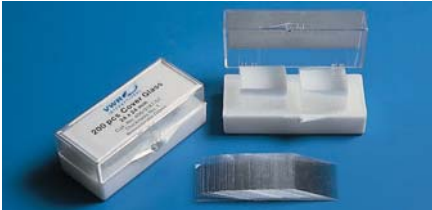
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LxW (mm)	Thickness (mm)	Pk	Cat. No.
24x50	0,13	1.000	631-0146
24x50	0,16	1.000	631-0147
25x40	0,13	1.000	631-0165

Round

Ø (mm)	Thickness (mm)	Pk	Cat. No.
6	0,08	1.000	631-0168
9	0,13	1.000	631-0169
10	0,08	1.000	631-0170
13	0,08	1.000	631-0148
13	0,13	1.000	631-0149
13	0,16	1.000	631-0150
16	0,08	1.000	631-0151
16	0,13	1.000	631-0152
18	0,16	1.000	631-0153
19	0,08	1.000	631-0154
19	0,13	1.000	631-0155
19	0,16	1.000	631-0156
22	0,08	1.000	631-0157
22	0,13	1.000	631-0158
22	0,16	1.000	631-0159
24	0,13	1.000	631-0161
25	0,13	1.000	631-0171
25	0,16	1.000	631-0172
30	0,13	1.000	631-0174
32	0,13	1.000	631-0162
35	0,08	1.000	631-0175
35	0,13	1.000	631-0176
40	0,13	1.000	631-0177
50	0,13	1.000	631-0178

Cover glasses



Pure white glass, hydrolytic class I

- Without bubbles or flaws
- Cleaned and polished

Thickness: 0,08 - 0,19 mm

Packaging Information: In a plastic box.

LxW (mm)	Thickness (mm)	Pk	Cat. No.
18x18	0,08	1.000	631-0119
18x18	0,13	1.000	631-0120
18x18	0,16	1.000	631-0121
22x22	0,08	1.000	631-0123
22x22	0,13	1.000	631-0124
22x22	0,16	1.000	631-0125
22x22	0,19	1.000	631-0126
24x24	0,13	1.000	631-0127



Spectrophotometers, Vis V-1200 or UV/Vis UV-1600PC



The V-1200 and UV-1600PC are basic Visible and UV/Vis spectrophotometers for the routine daily quality control requirements, in process control and teaching laboratories. The instruments are reliable, robust and easy to use. The wide range of different accessories available will help to adapt and fine tune the units to meet the user's demands. With the support of the standard software, stored results and data can be downloaded from internal memory to PC (V-1200). The application software offers all the important methods for routine measurements (UV-1600PC).

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- Large LCD display (128x64 pixels)
 - Can save up to total 200 results and 200 standard curves
 - Download data to PC via USB interface
 - Application software, allows PC control of the spectrophotometers (delivered with UV-1600PC), includes the following methods: Basic mode, quantitative, wavelength scan, kinetics, multi-wavelength, DNA/protein
 - Variety of optional accessories including an automatic 8-cell changer
- Delivery Information:** Accessories supplied as standard with the V-1200: Four optical glass cells, 4-position cell holder, power cable with UK and EU plug, dust cover.
- Accessories supplied as standard with the UV-1600PC: Four optical glass cells, two quartz cells, 4-position cell holder, power cable with UK and EU plug, dust cover, application software for PC control.

Model	V-1200	UV-1600PC
Display	Graphic LCD (128x64 pixels)	
Interfaces	USB port to PC / parallel port to printer	
Languages	EN, DE, ES, FR	
Light source	Tungsten halogen	Deuterium/tungsten halogen
Optical system	Single beam, grating 1200 lines/mm silicon photodiode detector	
Photometric accuracy	±0,5% T	±0,5% T
Photometric range	-0,3 to 3 A; 0 - 200% T	
Photometric reproducibility	±0,3% T	±0,2% T
Photometric stability	±0,002 A/h @ 500 nm	
Power requirements	220 V / 50 Hz	
Spectral bandwidth (nm)	4	
Stray light	≤0,3% T	±0,05% T @ 220, 360 nm
Wavelength accuracy (nm)	±2	±0,5
Wavelength range (nm)	325 - 1000	190 - 1100
Wavelength repeatability (nm)	≤0,8	≤0,3
Weight (kg)	12	14
WxDxH (mm)	490x360x210	490x360x240

Description	Pk	Cat. No.
V-1200 spectrophotometer including 4-cell changer	1	634-6000
UV-1600PC scanning spectrophotometer including 4-cell changer	1	634-6001

Description	For	Pk	Cat. No.
Accessories			
Cell holder, 4-cell, 10 mm path length	V-1200, UV-1600PC, V-3000PC UV-3100PC	1	634-6003
Cell holder, 4-cell, 10 to 100 mm path length	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6005
Cell holder, for cylindrical cell, Ø 22 mm	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6006
Cell holder, water jacketed, 1 cell, 10 mm path length	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6007
Cell holder for test tubes	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6009
Cell holder, solid sample, 10 mm path length	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6011
Cell holder, water jacketed, 4-cell, 10 mm path length	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6012
A 102, constant temperature (Peltier) system with beam height 15 mm	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-0698
Thermal printer	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6039
Lamp, halogen, 12 V/20 W	V-1200, UV-1600PC, V-3000PC UV-3100PC	1	634-6037
Lamp, deuterium	UV-1600PC, UV-3100PC, UV-6300PC	1	634-6038



Spectrophotometers, scanning, UV/Vis UV-3100PC and Vis V-3000PC



- Two fully scanning spectrophotometers for advanced measurements and quality control. Reliable, robust and easy to use instruments with a range of accessories that will support the creation of a personal spectrophotometer measuring station. The application software offers all the important methods expected from a 'universal' instrument. All housed in a robust cover with a well designed optical bench.
- Large LCD display (320x240 pixels)
 - Full scan mode
 - Easily accessible USB port for data import and export
 - Supplied application software 'UV-Vis Analyst' allows PC control of the spectrophotometer
 - Methods for PC control or standalone include: Basic mode, quantitative, wavelength scan, kinetics, multi-wavelength, DNA/protein
 - The range of accessories includes an automatic 8-cell changer and Peltier thermostatted single cell holder
- Delivery Information:** Supplied with 4 optical glass cells, 2 quartz cells (not V3000-PC), dust cover, USB cable, USB (8 GB) stick, UV-Vis Analyst software for PC control, 4-position cell holder (10 mm), power cables with UK, CH and EU plugs.

Model	V-3000PC	UV-3100PC UV-VIS
Baseline flatness	±0,002 A (320 - 1000 nm)	±0,002 A (200 - 1000 nm)
Display	5" graphic LCD (320x240 pixels)	
Interfaces	USB port to PC / parallel port to printer	
Languages	EN, DE, ES, FR	
Light source	Tungsten halogen	Deuterium/tungsten halogen
No. of standards	200 standard curves	
Optical system	Single beam, grating 1200 lines/mm, silicon photodiode detector	

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Model	V-3000PC	UV-3100PC UV-VIS
Photometric accuracy	$\leq \pm 0,5\%$ T or 0,005 A at 1 A	
Photometric range	-0,3 to 3 A; 0 - 200% T; 0 - 9999 Conc	
Photometric reproducibility	$\pm 0,2\%$ T	
Photometric stability	$\pm 0,002$ A/h @ 500 nm	
Power requirements	220 V/50 Hz	
Results storage	200	
Scan speed (nm/min)	Low, medium, high (max. 3000 nm/min)	
Spectral bandwidth (nm)	4	2
Stray light	$\pm 0,05\%$ T at 360 nm	$\pm 0,05\%$ T @ 220, 360 nm
Wavelength accuracy (nm)	$\pm 0,5$	
Wavelength range (nm)	320 - 1100	190 - 1100
Wavelength repeatability (nm)	$\leq 0,2$	
Weight (kg)	12	14
WxDxH (mm)	490x360x240	

Description	Pk	Cat. No.
V-3000PC, Vis scanning spectrophotometer	1	634-6040
UV-3100PC, UV/Vis scanning spectrophotometer	1	634-6042

Description	For	Pk	Cat. No.
Accessories			
Cell holder, 4-cell, 10 mm path length	V-1200, UV-1600PC, V-3000PC UV-3100PC	1	634-6003
Cell holder, 4-cell, 10 to 100 mm path length	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6005
Cell holder, for cylindrical cell, Ø 22 mm	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6006
Cell holder, water jacketed, 1 cell, 10 mm path length	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6007
Cell holder for test tubes	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6009
Cell holder, 8-position auto cell changer	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6010
Cell holder, solid sample, 10 mm path length	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6011
Cell holder, water jacketed, 4-cell, 10 mm path length	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6012
A 102, constant temperature (Peltier) system with beam height 15 mm	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-0698
A-101 sipper system with beam height 15 mm, (appropriate flow cell required)	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-0699
A-100, constant temperature (Peltier) sipper system, beam height 15 mm, (appropriate flow cell required)	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-0763
Flow cell, optical glass, 10 mm path length, beam height 15 mm	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-0691
Flow cell, quartz glass, 10 mm path length, beam height 15 mm	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-0695
Thermal printer	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6039
Lamp, halogen, 12 V/20 W	V-1200, UV-1600PC, V-3000PC UV-3100PC	1	634-6037
Lamp, deuterium	UV-1600PC, UV-3100PC, UV-6300PC	1	634-6038
Replacement battery type CR2032	V-1200, UV-1600PC, V-3000PC, UV-3100PC	1	634-0653
Fuse (power board) 500 mA/250 V	UV-1600PC, V-3000PC, UV-3100PC	1	634-0652
Fuse (outlet) 3,15 A/250 V	V-1200, UV-1600PC, V-3000PC UV-3100PC	1	634-0651



Double Beam, UV-Vis spectrophotometer, UV-6300PC



A double beam spectrophotometer suitable for a wide range of applications including general research, pharmaceutical, biochemical and clinical laboratory use, new material development and quality control. The instrument can be used in stand-alone mode or in conjunction with a PC using the supplied UV-VIS Analyst software which then delivers more powerful data processing, expanded data collecting, and removes the limit on storage capability.

Standalone functionality includes:

- Standard photometrics - absorptpion, transmission, concentration
- Quantitative analysis and kinetics
- Multi-wavelength scan, spectrum scan
- DNA/RNA and protein analysis

Delivery Information: Supplied with 4 optical glass cells, 2 quartz cells, dust cover, USB cable, USB (8 GB) stick, UV-Vis Analyst software for PC control, single cell holders for sample and reference, power cables with UK, CH and EU plugs.

Model	UV-6300PC
Baseline flatness	0,001 A (200 - 1000 nm)
Control	Internal control via keyboard with optional PC control
Display	LCD 320x240 pixel
Interfaces	USB and parallel printer interface
Keyboard	Keypad
Languages	English, French, German and Spanish
Light source	Deuterium and tungsten lamps
Optical system	Double beam
PC software	UV-Vis Analyst
Photometric accuracy	$\pm 0,002$ A at 1 A; $\leq 0,3\%$ T
Photometric range	-0,3 to 3,0 A; 0 to 200% T; 0 - 9999C

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Model	UV-6300PC
Photometric stability	0,001 A/h at 500 nm
Scan	Scan intervals: 0,1; 0,2; 0,5; 1,0 and 5,0 nm
Spectral bandwidth (nm)	1
Storage capacity	200 results and 200 standard curves
Stray light	≤0,05% T at 220 and 360 nm
Wavelength accuracy (nm)	±0,3
Wavelength range (nm)	190 - 1100
Weight (kg)	26
Wx Dx H (mm)	590x420x260

Description		Pk	Cat. No.
UV-6300PC		1	634-6041
Description	For	Pk	Cat. No.
Accessories			
Cell holder (sample), 1 position, for 10 mm pathlength standard cells	UV-6300PC	1	634-0777
Cell holder (reference), 1 position, for 10 mm pathlength standard cells	UV-6300PC	1	634-0778
Cell holder, 4-cell, 10 to 50 mm path length	V-1200, UV-1600PC, V-3000PC UV-3100PC	1	634-6004
Cell holder, 4-cell, 10 to 100 mm path length	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6005
Cell holder, for cylindrical cell, Ø 22 mm	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6006
Cell holder, water jacketed, 1 cell, 10 mm path length	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6007
Cell holder for test tubes	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6009
Cell holder, 8-position auto cell changer	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6010
Cell holder, solid sample, 10 mm path length	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6011
Cell holder, water jacketed, 4-cell, 10 mm path length	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6012
A 102, constant temperature (Peltier) system with beam height 15 mm	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-0698
A-101 sipper system with beam height 15 mm, (appropriate flow cell required)	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-0699
A-100, constant temperature (Peltier) sipper system, beam height 15 mm, (appropriate flow cell required)	UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-0763
Thermal printer	V-1200, UV-1600PC, V-3000PC UV-3100PC, UV-6300PC	1	634-6039
Lamp, deuterium	UV-1600PC, UV-3100PC, UV-6300PC	1	634-6038
Halogen lamp, 12 V, 20 W, Osram	UV-6300PC	1	634-0776

Cuvettes, disposable



Disposable cuvettes made from optical Polystyrene (PS) with optimal transmittance from 340 to 900 nm or PMMA with a range of 300 to 900 nm.

- Minimal variation of extinction values
- Recessed windows
- Resealable packaging

Type	Window material	Optical path length (mm)	Volume (ml)	Range	Pk	Cat. No.
Macro	PS	10	2,5 - 4	340 - 900 nm	100	634-0675
Semi-micro	PS	10	1,5 - 3	340 - 900 nm	100	634-0676
Macro	PMMA	10	2,5 - 4	300 - 900 nm	100	634-0677
Semi-micro	PMMA	10	1,5 - 3	300 - 900 nm	100	634-0678

Pocket refractometers with automatic temperature compensation



These robust refractometers are easy to use and deliver exact, consistent results. There are several different models with the relevant scale (°Brix, specific gravity, Oechsle) for juices, beverages, industrial liquids, etc.

- Automatic temperature compensation (ATC) between 10 °C and 30 °C delivers exact and reliable results
- Robust design
- Easy to read scales
- Easy to use and clean

Delivery Information: Refractometer supplied in plastic box with pipette, instruction manual and adjustment tools.

Description	Range (°Brix)	Pk	Cat. No.
Sugar	0 - 10	1	635-0164
Sugar	0 - 20	1	635-0165
Sugar	0 - 32	1	635-0166
Sugar	0 - 50	1	635-0167
Sugar	28 - 62	1	635-0168
Sugar	40 - 82	1	635-0169
Sugar	58 - 90	1	635-0170
Salinity	0 - 28% NaCl	1	635-0171
Wine: Oeschle / sugar	30 - 140 Oechsle / 0 - 32	1	635-0172
Ethylene glycol F.pt. / battery acid specific gravity	-50...0 °C / 1,15 - 1,30	1	635-0173
Description		Pk	Cat. No.
Accessories			
End caps (replacement)		1	635-0174

NMR sample tubes, 5 mm, economy



Borosilicate glass 5.1

- Ideal for high-throughput NMR and autosampling NMR systems
- Each tube is etched with the catalogue number and has a marking spot

External diameter: 4,94665 mm ±0,01905 mm, wall thickness: 0,43 mm ± 0,02 mm

Delivery Information: Supplied with caps in packs of five tubes.

Length (mm)	Camber (µm)	Concentricity (µm)	Frequency (MHz)	Pk	Cat. No.
178	2,5	3,8	700	5	634-0444
203	2,5	3,8	700	5	634-0445
178	3,8	3,8	600	5	634-0446
203	3,8	3,8	600	5	634-0447
178	13	13	500	5	634-0448
203	13	6	500	5	634-0449
178	25	13	400	5	634-0450
203	25	13	400	5	634-0451
178	51	13	300	5	634-0452
203	51	13	300	5	634-0453
178	51	25	200	5	634-0454
203	51	25	200	5	634-0455
178	51	50	100	5	634-0456
203	51	50	100	5	634-0457

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Table with 6 columns: Length (mm), Camber (µm), Concentricity (µm), Frequency (MHz), Pk, Cat. No. Rows include lengths 178, 203, 229 mm with corresponding specifications and catalog numbers 634-0458, 634-0459, 634-0460.

NMR sample tubes, 5 mm, economy
Borosilicate glass 3.3

- Each tube is etched with the catalogue number and a small writing area
- External diameter: 4,9635 mm ±0,0065 mm
- Wall thickness: 0,38 mm ±0,02 mm

Delivery Information: Supplied with caps in packs of five tubes.

Table with 6 columns: Length (mm), Camber (µm), Concentricity (µm), Frequency (MHz), Pk, Cat. No. Rows include lengths 178, 203, 229 mm with specifications and catalog numbers 634-0571, 634-0581, 634-0582.

NMR sample tubes, 5 mm, disposable
Borosilicate glass 5.1

- External diameter: 4,94665 mm ±0,01905 mm
- Wall thickness: 0,043 ±0,02 mm

Delivery Information: Supplied without caps in packs of 100 tubes

Table with 6 columns: Length (mm), Camber (µm), Concentricity (µm), Frequency (MHz), Pk, Cat. No. Rows include lengths 178, 203 mm with specifications and catalog numbers 634-0461, 634-0462.

NMR sample tube caps

- Manufactured in ethylene vinyl acetate (EVA)
- Caps for 5 mm OD NMR tubes
 - Available in eight colours

Not recommended for use with chloroform and DMSO

Table with 3 columns: Colour, Pk, Cat. No. Rows list various colors (Assorted, Black, Blue, Green, Orange, Violet, Red, White, Yellow) and their corresponding pack sizes and catalog numbers.

Hydrometers, M50 Series



Glass hydrometers without thermometer, packed in a strong transparent plastic case.

- Conform to ISO 649 (BS 718, DIN 12791, NF B 35511)
- Calibration temperature: 20 °C
- Division 0.001 g/ml

Length: 270 mm

Range (g/ml)	Division (g/ml)	Pk	Cat. No.
0,800 - 0,850	0,001	1	614-0311
0,850 - 0,900	0,001	1	614-0312
0,900 - 0,950	0,001	1	614-0313
0,950 - 1,000	0,001	1	614-0314
1,000 - 1,050	0,001	1	614-0315
1,050 - 1,100	0,001	1	614-0316
1,100 - 1,150	0,001	1	614-0317
1,150 - 1,200	0,001	1	614-0318

Hydrometers, M100 Series



Glass hydrometers without thermometer, packed in a strong transparent plastic case.

- Conform to ISO 649 (BS 718, DIN 12791, NF B 35511)
- Calibration temperature: 20 °C
- Division 0.002 g/ml

Length: 250 mm

Range (g/ml)	Division (g/ml)	Pk	Cat. No.
0,800 - 0,900	0,002	1	614-0109
0,900 - 1,000	0,002	1	614-0110
1,000 - 1,100	0,002	1	614-0111
1,100 - 1,200	0,002	1	614-0112
1,200 - 1,300	0,002	1	614-0113
1,300 - 1,400	0,002	1	614-0114

Hydrometers with thermometers, Brix sugar scale, SAFETY BLUE



The thermometers do not contain mercury and are safe and easy to clean up in the event of a breakage.

- Supplied with a Certificate of Tolerance to NIST
- Conform to the accuracy requirements for ASTM thermo-hydrometers
- Brix sugar scale at 20 °C

Length 381mm

Thermometer from 0 to 50 °C

Range (°Brix)	Division (°C)	Pk	Cat. No.
0 - 12	0,1	1	620-0924
9 - 21	0,1	1	620-0925
19 - 31	0,1	1	620-0926
29 - 41	0,1	1	620-0927
39 - 51	0,1	1	620-0928
49 - 61	0,1	1	620-0929
59 - 71	0,1	1	620-0930
69 - 81	0,1	1	620-0931
79 - 91	0,1	1	620-0932
89 - 101	0,1	1	620-0933



Viscosity baths



Viscosity baths for use with popular capillary viscometers are configured to accommodate specific testing and quality control needs, including ASTM D-445. Choice of models with round or square top openings. These transparent polycarbonate baths with user friendly SD temperature controller feature four control buttons and on-screen prompts in French, German, Spanish and English. Controller bridge made from chemical resistant DuraTop™ is easily removed to clean the tank.

- Large EasyView™ LCD display with alarm or fault icons and prompts and menus in four languages: French, German, Spanish and English
- Swivel 180™ rotating controllers, LidDock™ lid stowing system and DuraTop™ chemical resistant deck
- User-adjustable high and low temperature limits and low liquid level alarms
- Two speed pressure pump with tap water cooling coil
- Single point calibration

Comply with DIN 12876-1, Safety class I

Maximum pump capacities:
10,2 l/min, 200 mbar

Delivery Information: Supplied with lids for viscometer openings. For probes and accessories, please visit www.vwr.com

Model	Round holes	Square holes
Bath capacity (l)	29 l	
Bath depth (mm)	286	
Bath material	Polycarbonate	
Display resolution	±0,01	
Temperature range (°C)	Ambient +10...85	
Temperature stability (°C)	±0,04	
Viscometer positions	5	3
WxDxH (mm)	229x544x526	

Description	Pk	Cat. No.
Viscosity bath with 5 round holes for viscometers, SD temperature controller	1	462-0209
Viscosity bath with 3 square holes for viscometers, SD temperature controller	1	462-0210



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pH/°C & ORP/°C meters, pH10 Pen & ORP15 Pen



Simple, compact instruments designed for quick accurate results in an economical pen format. Ideal for agriculture, education, fruit and vegetable washing, swimming pools, wastewater, pulp bleaching and aquaculture.

- LCD with a graphic display, IP 67 waterproof housing
- Replaceable electrodes
- Non volatile memory stores 50 sets of data (pH or absolute/relative ORP, temperature, date and time stamp)
- GLP functionality - saves and displays last calibration data
- Automatic temperature compensation; automatic calibration and buffer recognition

Warranty: 1 year (instrument) / 6 months (electrode)

Ordering Information: Supplied with 8xLR44 batteries.

Model	pH10 Pen	ORP15 Pen
Batteries	~35 h	
Compliance	IP 67 / GLP	
Datalog - capacity	50	
Display	LCD	
mV - accuracy	-	1 ±1 last significant digit
mV - range		±1200
mV - resolution		1
pH - accuracy	±0,02	-
pH - calibration	1, 2 or 3 point	
pH - range	0,00...+14,00	
pH - resolution	0,01	
Temperature accuracy (°C)	±0,3	
Temperature ATC probe	Thermistor, 10 kΩ/25 °C	
Temperature range (°C)	0,0...+99,9	-5,0...+99,9
Temperature resolution (°C)	0,1	
Weight (kg)	0,105 (with batteries)	

Description	Pk	Cat. No.
pH10 Pen	1	662-0121
ORP15 Pen	1	662-0126

Description	Pk	Cat. No.
Accessories		
Replacement pH electrode	1	662-0122
Replacement ORP electrode kit, incl. electrode, collar, 3xO-rings, sensor cap	1	662-0127
Replacement sensor cap	1	662-0123
Carrying case, soft-sided, for VWR pH10 and ORP15 pen meters	1	662-1117
Replacement battery compartment	1	662-0124



INSTRUMENT SERVICE AND MAINTENANCE

Please contact your local VWR sales office for more information



pH/mV/°C meter, handheld, pH 110



- IP 67 waterproof housing, large display and easy to use keypad
- Automatic temperature compensation
- 50 data sets reviewable memory
- 1000 hour battery life; auto-shut off function (30 minutes of non use)
- Electrode offset recognition; auto-lock and hold of readings on display

Warranty: 3 years for instruments and 6 months for electrodes/probes/cables

Ordering Information: Supplied in a carrying case with 1 m cable, pH/°C sensor and calibration buffers (4,01/7,00/10,00).

Model	pH 110
Compliance	IP 67
mV - accuracy	±0,1% ±1 digit
mV - range	−1999...+1250
mV - resolution	1
pH - accuracy	±0,1% ±2 digits
pH - calibration	Auto-buffer recognition using US & VWR buffers (VWR buffers set as default: 4,01, 6,86, 9,18 at 25 °C / 4,00, 6,87, 9,23 at 20 °C)
pH - range	−2,00...+16,00
pH - resolution	0,01
Temperature accuracy (°C)	±0,3 ±2 digits
Temperature range (°C)	−10...+120
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
Handheld pH/mV/°C meter pH 110 (incl. pH/°C probe with 1 m cable)	1	662-1350

Description	Pk	Cat. No.
Accessories		
pH electrode, 1 m cable (pH 1001)	1	662-1785
Temperature probe, 1 m cable (pH 1001)	1	662-1786
pH/temperature electrode, 1 m cable waterproof	1	662-9904
pH/temperature electrode, 4 m cable waterproof	1	662-9905
ORP electrode, 1 m cable	1	662-9906
pH buffer capsules 4,01 ± 0,02	50	332732B
pH buffer capsules 7,00 ± 0,02	50	332742D
pH buffer capsules 10,00 ± 0,02	50	332762H



pH/mV/°C meter, handheld, pH 1000 H, pHenomenal®



User friendly, waterproof instrument with an IP 67 rated housing. High resolution and accuracy for precise measurement. GLP compliant.

- Simultaneous display of pH, mV and temperature measurement (in addition the display can show date, time etc.)
- Three-position LED backlight
- Automatic and manual calibration (1 to 3 points)
- Automatic buffer recognition of DIN and NIST buffers (1,68 / 4,00 / 6,86 / 9,18 / 12,54)
- Three additional technical buffers (4,00 / 7,00 / 10,00) in memory
- Advanced self-test and diagnostic (electrode efficiency diagnostic, drift control)
- Run for over 1000 operating hours with 4 'AA' batteries

Ordering Information: pH 1000 H Set including instrument, temperature/pH electrode pHenomenal® 111, buffers, stand, accessories, case and batteries (4xAA).

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Model	pH 1000 H
Compliance	IP 67 / GLP
Connections	BNC for pH / banana for temperature
Datalog - capacity	200 points
Display	Customer specific 7-segment LCD
mV - accuracy	±0,5
mV - range	±1999
mV - resolution	0,1 / 1
Outputs	Watertight USB connection (slave, bidirectional)
pH - accuracy	±0,005 ±1 digit
pH - calibration	1-/2-/3-point calibration: AutoCal™ - Concal (with unknown buffer) Actual calibration data can be recalculated
pH - range	-2,000...+19,999
pH - resolution	0,1 / 0,01 / 0,001
Temperature accuracy (°C)	±0,2
Temperature compensation	Auto/Manual
Temperature range (°C)	0,0...+100,0
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
Handheld pH/mV/°C meter pH 1000 H, pHenomenal®	1	662-1421

Description	Pk	Cat. No.
Buffer solutions in bottles		
Buffer solution AVS TITRINORM®, ready to use, pH 10	100 ml	32040.185
Buffer solution AVS TITRINORM®, ready to use, pH 4	100 ml	32095.184
Buffer solution AVS TITRINORM®, ready to use, pH 7	100 ml	32096.187
Accessories		
pHenomenal® 111 pH electrode, 3 in 1, gel, epoxy, 1 m cable, BNC, with temperature sensor	1	662-1157
pHenomenal® electrode storage tube	1	662-1167
pHenomenal® electrode stand	1	662-1169
pHenomenal® communication kit (CD-ROM, USB cable, manual)	1	662-1225
pHenomenal® extension stick, aluminium, 1,5 m	1	662-1224
pHenomenal® storage/measuring vessel	1	662-1248
pHenomenal® field case	1	662-1168
Cleaning solution pepsine/hydrochloric acid	100 ml	83603.180
KCl 3 mol/l	100 ml	83605.180



pH/mV/°C meter, bench, pH 1000 L, pHenomenal®



User friendly instrument with an IP 43 rated housing. High resolution and accuracy for precise measurement. GLP compliant.

- Simultaneous display of pH, mV and temperature measurement (in addition the display can show date, time, etc)
- Three-position LED backlight
- Automatic and manual calibration (1 to 3 points)
- Automatic buffer recognition of DIN and NIST buffers (1,68 / 4,00 / 6,86 / 9,18 / 12,54)
- Three additional technical buffers (4,00 / 7,00 / 10,00) in memory
- Advanced self-test and diagnostics (electrode efficiency diagnostic, drift control)
- Choice of mains supply or 4 'AA' batteries for over 1000 operating hours

Ordering Information: pH 1000 L Set including instrument, built-in temperature/pH electrode pHenomenal® 221, stand and power adapter.

Model	pH 1000 L
Compliance	IP 43 / GLP
Connections	BNC for pH / banana for temperature
Datalog - capacity	Manual storage (min. 500 data sets)
Display	Customer specific 7-segment LCD, with backlight
mV - accuracy	±0,5

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Model	pH 1000 L
mV - range	±1200,0 / ±1999
mV - resolution	0,1 / 1
Outputs	Watertight USB connection (slave, bidirectional)
pH - accuracy	±0,005 ±1 digit
pH - calibration	1-/2-/3-point calibration: AutoCal™ - Concal (with unknown buffer) Actual calibration data can be recalculated Selectable calibration interval
pH - range	−2,000...+19,999
pH - resolution	0,1 / 0,01 / 0,001
Temperature accuracy (°C)	±0,2
Temperature compensation	Auto/Manual
Temperature range (°C)	0,0...+100,0
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
Bench pH/mV/°C meter pH 1000 L, pHenomenal®	1	662-1422

Description	Pk	Cat. No.
Buffer solutions in bottles		
Buffer solution AVS TITRINORM®, ready to use, pH 10	100 ml	32040.185
Buffer solution AVS TITRINORM®, ready to use, pH 4	100 ml	32095.184
Buffer solution AVS TITRINORM®, ready to use, pH 7	100 ml	32096.187

Accessories		
pHenomenal® electrode storage tube	1	662-1167
pHenomenal® electrode stand	1	662-1169
pHenomenal® 221 pH electrode, refillable, glass, 1 m cable, BNC, with temperature sensor	1	662-1161
pHenomenal® communication kit (CD-ROM, USB cable, manual)	1	662-1225
pHenomenal® compact survival kit (incl. electrode storage tube, 4 slots for storage of pH buffer, cleaning solution, etc, and 1 slot for a dropping bottle)	1	662-1166
pHenomenal® storage/measuring vessel	1	662-1248
Cleaning solution pepsine/hydrochloric acid	100 ml	83603.180
KCl 3 mol/l	100 ml	83605.180

pH/mV/°C/ion meter, bench, IS 2000 L, pHenomenal®



User friendly instrument with an IP 43 rated housing. High resolution and accuracy for precise measurement. GLP compliant.

- Simultaneous display of pH, mV and temperature measurement (in addition the display can show date, time, etc)
- Automatic and manual calibration (1 to 5 points)
- Automatic buffer recognition of DIN and NIST buffers (1,68 / 4,00 / 6,86 / 9,18 / 12,54)
- Advanced self-test and diagnostics (electrode efficiency diagnostic, drift control)
- Choice of mains supply or 4x 'AA' batteries for over 1000 operating hours

Ordering Information: IS 2000 L Set including instrument, built-in temperature/pH electrode pHenomenal® 221 and stand.

Model	IS 2000 L
Compliance	IP 43 / GLP
Connections	BNC for pH / banana for temperature
Datalog - capacity	Manual storage (min. 500 data sets)
Display	Graphic display with mol/l, mg/l and ppm shown on the screen
ISE - calibration	1 - 7 points
ISE - range	0,001 mg/l - 99999 g/l / 0,001 µmol/l - 9999 mmol/l / 0,001 ppm - 99999 ppm
mV - accuracy	±0,2 / ±1
mV - range	±999,9 / ±2000
mV - resolution	0,1 / 1
Outputs	Watertight USB connection (slave, bidirectional)
pH - accuracy	±0,004 ±1 digit
pH - calibration	Automatic from 2 to 5 points within the 7 recognised buffers
pH - range	−2,000...+20,000

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Model	IS 2000 L
pH - resolution	0,1 / 0,01 / 0,001
Temperature accuracy (°C)	±0,2
Temperature compensation	Auto/Manual
Temperature range (°C)	−20,0...+130,0
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
Bench pH/mV/°C/ion meter pHenomenal® IS 2000 L	1	665-0190

Description	Pk	Cat. No.
Buffer solutions in bottles		
Buffer solution AVS TITRINORM®, ready to use, pH 10	100 ml	32040.185
Buffer solution AVS TITRINORM®, ready to use, pH 4	100 ml	32095.184
Buffer solution AVS TITRINORM®, ready to use, pH 7	100 ml	32096.187
Accessories		
pHenomenal® electrode storage tube	1	662-1167
pHenomenal® electrode stand	1	662-1169
pHenomenal® 221 pH electrode, refillable, glass, 1 m cable, BNC, with temperature sensor	1	662-1161
pHenomenal® communication kit (CD-ROM, USB cable, manual)	1	662-1225
pHenomenal® compact survival kit (incl. electrode storage tube, 4 slots for storage of pH buffer, cleaning solution, etc, and 1 slot for a dropping bottle)	1	662-1166
pHenomenal® storage/measuring vessel	1	662-1248
Cleaning solution pepsine/hydrochloric acid	100 ml	83603.180
KCl 3 mol/l	100 ml	83605.180

pH electrodes, pHenomenal®



With BNC connector and cable

These electrodes are checked at five points during the manufacturing process and then lot stamped to assure quality. Every electrode is supplied with a soaker storage bottle and cap to ensure the pH-sensitive glass and reference junction remain in top condition and are instantly ready for use.

Description	Type	Material	Connection	Pk	Cat. No.
pHenomenal® pH electrode 110, gel, epoxy, BNC, 1 m cable	pHenomenal® 110, gel	Epoxy	BNC, 1 m cable	1	662-1156
pHenomenal® 111 pH electrode, 3 in 1, gel, epoxy, 1 m cable, BNC, with temperature sensor	pHenomenal® 111, 3 in 1, gel *	Epoxy	BNC, 1 m cable	1	662-1157
pHenomenal® 111-3 pH electrode, 3 in 1, gel, epoxy, 3 m cable, BNC, with temperature sensor	pHenomenal® 111-3, 3 in 1, gel *	Epoxy	BNC, 3 m cable	1	662-1158
pHenomenal® 220 pH electrode, refillable, glass, 1 m cable, BNC	pHenomenal® 220, refillable	Glass	BNC, 1 m cable	1	662-1159
pHenomenal® 221 pH electrode, refillable, glass, 1 m cable, BNC, with temperature sensor	pHenomenal® 221, refillable *	Glass	BNC, 1 m cable	1	662-1161
pHenomenal® 211 pH electrode, refillable, epoxy, 3 m cable, BNC, with temperature sensor	pHenomenal® 211, refillable *	Epoxy	BNC, 1 m cable	1	662-1162
pHenomenal® MIC 220 pH electrode, refillable, glass, Micro, 1 m cable, BNC	pHenomenal® MIC 220, refillable, Micro	Glass	BNC, 1 m cable	1	662-1163
pHenomenal® SPEAR 220 pH electrode, spear type, glass, 1 m cable, BNC	pHenomenal® SPEAR 220, spear type	Glass	BNC, 1 m cable	1	662-1164
pHenomenal® LS 221 (Tris) pH electrode, glass, 1 m cable, BNC	pHenomenal® LS 221 (Tris)	Glass	BNC, 1 m cable	1	662-1247
Description	Type	Material	Connection	Pk	Cat. No.
Temperature sensor pHenomenal® TEMP21					
Temperature sensor pHenomenal® TEMP21, epoxy, 4 mm banana connector, 1 m cable	pHenomenal® TEMP21	Epoxy	4 mm banana, 1 m cable	1	620-1659

* integrated temperature probe

Universal pH electrodes



Electrode	Applications
Simple junction / Ceramic junction	Aqueous media
Double junction	Aqueous media, microbiology samples, beer
Flat tip, double junction	Agar, food and beverage, serum, soil, TRIS buffers, viscous samples
Semi-micro	Tap water, sea water, disinfectants, soap
Large surface flat tip	Agar, food, cosmetics, leather, water, viscous samples
Spear tip, double junction	Bread, butter, cheese, fats, meat

With 1 m fixed cable or S7 connector

- Checked at 5 points during the manufacturing process and lot stamped to assure quality
- With a storage soaker bottle to protect the electrode keeping the item in top condition and instantly ready for use

pH range: 0 - 14

Temperature range: 0 to +100 °C (10 to 100 °C for flat tips)

Response time: 95% < 1 second (95% < 5 seconds for flat tips)

With 1 m fixed cable

Type	pH	Temp. (°C)	Material	Electrolyte	ØxL (mm)	Connection	For	Pk	Cat. No.
Ceramic junction	0 - 14	0...+100	Glass	3,5 M KCl	12x150	BNC	Aqueous media	1	662-1788
Ceramic junction	0 - 14	0...+100	Glass	3,5 M KCl	12x150	DIN	Aqueous media	1	662-1790
Simple junction (Pellon)	0 - 14	0...+100	Epoxy	Gel	12x150	BNC	Aqueous media	1	662-1759
Simple junction (Pellon)	0 - 14	0...+100	Epoxy	Gel	12x150	DIN	Aqueous media	1	662-1760
Semi-micro, Pellon junction	0 - 14	0...+100	Epoxy	Gel	6x150	BNC	Tap water, sea water, disinfectants, soap	1	662-1767
Large surface flat tip, HDPE junction	0 - 14	0...+100	Epoxy	Gel	15x115	BNC	Agar, food, cosmetics, leather, water, viscous samples	1	662-1769
Double junction (Pellon)	0 - 14	0...+100	Epoxy	Gel	12x150	BNC	Aqueous media, microbiology samples, beer	1	662-1761
Double junction (Pellon)	0 - 14	0...+100	Epoxy	Gel	12x150	DIN	Aqueous media, microbiology samples, beer	1	662-1762
Flat tip, double junction (HDPE/ Pellon)	0 - 14	+10...+100	Epoxy	Gel	12x150	BNC	Agar, food and beverage, serum, soil, TRIS buffers, viscous samples	1	662-1763
Flat tip, double junction (HDPE/ Pellon)	0 - 14	0...+100	Glass	3,5 M KCl	12x150	BNC	Agar, food and beverage, serum, soil, TRIS buffers, viscous samples	1	662-1797
Spear tip, double junction (PVDF/ Pellon)	0 - 14	0...+100	Epoxy	Gel	12/9x150	BNC	Bread, butter, cheese, fats, meat	1	662-0084

Continued from previous page

With S7 connector

Type	pH	Temp. (°C)	Material	Electrolyte	Ø×L (mm)	Connection	For	Pk	Cat. No.
Simple junction (Pellon)	0 - 14	0...+100	Epoxy	Gel	12×150	S7	Aqueous media	1	662-1771
Ceramic junction	0 - 14	0...+100	Glass	3,5 M KCl	12×150	S7	Aqueous media	1	662-1791
Semi-micro, Pellon junction	0 - 14	0...+100	Epoxy	Gel	6×150	S7	Distilled water, ultra-pure water, toothpaste, TRIS Buffers, microbiology	1	662-1775
Double junction (Pellon)	0 - 14	0...+100	Epoxy	Gel	12×150	S7	Aqueous media, TRIS buffers	1	662-1772
Flat tip, double junction (HDPE/ Pellon)	0 - 14	0...+100	Epoxy	Gel	12×150	S7	Agar, food and beverage, serum, soil, TRIS buffers, viscous samples	1	662-1773

Low flow cells for pH measurement

The VWR Low flow cells are designed for use in a variety of instrumental techniques such as FIA, HPLC and IEF. They are also used to enable a continuous monitoring of the pH at low volume flows in bench scale chemical systems. They are supplied with inlet and outlet fittings sized for standard 1/16' or 1,6 mm OD tubing.

- Available in acrylic or PVDF
- Designed for clean, sweeping flow at low volume
- Designed for use with VWR large surface flat tip electrode 662-0456

Description	Pk	Cat. No.
Low flow cell 50 µl, acrylic	1	662-0458
Low flow cell 50 µl, PVDF	1	662-0459
Low flow cell 200 µl, acrylic	1	662-0457
Low flow cell 200 µl, PVDF	1	662-0460

Accessories

Description	Pk	Cat. No.
BNC connector, 1 m cable, coaxial	1	662-1410
DIN connector, 1 m cable, coaxial	1	662-1411

Combined pH electrodes with internal temperature compensation



With 1 m fixed cable

- Three electrodes in one
- Compatible with most pH meters
- With protective cap for electrode preservation under optimal conditions

pH range: 0 - 14

Temperature range: 0 to +70 °C

Response time: 90% < 1 second

Type	pH	Temp. (°C)	Material	Electrolyte	Ø×L (mm)	Connection	For	Pk	Cat. No.
PT1000	0 - 14	0...+70	Epoxy	Gel	12×150	DIN + 4 mm banana	Mettler, Knick, Schott	1	662-0076
30 K NTC	0 - 14	0...+70	Epoxy	Gel	12×150	BNC + banana ×2	Orion	1	662-0080

Type	Material	Electrolyte	Ø×L (mm)	Connection	For	Pk	Cat. No.
Other electrodes							
30 K NTC	Epoxy	Gel	12×150	BNC + 8 pin	Orion	1	662-0072
10 K NTC	Epoxy	Gel	12×150	BNC + SMPP	Fisher	1	662-0073
PT1000	Epoxy	Gel	12×150	BNC + 4 mm banana	Mettler, Crison, Schott	1	662-0074
30 K NTC	Epoxy	Gel	12×150	BNC + 4 mm banana	WTW, Schott	1	662-0075
30 K NTC	Epoxy	Gel	12×150	DIN + 4 mm banana	WTW, Knick, Schott	1	662-0077
10 K NTC	Epoxy	Gel	12×150	DIN + 2,5 banana	Sartorius	1	662-0078
10 K NTC	Epoxy	Gel	12×150	BNC + 2,5 banana	Sartorius, Fisher	1	662-0079
10 K NTC	Epoxy	Gel	12×150	BNC + Cinch	Radiometer	1	662-0081
30 K NTC	Epoxy	Gel	12×150	DIN + Cinch	Mettler	1	662-0082
30 K NTC	Epoxy	Gel	12×150	BNC + Cinch	Mettler	1	662-0083

Combined pH electrodes, pHASE



With 1 m fixed cable

Combined electrodes providing fast, accurate and stable pH measurements, ideal for control quality and research and development use.

- Fast, accurate and stable pH measurements, fast thermal equilibration, high accuracy even in samples with large temperature range
- Available with sealed design (economical, easy to use, with minimum maintenance) or Rapid-Renew design (refillable electrodes used with dirty or other samples that cause junction fouling)
- Available with epoxy body (with good chemical resistance, maximum ruggedness and removable bulb guard) or glass body (maximum chemical resistance with fully exposed ruggedised bulbs)

pH range: 0 - 14

Accuracy: to 0,04 pH between 0 to +100 °C in 7 pH buffer

Stability: 0,005 pH or less drift per hour

Temperature range: 0 to +100 °C

Electrode	Applications
Sealed, double junction (Pellon)	Aqueous media, beverage, TRIS buffer
Refillable, double junction (plastic), epoxy	Most of applications
Refillable, double junction (plastic), glass	Aqueous media, beverage, TRIS buffer, cosmetics, ultra-pure water

Type	pH	Temp. (°C)	Material	Electrolyte	ØxL (mm)	Connection	For	Pk	Cat. No.
Refillable, double junction (plastic)	0 - 14	0...+100	Epoxy	3,5 mol/l KCl	12x150	BNC	Most of applications	1	662-1782
Sealed, double junction (Pellon)	0 - 14	0...+100	Epoxy	Gel	12x150	BNC	Aqueous media, beverage, TRIS buffer	1	662-1778
Refillable, double junction (plastic)	0 - 14	0...+100	Glass	3,5 mol/l KCl	12x150	DIN	Aqueous media, beverage, TRIS buffer, cosmetics, ultra-pure water	1	662-1801

Type	pH	Temp. (°C)	Material	Electrolyte	ØxL (mm)	Connection	For	Pk	Cat. No.
Other electrodes									
Sealed, double junction (Pellon)	0 - 14	0...+100	Epoxy	Gel	12x150	DIN	Aqueous media, beverage, TRIS buffer	1	662-1779
Sealed, flat tip, double junction (HDPE)	0 - 14	0...+100	Epoxy	Gel	12x150	BNC	Aqueous media, beverage, TRIS buffer, cosmetics, ultra-pure water	1	662-1780
Sealed, flat tip, double junction (HDPE)	0 - 14	0...+100	Epoxy	Gel	12x150	DIN	Aqueous media, beverage, TRIS buffer, cosmetics, ultra-pure water	1	662-1781
Refillable, double junction (plastic)	0 - 14	0...+100	Epoxy	3,5 mol/l KCl	12x150	DIN	Most of applications	1	662-1783
Sealed, double junction (Pellon)	0 - 14	0...+100	Glass	Gel	12x150	BNC	Aqueous media, beverage, TRIS buffer	1	662-1799
Refillable, double junction (plastic)	0 - 14	0...+100	Glass	3,5 mol/l KCl	12x150	BNC	Aqueous media, beverage, TRIS buffer, cosmetics, ultra-pure water	1	662-1800

Description	Pk	Cat. No.
Accessories		
Refill solution 3,5 mol/l KCl	100 ml	662-1784

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The local website with global reach

Universal pH and redox electrodes



Laboratory and field electrodes for different applications and measuring meters. All VWR electrodes are checked at two points during the manufacturing process and then lot stamped to assure quality. They are supplied with a soaker storage bottle and cap to ensure the pH-sensitive glass and reference junction remain in top condition and are instantly ready for use.

- Comfortable handling and reliable function
- Gel or liquid electrolyte, glass or epoxy body shaft
- Available with different connections: plug head or fixed cable (1 m) with either DIN or BNC type plug

Type	Material	Electrolyte	Diaphr.	Ø×L (mm)	Connection	For	Pk	Cat. No.
SJ 113	Epoxy	Gel	Ceramic	12×120	BNC, 1 m cable	General purpose, education	1	662-1382
SJ 114	Epoxy	Gel	Ceramic	12×120	DIN, 1 m cable		1	662-1383
SJ 115	Epoxy	Gel	Ceramic	12×120	Plug head		1	662-1384
DJ 113	Epoxy	Gel	Ceramic	12×120	BNC, 1 m cable	Harsh environment, rugged use, field or plant; water, wastewater	1	662-1385
DJ 114	Epoxy	Gel	Ceramic	12×120	DIN, 1 m cable		1	662-1386
DJ 115	Epoxy	Gel	Ceramic	12×120	Plug head		1	662-1387
SF 113 (Flat)	Epoxy	Gel	Ceramic	12×120	BNC, 1 m cable	Flat surface - cheese, meat, agar / paper	1	662-1388
SF 114 (Flat)	Epoxy	Gel	Ceramic	12×120	DIN, 1 m cable		1	662-1389
SF 115 (Flat)	Epoxy	Gel	Ceramic	12×120	Plug head		1	662-1390
SM 123 (Semi-Micro)	Glass	Gel	Ceramic	12/6×120	BNC, 1 m cable	Small sample size - TRIS buffers, proteins, enzymes; Semi-solids - fruit, meat, cheese, jam	1	662-1391
SM 124 (Semi-Micro)	Glass	Gel	Ceramic	12/6×120	DIN, 1 m cable		1	662-1392
SM 125 (Semi-Micro)	Glass	Gel	Ceramic	12/6×120	Plug head		1	662-1393
SJ 223	Glass	KCl 3 mol/l	Ceramic	12×120	BNC, 1 m cable	General purpose; TRIS buffers, proteins, enzymes	1	662-1395
SJ 224	Glass	KCl 3 mol/l	Ceramic	12×120	DIN, 1 m cable		1	662-1396
SJ 225	Glass	KCl 3 mol/l	Ceramic	12×120	Plug head		1	662-1397
SF 223 (Flat)	Glass	KCl 3 mol/l	Ceramic	12×120	BNC, 1 m cable	Flat surface - cheese, meat, agar / paper	1	662-1398
SF 224 (Flat)	Glass	KCl 3 mol/l	Ceramic	12×120	DIN, 1 m cable		1	662-1399
SF 225 (Flat)	Glass	KCl 3 mol/l	Ceramic	12×120	Plug head		1	662-1401
SM 223 (Semi-Micro)	Glass	KCl 3 mol/l	Ceramic	12/6×120	BNC, 1 m cable	Small sample size - TRIS buffers, proteins, enzymes / test tubes, small flasks and beakers; Semi-solids - fruit, meat, cheese, jam	1	662-1402
SM 224 (Semi-Micro)	Glass	KCl 3 mol/l	Ceramic	12/6×120	DIN, 1 m cable		1	662-1403
SM 225 (Semi-Micro)	Glass	KCl 3 mol/l	Ceramic	12/6×120	Plug head		1	662-1404
SP 223 (Spear)	Glass	KCl 3 mol/l	Ceramic	12/6×120	BNC, 1 m cable	Semi-solids - fruit, meat, cheese, jam; Small sample size - TRIS buffers, proteins, enzymes / test tubes, small flasks and beakers	1	662-1405
SP 224 (Spear)	Glass	KCl 3 mol/l	Ceramic	12/6×120	DIN, 1 m cable		1	662-1406
SP 225 (Spear)	Glass	KCl 3 mol/l	Ceramic	12/6×120	Plug head		1	662-1407
Description							Pk	Cat. No.
Accessories								
BNC connector, 1 m cable, coaxial							1	662-1410
DIN connector, 1 m cable, coaxial							1	662-1411
Radiometer plug, 1 m cable, coaxial							1	662-1412
Metrohm plug, 1 m cable, coaxial							1	662-1413

Speciality electrodes



With 1 m fixed cable

Material: Epoxy
Electrolyte: Gel
pH range: 0 - 14

Electrode						Applications			
Double junction (Pellon)						Tap water, sea water, microbiology samples, beverage, TRIS buffer			
Flat extra wide, double junction (HDPE/Pellon)						Agar, microbiological samples, cheese, butter, water			
Low ionic, double junction (Pellon)						Low ionic strength solutions			
Type	pH	Temp. (°C)	Material	Electrolyte	Ø×L (mm)	Connection	For	Pk	Cat. No.
Double junction (Pellon)	0 - 14	0...+100	Epoxy	Gel	12×150	Belling Lee, coaxial	Tap water, sea water, microbiology samples, beverage, TRIS buffer	1	662-1803
Flat extra wide, double junction (HDPE/Pellon)	0 - 14	+10...+100	Epoxy	Gel	15×115	BNC	Agar, microbiological samples, cheese, butter, water	1	662-1805
Low ionic, double junction (Pellon)	0 - 14	0...+100	Epoxy	Gel	12×150	BNC	Low ionic strength solutions	1	662-1807
Type	pH	Temp. (°C)	Material	Electrolyte	Ø×L (mm)	Connection	For	Pk	Cat. No.
Other electrodes									
Pellon junction	0 - 14	0...+100	Epoxy	Gel	12×150	Belling Lee, coaxial	Tap water, sea water, effluent	1	662-1802
Ceramic junction	0 - 14	0...+100	Glass	3,5 mol/l KCl	12×150	Belling Lee, coaxial	Tap water, sea water, effluent	1	662-1789
ORP (Redox), Pellon junction	0 - 14	0...+100	Epoxy	Gel	12×150	BNC	Electroplating baths	1	662-1787
pH only half cell	0 - 14	0...+100	Epoxy	-	12×150	BNC	Water, creams, beverage	1	662-1804
pH only half cell	0 - 14	0...+100	Glass	-	12×150	DIN	Water, creams, beverage	1	662-1792
Reference only half cell, double junction (ceramic/Pellon)	0 - 14	0...+100	Epoxy	Gel	12×150	2 mm pin	Water, creams, beverage, TRIS buffer	1	662-1806

Redox electrode, pHenomenal®



With BNC connector and cable

Description	Type	Material	Connection	Pk	Cat. No.
Redox electrode pHenomenal® ORP220, refillable, glass, 1 m cable, BNC	pHenomenal® ORP220, refillable	Glass	BNC, 1 m cable	1	662-1165

Redox electrodes



Continued from previous page

Type	Material	Electrolyte	Connection	Pk	Cat. No.
RD 113 (Redox)	Epoxy	Gel	BNC, 1 m cable	1	662-1408
RD 223 (Redox)	Glass	Gel	BNC, 1 m cable	1	662-1409

Reference electrodes, half cell

Type	Material	Electrolyte	Ø×L (mm)	Connection	For	Pk	Cat. No.
Double junction reference electrode, half cell, 1 m cable	Glass	3,5 mol/l KCl	12×150	2 mm pin	Water, creams, beverage, TRIS buffer	1	662-1795
Double junction reference electrode, half cell, 1 m cable	Glass	3,5 mol/l KCl	6×150	3 mm pin	Water, creams, beverage, TRIS buffer	1	662-1796

Electrode stand, pHenomenal®



Electrode arm moves smoothly in almost any direction, holding up to 4 electrodes + 1 temperature sensor safely and securely in selected positions. Fingertip control raises, lowers, and pivots the holder. The arm articulates at three points while maintaining electrodes in a vertical position.

- Ideal for multiple readings
- Accepts all standard electrodes
- Pivots 360°, extends 53 cm

Description	Pk	Cat. No.
pHenomenal® electrode stand	1	662-1169



Buffer solutions, 20 °C AVS TITRINORM®



- Solutions prepared from AnalaR® NORMAPUR® products for analyses
- True analytical value on the label to an accuracy of ±0,2 pH units
- Traceable to SRM from NIST
- Batch number and packing date for traceability
- Certificate of analysis available from www.vwr.com

For full information concerning health and safety data please see the VWR Chemicals catalogue or the www.vwr.com website.

Ordering Information: For the full pH range of buffers and details of other pack sizes, please see the VWR Chemicals catalogue. If significant large volumes are required please contact the VWR sales office for a customised offer.

Description	pH value	Pk	Cat. No.
Buffer solutions in bottles			
Buffer solution pH 1,00 (20 °C, glycine buffer) ± 0,02 pH-units AVS TITRINORM®	1,00	1 l	32031.297
Buffer solution pH 2,00 (20 °C, citrate buffer) ± 0,02 pH-units AVS TITRINORM®	2,00	1 l	32032.291
Buffer solution pH 3,00 (20 °C, citrate buffer) ± 0,02 pH-units AVS TITRINORM®	3,00	1 l	32033.294
Buffer solution pH 3,00 (20 °C, citrate buffer) ± 0,02 pH-units AVS TITRINORM®	3,00	5 l	32033.374
Buffer solution pH 4,00 (20 °C) (Potassium hydrogen phthalate) ±0,02 pH-units AVS TITRINORM®	4,00	500 ml	32095.264
Buffer solution pH 4,00 (20 °C) (Potassium hydrogen phthalate) ±0,02 pH-units AVS TITRINORM®	4,00	1 l	32095.297
Buffer solution pH 4,00 (20 °C) (Potassium hydrogen phthalate) ±0,02 pH-units AVS TITRINORM®, plastic bottle	4,00*	5 l	32095.366
Buffer solution pH 4,00 (20 °C) (Potassium hydrogen phthalate) ±0,02 pH-units AVS TITRINORM®, bag in a box	4,00**	5 l	32095.377
Buffer solution pH 4 red coloured (potassium hydrogen phthalate) AVS TITRINORM	4,00 (red coloured)	500 ml	32044.268
Buffer solution pH 4 red coloured (potassium hydrogen phthalate) AVS TITRINORM	4,00 (red coloured)***	1 l	32044.290
Buffer solution pH 4 red coloured (potassium hydrogen phthalate) AVS TITRINORM	4,00 (red coloured)	1 l	32044.292
Buffer solution pH 4,66 (20 °C) (Acetic acid/Sodium acetate) ±0,02 pH-units AVS TITRINORM®	4,66	500 ml	98192.260
Buffer solution pH 4,66 (20 °C) (Acetic acid/Sodium acetate) ±0,02 pH-units AVS TITRINORM®	4,66	1 l	98192.290
Buffer solution pH 5,00 (20 °C, citrate buffer) ± 0,02 pH-units AVS TITRINORM®	5,00	1 l	32035.291
Buffer solution pH 6,00 (20 °C, citrate buffer) ± 0,02 pH-units AVS TITRINORM®	6,00	1 l	32036.294
Buffer solution pH 6.88 (20°C) (Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate) ± 0.02 pH-units AVS TITRINORM®	6,88	500 ml	83601.260
Buffer solution pH 6.88 (20°C) (Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate) ± 0.02 pH-units AVS TITRINORM®	6,88	1 l	83601.290
Buffer solution pH 7,00 (20 °C) (Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®	7,00	500 ml	32096.267

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Description	pH value	Pk	Cat. No.
Buffer solutions in bottles			
Buffer solution pH 7,00 (20 °C) (Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®	7,00	1 l	32096.291
Buffer solution pH 7,00 (20 °C) (Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®, plastic bottle	7,00*	5 l	32096.360
Buffer solution pH 7,00 (20 °C) (Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®, Bag in a box	7,00**	5 l	32096.371
Buffer solution pH 7,00 (20 °C) (Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®	7,00	10 l	32096.400
Buffer solution pH 7,00 (20 °C) green coloured (Potassium hydrogen phthalate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®	7,00 (green coloured)	500 ml	32045.262
Buffer solution pH 7,00 (20 °C) green coloured (Potassium hydrogen phthalate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®	7,00 (green coloured)***	1 l	32045.290
Buffer solution pH 7,00 (20 °C) green coloured (Potassium hydrogen phthalate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®	7,00 (green coloured)	1 l	32045.295
Buffer solution pH 7,00 (20 °C) green coloured (Potassium hydrogen phthalate/di-Sodium hydrogen phosphate) ±0,02 pH-units AVS TITRINORM®	7,00 (green coloured)	5 l	32045.375
Buffer solution pH 8,00 (20 °C, borate buffer) ±0,02 pH-units AVS TITRINORM®	8,00	1 l	32038.291
Buffer solution pH 9,00 (20 °C, borate buffer) ±0,02 pH-units AVS TITRINORM®	9,00	500 ml	32039.261
Buffer solution pH 9,00 (20 °C, borate buffer) ±0,02 pH-units AVS TITRINORM®	9,00	1 l	32039.294
Buffer solution pH 9,00 (20 °C, borate buffer) ±0,02 pH-units AVS TITRINORM®	9,00	5 l	32039.374
Buffer solution pH 9,00 blue coloured (boric acid/potassium chloride/sodium hydroxide) AVS TITRINORM	9,00 (blue coloured)	500 ml	32046.265
Buffer solution pH 9,00 blue coloured (boric acid/potassium chloride/sodium hydroxide) AVS TITRINORM	9,00 (blue coloured)***	1 l	32046.290
Buffer solution pH 9,00 blue coloured (boric acid/potassium chloride/sodium hydroxide) AVS TITRINORM	9,00 (blue coloured)	1 l	32046.298
Buffer solution pH 9,00 blue coloured (boric acid/potassium chloride/sodium hydroxide) AVS TITRINORM	9,00 (blue coloured)	5 l	32046.378
Buffer solution pH 9,22 (20 °C, borate buffer) ± 0,02 pH units AVS TITRINORM®	9,22	500 ml	32097.261
Buffer solution pH 9,22 (20 °C, borate buffer) ± 0,02 pH units AVS TITRINORM®	9,22	1 l	32097.290
Buffer solution pH 10 (boric acid/sodium hydroxide/potassium chloride) AVS TITRINORM	10,00	1 l	32040.298
Buffer solution pH 10 (boric acid/sodium hydroxide/potassium chloride) AVS TITRINORM	10,00	5 l	32040.378
Buffer ammonia solution pH 10 (20 °C) ± 0.05 pH-units AVS TITRINORM® (NFT 90-003 standard)	10,00 (Total hardness in water)	500 ml	98213.260
Buffer solution pH 11,00 (20 °C) (di-Sodium hydrogen phosphate/Sodium hydroxide) ±0,05 pH-units AVS TITRINORM®	11,00	1 l	32041.292
Buffer solution pH 12,00 (20 °C) (di-Sodium hydrogen phosphate/Sodium hydroxide) ± 0,05 pH-units AVS TITRINORM®	12,00	1 l	32042.295
Buffer solutions sets			
Buffer solution set pH 4,00 / 7,00 / 10,00 (3×100 ml), coloured		1	83610.600
Buffer solutions set pH 4,00 / 7,00 / 10,00 (3×250 ml), coloured		1	83610.610
Buffer and checking solution set pH 4,00 / 7,00 / 10,00, and electrolyte and cleaning solutions (100 ml)		1 SET	83609.600

* 5 litre plastic bottle
** Bag in a box 5 litre
*** 1 litre dosing bottles



Buffer solutions, secondary standards



- Solution standardised at 25 °C, compliant with DIN 17025
- Accurate to ±0,005
- Fully traceable for optimum pH calibration (traceable to NIST)
- Supplied with detailed Certificate of Analysis
- Temperature dependance data is printed on the labels as are batch number and expiry date

pH value	Pk	Cat. No.
Buffer solutions, secondary standards		
1,679	500 ml	84580.260
3,776	500 ml	84581.260
4,005	500 ml	84582.260
6,865	500 ml	84583.260
7,413	500 ml	84584.260
9,18	500 ml	84585.260
10,012	500 ml	84586.260
12,454	500 ml	84587.260



Buffers, concentrated solutions, ConvoL NORMADOSE®



- Buffer concentrate for the preparation of 1 litre of buffer solution
- Without preservatives
- Accuracy: 0.05 pH units

For full information concerning health and safety data please see the VWR chemical catalogue or the www.vwr.com website.

Ordering Information: For details of the full pH range of buffers, please see the VWR Chemicals catalogue.

pH value	Pk	Cat. No.
4	170 ml	32084.608
10	60 ml	32090.600



Cleaning solutions for electrodes

For full information concerning health and safety data please see the VWR chemical catalogue or the www.vwr.com website.

Description	Pk	Cat. No.
Pepsin/hydrochloric acid	500 ml	83603.260
Pepsin/hydrochloric acid	1 l	83603.290



Electrolytic solutions, AVS TITRINORM®

3M KCl solution may also be used as an electrode storage solution.

For full information concerning health and safety data please see the VWR chemical catalogue or the www.vwr.com website.

Description	Pk	Cat. No.
KCl 3 mol/l	100 ml	83605.180
KCl 3 mol/l	500 ml	83605.260
KCl 3 mol/l	1 l	83605.290
KCl 3 mol/l + AgCl	500 ml	83606.260
KCl 3 mol/l + AgCl	1 l	83606.290



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Download today!



Conductivity/°C tester, waterproof, CO30



- Conductivity, TDS and temperature measurement with simultaneous display of 2 parameters
- Calibration, one or two points
- Automatic temperature compensation, auto-ranging selection
- Replaceable conductivity cell
- IP 67 waterproof casing, low battery indicator

Ordering Information: Supplied with 8xLR44 batteries.

Model	CO 30
Compliance	IP 67
Conductivity - accuracy	±1% full scale
Conductivity - calibration	Manual, 1-point
Conductivity - range	40 – 2000 µS/cm / 2,00 – 15,00 mS/cm / 15 – 20 mS/cm (0,00 – 20,00 mS/cm with auto-ranging)
Conductivity - resolution	5 µS / 0,05 mS / 0,10 mS
Power supply	8xLR44 batteries
Reference temperature	+25 °C
TDS - accuracy	±1% full scale
TDS - range	0,00 – 10,00 g/l
TDS - resolution	0,10 g/l
Temperature accuracy (°C)	±0,5
Temperature coefficient	1,91%/°C
Temperature compensation	Automatic
Temperature range (°C)	0,00...+99,5
Temperature resolution (°C)	0,5

Description	Pk	Cat. No.
Waterproof conductivity/°C tester CO30	1	663-0160

Description	Pk	Cat. No.
Accessories		
Sensor replacement kit	1	663-0161
Replacement sensor cap	1	662-0123
Replacement battery compartment	1	662-0124



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Conductivity meter, handheld, EC 310



- IP 67 waterproof housing, large display and easy to use keypad
- Automatic temperature compensation
- 50 data sets reviewable memory
- 1000 hour battery life; auto-shut off function (30 min of non use)
- Electrode offset recognition; auto-lock and hold of readings on display

Warranty: 3 years for instruments and 6 months for electrodes/probes/cables.

Ordering Information: Supplied in a carrying case with 1 m or 4 m cable conductivity/°C sensor.

Model	EC 310
Compliance	IP 67
Conductivity - accuracy	±1% of reading +2 µS/cm ±1% of reading +5 µS/cm ±1% of reading +0,05 mS/cm ±2,5% of reading +0,5 mS/cm
Conductivity - cell constant	5,00
Conductivity - range	0 - 499,9 µS/cm / 500 - 4999 µS/cm / 5,0 - 49,99 mS/cm / 50,0 - 200 mS/cm
Conductivity - resolution	0,1 µS/cm / 1 µS/cm / 0,01 mS/cm / 0,1 mS/cm
Salinity - accuracy	±0,2% FS
Salinity - range	0,0 - 70,0 ppt
Salinity - resolution	0,1
TDS - range	User may enter constant values from 0,30 to 1,00, default value 0,65
Temperature accuracy (°C)	±0,2 (or ±4%, whichever is greater)
Temperature range (°C)	-10...+90
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
EC 310 (incl. conductivity cell, 1 m cable)	1	663-0164
EC 310 (incl. conductivity cell, 4 m cable)	1	663-0165

Description	Pk	Cat. No.
Accessories		
Conductivity/°C probe, 4 m cable	1	663-0003
Conductivity/°C probe, 10 m cable	1	663-0004
Conductivity/°C probe, 1 m cable	1	663-0166



Conductivity/TDS/°C meter, handheld, CO 3000 H, pHenomenal®



User friendly, waterproof instrument with an IP 67 rated housing. High resolution and accuracy for precise measurement. GLP compliant.

- Simultaneous display of conductivity, TDS and temperature measurement (in addition the display can show date, time, etc)
- Advanced self-test and diagnostics (electrode efficiency diagnostic, drift control)
- Run for over 1000 operating hours with 4 'AA' batteries

Ordering Information: CO 3000 H Set including instrument, built-in temperature/conductivity sensor pHenomenal® CO11, conductivity standards, stand, case and batteries (4xAA).

Model	CO 3000 H
Compliance	IP 67 / GLP
Conductivity - accuracy	±1% of measured value
Conductivity - calibration	1-point (only one fixed cell constant)
Conductivity - cell constant	Calibrated fixed cell constant (0,84 cm ⁻¹) ±25% adjustment
Conductivity - range	0,0 µS/cm - 500 mS/cm
Conductivity - resolution	0,1 µS/cm

Continued from previous page

Model	CO 3000 H
Connections	8-pin connection for conductivity and temperature
Datalog - capacity	200 points
Display	3 postion LED backlight
Outputs	Watertight USB connection (slave, bidirectional)
Salinity - range	0,00 - 30 ppt
TDS - accuracy	±1% of measured value ±1 digit
TDS - range	0,1 mg/l - 19,99 g/l
TDS - resolution	0,1 mg/l / 1 mg/l / 0,01 g/l
Temperature accuracy (°C)	±0,2
Temperature compensation	Automatic and manual: 0,001 to 2,500%/°C or without compensation
Temperature range (°C)	0,0...+100,0
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
Handheld conductivity/TDS/°C meter CO 3000 H, pHenomenal®	1	663-0204

Description	Pk	Cat. No.
Accessories		
pHenomenal® CO11 conductivity cell, 2-pole graphite, integrated NTC 30, 0,84 cm ² , 8-pin, 1,5 m cable	1	663-0147
pHenomenal® electrode storage tube	1	662-1167
pHenomenal® electrode stand	1	662-1169
pHenomenal® communication kit (CD-ROM, USB cable, manual)	1	662-1225
pHenomenal® extension stick, aluminium, 1,5 m	1	662-1224
pHenomenal® storage/measuring vessel	1	662-1248
pHenomenal® field case	1	662-1168
KCl 0,01 mol/l; 1413 mS/cm	100 ml	83607.180
KCl 0,1 mol/l; 12800 µS/cm	500 ml	83608.260

Conductivity/TDS/°C meter, bench, CO 3000 L, pHenomenal®



User friendly instrument with an IP 43 rated housing. High resolution and accuracy for precise measurement. GLP compliant.

- Simultaneous display of conductivity, TDS and temperature measurement (in addition the display can show date, time, etc)
- Advanced self-test and diagnostics (electrode efficiency diagnostic, drift control)
- Choice of mains supply or 4 'AA' batteries for over 1000 operating hours

Ordering Information: CO 3000 L Set including instrument, built-in temperature/conductivity sensor pHenomenal® CO11, stand and power adapter.

Model	CO 3000 L
Compliance	IP 43 / GLP
Conductivity - accuracy	±1% of measured value
Conductivity - calibration	1-point (only one fixed cell constant)
Conductivity - cell constant	Calibrated fixed cell constant (0,84 cm ²) ±25% adjustment
Conductivity - range	0,0 µS/cm - 500 mS/cm
Conductivity - resolution	0,1 µS/cm
Connections	8-pin connection for conductivity and temperature
Datalog - capacity	Manual storage (min. 500 data sets)
Display	3 postion LED backlight
Outputs	Watertight USB connection (slave, bidirectional)
Salinity - range	0,00 - 30 ppt
TDS - accuracy	±1% of measured value ±1 digit (meter only)
TDS - range	0,1 mg/l - 19,99 g/l
TDS - resolution	0,1 mg/l / 1 mg/l / 0,01 g/l
Temperature accuracy (°C)	±0,2
Temperature compensation	Automatic and manual: 0,001 to 2,500%/°C or without compensation
Temperature range (°C)	0,0...+100,0
Temperature resolution (°C)	0,1

Continued from previous page

Description	Pk	Cat. No.
Bench conductivity/TDS/°C meter CO 3000 L, pHenomenal®	1	663-0205
Description	Pk	Cat. No.
Accessories		
pHenomenal® CO11 conductivity cell, 2-pole graphite, integrated NTC 30, 0,84 cm ⁻¹ , 8-pin, 1,5 m cable	1	663-0147
pHenomenal® electrode storage tube	1	662-1167
pHenomenal® electrode stand	1	662-1169
pHenomenal® communication kit (CD-ROM, USB cable, manual)	1	662-1225
pHenomenal® storage/measuring vessel	1	662-1248
KCl 0,01 mol/l; 1413 mS/cm	100 ml	83607.180
KCl 0,1 mol/l; 12800 µS/cm	500 ml	83608.260



Conductivity standard solutions



A complete range of certified control standards with values ranging from 20 to 100 000 µS to meet all the requirements for electrochemical analysis.

- Accurate to ±1%
- Traceable to NIST, meeting Eur.Ph. and USP requirements
- Tested using INAB accredited test methods to ISO 17025

Standard values (25 °C)

Used for determining cell constant - see recommendations of instrument manufacturer for the relevant cell design.

Premium values (25 °C)

These standards are for verifying that the measuring system (instrument, probe and operator) can accurately detect sample values in the area of interest (e.g. 20 µS/cm for pharmaceutical water, or 100 000 µS/cm for environmental samples).

- Stable aqueous-based 20 µS conductivity standard

Description	Pk	Cat. No.
Standard values		
Conductivity standard 84 µS/cm (25 °C)	100 ml	84131.180
Conductivity standard 84 µS/cm (25 °C)	500 ml	84131.260
Conductivity standard 84 µS/cm (25 °C)	1 l	84131.290
Conductivity standard 147 µS/cm (25 °C)	100 ml	84132.180
Conductivity standard 147 µS/cm (25 °C)	500 ml	84132.260
Conductivity standard 147 µS/cm (25 °C)	1 l	84132.290
Conductivity standard 1413 µS/cm (25 °C)	100 ml	84135.180
Conductivity standard 1413 µS/cm (25 °C)	500 ml	84135.260
Conductivity standard 1413 µS/cm (25 °C)	1 l	84135.290
Conductivity standard 12880 µS/cm (25 °C)	100 ml	84136.180
Conductivity standard 12880 µS/cm (25 °C)	500 ml	84136.260
Conductivity standard 12880 µS/cm (25 °C)	1 l	84136.290
Premium values		
Premium conductivity standard 10 µS/cm	500 ml	84137.260
Premium conductivity standard 20 µS/cm	500 ml	84140.260
Premium conductivity standard 50 µS/cm	500 ml	84143.260
Premium conductivity standard 100 µS/cm	500 ml	84139.260
Premium conductivity standard 200 µS/cm	500 ml	84145.260
Premium conductivity standard 500 µS/cm	500 ml	84138.260
Premium conductivity standard 1000 µS/cm	500 ml	84141.260
Premium conductivity standard 10000 µS/cm	500 ml	84146.260
Premium conductivity standard 50000 µS/cm	500 ml	84142.260
Premium conductivity standard 100000 µS/cm	500 ml	84144.260



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Oxygen meter, handheld, DO 210



- IP 67 waterproof housing, large display and easy to use keypad
- Automatic temperature compensation
- 50 data sets reviewable memory
- 1000 hour battery life; auto-shut off function (30 min of non use)
- Electrode offset recognition; auto-lock and hold of readings on display

Warranty: 3 years for instruments and 6 months for electrodes/probes/cables.

Ordering Information: Supplied in a carrying case with 1 m or 4 m cable, polarographic DO sensor and 6 screw-on cap membrane spares.

Model	DO 210
Compliance	IP 67
DO - % saturation	0 - 200%
DO - accuracy	±2% of reading
DO - barometric pressure range	450 - 825 mmHg
DO - concentration (mg/l)	0 - 20
DO - resolution (mg/l)	0,01
Temperature accuracy (°C)	±0,3 ±1 digit
Temperature range (°C)	-6...+46
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
Handheld DO meter DO 210 incl. 1 m cable DO/°C probe	1	664-0081
Handheld DO meter DO 210 incl. 4 m cable DO/°C probe	1	664-0082

Description	Pk	Cat. No.
Accessories		
Dissolved oxygen/T probe with 1 m cable	1	664-0083
Dissolved oxygen/T probe with 4 m cable	1	664-0003
Dissolved oxygen/T probe with 10 m cable	1	664-0004
Cap membrane kit (6 each) with probe solution	6	664-0005



Oxygen meter, handheld, OX 4000 H, pHenomenal®



User friendly, waterproof instrument with an IP 67 rated housing. High resolution and accuracy for precise measurement. GLP compliant.

- Simultaneous display of oxygen and temperature measurement (as well as displaying other parameters, such as date and time)
- Advanced self-test and diagnostics (electrode efficiency diagnostic, drift control)
- Runs for over 1000 operating hours with four 'AA' batteries

Ordering Information: OX 4000 H Set including instrument, built-in temperature/oxygen sensor pHenomenal® OXY11-3, maintenance kit, stand, case and batteries (4xAA).

Model	OX 4000 H
Compliance	IP 67 / GLP
Connections	8-pin connection for oxygen and temperature
Datalog - capacity	200 points
Display	3 postion LED backlight
DO - accuracy	±0,5% (between +5 °C and +30 °C)
DO - barometric pressure range	6 - 1100 mbar (automatic)
DO - calibration	Water saturated air and air saturated water
DO - concentration (mg/l)	0,00 - 19,99 / 0,0 - 199%
DO - resolution (mg/l)	0,01 / 0,1%
DO - salinity compensation (g/l)	Manual input

Continued from previous page

Model	OX 4000 H
DO - salinity factor (ppt)	0,0 - 35
Outputs	Watertight USB connection (slave, bidirectional)
Temperature accuracy (°C)	±0,2
Temperature compensation	0...+50 °C (automatic)
Temperature range (°C)	0,0...+50,0
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
Handheld oxygen meter OX 4000 H, pHenomenal®	1	664-0136

Description	Pk	Cat. No.
Accessories		
pHenomenal® OXY11-3, dissolved oxygen probe, galvanic, epoxy, 3 m cable, 8-pin	1	664-0042
pHenomenal® electrode stand	1	662-1169
pHenomenal® dissolved oxygen maintenance kit	1	664-0049
pHenomenal® communication kit (CD-ROM, USB cable, manual)	1	662-1225
pHenomenal® extension stick, aluminium, 1,5 m	1	662-1224
pHenomenal® storage/measuring vessel	1	662-1248
pHenomenal® field case	1	662-1168



Oxygen meter, bench, OX 4000 L, pHenomenal®



User friendly instrument with an IP 43 rated housing. High resolution and accuracy for precise measurement. GLP compliant.

- Simultaneous display of oxygen and temperature measurement (as well as displaying other parameters, such as date and time)
- Advanced self-test and diagnostics (electrode efficiency diagnostic, drift control)
- Choice of mains supply or 4 'AA' batteries for over 1000 operating hours

Ordering Information: OX 4000 L Set including instrument, built-in temperature/oxygen sensor pHenomenal® OXY11-3, stand and power adapter.

Model	OX 4000 L
Compliance	IP 43 / GLP
Connections	8-pin connection for oxygen and temperature
Datalog - capacity	Manual storage (min. 500 data sets)
Display	3 position LED backlight
DO - accuracy	±0,5% (between +5 and +30 °C)
DO - barometric pressure range	6 - 1100 mbar (automatic)
DO - calibration	Water saturated air and air saturated water
DO - concentration (mg/l)	0,0 - 19,9 / 0,0 - 199%
DO - resolution (mg/l)	0,01 / 0,1%
DO - salinity compensation (g/l)	Manual input
DO - salinity factor (ppt)	0,0 - 35
Outputs	Watertight USB connection (slave, bidirectional)
Temperature accuracy (°C)	±0,2
Temperature compensation	0 to +50 °C (automatic)
Temperature range (°C)	0,0...+50,0
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
pHenomenal® OX 4000 L, bench oxygen meter	1	664-0137

Description	Pk	Cat. No.
Accessories		
pHenomenal® OXY11-3, dissolved oxygen probe, galvanic, epoxy, 3 m cable, 8-pin	1	664-0042
pHenomenal® electrode storage tube	1	662-1167
pHenomenal® electrode stand	1	662-1169
pHenomenal® dissolved oxygen maintenance kit	1	664-0049
pHenomenal® communication kit (CD-ROM, USB cable, manual)	1	662-1225
pHenomenal® storage/measuring vessel	1	662-1248



Multi-parameter meter (pH/conductivity), handheld, PC 5000 H, pHenomenal®



- User friendly, waterproof instrument with an IP 67 rated housing. High resolution and accuracy for precise measurement. GLP compliant.
- Simultaneous display of pH, mV, conductivity and temperature measurement (as well as displaying other parameters, such as date and time)
- Three-position LED backlight
- Automatic and manual calibration (1 to 3 points)
- Automatic buffer recognition of DIN and NIST buffers (1,68 / 4,00 / 6,86 / 9,18 / 12,54)
- Three additional technical buffers (4,00 / 7,00 / 10,00) in memory
- Advanced self-test and diagnostics (electrode efficiency diagnostic, drift control)
- Run for over 1000 operating hours with four 'AA' batteries

Ordering Information: PC 5000 H Set including instrument, built-in temperature/pH electrode pHenomenal® 111, built-in temperature/conductivity sensor pHenomenal® CO11, buffers, conductivity standard, accessories, stand, case and batteries (4xAA).

Model	PC 5000 H
Compliance	IP 67 / GLP
Conductivity - accuracy	±1% of measured value
Conductivity - calibration	1 point (as there is only 1 fixed cell constant)
Conductivity - cell constant (cmj ⁻¹)	Calibrated fixed cell constant (0,84 cm ⁻¹) ±25% adjustment
Conductivity - range	0,0 µS/cm - 500 mS/cm
Conductivity - resolution	0,1 µS/cm
Connections	BNC for pH / banana for temperature 8-pin connection for conductivity and temperature
Datalog - capacity	200 points
Display	Customer specific 7-segment LCD
mV - accuracy	±0,5
mV - range	±1200 / ±1999
mV - resolution	1
Outputs	Watertight USB connection (slave, bidirectional)
pH - accuracy	±0,01 ±1 digit
pH - calibration	1-/2-/3-point calibration: AutoCal™ - Concal (with unknown buffer) Actual calibration data recallable
pH - range	-2,00...+19,99
pH - resolution	0,1 / 0,01
Salinity - range	0,00 - 30 ppt
TDS - accuracy	±1% of measured value ±1 digit (meter only)
TDS - range	0,1 - 1999 mg/l
TDS - resolution	0,1 / 1
Temperature accuracy (°C)	±0,2
Temperature compensation	Auto/Manual
Temperature range (°C)	0,0...+100,0
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
Handheld pH/conductivity meter PC 5000 H, pHenomenal®	1	665-0261
Description	Pk	Cat. No.
Buffer solutions in bottles		
Buffer solution AVS TITRINORM®, ready to use, pH 10	100 ml	32040.185
Buffer solution AVS TITRINORM®, ready to use, pH 4	100 ml	32095.184
Buffer solution AVS TITRINORM®, ready to use, pH 7	100 ml	32096.187
Accessories		
pHenomenal® CO11 conductivity cell, 2-pole graphite, integrated NTC 30, 0,84 cm ² , 8-pin, 1,5 m cable	1	663-0147
pHenomenal® 111 pH electrode, 3 in 1, gel, epoxy, 1 m cable, BNC, with temperature sensor	1	662-1157
pHenomenal® electrode storage tube	1	662-1167
pHenomenal® electrode stand	1	662-1169
pHenomenal® communication kit (CD-ROM, USB cable, manual)	1	662-1225
pHenomenal® extension stick, aluminium, 1,5 m	1	662-1224

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Description	Pk	Cat. No.
Accessories		
pHenomenal® storage/measuring vessel	1	662-1248
pHenomenal® field case	1	662-1168
Cleaning solution pepsine/hydrochloric acid	100 ml	83603.180
KCl 3 mol/l	100 ml	83605.180
KCl 3 mol/l + AgCl	500 ml	83606.260
KCl 0,01 mol/l; 1413 mS/cm	100 ml	83607.180
KCl 0,1 mol/l; 12800 µS/cm	500 ml	83608.260



Multi-parameter meter (pH/conductivity), bench, PC 5000 L, pHenomenal®



User friendly instrument with an IP 43 rated housing. High resolution and accuracy for precise measurement. GLP compliant.

- Simultaneous display of pH, mV, conductivity and temperature measurement (as well as displaying other parameters, such as date and time)
- Three-position LED backlight
- Automatic and manual calibration (one to three points)
- Automatic buffer recognition of DIN and NIST buffers (1,68 / 4,00 / 6,86 / 9,18 / 12,54)
- Three extra buffers in memory (pH 4,00 / 7,00 / 10,00 at 25 °C)
- Advanced self-test and diagnostics (electrode efficiency diagnostic, drift control)
- Choice of mains supply or four 'AA' batteries for over 1000 operating hours

Ordering Information: PC 5000 L Set including instrument, built-in temperature/pH electrode pHenomenal® 111, built-in temperature/conductivity sensor pHenomenal® CO11, stand and power adapter.

Model	PC 5000 L
Compliance	IP 43 / GLP
Conductivity - accuracy	±1% of measured value
Conductivity - calibration	1-point (only 1 fixed cell constant)
Conductivity - cell constant (cm ⁻¹)	Calibrated fixed cell constant (0,84 cm ⁻¹) ±25% adjustment
Conductivity - range	0,0 µS/cm - 500 mS/cm
Conductivity - resolution	0,1 µS/cm
Connections	BNC for pH / banana for temperature, 8-pin connection for conductivity and temperature
Datalog - capacity	Manual storage (min. 500 data sets)
Display	Customer specific 7-segment LCD
mV - accuracy	±0,5
mV - range	±1200 / ±1999
mV - resolution	1
Outputs	Watertight USB connection (slave, bidirectional)
pH - accuracy	±0,01 ±1 digit
pH - calibration	1-/2-/3-point calibration: AutoCal™ - Concal (with unknown buffer) Actual calibration data recall Calibration interval selectable
pH - range	-2,00...+19,99
pH - resolution	0,1 / 0,01
Salinity - range	0,0 - 30 ppt
TDS - accuracy	±1% of measured value ±1 digit (meter only)
TDS - range	0,1 - 1999 mg/l
TDS - resolution	0,1 / 1
Temperature accuracy (°C)	±0,2
Temperature compensation	Auto/Manual
Temperature range (°C)	0,0...+100,0
Temperature resolution (°C)	0,1

Description	Pk	Cat. No.
Bench pH/conductivity meter PC 5000 L, pHenomenal®	1	665-0262

Continued from previous page

Description	Pk	Cat. No.
Buffer solutions in bottles		
Buffer solution AVS TITRINORM®, ready to use, pH 10	100 ml	32040.185
Buffer solution AVS TITRINORM®, ready to use, pH 4	100 ml	32095.184
Buffer solution AVS TITRINORM®, ready to use, pH 7	100 ml	32096.187
Accessories		
pHenomenal® CO11 conductivity cell, 2-pole graphite, integrated NTC 30, 0,84 cm ⁻¹ , 8-pin, 1,5 m cable	1	663-0147
pHenomenal® 111 pH electrode, 3 in 1, gel, epoxy, 1 m cable, BNC, with temperature sensor	1	662-1157
pHenomenal® electrode storage tube	1	662-1167
pHenomenal® electrode stand	1	662-1169
pHenomenal® communication kit (CD-ROM, USB cable, manual)	1	662-1225
pHenomenal® compact survival kit (incl. electrode storage tube, 4 slots for storage of pH buffer, cleaning solution, etc, and 1 slot for a dropping bottle)	1	662-1166
pHenomenal® storage/measuring vessel	1	662-1248
Cleaning solution pepsine/hydrochloric acid	100 ml	83603.180
KCl 3 mol/l	100 ml	83605.180
KCl 3 mol/l + AgCl	500 ml	83606.260
KCl 0,01 mol/l; 1413 mS/cm	100 ml	83607.180
KCl 0,1 mol/l; 12800 µS/cm	500 ml	83608.260



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Water Samplers	484
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Photometers and Test Kits	485

Microbiology

Personal and Product Hygiene Analysis	487
Dehydrated Media	494
Ready-to-Use Media	495
Equipment and Instruments	504

Healthcare

Histology - Accessories	507
Cell Diagnostics - Reagents	512
Clinical Products	514
Drug Testing	515

Life Science

Molecular Biology - Nucleic Acid Purification Reagents	516
Molecular Biology - Commonly Used Biochemicals	526
Molecular Biology - PCR, RT-PCR and QPCR	529
Molecular Biology - PCR Tubes, Strips	531
Molecular Biology - PCR Plates	532
Molecular Biology - PCR Sealing Systems and Accessories	535
Molecular Biology - Electroporators	537
Electrophoresis - Horizontal Gel Systems	538
Electrophoresis - Vertical Gel Systems and Blotting Apparatus	545
Electrophoresis - Elution Systems and Gel Dryers	552
Electrophoresis - Power Supplies	553
Electrophoresis - Blotting Paper and Transfer Membranes	553
Electrophoresis - Gel Reagents - Buffers	554
Electrophoresis - Gel Reagents - Markers and Ladders	554
Imaging - Transilluminators	555
Imaging - Bioimaging Systems	556
High Throughput Screening - 96 Well Plates	559
High Throughput Screening - Storage Plates	559
High Throughput Screening - Sealing Systems and Accessories	560



Liquid alarm



It can be used to detect when drums, tanks, flasks, or beakers are close to overfilling. The moment a solution touches the sensor, the alarm sounds and a red light flashes continually until the liquid no longer touches the sensor.

- Sensor on the floor to detect any spill
- Constant alarm for over 30 hours
- Cable of ten meters

W×D×H: 46×76×19 mm

Weight: 70 g

Delivery Information: Supplied with a 9 V battery.

Description	Pk	Cat. No.
Liquid alarm	1	705-0706



Indicator papers in strips, DOSATEST®



For the determination of the pH of coloured solutions. Indicator and colour comparison chart are combined on the strip. Reading the pH value is quick and reliable as a colour comparison with a separate reference chart is not needed and the actual pH values are printed on each strip. With this system even the pH of coloured solutions and suspensions can be reliably determined as the colour affects the indicator and reference colours equally. The end effect is compound colours of the same shade being compared. The individual colour zones are separated by a hydrophobic barrier.

Delivery Information: Plastic box with 200 indicator strips 11×100 mm.

Description	pH range	pH gradation	Pk	Cat. No.
DOSATEST® pH indicator strips	1 - 12	1	3	35290.601
DOSATEST® pH indicator strips	1,8 - 3,8	0,3	3	35292.607
DOSATEST® pH indicator strips	3,8 - 5,5	0,2 - 0,3	3	35293.601
DOSATEST® pH indicator strips	5,2 - 6,8	0,2 - 0,3	3	35294.604
DOSATEST® pH indicator strips	6,0 - 8,1	0,3	3	35295.607
DOSATEST® pH indicator strips	8,0 - 9,7	0,2 - 0,3	3	35296.601
DOSATEST® pH indicator strips	9,5 - 12,0	0,5	3	35297.604
DOSATEST® pH indicator strips	12,0 - 14,0	0,5	3	35298.607



Indicator strips, non bleeding

Non bleeding special indicator dyes that are covalently bound to the reagent paper and then adhered to plastic strips.

Description	pH range	Pk	Cat. No.
Indicator strips, non bleeding	0 - 6,0	100	315052J
Indicator strips, non bleeding	0 - 14	100	315082P



Indicator paper strips, non bleeding, DOSATEST®



The test strips contain indicator dyes that are covalently bound to the reagent papers and then adhered to plastic strips. Contamination of the solution is therefore prevented even in strong alkaline solutions or from long immersion in weak buffered solution.

- Non bleeding - do not contaminate the solution to be measured or cross-contaminate neighbouring colour zones
- Length of the plastic strip protect fingers from contact with liquid
- Wide and narrow pH ranges available.

Delivery Information: Plastic box with colour chart and 100 indicator strips 6×85 mm

Description	pH range	pH gradation	Pk	Cat. No.
pH indicator strips, DOSATEST	0 - 14	1	3	35309.606
pH indicator strips, DOSATEST	0,0 - 6,0	0,5	3	35310.601
pH indicator strips, DOSATEST	4,5 - 10	0,5	3	35311.604
pH indicator strips, DOSATEST	7 - 14	0,5	3	35312.607
pH indicator strips, DOSATEST	1,7 - 3,8	0,3	3	35315.607
pH indicator strips, DOSATEST	3,6 - 6,1	0,3 - 0,4	3	35316.601
pH indicator strips, DOSATEST	6,0 - 7,7	0,3 - 0,4	3	35317.604
pH indicator strips, DOSATEST	7,5 - 9,5	0,2 - 0,4	3	35318.607



Indicator paper in rolls, DOSATEST®



DOSATEST® pH indicator test papers give very good precision and are very easy to read because they have 2 colour zones. The hydrophobic barrier between the zones ensures a distinctive separation of colour bands and facilitates the estimation of even intermediate values when used with the colour scale provided.

- Supplied as 5 m × 10 mm rolls (*except the 3 zone 35307.600 which is 6 m × 14 mm)
- Wide and narrow pH ranges available

Description	pH range	pH gradation	Pk	Cat. No.
pH indicator paper, DOSATEST®	1,0 - 12,0	1	5 Roll	35300.606
pH indicator paper, DOSATEST®	1,0 - 4,3	0,3	5 Roll	35301.600
pH indicator paper, DOSATEST®	3,5 - 6,8	0,3	5 Roll	35302.603
pH indicator paper, DOSATEST®	5,0 - 8,0	0,3	5 Roll	35303.606
pH indicator paper, DOSATEST®	1 - 11,0*	1	5 Roll	35307.600
pH indicator paper, DOSATEST®	7,0 - 10,0	0,3	5 Roll	70035.607
pH indicator paper, DOSATEST®	9,5 - 14,0	0,5	5 Roll	70036.601



COD reagents

Description	Pk	Cat. No.
Aqueous solution for COD determination (NFT 90-101 standard), Copper (II) phthalocyanine-tetrasulphonic acid tetrasodium salt 0,666 g/l	1 l	84519.290



Powder Pillows, reagents for Hach® instruments



VWR Powder Pillow reagents are designed to be used on all the laboratory and portable Hach® instruments. No calibration data is necessary; they can be used with the Hach® instrument calibrations, handling is identical to the corresponding Hach® reagents. The pillows, individually sealed in aluminium foil packs, are unaffected by ambient conditions and contain pre-measured powder reagents for accuracy, convenience and great solubility.

- Accurate
- Fast and convenient - easier dissolution than tablets and long shelf life
- No calibration necessary
- Identical handling to the corresponding Hach® reagents

Description	Pk	Cat. No.
Aluminium, RS 10 ml	100 Tests	85600.620
Chlorine-free (DPD), PP 10 ml	100	85601.620
Chlorine-free (DPD), PP 10 ml	1.000	85601.680
Chlorine-free (DPD), PP 25 ml	100	85602.620
Chlorine-free (DPD), PP 25 ml	1.000	85602.680
Chlorine total (DPD), PP 10 ml	100	85603.620
Chlorine total (DPD), PP 10 ml	1.000	85603.680
Chlorine total (DPD), PP 25 ml	100	85604.620
Chlorine total (DPD), PP 25 ml	1.000	85604.680
Copper, PP 10 ml	100	85605.620
Copper, PP 10 ml	1.000	85605.680
Iron, TPTZ, PP 10 ml	100	85606.620
Iron, PP 10 ml	100	85607.620
Iron, PP 10 ml	1.000	85607.680
Manganese, RS 10 ml LR	100 Tests	85608.620
Manganese, RS 10 ml HR	100 Tests	85609.620
Molybdenum (DPD), PP 10 ml	100 Tests	85610.620
Molybdenum (DPD), PP 25 ml	100 Tests	85611.620
Nitrate TUBES, RS	50 Tests	85612.620
Nitrite, PP 25 ml	100	85613.620
Nitrite, PP 25 ml	1.000	85613.680
Nitrite, PP 10 ml	100	85614.620
Ammonia, TUBES LR	50 Tests	85615.610
Ammonia, TUBES HR	50 Tests	85616.610
Ammonia, RS 10 ml	200 Tests	85617.620
Nitrogen, RS	50 Tests	85618.610
Nitrogen, RS	50 Tests	85619.610
DEHA, RS	1 SET	85620.620
Phosphate (DPD), PP 10 ml	100	85621.610
Phosphate (DPD), PP 10 ml	1.000	85621.680
Phosphate reactive, RS	50 Tests	85622.610
Phosphate total, RS	50 Tests	85623.610

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Description	Pk	Cat. No.
Phosphate total / acid hydrolysable, RS	50 Tests	85624.610
Silica, RS 10 ml LR	100 Tests	85625.620
Silica, RS 10 ml HR	100 Tests	85626.620
Silica, RS 25 ml HR	100 Tests	85627.620
Sulphate, PP 25 ml	100	85628.620
Sulphate, PP 25 ml	1.000	85628.680
Sulphate, PP 10 ml	100	85629.620

RS = Powder Pillow reagent set
PP = Powder Pillow
DEHA = N,N-Diethylhydroxylamine



ALL YOU NEED FOR ENVIRONMENTAL ANALYSIS

- Field and laboratory methods for water testing
- Soil and suspended solids
- Microbiology

Request your copy from your local VWR sales office or vwr.com

VWR **pbi**
Air sampler, SAS Super



SAS Super is a complete system for the microbiological sampling of air including instrumentation for applications based on the active air sampling, accommodating one or two plates with culture medium. Specific models are designed to be used in cleanrooms classified according to ISO 14644-1, other instruments for open areas not classified by HACCP controls, for the SBS (Sick Building Syndrome) investigations or for the control of air conditioning HVAC (Heating Ventilation Air Conditioning). The same instrument can be used with standard RODAC plates 55 mm or with traditional 90 mm Petri dishes using simple accessories.

- Full compliant International Standards (ISO 14698 & USP 1116 Pharmacopeia)
- Designed for fast and consistent microbiological air sampling in controlled environments
- Time saving and low operating cost solutions

SAS Super Iso

Directly derived from the SAS Super instrument used on the “International Space Station”, SAS Super ISO 100 and SAS Super ISO 180 have been specifically designed for pharmaceutical and hospital sectors. Portable and easily positioned operate with long life rechargeable batteries. SAS Super ISO 100 and SAS Super ISO 180 are differentiated by the constant airflow; this choice depends on the application and allow continuous or sequential sampling from a few minutes to several hours. Both models provide facilities for data management of the different implemented sampling programs. Large LCD with illuminated touch panel, all operator commands via touch keypad for easier cleaning.

- Sampling rate accurately maintained by speed sensor
- Design avoids turbulence in unidirectional airflow and reaspiration of tested air in accordance with ISO specifications
- Calibration system by finger tip control without opening the instrument with automatic calibration reminder

Delivery Information: Without aspirating head and battery charger.

Airflow rate	100-180 l/min
Sampling head	Aluminium, stainless steel or plastic (certified ready to use)
Weight (kg)	1,8
WxDxH (mm)	120x125x275

Description	Pk	Cat. No.
Air sampler SAS Super ISO 100 for contact plates	1	710-0871
Air sampler SAS Super ISO 180 for contact plates	1	710-0872
Air sampler SAS Super ISO 100 for Petri dishes	1	710-0869
Air sampler SAS Super ISO 180 for Petri dishes	1	710-0870

DUO SAS Super 360

When the environment contamination is very low and the number of samples to be performed is high, the duration of the operations can be an important factor in the choice of SAS instrument. With two sampling heads that can operate simultaneously, DUO SAS Super 360 is the correct solution to sample 1000 l of air in less than 3 minutes. The simultaneous sampling on two heads allows furthermore to obtain statistically representative results when using the same type of media for both plates. It is also possible to use two different media for the same sampling cycle (eg, CBT, yeasts and moulds). The contemporary sampling on the two heads can halve the time of the sampling process.

- Single body with two aspirating heads
- Fast and consistent results

Delivery Information: Without aspirating head and battery charger.

Airflow rate	180 l/min
Sampling head	Aluminium, stainless steel or plastic (ready to use, certificated)
Weight (kg)	2,2
WxDxH (mm)	260x110x352

Description	Pk	Cat. No.
DUO SAS Super 360 for contact plates	1	710-0867
DUO SAS Super 360 for Petri dishes	1	710-0866

SAS Super IAQ

Designed specifically for Indoor Air Quality (IAQ) sector, this SAS instrument is particularly lightweight and durable to operate in any environment. Ideal for environmental hygienists and agri-food sector operators, SAS IAQ includes full equipment with remote control and carrying case. Derived from SAS Super ISO 100 and SAS Super ISO 180, SAS Super IAQ provides the same efficiency as recorded by the sampling tests conducted by CAMR-UK (Center for Applied Microbiology & Research) according to ISO 14698-1.

- The microbiological air monitoring solution for agri-food and environmental operators
- Full accessories equipped for microbiological air sampling
- Easy to use and low operating cost solutions

Delivery Information: Aluminum aspirating head for Petri dishes Ø 90 mm or contact plates Ø 55 mm, battery charger, remote control and soft carrying case.

Table with 2 columns: Specification, Value. Rows include Airflow rate (100 l/min), Sampling head (Aluminium), Weight (kg) (1,75), and WxDxH (mm) (105x110x290).

Table with 4 columns: Description, Pk, Cat. No. Rows describe SAS Super IAQ samplers for contact plates and Petri dishes.

Table with 4 columns: Description, For, Pk, Cat. No. Lists various accessories like adapters, carrying cases, chargers, and tripods with their respective quantities and catalog numbers.



Air sampler, SAS Super Isolator



The SAS Super Isolator air sampler uses the same technology as the SAS Super microbial air sampler. The independent sampling head allows testing in isolator and barrier environments, while the operator remains outside the controlled area with the SAS Super Isolator's programmable base unit.

- Fast sampling time - 180 litres per minute flow rate, taking less than six minutes to sample 1 l of air
- Low running cost and operational flexibility - no need to purchase expensive, proprietary media strips, cassettes, or plates, standard 55 mm contact plates or 90 mm petri dishes can be used

- Full traceability - records day, time, site, volume of air sampled, and operator's name to ensure full traceability
- Easy to use - large back lit screen with intuitive menu; active operation status confirmed by flashing red LED
- Multiple language choice - programmable language selection for English, Spanish, German, and French

Delivery Information: The SAS Super Isolator is delivered without head and battery charger.

Continued from previous page

Sampling head	Stainless steel
Weight (kg)	1,75
WxDxH (mm)	105x110x290

Description	Pk	Cat. No.
SAS Super Isolator sampler for contact plates with airflow of 100 l/min	1	710-0943
SAS Super Isolator sampler for contact plates with airflow of 180 l/min	1	710-0944
SAS Super Isolator sampler for Petri dishes with airflow of 100 l/min	1	710-0945
SAS Super Isolator sampler for Petri dishes with airflow of 180 l/min	1	710-0946

Description	For	Pk	Cat. No.
Accessories for SAS Super Isolator			
In-Out MH spare battery		1	710-0998
IQ manual		1	710-0954
Aspirating chamber for 55 mm contact plates (without head)		1	710-0947
Extension cable, length 3 m		1	710-0968
Aspirating chamber for 90 mm Petri plates (without head)		1	710-0948
Telecon infrared remote control		1	710-0962

Accessories			
Battery charger with universal plug 220 V/ 50 Hz		1	710-0893

Accessories for SAS Super Isolator			
Cable for SAS connecting		1	710-0964
Daily disposable drilled head for contact plates		1	710-0975

Accessories			
Stainless steel aspirating head for contact plates Ø 55 mm	SAS ISO 180, SAS ISO 100, DUO SAS Super 360, SAS Super Isolator	1	710-0880
Stainless steel aspirating head for Petri dishes Ø 90 mm	SAS Super ISO 180, SAS Super ISO 100, DUO SAS Super 360, SAS Super Isolator	1	710-0878
Stainless steel head and adaptor for Petri dishes Ø 90 mm	SAS Super ISO 180, SAS Super ISO 100, DUO SAS Super 360, SAS Super Isolator	1	710-0877
Sterile daily head for contact plates Ø 55 mm	SAS Super IAQ, SAS Super ISO 180, SAS Super ISO 100, DUO SAS Super 360, SAS Super Isolator	50	710-0890



Air sampler for compressed gases, SAS Super Pinocchio II



Pinocchio Super II is a microbial impaction sampler to test the microbiological quality of compressed air and gases used in cleanroom. A compressed air source is connected to the Pinocchio Super II system and the flow meter regulated to achieve the required flow rate, e.g.: 100 litres of air / minute. The sampling period is timed to obtain the required total sample volume, e.g. 1000 litres.

- Fully transportable
- For 55 mm contact plates (RODAC) or standard 90 mm Petri dishes
- Calibrated according to International Standard and I.Q., O.Q. and P.Q. documentation available

Delivery Information: Self-contained unit consisting of connections, airflow meter, pressure gauge, tap, funnel head complete with plate housing.

Airflow rate	100 l/min
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Description	Pk	Cat. No.
PINOCCHIO SUPER II for Petri plates compressed gas and air microbial sampling	1	710-0950
PINOCCHIO SUPER II for contact plates compressed gas and air microbial sampler	1	710-0949
PINOCCHIO SUPER II for Petri plates compressed gas and air microbial sampling with calibration certificate	1	710-0955
PINOCCHIO SUPER II for contact plates compressed gas and air microbial sampler with calibration certificate	1	710-0951

Description	Pk	Cat. No.
Accessories for SAS Super Pinocchio II		
Compressed air aluminium head for contact plates 55 mm	1	710-0999
Carrying case	1	710-0972

VWR pbi
Airflow check system, Pyramid



The microbiological air sampler should be regularly controlled according to Good Laboratory Practices and Good Manufacturing Practices to evaluate the correct functionality. The laboratory technician should use an instrument to be sure the air sampler works according to the specifications of the producer. In fact battery faults, falls, etc. can damage the sampler. The Pyramid airflow check system is a easy to use, battery operated system that is applied to calibrate the air samplers SAS. The instrument is composed by two separate units: a fan and a flow meter. The Pyramid is positioned on the top of the sampler: The propeller produces an electric field that is proportional to speed of the air. The system measures the electromagnetic field and calculates the airflow that is presented on the digital visual display (litres per minute or cubic feet per minutes). The battery has an autonomy of 3 years (30.000 tests) and is available with I.Q., O.Q. documentation.

- Used for internal quality control
- Measuring time 30 seconds
- According to Good Laboratory Practice and Good Manufacturing Practice
- The LCD display can show the results in litres per minutes (l) or cubic feet per minute (CFM)

Table with 2 columns: Specification, Value. Rows include Airflow rate (70-200 l/min), Battery Type (3V type CR2032 lithium battery), Running Time (30 s), and Weight (kg) (0,89).

Table with 3 columns: Description, Pk, Cat. No. Row: Pyramid airflow check system, 1, 710-0967



Plates (90 mm), irradiated



Available as 90 mm plates acc. to standards. TLHTh (Tween, lecithin, histidine, thiosulphate) is used as neutraliser. Bags are available double or triple-wrapped. One pack per bag displays the irradiation indicator.

- Available with certificate of irradiation/dosimetry
- VHP resistance studies available for all triple wrapped plates
- Storage at room temperature (2 to 8 °C for TSA Penase)

Packaging Information: The plates are packed 5 each in a plastic shrink-wrap bag. Each bag contains 2 packs (10 plates). The box supplied contains 2 bags with a total of 20 plates.

Table with 3 columns: Description, Pk, Cat. No. Rows list various agar types and their packaging, such as PCA double wrapped (20, 110774ZI), TSA double wrapped (20, 111114ZI), and TSA triple wrapped (20, 131114ZI).



Contact plates, irradiated



Bags are available double or triple wrapped. One pack per bag displays the irradiation indicator. Available with TLHTh (Tween, lecithin, histidine, thiosulphate) neutraliser.

- Double or triple wrap prevents contamination during transport and storage
- Available with certificate of irradiation/dosimetry
- VHP resistance studies available for all triple wrapped plates
- Storage at room temperature (2 to 8 °C for TSA Penase)

Packaging Information: The plates are packed 5 each in a plastic shrink-wrapped pack. Each bag contains 2 packs (10 plates). The box supplied contains 8 bags with a total of 80 plates.

Description	Pk	Cat. No.
Rose Bengal Chloramphenicol agar contact triple wrapped	80	140070ZI
PCA contact TLHTh triple wrapped	80	140774TI
PCA contact triple wrapped	80	140774ZI
Sabouraud 4% dextrose agar contact TLHTh triple wrapped	80	140884TI
Sabouraud 4% dextrose agar contact triple wrapped	80	140884ZI
TSA contact penase triple wrapped	80	141114PY
TSA contact penase TLHTh triple wrapped	80	141114RY
TSA contact TLHTh triple wrapped	80	141114TI
TSA contact triple wrapped	80	141114ZI
VRBG agar contact double wrapped	80	151203ZA



Contact plates, blister packed, irradiated



Available in two pack sizes - triple wrapped (24 plate pack) and double wrapped (30 plate pack). Plates are packed in a blister with 6 compartments. Each compartment carries 1 plate so every time you open a compartment you use only 1 plate. Available with TLHTh neutraliser (Tween, lecithin, histidine, thiosulphate).

- Double or triple wrap prevents contamination during transport and storage
- Available with certificate of irradiation/dosimetry
- VHP resistance studies available for all triple wrapped plates
- Storage at room temperature (2 to 8 °C for TSA Penase)

Packaging Information: 30 plate packs comprise of 5 blister packs with an additional cellophane bag. 24 plate packs comprise of 4 blister packs with two additional cellophane bags. The irradiation indicator is featured on each blister.

Description	Standard	Filling	Pk	Cat. No.
Malt extract agar contact blister double wrapped	-	12 ml	30	250544ZI
PCA contact blister double wrapped	EPA, ISO 4833	13 ml	30	250774ZI
PCA contact blister triple wrapped	EPA, ISO 4833	13 ml	24	270774ZI
PCA TLHTh contact blister double wrapped	-	13 ml	30	250774TI
PCA TLHTh contact blister triple wrapped	-	13 ml	24	270774TI
Rose Bengal chloramphenicol agar contact blister double wrapped		13 ml	30	250070ZI
S+C agar contact blister triple wrapped	-	13 ml	30	250884CY
Sabouraud 4% dextrose agar contact blister double wrapped	EP, USP	13 ml	30	250884ZI
Sabouraud 4% dextrose agar contact blister TLHTh double wrapped		13 ml	30	250884TI
Sabouraud 4% dextrose agar contact blister TLHTh triple wrapped		13 ml	24	270884TI
Sabouraud 4% dextrose agar contact blister triple wrapped	EP, USP	13 ml	24	270884ZI
TSA contact blister double wrapped	EP, USP, ISO	13 ml	30	251114ZI
TSA contact blister penase double wrapped		13 ml	30	251114PY
TSA contact blister penase TLHTh double wrapped		13 ml	30	251114RY
TSA contact blister penase TLHTh triple wrapped		13 ml	24	271114RY
TSA contact blister TLHTh double wrapped		13 ml	30	251114TI
TSA contact blister TLHTh triple wrapped		13 ml	24	271114TI
TSA contact blister triple wrapped	EP, USP, ISO	13 ml	24	271114ZI
VRBG agar contact blister double wrapped	ISO 5552	13 ml	30	251203ZA

Contact plates, blister



The range is manufactured from high quality raw materials. All the culture media are manufactured using selected dehydrated bases, and comply with the requirements of ISO 11133 (food microbiology). Manufactured under GMP, the media is produced using the latest technology and is subject to strict quality controls carried out by qualified microbiologists.

- Packed under cleanroom conditions to avoid contamination
- Storage at 2 to 8 °C
- Manufactured under GMP with formulations that follow specifications of the various Pharmacopoeias and ISO regulations

Description	Filling	Pk	Cat. No.
Contact plates total count	16,5 ml	40	AX061101
Contact plates yeast and moulds	16,5 ml	40	AX061102



Contact plate applicator, Rodac Weight



The microbiological monitoring of the surface is a hygienic practice that involves the pharmaceutical, agro, food, dairy, meat industry to avoid cross-contamination with consequent shorter shelf-life or presence of pathogenic microorganisms in the final product. Rodac-Weight standardises surface sampling: time and pressure are always the same, as required by ISO norms. In this way microbiological sampling of surfaces performed by different operators are comparable since very accurately repeated.

- Dry heat or steam sterilisable stainless steel base with pull-out digital timer
- Used with different types of contact plates
- According to ISO 18593
- Weighs only 500g

Description	Pk	Cat. No.
Contact plate applicator, Rodac Weight	1	710-0961



Igientest HACCP



A simple quick test for hygiene control of work surface. Application fields: Food industry, catering, dairy industry, health authority, HACCP consultants. The colorimetric scale to interpret the results is printed on each tube. The comparison between the solution colour and the colorimetric scale confirms if the surface is clean or dirty. It's enough to streak the wet swab on a surface and to insert the swab into the tube. Break the glass vial contained in the tube by using the clamp. At the end of the test the tube can be disposed as normal waste, room temperature storage.

- Quick - results in only 10 minutes
- Simple to use
- Easy interpretation

Description	Pk	Cat. No.
Igientest HACCP surface hygiene monitoring test	1	710-0895
Clamp to break the glass vial of Igientest HACCP	1	710-0904



Surface samplers, sponge, SANI-STICK



Designed to collect samples to detect the presence of microbiological contaminations such as Listeria, Salmonella, E. coli, and other food-borne pathogens on almost any surface. Produced in accordance with HACCP, USDA, ACIA and CFIA requirements.

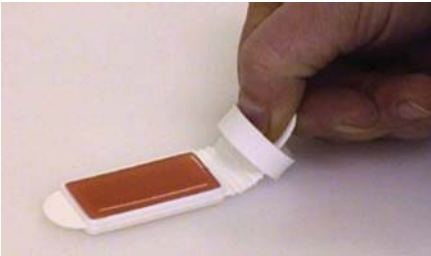
- Ideal for surface sampling
- Allows you to access hard to reach areas
- Easy to handle
- Single-use
- Sterilised by gamma irradiation
- Supplied in 10 packs of 10 units

Delivery Information: Kits supplied in a wet sponge TWIRL'EM sterile sampling bag with leakproof closure system accompanied by a foil sealed, pre-moistened cellulose sponge, holding 10 ml of the buffer of choice (neutralising buffer, sterile or Dey/Engley neutralising buffer, sterile).

Description	Sterile	Pk	Cat. No.
SANI-STICK, surface sampling sponge with handle, with Dey/Engley neutralising buffer	+	100	300-0101
SANI-STICK, surface sampling sponge with handle, with neutralising buffer	+	100	300-0102



Dip slides



Dip slides for semi-quantitative monitoring of surfaces and in liquids. Testing with dip slides is a safe, reliable, economical and fast indicator of the presence of microorganisms. The dip slides with a push cap have a larger contact area.

- Supplied sterile
- Sampling takes only a few seconds
- The results are easily read after just 24-48 hours

Push cap

Contact area (cm ²)	10
Dimensions	30 mm tube, 110 mm high
Paddle size (mm)	80x28
Tray WxL (mm)	50x22
Type	Push cap

Description	Pk	Cat. No.
Baird Parker	10	535302D
Baird Parker	100	535303D
Baird Parker and Total count agar	10	535304D
Baird Parker and Total count agar	100	535305D
Baird Parker and VRBG	10	535308D
Malt extract agar	10	535328D
Malt extract agar	100	535329D
Nutrient agar and Pseudomonas agar	10	535182R
Nutrient agar and Pseudomonas agar	100	535184T
Nutrient agar with TTC	10	535092Q
Nutrient agar with TTC	100	535094S
Nutrient agar with TTC and malt extract agar	10	535102B
Nutrient agar with TTC and malt extract agar	100	535104D
Nutrient agar with TTC and neutralisers	10	535309D

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Description	Pk	Cat. No.
Nutrient agar with TTC and neutralisers	100	535310D
Nutrient agar with TTC and rose bengal agar	10	535112D
Nutrient agar with TTC and rose bengal agar	100	535114F
Plate count agar	100	535124H
Plate count agar and MacConkey agar	10	535142J
Plate count agar and MacConkey agar	100	535144L
Plate count agar and OGYE agar with neutralisers	10	535132H
Plate count agar and OGYE agar with neutralisers	100	535134J
Plate count agar and VRBGA	10	535162N
Plate count agar and VRBGA	100	535164P
Plate count agar and VRBGA with neutralisers	10	535172P
Plate count agar and VRBG with neutralisers	100	535174R
Plate count agar MacConkey agar with neutralisers	10	535152L
Plate count agar MacConkey agar with neutralisers	100	535154N
Plate count agar with neutralisers	100	535325D
Plate count agar with neutralisers	10	535324D
Plate count agar with TTC	10	535311D
Plate count agar with TTC	100	535312D
Plate count agar with TTC and MacConkey agar 3	100	535319D
Plate count agar with TTC and MacConkey agar 3	10	535318D
Plate count agar with TTC and MacConkey agar 3 with neutralisers	10	535316D
Plate count agar with TTC and MacConkey agar 3 with neutralisers	100	535317D
Plate count agar with TTC and neutralisers	10	535313D
Plate count agar with TTC and neutralisers	100	535314D
Pseudomonas CFC and MacConkey 3 agar	10	535322D
Pseudomonas CFC and MacConkey 3 agar	100	535323D
Rose bengal agar	10	535202E
Rose bengal agar	100	535204G
TSA with malt extract agar	10	535320D
TSA with neutralisers	10	535326D
TSA with neutralisers	100	535327D
TSA with plate count agar	10	535122F
TSA with TTC and malt extract agar	100	535321D

Screw cap

Contact area (cm²)	7
Dimensions	24 mm tube, 92 mm high
Paddle size (mm)	72x20
Tray WxL (mm)	50x15
Type	Screw cap

Description	Pk	Cat. No.
Nutrient agar TTC	100	535307D
Total Count agar	10	535306D

Media supplements



The isolation of microorganisms often requires the use of selective media. The use of freeze-dried supplements ensures an optimal and standardised media preparation and optimised performance. For 500 ml medium.

- Freeze-dried, no aerosols of toxic agents released upon opening
- Standard volumes make preparation easier
- User friendly screw caps

Description	Pk	Cat. No.
Ampicillin selective supplement	10	928010NL
Brilliant green and novobiocin selective supplement	10	928310NL
Campylobacter Butzler selective supplement	10	928040OL
Campylobacter CCDA selective supplement	10	928070NL
Campylobacter growth supplement	10	928030NL
Campylobacter Preston mod. selective supplement	10	928250NL
Campylobacter Preston selective supplement	10	928050OL
Campylobacter Skirrow selective supplement	10	928060NL
Chloramphenicol 25 selective supplement	10	928260NL
CNA CP gram-positive selective supplement	10	928210NL
Coliform CV selective supplement	10	928390NL
Cycloheximide selective supplement	10	928370NL
D-Cycloserine selective supplement	10	928330NL

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Description	Pk	Cat. No.
Dermatophyte selective supplement	10	928270NL
Egg yolk sterile emulsion	100 ml	351430ZF
Egg yolk tellurite sterile emulsion	100 ml	351430XF
Egg yolk tellurite sterile emulsion	50 ml	361430XF
Ferric ammonium citrate supplement (250 mg)	10	928300NL
Ferric ammonium citrate supplement (312 mg)	10	928340NL
Gardnerella selective supplement	10	928120OL
Legionella BCYE growth supplement	10	928130NL
Legionella GVPC selective supplement	5	928140NL
Listeria FDA FIL/IDF selective supplement	10	928380NL
Listeria Fraser/UVM II sel supplement	10	928110OL
Listeria half Fraser selective supplement	10	928280NL
Listeria Oxford selective supplement	10	928170OL
Listeria Palcam selective supplement	10	928200NL
Listeria UVM II selective supplement	10	928160NL
Listeria UVM I selective supplement	10	928150NL
M-CP selective supplement	10	928320NL
MUG fluorescent supplement	10	928360NL
Nalidixate selective supplement	10	928090NL
Novobiocin selective supplement	10	928180NL
Oxitetraciclina selective supplement	10	928190NL
Polymixin selective supplement	10	928020NL
RPF supplement	10	602730ZL
Sodium bisulphite selective supplement	10	928350NL
VCAT selective supplement	10	928220NL
VCNT selective supplement	10	928230NL
Yersinia selective supplement	10	928240OL

Culture media, ready to use, in bottles



Ready to use culture media for microbiological test requirements in the food industry, water and environmental control and in the pharmaceutical industry. The range is manufactured from high quality raw materials. All the culture media are manufactured using selected dehydrated bases, and comply with various standards. All media are produced using the latest technology and are subject to strict quality controls carried out by qualified microbiologists.

- Storage at room temperature for selected media
- Supplied in glass bottles with different screw caps
- Certificate of Analysis, which guarantees product conformity

Description	Standard	Filling	Size	Cap	Pk	Cat. No.
Antibiotic agar control pH 6.0	-	100 ml	150 ml	Aluminium	10	AX021189
Antibiotic agar control pH 8.0	-	100 ml	150 ml	Aluminium	10	AX021197
Antibiotic medium A	EP	200 ml	250 ml	Aluminium	6	AX021205
Antibiotic medium B	EP	200 ml	250 ml	Aluminium	6	AX021206
Antibiotic medium E	-	200 ml	250 ml	Aluminium	6	AX022241
Baird Parker agar base	-	90 ml	125 ml	Aluminium	10	312950ZA
Baird Parker agar base	-	180 ml	250 ml	Aluminium	10	430063ZA
Beerens dilution	-	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	302240ZA
Beerens dilution	-	90 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	312240ZT
BHI broth mod.	-	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	303415ZA
Bile esculin azide agar	ISO 7899-2	200 ml	250 ml	Aluminium	6	AX022293
Bolton broth (base)	-	200 ml	250 ml	-	10	563390ZF
Bordet jengou	-	100 ml	250 ml	-	10	AX029167
Buffered peptone water	ISO 6579, ISO 8523 and ISO 6785	100 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	300173ZA
Buffered peptone water	ISO 6579, ISO 8523 and ISO 6785	90 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	310173ZA
Buffered peptone water	ISO 6579, ISO 8523 and ISO 6785	225 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400173ZA
Buffered peptone water	ISO 6579, ISO 8523, ISO 6785	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	450173ZA

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Description	Standard	Filling	Size	Cap	Pk	Cat. No.
Buffered peptone water 0,1%	Harm Ph	100 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	301314ZA
Buffered peptone water 0,1%	Harm Ph	90 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer, cap + shrink wrapped plastic sleeve	10	311314ZA
Buffered peptone water 0,1%	Harm Ph	300 ml	500 ml	Aluminium screw outer cap + elastomer inner septum	10	531314ZA
Buffered peptone water 0.1 %	-	475 ml	500 ml	Aluminium screw outer cap + elastomer inner septum	10	561314ZA
Buffered peptone water 10% Tween	Harm Ph	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	303480TA
Butterfield buffer	-	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	303610ZA
Cetrimide agar	EP, USP	100 ml	150 ml	Aluminium	10	AX021182
Cetrimide agar	EP, USP	200 ml	250 ml	Aluminium	6	AX022222
Chromocult Coliform agar	-	200 ml	250 ml	Aluminium screw outer cap	10	401274ZH
Czapek Dox metal agar	-	475 ml		-	10	530274XA
Dextrose Tryptone agar (DTA)	-	100 ml	125 ml	-	10	303525ZA
EE broth, Mossel	EP, USP, JP	90 ml	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX021380
EE broth, Mossel	EP	90 ml	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX029148
EE broth, Mossel	Eur Pharm 6	100 ml	150 ml	-	10	300304ZA
EE Mossel broth	Harm Ph	90 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	310304ZA
Fluid D	Harm Ph	400 ml		-	10	563200OA
Fraser broth	ISO 11290-1:	200 ml	200 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	400343ZF
FTM + resazurine (acc USP)	USP	100 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	301051ZA
Half Fraser broth	-	225 ml	250 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	400343VF
Lactose broth	EP, USP, EPA	100 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	300440ZA
Lactose broth	EP, USP, EPA	90 ml	150 ml	Aluminium screw outer cap + elastomer inner septum	10	310440ZA
LB broth acc. to Miller	-	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	302510ZA
Lethen broth	FDA	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	301580ZA
Lethen broth modified	FDA	90 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	312760ZA
Liquid A 0.1%	Harm Ph	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	301314XA
Liquid A 0.1%	Harm Ph	475 ml	500 ml	Aluminium screw outer cap + elastomer inner septum	10	561314XA
Listeria enrichment broth (LEB)	-	475 ml	500 ml	-	10	560472ZA
Liver meat agar	-	200 ml	250 ml	Aluminium	6	AX022292
MacConkey agar no 3	-	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	300641ZA
MacConkey broth	-	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	300674ZA
Maximum recovery diluent	ISO 6887-1	100 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	313120ZA
Milk plate count agar	-	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400774XA
MRS agar	DIN 13721, ISO 10109	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400582ZA
Muller Kauffmann Tetrathionate-Novobiocin broth (MKTn)	ISO 6579:2002	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	301030ZA

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Description	Standard	Filling	Size	Cap	Pk	Cat. No.
MYP agar base	ISO 7932:2004	90 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	310053ZA
NaCl peptone water	ISO 6887-1	90 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	313155ZA
Orange serum agar	-	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	300733IA
PBPS 4% Tween 0.5% Lecithin	Harm Ph	90 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	471314TH
PBTL 3% Tween 0.3% Lecithin	Harm Ph	90 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	471314TA
PCA without glucose		100 ml	150 ml	Aluminium	10	AX021264
PCA without Glucose		200 ml	250 ml	Aluminium	6	AX022206
Peptone 0,1% with Tween 0,1%	Harm Ph	100 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap	10	301314TA
Pharmacopoeia diluent (NaCl peptone broth pH 7) Tween® 80 1%	-	90 ml	150 ml	Aluminium	10	AX021320
Pharmacopoeia diluent with neutralising agent (DNP)	-	90 ml	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX021146
Potato dextrose agar	Harm Ph	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400782ZA
Preston broth without blood	-	225 ml	500 ml	Aluminium screw outer cap + elastomer inner septum	10	401640ZA
R2A Medium	EP, EPA	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	300802ZA
Rappaport Vassiliadis broth				Aluminium screw outer cap + elastomer inner septum	10	AX021263
Rappaport Vassiliadis broth	EP, USP, JP	100 ml	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX021383
Rappaport Vassiliadis EU Pharm	Harm Ph	90 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	313552ZA
Sab. Chloramphenicol agar	Harm Ph	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	400884CA
Sabouraud 2% dextrose broth	Harm Ph	100 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	300894ZA
Sabouraud 2% glucose agar	-	200 ml	250 ml	Aluminium	6	AX022245
Sabouraud 2% glucose broth	-	100 ml	150 ml	Aluminium	10	AX021154
Sabouraud agar	-	200 ml	250 ml	-	10	400884ZA
Sabouraud chloramphenicol agar	-	400 ml	500 ml	Aluminium screw outer cap + elastomer inner septum	10	550884CA
Sabouraud dextrose agar	Harm Ph	100 ml	125 ml	-	10	300884ZA
Sabouraud dextrose agar	-	400 ml	500 ml	Aluminium screw outer cap + elastomer inner septum	10	550884ZA
Selenite cystine broth	ISO 6579, USP	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	300954ZA
Sodium chloride peptone broth, buffered		100 ml	300 ml		10	AX021372
SPS agar	-	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	401320ZA
TBG broth	EP	100 ml	150 ml	Aluminium screw outer cap + elastomer inner septum	10	AX021112
TBX agar	ISO 16649-1	100 ml	150 ml	-	10	301004ZA
Thioglycollate Penase broth	Harm Ph	100 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	301051PF
TMLB-Ilethene-Tween® broth	-	90 ml	150 ml	Aluminium	10	AX021258
Tributyrin agar	-	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum	10	301353ZA
TSA, Tryptic soy agar	Harm Ph, ISO 9308-1	400 ml	500 ml	Aluminium screw outer cap + elastomer inner septum	10	551114ZA
TSA Tryptic soy agar	-	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	401114ZA
TSA Tryptic soy agar	Harm Ph, ISO 9308-1	500 ml		Aluminium screw outer cap + elastomer inner septum	10	531114ZH
TSB	-	100 ml	125 ml	Metal cap w/o septum	10	301121ZQ
TSB	USP, FDA and Eur Ph	55 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	371121ZA
TSB	-	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	401115ZH

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Description	Standard	Filling	Size	Cap	Pk	Cat. No.
TSB Penase broth	USP, FDA and Eu Ph	100 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap + shrink wrapped plastic sleeve	10	301121PF
TSB Tryptic soy broth	Harm Ph, ISO9308-1	100 ml	125 ml	Plastic screw inner cap + elastomer septum + protective outer cap	10	301121ZA
TSB Tryptic soy broth	Harm Ph, ISO 9308-1	90 ml	150 ml	Aluminium screw outer cap + elastomer inner septum	10	311121ZA
TSB Tryptic soy broth	Harm Ph, ISO 9308-1	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	451121ZA
TSC agar base	UNE 13401 and UNE EN 26461-2	100 ml	125 ml	Aluminium screw outer cap + elastomer inner septum + shrink wrapped plastic sleeve	10	301141ZA
VRB agar	Harm Ph ISO 5552	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	401183ZA
VRBD agar	Harm Ph ISO 5552	200 ml	250 ml	Aluminium screw outer cap + elastomer inner septum	10	401203ZA
XLD agar	ISO 6579, EP, USP	100 ml	150 ml	Aluminium	10	AX021282
YGC agar	ISO/DIS 6611	200 ml	250 ml	Aluminium	6	AX021259

Media for use in media fill test



Validation of aseptic processing should include a simulation test using a nutrient medium, known as the media fill test or media simulation test. The selection of the nutrient medium should be made based on the quantity of the product produced and the selectivity, clarity, concentration and suitability for sterilisation of the nutrient medium. The process simulation test should imitate as closely as possible the routine aseptic manufacturing process and include all the critical subsequent manufacturing steps. Normally process simulation tests should be repeated twice a year per shift and process. The number of containers used for media fills should be sufficient to enable a valid evaluation. For small batches, the number of containers for media fills should at least equal the size of the product batch.

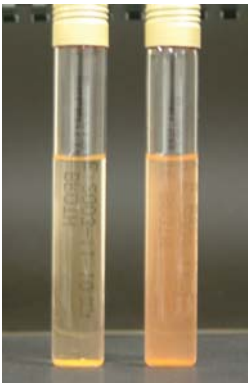
- Ready to use media saves time
- Decreases the risks associated with the media preparation
- Guarantees filtration through a 0.2 µm membrane
- Sterility and fertility according to international requirements and guidelines for validation of media fill
- The medium is irradiated, BSE-free and mycoplasma-free certified, complying with the recommendations

of USP XXVI (2003) and EP (1999)

Delivery Information: Batch size is 500 litres, each batch is tracked by the following documentation: Certificates of origin, filterability studies, comparative fertility studies, sterility and conformity certificates. Each bag or bottle is double wrapped.

Description	Pk	Cat. No.
Media for Media Fill Test, bottle	1 l	AX0110086
Media for Media Fill Test, bag with connectors	10 l	AX0110087

Culture media, ready to use, in tubes



For various microbiological uses.

- Storage at room temperature for selected media
- Compact packaging, tubes are fitted with aluminium screw caps

Description	Standard	Filling	Pk	Cat. No.
Azide broth (Rothe)	-	10 ml	20	690042ZA
Brain heart infusion broth	-	10 ml	20	600113ZA
Brilliant green 2% bile broth	APHA, AWWA	10 ml	20	730144WA
Brilliant green 2% bile broth, Durham tubes 16x112 mm	ISO 4831:2006	5 ml	20	650144ZA
Brilliant green bile broth	APHA, AWWA	9 ml	20	690144ZA
Buffered peptone water	ISO 6579, ISO 8523, ISO 6785	9 ml	20	610173ZA
Buffered peptone water 0,1%	-	10 ml	20	601314ZA
Buffered peptone water 0.1%	Harm Ph	9 ml	20	611314ZA
E.C.broth, Durham tube 16x112mm	-	9 ml	20	601450ZA

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Description	Standard	Filling	Pk	Cat. No.
EE Mossel broth	Harm Ph	9 ml	20	600304ZA
Fluorocult® LMX broth modified	-	2 ml	20	602524ZF
Fraser broth	-	10 ml	20	600343ZF
Giolitti Cantoni broth	-	9 ml	20	610360ZF
Giolitti Cantoni broth	-	19 ml	20	710360ZF
Giolitti Cantoni broth	-	10 ml	20	790360WF
Indole ornithine motility medium	-	9 ml	20	651820ZA
Kanamycin esculin broth	-	9 ml	20	611830ZA
Kligler agar, slope	-	7,5 ml	20	640431ZA
Lactose broth	EP, USP, EPA	9 ml	20	690440ZA
Lauryl sulphate broth	-	9 ml	20	690450ZA
Lauryl sulphate broth	ISO 5541-2, 4841	10 ml	20	890450WA
Lauryl sulphate broth, Durham tubes 16x112 mm	ISO 4831:2006	9 ml	20	650450ZA
Lauryl sulphate broth MUG Durham	-	9 ml	20	690450XA
Lethen broth	FDA	10 ml	20	601580ZA
Lethen broth	-	9 ml	20	611585ZA
Löwenstein-Jensen medium	-	6,4 ml	20	640504ZA
Lysine iron agar, slope	-	7,5 ml	20	640511ZA
MacConkey broth	Harm Ph	9 ml	20	690674ZA
Maximum recovery diluent	ISO 6887-1	5 l	10 l	AX031119
Maximum recovery diluent	ISO 6887-1	9 ml	20	613120ZA
M broth	-	9 ml	20	613270ZA
MKTTn broth acc. to ISO 6579	ISO 6579	10 ml	50	AX011184
MRS broth	-	10 ml	20	600592ZA
MRS broth, Durham tube	-	9 ml	20	690592ZA
Mueller-Kauffmann Tetrathionate broth	ISO 6579:2002	10 ml	20	601030ZA
O/F glucose medium	-	10 ml	20	651810ZA
Orange serum agar	-	20 ml	20	730731ZA
Orange serum agar acid	-	9 ml	20	730733IA
Palcam broth	-	10 ml	20	601410ZF
PCA agar	ISO 4833	15 ml	20	730774ZA
Peptone water	ISO 7251	9 ml	20	610753ZA
Pharmacopoeia diluent with neutralising agent (DNP)	-	9 ml	50	AX011158
Rappaport Vassiliadis broth	ISO 6579	10 ml	50	AX011124
Rappaport Vassiliadis broth	ISO 6579:2002	10 ml	20	600834ZA
Ringer solution	-	9 ml	50	AX011139
Ringer solution	-	10 ml	20	601770ZA
Ringer solution	-	9 ml	20	611770ZA
RVS broth	EP, USP, JP, Harm Ph	10 ml	20	603552ZA
Sab. chloramphenicol agar	-	7 ml	20	640884CA
Sabouraud broth	Harm Ph	9 ml	20	600894ZA
Selenite broth	-	10 ml	20	600944ZA
Selenite cystine broth	ISO 6579	10 ml	20	600954ZA
Simmons citrate agar	-	6 ml	20	640971ZA
SPS agar (Perfringens selective agar)	-	10 ml	20	601320ZA
SPS agar DC	-	10 ml	20	761320WA
SPS agar with paraffin (Perfringens selective agar)	-	10 ml	20	601320XA
Thioglycollate medium USP	Harm Ph	9 ml	20	621051ZA
Todd Hewitt with antibiotic	-	10 ml	20	601060AA
Tryptone water	ISO 7251	9 ml	20	601083ZA
Tryptone yeast extract agar	ISO 6222:1999	15 ml	20	731250ZA
TSA tryptic soy agar	EP, USP, ISO 9308-1	15 ml	50	AX011101
TSA tryptic soy agar, slope	Harm Ph	6,5 ml	20	641114ZA
TSB	USP, FDA and Eu Ph	10 ml	20	601121ZA
TSB	USP, FDA and Eu Ph	15 ml	20	751121ZA
TSB tryptic soy broth	USP, FDA, Eu Ph	9 ml	20	611121ZA
TSB tryptic Soy Broth	EP, USP, ISO 9308-3	9 ml	50	AX011176
TSB tryptic soy broth with neutralisers TLHTH	-	10 ml	20	721115TA
TSI, slope	ISO 6579:2002	7,5 ml	20	641071ZA
TSN agar	-	9 ml	20	601370ZA
Tyrobutyricum broth	-	9 ml	20	601353ZA
Urea broth	-	2 ml	20	661161ZA
Violet red bile glucose agar (VRBG)	Harm Ph	15 ml	20	731203ZA
VP-RM broth	-	10 ml	20	600531ZA

Culture media, ready to use, in plates



For various microbiological applications.

- Packed under cleanroom conditions to avoid contamination
 - Manufactured with formulations that follow specifications of the various Pharmacopoeias and ISO regulations
- Packaging Information:** Plates: 1 pack contains 3 bags of 10 plates; Blister: 1 pack contains 5 blisters with 6 plates each.

Description	Standard	Filling	Pk	Cat. No.
Plates 55 mm				
Bile esculin azide agar	ISO 7899-2:2001	12 ml	30	170082UA
KF agar	-	12 ml	30	170411ZA
Mannitol agar	Harm Ph	12 ml	30	170560ZA
MacConkey agar	-	12 ml	30	170641ZA
Nutrient agar	-	12 ml	30	170692ZA
Orangeserum agar	-	12 ml	30	170731ZA
PCA	ISO 4833, EPA	10 ml	30	170774ZA
Cetrimide agar (CN)	ISO 12780:2002	12 ml	30	170793NA
Cetrimide agar	EP, USP	12 ml	30	170793ZA
R2A agar	EP	10 ml	30	170802ZI
Sabouraud 4% chloramphenicol agar	Harm Ph	10 ml	30	170884CF
Sabouraud 4% dextrose agar	Harm Ph	12 ml	30	170884ZA
Slanetz & Bartley agar	ISO 7899-2	10 ml	30	170980ZA
Tergitol-7 agar	ISO 9308-1	12 ml	30	171023ZA
TSA agar	Harm Ph	12 ml	30	171114ZA
Tryptone yeast agar	ISO 6222:1999	12 ml	30	171250ZA
Chromocult Coliform agar	-	12 ml	30	171274ZA
Chromocult Enterococci	-	12 ml	30	171284ZA
M-Green agar	-	12 ml	30	171300ZA
SPS agar	-	12 ml	30	171320ZA
M-FC agar	-	12 ml	30	171380ZA
M-CP agar	-	12 ml	30	171400ZA
DEV agar	acc. to the German Standard Methods	12 ml	1	173554ZA
Cooke Rose Bengal agar	-	12 ml	30	203670AF
Plates 55 mm, blister				
Middlebrook 7H 11 Mycobacteria agar	-	12 ml	30	173295UF
Bile esculin azide agar	ISO 7899-2:2001	12 ml	30	200082UA
KF agar	-	12 ml	30	200411ZA
Mannitol agar	Harm Ph	12 ml	30	200560ZA
Nutrient agar	-	12 ml	30	200692ZA
PCA agar	UNE-EN ISO 4833:2003	12 ml	30	200774ZA
Plate count agar, filter included, 47 mmx0,45 µm, sterile individually packed	UNE-EN ISO 4833:2003	12 ml	30	200774ZJ
Cetrimide agar, double wrapped	ISO 12780:2002	12 ml	30	200793NA
Cetrimide agar	Harm Ph	12 ml	30	200793ZA
R2A agar	Eu Ph	12 ml	30	200802ZI
Sabouraud 4% chloramphenicol agar	Harm Ph	12 ml	30	200884CF
Sabouraud 4% dextrose agar	Harm Ph	12 ml	30	200884ZA
Slanetz & Bartley agar	-	12 ml	30	200980ZA
Slanetz & Bartley agar, filter included, 47 mmx0,45µm, sterile individually packed	ISO 7899-2	12 ml	30	200980ZJ
Tergitol-7 agar, double wrapped	ISO 9308-1	13 ml	30	201023ZA
Tergitol-7 (TTC) agar	-	12 ml	30	201023ZJ
TSA agar	Harm Ph	12 ml	30	201114ZA
TSC agar with cycloserine	UNE EN 13401, UNE EN 26461-2	12 ml	30	201141AA
Trytone yeast agar	ISO 6222:1999	12 ml	30	201250ZA
Chromocult Coliform agar	-	12 ml	30	201274ZA
Chromocult Coliform agar, filter included, 47 mmx0,45 µm, sterile individually packed	-	12 ml	30	201274ZJ
Chromocult Enterococcus agar	-	12 ml	30	201284ZA
Chromocult Enterococcus agar, filter included, 47 mmx0,45 µm, individually sterile packed	-	12 ml	30	201284ZJ
M-Green agar	-	12 ml	30	201300ZA
SPS agar	-	12 ml	30	201320ZA
M-FC agar	-	12 ml	30	201380ZA
M-CP agar	-	12 ml	30	201400ZA
Wort agar	-	12 ml	30	202321ZA
Endo-LES, double wrapped	-	13 ml	30	203241ZA
M-CP agar	-	12 ml	12	221400ZA

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Description	Standard	Filling	Pk	Cat. No.
Plates 55 mm, blister				
Baird Parker agar	EP, USP, ISO	19 ml	20	AX051103
Potato dextrose agar	-	20 ml	20	AX051132
PCA without glucose	-	20 ml	20	AX051165
Plates 90 mm				
MYP agar with polymyxin B, egg yolk	-	20 ml	20	100053UA
Baird-Parker agar	ISO 6888-1:1999	20 ml	20	100063UA
Rose Bengal agar	-	20 ml	20	100070ZA
Bile esculine azide agar	ISO 7899-2:2001	20 ml	20	100082XA
BPLS agar acc. to Kristensen (brilliant green, phenol red, lactose, saccharose)	acc. potable water, spanish legislation	20 ml	20	100121ZA
Campylobacter blood-free CCDA agar	ISO 10272:2006	20 ml	20	100191ZF
Sheep blood polymyxin agar	-	20 ml	20	100250DF
Columbia sheep blood + ANC	Harm Ph	20 ml	20	100253NF
Columbia sheep blood agar	Harm Ph	20 ml	20	100253ZF
DNAse test agar	-	20 ml	20	100291ZA
EMB agar	ISO 21150:2006	20 ml	20	100331ZA
Thayer Martin agar	-	20 ml	20	100353OF
Hektoen enteric agar	-	20 ml	20	100371ZA
Legionella GVPC	ISO 11731:1998	20 ml	20	100460GF
Legionella BCYE non Cysteine	ISO 11731:1998	20 ml	20	100460XF
Legionella BCYE	-	20 ml	20	100460ZF
Malt extract metal agar	-	20 ml	20	100544XA
Malt extract agar	-	20 ml	20	100544ZA
Mannitol salt agar	Harm Ph	20 ml	20	100560ZA
MRS cysteine agar	-	20 ml	20	100582JA
MRS +sorbic acid agar	-	20 ml	20	100582XA
MRS agar	-	20 ml	20	100582ZA
Mueller Hinton blood agar	-	20 ml	20	100613IF
MacConkey agar	Harm Ph	20 ml	20	100641ZA
CT-SMAC (E.coli O:157) agar	-	20 ml	20	100683AA
Standard I nutrient agar	-	20 ml	20	100692ZA
OGYE agar	ISO 13681:1995	20 ml	20	100720ZA
Palcam agar	EN ISO 11290-1,11290-2	20 ml	20	100742ZA
Plate count agar	UNE-EN ISO 4833:2003	20 ml	20	100774ZA
Potato dextrose agar	Harm Ph	20 ml	20	100782ZA
Cetrimide agar	Harm Ph	20 ml	20	100793ZA
Sabouraud 4% dextrose chloramphenicol agar	Harm Ph	20 ml	20	100884CF
Sabouraud 2% chloramphenicol actidione agar	Harm Ph	20 ml	20	100884DA
Sabouraud 4% glucose agar	EP, USP	20 ml	20	100884ZA
Salmonella Shigella agar	-	20 ml	20	100911ZA
Slanetz & Bartley enterococcae agar	ISO 7899-2:2000	20 ml	20	100980ZA
TBX agar	-	20 ml	20	101004ZA
TCBS cholera agar	-	20 ml	20	101011ZA
Lactose TTC agar Tergitol-7	ISO 9308-1	20 ml	20	101023ZA
TSA tryptic soy agar +5% sheep blood	Harm Ph	20 ml	20	101114IF
Lecithin polysorbate triton x agar	-	20 ml	20	101114SA
TSA	Harm Ph	20 ml	20	101114ZA
TSC agar	UNE EN 13401 and UNE EN 26461-2	20 ml	20	101141AA
VRB agar	EP	20 ml	20	101183ZA
VRBD agar	Harm Ph	20 ml	20	101203ZA
XLD novobiocin agar	Harm Ph	20 ml	20	101241AF
XLD agar	Harm EP, USP, JP	20 ml	20	101241ZF
Chromocult E. coli agar	-	20 ml	20	101274ZA
Rambach® agar	-	20 ml	20	101294ZA
S.P.S. agar	-	20 ml	20	101320ZA
TSN agar	-	20 ml	20	101370ZA
Chocolate agar with supplement	-	20 ml	20	101591ZF
XLT4 agar	-	20 ml	20	101874ZA
DG 18 metal agar	-	20 ml	20	102310XF
Bismuth sulfite agar	-	22 ml	20	102770ZA
Listeria selective agar ALOA	ISO 11290-1+2	20 ml	20	102898KA
Baird Parker RPF agar	ISO 6888-2	20 ml	20	102950IM
Dichlor. Rose Bengal chloramp. agar	-	20 ml	20	103660XF
TLH Standard I agar	-	20 ml	20	111110TI
TSA with natamycin 0,1 g/l agar	-	20 ml	20	111114NF
Wort agar	-	20 ml	20	112321TA

Culture media, ready to use, in bags



Microbiology media in bags are ideally suited for high sample volumes.

- Space saving packaging
- No risk associated with broken glass bottles
- Media can be easily and conveniently dispensed using a gravimetric diluter or peristaltic pump

Description	Filling	Packed	Pk	Cat. No.
Bag connector			1	49926300
Buffered peptone water	3 l	3x3 l	3	800179ZB
Buffered peptone water	5 l	2x5 l	2	850179ZB
Buffered peptone water	2 l	5x2 l	5	870179ZB
Fraser broth 1/2	3 l	3x3 l	3	800343VB
Fraser broth 1/2	5 l	2x5 l	2	850343VB
Fraser broth 1/2	2 l	5x2 l	5	870343VB
Maximum recovery diluent	5 l	2x5 l	2	853120ZB
Tryptone soya broth (TSB)	3 l	3x3 l	3	801121ZB
Tryptone soya broth (TSB)	5 l	2x5 l	2	851121ZB
TSB tryptic soy broth irradiated	5 l	single	2	AX031110

Culture media, ReadyBag



Each bag contains a pre-weighed amount of granulated media in a double bagged bag and is irradiated. Just in time enrichment - add sterile water and sample material.

- Space saving, no bottles taking up shelf space
- Long shelf life
- No autoclaving and optimum solubility
- Dust-free work condition

ReadyBag, Buffered Peptone Water (BPW) irradiated

Non selective pre-enrichment broth to increase recovery of bacteria, particularly pathogenic Enterobacteriaceae from foodstuffs. The culture medium complies with ISO 6579:2002.

The lab-blender bag contains 5,75 g of BPW to which 225 ml of sterile water and 25 g (or 25 ml) of sample material is added.

The following media are approved for the bag system:

- Tryptic soy broth
Fraser broth base
Lactose broth
MacConkey broth

Listeria enrichment broth
mEC broth
UVM broth
Nutrient broth

The composition is according to standard methods such as ISO, AFNOR, NMKL etc.

Packaging Information: Special formulations and packaging formats available on request.

Description	Pk	Cat. No.
Small bag with BPW, irradiated, ready to use		
ReadyBag, BPW sachets	100	7501.00225
Standbag with BPW, irradiated, ready to use		
ReadyBag, standbag with BPW	100	7301.00900
ReadyBag, standbag with BPW	100	7301.01125
ReadyBag, standbag with BPW	100	7301.02250
Aluminium standbag with BPW, irradiated, ready to use		
ReadyBag, aluminium standbag with BPW	50	7601.03375
ReadyBag, aluminium standbag with BPW	50	7601.04500
Large bag with BPW, irradiated, ready to use		
ReadyBag, big bag with BPW	20	7201.04500
ReadyBag, big bag with BPW	20	7201.06750
ReadyBag, big bag with BPW	20	7201.09000

* Quantity of sterilised water addition for optimal medium used

Culture media, Mediabag T



The T bag is filled with pre-weighed granulated media. Connect the filter unit, 0,2 µm, aseptically to the tube by using the the connector device. Add sterile water under aseptic conditions into the bag via the filter sytem. Protect the tube end with the red cap.

Description	Pk	Cat. No.
Mediabag T (tube-bag) for 3 l BPW (buffered peptone water)	25	7701.03000
Mediabag T for 10 l BPW (buffered peptone water)	20	7701.10000
Mediabag T for 10 l Half Fraser	15	7704.10000
Mediabag T for 10 l maximum recovery diluent	20	7702.10000
Mediabag T for 15 l BPW (buffered peptone water)	15	7701.15000
Mediabag T for 20 l BPW (buffered peptone water)	15	7701.20000
Mediabag T for 20 l maximum recovery diluent	15	7702.20000
Mediabag T for 3 l maximum recovery diluent	25	7702.03000
Mediabag T for 5 l BPW (buffered peptone water)	20	7701.05000
Mediabag T for 5 l maximum recovery diluent	20	7702.05000

Culture media, Mediabag W

The W bags are folded bags without connectors.

Description	Pk	Cat. No.
Mediabag for 125 ml skimmed milk	100	7503.00225
Mediabag for 125 ml 1/2 Fraser broth	100	7504.00225
Mediabag W for 1125 ml BPW (Buffered Peptone Water)	100	7901.01125
Mediabag W for 1800 ml BPW (Buffered Peptone Water)	50	7901.01800
Mediabag W for 2700 ml BPW (Buffered Peptone Water)	50	7901.02700
Mediabag W for 3600 ml BPW (Buffered Peptone Water)	50	7901.03600



Dip slides for diagnosing urinary tract infections



Dip slides for diagnosing urinary tract infections.

- On site test: no need to transport the urine sample
- Inoculated slides can be sent without special precautions to a lab for incubation and interpretation

Contact area (cm ²)	7	10
Dimensions	30 mm tube, 92 mm high	30 mm tube, 110 mm high
Paddle size (mm)	72x20	80x28
Tray WxL (mm)	50x15	50x22
Type	Screw Cap	Push Cap

Description	Pk	Cat. No.
CLED and MacConkey/Enterococcus agar, screw cap	10	535301D
CLED and MacConkey 3 agar, screw cap	10	535300D
CLED and MacConkey agar, push cap	10	535192T
CLED and MacConkey agar, push cap	100	535194V
CLED and MacConkey agar without salt, screw cap	10	535382A



Colony counter, Star-Count STC 1000



The colony counter Star-Count STC 1000 is designed for rapid and accurate counting of bacterial colonies using the latest technologies. Adapters to use 50, 60, 80 and 90 mm dishes (90 mm adapter included, others are optional). LED lightning and contrast can be dimmed. There is a choice between single mode (count on one Petri dish) and multiple mode (count up to 20 dishes and the average is continuously calculated and displayed).The instrument has a pressure-sensitive dish holder so it is useable with any kind of marker, pen or probe. Optionally external counting marker is connectable also. With the communication package the counted values are storable with date and time. Additionallly there is the possiblity to add sample IDs or barcodes (reader is an option) to the counted value.

- Multifunction graphic display shows the number of colonies (up to 999), average, time and date
- Values are saved on a memory card (option)
- Audible and visible confirmation of each count
- LED back light and sidelight illumination
- RS232 for connection to a printer/USB for a connection to a computer

Dish size (mm)	50, 60, 80, 90
Max scale diameter (mm)	120
Standard magnifier	100 mm (2x)
WxDxH (mm)	260x330x110

Description	Pk	Cat. No.
Colony counter STC 1000, supplied with magnifying glass, standard marker, Wolffhügel grid, adapter for 90 mm Petri dishes, cable with universal plug	1	710-0710

Description	Pk	Cat. No.
Accessories		
Printer	1	710-0711
Printer cable	1	710-0712
Magnifier glass 2x	1	710-0713
Waterproof pen	1	710-0716
External marker with waterproof pen and cable	1	710-0717
Wolffhuegel scale plate	1	710-0718
Plate, glass	1	710-0719
Fuse	1	710-0720
Adapter for Petri dishes Ø 90 mm	1	710-0721
Adapter for Petri dishes Ø 50 mm	1	710-0722
Adapter for Petri dishes Ø 60 mm	1	710-0723
Adapter for Petri dishes Ø 80 mm	1	710-0724
Adapter set for Petri dishes Ø 50/60/80/90 mm	1	710-0725
Communication kit with software and USB cable for data management	1	710-0850



Colony counter, Petri-Light viewer



The viewer for colony counting has a plexiglas rest surface with cm graduation scale, cold-light indirect fluorescent lighting and magnifying glass adjustable for correct positioning. Counting pen not included.

- Adapters for 60, 90, 100 and 120 mm diameter Petri dishes
- Complete with switch, electrical cable and plug

Power supply	220 V/50 Hz
Weight (kg)	2
WxDxH (mm)	230x230x100

Description	Pk	Cat. No.
Colony counter, Petri-Light viewer	1	710-0874



Colony count pen for Petri-Light viewer



Pen electronic colony counter for rapid and accurate counts. Low energy consumption: up to 1 000 000 counts before changing the battery. This electronic pen counter is ideal to assure precise counts saving money. The lightweight and the ergonomic shape make heavy workload operation easy. The colony counting pen can be re-set at any time by pressing the white button or turning off the pen. Once the counting is complete, the pen can be used to record the counts. A cheap way to prevent missing or double counting colonies.

- 4-figure digital display
- Audible alarm for end of count
- Reset button
- Light and ergonomic

Description	Pk	Cat. No.
Colony count pen	1	710-0884
Refill for electronic colony counter pen for Petri-Light viewer	5	710-0902



Coliform bath with MX temperature controller



Stainless steel bath with user friendly MX temperature controller with three control buttons and on-screen prompts. Specifically designed for range of faecal coliform and E.coli determinations as specified in 19th edition of Standard Test Methods for the Examination of Water and Wastewater. The controller bridge made from chemical resistant DuraTop™ is easily removed to clean the tank. Bath has as opening with lid for optional coil which is ideal for set points near ambient temperature.

- Large EasyView™ LCD display with alarm or fault icons and English prompts and menus
- User-adjustable high and low temperature limits and low liquid level alarms
- Single speed pressure pump
- Integral pump and heater coil protection
- Single point calibration

Complies with DIN 12876-1, Safety class I

Maximum pump capacities:
10,6 l/min, 100 mbar

Delivery Information: Supplied with hinged see-through bath cover.

Type	Temp. range (°C)	Temp. stability	Heating capacity (kW)	Capacity (l)	Bath WxDxH (mm)	WxDxH (mm)	Pk	Cat. No.
MX28C135	RT* +10... 135	±0,07	1,1	28	328x300x210	546x353x457	1	462-0214
Description	For						Pk	Cat. No.
Coiling coil	Use with VWR baths, 462-0207, 462-0208, 462-0212, 462-0213 and 462-0214						1	462-0279

* RT = Ambient



REAGENTS FOR HISTOPATHOLOGY

Complete range of reagents
for cell diagnostics

VWR pbi
Media preparator, Steragar



Nutritional components have a better nutritional value for microorganisms immediately after preparation. The automation allows a precise control of the temperature and time for media preparation as suggested by international standards. The external and internal chamber are made of AISI 304 stainless steel. The insulated ABS lid is equipped with screw cap opening for adding heat-sensitive substances, steam safety valve, chamber pressure manometer, agar dispensing connector and thermoprobe. The automatic chocolate-agar cycle is standardised. A programmable microprocessor card guarantees a good management of the sterilisation and dispensing process.

- Water jacket system for a rapid and linear cooling
- Electromagnetic agitation system gives maximum temperature uniformity
- Control panel with digital display for a continuous monitoring of the temperature and the production cycle
- Closure with "Quick Tilt" system for easier opening
- Reinforced resistors
- Mains water supply connection

Delivery Information: Steragar will be delivered with printer, internal basket and "Aspir" nozzle for culture media aspiration.

Model	Steragar up to 10 l	Steragar up to 16 l
Weight (kg)	55	60
WxDxH (mm)	600x500x610	
Description	Pk	Cat. No.
Steragar up to 10 l	1	710-0864
Steragar up to 16 l	1	710-0863
Description	Pk	Cat. No.
Accessories for Steragar		
Aspir aspiration nozzle	1	710-0899

VWR pbi
Automatic agar preparator and dispenser, Agarster ECO Mini



This bench top, convenient media preparator for GLP compliance is used for preparing, sterilising and holding up to 3 litres of agar at dispensing temperature. GLP requirements recommend fresh culture for better selectivity, growth and morphological characteristics of colonies. This automatic media preparator is easy to use and to maintain, and allows production planning throughout the day/week. The need for glassware and hot vessel/container transfer is eliminated. With microprocessor controlled programmable process cycles and heat generated by reinforced element, each lot can be monitored for quality control. The system includes an airtight lid equipped with steam safety valve, inner chamber pressure gauge, agar dispensing connector, thermocouple, screw cap opening for adding heat-sensitive substances, and lifting handle. The system also has a water cooling coil for automatically cooling the agar temperature to dispensing temperature after sterilisation. Maximum sterilisation temperature: 125 °C.

- Compact structure, stainless steel housing (AISI 304) and internal chamber
- User instruction printed on the panel
- Electromagnetic agitation system
- Control panel with digital display of sterilisation time and set/actual temperature
- Strict control of sterilisation parameters for production reproducibility

Model	Agarster Eco mini	
Weight (kg)	25	
WxDxH (mm)	440x440x530	
Description	Pk	Cat. No.
Agarster Eco mini media preparator, complete with electrical cable and plug (220 V/ 50 Hz/ 1600 W)	1	710-0865
Description	Pk	Cat. No.
Accessories for Agarster Eco mini		
„Cream Four“ stainless steel addition basket	1	710-0885
„Smart-Print“ printer	1	710-0881

Cassettes, MacroStar I



Suitable for stainless steel lids. Box of 4000 cassettes, supplied loose.

- Large opening for the filtration of fluids
- Without lid

Colour	Pk	Cat. No.
Blue	4.000	720-2246
Green	4.000	720-2243
Grey	4.000	720-2247
Lavender	4.000	720-2250
Orange	4.000	720-2248
Pink	4.000	720-2244
Red	4.000	720-2249
White	4.000	720-2242
Yellow	4.000	720-2245

Cassettes, MacroStar I, in hopper



Cassettes in pre-filled hoppers for cassette burners. Pack contains 37× dispensers with 80 cassettes and 1× dispenser with 40 cassettes.

- Large opening for the filtration of fluids
- Without lid

Colour	Pk	Cat. No.
Blue	3.000	720-2036
Green	3.000	720-2033
Grey	3.000	720-2037
Lavender	3.000	720-2040
Orange	3.000	720-2038
Pink	3.000	720-2034
Red	3.000	720-2039
White	3.000	720-2032
Yellow	3.000	720-2035

Cassettes, MacroStar II



Cassettes in pre-filled dispensers for cassette burners. Pack of 2× 1000 cassettes and 1× 2000 lids.

- Large opening for the filtration of fluids
- With separate lid

Colour	Pk	Cat. No.
Blue	2.000	720-2228
Green	2.000	720-2225
Grey	2.000	720-2229
Lavender	2.000	720-2232
Orange	2.000	720-2230
Pink	2.000	720-2226
Red	2.000	720-2231
White	2.000	720-2224
Yellow	2.000	720-2227

Cassettes, MacroStar II, in hopper



Cassettes in pre-filled hoppers for cassette burners. Fifty dispensers with 80 cassettes and 2x 2000 lids.

- Large opening for the filtration of fluids
- With separate lid

Colour	Pk	Cat. No.
Blue	4.000	720-2054
Green	4.000	720-2051
Grey	4.000	720-2055
Lavender	4.000	720-2058
Orange	4.000	720-2056
Pink	4.000	720-2052
Red	4.000	720-2057
White	4.000	720-2050
Yellow	4.000	720-2053

Cassettes, MacroStar III



Disposable lid, supplied in dispenser for 500 cassettes. Packed 3 boxes of 500 pieces.

- Large opening for the filtration of fluids
- With mounted lid with hinges

Colour	Pk	Cat. No.
Blue	1.500	720-2237
Green	1.500	720-2234
Grey	1.500	720-2238
Lavender	1.500	720-2241
Orange	1.500	720-2239
Pink	1.500	720-2235
Red	1.500	720-2240
White	1.500	720-2233
Yellow	1.500	720-2236

Cassettes, MacroStar V



Cassettes with welded disposable lid, supplied in dispensers for 500 cassettes. Packed 3 boxes with 500 cassettes.

- Easy to use cassette
- Writing area at the front and on both sides
- Cassettes with ridges, which makes it easier to be opened after impregnation

Colour	Pk	Cat. No.
Blue	1.500	720-2219
Green	1.500	720-2216
Grey	1.500	720-2220
Lavender	1.500	720-2223
Orange	1.500	720-2221
Pink	1.500	720-2217
Red	1.500	720-2222
White	1.500	720-2215
Yellow	1.500	720-2218

Cassettes, MacroStar V, in racks



Cassettes with welded disposable lid, supplied in racks. 2000 cassettes packed 40/rack.

- Easy to use cassette with large opening
- Writing area at the front and on both sides
- Cassettes with ridges, which makes it easier to be opened after impregnation

Colour	Pk	Cat. No.
Blue	2.000	720-2166
Green	2.000	720-2163
Grey	2.000	720-2167
Lavender	2.000	720-2170
Orange	2.000	720-2168
Pink	2.000	720-2164
Red	2.000	720-2169
White	2.000	720-2099
Yellow	2.000	720-2165

Cassettes, MacroStar VI



Cassettes with welded disposable lid, supplied in dispensers for 500 cassettes. Packed 3 boxes with 500 cassettes.

- With 30° angle
- Writing area at the front and on both sides
- Cassettes with ridges, which makes it easier to be opened after impregnation

Colour	Pk	Cat. No.
Blue	1.500	720-2178
Green	1.500	720-2175
Grey	1.500	720-2179
Lavender	1.500	720-2182
Orange	1.500	720-2180
Pink	1.500	720-2176
Red	1.500	720-2181
White	1.500	720-2174
Yellow	1.500	720-2177

Cassettes, MacroStar VII



Supplied in dispensers containing 250 cassettes. Pack of 4 dispensers (1000 cassettes).

- Large cassette: 32×26×12 mm
- With mounted lid

Colour	Pk	Cat. No.
Blue	1.000	720-2210
Green	1.000	720-2207
Grey	1.000	720-2211
Lavender	1.000	720-2214
Orange	1.000	720-2213
Pink	1.000	720-2208
Red	1.000	720-2212
White	1.000	720-2206
Yellow	1.000	720-2209

Mega cassettes

Box of 100 cassettes.

- Extra large: 70×50×15 mm

Colour	Pk	Cat. No.
Blue	100	720-2065
Green	100	720-2063
White	100	720-2062
Yellow	100	720-2064

Cassettes, MicroStar II, in hopper



Cassettes in pre-filled hoppers for cassette burners. Fifty dispensers with 80 cassettes and 2× 2000 lids.

- Small opening for the filtration of fluids
- With separate lid

Colour	Pk	Cat. No.
Blue	4.000	720-2045
Green	4.000	720-2042
Grey	4.000	720-2046
Lavender	4.000	720-2049
Orange	4.000	720-2047
Pink	4.000	720-2043
Red	4.000	720-2048
White	4.000	720-2041
Yellow	4.000	720-2044

Cassettes, MicroStar II



Cassettes with separate disposable lid, supplied in distributing box with 2× 1000 cassettes and 1× 2000 lids. This cassette has been specially designed for cassette burners.

- Easy to use cassette with small opening
- With separate lid
- Cassettes with ridges, which makes it easier to be opened after impregnation

Colour	Pk	Cat. No.
Blue	2.000	720-2076
Green	2.000	720-2073
Grey	2.000	720-2077
Lavender	2.000	720-2080
Orange	2.000	720-2078
Pink	2.000	720-2074
Red	2.000	720-2079
White	2.000	720-2072
Yellow	2.000	720-2075

Cassettes, MicroStar III



Disposable lid, supplied in dispenser for 500 cassettes. Packed 3 boxes of 500 pieces.

- Small opening for the filtration of fluids
- With mounted lid with hinges

Colour	Pk	Cat. No.
Blue	1.500	720-2085
Green	1.500	720-2082
Grey	1.500	720-2086
Lavender	1.500	720-2089
Opaque	1.500	720-2087
Pink	1.500	720-2083
Red	1.500	720-2088
White	1.500	720-2081
Yellow	1.500	720-2084

Cassettes, MicroStar V



Cassettes with welded disposable lid, supplied in dispensers for 500 cassettes. Packed 3 boxes with 500 cassettes.

- Easy to use cassette with small opening
- Writing at the front and on both sides
- Cassettes with ridges, which makes it easier to be opened after impregnation

Colour	Pk	Cat. No.
Blue	1.500	720-2196
Green	1.500	720-2193
Grey	1.500	720-2197
Lavender	1.500	720-2205
Orange	1.500	720-2199
Pink	1.500	720-2194
Red	1.500	720-2198
White	1.500	720-2192
Yellow	1.500	720-2195

Cassettes, MicroStar V, in racks



Cassettes with welded disposable lid, supplied in racks. 2000 cassettes packed 40/rack.

- Easy to use cassette with small opening
- Writing at the front and on both sides
- Cassettes with ridges, which makes it easier to be opened after impregnation

Colour	Pk	Cat. No.
Blue	2.000	720-2094
Green	2.000	720-2091
Grey	2.000	720-2095
Lavender	2.000	720-2098
Orange	2.000	720-2096
Pink	2.000	720-2092
Red	2.000	720-2097
White	2.000	720-2090
Yellow	2.000	720-2093

Cassettes, MicroTwin



Cassette with mounted disposable lid, supplied in dispenser. Cassettes with 2 compartments each with pores measuring precisely 0,09 mm². Packed 3 boxes with 500 cassettes.

- No biopsy pads, biopsy capsules or filter paper needed
- Surface area of pore: 0,3×0,3 mm²

Colour	Pk	Cat. No.
Blue	1.500	720-2187
Green	1.500	720-2184
Grey	1.500	720-2188
Lavender	1.500	720-2191
Orange	1.500	720-2189
Pink	1.500	720-2185
Red	1.500	720-2190
White	1.500	720-2183
Yellow	1.500	720-2186

Cassettes, MicroTwin, in racks



Cassette with mounted disposable lid, supplied in racks. Cassettes with 2 compartments each with pores measuring precisely 0,09 mm². 2000 cassettes packed 40/rack.

- No biopsy pads, biopsy capsules or filter paper needed
- Surface area of pore: 0,3×0,3 mm²

Colour	Pk	Cat. No.
Green	2.000	720-2171
Yellow	2.000	720-2172
Lavender	2.000	720-2173

Biopsy pads



To hold small biopsies in place and prevent them from being lost. Enables fluids to circulate freely during processing. Packed in bags of 500 pieces.

- Individually cut
- Ready to use
- Solvent resistant

Description	Colour	Pk	Cat. No.
Biopsy pads	Blue	500	631-1058
Biopsy pads	Black	500	720-2255
Biopsy pads	Dark Blue	500	720-2256

Biopsy pads

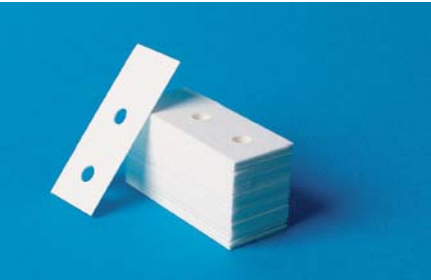


With formalin

- Different sizes available

Description	Dimensions (mm)	Pk	Cat. No.
Biopsy pads with formalin	203×254	25	720-2251
Biopsy pads with formalin	280×356	25	720-2252
Biopsy pads with formalin	406×485	25	720-2253

Filter cards for cytology centrifuges



Description	Pk	Cat. No.
Cyto filter, high absorption, dual, one square hole, 63×26 mm	200	720-2059
Cyto filter, 2 round off-centre holes, 76×26 mm	200	720-2060
Cyto filters, 2 round centred holes, 76×26 mm	200	720-2061

Cytological endo and exocervical brushes, Q Path® NovaBrush®

Brushes for cytological samples developed for endocervical and exocervical zones. Specially developped for sampling in liquid-based cytology. For thinlayer technique. Recommended for cytology in fluid medium.

The Novabrush® consists of a green or a pink handle and a white brush. The brush's head consists of fibres with variable lengths, allowing a perfect simultaneous collection of the endo- and exocervical cells.

- CE brushes
- Undetachable (pink colour) and detachable (green colour)
- Without metal, without nylon, without resin, 100% plastic
- Endocervical and exocervical area

Description	Material	Total length (mm)	Pk	Cat. No.
Endocervical brush Q Path® NovaBrush® 2 undetachable	Plastic	204	576	720-2066
Cervical brush Q Path® NovaBrush® 2 undetachable	Plastic	204	1.200	720-2069
Cervical brush Q Path® NovaBrush® 2	Plastic	204	1.200	720-2067
Cervical brush Q Path® NovaBrush® 2 individually packed	Plastic	204	500	720-2068
Cervical brush Q Path® NovaBrush® 3 individually packed	Plastic	204	1.200	720-2070
Cervical brush Q Path® NovaBrush® 3 individually packed	Plastic	204	500	720-2071



Staining solutions and kits for microscopy

The Gurr® range provides the first truly international standard for microscopical dyes and stains. Gurr® specifications have been devised by combining practical biological testing with absolute chemical criteria.

Description	Pk	Cat. No.
DePeX mounting medium Gurr®	100 ml	361252B
DePeX mounting medium Gurr®	500 ml	361254D
Elastin stain (Miller) (form. R.A. Lamb), not IVD	500 ml	351154S
Eosin yellowish for microscopical staining Gurr®	25 g	341972Q
Eosin yellowish for microscopical staining Gurr®	100 g	341973R
Eosin yellowish for microscopical staining Gurr®	1 kg	341975T
Feulgen stain (Schiff) (form. R.A. Lamb)	500 ml	351204L
Fuchsin (basic) for microscopical staining Gurr®	100 g	340325K
Giemsa`s stain improved R66 solution Gurr®	500 ml	350864X
Giemsa`s stain improved R66 solution Gurr®	1 l	350865P
Giemsa`s stain improved R66 solution Gurr®	25 l	35086HE
Giemsa`s stain solution	500 ml	352603R
Haemalum (Mayer`s) Gurr® for microscopical staining	500 ml	350604T
Haematoxylin (monohydrate) for microscopical staining Gurr®	25 g	340374T
Haematoxylin Harris (mercury-free)	1 l	351945S
Hema Gurr® rapid staining set for haematology	1	351042L
Leishman`s staining solution Gurr® for microscopical staining	500 ml	350224L
Lugol`s iodine solution	250 ml	351903Y
May-Grunwald`s eosin methylene blue solution	1 l	352065W
May-Grunwald`s stain (form. R.A.Lamb)	1 l	351355C
May-Grunwald`s stain solution	1 l	352622M
May-Grunwald`s stain solution	500 ml	352625P
Methylene blue for microbiological staining Gurr® and reagent for molybdate	25 g	340484B
Neutral red for microscopical staining Gurr®	25 g	340564A
Neutral red for microscopical staining Gurr®	100 g	340565B
Nuclear fast red for microscopical staining Gurr®	25 g	342094W
Orcein synthetic for microscopical staining Gurr®	25 g	342102F

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Description	Pk	Cat. No.
Papanicolaou's stain OG 6 Gurr®	1 l	350405X
Papanicolaou EA 50 Gurr® (new formulation)	1 l	351695T
Wright's stain for microscopical staining Gurr®	25 g	340804U



Special buffers for haematology

Buffer tablets Gurr® for the preparation of microscopical stain solutions. These tablets provide a rapid and convenient method of preparing buffer solution. One tablet dissolved in distilled water and made up to 100 ml produce a solution of the stated pH at 20 °C. The molarity of the buffer solutions is 0,005. Contains potassium, sodium and phosphate.

Description	Pk	Cat. No.
Buffer tablets Gurr® pH ~6,8	50 Tab.	331932D
Buffer tablets Gurr® pH ~7,2	50 Tab.	331942F
Buffer tablets Gurr® pH ~7,2 acc. to Weise	100	363102W
Buffer tablets Gurr® pH ~6,8 acc. to Weise	100 Tab.	363112P



Embedding and mounting media

Paramat is a polymer-enriched paraffin of the highest purity and available with or without added dimethylsulphoxide (DMSO). Dimethylsulphoxide incorporated in the embedding agent leads to rapid infiltration of the specimen and guarantees total tissue penetration, thus considerably reducing embedding times. Residual moisture in the tissue and traces of intermedium are dispelled. The pastille shape makes for easy handling. Paramat extra (with DMSO) has a preservation effect.

Description	Pk	Cat. No.
DPX mountant for microscopy	100 ml	360292F
DPX mountant for microscopy	500 ml	360294H
DPX mountant for microscopy	25 l	36029HU
Mollifex® for microscopy	500 ml	360584X
Paraffin wax, pastillated Gurr®, congealing point about 56 °C	10 kg	361077E
Paramat pastillated, Gurr® (paraffin wax blended with synthetic polymers) congealing point about 58 °C	2,5 kg	361144V
Paramat pastillated, Gurr® (paraffin wax blended with synthetic polymers) congealing point about 58 °C	10 kg	361147B
Paramat pastillated, Gurr® (paraffin wax blended with synthetic polymers) congealing point about 58 °C	25 kg	361148C
Paramat extra pastillated, Gurr® (paraffin wax blended with synthetic polymers and DMSO), congealing point about 58 °C	2,5 kg	361334C
Paramat extra pastillated, Gurr® (paraffin wax blended with synthetic polymers and DMSO), congealing point about 58 °C	10 kg	361336E
O.C.T. compound, mounting media for cryotomy	125 ml	361603E



Xylene, low in sulphur

Not to be used as power or heating fuel.

Pk	Cat. No.
2,5 l	305756G
25 l	30575EX

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Xylene mixture of isomers, AnalaR NORMAPUR

Not to be used as power or heating fuel.

Description	Pk	Cat. No.
Xylene (mixture of isomers) AnalaR® NORMAPUR®	1 l	28975.291
Xylene (mixture of isomers) AnalaR® NORMAPUR®	2,5 l	28975.325
Xylene (mixture of isomers) AnalaR NORMAPUR®	5 l	28975.360

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Toluene GPR RECTAPUR

Not to be used as power or heating fuel.

Pk	Cat. No.
25 l	28675.465

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Safety containers «Leak Proof»



These transparent containers for the transport of biological samples containers and antitlastic drugs (up to 180 specimen) are equipped with holders for eutectic plates in order to reduce the inside temperature.

- Shock resistant and leakproof
- Absorbent holder
- PC hooks for a quick and safe closure
- Securely stackability
- Emergency procedures and safety measures indelibly printed

Conform to guidelines of the WHO/EMC/97.3 and to UNI EN 829 standards

Description	WxDxH (mm)	Pk	Cat. No.
Small container, 310x460x119 mm	i. 217x363x94 e. 310x460x119	1	720-1992
Large container, 310x460x225 mm	i. 217x363x235 e. 310x460x255	1	720-1990
Medium container, 310x460x175 mm	i. 217x363x157 e. 310x460x175	1	720-1991

Description	Pk	Cat. No.
Accessories for "Leak Proof"		
Handles for Leak Proof safety containers	2	720-1993



Safety containers, 'Bio Carrier'



These containers are suitable for the transport of biological samples. They can be taken at patient's home for antitumoral drugs.

- Foldaway handle for easy stackability of several units
- Lugs to facilitate stacking and removable lid to facilitate cleaning
- "Biological Risk" logo conforming to current directives
- Container body etched with WHO emergency procedures in case of accidents during transport
- Shock-proof construction of lightweight material with special seal to guarantee air tightness in conformity with safety standards
- Tamper-proof lockable with padlock or seal - storage compartment accessible from lid: it can carry syringes, empty tubes, gloves...

Description	Compartment size (mm)	Pk	Cat. No.
„Bio-Carrier“ mini case	340x190x120	1	720-1995
„Bio-Carrier“ case	394x216x229	1	720-1988
„Bio-Carrier“ super case	394x216x305	1	720-1989
„Bio-Carrier“ extra large case	453x302x225	1	720-1994



Disposable bags, Safe-Tamper System



PE
Anti-tamper disposable bags with double pocket for internal hospital biological sample transportation. Double pocket bags: two separate compartments for lab document and specimen. It is possible to customise the bags.

- Transparent bags, yellow coloured to identify leakage of fluid and for a better visibility of the contents
- With adhesive closure to prevent tampering and to preserve patient privacy
- Printed biohazard logo and instructions
- The bag is destroyed by opening it, preventing reuse and avoiding any risk of cross-contamination

These bags meets OSHA,WHO and NCCLS guidelines.

Description	LxW (mm)	Pk	Cat. No.
Safe-Tamper System anti-tampering bag	157x306	500	720-1985

Heated forceps, Speci®-Ceps



The Speci®-Ceps are electrically heated forceps designed for the preparation of histological or histopathological slides. To prevent their cold tips from solidifying the liquid wax medium, it is necessary to repeatedly remove the forceps from the work and heat them by external means - in a flame or embedding centre. The Speci®-Ceps incorporate safe, low-voltage, energy controlled heating elements which constantly maintain their tips at the optimum temperature for manipulation of specimens in histological wax.

- Continuous use, without adjustment, and without influencing the temperature of the medium or tissue
- Eliminate the need to keep forceps at a usable temperature, enables the operator to concentrate on orientation of the tissue
- Results in a significant increase in productivity

Length: 160 mm

Description	Colour	Ø (mm)	Pk	Cat. No.
Heated forceps	Red	1	1	720-2750
Heated forceps	Yellow	2	1	720-2752
Heated forceps	Blue	4	1	720-2753
Complete set incl. control unit, power supply, red and yellow forceps			1	720-2751
Control unit only			1	720-2754
Power supply			1	720-2755

VWR BDH PROLABO
CHEMICALS
Drug test kit



This kit provides a convenient means of screening suspect material for restricted drugs. The scheme and reagents were developed at the Laboratory of the Government Chemist. Each kit provides sufficient reagents for at least 200 tests.

- Kit comprises:
- 20 (4 boxes of 5, 0,2 ml) ampoules of marquis reagent
 - 1×10 ml cocaine reagent
 - 1×10 ml barbiturate reagent
 - 1×10 ml LSD reagent
 - 1×20 ml cannabis reagent 1
 - 1×10 ml cannabis reagent 2
 - 1×5 g cannabis special solid reagent
 - 1×20 g neutraliser
 - 4 boxes of Whatman filter papers
 - 1 microspatula
 - 20 ampoule breakers
 - 25 disposable spatulas
 - forceps
 - 4 watch glasses
 - Instruction leaflet

Description	Pk	Cat. No.
BDH Drug test kit (cocaine, barbiturates, LSD, cannabis)	1	321481P
Replacement packs for drug test kit		
Barbiturate reagent	10 ml	321652Q
Cannabis reagent 1	20 ml	321602G
Cannabis reagent 2	10 ml	321612Y
Cannabis special solid reagent	5 g	321622K
Cocaine reagent	10 ml	321642X
LSD reagent	10 ml	321632M

Plasmid isolation kits, E.Z.N.A.® and E-Z 96®
VWR by Omega bio-tek



Plasmid isolation kits for manual or automated plasmid isolation from mini to giga scale. These kits enable the isolation of plasmid DNA by means of HiBind® columns, Mag-Bead® beads, or isopropanol precipitation. The E.Z.N.A.® method allows for plasmid DNA isolation from bacteria, yeast, or M13 phage. Plasmid, BAC, PAC, YAC, P1, cosmid, and phage DNA can be isolated and used for restriction digestion, transfection, transformation, routine screening and other downstream applications. V-spin columns feature an attached cap while Q-spin, Mini II, Midi and Maxi columns have a vacuum Luer tip for a leak-free connection to a vacuum manifold or Luer hub needle. These columns can be used for both centrifugation and vacuum protocols. HP plasmid isolation kits isolate high purity plasmid from a wide range of bacterial host strains, especially those that contain elevated levels of endonuclease activity, in 30 minutes. The X-Press plasmid isolation kit has a unique one-step lysing and binding procedure which can be comple-

ted in less than 7 minutes.

Plasmid isolated with traditional purification procedures normally contain high levels of endotoxins that can significantly interfere with transfection experiments downstream. The E.Z.N.A.® Endo-Free Plasmid kits integrate an efficient endotoxin removal step into the plasmid purification procedure to produce high quality transfection grade plasmid. E.Z.N.A.® Fastfilter® Plasmid kits rapidly purify plasmid DNA utilising lysate clearance filter syringes, whilst E-Z 96® Fastfilter Plasmid kits employ lysate clearance plates in a 96-well format. Fastfilter® kits allow midi- and maxi-scale plasmid isolation in less than 40 minutes.

Description	Culture volume	DNA purity	Maximum yield	Pk	Cat. No.
Standard plasmid isolation kits					
E-Z 96® SE Plasmid kit (4x96)	700 µl - 1 ml/well	Ultra-Pure	3 - 8 µg	1 KIT	D1095-01
E-Z 96® SE Plasmid kit (20x96)	700 µl - 1 ml/well	Ultra-Pure	3 - 8 µg	1 KIT	D1095-02
E-Z 96® X-Press Plasmid kit (4x96)				1 KIT	D1047-01
E-Z 96® X-Press Plasmid kit (20x96)				1 KIT	D1047-02
E.Z.N.A.® Plasmid Midi kit I	15 - 50 ml	High-Purity	200 µg	25 Tests	D6904-03
E.Z.N.A.® Plasmid Midi kit I	15 - 50 ml	High-Purity	200 µg	100 Tests	D6904-04
E.Z.N.A.® Plasmid Maxi kit I	50 - 200 ml	High-Purity	1 mg	5 Tests	D6922-01
E.Z.N.A.® Plasmid Maxi kit I	50 - 200 ml	High-Purity	1 mg	20 Tests	D6922-02
E.Z.N.A.® Plasmid Maxi kit	50 - 200 ml	Ultra-Pure	1 mg	100 Tests	D6922-04
E.Z.N.A.® Plasmid Mini kit I (Q-Spin column)	1 - 5 ml	High-Purity	35 µg	50 Tests	D6942-01
E.Z.N.A.® Plasmid Mini kit I (Q-Spin column)	1 - 5 ml	High-Purity	35 µg	200 Tests	D6942-02
E.Z.N.A.® Plasmid Mini kit I (V-Spin column)	1 - 5 ml	High-Purity	30 µg	50 Tests	D6943-01
E.Z.N.A.® Plasmid Mini kit I (V-Spin column)	1 - 5 ml	High-Purity	30 µg	200 Tests	D6943-02
E.Z.N.A.® Plasmid Mini kit II (Q-Spin column)	3 - 15 ml	High-Purity	70 µg	50 Tests	D6945-01
E.Z.N.A.® Plasmid Mini kit II (Q-Spin column)	3 - 15 ml	High-Purity	70 µg	200 Tests	D6945-02
E.Z.N.A.® HP Plasmid Maxi kit	100 - 200 ml	Ultra-Pure	1 mg	5 Tests	D7022-01
E.Z.N.A.® HP Plasmid Maxi kit	100 - 200 ml	Ultra-Pure	1 mg	20 Tests	D7022-02
E.Z.N.A.® HP Plasmid Midi kit	15-50 ml	Ultra-Pure	200 µg	10 Tests	D7004-01
E.Z.N.A.® HP Plasmid Midi kit	15-50 ml	Ultra-Pure	200 µg	50 Tests	D7004-02
E.Z.N.A.® HP Plasmid Mini kit I (V-Spin column)	1 - 5 ml	Ultra-Pure	30 µg	50 Tests	D7043-01
E.Z.N.A.® HP Plasmid Mini kit I (V-Spin column)	1 - 5 ml	Ultra-Pure	30 µg	200 Tests	D7043-02
E.Z.N.A.® Yeast Plasmid kit (V-Spin)				50 Tests	D3376-01
E.Z.N.A.® Yeast Plasmid kit (V-Spin)				200 Tests	D3376-02
Description	Culture volume	DNA purity	Maximum yield	Pk	Cat. No.
Endotoxin-free plasmid isolation kits					
E.Z.N.A.® Endo-Free Plasmid Mini kit I	1 - 5 ml	Endotoxin-free	35 µg	50 Tests	D6948-01
E.Z.N.A.® Endo-Free Plasmid Mini kit I	1 - 5 ml	Endotoxin-free	35 µg	200 Tests	D6948-02
E.Z.N.A.® Endo-Free Plasmid Mini kit II	3 - 15 ml	Endotoxin-free	70 µg	200 Tests	D6950-02
E.Z.N.A.® Endo-Free Plasmid Midi kit	15 - 50 ml	Endotoxin-free	200 µg	10 Tests	D6915-01
E.Z.N.A.® Endo-Free Plasmid Midi kit	15 - 50 ml	Endotoxin-free	200 µg	25 Tests	D6915-03
E.Z.N.A.® Endo-Free Plasmid Midi kit	15 - 50 ml	Endotoxin-free	200 µg	100 Tests	D6915-04
E.Z.N.A.® Fastfilter® Endo-Free Plasmid Maxi kit	50 - 200 ml	Endotoxin-free	1 mg	6 Tests	D6926-01
E.Z.N.A.® Fastfilter® Endo-Free Plasmid Maxi kit	50 - 200 ml	Endotoxin-free	1 mg	25 Tests	D6926-03
E.Z.N.A.® Fastfilter® Endo-Free Plasmid Maxi kit	50 - 200 ml	Endotoxin-free	1 mg	100 Tests	D6926-04

Description	Culture volume	DNA purity	Maximum yield	Pk	Cat. No.
Fastfilter® plasmid isolation kits					
E-Z 96® Fastfilter® Plasmid kit (4×96)	700 µl - 1 ml/well	Ultra-Pure	12 µg/well	1 KIT	D1097-01
E-Z 96® Fastfilter® Plasmid kit (20×96)	700 µl - 1 ml/well	Ultra-Pure	12 µg/well	1 KIT	D1097-02
E.Z.N.A.® Fastfilter® Plasmid Midi kit	15 - 50 ml	Ultra-Pure	200 µg	5 Tests	D6905-01
E.Z.N.A.® Fastfilter® Plasmid Midi kit	15 - 50 ml	Ultra-Pure	200 µg	25 Tests	D6905-03
E.Z.N.A.® Fastfilter® Plasmid Midi kit	15 - 50 ml	Ultra-Pure	200 µg	100 Tests	D6905-04
E.Z.N.A.® Fastfilter® Plasmid Maxi kit	50 - 200 ml	Ultra-Pure	1 mg	5 Tests	D6924-01
E.Z.N.A.® Fastfilter® Plasmid Maxi kit	50 - 200 ml	Ultra-Pure	1 mg	25 Tests	D6924-03
E.Z.N.A.® Fastfilter® Plasmid Maxi kit	50 - 200 ml	Ultra-Pure	1 mg	100 Tests	D6924-04
E.Z.N.A.® Fastfilter® Plasmid Mega kit	200 - 500 ml	Ultra-Pure	2,5 mg	5 Tests	D6929-01
E.Z.N.A.® Fastfilter® Plasmid Mega kit	200 - 500 ml	Ultra-Pure	2,5 mg	20 Tests	D6929-03

PCR clean up kits, E.Z.N.A.® and E-Z 96® VWR by Omega bio-tek

E.Z.N.A.® Cycle Pure kits are designed for the rapid purification of single- or double-stranded DNA from PCR or other enzymatic reactions. The purification procedure completely removes primers, nucleotides, enzymes, salts, and other impurities from DNA samples. E.Z.N.A.® MicroElute Cycle Pure kits are specifically intended to purify PCR samples with a small elution volume of 10 to 15 µl. The E-Z® 96 Cycle Pure kit procedure allows for the parallel purification of up to 96 PCR samples from multiple amplifications. The E-Z® 96 Cycle Pure kit utilises multiwell technology for manual or fully automated high throughput purification.

Description	Binding capacity	Fragment size	Recovery	Elution volume	Pk	Cat. No.
E-Z 96® Cycle Pure kit (1×96)	25 µg	50 bp - 40 kb	85%	80 - 100 µl	1 KIT	D1043-01
E-Z 96® Cycle Pure kit (5×96)	25 µg	50 bp - 40 kb	85%	80 - 100 µl	1 KIT	D1043-02
E-Z 96® Cycle Pure kit (24×96)	25 µg	50 bp - 40 kb	85%	80 - 100 µl	1 KIT	D1043-03
E.Z.N.A.® MicroElute Cycle Pure kit	10 µg	60 bp - 40 kb	85%	10 - 15 µl	50 Tests	D6293-01
E.Z.N.A.® MicroElute Cycle Pure kit	10 µg	60 bp - 40 kb	85%	10 - 15 µl	200 Tests	D6293-02
E.Z.N.A.® Cycle Pure kit (V-Spin column)	25 µg	50 bp - 40 kb	85%	30 - 50 µl	50 Tests	D6492-01
E.Z.N.A.® Cycle Pure kit (V-Spin column)	25 µg	50 bp - 40 kb	85%	30 - 50 µl	200 Tests	D6492-02
E.Z.N.A.® Cycle Pure kit (Q-spin)	25 µg		85%	30 - 50 µl	50 Tests	D6493-01
E.Z.N.A.® Cycle Pure kit (Q-spin)	25 µg		85%	30 - 50 µl	200 Tests	D6493-02

Gel extraction kits, E.Z.N.A.® VWR by Omega bio-tek



Gel purification of DNA is a common technique used for the isolation of specific DNA fragments from reaction mixtures. However, most methods either fail to completely remove agarose (which can lead to problems in downstream manipulations), shear the DNA, or result in very low yields.

Q-spin columns are capless to allow for fast processing of multiple samples. These columns offer high yields and can be used in centrifugation protocols. V-spin columns feature an attached cap and a standard Luer outlet at the bottom for easy, leak-free connection to a vacuum manifold or Luer hub needle. These columns can be used for both centrifugation and vacuum protocols.

The E.Z.N.A.® Gel Extraction Kit uses HiBind® DNA spin-column technology to recover DNA bands 70 bp to 20 kb in length from all grades of agarose gel with yields up to 85%. The E.Z.N.A.® MicroElute Gel Extraction Kit is designed for purification of DNA fragments from agarose gels with a small elution volume of 10 to 15 µl. The E.Z.N.A.® Ultra-Sep® Gel Extraction Kit offers an economical option for the recovery of DNA from agarose gel using glass beads.

- DNA recovery from agarose gel in under 15 minutes
- Optimised buffers guarantee pure DNA
- No organic extractions necessary
- Purified DNA produced that is suitable for any downstream application

Description	Binding capacity	Fragment size	Recovery	Elution volume	Pk	Cat. No.
E.Z.N.A.® Gel Extraction kit (V-Spin column)	25 µg	50 bp - 20 kb	85%	30 - 50 µl	50 Tests	D2500-01
E.Z.N.A.® Gel Extraction kit (V-Spin column)	25 µg	50 bp - 20 kb	85%	30 - 50 µl	200 Tests	D2500-02
E.Z.N.A.® Gel Extraction kit (Q-Spin column)	25 µg		85%	30 - 50 µl	50 Tests	D2501-01

Continued from previous page

Description	Binding capacity	Fragment size	Recovery	Elution volume	Pk	Cat. No.
E.Z.N.A.® Gel Extraction kit (Q-Spin column)	25 µg		85%	30 - 50 µl	200 Tests	D2501-02
E.Z.N.A.® MicroElute Gel Extraction kit	10 µg	60 bp - 40 kb	80%	10 - 15 µl	50 Tests	D6294-01
E.Z.N.A.® MicroElute Gel Extraction kit	10 µg	60 bp - 40 kb	80%	10 - 15 µl	200 Tests	D6294-02

Dye terminator removal, Ultra-Sep® Kit

VWR by Omega bio-tek

Excess unincorporated, non radioactive labels can cause high background fluorescence in automated sequencing gels. For optimal sequencing results, remaining labelled dideoxynucleotides should be removed prior to electrophoresis. The Ultra-Sep® Dye Terminator Removal Kits are designed for efficient and reliable removal of unincorporated terminators from sequencing reactions. Kits are available based either on E.Z.N.A.® single spin or E-Z 96® multiwell plate formats.

Description	Yield	Elution volume	Sample size	Fragment size	Pk	Cat. No.
E.Z.N.A.® Ultra-Sep® Dye Terminator Removal kit	16 bp or 25mers	15 - 20 µl	>16 bp	25mers	50 Tests	S5912-01
E.Z.N.A.® Ultra-Sep® Dye Terminator Removal kit	16 bp or 25mers	15 - 20 µl	>16 bp	25mers	200 Tests	S5912-02
Ultra-Sep® Dye Terminator Removal kit (4×96)					1 KIT	S5913-01
Ultra-Sep® Dye Terminator Removal kit (24×96)					1 KIT	S5913-02

Genomic DNA isolation from tissue, E-Z 96® Tissue DNA Kit

VWR by Omega bio-tek



By adapting HiBind® technology with 96-well plates, the E-Z 96® Tissue DNA Kit provides a high throughput method to purify genomic DNA from whole blood, buccal swabs, mouse tail, rat tail, tissues and animal cells and tissues in a 96-well plate format. Purified DNA is suitable for most downstream applications such as PCR, restriction enzyme digestion, and hybridisation techniques.

- Isolation of DNA from 96 samples in less than 1 hour
- Reproducible DNA purification from variety of samples
- No phenol/chloroform extractions
- Purified DNA suitable for most downstream application

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E-Z 96® Tissue DNA kit (4×96)	10 - 40 µg DNA	50 µg DNA	30 mg	1 KIT	D1196-01
E-Z 96® Tissue DNA kit (20×96)	10 - 40 µg DNA	50 µg DNA	30 mg	1 KIT	D1196-02

Genomic DNA isolation from tissue, E.Z.N.A.® Tissue DNA Kit

VWR by Omega bio-tek



The E.Z.N.A.® Tissue DNA Kit offers a simple, rapid, and cost effective method for the isolation of DNA from a wide variety of sample sources including fresh or frozen animal cells and tissues. After cell lysis, the DNA purification process can be completed in less than 30 minutes. Up to 30 mg of tissue at a time can be readily processed at a time using the simple E.Z.N.A.® Tissue DNA protocol. Single or multiple samples can be simultaneously processed with this spin-column based kit. There is no need for phenol/chloroform extractions, or time-consuming steps such as precipitation with isopropanol or ethanol. DNA purified using the E.Z.N.A.® Tissue DNA Kit is ready for most downstream applications such as PCR, Southern blot and restriction enzyme digestion.

- Isolation of DNA from either fresh or frozen samples
- Process 30 mg of tissue in under 20 minutes (after lysis)
- Purified DNA suitable for most downstream applications
- Optimised buffers guarantee pure DNA every time
- No organic extractions

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® Tissue DNA kit (V-Spin)	10 - 40 µg DNA	100 µg	30 mg	50 Tests	D3396-01
E.Z.N.A.® Tissue DNA kit (V-Spin)	10 - 40 µg DNA	100 µg	30 mg	200 Tests	D3396-02

Genomic DNA isolation from tissue, E.Z.N.A.® MicroElute® Genomic DNA Kit

VWR by Omega bio-tek



E.Z.N.A.® MicroElute® Genomic DNA Kit provides a rapid and easy method for the isolation of genomic DNA from small sample volumes and sizes for consistent PCR and analytical test results. Using the reversible binding properties of a silica-based material, the speed of mini-column spin technology, and specifically formulated buffers, the system allows the purification of genomic DNA up to 60 kb. Samples are first lysed under denaturing conditions and then applied to the HiBind MicroElute® Column to bind DNA, while cellular debris, haemoglobin, and other proteins are effectively washed away. High quality DNA can be eluted with 10 to 15 µl sterile deionised water or Elution Buffer from the MicroElute® column.

- Purify genomic DNA from small sample volumes and small amount of cells
- High quality genomic DNA purification from variety of samples
- No phenol/chloroform extractions

• Purified DNA suitable for most downstream applications

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® MicroElute® Genomic DNA kit	10 - 40 µg DNA	30 µg	Up to 30 mg	50 Tests	D3096-01
E.Z.N.A.® MicroElute® Genomic DNA kit	10 - 40 µg DNA	30 µg	Up to 30 mg	200 Tests	D3096-02

Genomic DNA isolation from tissue, E-Z 96® Mag-Bind® Tissue DNA 96 Kit

VWR by Omega bio-tek



The Mag-Bind® Tissue DNA 96 Kit allows rapid and reliable isolation of high quality genomic DNA from tissues or cultured cells. Up to 20 mg or 1×10⁶ cells can be used in each well. There is no need for phenol/ chloroform extractions, time-consuming steps such as CsCl gradient ultracentrifugation, or precipitation with alcohols. DNA purified using the Mag-Bind® Tissue DNA 96 Kit is ready for applications such as PCR, Southern blotting, and restriction enzyme digestion. This kit can be used in conjunction with automated work stations.

- No phenol/chloroform extractions
- Complete removal of contaminants and inhibitors
- Consistent yields at unsurpassed quality
- High purity DNA can be used for PCR and Real-Time PCR

Description	Binding capacity	Sample size	Pk	Cat. No.
E-Z 96® Mag-Bind® Tissue DNA kit (4×96)	100 µg	20 mg	1 KIT	M6229-01
E-Z 96® Mag-Bind® Tissue DNA kit (20×96)	100 µg	20 mg	1 KIT	M6229-02

Genomic DNA isolation from tissue, E.N.Z.A.® Mag-Bind® Tissue DNA Kit

VWR by Omega bio-tek



The Mag-Bind® Tissue DNA Kit allows rapid and reliable isolation of high quality genomic DNA from <30 mg tissue or <1×10⁷ cultured cells. This kit allows single or multiple simultaneous processing of samples in under 1 hour. There is no need for phenol/ chloroform extractions, time-consuming steps such as CsCl gradient ultracentrifugation, or precipitation with alcohols. DNA purified using the Mag-Bind® Tissue DNA Kit is ready for applications such as PCR, Southern blotting, and restriction enzyme digestion. This kit can be used in conjunction with automated work stations.

- No phenol/chloroform extractions
- Complete removal of contaminants and inhibitors
- Consistent yields at unsurpassed quality
- High purity DNA can be used for PCR and Real-Time PCR

Description	Sample size	Pk	Cat. No.
E.Z.N.A.® Mag-Bind® Tissue DNA kit	30 mg	50 Tests	M6223-01
E.Z.N.A.® Mag-Bind® Tissue DNA kit	30 mg	200 Tests	M6223-02

Genomic DNA isolation from tissue, Mag-Bind® Tissue DNA 96 KF Kit

VWR by Omega bio-tek



The Mag-Bind® Tissue DNA 96 KF Kit allows rapid and reliable isolation of high quality genomic DNA from tissues or cultured cells on the KingFisher® magnetic particle processor. Up to 10 mg or 1×10⁶ cells can be used in each well.

- Optimised protocols available
- No phenol/chloroform extractions
- Complete removal of contaminants and inhibitors
- Consistent yields at unsurpassed quality
- High purity DNA can be used for PCR and Real-Time PCR

Continued from previous page

Description	Pk	Cat. No.
E-Z 96® Mag-Bind® Tissue DNA KF kit (4x96)	1 KIT	M6329-01
E-Z 96® Mag-Bind® Tissue DNA KF kit (20x96)	1 KIT	M6329-02

Genomic DNA isolation from blood, E-Z 96® Blood DNA Kit

VWR by Omega bio-tek



The E-Z 96® Blood DNA Kit is an integrated system that combines HiBind technology with 96-well plates. Up to 200 µl of healthy whole blood can be purified from each sample. The streamlined procedure and convenient high throughput format allows for the process of 96 whole blood samples in under 1 hour.

- Speed - purify 96 samples in less than 1 hour
- Reliability - optimised buffer guarantee pure DNA
- Safety - no organic extractions

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E-Z 96® Blood DNA kit (4x96)	3 - 6 µg	50 µg DNA	200 µl	1 KIT	D1192-01
E-Z 96® Blood DNA kit (20x96)	3 - 6 µg	50 µg DNA	200 µl	1 KIT	D1192-02

Genomic DNA isolation from blood, E.Z.N.A.® Blood DNA Kit

VWR by Omega bio-tek



The E.Z.N.A.® Blood DNA Kit provides rapid total DNA isolation from 1 to 250 µl of fresh or frozen anticoagulated whole blood. The E.Z.N.A.® Blood DNA Kit can also be used for the preparation of genomic DNA from buffy coat, serum, plasma, bone marrow, lymphocytes, platelets, and body fluids. This kit allows for simultaneous processing of single or multiple samples in less than 30 minutes. Phenol/chloroform extractions, and time-consuming steps such as precipitation with isopropanol or ethanol have been eliminated. DNA purified with the E.Z.N.A.® Blood DNA method is ready for applications such as PCR, Southern blotting, or restriction enzyme digestion.

- Isolation of DNA in less than 30 minutes
- Optimised buffer system ensures reproducible results
- No organic extractions

- Purified DNA suitable for most downstream applications

Description	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® Blood DNA Mini kit	100 µg DNA	10 - 250 µl	50 Tests	D3392-01
E.Z.N.A.® Blood DNA Mini kit	100 µg DNA	10 - 250 µl	200 Tests	D3392-02

Genomic DNA isolation from blood, E.Z.N.A.® Blood DNA Midi Kit

VWR by Omega bio-tek



The E.Z.N.A.® Blood DNA Midi Kit is specially designed for large scale isolation of genomic DNA. The kit provides a rapid purification of genomic DNA from up to 10 ml whole blood samples. Sample sources include fresh and frozen whole blood treated with common anticoagulants such as citrate, EDTA and heparin. In addition plasma, serum, buffy coat, bone marrow, lymphocytes, platelets, and body fluid samples can also be used. Phenol/chloroform extractions, and time-consuming steps such as precipitation with isopropanol have been eliminated. DNA purified using the E.Z.N.A.® Blood DNA Midi method is free of contaminants and enzyme inhibitors making it suitable for most downstream applications such as PCR, Southern blotting and restriction enzyme digestion.

- Large scale isolation of high quality total DNA
- No organic extraction or alcohol precipitation

- Pure DNA free of contaminants and enzyme inhibitors
- Entire procedure completion takes less than 60 minutes
- Purified DNA is suitable for downstream applications

Description	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® Blood DNA Midi Prep kit II	250 µg DNA	250 - 2000 µl	10 Tests	D3494-01
E.Z.N.A.® Blood DNA Midi Prep kit II	250 µg DNA	250 - 2000 µl	50 Tests	D3494-03
E.Z.N.A.® Blood DNA Midi Prep kit II	250 µg DNA	250 - 2000 µl	100 Tests	D3494-04

Genomic DNA isolation from blood, E.Z.N.A.® Blood DNA Maxi Kit

VWR by Omega bio-tek



The E.Z.N.A.® Blood DNA Maxi Kit is specially designed for large scale isolation of genomic DNA. The kit provides a rapid purification of genomic DNA from up to 10 ml whole blood samples. Sample sources include fresh and frozen whole blood treated with common anticoagulants such as citrate, EDTA and heparin. In addition plasma, serum, buffy coat, bone marrow, lymphocytes, platelets, and body fluid samples can also be used. Phenol/chloroform extractions, and time-consuming steps such as precipitation with isopropanol have been eliminated. DNA purified using the E.Z.N.A.® Blood DNA Maxi method is free of contaminants and enzyme inhibitors making it suitable for most downstream applications such as PCR, Southern blotting and restriction enzyme digestion of high quality total DNA.

- Isolate DNA from samples up to 10 ml
- No organic extraction or alcohol precipitation

- Pure DNA, free of contaminants and enzyme inhibitors
- Entire procedure completion takes less than 60 minutes

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® Blood DNA Maxiprep kit	1,0 - 1,2 mg	1000 µg DNA	2 - 10 ml	10 Tests	D2492-01
E.Z.N.A.® Blood DNA Maxiprep kit	1,0 - 1,2 mg	1000 µg DNA	2 - 10 ml	20 Tests	D2492-02

Genomic DNA isolation from plants, E-Z 96® Plant DNA Kit

VWR by Omega bio-tek



The E-Z 96® Plant DNA Kit allows rapid and reliable isolation of high quality total cellular DNA from a wide variety of plant species and tissues in a 96-well format. E-Z 96® Plant DNA Kits utilise a buffer system adapted from the SP Plant DNA system, which is suitable for a variety of plants, such as those with unusually high levels of phenolic compounds or polysaccharides (for example, cotton, pine and peanut samples). Up to 50 mg of wet tissue or 12 mg dry tissue can be processed in each well in less than 1 hour. The system combines the reversible nucleic acid-binding properties of the HiBind matrix with the speed and versatility of the E-Z 96® DNA plate to eliminate polysaccharides, phenolic compounds, and enzyme inhibitors from plant tissue lysates. Purified DNA is suitable for PCR, restriction digestion, and hybridisation techniques.

- DNA isolation of 96 samples in <90 minutes
- Optimised buffers guarantee pure DNA very time
- No organic extractions
- Purified DNA suitable for most downstream applications
- E-Z 96® plate is suitable for most robotic workstations

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E-Z 96® Plant DNA kit (1x96)	10 - 25 µg DNA from 10 mg dry tissue	50 µg DNA	30 mg of wet or 10 mg dry tissue	1 KIT	D1086-01
E-Z 96® Plant DNA kit (4x96)	10 - 25 µg DNA from 10 mg dry tissue	50 µg DNA	30 mg of wet or 10 mg dry tissue	1 KIT	D1086-02

Genomic DNA isolation from plants, E.Z.N.A.® Plant DNA Kit

VWR by Omega bio-tek



The E.Z.N.A.® Plant DNA Kit is designed for the rapid and reliable isolation of high quality total cellular DNA from a wide variety of plant species. Up to 100 mg of wet samples or 30 mg dry samples can be processed in less than 60 minutes. This kit uses a proprietary method to eliminate polysaccharides, phenolic compounds, and enzyme inhibitors from plant sample. Purified DNA is suitable for PCR, restriction enzyme digestion, and hybridisation techniques. There are no organic extractions, thus reducing plastic waste and hands-on time.

- DNA isolation under 60 minutes
- Optimised buffer system ensure the reproducible results
- No organic extractions
- Purified DNA suitable for most downstream applications

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® Plant DNA kit	8 - 50 µg	100 µg	200 mg wet or 50 mg dry tissue	50 Tests	D3485-01
E.Z.N.A.® Plant DNA kit	8 - 50 µg	100 µg	200 mg wet or 50 mg dry tissue	200 Tests	D3485-02

Genomic DNA isolation from plants, E.Z.N.A.® SP Plant DNA Kit

VWR by Omega bio-tek



The E.Z.N.A.® SP Plant DNA Kit is specially designed for the rapid and reliable isolation of high quality total cellular DNA from a variety of plant species. Up to 100 mg of fresh samples or 30 mg of dry samples can be processed in less than 40 minutes. Purified DNA is suitable for most downstream applications including PCR, restriction digestions and hybridisation techniques.

- Rapid purification of ready to use DNA isolation in less 40 minutes
- Standardised method for reliable results from variety of samples
- No organic extractions
- Purified DNA suitable for most applications

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® SP Plant DNA kit	30 - 60 µg	100 µg	100 mg of wet or 30 mg dry tissue	50 Tests	D5511-01
E.Z.N.A.® SP Plant DNA kit	30 - 60 µg	100 µg	100 mg of wet or 30 mg dry tissue	200 Tests	D5511-02

Genomic DNA isolation from plants, E.Z.N.A.® SP Plant DNA Midi Kit

VWR by Omega bio-tek



The E.Z.N.A.® SP Plant DNA Midi Kit is specially designed for rapid and reliable isolation of high quality total cellular DNA from a variety of plant species. Up to 500 mg wet plant tissue (or 125 mg dry plant tissue) can be processed by this kit. The optimised procedure incorporates the homogeniser spin column, a unique filter and homogenisation column that can efficiently remove cell debris and improve sample handling following sample lysis. Purified DNA is suitable for most downstream applications including PCR, restriction enzyme digestion, and hybridisation techniques.

- Rapid purification of ready to use DNA isolation in less than 40 minutes
- Standardised method for reliable results from a variety of samples
- No organic extractions
- Purified DNA suitable for most downstream applications
- Large Scale Isolation of high quality total DNA

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® SP Plant DNA Midi kit	250 µg	250 µg	500 mg of wet or 125 mg dry tissue	10 Tests	D5528-01
E.Z.N.A.® SP Plant DNA Midi kit	250 µg	250 µg	500 mg of wet or 125 mg dry tissue	25 Tests	D5528-02

Genomic DNA isolation from plants, E.Z.N.A.® SP Plant DNA Maxi Kit

VWR by Omega bio-tek



Based on the same concept of the E.Z.N.A.® SP Plant DNA Kit, the E.Z.N.A.® SP Plant DNA Maxi Kit is specially designed for rapid and reliable isolation of high quality total cellular DNA from a variety of plant species. Up to 1 g of wet plant tissue (or 300 mg dry tissue) can be processed by this kit. The optimised procedure incorporates the homogenizer spin column, a unique filter and homogenisation column that can efficiently remove cell debris and improve sample handling following lysis. Purified DNA is suitable for most downstream applications including PCR, restriction enzyme digestion, and hybridisation techniques.

- Rapid purification of ready to use DNA isolation in less than 40 minutes
- Standardised method for reliable results from a variety of samples
- No organic extractions
- Purified DNA suitable for most downstream applications
- Large scale Isolation of high quality total DNA

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® SP Plant DNA Maxi kit	1,0 - 2,5 mg	1 mg	1 g of wet or 300 mg dry tissue	5 Tests	D5538-01
E.Z.N.A.® SP Plant DNA Maxi kit	1,0 - 2,5 mg	1 mg	1 g of wet or 300 mg dry tissue	20 Tests	D5538-02



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Genomic DNA isolation from plants, E.Z.N.A.® HP Plant DNA Kit

VWR by Omega bio-tek



The E.Z.N.A.® HP Plant DNA Kit is designed for efficient recovery of genomic DNA up to 60 kb in size from fresh and dried plant tissue samples rich in lipids, polyphenols, polysaccharides, or those with lower DNA contents. Up to 100 mg of wet sample or 30 mg dry sample can be processed in less than 60 minutes. This procedure relies on the well-established properties of the cationic detergent, cetyltrimethyl ammonium bromide (CTAB), in conjunction with the selective DNA binding of HiBind® matrix. Samples are homogenised and lysed in a high salt buffer containing CTAB and extracted with chloroform to remove polysaccharides and other components that interfere with many DNA isolation and downstream applications. After adjusting the binding conditions, DNA is further purified using HiBind® DNA spin columns. Proteins and other contaminants are removed to yield high quality genomic DNA suitable for downstream applications such as endonuclease digestion, thermal cycle amplification and hybridisation techniques.

- DNA isolation in 60 minutes following lysis
- Reproducible DNA purification from variety of sample sources
- Purified DNA suitable for any application
- Efficient purification of DNA from even specialised samples

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® HP Plant DNA kit	10 - 50 µg DNA	Up to 60 kb fragments	100 mg of wet or 30 mg dry tissue	50 Tests	D2485-01
E.Z.N.A.® HP Plant DNA kit	10 - 50 µg DNA	Up to 60 kb fragments	100 mg of wet or 30 mg dry tissue	200 Tests	D2485-02

Genomic DNA isolation from plants, Mag-Bind® Plant DNA 96 Kit

VWR by Omega bio-tek



The Mag-Bind® Plant DNA 96 Kit allows rapid and reliable isolation of high quality genomic DNA from a wide variety of plant species and tissues. Up to 50 mg of wet plant tissue (or 15 mg dry plant tissue) can be processed in less than one hour. The system combines E.Z.N.A.® buffer chemistry with the convenience of Mag-Bind® particles to eliminate polysaccharides, phenolic compounds, and enzyme inhibitors from plant tissue lysates. This kit is designed for manual or fully automated high throughput preparation of genomic, chloroplast, and mitochondrial DNA. The Mag-Bind® Plant DNA Kit also provides greater flexibility than silica plate-based systems as partial plates can be used and can be scaled up to a 24-well format with the appropriate magnetic stand. The streamlined protocol can be easily adapted on most robotic liquid handling platforms. Purified DNA is suitable for PCR, restriction digestion, hybridisation applications, and more demanding applications such as RAPD.

- Simple, rapid, and reliable procedure
- Reproducible yields of pure, ready to use DNA
- Adaptable in most robotic liquid handling platforms

Description	Pk	Cat. No.
EZ-96® Mag-Bind® Plant DNA kit (2×96)	1 KIT	M1027-01
EZ-96® Mag-Bind® Plant DNA kit (8×96)	1 KIT	M1027-02
EZ-96® Mag-Bind® Plant DNA kit (20×96)	1 KIT	M1027-03

Genomic DNA isolation from bacteria, E.Z.N.A.® Bacterial DNA Kit

VWR by Omega bio-tek



The E.Z.N.A.® Bacterial DNA Kit allows the rapid and reliable isolation of high quality total cellular DNA from a wide variety of bacterial species. This kit uses optimised lysis condition and up to 1×10⁹ bacterial cells can be processed for each column. There are no organic extractions, thus reducing plastic waste and hands on time to allow multiple samples to be processed in parallel. Bacterial cells are grown to log-phase and harvested. The cell wall is removed by lysozyme digestion and bead beating, followed by protease digestion. Following lysis, binding conditions are adjusted and the sample is applied to a HiBind DNA spin-column. Two rapid wash steps remove trace salts and protein contaminants, and DNA is finally eluted in water or Elution Buffer. Purified DNA can be directly used in downstream applications without the need for further purification.

- Suitable for most bacterial strains
- DNA isolation in less than 20 minutes (after lysis)
- Optimised buffers guarantee pure DNA
- No organic extractions
- Purified DNA suitable for most applications

Description	Average yield	Sample size	Pk	Cat. No.
E.Z.N.A.® Bacterial DNA Mini kit	15 - 30 µg	3 ml log phase culture	50 Tests	D3350-01
E.Z.N.A.® Bacterial DNA Mini kit	15 - 30 µg	3 ml log phase culture	200 Tests	D3350-02

Genomic DNA isolation from yeast, E.Z.N.A.® Yeast DNA Kit

VWR by Omega bio-tek



The E.Z.N.A.® Yeast DNA Kit is comprised of a quick and efficient lysis procedure to isolate of high quality genomic, YAC, or plasmid DNA from yeast. There are no organic extractions, thus reducing plastic waste and hands-on time to allow for reliable isolation of total cellular DNA from a wide variety of yeast species. Purified DNA is suitable for PCR, restriction enzyme digestion, and hybridisation techniques to be processed in parallel.

- Reproducible DNA purification from variety of sample sources
- High yield - glass beads and enzymatic digestion for cell lysis

Description	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® Yeast DNA kit	15 - 30 µg DNA	3 ml log phase culture	50 Tests	D3370-01
E.Z.N.A.® Yeast DNA kit	15 - 30 µg DNA	3 ml log phase culture	200 Tests	D3370-02

RNA isolation kits, E.Z.N.A.® and E-Z 96®

VWR by Omega bio-tek



Kits for the isolation of total RNA or mRNA using manual or automated purification systems. Isolated RNA can be used for Northern blotting, RT-PCR, nuclease protection assays, in vitro translation, and microarray analysis. Miniprep kits that use HiBind® spin columns use V-spin columns which feature an attached cap and a standard Luer tip at the bottom for easy, leak-free connection to a vacuum manifold or Luer hub needle. Midi and maxi columns feature a standard vacuum Luer for faster processing. These columns can be used for both centrifugation and vacuum protocols. SQ kits use a solution-based extraction method allowing for varying sample size and high sample throughput extractions.

The RNA-Solv® reagent is a one-reagent system for the isolation of total RNA from cells and tissues.

Description	Average yield	Binding capacity	Elution volume	Sample size	Pk	Cat. No.
E-Z 96® HP Total RNA kit I (4x96)	5 - 20 µg	100 µg/well		1×10 ⁶ cells or 10 mg tissue	1 KIT	R6813-01
E-Z 96® HP Total RNA kit I (20x96)	5 - 20 µg	100 µg/well		1×10 ⁶ cells or 10 mg tissue	1 KIT	R6813-02
E-Z 96® Mag-Bind® Total RNA 96 kit (4x96)	10 - 50 µg	100 µg	30 - 100 µl	1×10 ⁶ cells or 15 mg tissue	1 KIT	M6731-01
E-Z 96® Mag-Bind® Total RNA 96 kit (12x96)	10 - 50 µg	100 µg	30 - 100 µl	1×10 ⁶ cells or 15 mg tissue	1 KIT	M6731-02
E-Z 96® Total RNA kit I (1x96)	5 - 20 µg	100 µg/well	40 - 70 µl	5×10 ⁶ cells or 10 mg tissue	1 KIT	R1034-00
E-Z 96® Total RNA kit I (4x96)	5 - 20 µg	100 µg/well	40 - 70 µl	5×10 ⁶ cells or 10 mg tissue	1 KIT	R1034-01
E-Z 96® Total RNA kit I (12x96)	5 - 20 µg	100 µg/well	40 - 70 µl	5×10 ⁶ cells or 10 mg tissue	1 KIT	R1034-02
E.Z.N.A.® HP Total RNA kit	20 - 70 µg	100 µg		1×10 ⁷ cells or 10 - 30 mg tissue	50 Tests	R6812-01
E.Z.N.A.® HP Total RNA kit	20 - 70 µg	100 µg		1×10 ⁷ cells or 10 - 30 mg tissue	200 Tests	R6812-02
E.N.Z.A.® Mag-Bind® Total RNA kit					50 Tests	M6930-01
E.N.Z.A.® Mag-Bind® Total RNA kit					200 Tests	M6930-02
E.Z.N.A.® MicroElute® Total RNA kit	1 - 30 µg	50 µg	10 - 20 µl	1×10 ⁶ cells or 15 mg tissue	50 Tests	R6831-01
E.Z.N.A.® MicroElute® Total RNA kit	1 - 30 µg	50 µg	10 - 20 µl	1×10 ⁶ cells or 15 mg tissue	200 Tests	R6831-02
E.Z.N.A.® Total RNA kit I	20 - 70 µg	100 µg	40 - 70 µl	1×10 ⁷ cells or 30 µg tissue	50 Tests	R6834-01
E.Z.N.A.® Total RNA kit I	20 - 70 µg	100 µg	40 - 70 µl	1×10 ⁷ cells or 30 µg tissue	200 Tests	R6834-02
E.Z.N.A.® Total RNA Maxi kit	1 - 2,5 mg	5 mg		5×10 ⁸ cells or 200 mg - 1g tissue	5 Tests	R6693-01
E.Z.N.A.® Total RNA Maxi kit	1 - 2,5 mg	5 mg		5×10 ⁸ cells or 200 mg - 1g tissue	20 Tests	R6693-02
E.Z.N.A.® Total RNA Midi kit	0,5 - 1 mg	1 mg		1×10 ⁸ cells or 50 - 200 mg tissue	10 Tests	R6664-01
E.Z.N.A.® Total RNA Midi kit	0,5 - 1 mg	1 mg		1×10 ⁸ cells or 50 - 200 mg tissue	25 Tests	R6664-02

Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E-Z 96® Mag-Bind® Blood RNA 96 kit (4x96)	200 ng	100 µg	50 µl fresh	1 KIT	M2837-01
E-Z 96® Mag-Bind® Blood RNA 96 kit (12x96)	200 ng	100 µg	50 µl fresh	1 KIT	M2837-02
E.Z.N.A.® Blood RNA kit	1 - 7 µg	100 µg RNA	10 - 1000 µl	5 Tests	R6814-00
E.Z.N.A.® Blood RNA kit	1 - 7 µg	100 µg RNA	10 - 1000 µl	50 Tests	R6814-01
E.Z.N.A.® Blood RNA kit	1 - 7 µg	100 µg RNA	10 - 1000 µl	200 Tests	R6814-02

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Description	Average yield	Binding capacity	Sample size	Pk	Cat. No.
E.Z.N.A.® Blood RNA Maxi kit	50 - 350 µg	5 mg	Up to 50 ml	5 Tests	R6616-01
E.Z.N.A.® Blood RNA Maxi kit	50 - 350 µg	5 mg	Up to 50 ml	20 Tests	R6616-02
E.Z.N.A.® Blood RNA Midi kit	10 - 70 µg	1 mg	Up to 10 ml	10 Tests	R6615-01
E.Z.N.A.® Blood RNA Midi kit	10 - 70 µg	1 mg	Up to 10 ml	25 Tests	R6615-02

Description	Average yield	Binding capacity	Elution volume	Sample size	Pk	Cat. No.
E-Z 96® Plant RNA kit (2×96)	5 - 20 µg	100 µg/well	20 - 100 µl	10 - 50 mg	1 KIT	R1027-01
E-Z 96® Plant RNA kit (8×96)	5 - 20 µg	100 µg/well	20 - 100 µl	10 - 50 mg	1 KIT	R1027-02
E.Z.N.A.® Plant RNA Maxi kit	0,2 - 2 mg	5 mg	3 - 5 ml	2 g	5 Tests	R6629-01
E.Z.N.A.® Plant RNA Maxi kit	0,2 - 2 mg	5 mg	3 - 5 ml	2 g	20 Tests	R6629-02
MagBind® Plant RNA kit					50 Tests	M6828-01
MagBind® Plant RNA kit					200 Tests	M6828-02
E-Z 96® Mag-Bind® Plant RNA 96 kit (4×96)	30 - 50 µg	50 µg	50 - 100 µl	20 mg	1 KIT	M6927-01
E-Z 96® Mag-Bind® Plant RNA 96 kit (12×96)	30 - 50 µg	50 µg	50 - 100 µl	20 mg	1 KIT	M6927-02

Description	Binding capacity	Elution volume	Sample size	Pk	Cat. No.
E.Z.N.A.® Viral RNA kit	100 µg	30 - 50 µl	150 µl	50 Tests	R6874-01
E.Z.N.A.® Viral RNA kit	100 µg	30 - 50 µl	150 µl	200 Tests	R6874-02

Description	Average yield	Sample size	Pk	Cat. No.
E.Z.N.A.® RNA-Solv® reagent	10 - 200 µg	1×10 ⁷ cells or 100 mg tissue	100 ml	R6830-01IN
E.Z.N.A.® RNA-Solv® reagent	10 - 200 µg	1×10 ⁷ cells or 100 mg tissue	200 ml	R6830-02IN

DNA/RNA extraction kits, for formalin-fixed, paraffin-embedded tissue VWR by Omega bio-tek

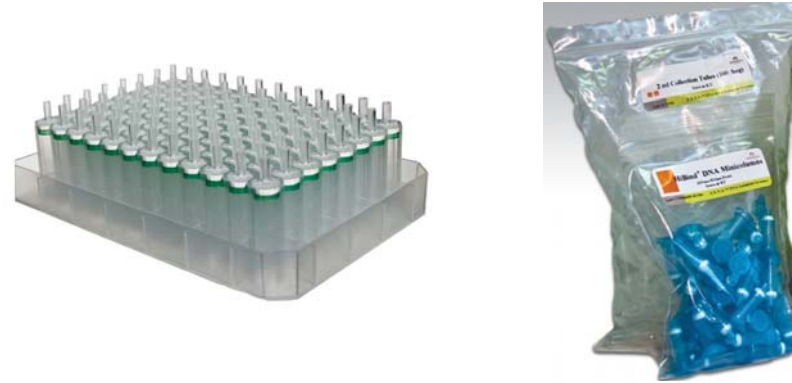


Selected protease digestion releases microgram amounts of DNA and RNA from FFPE samples. The purified nucleic acids, although highly fragmented, are suitable for a variety of downstream genomic and gene expression analyses. E.Z.N.A.® spin column-based kits are ideal for low throughput applications while Mag-Bind® magnetic beads-based kits are designed specifically for high throughput users with automation capability.

- Impressive yield in as little as 40 minutes
- Standard protocol requires no xylene extraction
- Magnetic beads-based kits fully compatible with most automation platforms

Description	Pk	Cat. No.
E.Z.N.A.® FFPE DNA Isolation kit	50 Tests	D3399-01
E.Z.N.A.® FFPE DNA Isolation kit	200 Tests	D3399-02
E.Z.N.A.® FFPE RNA Isolation kit	50 Tests	R6954-01
E.Z.N.A.® FFPE RNA Isolation kit	200 Tests	R6954-02
Mag-Bind® FFPE DNA 96 kit (4×96)	1 KIT	M6958-01
Mag-Bind® FFPE DNA 96 kit (20×96)	1 KIT	M6958-02
Mag-Bind® FFPE RNA 96 kit (4×96)	1 KIT	M2551-01
Mag-Bind® FFPE RNA 96 kit (20×96)	1 KIT	M2551-02
Mag-Bind® FFPE DNA 96 KF kit for KingFisher® (4×96)	1 KIT	M6954-01
Mag-Bind® FFPE DNA 96 KF kit for KingFisher® (20×96)	1 KIT	M6954-02
Mag-Bind® FFPE RNA 96 KF kit for KingFisher® (4×96)	1 KIT	M6953-01
Mag-Bind® FFPE RNA 96 KF kit for KingFisher® (20×96)	1 KIT	M6953-02

Homogeniser plates, E-Z 96®, and spin columns, E.Z.N.A.® VWR by Omega bio-tek



For simple and rapid homogenisation of cell and tissue lysates

The E.Z.N.A.® homogeniser spin columns and the E-Z 96® homogeniser plates provide a simple and reliable method to reduce sample viscosity often caused by high molecular weight cellular components and cell debris during DNA/RNA isolation. Traditional methods use syringes and needles, which can be tedious, inconvenient, and hazardous to handle. The E.Z.N.A.® homogeniser spin columns and the E-Z 96® homogeniser plates consist of a unique biopolymer-shredding membrane in spin column or 96-well format. In general, similar yields and RNA quality are obtained as with rotor-stator homogenisation.

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Description	Pk	Cat. No.
E.Z.N.A.® homogeniser spin column with 2 ml collection tube	50	730-1397
E.Z.N.A.® homogeniser spin column with 2 ml collection tube	200 Tests	HCR003
E-Z 96® homogeniser plate, 1×96 wells	1 KIT	730-1398
E-Z 96® homogeniser plate, 4×96 wells	1 KIT	730-1399

Magnetic separation devices
VWR by Omega bio-tek

A range of magnetic devices for separation of proteins or peptides 'bound' to magnetic particles or beads. Magnetic separation is a simple, scaleable and gentle technique that is suitable for crude samples, even those containing particulates.

- Devices available for 96-well plates and microtubes
- Simple and effective immobilisation of particles whilst the buffer/elutant is exchanged

Description	Pk	Cat. No.
E-Z 96 magnetic separation device-A (fits 96-well microplates) radial magnetising	1	730-1401
E-Z 96 magnetic separation device-A (fits 96-well microplates) height magnetising using rod magnets	1	730-1400
Magnetic separation device-B, holds ten 1,5 / 2 ml tubes or one 15 ml tube	1	730-1402

Pestles, disposable, for 0,5 and 1,5 ml microtubes
VWR by Omega bio-tek

PP

Disposable pestles can be used to homogenise cells or resuspend precipitates such as protein or DNA pellets in buffer solutions.

- Pestles and tubes are RNase, DNase, DNA, and pyrogen-free
- 10 pestles per bag, 2 each of blue, green, red, purple, and orange

Colour	For	Pk	Cat. No.
Disposable pestle			
Assorted colours	1,5	10	VWRIS-SI-1005-39
Disposable pestle with microtube			
Assorted colours	0,5	200	730-1403
Assorted colours	1,5	200	730-1404

RNase A

Ribonuclease A (RNase A) is endonuclease-free and quality controlled for use in plasmid purification procedures for digestion of RNA.

Description	Pk	Cat. No.
RNase A (100 mg/ml), 2,5 ml	17.500 AU	NA-03

Proteinase K and OB Protease
VWR by Omega bio-tek

For enzyme digestion during DNA and RNA preparation

Both OB Protease and Proteinase K offer broad substrate specificity with high activity for a wide range of salts, denaturant and detergent, pH, and temperature conditions. Proteinase K is a subtilisin-type protease isolated from the saprophytic fungus Tritirachiumalbum and is particularly suitable for short digestion times. It possesses a high specific activity which remains stable over a wide range of temperatures and pH values with substantially increased activity at higher temperature.

OB Protease is a serine protease isolated from a recombinant Bacillus strain and is an economical alternative to Proteinase K for isolation of native DNA and RNA from a variety of sources. OB Protease is completely free of DNase and RNase activities.

Description	Pk	Cat. No.
Proteinase K >30 mAU/mg, lyophilised	30 mg	AC110
Proteinase K >30 mAU/mg, lyophilised	100 mg	AC111
Proteinase K >30 mAU/mg, lyophilised	1 g	AC112
Proteinase K >600 mAU/ml, solution	2 ml	AC115
Proteinase K >600 mAU/ml, solution	10 ml	AC116
OB Protease, lyophilised	30 mg	AC113
OB Protease, lyophilised	100 mg	AC114



Ethanol, molecular biology grade

Pk	Cat. No.
0,25 l	437433T
250 ml	437433TDP

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue. DP = Duty Paid. Contact VWR for further information.



X-Gal (5-bromo-4-chloro-3-indolyl-β-D-galactopyranoside)

M.W. 408.63

X-Gal is a chromogenic substrate for β-Galactosidase that forms an intense blue precipitate. Used in conjunction with IPTG in a colorimetric assay, X-Gal allows differentiation of recombinants from non recombinants in cloning experiments with vectors containing the lacZ gene. It is also used in microbiology to detect microorganisms which have β-Galactosidase activity.

Description	Pk	Cat. No.
X-Gal	1 g	437132J

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Proteinase K (3.4.21.14), chromatographically purified

Used to inactivate DNases and RNases during isolation of nucleic acids.

Description	Pk	Cat. No.
Proteinase K from Tritirachium album	100 mg	390972X
Proteinase K from Tritirachium album	0,5 g	390973P
Proteinase K from Tritirachium album	10 g	39097CB

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Dithiothreitol (Cleland's reagent)

Pk	Cat. No.
5 g	441494N
25 g	441496P

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Dithiothreitol (Cleland's reagent), molecular biology grade

MW: 154.24

Pk	Cat. No.
5 g	443852A

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Ammonium sulphate, molecular biology grade

MW: 132.14

Pk	Cat. No.
1 kg	444445Q
5 kg	444446R

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



2-Mercaptoethanol

Pk	Cat. No.
500 ml	441435C



Sodium dodecyl sulphate, specially pure

Pk	Cat. No.
100 g	442442F
500 g	442444H
25 kg	442444HU



Sodium dodecyl sulphate (SDS), molecular biology grade

Pk	Cat. No.
50 g	444462R
500 g	444464T

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Sodium dodecyl sulphate solution 10% w/v Electran®

Pk	Cat. No.
100 ml	444062F

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Sodium dodecyl sulphate AnalaR

A general biochemical reagent often used as a detergent for electrophoresis

Pk	Cat. No.
100 g	108073J

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Tris(hydroxymethyl)methylamine Electran®

MW: 121.14

Pk	Cat. No.
500 g	443864E
2,5 kg	443866G

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Tween® 20, molecular biology grade

A detergent specifically tested for use in molecular biology applications.

Tween is a trademark of Atlas Chemical Industries Inc.

Pk	Cat. No.
100 ml	437082Q

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



EDTA (ethylenediaminetetraacetic acid), disodium salt, molecular biology grade

MW: 372.24

Pk	Cat. No.
1 kg	443885J

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Ficoll® 400, molecular biology grade

Ficoll 400 is a neutral, hydrophilic polymer of sucrose, which readily dissolves in aqueous solutions.

Ficoll® is a registered trademark of Pharmacia Biotech AB.

Pk	Cat. No.
25 g	437092S
250 g	437093T

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Phosphate buffered saline (PBS), low phosphate, 10X

Irradiated concentrate of PBS, suitable for use in washing cells after dilution.

Pk	Cat. No.
101	437117K

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue



Propan-2-ol (iso-propanol), molecular biology grade

Description	Pk	Cat. No.
Propan-2-ol (iso-propanol), molecular biology grade	250 ml	437423R

For full specifications see VWR BDH Prolabo Chemicals, Reagents, Standards and Media Catalogue

Taq DNA polymerase



VWR Taq DNA polymerase is an ultra-pure, thermostable, recombinant DNA polymerase, which provides robust PCR performance in a wide range of PCR applications, without time-consuming optimisation. The enzyme is isolated from *Thermus aquaticus* and has a molecular weight of approximately 94 kDa. VWR Taq DNA polymerase has both a 5' and 3' DNA polymerase and a double strand 5' to 3' exonuclease activity. It leaves an A overhang, which makes the enzyme ideal for TA cloning. Red Taq DNA polymerase is a blend of Taq DNA polymerase combined with an inert red dye. The dye enables quick visual recognition of reactions to which enzyme has been added, as well as confirmation of complete mixing.

- Most suitable choice for routine applications where high fidelity is not required
- High performance, thermostable DNA polymerase
- Optimal for TA cloning

Taq DNA polymerase concentration: 5 Units/μl

10X Key Buffer: Tris-HCL pH 8,5, (NH₄)₂SO₂, 15 mM MgCl₂, 1% Tween-20®

10X Extra Buffer: 100 mM Tris-HCL pH 8,3, 500 mM KCl, 15 mM MgCl₂, 1% Triton X-100

10X Mg-Free Key Buffer: Tris-HCL pH 8,5, (NH₄)₂SO₂, 1% Tween-20®


10X Mg-Free Extra Buffer: Tris-HCL pH 8,3, KCl, 1% Triton X-100

Delivery Information: VWR Taq DNA polymerase is supplied with both Key Reaction Buffer and Extra Reaction Buffer.

Description	Pk	Cat. No.
Taq DNA polymerase, 10X glycerol-free, without Key or Extra Buffer	5.000 EU	733-1999
Taq DNA polymerase, 10X glycerol-free, without Key or Extra Buffer, 40x1 ml	40 ml	733-2038
Taq DNA polymerase, 10X glycerol-free Extra Buffer, 25 mM MgCl ₂	1.000 EU	733-1817
Taq DNA polymerase, 10X Key Buffer (15 mM MgCl ₂), 10X Extra Buffer (15 mM MgCl ₂), 25 mM MgCl ₂	250 EU	733-1300
Taq DNA polymerase, 10X Key Buffer (15 mM MgCl ₂), 10X Extra Buffer (15 mM MgCl ₂), 25 mM MgCl ₂	500 EU	733-1301
Taq DNA polymerase, 10X Key Buffer (15 mM MgCl ₂), 10X Extra Buffer (15 mM MgCl ₂), 25 mM MgCl ₂	1.000 EU	733-1302
Taq DNA polymerase, 10X Key Buffer (15 mM MgCl ₂), 10X Extra Buffer (15 mM MgCl ₂), 25 mM MgCl ₂	10.000 EU	733-1303
Taq DNA polymerase, 10X Key Buffer (15 mM MgCl ₂), 10X Extra Buffer (15 mM MgCl ₂), 25 mM MgCl ₂	2.500 EU	733-1819
Taq DNA polymerase, 10X Key Buffer (15 mM MgCl ₂), 10X Extra Buffer (15 mM MgCl ₂), 25 mM MgCl ₂	5.000 EU	733-1820
Taq DNA polymerase, 10X MgCl ₂ -free Extra Buffer, 25 mM MgCl ₂	500 EU	733-1304
Taq DNA polymerase, 10X MgCl ₂ -free Extra Buffer, 25 mM MgCl ₂	1.000 EU	733-1305
Taq DNA polymerase, 10X MgCl ₂ -free Key Buffer, 25 mM MgCl ₂	500 EU	733-1311
Taq DNA polymerase, 10X MgCl ₂ -free Key Buffer, 25 mM MgCl ₂	1.000 EU	733-1312
Taq DNA polymerase, 10X MgCl ₂ -free Key Buffer, 25 mM MgCl ₂	2.500 EU	733-1313
Taq DNA polymerase, 10X Tween-free Key Buffer, 10X Triton-free Extra Buffer, 25 mM MgCl ₂	1.000 EU	733-1307
Taq DNA polymerase, 10X Tween-free Key Buffer, 10X Triton-free Extra Buffer, 25 mM MgCl ₂	10.000 EU	733-1823
Taq DNA Polymerase 5U/μl Mg-free buffer, 10X Mg-free Key Buffer, 25 mM MgCl ₂	10.000 EU	733-2009
Red Taq DNA polymerase, 10X Key Buffer (15 mM MgCl ₂), 10X Extra Buffer (15 mM MgCl ₂), 25 mM MgCl ₂	2.500 EU	733-1323
Red Taq DNA polymerase, 10X Key Buffer (15 mM MgCl ₂), 10X Extra Buffer (15 mM MgCl ₂), 25 mM MgCl ₂	10.000 EU	733-1834

EU = Units

Taq DNA polymerase MasterMixes




VWR Taq DNA polymerase MasterMix is a ready to use 1,1X or 2X reaction mix. Simply add primers, template and water to carry out primer extensions and other molecular biology applications. Red Taq DNA polymerase is a blend of Taq DNA polymerase combined with an inert red dye. The dye enables visual recognition of reactions to which enzyme has been added, as well as confirmation of complete mixing. Red Taq DNA polymerase can be directly loaded onto an agarose gel without addition of electrophoresis loading buffers.

Description	Pk	Cat. No.
Taq DNA polymerase 1,1X MasterMix, 1,5 mM MgCl ₂	2.500 Tests	733-1314
Taq DNA polymerase 1,1X MasterMix, 1,5 mM MgCl ₂	500 Tests	733-2540
Taq DNA polymerase 1,1X MasterMix, 2,0 mM MgCl ₂	2.500 Tests	733-1315
Taq DNA polymerase 1,1X MasterMix, 2,0 mM MgCl ₂	500 Tests	733-2541
Taq DNA polymerase 2X MasterMix, 1,5 mM MgCl ₂	2.500 Tests	733-1316
Taq DNA polymerase 2X MasterMix, 1,5 mM MgCl ₂	500 Tests	733-2542
Taq DNA polymerase 2X MasterMix, 2,0 mM MgCl ₂	2.500 Tests	733-1317
Taq DNA polymerase 2X MasterMix, 2,0 mM MgCl ₂	500 Tests	733-2543
Red Taq DNA polymerase 1,1X MasterMix, 1,5 mM MgCl ₂	2.500 Tests	733-1318
Red Taq DNA polymerase 1,1X MasterMix, 1,5 mM MgCl ₂	500 Tests	733-2544
Red Taq DNA polymerase 1,1X MasterMix, 2,0 mM MgCl ₂	2.500 Tests	733-1319
Red Taq DNA polymerase 1,1X MasterMix, 2,0 mM MgCl ₂	500 Tests	733-2545
Red Taq DNA polymerase 2X MasterMix, 1,5 mM MgCl ₂	2.500 Tests	733-1320
Red Taq DNA polymerase 2X MasterMix, 1,5 mM MgCl ₂	500 Tests	733-2546
Red Taq DNA polymerase 2X MasterMix, 2,0 mM MgCl ₂	2.500 Tests	733-1321
Red Taq DNA polymerase 2X MasterMix, 2,0 mM MgCl ₂	500 Tests	733-2547

Tests = Reactions

AccuPOL DNA polymerase



AccuPOL DNA polymerase is a thermostable enzyme that possesses 3' to 5' exonuclease proofreading ability, which enables the polymerase to correct nucleotide misincorporation errors. AccuPOL is recommended for applications which require extremely high fidelity with low error rate. PCR fragments generated with AccuPOL DNA polymerase are also ideal for blunt end cloning.

Optimal reaction conditions are acheived by using the 10X AccuPOL standard buffer containing MgCl₂ provided with the enzyme. A separate vial of 25 mM MgCl₂ is also included in case a higher MgCl₂ concentration is required for a specific reaction.


- The choice for high fidelity amplifications
- Provides higher fidelity than Taq DNA polymerase
- Optimal for blunt end cloning
- Processes <3 kb with extremely high fidelity

Description	Pk	Cat. No.
AccuPOL DNA polymerase (2,5 U/μl), with 10X standard buffer, 25 mM MgCl ₂	250 EU	733-1324
AccuPOL DNA polymerase (2,5 U/μl), with 10X standard buffer, 25 mM MgCl ₂	500 EU	733-1325
AccuPOL DNA polymerase (2,5 U/μl), with 10X standard buffer, 25 mM MgCl ₂	1.000 EU	733-1326
AccuPOL DNA polymerase (2,5 U/μl), with 10X standard Tween®-free buffer, 25 mM MgCl ₂	250 EU	733-1328
AccuPOL DNA polymerase (2,5 U/μl), with 10X standard Tween®-free buffer, 25 mM MgCl ₂	1.000 EU	733-1329

EU = Units

dNTP

Ready to use molecular biology grade dNTP mixes and dNTP sets



The dNTP mix is designed to save hands-on time for researchers and reduce the possibility of contamination by reducing pipetting. The dNTP solutions are also available in sets of four individual dNTP's, each 100mM. Both are convenient for use in DNA polymerisation reactions, DNA labelling and sequencing processes.

- Available either as pre-mixed 10 mM or 25 mM solutions, or as sets of individual 100 mM dNTP solutions
- Both pre-mixed and sets have been functionally tested in long PCR
- Purity >98% by HPLC
- Supplied in solution at pH 7,0

Continued from previous page

Description	Pk	Cat. No.
dNTP Mix, 10 mM of each dA, dC, dG, and dT, 2×500 µl	1.000 µl	733-1363
dNTP Set, separate vials of dA, dC, dG, dT, each 100 mM, 4×250 µl	1 SET	733-1364
dNTP Mix, 25 mM of each dA, dC, dG, and dT, 2×1 ml	2.000 µl	733-1854
dNTP Set, separate vials of dA, dC, dG, dT, each 100 mM, 16×250 µl	1 SET	733-1855

Betaine enhancer

Betaine enhancer is especially effective when used with high GC-rich regions or templates with a high degree of secondary structures. It has a decreasing effect on the primer melting temperature

Description	Pk	Cat. No.
Betaine enhancer solution	1.000 Tests	733-1361

Tests = Reactions

Direct PCR kits

The blood direct PCR kit is a buffer system for direct PCR from whole blood, dried blood spot and saliva. The kit effectively neutralises inhibitors present in blood and allows direct PCR amplification from as little as 5 µl blood treated with any commonly used anticoagulant. This method completely eliminates the time-consuming DNA isolation process.

The tissue direct PCR kit is a buffer system for direct PCR from animal tissue and cultured cells that effectively lyses the tissue and neutralises inhibitors. The kit requires as little as 5 to 10 mg of tissue.

Description	Pk	Cat. No.
Blood direct PCR kit	20 Tests	TQ2300-00
Blood direct PCR kit	100 Tests	TQ2300-01
Blood direct PCR kit	500 Tests	TQ2300-02
Tissue direct PCR kit	20 Tests	TQ2310-00
Tissue direct PCR kit	100 Tests	TQ2310-01
Tissue direct PCR kit	500 Tests	TQ2310-02



PCR tubes and strips, 0.2 ml



PP

Designed to fit most popular brands of thermocycler.

- Lot tested and certified free from RNase, DNase and human DNA
- Autoclavable
- Available with domed or flat caps

Colour: Natural

Description	Capacity (ml)	Pk	Cat. No.
8-tube strips for Real-Time PCR with individually attached, optically clear, flat caps	0,2	120	211-0338
Low profile 8-tube strips for RT-PCR with individually attached, optically clear, flat caps	0,2	120	211-0339
PCR 8-tube strips for RT-PCR with individually attached, optically clear, hinged flat caps	0,2	125	211-0381
PCR 8-tube strips, with individually attached domed caps	0,2	120	732-0545
PCR 8-tube strips, with attached domed cap strips	0,2	125	732-0546
Individual PCR tubes, with attached domed caps	0,2	1.000	732-0547
Individual PCR tubes, with attached flat caps	0,2	1.000	732-0548
PCR 12-tube strips, without caps	0,2	80	732-0552
PCR 12-tube strips, with separate domed cap strips	0,2	80	732-0554

Continued from previous page

Description	Pk	Cat. No.
Accessories		
Strip caps for 12-well, 0,2 ml PCR tube strips	80	732-0553

PCR tubes and strips, 0,2 ml



- PP
- Designed to fit most popular brands of thermocycler.
- Free from RNase, DNase and human DNA
 - Autoclavable
 - Available with domed or flat caps

Colour: Natural

Description	Pk	Cat. No.
Strips of 8 PCR tubes, without caps	125	732-1517
Strips of 8 PCR caps, domed	125	732-1518
Strips of 8 PCR caps, flat	125	732-1519
Strips of 8 PCR tubes, with detached flat cap strips	250	732-1521
Strips of 8 PCR tubes, with detached flat cap strips	250	732-1520



PCR racks, reversible



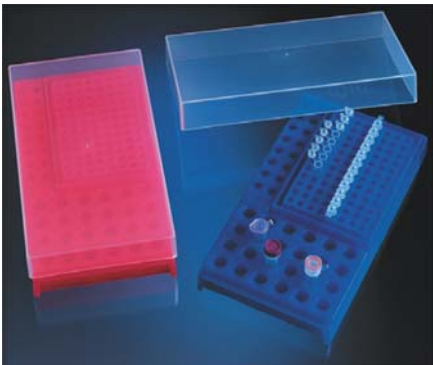
- PP, with lid
- Designed to hold 0,2, 0,5, or 1,5 ml tubes.
- PCR side of the rack has 168 wells that can hold 8-well or 12-well tube strips or one 0,2 ml tube per well
 - Opposite side of the rack has 40 wells that can hold 0,5 ml tubes
 - Both sides of the rack have 12 wells that can hold 1,5 ml tubes
 - Simple to use, removable hinged lid snaps in place on either side of the rack

Ordering Information: Assorted pack includes one each of blue, green, purple, yellow and orange

Description	Colour	Pk	Cat. No.
PCR rack	Natural	5	211-0199
PCR rack	Assorted	5	211-0198



PCR workstation



- PP, with clear lid
- Ideal for preparing samples for cycling or working with completed procedures.
- Separate removable 96-well rack holds a plate, 0,2 ml tubes or 0,2 ml tube strips
 - Additional wells on the workstation accommodate 0,5 ml, 1,5 ml or 2,0 ml tubes
 - Autoclavable and freezable

Description	Pk	Cat. No.
PCR workstation	5	732-0810



PCR plates, 96-well

- PP
- These PCR plates are compatible with most thermal cyclers, including the Applied Biosystems 9600 and 9700, and the MJ Research PTC-100, and are ideal for high throughput screening thermal cycle applications.
- Smooth, thin, uniform well walls ensure accurate thermal transfer
 - Plates are thin, flexible and easy to cut
 - Lot tested and certified free of RNase, DNase and human DNA
 - Printed alphanumeric labelling (on all except raised well plates) simplifies plate and sample identification

Working capacity: 200 µl

96-well PCR plates, flat



Colour	Pk	Cat. No.
Natural	100	211-0262
Assorted	100	211-0263
Blue	100	211-0264
Green	100	211-0265
Purple	100	211-0266
Red	100	211-0267
Yellow	100	211-0268

96-well PCR plates, low profile



Low profile plates with smaller wells.

Colour	Pk	Cat. No.
Natural	100	211-0276

96-well PCR plates, skirted



Reduced plate distortion during PCR and sits flat for greater stability.

Colour	Pk	Cat. No.
Natural	100	211-0297
Assorted	100	211-0298
Blue	100	211-0300
Green	100	211-0301
Purple	100	211-0302
Red	100	211-0303
Yellow	100	211-0304

96-well PCR plates, raised well



Suitable for sealing with strip caps.

Colour	Pk	Cat. No.
Natural	100	211-0269

96-well PCR plates, half-skirted



Easier to insert and extract from instrumentation.

Colour	Pk	Cat. No.
Natural	100	211-0283

96-well PCR plates, low profile, half-skirted



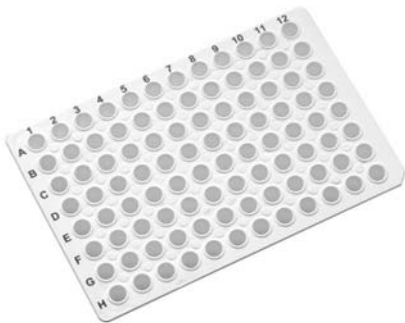
Colour	Pk	Cat. No.
Natural	100	211-0290
Assorted	100	211-0291

Accessories

Description	Pk	Cat. No.
8-cap strips for PCR plates	125	732-0550



Real-Time PCR plates, 96-well



PP

These black or opaque white PCR plates and optically clear cap closures are suitable for Real-Time PCR applications. Plates are compatible with most thermal cyclers and are ideal for high throughput screening thermal cycler applications.

- Smooth, thin, uniform well walls ensure accurate thermal transfer
- Wells are slightly raised to accept optically clear strip caps or sealing film
- Plates are thin, flexible and easy to cut
- Lot tested and certified free of RNase, DNase and human DNA

Working capacity: 200 µl

Description	Colour	Material	Pk	Cat. No.
Flat PCR plate	Black	PP	100	211-0312
Flat PCR plate	White	PP	100	211-0313
Half-skirted PCR plate	Black	PP	100	211-0314
Half-skirted PCR plate	White	PP	100	211-0315
Skirted PCR plate	Black	PP	100	211-0316
Skirted PCR plate	White	PP	100	211-0317

Description	Pk	Cat. No.
Accessories for Real-Time PCR plates		
Optically clear 8-cap strips for Real-Time PCR plates	125	211-0350

PCR plates, 96-well, for ABI PRISM 3700 series



Inert PP, natural

Designed to fit ABI PRISM 3700 series thermocyclers. Plates feature a smooth rim that allows better contact inside the block to ensure a perfect fit and easy removal, as well as printed alphanumeric labelling for easy well location.

Well volume: 200 µl

Description	Material	For	Pk	Cat. No.
PCR plate for ABI PRISM 3700 series	PP	ABI PRISM 3700	10	732-1114



PCR plates, 384-well



PP

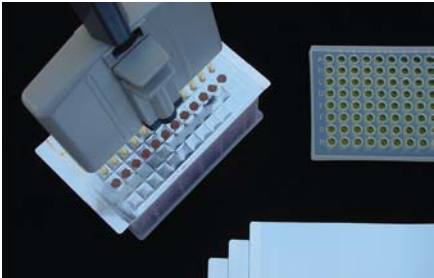
These PCR plates are compatible with most thermal cyclers and are ideal for high throughput screening thermal cycler applications.

- Smooth, thin, uniform well walls ensure accurate thermal transfer
- Wells are slightly raised to accommodate sealing mats, films or foils
- Plates are skirted to allow bar coding and include a frosted labelling area
- Lot tested and certified free of RNase, DNase and human DNA
- Printed alphanumeric labelling simplifies plate and sample identification

Working capacity: 25 µl

Colour	Material	Pk	Cat. No.
Natural	PP	100	211-0305

Aluminium foils for PCR and cold storage



These soft non permeable 38 µm thick aluminium foils with strong medical grade adhesive eliminate the need for heat-sealing devices or mats during thermal cycling. Compared to other aluminium foils, these foils have less tendency to roll back on themselves when removing the backing paper and fit well to the plate during application. Sterile product is packaged in tamper evident bags of 25/bag.

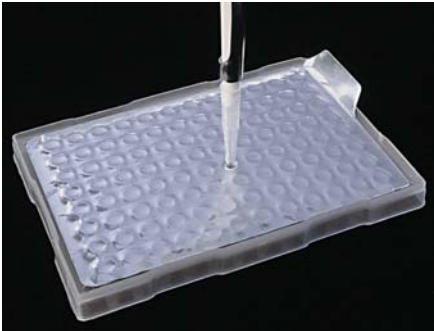
- Recommended for temperatures from –80 °C to +120 °C
- Easily pierceable with pipette tips and robotic probes
- Excellent vapour barrier, virtually no sample evaporation
- Certified DNase, RNase and nuclease-free

Each foil LxD: 142,9x82,6 mm with sufficient sealing area for all PCR plates

Length with end-tabs removed: 125,4 mm

Description	Pk	Cat. No.
Aluminium foils, non sterile	100	391-1256
Aluminium foils, sterile	50	391-1257

Aluminium foils for PCR and storage (96-well plates)



Aluminium foils, 38 µm thick, for use with 96-well plates. Fit inside the rim of raised rim plates. These foils have one partial-width end tab with no perforation. Available non sterile only.

- Recommended for temperatures from –40 °C to +150 °C
- Certified DNase, RNase and nucleic acid-free

Each foil LxD: 127,0x77,8 mm, including single 9,5 mm end tab.

Description	Pk	Cat. No.
Aluminium foils for 96-well plates, non sterile	100	391-1282

Aluminium foils for PCR and storage (384-well plates)



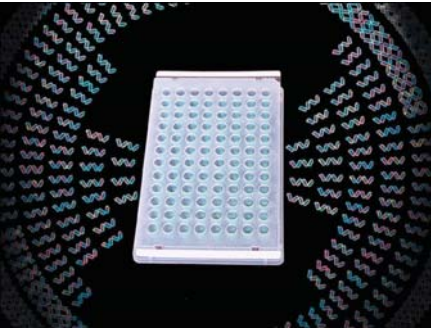
Aluminium foils, 38 µm thick, for use with 384-well plates. These foils have one end tab with no perforation. Available non sterile only.

- Recommended for temperatures from –40 °C to +150 °C
- Certified DNase, RNase and nucleic acid-free

Each foil LxD: 137,3x82,6 mm, including single 13,5 mm end tab.

Description	Pk	Cat. No.
Aluminium foils for 384-well plates, non sterile	100	391-1281

Heat resistant films for PCR



PP
These heat resistant 50 µm thick films are designed for thermal cycling applications. Polypropylene films are not pierceable. For PCR applications where piercing with pipette tips or robotic probes is required for product recovery, use aluminium foil films. For Real-Time PCR applications where maximum optical clarity is required, use optically clear polyester films.

- Recommended for temperatures from –40 °C to +120 °C
- Certified DNase, RNase and nuclease-free

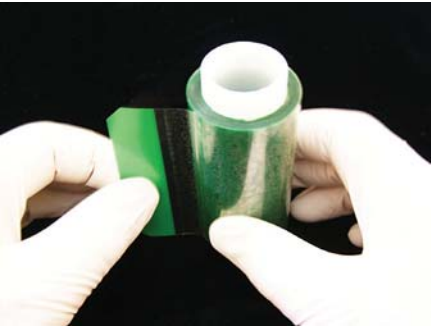
Each film LxD: 135,1×79,4 mm with sufficient sealing area for all PCR plates

Length with end-tabs removed: 123,1 mm

Description	Pk	Cat. No.
PP, non sterile	100	391-1254
PP, sterile	100	391-1255
PP, non sterile, strips to seal 2×8 wells	200	731-0321
Advanced PP films, non sterile*	100	391-1294

* stronger, thicker adhesive and cut to fit raised-rim plates

Sealing film for ELISA and general incubation



Polyester film with acrylic adhesive

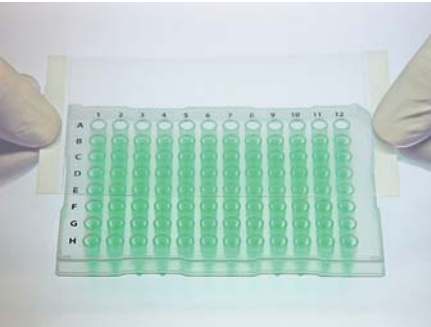
These non pierceable films in sheeted-roll format are recommended for ELISA tests, general incubation and short-term storage.

- Recommended temperature range from –40 °C to +120 °C
- Total thickness 63 µm (film 38 µm, adhesive 25 µm)
- Prescored films separated by green colour bands for easy application
- Minimise evaporation and prevent contamination between wells

Delivery Information: Each roll contains sufficient film to cover 100 microplates.

Description	Pk	Cat. No.
Starter kit including dispenser and 2 film rolls	1 KIT	731-0309
Starter kit including dispenser and 2 film rolls, sterile	1 KIT	731-0310
Replacement rolls	2 Roll	731-0311
Replacement rolls, sterile	2 Roll	731-0312

Sealing films for qPCR, storage and crystallisation, ThermalSeal RTS™



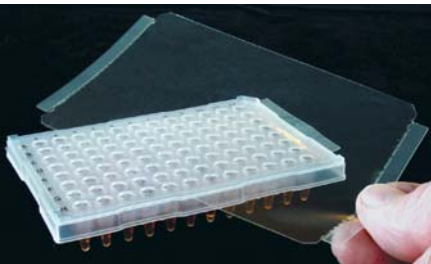
50 µm polyolefin films with 50 µm inert encapsulated silicone adhesive. Especially suited for Real-Time qPCR, storage, and protein crystallisation applications. The encapsulated silicone adhesive is non tacky until pressed against the sealing surface, at which time adhesive is released only in sealing areas to form the strongest available heat resistant seal around each well on the plate.

- High optical clarity, minimal to no autofluorescence
- Chemically inert; no extractables except at extreme pH; DMSO resistant for HTS
- Heat resistant, recommended for temperatures from –70 to +100 °C
- Certified DNase, RNase, and nucleic acid-free

Sized to fit within the edges of raised-rim 96-well plates (76,2×133,4 mm). Two end tabs assist in positioning the film on the plate

Description	Pk	Cat. No.
ThermaSeal RTS, non sterile	100	391-0189

Ultra-clear heat resistant films for qPCR



Polyester

Transparent polyester films with strong, non absorbing, non fluorescing medical grade adhesive for superior performance in qPCR applications. Supplied non sterile.

- Recommended for temperatures from –40 °C to +120 °C
- Ultra-high optical clarity
- Certified DNase, RNase and nuclease-free

Each film LxD: 142,9×79,4 mm

Length with end-tabs removed: 121,9 mm

Description	Pk	Cat. No.
Optically clear 50 µm thick films	100	391-1258
Optically clear 50 µm thick films for raised rim plates	100	391-1295

Sealing film and sealing mats for PCR plates



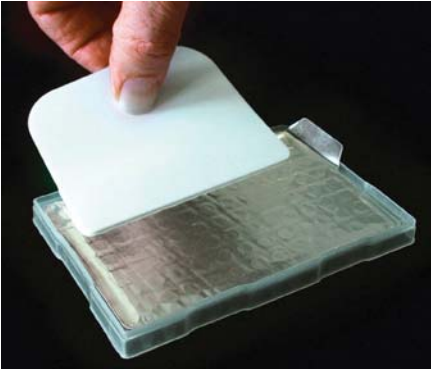
Designed to reduce evaporation when cycling 96-well plates.

Sealing film: PP, sterile, has an adhesive backing that adheres to most PCR plates and an operating temperature –40 to +125 °C.

Transparent silicone mats: Fit most brands of 96-well PCR plates, and can be cleaned and reused. Autoclavable at 121 °C.

Description	Pk	Cat. No.
Sealing film, PP, sterile	100	732-0588
Sealing mat, silicone, round wells	5	732-0589
Sealing mat, silicone, square wells	5	732-0590

Sealing film applicator



Description	Pk	Cat. No.
Film sealing paddles, non sterile	5	391-0241



Electroporation cuvettes



The VWR electroporation cuvettes are made from clear, medical grade polycarbonate and are compatible with all common commercially available electroporators. Available in 3 gap sizes to meet common application requirements - 1 mm for highest field strength, suitable for bacteria; 2 mm gap for intermediate requirements; 4 mm gap for lowest field strength, suitable for mammalian cells and some plant cells.

- Sterilised by gamma irradiation and individually packaged for assured sterility
- Polished aluminium lowers arcing frequency
- Colour coded caps for easy identification of gap sizes
- Round caps for easy, single handed cap removal

Description	Volume (µl)	Pk	Cat. No.
Cuvettes with 1 mm gap size, grey cap	20 - 90	50	732-1135
Cuvettes with 2 mm gap size, blue cap	40 - 400	50	732-1136
Cuvettes with 4 mm gap size, yellow cap	80 - 800	50	732-1137

Horizontal electrophoresis systems, kuroGEL



The kuroGEL range of horizontal electrophoresis units are ideal for screening and analysis of a wide range of samples, including PCR products, DNA mini-preps, plasmid vectors and restriction fragments. The compact size of the Mini and Mini Plus models optimises gel conditions allowing fast resolution of nucleic acids. Midi units accommodate standard gels for medium throughput analysis and the preparation of nucleic acids. Maxi and Maxi Plus units are available in standard and cooled formats designed for the rapid, medium-to-high throughput screening of nucleic acids, such as HLA typing in population genetics studies. All models are supplied complete with tank, casting tray, 1 mm thick combs and coloured loading strips.

- Robust acrylic tank construction with 12 mm thick walls
- Safety lid with integral power leads compatible with low to medium voltage power supplies
- Durable, high impact polystyrene combs
- Colour coded combs corresponding to 1,0, 1,5 and 2,0 mm thicknesses

kuroGEL Mini 6 Horizontal



The kuroGEL Mini 6 Horizontal is ideal for routine preparatory and analytical electrophoresis techniques.

- Short 6 cm gel length for rapid separations
- Coloured loading strips for easy well detection when loading
- Compact tank reduces the buffer volume required to cover the gel, providing greater control over the voltage gradient and run time
- UV transparent acrylic casting tray allows the user to handle the gel on the transilluminator with minimum risk of exposure to hazardous ethidium bromide
- Side handles allow safe and easy transportation around the laboratory

Delivery Information: Gel tank supplied with removable casting tray; 2x1,0 mm thick, eight-sample combs; and coloured loading strips.

Buffer volume (ml)	325
Gel size WxL (mm)	60x75
Power output shrouded, connectors (Ø mm)	4
Recommended running voltage (V)	70 - 90
Sample capacity	32
Unit WxLxH (mm)	130x240x65

Description	Pk	Cat. No.
Horizontal gel unit, kuroGEL Mini 6, 6x7,5 cm	1	700-0015

Combs for kuroGEL Mini 6

Combs are colour coded and height adjustable, offering complete control over loading volume and well depth to a maximum 32-sample throughput.

Comb slots: 2; comb thickness: 1,0, 1,5 or 2,0 mm; comb throughput: 4 to 16 samples.

Description	Pk	Cat. No.
Comb, 8 sample wells, 1,0 mm, for kuroGEL Mini 6	1	700-0025
Comb, 12 sample wells, 1,0 mm, for kuroGEL Mini 6*	1	700-0026
Comb, 16 sample wells, 1,0 mm, for kuroGEL Mini 6	1	700-0027
Comb, 8 sample wells, 1,5 mm, for kuroGEL Mini 6	1	700-0028
Comb, 12 sample wells, 1,5 mm, for kuroGEL Mini 6*	1	700-0029
Comb, 16 sample wells, 1,5 mm, for kuroGEL Mini 6	1	700-0030
Comb, 8 sample wells, 2,0 mm, for kuroGEL Mini 6	1	700-0031
Comb, 12 sample wells, 2,0 mm, for kuroGEL Mini 6*	1	700-0032
Comb, 16 sample wells, 2,0 mm, for kuroGEL Mini 6	1	700-0033

*multichannel pipette compatible

Accessories for kuroGEL Mini 6

In-tank casting options: Silicone gaskets lining the casting tray form a leakproof seal against the inner walls of the running chamber when the casting tray is turned at 90° to the direction of electrophoresis; 6 cm long Super-Seals offer total versatility in casting, allowing the gel length to be tailored to the personal requirements of the user.

External casting options: Silicone casting gates slot into the grooves at each end of the casting tray to form a leak-free seal; Silicone gaskets seated in the groove of each casting tray form a leak-free seal against the walls of the casting unit, allowing three gels to be cast simultaneously.

Coloured loading strips (optional) aid visualisation during gel loading. Available in three different colours for easy visualisation of samples mixed with dyes such as bromophenol and xylene cyanol. Each colour strip has an adhesive backing allowing it to be easily affixed and removed with each application.

Gel scoops (optional) are ideal for safe and easy transfer of gels from staining or destaining tanks to a transilluminator or similar surface.

Description	Pk	Cat. No.
Gel casting tray for kuroGEL Mini 6, 6x7.5 cm	1	700-0016
Casting gate, silicone, for kuroGEL Mini 6 casting tray	2	700-0017
Gasket, silicone for all kuroGEL units, 1 m, cut to fit	1	700-0018
Casting gate Super-Seals for kuroGEL Mini 6 casting tray	2	700-0019
Coloured loading strips for kuroGEL Mini 6	12	700-0020
Casting base, external, for 3-gel casting trays for kuroGEL Mini 6	1	700-0021
Gel scoop for 6 cm wide gel transfer	1	700-0022
Electrode replacement part, 50 cm, for all kuroGEL units	2	700-0023
Power leads, 2x1 m, with 4 mm connectors	1 SET	700-0024

kuroGEL Mini Plus 10 Horizontal



- The kuroGEL Mini Plus 10 Horizontal is ideal for routine preparatory and analytical electrophoresis techniques.
- Coloured loading strips for easy well detection when loading
 - Compact tank reduces the buffer volume required to cover the gel, providing greater control over the voltage gradient and run time
 - UV transparent acrylic casting tray allows the user to handle the gel on the transilluminator with minimum risk of exposure to hazardous ethidium bromide
 - Side handles allow safe and easy transportation around the laboratory
- Delivery Information:** Gel tank supplied with removable casting tray; 2×1,0 mm thick, 16-sample combs; and coloured loading strips.

Buffer volume (ml)	450
Gel size W×L (mm)	100×115
Power output shrouded, connectors (Ø mm)	4
Recommended running voltage (V)	75 - 125
Sample capacity	80
Unit W×L×H (mm)	165×230×65

Description	Pk	Cat. No.
Horizontal gel unit, kuroGEL Mini Plus 10, 10×11,5 cm	1	700-0034

Combs for kuroGEL Mini Plus 10

Combs are colour coded and height adjustable, offering complete control over loading volume and well depth to a maximum 80-sample throughput. Four comb positions at 2.5 cm intervals along the tray for swift separation of multiple samples.

Comb slots: 4; comb thickness: 1,0, 1,5 or 2,0 mm; comb throughput: 4 to 20 samples.

Description	Pk	Cat. No.
Comb, 8 sample wells, 1,0 mm, for kuroGEL Mini Plus 10	1	700-0041
Comb, 10 sample wells, 1,0 mm, for kuroGEL Mini Plus 10*	1	700-0042
Comb, 12 sample wells, 1,0 mm, for kuroGEL Mini Plus 10	1	700-0043
Comb, 16 sample wells, 1,0 mm, for kuroGEL Mini Plus 10	1	700-0044
Comb, 20 sample wells, 1,0 mm, for kuroGEL Mini Plus 10*	1	700-0045
Comb, 8 sample wells, 1,5 mm, for kuroGEL Mini Plus 10	1	700-0046
Comb, 10 sample wells, 1,5 mm, for kuroGEL Mini Plus 10*	1	700-0047
Comb, 12 sample wells, 1,5 mm, for kuroGEL Mini Plus 10	1	700-0048
Comb, 16 sample wells, 1,5 mm, for kuroGEL Mini Plus 10	1	700-0049
Comb, 20 sample wells, 1,5 mm, for kuroGEL Mini Plus 10*	1	700-0050
Comb, 8 sample wells, 2,0 mm, for kuroGEL Mini Plus 10	1	700-0051
Comb, 10 sample wells, 2,0 mm, for kuroGEL Mini Plus 10*	1	700-0052
Comb, 12 sample wells, 2,0 mm, for kuroGEL Mini Plus 10	1	700-0053
Comb, 16 sample wells, 2,0 mm, for kuroGEL Mini Plus 10	1	700-0054
Comb, 20 sample wells, 2,0 mm, for kuroGEL Mini Plus 10*	1	700-0055

*multichannel pipette compatible

Accessories for kuroGEL Mini Plus 10

In-tank casting options: Silicone gaskets lining the casting tray form a leakproof seal against the inner walls of the running chamber when the casting tray is turned at 90° to the direction of electrophoresis; 10 cm long Super-Seals offer total versatility in casting, allowing the gel length to be tailored to the personal requirements of the user.

External casting options: Silicone casting gates slot into the grooves at each end of the casting tray to form a leak-free seal; Silicone gaskets seated in the groove of each casting tray form a leak-free seal against the walls of the casting unit, allowing three gels to be cast simultaneously.

Coloured loading strips (optional) aid visualisation during gel loading. Available in three different colours for easy visualisation of samples mixed with dyes such as bromophenol and xylene cyanol. Each colour strip has an adhesive backing allowing it to be easily affixed and removed with each application.

Gel scoops (optional) are ideal for safe and easy transfer of gels from staining or destaining tanks to a transilluminator or similar surface.

Description	Pk	Cat. No.
Gel casting tray for kuroGEL Mini Plus 10, 10×11,5 cm	1	700-0035
Casting gate, silicone, for kuroGEL Mini Plus 10 casting tray	2	700-0036
Casting gate Super-Seals for kuroGEL Mini Plus 10 casting tray	2	700-0037
Coloured loading strips for kuroGEL Mini Plus 10	12	700-0038
Casting base, external, for 3-gel casting trays for kuroGEL Mini Plus 10	1	700-0039
Gel scoop for 10 cm wide gel transfer	1	700-0040

kuroGEL Midi 13 Horizontal



- The kuroGEL Midi 13 Horizontal gel electrophoresis unit is ideal for analytical and preparative studies of nucleic acids.
- Buffer recirculation ports that can be connected to a peristaltic pump for buffer recirculation during electrophoresis to maintain buffer pH and prevent ionic gradient formation
 - Coloured loading strips, for easy well detection when loading
 - Compact tank, reduces the buffer volume required to cover the gel, providing greater control over the voltage gradient and run time
 - UV-transparent acrylic casting tray, allowing the user to handle the gel on the transilluminator with minimum risk of exposure to hazardous ethidium bromide
 - Side handles, for safe and easy transportation around the laboratory
- Delivery Information:** Gel tank supplied with removable casting tray; 2x1,0 mm thick, 16-sample combs;

coloured loading strips and buffer recirculation ports

Buffer volume (ml)	900
Gel size WxL (mm)	128x150
Power output shrouded, connectors (Ø mm)	4
Recommended running voltage (V)	100 - 125
Sample capacity	112
Unit WxLxH (mm)	200x320x70

Description	Pk	Cat. No.
Horizontal gel unit, kuroGEL Midi 13, 12, 8x15 cm	1	700-0056

Combs for kuroGEL Midi 13

Combs are colour coded and height adjustable, offering complete control over loading volume and well depth to a maximum 112-sample throughput. Four comb positions with 3.5 cm intervals along the tray for faster separation of multiple samples.

Comb slots: 4; comb thickness: 1,0, 1,5 or 2,0 mm; comb throughput: 10 to 28 samples.

Description	Pk	Cat. No.
Comb, 10 sample wells, 1,0 mm, for kuroGEL Midi 13	1	700-0064
Comb, 12 sample wells, 1,0 mm, for kuroGEL Midi 13*	1	700-0065
Comb, 16 sample wells, 1,0 mm, for kuroGEL Midi 13	1	700-0066
Comb, 20 sample wells, 1,0 mm, for kuroGEL Midi 13	1	700-0067
Comb, 24 sample wells, 1,0 mm, for kuroGEL Midi 13	1	700-0068
Comb, 28 sample wells, 1,0 mm, for kuroGEL Midi 13*	1	700-0069
Comb, 10 sample wells, 1,5 mm, for kuroGEL Midi 13	1	700-0070
Comb, 12 sample wells, 1,5 mm, for kuroGEL Midi 13*	1	700-0071
Comb, 16 sample wells, 1,5 mm, for kuroGEL Midi 13	1	700-0072
Comb, 20 sample wells, 1,5 mm, for kuroGEL Midi 13	1	700-0073
Comb, 24 sample wells, 1,5 mm, for kuroGEL Midi 13	1	700-0074
Comb, 28 sample wells, 1,5 mm, for kuroGEL Midi 13*	1	700-0075
Comb, 10 sample wells, 2,0 mm, for kuroGEL Midi 13	1	700-0076
Comb, 12 sample wells, 2,0 mm, for kuroGEL Midi 13*	1	700-0077
Comb, 16 sample wells, 2,0 mm, for kuroGEL Midi 13	1	700-0078
Comb, 20 sample wells, 2,0 mm, for kuroGEL Midi 13	1	700-0079
Comb, 24 sample wells, 2,0 mm, for kuroGEL Midi 13	1	700-0080
Comb, 28 sample wells, 2,0 mm, for kuroGEL Midi 13*	1	700-0081

*multichannel pipette compatible

Accessories for kuroGEL Midi 13

In-tank casting options: Silicone gaskets lining the casting tray form a leakproof seal against the inner walls of the running chamber when the casting tray is turned at 90° to the direction of electrophoresis; 13 cm long Super-Seals offer total versatility in casting, allowing the gel length to be tailored to the personal requirements of the user.

External casting options: Silicone casting gates slot into the grooves at each end of the casting tray to form a leak-free seal; Silicone gaskets seated in the groove of each casting tray form a leak-free seal against the walls of the casting unit, allowing three gels to be cast simultaneously.

Coloured loading strips (optional) aid visualisation during gel loading. Available in three different colours for easy visualisation of samples mixed with dyes such as bromophenol and xylene cyanol. Each colour strip has an adhesive backing allowing it to be easily affixed and removed with each application.

Gel scoops (optional) are ideal for safe and easy transfer of gels from staining or destaining tanks to a transilluminator or similar surface.

Description	Pk	Cat. No.
Gel casting tray for kuroGEL Midi 13, 12.8x15 cm	1	700-0057
Electrophoresis buffer recirculation ports for kuroGEL Midi, Midi Plus, Maxi and Maxi Plus	2	700-0058
Casting gate, silicone, for kuroGEL Midi 13 casting tray	2	700-0059
Casting gate Super-Seals for kuroGEL Midi 13 casting tray	2	700-0060
Coloured loading strips for kuroGEL Midi 13	12	700-0061
Casting base, external, for 3-gel casting trays for kuroGEL Midi 13	1	700-0062
Gel scoop for 13 cm wide gel transfer	1	700-0063

kuroGEL Midi Plus 15 Horizontal



- The kuroGEL Midi Plus 15 Horizontal standard gel electrophoresis unit provides the most popular comb throughput and tray-size options, but with additional casting options.
- Multichannel pipette compatible combs, with a maximum 30-sample throughput, reduce gel loading time, while preparatory combs enable nucleic acids to be scaled-up for cloning
 - Buffer recirculation ports can be connected to a peristaltic pump for buffer recirculation during electrophoresis to maintain buffer pH and prevent ionic gradient formation
 - Coloured loading strips for easy well detection when loading
 - UV-transparent acrylic casting tray allows the user to handle the gel on the transilluminator with minimum risk of exposure to hazardous ethidium bromide
 - Side handles, for safe and easy transportation around the laboratory
- Delivery Information:** Gel tank supplied with removable casting tray; 2×1,0 mm thick, 16-sample combs;

coloured loading strips and buffer recirculation ports

Buffer volume (ml)	1200
Gel size W×L (mm)	150×150
Power output shrouded, connectors (Ø mm)	4
Recommended running voltage (V)	100 - 125
Sample capacity	120
Unit W×L×H (mm)	215×335×70

Description	Pk	Cat. No.
Horizontal gel unit, kuroGEL Midi Plus 15, 15×15 cm	1	700-0082

Combs for kuroGEL Midi Plus 15

Combs are colour coded and height adjustable, offering complete control over loading volume and well depth to a maximum 120 sample throughput. Four comb positions with 3.5 cm intervals along the tray for faster separation of multiple samples.

Comb slots: 4; comb thickness: 1,0, 1,5 or 2,0 mm; comb throughput: 1 to 30 samples.

Description	Pk	Cat. No.
Comb, 10 sample wells, 1,0 mm, for kuroGEL Midi Plus 15	1	700-0088
Comb, 15 sample wells, 1,0 mm, for kuroGEL Midi Plus 15	1	700-0089
Comb, 16 sample wells, 1,0 mm, for kuroGEL Midi Plus 15*	1	700-0090
Comb, 20 sample wells, 1,0 mm, for kuroGEL Midi Plus 15	1	700-0091
Comb, 25 sample wells, 1,0 mm, for kuroGEL Midi Plus 15	1	700-0092
Comb, 30 sample wells, 1,0 mm, for kuroGEL Midi Plus 15*	1	700-0093
Comb, 10 sample wells, 1,5 mm, for kuroGEL Midi Plus 15	1	700-0094
Comb, 15 sample wells, 1,5 mm, for kuroGEL Midi Plus 15	1	700-0095
Comb, 16 sample wells, 1,5 mm, for kuroGEL Midi Plus 15*	1	700-0096
Comb, 20 sample wells, 1,5 mm, for kuroGEL Midi Plus 15	1	700-0097
Comb, 25 sample wells, 1,5 mm, for kuroGEL Midi Plus 15	1	700-0098
Comb, 30 sample wells, 1,5 mm, for kuroGEL Midi Plus 15*	1	700-0099
Comb, 10 sample wells, 2,0 mm, for kuroGEL Midi Plus 15	1	700-0130
Comb, 15 sample wells, 2,0 mm, for kuroGEL Midi Plus 15	1	700-0131
Comb, 16 sample wells, 2,0 mm, for kuroGEL Midi Plus 15*	1	700-0132
Comb, 20 sample wells, 2,0 mm, for kuroGEL Midi Plus 15	1	700-0133
Comb, 25 sample wells, 2,0 mm, for kuroGEL Midi Plus 15	1	700-0134
Comb, 30 sample wells, 2,0 mm, for kuroGEL Midi Plus 15*	1	700-0135

*multichannel pipette compatible

Accessories for kuroGEL Midi Plus 15

Casting options: Casting gates with integral silicone seals effectively seal the tray without the need for tape, provided the silicone gasket faces outwards. 15 cm long Super-Seals offer total versatility in casting, allowing the gel length to be tailored to each user’s personal requirements.

Coloured loading strips (optional) aid visualisation during gel loading. Available in three different colours for easy visualisation of samples mixed with dyes such as bromophenol and xylene cyanol. Each colour strip has an adhesive backing allowing it to be easily affixed and removed with each application.

Gel scoops (optional) are ideal for safe and easy transfer of gels from staining or destaining tanks to a transilluminator or similar surface.

Description	Pk	Cat. No.
Gel casting tray for kuroGEL Midi Plus 15, 15×15 cm	1	700-0083
Casting gate with integral silicone seals, for kuroGEL Midi Plus 15 casting tray	2	700-0084
Casting gate Super-Seals for kuroGEL Midi Plus 15 casting tray	2	700-0085
Coloured loading strips for kuroGEL Midi Plus 15	12	700-0086
Gel scoop for 15 cm wide gel transfer	1	700-0087

kuroGEL Maxi 20 Horizontal



The kuroGEL Maxi 20 Horizontal gel electrophoresis unit is ideal for high resolution analytical and preparative studies of nucleic acids. Large format, 20x20 cm, gel tray is ideal for high resolution techniques, such as screening PCR products and RFLP analysis.

- Multichannel pipette compatible combs, with a maximum 42-sample throughput reduce gel loading time
- Buffer recirculation ports can be connected to a peristaltic pump for buffer recirculation during electrophoresis to maintain buffer pH and prevent ionic gradient formation
- Coloured loading strips for easy well detection when loading
- UV-transparent acrylic casting tray allows the user to handle the gel on the transilluminator with minimum risk of exposure to hazardous ethidium bromide
- Side handles, for safe and easy transportation around the laboratory

Delivery Information: Gel tank supplied with removable casting tray; 2x1,0 mm thick, 16-sample combs; coloured loading strips and buffer recirculation ports

Buffer volume (ml)	2200
Gel size WxL (mm)	200x200
Power output shrouded, connectors (Ø mm)	4
Recommended running voltage (V)	150 - 175
Sample capacity	168
Unit WxLxH (mm)	270x475x80

Description	Pk	Cat. No.
Horizontal gel unit, kuroGEL Maxi 20, 20x20 cm	1	700-0136

Combs for kuroGEL Maxi 20

Combs are colour coded and height adjustable, offering complete control over loading volume and well depth to a maximum 168-sample throughput. Four comb positions at 5 cm intervals along the tray for faster separation of multiple samples.

Comb slots: 4; comb thickness: 1,0, 1,5 or 2,0 mm; comb throughput: 16 to 42 samples.

Description	Pk	Cat. No.
Comb, 16 sample wells, 1,0 mm, for kuroGEL Maxi 20	1	700-0142
Comb, 20 sample wells, 1,0 mm, for kuroGEL Maxi 20*	1	700-0143
Comb, 28 sample wells, 1,0 mm, for kuroGEL Maxi 20	1	700-0144
Comb, 40 sample wells, 1,0 mm, for kuroGEL Maxi 20*	1	700-0145
Comb, 16 sample wells, 1,5 mm, for kuroGEL Maxi 20	1	700-0146
Comb, 20 sample wells, 1,5 mm, for kuroGEL Maxi 20*	1	700-0147
Comb, 28 sample wells, 1,5 mm, for kuroGEL Maxi 20	1	700-0148
Comb, 40 sample wells, 1,5 mm, for kuroGEL Maxi 20*	1	700-0149
Comb, 16 sample wells, 2,0 mm, for kuroGEL Maxi 20	1	700-0150
Comb, 20 sample wells, 2,0 mm, for kuroGEL Maxi 20*	1	700-0151
Comb, 28 sample wells, 2,0 mm, for kuroGEL Maxi 20	1	700-0152
Comb, 40 sample wells, 2,0 mm, for kuroGEL Maxi 20*	1	700-0153

*multichannel pipette compatible

Accessories for kuroGEL Maxi 20

Casting options: Casting gates with integral silicone seals effectively seal the tray without the need for tape, provided the silicone gasket faces outwards. 20 cm long Super-Seals offer total versatility in casting, allowing the gel length to be tailored to each user's personal requirements.

Coloured loading strips (optional) aid visualisation during gel loading. Available in three different colours for easy visualisation of samples mixed with dyes such as bromophenol and xylene cyanol. Each colour strip has an adhesive backing allowing it to be easily affixed and removed with each application.

Gel scoops (optional) are ideal for safe and easy transfer of gels from staining or destaining tanks to a transilluminator or similar surface.

Description	Pk	Cat. No.
Gel casting tray for kuroGEL Maxi 20, 20x20 cm	1	700-0137
Casting gate with integral silicone seals, for kuroGEL Maxi 20 casting tray	2	700-0138
Casting gate Super-Seals for kuroGEL Maxi 20 casting tray	2	700-0139
Coloured loading strips for kuroGEL Maxi 20	12	700-0140
Gel scoop for 20 cm wide gel transfer	1	700-0141

kuroGEL Maxi Plus 25 Horizontal



The kuroGEL Maxi-Plus 25 Horizontal gel electrophoresis unit is ideal for high throughput analysis of nucleic acids. Large format, 25x30 cm, gel tray is ideal for high throughput techniques, such as HLA typing and screening PCR products.

- Multichannel pipette compatible combs, with a maximum 52-sample throughput, allow samples to be loaded quickly and easily from 96- and 384-well thermal cycler blocks
- Buffer recirculation ports can be connected to a peristaltic pump for buffer recirculation during electrophoresis to maintain buffer pH and prevent ionic gradient formation
- Coloured loading strips, for easy well detection when loading
- UV-transparent acrylic casting tray allows the user to handle the gel on the transilluminator with minimum risk of exposure to hazardous ethidium bromide
- Side handles for safe and easy transportation around the laboratory

Delivery Information: Gel tank supplied with removable casting tray; 6x1,0 mm thick, 16-sample combs; coloured loading strips and buffer recirculation ports.

Buffer volume (ml)	3000
Gel size WxL (mm)	250x300

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Power output shrouded, connectors (Ø mm)	4
Recommended running voltage (V)	150 - 200
Sample capacity	624
Unit WxLxH (mm)	330x560x90

Description	Pk	Cat. No.
Horizontal gel unit, kuroGEL Maxi Plus 25, 25x30 cm	1	700-0154

Combs for kuroGEL Maxi Plus 25

Combs are colour coded and height adjustable, offering complete control over loading volume and well depth to a maximum 624-sample throughput. Twelve comb positions at 2 cm intervals along the tray for rapid, high throughput separation of multiple samples.

Comb slots: 12; comb thickness: 1,0, 1,5 or 2,0 mm; comb throughput: 26 to 52 samples.

Description	Pk	Cat. No.
Comb, 26 sample wells, 1,0 mm, for kuroGEL Maxi Plus 25*	1	700-0160
Comb, 52 sample wells, 1,0 mm, for kuroGEL Maxi Plus 25*	1	700-0161
Comb, 26 sample wells, 1,5 mm, for kuroGEL Maxi Plus 25*	1	700-0162
Comb, 52 sample wells, 1,5 mm, for kuroGEL Maxi Plus 25*	1	700-0163
Comb, 26 sample wells, 2,0 mm, for kuroGEL Maxi Plus 25*	1	700-0164
Comb, 52 sample wells, 2,0 mm, for kuroGEL Maxi Plus 25*	1	700-0165

*multichannel pipette compatible

Accessories for kuroGEL Maxi Plus 25

Casting options: Casting gates with integral silicone seals effectively seal the tray without the need for tape, provided the silicone gasket faces outwards. 25 cm long Super-Seals offer total versatility in casting, allowing the gel length to be tailored to each user’s personal requirements.

Coloured loading strips (optional) aid visualisation during gel loading. Available in three different colours for easy visualisation of samples mixed with dyes such as bromophenol and xylene cyanol. Each colour strip has an adhesive backing allowing it to be easily affixed and removed with each application.

Gel scoops (optional) are ideal for safe and easy transfer of gels from staining or destaining tanks to a transilluminator or similar surface.

Description	Pk	Cat. No.
Gel casting tray for kuroGEL Maxi Plus 25, 25x30 cm	1	700-0155
Casting gate with integral silicone seals, for kuroGEL Maxi Plus 25 casting tray	2	700-0156
Casting gate Super-Seals for kuroGEL Maxi 20 casting tray	2	700-0157
Coloured loading strips for kuroGEL Maxi Plus 25	12	700-0158
Gel scoop for 25 cm wide gel transfer	1	700-0159

Horizontal electrophoresis systems, shiroGEL



Designed for ease of use and safe operation, the shiroGEL horizontal electrophoresis systems and accessories are built to withstand the rigours of everyday use. For leakproof performance the gel boxes and gel trays are moulded from thick acrylic. UV transparent gel trays aid in visualisation of samples. Cassettes protect the electrodes and allow for easy replacement. Gel casting is simple with the durable rubber casting gates. Slots in the sides of the trays allow for easy comb placement. The two piece design of the combs provides for vertical adjustment, giving the user control over the depth of the well. The combs supplied with the systems are 1,5 mm thick. Multiple combs, including those compatible with multichannel pipettes and different thicknesses, are also available. The ‘EasyLift’ gel box lid is easily removed using the side tabs and pressure pads. The lid is domed, to prevent condensation from dripping onto the gel, and is surrounded by a drip ring, to help recover the condensate and maintain buffer concentration.

- Moulded, durable construction
- Rubber gates for tapeless gel casting
- ‘EasyLift’ safety lid with buffer recapture system to maintain buffer concentration

Delivery Information: Complete system including UV transparent gel tray is supplied with tank, lid, electrodes and 1,5 mm combs.

Model	Mini 10	Midi Plus 10	Midi Plus 15
Buffer volume (ml)	225	300	500
Gel size WxL (mm)	70x100	150x100	150x150
Sample capacity	64	140	210
Unit WxLxH (mm)	90x210x90	175x265x90	

Description	Pk	Cat. No.
Horizontal gel unit, 7x10 cm, shiroGEL Mini 10	1	700-0250
Horizontal gel unit, 15x10 cm, shiroGEL Midi Plus 10	1	700-0253
Horizontal gel unit, 15x15 cm, shiroGEL Midi Plus 15	1	700-0255

Description	Pk	Cat. No.
Combs for shiroGEL horizontal gel systems		
Comb, 5-well, 1,5 mm thickness for 7 cm gel tray	1	700-0263
Comb, 8-well, 1,0 mm thickness for 7 cm gel tray	1	700-0264
Comb, 8-well, 1,0 mm thickness for 15 cm gel tray	1	700-0288
Comb, 8-well, 1,5 mm thickness for 15 cm gel tray	1	700-0289
Comb, 10-well, 1,5 mm thickness for 7 cm gel tray	1	700-0258
Comb, 10-well, 1,0 mm thickness for 15 cm gel tray	1	700-0265
Comb, 10-well, 1,5 mm thickness for 15 cm gel tray	1	700-0266
Comb, 12-well, 1,0 mm thickness for 7 cm gel tray*	1	700-0259
Comb, 12-well, 1,5 mm thickness for 7 cm gel tray*	1	700-0260

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Description	Pk	Cat. No.
Combs for shiroGEL horizontal gel systems		
Comb, 12-well, 1,0 mm thickness for 15 cm gel tray	1	700-0267
Comb, 12-well, 1,5 mm thickness for 15 cm gel tray	1	700-0268
Comb, 14-well, 1,0 mm thickness for 15 cm gel tray*	1	700-0269
Comb, 14-well, 1,5 mm thickness for 15 cm gel tray*	1	700-0270
Comb, 14-well, 2,0 mm thickness for 15 cm gel tray*	1	700-0271
Comb, 16-well, 1,0 mm thickness for 7 cm gel tray	1	700-0261
Comb, 16-well, 1,5 mm thickness for 7 cm gel tray	1	700-0262
Comb, 16-well, 1,0 mm thickness for 15 cm gel tray	1	700-0272
Comb, 16-well, 1,0 mm thickness for 15 cm gel tray*	1	700-0273
Comb, 16-well, 1,5 mm thickness for 15 cm gel tray*	1	700-0274
Comb, 16-well, 2,0 mm thickness for 15 cm gel tray*	1	700-0275
Comb, 18-well, 1,0 mm thickness for 15 cm gel tray*	1	700-0276
Comb, 18-well, 1,5 mm thickness for 15 cm gel tray*	1	700-0277
Comb, 20-well, 0,75 mm thickness for 15 cm gel tray	1	700-0278
Comb, 20-well, 1,0 mm thickness for 15 cm gel tray	1	700-0279
Comb, 20-well, 1,5 mm thickness for 15 cm gel tray	1	700-0280
Comb, 20-well, 2,0 mm thickness for 15 cm gel tray	1	700-0281
Comb, 28-well, 0,75 mm thickness for 15 cm gel tray*	1	700-0282
Comb, 28-well, 1,0 mm thickness for 15 cm gel tray*	1	700-0283
Comb, 28-well, 1,5 mm thickness for 15 cm gel tray*	1	700-0284
Comb, 30-well, 1,0 mm thickness for 15 cm gel tray*	1	700-0285
Comb, 30-well, 1,5 mm thickness for 15 cm gel tray*	1	700-0286
Comb, 35-well, 1,5 mm thickness for 15 cm gel tray	1	700-0287
Accessories		
Casting dam for 7 cm gel tray	2	700-0252
Casting dam for 15 cm gel tray	2	700-0257
UV transparent gel tray for shiroGEL Mini 10	1	700-0251
UV transparent gel tray for shiroGEL Midi Plus 10	1	700-0254
UV transparent gel tray for shiroGEL Midi Plus 15	1	700-0256

*multichannel pipette compatible

Mini Gel II electrophoresis system



The Mini Gel II is a complete electrophoresis system, which includes all components necessary to cast and run horizontal gels - gel trays, combs, casting stand, gel tank and digital power supply.

- Migration tank and gel trays are moulded for leakproof performance and for a long service life, and the lid of the gel box is vented to dissipate heat during electrophoresis
- Power supply easily disconnects from the gel box so that the gel box can be cleaned
- Mode and arrow keys on the membrane key pad make programming easy, with all parameters shown on a large digital display
- Casting sets are designed for pouring gels without the use of tape or spacers and casting trays feature multiple slots for holding combs in place
- Electrodes are contained in cassettes to protect from damage

Delivery Information: Supplied with gel tank, direct connection power supply, and standard gel casting set. Standard casting set includes 12.5x13 cm gel tray, 2 each 12.5x6 cm gel trays, 4 each 14/28 tooth combs (1 mm) and a casting stand. Optional Micro casting set includes 4 each 6x6 cm UV transparent gel trays, 2 each 5/8 tooth combs (1 mm) and a casting stand.

Buffer tank volume (ml)	250
Capacity	1 large gel (12,5x13 cm), 2 small gels (12,5x6 cm) or 4 micro gels (6x6 cm)
Input voltage (V)	Universal, AC 100 - 240 V, 50/60 Hz
Max. power (W)	45
Memory	Last parameters saved in memory
Output current range/increments (mA)	10 - 400
Output voltage (V)	10 - 150
Safety	Microsensor (Hall effect) in power supply, no output without safety lid in place, automatic crossover, no load and load change detection
Sample capacity	112 samples (4 combs)
Tank WxDxH (mm)	183x164x560
Timer	Maximum 99 hours, 59 minutes or continuous, audible alert at end of run
Unit WxLxH (mm)	245x170x620

Description	Pk	Cat. No.
VWR Mini Gell II Complete Electrophoresis System, EU plug	1	700-0003
VWR Mini Gell II complete electrophoresis system, UK plug	1	700-0004
VWR Mini Gell II Complete Electrophoresis System, CH plug	1	700-0005

Description	Pk	Cat. No.
Combs for Mini gel II electrophoresis system		
Gel comb, 14/28 teeth (1 mm), reversible, set of 2	2	700-0009
Gel comb, 5/8 teeth (1 mm), reversible, set of 2	2	700-0010

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Description	Pk	Cat. No.
Accessories		
Large UV transparent gel trays, 12.5×13 cm, set of 2	2	700-0006
Small UV transparent gel trays, 12.5×6 cm, set of 2	2	700-0007
Micro UV transparent gel trays, 6×6 cm, set of 4	4	700-0008
Micro casting set	1	700-0011
Casting stand	1	700-0012
Standard casting set	1	700-0013

Dual-gel vertical electrophoresis systems, kuroGEL Verti 1010



The kuroGEL Verti vertical dual-gel units offer the flexibility of running dual gels either cooled or un-cooled and with or without a casting base.

The kuroGEL Verti 1010 mini gel units are ideal for standard PAGE applications requiring self-cast gels. Soft silicone gaskets in the precision engineered casting base act in tandem with the gel running module to provide simple, leak-free casting and assembly.

- Novel clamping arrangement allows most commercially available 8×10 cm or 10×10 cm pre-cast polyacrylamide gels in a wide range of cassette thicknesses to be run
- Two screws make clamping simple without using separate clamps
- Self-sealing snap-on connectors prevent the spills which commonly occur when disconnecting the cooling liquid

Delivery Information: Complete system supplied with 2 plain glass plates; 2 notched glass plates; 1 dummy plate; 2×1,0 mm spacer sets; 2×1,0 mm combs, 12-sample wells.

Model	kuroGEL Verti 1010	kuroGEL Verti 1010Y	kuroGEL Verti 1010K	kuroGEL Verti 1010YK
Buffer volume, gel tank (ml)	1200		1600	
Buffer volume, inner chamber (ml)		90		
Gel size W×H (mm)		80×85		
Power output shrouded, connectors (Ø mm)		4		
Recommended running voltage (V)	50 - 100		100 - 150	
Sample capacity		2×20		
Unit W×H×D (mm)	200×140×150		280×180×150	

Description	Pk	Cat. No.
kuroGEL Verti 1010, uncooled, for two 10×10 cm gels	1	700-0166
kuroGEL Verti 1010Y, uncooled, for two 10×10 cm gels, with casting base	1	700-0167
kuroGEL Verti 1010K, cooled, for two 10×10 cm gels	1	700-0168
kuroGEL Verti 1010YK, cooled, for two 10×10 cm gels, with casting base	1	700-0169

Description	Pk	Cat. No.
Combs for dual-gel vertical electrophoresis units, kuroGEL 1010		
Comb, 0,75 mm, 10-sample	1	700-7036
Comb, 0,75 mm, 12-sample	1	700-7037
Comb, 1,0 mm, 10-sample	1	700-7038
Comb, 1,0 mm, 12-sample	1	700-7039
Comb, 1,0 mm, 16-sample	1	730-1329
Comb, 1,5 mm, 10-sample	1	700-7040
Comb, 1,5 mm, 12-sample	1	700-7041
Comb, 1,5 mm, 16-sample	1	730-1328
Comb, 2,0 mm, 10-sample	1	700-7042
Comb, 2,0 mm, 12-sample	1	700-7043

Accessories for dual-gel vertical electrophoresis units, kuroGEL 1010		
Casting base for kuroGEL Verti 1010	1	700-0170
Silicone seals for 2-gel cam casting system, pack of 2	2	700-7050
Dummy plate	1	700-7055
Plain glass plates, pack of 2	2	700-7058
Spacer set, 0.75 mm	2	700-7059
Spacer set, 1.0 mm	2	700-7060
Spacer set, 1.5 mm	2	700-7061
Spacer set, 2.0 mm	2	700-7062
Plain glass plates with bonded 0.75 mm spacers, pack of 2	2	700-7286
Plain glass plates with bonded 1.0 mm spacers, pack of 2	2	700-7287
Plain glass plates with bonded 1.5 mm spacers, pack of 2	2	700-7288
Plain glass plates with bonded 2.0 mm spacers, pack of 2	2	700-7289

Dual-gel vertical electrophoresis systems, kuroGEL Verti 2020



The kuroGEL Verti vertical dual-gel units offer the flexibility of running dual gels either cooled or un-cooled and with or without a casting base.

The kuroGEL Verti 2020 twin-plate units offer all the benefits of the kuroGEL Verti 1010, but with a much larger gel size and with increased sample throughput. A cooling coil in the kuroGEL Verti 2020K gel tanks allows faster separations to be performed at high voltage without compromising resolution.

- Large format gels for increased sample throughput and longer separation
- High resolution maintained with excellent cooling capabilities
- Self-sealing connectors prevent spills which commonly occur when disconnecting the cooling liquid

Delivery Information: Complete system supplied with 2 plain glass plates; 2 notched glass plates; 1 dummy plate; 2x1,0 mm spacer sets; 2x1,0 mm combs, 24-sample wells.

Model	kuroGEL Verti 2020	kuroGEL Verti 2020Y	kuroGEL Verti 2020K	kuroGEL Verti 2020YK
Buffer volume, gel tank (ml)	4200			
Buffer volume, inner chamber (ml)	700			
Gel size W×H (mm)	165×175			
Power output shrouded, connectors (Ø mm)	4			
Recommended running voltage (V)	175 - 225		200 - 300	
Sample capacity	2×48			
Unit W×H×D (mm)	285×275×150		380×275×150	

Description	Pk	Cat. No.
kuroGEL Verti 2020, uncooled, for two 20x20 cm gels	1	700-0171
kuroGEL Verti 2020Y, uncooled, for two 20x20 cm gels, with casting base	1	700-0172
kuroGEL Verti 2020K, cooled, for two 20x20 cm gels	1	700-0173
kuroGEL Verti 2020YK, cooled, for two 20x20 cm gels, with casting base	1	700-0174

Description	Pk	Cat. No.
Combs for dual-gel vertical electrophoresis units, kuroGEL 2020		
Comb, 0,75 mm, 24-sample	1	700-7065
Comb, 0,75 mm, 36-sample	1	700-7066
Comb, 0,75 mm, 48-sample	1	700-7067
Comb, 1,0 mm, 24-sample	1	700-7069
Comb, 1,0 mm, 36-sample	1	700-7070
Comb, 1,0 mm, 48-sample	1	700-7071
Comb, 1,5 mm, 10-sample	1	700-7072
Comb, 1,5 mm, 24-sample	1	700-7073
Comb, 1,5 mm, 36-sample	1	700-7074
Comb, 1,5 mm, 48-sample	1	700-7075
Comb, 2,0 mm, 36-sample	1	700-7078
Comb, 2,0 mm, 48-sample	1	700-7079

Accessories for dual-gel vertical electrophoresis units, kuroGEL 2020		
Casting base for kuroGEL Verti 2020 and 2020Y-DGGE	1	700-0176
Dummy plate	1	700-7145
Plain glass plates, pack of 2	2	700-7151
Spacer set, 1.0 mm	2	700-7152
Spacer set, 1.5 mm	2	700-7153
Spacer set, 2.0 mm	2	700-7154
Spacer set, 0.75 mm	2	700-7248
Plain glass plates with bonded 0.75 mm spacers, pack of 2	2	700-7290
Plain glass plates with bonded 1.0 mm spacers, pack of 2	2	700-7291
Plain glass plates with bonded 1.5 mm spacers, pack of 2	2	700-7292
Plain glass plates with bonded 2.0 mm spacers, pack of 2	2	700-7293
Gel running module for kuroGEL Verti 2020 and 2020Y-DGGE	1	730-7001

Dual-cooled vertical electrophoresis systems, kuroGEL Verti 1816K and 1824K



The kuroGEL Verti dual-cooled units are available in standard (18×16 cm) or tall (18×24 cm) formats.

- Produce straight lanes and sharp, well defined bands
- Run up to four gels (maximum 112 samples) at one time under identical conditions
- Run gels at uniform temperature from 1 to 45 °C
- Accommodates denaturing and native polyacrylamide gels and 2-D electrophoresis
- A wide array of accessories allow gel configurations to be tailored to meet individual needs

Delivery Information: Complete system includes lower and upper buffer chambers; safety lid with high voltage leads; heat exchanger; glass plates 18×16 cm for Verti 1816K or 18×24 cm for Verti 1824K (6 pcs); clamp assemblies, 8 cm for Verti 1816K or 16 cm for Verti 1824K (4 pcs); cams (6 pcs); slotted gaskets for upper buffer chamber (2 pcs); dual gel casting stand with levelling base; bubble level; laminated gaskets for caster (2 pcs); buffer dam; alignment template; plate separation tool; gel seal; combs, 15 well, 1,5 mm thick (2 pcs); spacers, 1,5 mm thick, 2 cm wide (4 pcs).

kuroGEL Verti 1816K dual-cooled units

Suitable for glass plate sizes 18×16 cm or 18×8 cm.

Model	1816K
Glass plate size (W×H) (mm)	180×160 or 180×80
Humidity (%)	≤80
Max power requirement	1000 V, 500 mA, 50 W
Max. temperature (°C)	45
Spacers (mm)	0,75, 1,0, 1,5
Unit W×H×D (mm)	320×290×140

Description	Pk	Cat. No.
Dual-cooled vertical gel unit, kuroGEL 1816K	1	700-0189

kuroGEL Verti 1824K dual-cooled units

Maximum glass plate size 18×24 cm.

Model	1824K
Glass plate size (W×H) (mm)	180×240, 180×160, or 180×80
Humidity (%)	≤80
Max power requirement	1000 V, 500 mA, 50 W
Max. temperature (°C)	45
Spacers (mm)	0,75, 1,0, 1,5
Unit W×H×D (mm)	320×370×140

Description	Pk	Cat. No.
Dual-cooled vertical gel unit, kuroGEL 1824K	1	700-0177

Combs for kuroGEL Verti 1816K and 1824K

Description	Pk	Cat. No.
Comb, 10-well, 0,75 mm thickness, well volume 6,2 µl per 1 mm depth	1	700-0200
Comb, 10-well, 1,0 mm thickness, well volume 8,3 µl per 1 mm depth	1	700-0201
Comb, 10-well, 1,5 mm thickness, well volume 12,4 µl per 1 mm depth	1	700-0202
Comb, 12-well, 0,75 mm thickness, well volume 5,8 µl per 1 mm depth	1	700-0203
Comb, 12-well, 1,0 mm thickness, well volume 7,7 µl per 1 mm depth	1	700-0204
Comb, 12-well, 1,5 mm thickness, 7,6 mm well width, well volume 11,5 µl per 1 mm depth	1	700-0205
Comb, 15-well, 0,75 mm thickness, well volume 4,3 µl per 1 mm depth	1	700-0206
Comb, 15-well, 1,0 mm thickness, well volume 5,7 µl per 1 mm depth	1	700-0207
Comb, 15-well, 1,5 mm thickness, well volume 8,6 µl per 1 mm depth	1	700-0208
Comb, 20-well, 0,75 mm thickness, well volume 3,1 µl per 1 mm depth	1	700-0209
Comb, 20-well, 1,0 mm thickness, well volume 4,1 µl per 1 mm depth	1	700-0210
Comb, 20-well, 1,5 mm thickness, well volume 6,2 µl per 1 mm depth	1	700-0211
Comb, 28-well, 0,75 mm thickness, well volume 2,1 µl per 1 mm depth	1	700-0212
Comb, 28-well, 1,0 mm thickness, well volume 2,7 µl per 1 mm depth	1	700-0213
Comb, 28-well, 1,5 mm thickness, well volume 4,1 µl per 1 mm depth	1	700-0214
Adjustable comb back, converts 25 mm deep comb to 10 or 15 mm depth	1	700-0215

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Table with 3 columns: Description, Pk, Cat. No.
Rows include: Prep comb 1/1 well, 0,75 mm thickness; Prep comb 1/1 well, 1,0 mm thickness; Prep comb 1/1 well, 1,5 mm thickness; Prep comb 1/2 well, 0,75 mm thickness; Prep comb 1/2 well, 1,0 mm thickness; Prep comb 1/2 well, 1,5 mm thickness.

Accessories for kuroGEL Verti 1816K and 1824K

Table with 4 columns: Description, For, Pk, Cat. No.
Rows include: Lid with high voltage leads; High voltage leads; Cams, 4 pieces; Upper buffer chamber; Slotted gaskets, 2 pieces, for upper buffer chamber; Buffer dam; Clamp assembly, 8 cm, 2 pieces; Clamp assembly, 16 cm, 2 pieces; Clamp and cam kit, including clamp assembly 16 cm, (4 pieces) and cams (8 pieces); Heat exchanger; Lower buffer chamber; Glass plates, regular, 18x8 cm (2 pieces); Glass plates, low fluorescence, 18x8 cm (2 pieces); Notched glass divider plate, 18x8 cm; Glass plates, regular, 18x16 cm (2 pieces); Glass plates, low fluorescence, 18x16 cm (2 pieces); Notched glass divider plate, 18x16 cm; Glass plates, regular, 18x24 cm (2 pieces); Glass plates, low fluorescence, 18x24 cm (2 pieces); Notched glass divider plate, 18x24 cm; Spacers, 0.75 mm thickness, 8 cm length, 2 cm width; Spacers, 1.0 mm thickness, 8 cm length, 2 cm width; Spacers, 1.5 mm thickness, 8 cm length, 2 cm width; Spacers, 0.75 mm thickness, 16 cm length, 2 cm width; Spacers, 1.0 mm thickness, 16 cm length, 2 cm width; Spacers, 1.5 mm thickness, 16 cm length, 2 cm width; Spacers, 0.75 mm thickness, 24 cm length, 2 cm width; Spacers, 1.0 mm thickness, 24 cm length, 2 cm width; Spacers, 1.5 mm thickness, 24 cm length, 2 cm width; Spacers, 1.0 mm thickness, 16 cm length, 1 cm width; Spacers, 1.5 mm thickness, 16 cm length, 1 cm width.

Modular mini vertical PAGE systems, shiroGEL



shiroGEL mini PAGE system

The shiroGEL Mini Vertical PAGE system is modular, allowing PAGE and electroblotting to be carried out in the same tank, simply by changing the inserts. The system features inserts for each application and a common buffer tank in which to run them. Each insert has its own electrode assembly, which connects to the lid of the buffer tank. For safety, the power leads connect directly to the lid. When the lid is removed, power is disconnected from the system. The inserts also have a small pad that fits into position in the lid. This ensures that the lid is always properly placed and aids in its removal. The buffer tank is moulded to prevent separation and leaking. A variety of spacers, combs and other accessories are available to customise the system. All spacers and combs are colour coded or clearly labelled to indicate thickness.

- Runs up to four gels simultaneously
- Gels can be cast and run using the PAGE module
- Sturdy, moulded buffer chamber with lid that fits only one way

Delivery Information: Complete system includes buffer tank; PAGE module; casting base; two 10x10 cm notched glass plates; two 10x10 cm glass plates with bonded spacers; and two 12-tooth, 1 mm thick combs.

Table with 2 columns: Description, Value
Rows include: Buffer tank WxDxH (mm) - 190x130x150; Buffer volume (ml) - 250

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Capacity	2 gels per run
Gel size WxL (mm)	100x100
Sample capacity	20 per gel

Description	Pk	Cat. No.
Mini PAGE System, shiroGEL, complete	1	700-0292

Combs for mini vertical PAGE system, shiroGEL

Description	Pk	Cat. No.
Comb, 10-well, 0,75 mm thickness	1	700-0298
Comb, 10-well, 1,0 mm thickness	1	700-0299
Comb, 10-well, 1,5 mm thickness	1	700-0300
Comb, 12-well, 0,75 mm thickness	1	700-0301
Comb, 12-well, 1,0 mm thickness	1	700-0302
Comb, 12-well, 1,5 mm thickness	1	700-0303
Comb, 12-well, 2,0 mm thickness	1	700-0304
Comb, 16-well, 1,0 mm thickness*	1	700-0305
Comb, 20-well, 0,75 mm thickness	1	700-0307
Comb, 20-well, 1,0 mm thickness	1	700-0308
Comb, 20-well, 1,5 mm thickness	1	700-0309
Comb, 5-well, 0,75 mm thickness	1	700-0311
Comb, 5-well, 1,0 mm thickness	1	700-0312
Comb, 5-well, 1,5 mm thickness	1	700-0313
Comb, 8-well, 1,0 mm thickness*	1	700-0314

*multichannel pipette compatible

Accessories for mini vertical PAGE system, shiroGEL

Description	Pk	Cat. No.
Casting stand for PAGE insert	1	700-0294
PAGE insert only (no accessories)	1	700-0295
Spacers, 0.75 mm thick, pack of 2	2	700-0296
Spacers, 1.5 mm thick, pack of 2	2	700-0297
Spacers, 1.0 mm thick, pack of 2	2	700-0306
Spacers, 2.0 mm thick, pack of 2	2	700-0310
Dummy plate, 10x10 cm	1	700-0318
Notched glass plates with 0.75 mm spacers, pack of 2	1	700-0319
Notched glass plates with 1.5 mm spacers, pack of 2	1	700-0320
Notched glass plates, 2 mm thick, pack of 2	2	700-0322
Notched glass plates with 2 mm spacers, pack of 2	1	700-0323
Plain glass plates with 0.75 mm spacers, pack of 2	1	700-0324
Plain glass plates with 1.5 mm spacers, pack of 2	1	700-0325
Plain glass plates with 1.0 mm spacers, pack of 2	1	700-0326
Plain glass plates, 2 mm thick, pack of 2	2	700-0327
Plain glass plates with 2.0 mm spacers, pack of 2	1	700-0328

Mini PAGE Electroblotting System, shiroGEL

The shiroGEL Mini PAGE electroblotting system permits quick and easy blotting of three gels simultaneously. Gels fit snugly in blotting cassettes with transfer membranes, which are then placed into the blotting insert. Coiled electrodes within the insert generate a high intensity current, allowing standard transfer to take place in approximately one hour.

- Blots up to three gels simultaneously
- Standard transfer in approximately 1 hour

Delivery Information: Complete system includes buffer tank with power leads and cooling pack; blotting insert; 3 blotting cassettes; 6 fibre pads; two 10x10 cm notched plates; two 10x10 cm plates with spacers; and two 12-tooth, 1 mm thick combs.

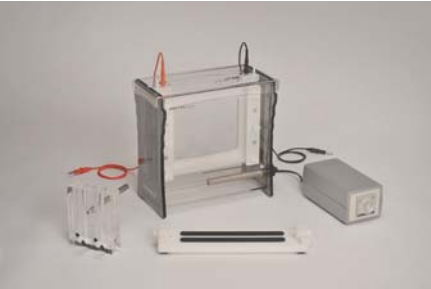
Description	Pk	Cat. No.
Mini PAGE electroblotting system, shiroGEL, without PAGE components	1	700-0291
Mini PAGE electroblotting system, shiroGEL, complete	1	700-0293

Accessories

Description	Pk	Cat. No.
Blotting insert, including 3 cassettes	1	700-0290
Fibre pads for blotting cassette, pack of 6	6	700-0315
Mini blotting cassette	1	700-0316
Mini cooling pack	1	700-0317



Denaturing gradient gel electrophoresis system, kuroGEL 2020Y-DGGE



The kuroGEL 2020Y denaturing gradient gel electrophoresis (DGGE) system is intended for use by researchers studying mutations and DNA polymorphisms critical in disease aetiology and genetic diversity. Based on the kuroGEL 2020 system, the DGGE version is designed primarily for parallel DGGE, where electrophoresis and the denaturing gradient run in the same direction. The kuroGEL 2020Y-DGGE has a maximum 96-sample throughput.

- 96-sample throughput, using two 48-sample combs, allows samples to be transferred quickly and easily from standard microtitre plates or thermal cycler blocks
- Large format, 20.5x20 cm, glass plates enable gradient gels to be poured containing wider ranges of denaturant concentration, maximising sensitivity and resolution
- 100 ml gradient mixer is included for use with the gel running module and casting base to make two 1 mm parallel denaturing gradient gels
- 400 W heater, manually controlled by a temperature control unit connected to a PT100 heat sensor,

enables the gel temperature to be set in 1 °C increments to a predetermined melting temperature (Tm) of the PCR amplified DNA polymorphism or mutation of interest (to a maximum of 70 °C)

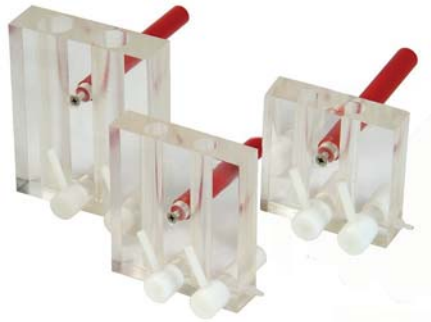
Gel WxH: 165x175 mm
Unit WxDxH: 285x150x290 mm
Sample capacity: 2x48
Buffer volume, inner chamber: 700 ml
Buffer volume, outer chamber: 4200 ml

Delivery Information: Each system includes twin-plate maxi-gel unit with gel running module; heated gel tank with PT100 temperature sensor and thermometer; lid; two 20.5x20 cm plain glass plates, two 20.5x20 cm notched glass plates, four 1 mm spacers, two spacer aligners and two 1.0 mm thick 24-sample combs; casting base; 2 silicone seals; 1 dummy plate; plus GM 100 gradient mixer and heat sensor control unit.

Model	Description	Pk	Cat. No.
2020Y-DGGE	Complete system, kuroGEL Verti 2020Y-DGGE	1	700-0175
Description		Pk	Cat. No.
Combs for dual-gel vertical electrophoresis units, kuroGEL 2020			
Comb, 1,0 mm, 24-sample		1	700-7069
Comb, 1,0 mm, 48-sample		1	700-7071
Accessories for dual-gel vertical electrophoresis units, kuroGEL 2020			
Casting base for kuroGEL Verti 2020 and 2020Y-DGGE		1	700-0176
Dummy plate		1	700-7145
Spacer set, 1.0 mm		2	700-7152
Gel running module for kuroGEL Verti 2020 and 2020Y-DGGE		1	730-7001

Other combs and accessories are available. Please see entry for kuroGEL 2020 or your local VWR office for details.

Gradient makers

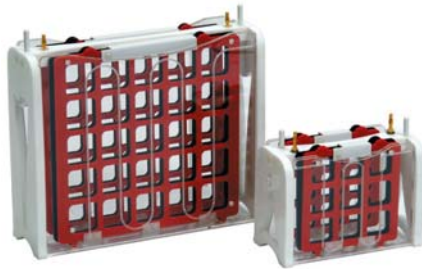


Available in four different sizes for different applications, these gradient makers are ideal for pouring polyacrylamide gradient gels and centrifugation gradients using sucrose or caesium chloride solutions. Each gradient mixer is precision engineered from high quality acrylic plastic and comprises leak-free valves that control mixing between the reservoir and mixing chambers and the resultant output flow.

Model	GM15	GM50	GM500	GM100	
Application	15 ml total volume for sucrose and caesium chloride gradients	50 ml total volume sufficient to pour up to five 1 mm thick 10×10 cm, or one 1 mm thick 20×20 cm gradient gels	500 ml total volume suitable for up to ten 1 mm thick 20×20 cm gradient gels	100 ml total volume for pouring ten 1 mm thick 10×10 cm, or two 1 mm thick 20×20 cm gradient gels	
Description				Pk	Cat. No.
Gradient maker, GM15				1	700-7103
Gradient maker, GM50				1	700-7105
Gradient maker, GM500				1	700-7106
Gradient maker, GM100				1	700-7102



Electroblotting modules for kuroGEL verti dual gel units



These electroblotters are designed to provide a safe and easy to operate system for the transfer of nucleic acid or proteins from a gel matrix onto a suitable transfer membrane. Two sizes of unit can be used to blot up to two gels of either 10×10 cm or 20×20 cm.

- Each asymmetric, colour coded compression cassette has a locking mechanism to minimise gel movement during insertion into the tank
- The asymmetry of the cassettes prevents them being inserted into the tank in the wrong orientation, against the direction of transfer

Delivery Information: Each 10×10 cm module is supplied with two 10 cm compression cassettes and two small fibre pads. Each 20×20 cm module is supplied with two 20 cm compression cassettes and two large fibre pads.

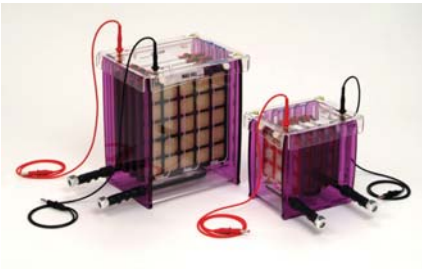
Active transfer area (cm³)	71	289
Buffer volume (ml)	1600	4200
Distance between electrodes (mm)	60	
Module	10×10 cm	20×20 cm
Unit W×D×H (mm)	200×140×150	380×150×285

Description	Pk	Cat. No.
Electroblotting module for kuroGEL Verti 1010K and 1010YK (cooled versions), 10×10 cm	1	700-7282
Electroblotting module for kuroGEL Verti 2020K and 2020YK (cooled versions), 20×20 cm	1	700-7283

Description	Pk	Cat. No.
Accessories		
Fibre pads, 200x200 mm	4	700-7096
Fibre pads, 100x100 mm	4	700-7097
Large compression cassette, 20x20 cm	1	700-7284



Electroblotting units, BTV100



VWR Collection electroblotting unit is designed to provide a safe and easy to operate system for the transfer of nucleic acid or proteins from a gel matrix onto a suitable transfer membrane. It can be used to blot up to four gels of 10×10 cm.

- User-replaceable electrode consists of densely coiled platinum wire, which results in the generation of a uniform electric field, with the electrode separation calculated for optimum transfer
- The unit has a cooling coil which is in direct contact with the buffer, and which allows coolant to be pumped through, via a chiller or from a tap, to cool the buffer
- A stirring bar can be placed under the compression cassettes to assist in temperature control
- Each asymmetric, colour coded compression cassette has a locking mechanism to minimise gel movement during insertion into the tank
- The asymmetry of the cassettes prevents them being inserted into the tank in the wrong orientation, against the direction of transfer

Delivery Information: Each unit is supplied with four compression cassettes and four fibre pads.

Model	BTV100-EBK
Active transfer area (cm³)	71
Buffer volume (ml)	2000
Distance between electrodes (mm)	128
Unit W×D×H (mm)	200×225×185

Description	Pk	Cat. No.
Electroblotter, 100×100 mm	1	700-7131

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Semi-dry blotting unit, 20x20 cm



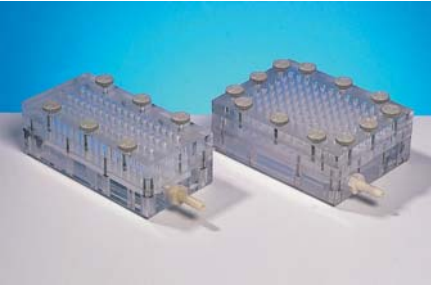
This unit is manufactured from rugged acrylic components and built to comply with all statutory safety regulations. One electrode is manufactured from stainless steel and the other from platinised titanium, therefore making them virtually corrosion-free. This prevents deposits being placed on the membrane and the electrodes will last almost indefinitely, as they will not deteriorate. The unit is designed to produce a uniform system for the transfer of proteins and nucleic acids.

- Very low buffer volume and current (0.8 mA per cm²) of the gel produces very little heat, preventing band distortion
- Transfers can be achieved in less than an hour depending on the molecular weight of the molecules to transfer
- Either single gels or multiple gel stacks can be used

Unit WxLxH: 275x265x65 mm

Description	Pk	Cat. No.
Semi-dry blotting unit for gels up to 20x20 cm	1	700-7156

Dot and slot blotters



Machined from high density acrylic with precision lapped mating surfaces to ensure uniform filter contact, these manifolds are designed for DNA and RNA membrane hybridisations and antigen/antibody screening in immunological applications. Each manifold consists of paired upper dot- or slot-forming modules and a lower vacuum chamber module. A vacuum of approximately 600 mm Hg (0.8 bar) is required during sample application.

- Simple construction, easy to assemble by aligning the mating screws and tightening the stainless steel thumbscrews
- Marked with an alpha numeric grid for sample identification

Description	Pk	Cat. No.
96-well dot blot hybridisation manifold in 8x12 arrays, consisting of paired dot-forming modules (dots Ø3 mm) and a lower vacuum chamber module	1	700-7094
48-well slot blot hybridisation manifold in 3x16 arrays, consisting of paired slot-forming modules (slots 0,5x6 mm) and a lower vacuum chamber module	1	700-7245



Gel dryers



VWR gel dryers are available in two sizes and can accommodate gels up to 45x34 cm (MGD4534) and 50x40 cm (MGD5040). Each unit is light and robust, with the base unit manufactured in cast aluminium and the control panel in stainless steel. This ensures even heat distribution and resistance to corrosion in the base, while giving strength to the control panel. A clear cover allows the drying process to be observed. The units have two timers, one for temperature and one for the vacuum pump.

- Even heat distribution via built-in 800 Watt heating membrane
- Drying temperature can be set between ambient and 90 °C (±2 °C), and drying time set up to five hours in one minute intervals
- Vacuum pump (not included) can be timed to automatically switch off after a set period of up to five hours

WxDxH: MGD4534 570x400x110; MGD5040 630x480x120 mm

Delivery Information: Each gel dryer includes a stainless steel screen, a Mylar sheet, a porous PE sheet, and a clear silicone rubber overlay sheet

Description	Pk	Cat. No.
Gel dryer for 450x350 mm gels, MGD4534	1	700-7124
Gel dryer for 500x400 mm gels, MGD5040	1	700-7125

Description	Pk	Cat. No.
Accessories		
Mylar® sheet for model MGD4534	1	700-7158
Porous polyethylene sheet for model MGD4534	1	700-7159
Clear silicone rubber overlay for model MGD4534	1	700-7160
Stainless steel screen for model MGD4534	1	700-7161
Mylar® sheet for model MGD5040	1	700-7298
Porous polyethylene sheet for model MGD5040	1	700-7299
Clear silicone rubber overlay for MGD5040	1	700-7099
Stainless steel screen for model MGD5040	1	700-7100

For details of a suitable pump please contact the VWR Technical Office on 01342 337447.



Power supplies, VWR® Power Source



folding feet.

- Meets a wide range of applications
- Constant voltage or constant current with automatic crossover
- Timed or continuous operation
- Four sets of colour coded output terminals
- Compact design with small footprint

VWR® Power Source power supplies meet a wide range of applications, including DNA, RNA and protein electrophoresis, and blotting. Designed with safety in mind, they are loaded with the features that modern molecular biology applications demand.

Two models are available with voltage ranges to 300 V and current ranges to 3000 mA. Operating modes include constant voltage or constant current with automatic crossover. Operation can be timed or continuous.

The Power Source power supplies offer short circuit and over-current/over-voltage protection. No load and load change detection systems are incorporated into the software. Programming also includes an option for automatic recovery after a power failure.

Compact in design with a small footprint, the unit is also stackable to save space. For easy viewing and setting of parameters on the bench or on a shelf, the front of the power supply can be raised with the integral

Model	250 V	300 V
Input voltage (V)	230	
Operating constant modes	Current, voltage, power	Current, voltage
Output current range/increments (mA)	10 - 3000/10	4 - 500/1
Output power range/increments (W)	1 - 300/1	90 max/not applicable
Output voltage range/increments (V)	5 - 250/1	2 - 300/1
Programmable	Yes	No
Timer	1 - 99 h 59 or continuous	1 - 999 minutes or continuous
Voltage (V)	0 - 250	0 - 300
Weight (kg)	2,5	2,2
WxDxH (mm)	190x250x80	

Description	Pk	Cat. No.
Power Source power supply, 250 V, EU-plug	1	700-0115
Power Source power supply, 250 V, UK-plug	1	700-0116
Power Source power supply, 250 V, CH-plug	1	700-0117
Power Source power supply, 300 V, EU-plug	1	700-0112
Power Source power supply, 300 V, UK-plug	1	700-0113
Power Source power supply, 300 V, CH-plug	1	700-0114

Blotting paper, grade 703



Ideal for use as wicks in protein and nucleic acid blotting. Provides a uniform flow of buffer through the gel to the transfer membrane in a blotting sandwich. Also suitable for use in removing gels from glass supports.

- Made of 100% cotton fibre
- Uniform and smooth
- Produced using ultrapure water
- Contains no additives

Hertzberg flow rate	250 seconds per 100 ml at 10 cm head of water
Klemm wicking rate test	626 seconds per 7.5 cm rise
Thickness	0,38 mm
Weight	185 g/m ²

Description	Dimensions (mm)	Pk	Cat. No.
Sheets	70x100	100	732-0596
Sheets	100x150	100	732-0605
Sheets	140x160	100	732-0603
Sheets	150x150	100	732-0607
Sheets	200x200	100	732-0593
Sheets	460x570	100	732-0591

Blotting pads, grade 707



This super-thick paper is used to complete the blotting sandwich. Smooth, uniform texture assures continuous contact of buffer from the chamber through the gel and transfer membrane to the opposite pole or weight.

- Made of 100% cotton fibre
- Produced using ultrapure water
- Contains no additives
- Cleaner and more consistent than paper towels

Hertzberg flow rate	120 seconds per 100 ml at 10 cm head of water
Klemm wicking rate test	96 seconds per 7.5 cm rise
Thickness	2,60 mm
Weight	703 g/m ²

Description	Dimensions (mm)	Pk	Cat. No.
Sheets	50×75	50	732-0608
Sheets	70×80	50	732-0604
Sheets	70×100	50	732-0594
Sheets	100×140	50	732-0598
Sheets	110×130	50	732-0601
Sheets	110×140	50	732-0595
Sheets	110×180	50	732-0600
Sheets	130×200	50	732-0602
Sheets	140×160	50	732-0599
Sheets	140×200	50	732-0597
Sheets	160×180	50	732-0606
Sheets	200×200	50	732-0592

DNA gel loading buffer

VWR by Omega bio-tek

DNA gel loading buffer is intended to be mixed with samples containing DNA in order to facilitate loading of the samples into the wells of horizontal and vertical agarose and polyacrylamide. The 10X gel loading buffer is composed of 0,21% Bromophenol Blue, 0,21% Xylene Cyanol FF, 0,2M EDTA, pH 8,0 and 50% glycerol in molecular biology grade water. The 6X gel loading buffer is composed of 0,03% Bromophenol Blue, 0,03% Xylene Cyanol FF, 60mM EDTA, pH 7,6 and 60% glycerol in molecular biology grade water.

EDTA in the buffer terminates the reactions containing enzymes that require magnesium or calcium. The addition of 1 volume of DNA gel loading buffer to 9 or 5 volume of sample increases the density of the sample and gives it colour, thus facilitating loading. In addition, the two dyes migrate in the same direction as the nucleic acids, serving as rough indicators of the electrophoretic progress.

Description	Pk	Cat. No.
6X DNA loading buffer, 1×10 ml	10 ml	AC10097
10X DNA loading buffer, 5×250 µl	1.250 µl	AC10098

DNA markers, 100 bp

VWR by Omega bio-tek

The 100 bp DNA ladder is ideal for determining the size of double-stranded DNA from 100 to 1000 base pairs. The ladder consists of fragments that range in size from 100 bp to 1000 bp in 100 bp increments. The 500 bp fragment is present at increased intensity to allow easy identification. All fragments are precisely quantified and mixed during the production. For 5 µl loading, all fragments except 500 bp are 30 ng. The 500 bp fragment is 60 ng. This ladder is pre-mixed with loading dye and is ready to use.

Description	Pk	Cat. No.
DNA marker, 100 bp	250 µl	M01-01
DNA marker, 100 bp, 4×250 µl	1.000 µl	M01-02

DNA markers, 1 kbp

VWR by Omega bio-tek

The 1 kbp DNA marker is ideal for determining the size of double-stranded DNA within the range 1 kbp to 10 kbp. The ladder consists of eight fragments and is pre-mixed with loading dye and ready to use.

Description	Pk	Cat. No.
DNA marker, 1 kbp	250 µl	M03-01
DNA marker, 1 kbp, 4×250 µl	1.000 µl	M03-02

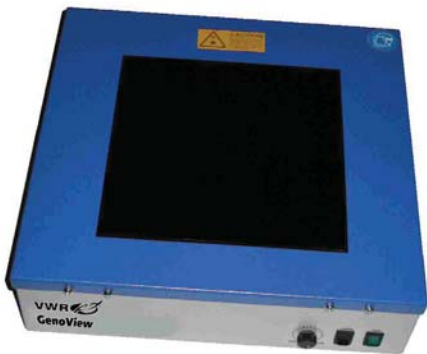
HT DNA markers
VWR by Omega bio-tek

The HT DNA Markers I and II are ideal for high throughput sizing of double-stranded DNA. These ladders consist of only a few fragments so each fragment can be easily separated, even with short running time. The HT DNA Ladder I consists of 5 fragments ranging from 500 bp to 5 Kb (500 bp, 1 Kb, 2 Kb, 3 Kb and 5 Kb). The HT DNA ladder II consists of 6 fragments ranging from 100 bp to 3 Kb (100 bp, 300 bp, 500 bp, 1 Kb, 2 Kb, and 3 Kb). All fragments are precisely quantified and mixed during production. Both ladders are pre-mixed with loading dye and are ready to use.

Description	Pk	Cat. No.
HT DNA marker I	250 µl	M04-01
HT DNA marker I, 4x250 µl	1.000 µl	M04-02
HT DNA marker II	250 µl	M05-01
HT DNA marker II, 4x250 µl	1.000 µl	M05-02



UV transilluminators, GenoView



All GenoView transilluminators have variable intensity settings and even illumination. A 302 nm transilluminator is supplied as standard with each GenoPlex system.

- Choice of filter sizes
- Variable intensity setting
- Safety cut-off
- Slides out of darkroom for easy access to surface

Model	Description	Wavelength (nm)	Filter size (mm)	Dimensions (mm)	Pk	Cat. No.
UV transilluminators for use with GenoPlex and GenoPlex CHEMI						
GenoView	UV transilluminator, 200x200 mm, 302 nm	302	200x200	335x310x100	1	730-3045
GenoView	UV transilluminator, 250x300 mm, 302 nm	302	250x300	335x310x100	1	730-3047
GenoView	UV transilluminator, 200x200 mm, 365 nm	365	200x200	335x310x100	1	730-3027
GenoView	UV transilluminator, 250x300 mm, 365 nm	365	250x300	335x310x100	1	730-3029
GenoView	UV transilluminator, 200x200 mm, 302/365 nm	302/365	200x200	335x310x100	1	730-3030
GenoView	UV transilluminator, 250x300 mm, 302/365 nm	302/365	250x300	335x310x100	1	730-3032
GenoView	UV transilluminator, 200x200 mm, 254 nm	254	200x200	335x310x100	1	730-3036
GenoView	UV transilluminator, 250x300 mm, 254 nm	254	250x300	335x310x100	1	730-3038
GenoView	UV transilluminator, 200x200 mm, 254/365 nm	254/365	200x200	335x310x100	1	730-3039
GenoView	UV transilluminator, 250x300 mm, 254/365 nm	254/365	250x300	335x310x100	1	730-3041
GenoView	UV transilluminator, 200x200 mm, 254/302 nm	254/302	200x200	335x310x100	1	730-3042
GenoView	UV transilluminator, 250x300 mm, 254/302 nm	254/302	250x300	335x310x100	1	730-3044
UV transilluminators for use with GenoSmart2						
GenoView	UV transilluminator, 200x200 mm, 302 nm	302	200x200	241x315x80	1	730-1382
GenoView	UV transilluminator, 200x200 mm, 365 nm	365	200x200	241x315x80	1	730-1383
GenoView	UV transilluminator, 200x200 mm, 254 nm	254	200x200	241x315x80	1	730-1384
UV transilluminators for use with GenoMini						
GenoView	UV transilluminator, 200x200 mm, 302 nm	302	200x200	241x315x80	1	730-1386
GenoView	UV transilluminator, 200x200 mm, 365 nm	365	200x200	241x315x80	1	730-1387
GenoView	UV transilluminator, 200x200 mm, 254 nm	254	200x200	241x315x80	1	730-1388

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Description	Pk	Cat. No.
Replacement tubes for transilluminators		
Long wave tube, 365 nm, 8 W	1	730-1251
Medium wave tube, 302 nm, 8 W	1	730-2902
Short wave tube, 254 nm, 8 W	1	730-2909
Lid for single wavelength UV transilluminators (all sizes)	1	730-1348

Blue light LED transilluminators, GenoView Blue



Blue light transilluminators are often used as an alternative to UV transilluminators when users wish to use 'safe dyes' instead of ethidium bromide. A blue light transilluminator is a 'safe' light source, in that the user is not exposed to harmful UV radiation and samples are free from photoniccking.

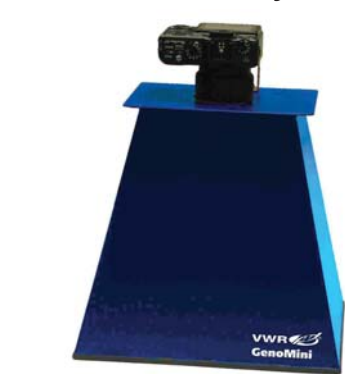
Model	Description	Wavelength (nm)	Filter size (mm)	Dimensions (mm)	Pk	Cat. No.
GenoView Blue	Blue light transilluminator, 200×160 mm, 488 nm	488	200×160	210×330×90	1	730-1389
GenoView Blue slim	Blue light transilluminator, 100×120 mm, 488 nm	488	100×120	210×210×30	1	730-1390

Accessories for VWR transilluminators

Description	Pk	Cat. No.
Visible light converter screen (305×330 mm)	1	730-1396
UV to blue light converter screen	1	730-1277
Neutral field correction screen	1	730-1278
White light pad, fold down, with brackets, 200×140 mm	1	730-1391
Epi UV module, 365 nm	1	730-1392
Epi UV module, 302 nm	1	730-1393
Epi UV module, 254 nm	1	730-1394



Gel documentation system, GenoMini



The GenoMini offers reproducible, high resolution digital images for gel documentation. The system is easy to use and allows real time images to be captured and viewed directly on a PC or laptop.

The GenoMini is used with a UV transilluminator that provides illumination from below the gel (the usual configuration for looking at Ethidium Bromide DNA gels). Other options include the use of transmitted white or blue light and, with a mini darkroom, overhead white and UV light. These flexible lighting options make the GenoMini suitable for generating images of a wide range of fluorescent samples.

Using the GenoMini it is possible to produce images of electrophoresis gels stained with any of the following dyes: Ethidium Bromide, Coomassie Blue, Silver Stain, SYBR® Gold, SYBR® Green, SYBR® Safe, GelStar®, SYPRO® Red, SYPRO® Ruby, SYPRO® Orange, Fluorescein, Rhodamine Red™, Texas Red™, Pro-Q® Diamond or Deep Purple™. As new dyes are released we work to optimise their use with the GenoMini, so please ask your VWR contact for updates.

GenoMini is also suitable for viewing and capturing images from agar plates of dark, light or two colour colonies, cells in flasks, autoradiographs, DNA, RNA or protein on membranes, spot and slot blots of DNA, RNA or protein, cells or solutions in microtitre plates and DNA or protein macroarrays.

GenoMini is the ideal system for laboratories on a limited budget, as the basic system can be purchased and then added to with options such as a UV transilluminator, white light transilluminator or conversion screen, safety hood, mini darkroom and printer.

- Digital camera with 10 mega-pixel resolution produces high definition images
- Hardware and software options allow the system to be cost-effectively upgraded as fluorescent applications change
- PC interface allows easy automation of image viewing and camera control
- Simple zoom and auto-focus functions to rapidly capture gels of any size

Note: SYBR, SYPRO, Pro-Q, Rhodamine Red and Texas Red are trademarks of Molecular Probes Inc., GelStar is a trademark of FMC Corporation, and Deep Purple is a trademark of Amersham Biosciences Ltd.

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Model	GenoMini	
Camera	Digital CCD	
Camera resolution (pixels)	10 m	
Description	Pk	Cat. No.
GenoMini gel documentation system	1	730-3002
Description	Pk	Cat. No.
UV transilluminators for use with GenoMini		
UV transilluminator, 200×200 mm, 302 nm	1	730-1386
UV transilluminator, 200×200 mm, 365 nm	1	730-1387
UV transilluminator, 200×200 mm, 254 nm	1	730-1388
Blue light LED transilluminators, GenoView Blue		
Blue light transilluminator, 100×120 mm, 488 nm	1	730-1390

Please contact your local VWR Sales Office for full details about options and accessories available for this system.



Gel documentation system, GenoSmart2



The GenoSmart2 is a compact imaging system with manual control that is simple to use and is ideal for routine DNA and protein gel documentation. The GenoSmart2 has network capability using an Ethernet connection. This easy to upgrade system is supplied complete with GenoSoft analysis software. Gel images can be instantly printed or saved to a memory stick via the USB port for archiving or further processing.

Using the GenoSmart2 it is possible to produce images of electrophoresis gels stained with any of the following dyes: Ethidium Bromide, Coomassie Blue, Silver Stain, SYBR® Gold, SYBR® Green, SYBR® Safe, GelStar®, SYPRO® Red, SYPRO® Ruby, SYPRO® Orange, Fluorescein, Rhodamine Red™, Texas Red™, Pro-Q® Diamond or Deep Purple™. As new dyes are released we work to optimise their use with the GenoSmart2, so please ask your VWR contact for updates.

GenoSmart2 is also suitable for viewing and capturing images from agar plates of dark, light or two colour colonies, cells in flasks, autoradiographs, DNA, RNA or protein on membranes, spot and slot blots of DNA, RNA or protein, cells or solutions in microtitre plates and DNA or protein macroarrays.

- This simple system requires little training.
- Real time images from 12/16 bit, 2 mega pixel camera
 - Self-contained, microprocessor controlled darkroom
 - Integrated colour LCD screen for image viewing
 - Instant on-screen saturation detection
 - Rapid photographic print production and secure image storage via USB memory stick or network connection

Model	GenoSmart2	
Camera	Digital CCD, 12/16 bit	
Camera resolution (pixels)	2 m	
Description	Pk	Cat. No.
GenoSmart2 gel documentation system	1	730-1381
Description	Pk	Cat. No.
UV transilluminators for use with GenoSmart2		
UV transilluminator, 200×200 mm, 302 nm	1	730-1382
UV transilluminator, 200×200 mm, 365 nm	1	730-1383
UV transilluminator, 200×200 mm, 254 nm	1	730-1384
Blue light LED transilluminators, GenoView Blue		
Blue light transilluminator, 100×120 mm, 488 nm	1	730-1390
Accessories		
Thermal printer, analogue	1	730-1261
Thermal paper, matt	1 Roll	730-2892
Thermal paper, glossy	1 Roll	733-2000



ALL YOU NEED FOR PROTEOMICS

- Protein expression
- Protein extraction
- Protein purification
- Protein analysis/detection

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Gel documentation and analysis systems, GenoPlex and GenoPlex CHEMI



GenoPlex high resolution gel documentation and analysis systems are available in configurations suitable for all fluorescence and chemiluminescence applications. All models are fitted with a digital CCD camera (1,4, 2 or 5 mega pixels) which utilises the latest USB technology. GenoPlex offers a choice of camera resolution options, with a 12-bit camera that can be software modified to 16-bit. The GenoPlex CHEMI systems are equipped with a true 16-bit advanced cooled camera able to capture images of a wide range of chemiluminescent samples using common substrates.

The GenoPlex systems are fully computer controlled, with motor driven lenses as standard in both systems, with feedback as standard for GenoPlex CHEMI. The darkroom, fully light-tight and suitable for advanced chemiluminescent applications, has a robust, wide opening hinged door for easy access to the chamber and electronic auto-door lock with security function to prevent interruption during long exposures.

The GenoPlex systems incorporate advanced image capture software specifically developed to simplify the process of capturing gel images. GenoCapture image acquisition software is a fully automatic package that controls camera integration, exposure, lens and capture options with auto-focus configuration for precise focusing. GenoSoft is an advanced, automated, analysis software that can rapidly analyse a gel from loading to output of results in a matter of seconds. Requiring minimal user training, GenoSoft is able to handle a wide range of media

including gels, plates, films and spot blots.

- Modular system can be tailored to meet specific user requirements
- Automated PC control speeds up image capture and the analysis process
- 16-bit performance for very accurate gel data
- Auto-locking door protects against accidental UV exposure and large door opening provides easy access for gel positioning and viewing
- Optional motor driven optics and lighting options for easy system set-up and flexible imaging applications

Delivery Information: The GenoPlex system includes a 12-bit digital CCD camera (16-bit file depth), motorised zoom lens, and UV filter (550 to 640 nm). The GenoPlex CHEMI systems include a 16-bit cooled digital CCD camera, motorised zoom lens with feedback, and 7-position motor driven filter wheel. All systems include a cabinet, UV transilluminator (312 nm*) with 20x20 cm filter size, visible light converter, white epi-light (overhead), GenoSoft analysis and GenoCapture image capture software, cables and support software pack.

Model	GenoPlex2	GenoPlex5 CHEMI	GenoPlex CHEMI
Camera	16 bit digital	16 bit digital, cooled	
Camera resolution (pixels)	2 m	5 m	1,4 m
Dynamic range		4,8	
Zoom	Motorised (f/1,2)	Motorised (12,5 - 75 mm)	

Description	Pk	Cat. No.
GenoPlex2 gel documentation and analysis system, 2 MP	1	730-1379
GenoPlex5 CHEMI gel documentation and analysis system, 5 MP	1	730-1380
GenoPlex CHEMI gel documentation and analysis system, 1,4 MP	1	730-3003

Description	Pk	Cat. No.
UV transilluminators for use with GenoPlex and GenoPlex CHEMI		
UV transilluminator, 200x200 mm, 302 nm	1	730-3045
UV transilluminator, 250x300 mm, 302 nm	1	730-3047
UV transilluminator, 200x200 mm, 365 nm	1	730-3027
UV transilluminator, 250x300 mm, 365 nm	1	730-3029
UV transilluminator, 200x200 mm, 302/365 nm	1	730-3030
UV transilluminator, 250x300 mm, 302/365 nm	1	730-3032
UV transilluminator, 200x200 mm, 254 nm	1	730-3036
UV transilluminator, 250x300 mm, 254 nm	1	730-3038
UV transilluminator, 200x200 mm, 254/365 nm	1	730-3039
UV transilluminator, 250x300 mm, 254/365 nm	1	730-3041
UV transilluminator, 200x200 mm, 254/302 nm	1	730-3042
UV transilluminator, 250x300 mm, 254/302 nm	1	730-3044

Blue light LED transilluminators, GenoView Blue		
Blue light transilluminator, 200x160 mm, 488 nm	1	730-1389

Accessories		
Thermal printer, digital	1	730-1260
Thermal paper, matt	1 Roll	730-2892
Thermal paper, glossy	1 Roll	733-2000
Visible light converter screen (305x330 mm)	1	730-1396
UV to blue light converter screen	1	730-1277
Neutral field correction screen	1	730-1278
White light pad, fold down, with brackets, 200x140 mm	1	730-1391
Epi UV module, 365 nm	1	730-1392
Epi UV module, 302 nm	1	730-1393
Epi UV module, 254 nm	1	730-1394

* Other transilluminator wavelengths and combinations are available.

96-well microplates, 500 µl

VWR by Omega bio-tek

This flat-bottom 96-well microplate fits well with the E-Z 96® magnetic separation device and can be used as a processing plate during DNA and RNA preparation with magnetic bead systems.

Description	Pk	Cat. No.
96-well flat-bottom microplate, 500 µl	5	738-0158
96-well flat-bottom microplate, 500 µl	25	738-0159



Deep well plates, 1,2 ml, 2,2 ml and 22 ml



PP

These heavy, deep well plates are designed for robotic use. They have smooth inside surfaces to ensure that whole sample can be pipetted.

- Printed alphanumeric labelling of wells
- Autoclavable
- Can be sealed using film or mats
- Freezable to –90 °C

Description	Pk	Cat. No.
96-well plates, PP, 1,2 ml	10	391-0077
96-well plate, PP, 2,2 ml	10	732-0585
12-well reservoir, PP, 22 ml	20	732-0586

Deep well collection plates, 96-well (2,0 ml)

VWR by Omega bio-tek

96-well microplates with 2,0 ml wells for lysis, sample cultivation, and flow-through collection

This square well plate allows for larger volume than the equivalent round well plate in a standard microplate format. The plate fits well with most robotic work stations.

Description	Pk	Cat. No.
96-well deep well collection plate	5	738-0156
96-well deep well collection plate	25	738-0157



Deep well plates, 96 square well, 2.5 ml



PP

These plates hold a full 2,5 ml (2,2 ml with sealing mat in place) and work as storage plates or reservoirs.

- Black snap-in corner marker ensures proper orientation
- Openings in the plate sides permit easy removal of mats or film
- Clear, lift-off lid, which fits even with mat in place, is available for transport or freezer storage
- Autoclavable and freezable to –90 °C

Description	Pk	Cat. No.
96-well plate, 2,5 ml	10	732-0612
96-well plate, 2,5 ml with cover	10	732-0613

Polyester 2x8 plate strip films



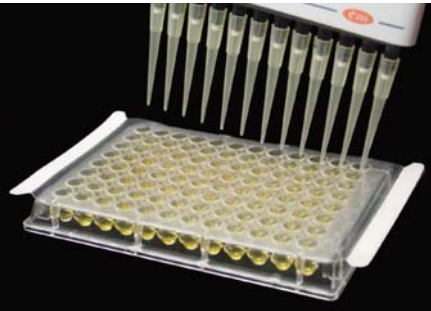
Polyester 2x8 strip films are identical to polyester films in material and adhesive, but designed for sealing only one or two 8-well rows at a time on either strip-well plates or standard plates whenever rows must be selectively protected or accessed. Sterile product is packaged in tamper evident bags of 50/bag.

- Seal selectively, one or two rows at a time
- Can use as secondary seal over previously pierced films

Each film LxD: 103,2x19,1 mm, including two removable positioning tabs; long dimension with tabs removed is 82,6 mm.

Description	Pk	Cat. No.
Polyester 2x8 films, non sterile	200	391-1252
Polyester 2x8 films, sterile	200	391-1253

Pierceable films for ELISA and general incubation



PE

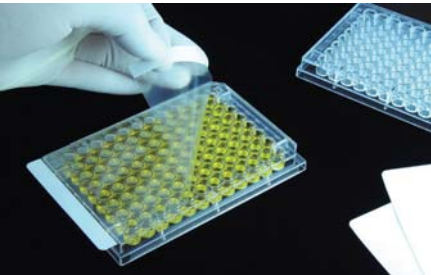
Easily pierceable 70 µm thick PE films with acrylic adhesive allow direct sample recovery with single or multichannel pipettors and robotic probes.

- Functional temperature range from –40 °C to +90 °C

Each film LxD: 142,9x82,6 mm

Description	Pk	Cat. No.
PE films, plain, non sterile	100	391-1263
PE films, plain, sterile	50	391-1277

Polyester films for ELISA and general incubation



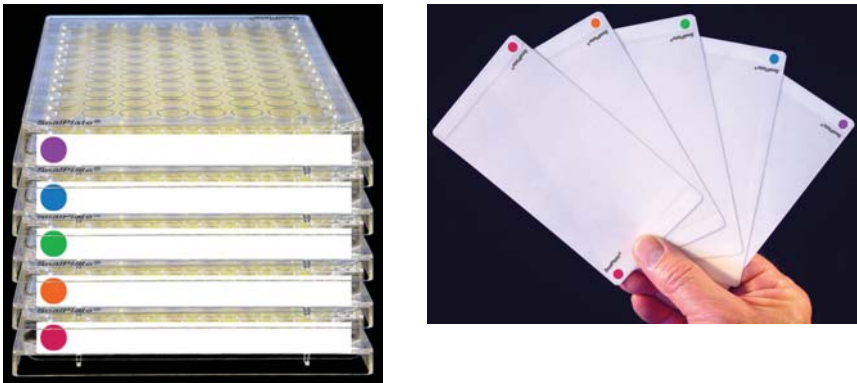
These 50 µm thick polyester films provide secure sealing around every well, not just a cover, thus minimizing evaporation, preventing spillage and well-to-well contamination, and eliminating “edge effects” in sensitive ELISA assays. Polyester films can also be used with tissue culture plates for short-term storage, incubation, and containment of biohazards.

- Functional temperature range from –40 °C to +120 °C
- Available sterile and non sterile
- Non pierceable

Each film LxD: 146,1x79,4 mm

Description	Pk	Cat. No.
Polyester films, non sterile	100	391-1250
Polyester films, sterile	100	391-1251

Polyester films with colour coded marking areas



Identical to polyester films above, but including a colour dot and white writing area on each end tab for plate identification. End tabs with backing removed adhere to the ends of the plate and are perforated so they can be left in place even if the centre portion of the film is removed. Alternatively, one inscribed colour coded end tab can be removed and pasted in a laboratory notebook while the other remains on the plate.

- Choice of five colours for easy plate identification

Description	Pk	Cat. No.
Films with purple dot, non sterile	100	391-1267
Films with orange dot, non sterile	100	391-1268
Films with red dot, non sterile	100	391-1269
Films with blue dot, non sterile	100	391-1270
Films with assorted dots, non sterile	50	391-1271

White films for luminescence and microscopy



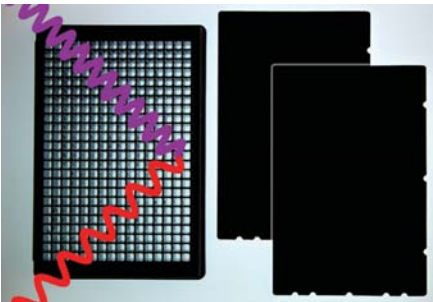
These films are 200 µm thick white vinyl with adhesive, for use with white microplates. Light reflective properties of the film, when used to seal clear-bottom plates, maximise the sensitivity of bioluminescence and chemiluminescence assays in bottom-reading luminometers. White films have also been used as a backing matrix for microscopy of punch-out samples from filter plates.

- Backing split on the long dimension aids in application of film to plates
- Film can be applied to either top or bottom
- No end tabs
- Recommended temperature range –40 °C to +80 °C

Each film LxD: 116×76 mm

Description	Pk	Cat. No.
White vinyl films, non sterile	50	391-1293

Black films for fluorescence and photoprotection



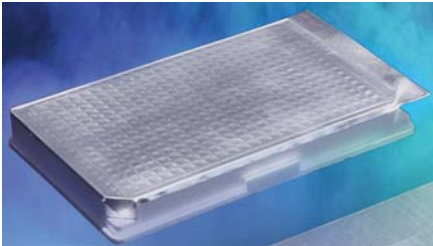
These films are 200 µm thick black vinyl with adhesive for use with 96-well, 384-well, and 1536-well black microplates. They fit within the edges of raised-rim plates and may be applied to either the plate top or bottom. The light-blocking and absorbing properties of these films make them ideal for reducing stray light and crosstalk in fluorescence applications and for protecting light-sensitive samples in storage.

- Edge cutouts assist in positioning around ribs on the plate bottom
- Split backing aids in applying the film properly
- No end tabs
- Recommended temperature range –40 °C to +80 °C

Each film LxD: 114×76 mm

Description	Pk	Cat. No.
Black vinyl films, non sterile	50	391-1291

Aluminium foils for cold storage



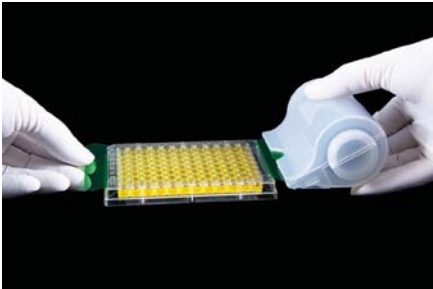
Aluminium foils with biologically inert adhesive. These foils are easily pierced by manual or automated pipette tips, for sample recovery without generation of aerosols or cross-contamination.

- Recommended for temperatures from -80 °C to +130 °C
- Not recommended for PCR

Each foil LxD: 133x82 mm

Description	Pk	Cat. No.
Aluminium foils, non sterile	100	391-1275
Aluminium foils, sterile	50	391-1296

Sealing film dispenser



A convenient dispenser for sealing standard-format microplates with sheeted-roll format adhesive films. The moulded polypropylene dispenser provides a protective enclosure for films on the roll prior to dispensing. It can be opened, permitting insertion of a new roll, then closed and latched securely by means of clasps at each side of its film-dispensing lip. Individual films on the roll are delineated by non adhesive colour bands that serve as end-tabs for positioning the films on the microplates. The bands also act as markers to show when the end of one film has been reached so that the next film is not pulled prematurely from the dispenser. Each non adhesive band contains two perforations, the first of which, bounded by a small indent at the edges, tears easily to separate the sheet being dispensed from the next sheet on the roll. The second perforation permits the end-tab to be removed from the plate once the film has been applied.

- Protects unused seals
- Up to three times faster than applying sheet films by hand
- Reduced waste - no protective backings to remove and discard
- Smooth lower surface for pressing film to the plate
- Available sterile or non sterile

Delivery Information: Supplied separately or as part of a Starter Pack which includes 2 film rolls.

Description	Material	Pk	Cat. No.
Sealing film dispenser	PP	1 Pack	731-0317
Sealing film dispenser, sterile	PP	1 Pack	731-0318



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Lab Documentation

This chapter contains all the materials used to mark and record your results and data.

Office

- Pens and Markers
- Office Supplies
- Calculators
- Tapes and Adhesives

- 564
- 564
- 567
- 568



Permanent marker pens



Perfect for slides, sample bags and glassware.

- Write on glass, plastic, porcelain, film, rubber, wood and paper
- Permanent ink dries in seconds

Description	Colour	Pk	Cat. No.
Marker pen	Assorted	12	811-0055
Marker pen	Black	6	811-0056
Marker pen	Red	6	811-0057
Marker pen	Blue	6	811-0058
Marker pen	Green	6	811-0059

Assorted colours: 6 black, 2 red, 2 blue, 2 green

Laboratory markers

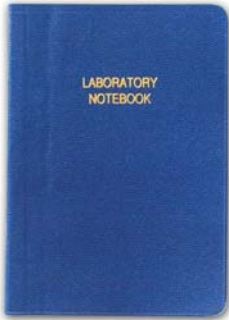


Designed to write on wet or dry surfaces, plastic disposables, glassware and porcelain.

- The ink will not smear when subjected to water or alcohol
- Ink dries instantly for immediate handling
- Can be wiped off using solvents (except alcohol)

Description	Colour	Pk	Cat. No.
Lab marker, fine tip	Black	10	811-0065
Lab marker, fine tip	Blue	10	811-0066
Lab marker, fine tip	Red	10	811-0067
Lab marker, fine tip	Green	10	811-0068

Mini laboratory notebooks



Imitation leather for use in laboratory environments. Acid-free archive safe paper (90 gsm). Includes laboratory notebook guidelines page, table of contents and user data page. English language only.

- Scientific 5 mm grid or ruled format with date and witness signature blocks
- 'FLEX' cover with coating, for durability

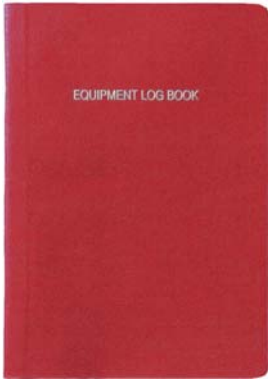
Format: A5 (14,8×21 cm) or A6 (10,5×14,8 cm), 96 pages

Colour: Blue

All books made in accordance with GLP, GMP and GCP guidelines.

Description	Colour	Type	Pk	Cat. No.
Mini lab book, A5	Blue	Grid	1	818-0100
Mini lab book, A6	Blue	Grid	1	818-0101
Mini lab book, A5	Blue	Ruled	1	818-0110
Mini lab book, A6	Blue	Ruled	1	818-0111

Mini equipment logbooks



'FLEX' covers with coating, for durability in laboratory environments. Acid-free archival safe paper (90 gsm).

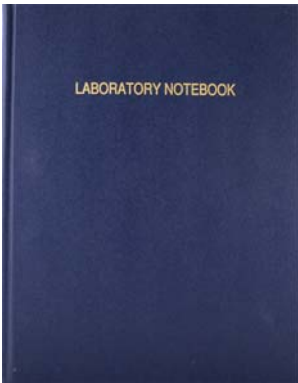
- Pages specifically designed for logging and recording equipment data
- Tough coated cover

Format: A5 (14,8×21 cm) or A6 (10,5×14,8 cm), 96 pages, numbered.

All books made in accordance with GLP, GMP and GCP guidelines.

Description	Colour	Pk	Cat. No.
Mini equipment logbook, A5, 96 pages	Red	1	818-0108
Mini equipment logbook, A6, 96 pages	Red	1	818-0109

Laboratory notebooks



Imitation leather cover with coating, for durability in laboratory environments. Acid-free archive safe paper (90 g/ m²). Includes laboratory notebook guidelines page, table of contents and user data page. Available in different language formats: English only, English-French, English-German, English-Spanish and English-Italian.

- Pages are sewn in sections with round binding so that book lays flat
- Scientific 5 mm grid or ruled format with date and witness signature blocks
- Waterproof

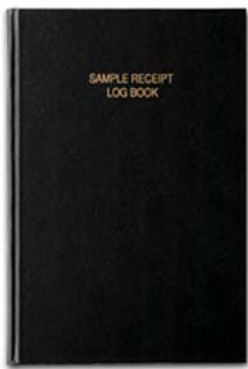
Format: A4 (21×29,7 cm) or A5 (14,8×21 cm). A4 books available in three sizes: 72, 120 and 216 pages. A5 available with 96 pages.

Colour: Blue

All books made in accordance with GLP, GMP and GCP guidelines.

Description	Colour	Type	Version	Pk	Cat. No.
Lab book, A4, 72 pages	Blue	Grid	English only	1	818-0068
Lab book, A4, 120 pages	Blue	Grid	English only	1	818-0069
Lab book, A4, 216 pages	Blue	Grid	English only	1	818-0070
Lab book, A5, 96 pages	Blue	Grid	English only	1	818-0071
Lab book, A4, 72 pages	Blue	Ruled	English only	1	818-0072
Lab book, A4, 120 pages	Blue	Ruled	English only	1	818-0073
Lab book, A4, 216 pages	Blue	Ruled	English only	1	818-0074
Lab book, A5, 96 pages	Blue	Ruled	English only	1	818-0075
Lab book, A4, 72 pages	Blue	Grid	English-French	1	818-0076
Lab book, A4, 120 pages	Blue	Grid	English-French	1	818-0077
Lab book, A4, 216 pages	Blue	Grid	English-French	1	818-0078
Lab book, A5, 96 pages	Blue	Grid	English-French	1	818-0079
Lab book, A4, 72 pages	Blue	Ruled	English-French	1	818-0080
Lab book, A4, 210 pages	Blue	Ruled	English-French	1	818-0081
Lab book, A4, 216 pages	Blue	Ruled	English-French	1	818-0082
Lab book, A5, 96 pages	Blue	Ruled	English-French	1	818-0083
Lab book, A4, 72 pages	Blue	Grid	English-German	1	818-0084
Lab book, A4, 216 pages	Blue	Grid	English-German	1	818-0086
Lab book, A5, 96 pages	Blue	Grid	English-German	1	818-0087
Lab book, A4, 72 pages	Blue	Ruled	English-German	1	818-0088
Lab book, A4, 120 pages	Blue	Ruled	English-German	1	818-0089
Lab book, A4, 216 pages	Blue	Ruled	English-German	1	818-0090
Lab book, A5, 96 pages	Blue	Ruled	English-German	1	818-0091
Lab book, A4, 72 pages	Blue	Grid	English-Spanish	1	818-0092
Lab book, A4, 210 pages	Blue	Grid	English-Spanish	1	818-0093
Lab book, A4, 216 pages	Blue	Grid	English-Spanish	1	818-0094
Lab book, A5, 96 pages	Blue	Grid	English-Spanish	1	818-0095
Lab book, A4, 72 pages	Blue	Ruled	English-Spanish	1	818-0096
Lab book, A4, 210 pages	Blue	Ruled	English-Spanish	1	818-0097
Lab book, A4, 216 pages	Blue	Ruled	English-Spanish	1	818-0098
Lab book, A5, 96 pages	Blue	Ruled	English-Spanish	1	818-0099
Lab book (21,6×14,0 cm), 120 pages	Blue	Grid	English-Italian	1	818-0112
Lab book, A4, 216 pages	Blue	Grid	English-Italian	1	818-0113
Lab book, A4, 120 pages	Blue	Ruled	English-Italian	1	818-0114
Lab book (21,6×14,0 cm), 216 pages	Blue	Ruled	English-Italian	1	818-0115
Lab book, XL (22,5×34,5 cm), 144 pages	Blue	Grid	EN/FR/IT/SP/DE	1	818-0116
Lab book, XL (22,5×34,5 cm), 144 pages	Blue	Ruled	EN/FR/IT/SP/DE	1	818-0117

Laboratory logbooks, special purpose



Imitation leather cover with coating, for durability in laboratory environments. Acid-free archive safe paper (90 gsm). Used to record and log data relating to laboratory equipment, temperature, balance calibration, reagents, animal maintenance and sample receipts.

- All pages for logging documentation have specific column headings for easy data entry
- Pages sewn in sections, books have round binding so that they lay flat
- Waterproof and tough

All books made in accordance with GLP, GMP and GCP guidelines.

Description	Colour	Pk	Cat. No.
Logbook, laboratory equipment, 96 pages	Red	1	818-0102
Logbook, animal maintenance, 168 pages	Black	1	818-0103
Logbook, balance calibration, 168 pages	Green	1	818-0104
Logbook, reagents, 168 pages	Burgundy	1	818-0105
Logbook, sample receipt, 168 pages	Red	1	818-0106
Logbook, temperature, 168 pages	White	1	818-0107

Cleanroom papers, PUREImage™



Cleanroom paper is designed for use in cleanroom environments where the prevention of chemical and particle contamination is critical.

- High tensile strength and excellent heat resistance for enhanced copier and printing efficiency
- PE binding technology results in very low levels of particles, non volatile residue and ion extractables
- Unique precision cutting technology guarantees consistent sizing and cleanliness
- Paper is web-cleaned on both sides prior to sheeting

Format: DIN A4

Weight: 80 g/m², except 115-0156 and 115-0148 with 105 g/m²

Produced in an ISO Class 4 (FED-STD-209E Class 10/M2,5) cleanroom and cleaned and double bagged in an ISO Class 5 (FED-STD-209E Class 100/M3,5) cleanroom. Paper is suitable for use in ISO Class 4 (FED-STD-209E Class 10/M2,5) to ISO Class 6 (FED-STD-209E Class 1000/M4,5) cleanrooms.

Packaging Information: Paper is packed 250 sheets per pack, 10 packs per case.

Description	Colour	Pk	Cat. No.
Non latex paper, 279×216 mm	Blue	10	115-0141
Non latex paper, A4 size	White	2.500	115-0149
Non latex paper, A4 size	Blue	2.500	115-0150
Non latex paper, A4 size	Yellow	2.500	115-0151
Non latex paper, A4 size	Pink	2.500	115-0152
Non latex paper, A4 size	Green	2.500	115-0153
Non latex paper, A4 size	Orange	2.500	115-0154
Non latex paper, A4 size	Violet	2.500	115-0155
Non latex paper, A4 size	White	2.500	115-0156
Latex-impregnated paper, 279×216 mm	White	2.500	115-0159
Latex-impregnated paper, A4 size	White	2.500	115-0163
Latex-impregnated paper, A4 size	Blue	2.500	115-0164
Latex-impregnated paper, A4 size	Yellow	2.500	115-0165
Latex-impregnated paper, A4 size	Green	2.500	115-0166

Cleanroom notebooks



These notebooks contain VWR PUREImage™ latex-free paper and have a see-through cover. Designed for use in cleanrooms and critical environments where particulate or extractable contamination control is imperative.

- Produced with new, latex-free, paper-binding technology
- College ruled on all pages
- Double bagged in a Class 100 environment

Format: A4, A5, A6, 100 pages (50 sheet).

Description	Colour	Type	Pk	Cat. No.
Notebook, latex-free, A4	White	Ruled	10	818-0126
Notebook, latex-free, A5	White	Ruled	20	818-0127
Notebook, latex-free, A6	White	Ruled	40	818-0128

Calculator



Convenient pocket size calculator can handle 99% of all routine and other calculations in the laboratory. Provides immediate, exact results for a wide range of applications: Conversions, scientific calculations, statistical operations, arithmetical calculations and similar laboratory work. Display: Ten characters with two digit exponent.

- Clear display with large, bright numbers and ergonomic keys
- Three key memory and memory protection when the calculator is switched off
- Automatic switch-off to preserve batteries

Functions:

Over 50 functions for trigonometry calculations, logarithms, exponentials and roots, inverse calculations, factoring, percentages, hexadecimal calculations, probability generator and conversion from degrees to decimal degrees. The statistics function provides standard deviation, averages, sum of squares, sum of data and much more.

Delivery Information: Batteries included.

WxDxH (mm)	Pk	Cat. No.
76x13x127	1	818-0062

Pocket calculator with converter, metric



This lightweight, compact metric converter replaces cumbersome factor conversion handbooks. The calculator provides fast and accurate answers for 126 types of metric conversions. Simply enter a number, press an arrow and read the exact metric answer with decimal point in place.

- Bright, eight-digit LCD display
- Light and compact
- Easy to use with easy to read raised keys, large digits

Functions: Performs multiple conversions and calculator functions - converts length, area, volume, weight, liquid and temperature as well as routine calculator functions. Performs imperial to metric conversions.

Delivery Information: Supplied with solar panel, 1,5 V battery, and protective case.

WxDxH (mm)	Pk	Cat. No.
108x64x13	1	818-0058

Calculator with converter



Multifunction device featuring a universal converter, calculator, stopwatch, and time of day clock with alarm. Its capacity to instantly convert any unit to another makes it ideal for use in petroleum, biomedical, water/sewage, chemical, quality control, and research laboratories.

- Multifunctional
- Alarm

Functions:

More than one million possible conversions, including units of area, force, weight, length, heat, flow, energy, time, noise, viscosity, and frequency. Stores up to nine unique conversion factors - any number between 99 999 and 0,00 001 or six- seven- or eight-digit numbers ending in 0,00 or 000.

Calculator adds, subtracts, multiplies, and divides with floating decimal point. Stopwatch times to ten hours, in hundredths of a second. Chronograph displays time of day to the second.

WxDxH (mm)	Weight	Pk	Cat. No.
86x6,4x57	28,4 g	1	818-0064

Calculator, solar powered



Inexpensive, oversized, solar-powered pocket calculator.

- Numbers are 13 mm high for effortless reading
- Oversized keys with clearly readable LCD display

Functions:

Basic arithmetic operations, percentage calculation, memory and floating decimal point.

Delivery Information: Supplied with an attractive, handy collapsible box.

WxDxH (mm)	Weight (g)	Pk	Cat. No.
60x114x10	57	1	818-0061

Calculator, desktop



Tough ABS plastic case.

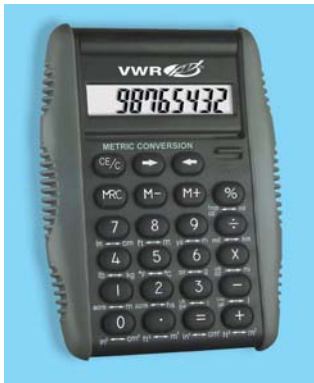
- Oversized keys
- Large digits
- 12-Digit angled display

Functions:

With arithmetic functions (add, subtract, multiply, divide), percent, three key memory, square root, and floating decimal point.

WxDxH (mm)	Weight	Pk	Cat. No.
114x5x165	113,4 g	1	818-0066

Metric converter



Metric Converter provides fast and accurate answers for 126 types of metric conversions. Simply enter a number, press an arrow, and read the exact metric or U.S. answer with decimal point in place. Raised and oversized keys make the metric converter a joy to use, even for large fingers. It includes an automatic flip open LCD cover that converts to a bench top stand, rubberised side grips for easy handling, and a bright and vivid digit LCD that is easy to read.

- Change lab measurements to U.S. or metric in an instant
- Easy to use and easy to read
- Ultra-lightweight and compact - perfect for carrying in a pocket

Functions:

Converts length, area, volume, weight, liquid, energy, and temperature. Also performs English (Imperial) conversions and performs all routine calculator functions.

WxDxH (mm)	Weight (g)	Pk	Cat. No.
95,2x76,2x12,7	62	1	818-0067

Callipers, digital



Made from stainless steel. Battery life is ~10 000 hours.

- Ergonomic body and friction thumb roller make readings fast
- Easy to read, jumbo digit display
- Moisture and dust resistant steel

Functions: Zero button instantly sets closed jaws or any reference point to zero. Floating zero may also be set in mid-measurement to read difference results without calculations.

Weight: 255 g

Delivery Information: A serial numbered certificate is provided from an ISO 17025 calibration laboratory accredited by A2LA to indicate instrument traceability to standards provided by NIST.

Range (mm)	Precision (mm)	Resolution (mm)	Pk	Cat. No.
0 - 150	±0,03	0,01	1	819-0012
0 - 200	±0,03	0,01	1	819-0013

Tape, vinyl, industrial grade



Processed in a controlled environment, tapes are wound on a plastic core and single bagged. Ideal for wheel taping and colour coding applications such as spray bottle identification.

- Forms strong bond without leaving adhesive residue
- Can be written on with cleanroom pen
- Different colours available

Description	Width (mm)	Length (m)	Colour	Pk	Cat. No.
Vinyl tape, industrial grade	25,5	32,9	Black	1 Roll	817-0086
Vinyl tape, industrial grade	25,5	32,9	Dark Blue	1 Roll	817-0087
Vinyl tape, industrial grade	25,5	32,9	Dark Green	1 Roll	817-0088
Vinyl tape, industrial grade	25,5	32,9	Blue	1 Roll	817-0089
Vinyl tape, industrial grade	25,5	32,9	Green	1 Roll	817-0090
Vinyl tape, industrial grade	25,5	32,9	Orange	1 Roll	817-0091
Vinyl tape, industrial grade	25,5	32,9	Purple	1 Roll	817-0092
Vinyl tape, industrial grade	25,5	32,9	Red	1 Roll	817-0093
Vinyl tape, industrial grade	25,5	32,9	Yellow	1 Roll	817-0094

Tape, polyethylene, industrial grade



The polyethylene backing with acrylic adhesive has low outgassing and good clean-peel properties. Processed in a controlled environment, tapes are wound on a plastic core and single bagged.

- Over labelling (to protect paper labels)
- Maintenance
- Colour coding

Description	Width (mm)	Length (m)	Colour	Pk	Cat. No.
Polyethylene tape, industrial grade	25,5	32,9	Black	4 Roll	817-0095
Polyethylene tape, industrial grade	25,5	32,9	White	1 Roll	817-0100
Polyethylene tape, industrial grade	25,5	32,9	Blue	4 Roll	817-0096
Polyethylene tape, industrial grade	25,5	32,9	Green	4 Roll	817-0097
Polyethylene tape, industrial grade	25,5	32,9	Orange	4 Roll	817-0098
Polyethylene tape, industrial grade	25,5	32,9	Red	1 Roll	817-0099
Polyethylene tape, industrial grade	25,5	32,9	Yellow	4 Roll	817-0101

Tape, polyethylene, Hi-Tack



Polyethylene tape with conformability similar to vinyl tape.

- High Tack
- Excellent resistance to UV, moisture, acids, chemicals, alkalis, oils and abrasion

Description	Width (mm)	Length (m)	Colour	Pk	Cat. No.
Tape, PE, Hi-Tack	25,4	32,9	White	1 Roll	817-0102
Tape, PE, Hi-Tack	50,0	32,9	White	1 Roll	817-0103

Wafer box sealing tapes



PE

Ideal for packaging and transporting of wafer boxes, this low-density PE tape is low in halogens and leachable chlorides.

- PE film and acrylic adhesive minimise out-gassing and offer good ‘clean peel’ properties
- Excellent chemical resistance and good conformability

Length: 33 m

Description	Width (mm)	Pk	Cat. No.
Packaging tape	25	36 Roll	817-0059
Packaging tape	50	24 Roll	817-0063
Packaging tape	50	24 Roll	817-0065

Other colours available on request

Cleanroom tapes



Vinyl

A multipurpose vinyl tape for general use in cleanroom maintenance and support areas.

- Ideal for sealing, aisle marking, and batching
- Matt finish which can be written on with a cleanroom pen
- Wound on a plastic core, marked for fast indification and re-ordering

Length: 32,92m

Packaging Information: Tape is single bagged, with an easy tear perforated bag.

Width (mm)	Sterile	Colour	Pk	Cat. No.
25,40	+	White	1 Roll	817-0051
50,80	+	White	1 Roll	817-0076
25,40	-	Transparent	36 Roll	817-0058

Cleanroom construction tape CTP™



Polyethylene with synthetic rubber adhesive

A high tack tape with synthetic rubber adhesive. The aggressive adhesive easily bonds different mediums such as plastic and concrete or stainless steel. The unique serrated edges allow an easy tear at any length when blades and dispenser are not practical.

- Clean construction
- Easily bonds different mediums
- Serrated edge for easy tear
- Aggressive adhesive

Length: 32,92 m

Colour: White

Width (mm)	Pk	Cat. No.
25,40	36 Roll	817-0062
50,80	1 Roll	817-0077



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A

Adapters, PTFE
Adapters for Normal Ground Joints82
Bellows Connector.....81
Sleeves for Glass Joints.....82
Thick Walled83

Air Samplers
Accessories488-489
for Calibration.....490
for Gases.....489

Aluminium Dishes
Disposable352-353

Analytical Balances.....335

Analytical Funnels
PP121

Aprons23

Autoclaves.....244-246

B

Bags
Biohazard.....51-53
Lab-Blender Bags164-165
Media502
Sample.....142,514
Sterile140-141
Stomacher.....164
Waste, Autoclavable51,53-54
Waste, Disposable.....51-54

Balances
Analytical335
Precision.....335-336
Precision, Education337
Weights.....341-342

Barometers.....425-426

Baskets
Wire Baskets245-246

Baths
Coliform505
Ultrasonic.....75
Viscosity460

BDH Prolabo
Bottle Carriers, Safepak106
Buffer Solutions471-473
Chemical Spill Sorbents.....50
Cleaning Solutions for Electrodes473
COD Reagents.....485
Conductivity Standards476-477,481-482
Detergents71-72
Dip Slides493-494,503
Disinfectants71
Electrolyte Solutions.....473
Labomeca127-132
LABWASH cleaners.....71-73
Molecular Biology Reagents.....526-529
Molecular Diagnostic Reagents527-529
pH Test Papers485
pH Test Strips.....484
Powder Pillows485-486
Silica Gel Dessicant231
Spillage Absorption Granules.....50

Beakers
Glass, Low Form91
Glass, Tall Form92
Measuring Jugs, PP94
PP92
PP, Low Form92-93
PS.....92
PTFE, Low Form93
Stainless Steel.....94
Stainless Steel, Low Form94
Stainless Steel, with Handle94

Beard Covers27

Bench Protection
Surface Protector, Ceramic43
Surface Protector, Paper43

Beta Radiation Bins48-49

Beta Radiation Boxes for Test Tubes48

Beta Radiation Shields47

Bins
Waste Disposal54

Biohazard Waste Bins55

Bioimaging
Gel Documentation Systems557-558

Biopsy Processing511

Biopsy Processing
Embedding Cassettes.....507-511

Blenders
Laboratory.....161,164-165

Block Heaters
Analogue214
Blocks215-220
Covers.....215-218
Digital215,221
Sand Baths215-218

Blood Collection
Trays109-110

Blotting
Blotters.....551
Dot- and Slot-Blotters552
Electro-Blotters549,551
Papers553-554
Semi-dry Electro-Blotters552

Blowing Balls.....364-365

Boats
Combustion.....213
Weighing350-352,354
Weighing, Anti-Static.....351-352

Bossheads.....129-130

Bottle Carriers106,514

Bottles
Carriers.....514
Dropping Bottles98
Dropping bottles, PTFE.....104
Glass.....97
Glass, Brown.....97
Mason Jars, PP.....161
Media154-155
Narrow Mouth, Amber, Screw Cap.....97
Narrow Mouth, Brown, HDPE99-100
Narrow Mouth, Brown, LDPE.....99
Narrow Mouth, HDPE99-100
Narrow Mouth, LDPE.....98-100
Narrow Mouth, PET100
Narrow Mouth, PP99-100
Narrow Neck, Brown, LDPE.....102
Screw Caps, LDPE98,100
Screw Caps for LDPE Bottles98
Square, Wide Mouth, HDPE103
Wash, Printed105
Wash Bottles.....105
Wash Bottles, LDPE98,105
Wide Mouth, LDPE100-101
Wide Mouth, PP102
Wide Mouth, PTFE.....102-103
Wide Mouth, Rectangular, HDPE.....103
Wide Mouth, Square104
Wide Mouth, Square, Graduated, HDPE103-104

Bottle Top Dispensers.....367-368

Bouffant Caps.....27-29

Boxes
Cryotubes.....241-242
Disposal, Broken Glass.....51
Slide Boxes.....447-448,450
Storage.....283
Storage, PP.....313

Brushes
Beakers65-66
Bottle.....64
Bottle, Fan Tip.....64
Burettes.....67
Carboy67
Conical Vessel66
Cylinder.....64
Cytology, sampling.....512
Double Tufted Ends63
Flask and Bottle.....64
Microtube66

Narrow Tube 66

Pipettes 67

Test Tubes 65

Volumetric Flasks, Bottles 63

Buchner Funnels

Porcelain 257

Buckets

Ice 117

Buffers

pH 471-473

Bulb Pipettes 358

Bulbs 440-441

Bungs

Cork 119

Burettes

Clamps 132

Digital 369

Glass 367

C

Calculators

Callipers 568

Pocket Calculator 567

Pocket Calculator, Solar 567-568

Calibration

Weights 340,343,345-350

Weight Sets 341-342,344-345,347,350

Cameras 442-443

Caps

NMR Tubes 458

Safety 316-317

Carboys 115

Carboys

Adapters 114,116

Carboys, Wide Neck 115-116

HDPE 114-116

Wide Neck, PP 113-114

Carriers

Bottle 106

Cell Culture

Cell Scrapers 155

Dishes 153

Flasks 152

Media Bottles 154

Plates 152-153

Tissue Grinders, Potter-Elvehjem 163

Cell Diagnostics

Reagents 512-513

Solvents 513

Cell Scrapers 155

Centrifugation

Centrifuges, PCR 271

Centrifuges, Refrigerated 270

Centrifuges, Ventilated 266,269-270

Centrifuge Tube Racks 281

Centrifuge Tubes 275-278

Microcentrifuges 266-269

Microcentrifuge Tubes 271-274

Rotors 266-267,269-270

Centrifuge Filters 264-265,512

Centrifuges

Bench 266,269-271

Microcentrifuges 266-269

PCR 271

Refrigerated 270

Rotors 266-267,269-270

Ventilated 266,269-270

Centrifuge Tubes 278

Centrifuge Tubes

PP, Conical 272,275-277

PP, Round Bottom 277

PS, Conical 275

PTFE, Conical 278

PTFE, Round Bottom 278

Racks 280,282-283

Chairs

Laboratory Chairs 60-61

Chart Recorders 425

Chemical Spillage

Kits 50

Sorbents 50

Chromatography

HPLC Accessories 325

HPLC Systems 318-319,321-325

HPLC Valves 327

Preparative Systems for HPLC 325-326

Syringes 313-315

Systems 327

Vial Crimpers 310-311

Vial Decappers 310-311

Vial Racks 311

Vials 290-296,299-302,304-309,311-313

Vials Closures 290-310,327

Circulators

Accessories 222,226-227

Bridge Circulators 223

Cooling 226-228

Heating 225

Recirculating Coolers 289

Refrigerated Circulators 225

Clamps

Burettes 132

Clips for Ground Joint Connections 82

For Ground Joints 82

Cleaning

Brushes 63-67

Buckets 70

Detergents 71-72

Disinfectants 71

Dispensers, Wipes 42

Draining Racks 63

Mops 67-69

Mop Systems 68,70

Ultrasonic Baths 74-75

Wipes 42-43

Cleanroom

Adhesive Mats 44

Notebooks 566

Paper 566

Cleanroom Class 1

Wipes 41

Cleanroom Class 10 3

Cleanroom Class 10

Gloves, Disposable, Latex, Non-Sterile 5

Gloves, Disposable, Nitrile, Non-Sterile 7

Wipes 39

Cleanroom Class 100

Gloves, Disposable, Latex, Non-Sterile 5

Wipes 37-38,40

Clogs 36

Closures

Aluminium Crimp Caps, Septa 290,297-299,309

Crimp Caps, Septa 290,305

Crimper 290,305-306,309

Decappers 290,297-299,305-306,309

Decapping Head 305

Dropping Bottles 98

GC, Septa 327

Magnetic Crimp Caps, Septa 305-306,309

Media Bottles 155

PCR Tube Strips 531-532

PE 290,297-299,309

PP, Screw Caps 291-295

Screw Caps 98,291-292,296,301-302,306-308

Screw Caps, LDPE 98,100

Screw Caps, Septa 291-296,301-302,306-308,310

Screw Caps, UltraBond 292-295,306-307

Septa 291-292,301-302,304-307,309-310

Snap-Cap, PE 307

Snap-Cap, Septa 299-300

Tubes 86-87,151

Wash Bottles, LDPE 98

Clothing

Aprons 23

Beard Covers 27

Boot Covers 31-32

Bouffant Caps 27-29

Dispensers for Gloves 34

Dungarees 35

Frocks 19-21

Gloves, Nitrile 6

Hygiene Masks 26

Jackets..... 34

Lab Coats 9-16, 18-20

Overalls 17, 23-26

Over Shoes 30-34

Sleeves 29

Storage Boxes for Personal Protective Equipment 33

Trousers 11, 13, 16-17, 22, 35

Tunics 21-22

Visitor Smocks 14

Coasters 96

COD Reagents 485

Cold Light Sources

Light Guides 441-442

Coliform

Baths 505

Colony Counters

Digital 504

Electronic 504

Column Connectors..... 327

Columns

GC, Capillary 327

Combs

Horizontal Electrophoresis 538-544

Vertical Electrophoresis..... 545-550

Combustion

Boats, Porcelain 213

Concentrators

Centrifuge Filters 264-265

Rotary Evaporators..... 284-288

Conductivity

Electrodes 475-477, 480-482

Meters, Bench..... 476-477

Meters, Handheld..... 474-476

Standards..... 477

Contact Plates

Sterile 491

Containers

Cryotubes..... 241

Ice..... 118

Safety, Storage..... 117

Sample, PP 110-112, 117

Sample, PP, Sterile..... 117

Sample, PS 111

Cooling

Circulating Chillers 227-228, 289

Refrigerated Circulators 225-226

Thermomixers..... 219

Thermoshakers 219

Cork

Coasters 96

Holders, Round Bottom Flasks..... 96

Stoppers 119

Corning

Roller Bottles, Screw Caps..... 98, 291-292, 301-302

Cover Glasses 452-453

Cover Spectacles 3

Crimpers 310-311

Crimping Devices

Closures 310-311

Decappers 310-311

Crucibles

Filter 257

Porcelain 212

PTFE..... 213

Stainless Steel..... 213

Cryoboxes 242

Cryogenics

Dewar Flasks..... 235-236

Freezing Systems..... 235, 239

Gas Cylinders..... 238

Vessels 234-239

Vials 239-240

Cryopreservation

Transport Carriers..... 235, 239

Cryotubes

Boxes..... 241-242, 282

Holders..... 240-241

Racks..... 240

Sleeves..... 240

Tubes..... 239-240

Crystallising Dishes

Glass..... 108

Culture Media

In Tubes and Bottles 492, 495-499, 501-502

Irradiated 490, 492, 495-499, 501-502

Ready-to-use 490-491, 498-503

Ready-to-use in Bottles..... 492, 495-499, 501-502

Ready-to-use Plates 491-492, 495-499, 501-502

Cuvettes

Electroporation 537

PMMA 456

PS..... 456

Cylinders

Graduated, Glass..... 355-356

Graduated, PP 356

Cytology

Funnels..... 512

D

Data Loggers

Multiparameter 480-481

Temperature, Humidity 425

Decappers..... 310-311

Deep Well Plates 559

Density

Hydrometers, Glass..... 459

Hydrometers, Sugar 459

Thermo-Hydrometers, Glass..... 459

Deodorisers

Autoclaves 246

Desiccators

Glass..... 230-231

Plates, Porcelain 231-232

Silica Gel 231

Detergents

Disinfectants 71

Glass Washing..... 71-73

Dewar Flasks

Aluminium 235-236

Roller Bases 234, 236

DGGE Systems..... 550

Digital Thermometers

Accessories 421, 424

Core 404

Handheld 407, 409, 415

Infrared 401-403

Precision 419-420

Refrigerators and Freezers..... 412-415

Traceable® 401-402, 405-419, 425

Waterproof..... 404-406, 419

Wireless 415

With Alarm 409, 411, 413-414, 425

With Timer 405, 409, 412

Disinfectants

Alcohol Sprays 71

Water Baths 229

Dispensers

Bottle Top Dispensers..... 367-369

Handheld 375

Personal Protective Equipment 33-34, 135

Soap 37

Wipes 42

Dispersers

Homogenisers..... 162, 166-167

Dissolved Oxygen

Electrodes 478-479

Meters, Bench..... 479

Meters, Handheld..... 478-479

DNA

Extraction Kits..... 525

DNA Polymerase529-530

dNTP..... 531

Draining Racks63

Dropping Bottles

PTFE.....104

Drosophila

Vials153-154

Drug Testing

Screening Kits.....515

Drying

Desiccator Accessories231

Desiccators.....230-231

Drying Ovens

Forced Convection230

Natural Convection.....229

E

Electrical Testing

Multimeters424

Electrochemistry

Cleaning Solutions for Electrodes.....473

Conductivity Meters, Bench476-477

Conductivity Meters, Handheld474-476

Dissolved Oxygen Meters, Bench479

Dissolved Oxygen Meters, Handheld.....478-479

Electrodes, Accessories463-465,467,469,471,476-477,479-480,482

Electrodes, Conductivity475-477,480-482

Electrodes, Dissolved Oxygen.....478-479

Electrodes, pH.....463-471,480,482

Electrodes, Redox470-471

Electrolyte Solutions.....468,473

Multiparameter Meters, Bench481

Multiparameter Meters, Handheld480

pH/Ion Meters, Bench464-465

pH Meters, Bench463-464

pH Meters, Handheld461-463,474

Electrodes

Accessories467,469

Cleaning Solutions473

Conductivity475-477,480-482

Dissolved Oxygen478-479

Electrolyte Solutions.....468,473

Holders.....128,463-465,471,476-477,479-480,482

Multiparameter480-481

pH.....461,463-471,480,482

Redox461,470-471

Electrolytes.....468,473

Electrophoresis

Blotters.....549,551

Blotting Paper.....553-554

DGGE Systems.....550

Dot- and Slot-Blotters552

Electro-Blotters551

Gel Dryers552

Gel Loading Tips.....385

Gradient Makers.....550

Horizontal Gel Combs538-544

Horizontal Gel Systems.....538-545

Power Supplies.....553

Semi-Dry Electro-Blotters.....552

Vertical Gel Combs545-550

Vertical Gel Systems.....545-550

Electroporation

Cuvettes537

Embedding Media513

Environmental Analysis

Powder Pillows485-486

Erlenmeyer Flasks

Erlenmeyer Flasks with Standard Ground Joint.....80

Glass.....96

Evaporating Dishes

Glass.....106-107

Porcelain107

PTFE.....107-109

Evaporators

Rotary.....284-288

Extraction Thimbles289

Eye and Face Protection

Cleaning Wipes for Spectacles4

Face Shields4

Goggles.....3

F

Face Shields4

Filter Funnels

Glass.....120

PTFE.....121

Filter Paper

Phase Separation260

Qualitative258-259

Quantitative.....259-261

Filter Tips.....386-390

Filter Units

Sterilising.....263-264

Filtration

Buchner Funnels.....257

Centrifuge Filters.....264-265

Crucibles257

Funnels.....120-122

Glass Fibre Filters261-262

Phase Separation Paper.....260

Qualitative Filter Paper.....258-259

Quantitative Filter Paper.....259-261

Sterilising.....263-264

Syringe Filters.....262-263

Vacuum Filter Units263-264

Fire Blankets.....47

Flasks, Standard Ground Joints

Erlenmeyer Flasks.....80

Flasks, Round Bottom, 2 Necks81

Flasks, Round Bottom with Three Necks.....81

Flat Bottom80

Round Bottom80

Two-Neck Round-Bottom Flasks.....81

Flasks

Cell Culture.....152

Erlenmeyer, Glass.....96

Erlenmeyer, Glass, with Ground Joints80

Flat Bottom, Glass95

Flat Bottom, Glass, with Ground Joints.....80

Round Bottom, Glass80,95

Round Bottom, Glass, Narrow Neck.....95

Round Bottom, Glass, Wide Neck.....95

Volumetric, Glass.....355

Flat Bottom Flasks80

Fluid Samplers138-139

Foils

Aluminium562

Forceps

PTFE.....126

Freezers

Laboratory.....233-234

Ultra Low Temperature233-234

Upright.....233-234

Frocks.....20

Funnels

Analytical Funnels121

Buchner257

Cytology Funnels512

Filter, Glass120

Filter, PP120

Filtration.....120

Glass.....120

Powder, Glass121

Powder, PP122

PTFE.....121

Separating132,289

Furniture

Balance Tables.....354

Stools56-60

Work Chairs56-60

G

Gas Chromatography

Column Connectors327

Septa.....327

Gas Cylinders

Liquid Nitrogen.....238

Gel Documentation Systems.....557-558

Gel Dryers 552

Gel Loading Tips 385

Glass Fibre Filters.....261-262

Glass Joints

Clamps, PTFE 82

Sleeves, PTFE 82

Glass Thermometers

Cases400

Certified397

Environmentally Friendly395-396

Magnifiers.....400

Pocket397

Gloves

Cleanroom, Latex, Non-Sterile.....5

Cleanroom, Nitrile, Non-Sterile7

Disposable, Latex, Non-Sterile5

Disposable, Nitrile, Non-Sterile6-7

Disposable, Vinyl, Non-Sterile8

Liners.....8

Goggles.....3

Gradient Makers 550

Grant

Shaking Incubators 193,196-197,201,208-209

Grinding

Mortars, Porcelain160

Pestles, Porcelain160

H

Haematology

Reagents.....513

Haver & Boecker

Sample Splitters256

Sieve Shakers.....248-250

Heating/Cooling

Thermomixers.....219

Heating

Block Heaters.....214-218,221

Circulators224

Drying Ovens229

Ovens230

Shaking Water Baths.....228

Thermomixers.....219-220

Water Baths223

Water Baths, Circulators221-223,225

Water Bath Spheres, PP229

Histology

Biopsy Pads.....511

Heated Forceps.....515

Storage Drawers.....451

Hoefer

2-D Electrophoresis Systems.....538-550

Blotters.....549,551

Holders

Cryotubes.....96,240-241

For Round Bottom Flasks96

Homogenisers

Dispersers162-163,166-167

Horizontal Gel Systems538-545

Hotplates

Aluminium210-212

Ceramic162,170,172,210-212

Hotplate Stirrers

Aluminium172-173

Aluminium, Digital.....173-174

Ceramic172-173

Ceramic, Digital172-174

Stainless Steel.....171

Thermometers174,210

HPLC

Accessories325

Detectors.....324

Sample Loops327

Software.....319,321-323,327

Systems318-319,322

Valves.....327

HPLC Vials and Septa

Crimping Devices.....310-311

Hydrometers

M100, Glass.....459

M50, Glass.....459

Sugar Brix459

Hygiene Control

Air Samplers487-490

Dip Slides493-494

Soap Dispensers37

Surfaces.....492

Hygiene Masks.....26

Hygrometers.....421-424

I

Ice

Buckets.....117

Containers.....118

Ice Packs118-119

IKA

Overhead Stirrers166-167

Rotary Evaporators.....284-285

Immersion Circulators221-222

Incubators

Compact147

Digital147

Natural Convection.....146

Shaking193,196-197,201,206-209

Inoculating Loops

Disposable148

Sterile148-149

Inoculating Needles

Disposable148

Plastic149

J

Jackets34

Jars

PC161

PMP161

PP110,161

PTFE.....113

Jencons

Pipette Controllers.....363-364

L

Lab Blenders.....165

Lab Blenders

Bags164-165

Labelling

Labels, Adhesive.....243

Laboratory Coats.....9-16,18-20

Laboratory Jacks133-134

Laboratory Markers564

Lamps

Cold Light Sources440-442

Household.....61

Lens Wipes.....4

Lighting

LED Lamps61,441-442

Torches61

Liquid Handling

Bottle Top Dispensers.....367-369

Bulb Pipettes358

Cylinders, Graduated355-356

Graduated Pipettes356

Handheld Dispensers.....375

Pipette Controllers.....363-364

Pipette Fillers364-365

Pipette Tips376-386

Pipette Tips, Filter386-390

Pipette Tips, Robotic391

Liquid Level Sensor484

Liquid Nitrogen

Cryostorage Vessels238

Dewars239

M

Magnetic Hotplate Stirrers

Aluminium172-174

Ceramic 172-174

Stainless Steel.....171

Thermometers 174,210

Magnetic Separation

Microplates 526

Tubes 526

Magnetic Stirrers

Ceramic 169-171

Mini 169

Retriever Bars 182

Stirring Bars 175-182

Magnifiers

Bulbs 430

Dome 431

Folding 431

Illuminated Magnifiers 429-432

Pocket..... 432

Precision Scales 432

Reading 430

Thermometers 400

Markers

Laboratory..... 564

Masks

Hygiene 4,26

Respiratory, Half 4

Master Mixes..... 530

Mats

Adhesive 44-45

Anti-Fatigue 45-46

Contamination Control Flooring 46

Measuring

Beakers, Glass 91-92

Beakers, PP 93

Beakers, PS 92

Beakers, PTFE 93

Bulb Pipettes 358

Cylinders, PP 356

Graduated Pipettes 356

Jugs, PP 94

Measuring Cylinders 355-356

Volumetric Flasks 355

Measuring Cylinders

Glass, Class A..... 355

Glass, Class B..... 356

PP, Class B 356

Media

Bottles, Square 155

Preparators 506

Supplements 494-495

Meteorology

Barometers 425-426

Weather Stations..... 427-428

Microbiology

Accessories 504

Air Samplers 487-490

Colony Counters..... 504

Colony Counters, Light Box 505

Contact Plates..... 147,491

Culture Media..... 490,492,495-499,501-502

Hygiene Control..... 492

Incubators 146

Inoculating Loops 148-149

Inoculating Needles 148-149

Petri Dishes..... 147

Ready-to-use Media..... 492,495-499,501-502

Spreaders..... 149-150

Microcentrifuges

Digital 267-268

Mini 266-267

Refrigerated 268-269

Ventilated 266-269

Microcentrifuge Tubes..... 271-274

Micronova

Cleanroom Tapes 570

Micropipettes

Electronic, Multi Channel..... 374

Electronic, Single Channel..... 373

Mechanical, Multi Channel 372-373

Mechanical, Single Channel 370-372

Reagent Reservoirs 376

Stands 370-376

Microplates

Magnetic Separation..... 526

Microplate Shakers 187-189,196-197,199,207-209

Microscopes

Accessories 434-436,438-440

Cameras 442-443

Inverted Microscopes 437-438

Objectives 433-438

Standard 433-437

Stereo Microscopes 438-440

Microscopy

Adapters 435,438,440,442-443

Adhesion Slides 445

Bulbs 440-441

Cold Light Sources 440-442

Cover Glasses..... 452-453

Eyeieces 433,437-440

Filters 434-437,441

Lenses 439-440

Microscopy slides 443-445

Protecting Covers 434-436,439-440

Slide Boxes 447-448,450

Slide Holders..... 445-447,450-451

Slide Mailers 449,451

Stages 434,440

Microtubes

Racks 90-91,279-281

Mills

Ball Mills 161-162

Sample Splitters 256

Mixer Mills..... 161-162

Mixers

Blenders 161,164

Microplate..... 187-189,196-197,199,207-209

Orbital 188-194,201

Reciprocal 201

Rocking 203-204,206

Rotators 203-204,206-207

Vortex 183-186

Vortex, Multi-Tube 187

Wave 205-207

Wave Gyratory..... 202

Moisture Analysers 339

Molecular Biology

Reagents..... 526-529

Molecular Diagnostics

Reagents..... 527-529

Molecular Weight Markers 554-555

Mops

Foam/Polyester 68

Handles 68

Laminated Micro-Fibre..... 69

Polyester 67,69

Polyester/Latex 69

Polyester/PVA..... 69

Polyurethane 69

Mortars

Porcelain, Unglazed..... 160

Mounting Media 513

Multimeters

Digital 424

Multiparameter

Meters, Bench..... 481

Meters, Handheld..... 480

N

Nalgene®

Jars, PC..... 161

Jars, PMP..... 161

Jars, PP 161

Mason Jars, PP..... 161

NMR

Tube Caps 458

Tubes, Glass..... 457-458

Notebooks

Cleanroom 566

Laboratory Notebooks 564-565

Log Books.....566
Spiral.....566
Nucleic Acid Extraction Kits525
Nucleic Acid Purification Kits517-525

O

Office Supplies
Cleanroom Notebooks566
Orbital Shakers188-193,196-201
Overalls.....17,23-26
Overhead Stirrers, Electronic167
Over Shoes.....30-31,34

P

Paper
Cleanroom566
Printer557-558
Weighing352
Wipes37-43
Pasteur Pipettes
Glass.....358
Plastic.....359-363
PBI
Blenders.....161
Bottle Carriers.....514
Laboratory Mixers161
PCR
Nucleic Acid Purification517
Plates, 384-Well.....535
Plates, 96-Well.....532-534
Racks.....532
Reagents.....529-531
Sealing Films536-537
Sealing Foils.....535
Sealing Mats.....537
Strips, 8-Well.....532
Tubes.....531-532
Tube Strip Caps.....531-532
Tube Strips531-532
Workstations.....532
Pedometers334
Pens
Laboratory Markers.....564
Peristaltic Pumps
Accessories123
Pestles
Micro, Disposable.....163,526
Porcelain, Unglazed.....160
Petri Dishes
PS, sterile147
pH/Ion Selective
Meters, Bench.....464-465
pH
Buffers.....471-473
Electrodes461,463-471,480,482
Electrode Solutions.....463-465,473,481-482
Meters, Bench.....463-464
Meters, Handheld.....461-463,474
Test Papers.....485
Test Strips.....484
Phase Separation Paper260
Pipettes
Controllers.....363-364
Fillers.....364-365
Graduated.....356
Pasteur, Glass358
Pasteur, LDPE.....359-363
Serological357
Stands366
Sterilisation Boxes.....366
Straw164-165,358,369
Trays.....109
Pipetting
Bulb Pipettes358
Graduated Pipettes356
Micropipettes, Electronic, Multi Channel.....374
Micropipettes, Electronic, Single Channel373
Micropipettes, Mechanical, Multi Channel372-373
Micropipettes, Mechanical, Single Channel370-372

Pasteur Pipettes358-363
Pipette Controllers.....363-364
Pipette Fillers.....364-365
Pipette Stands366
Pipette Tips.....376-386
Pipette Tips, Filter386-390
Pipette Tips, Gel Loading.....385
Pipette Tips, Robotic391
Reagent Reservoirs376
Serological Pipettes.....357
Sterilisation Boxes.....366
Straw Pipettes164-165,358,369
Plasmid Purification Kits516-517,524

Plates
12-Well, Deep Well.....559
384-Well, PCR535
96-Well, Deep Well.....559
96-Well, PCR532-534
Desiccators, Porcelain231-232
Ready-to-use Media.....492,495-499,501-502
Powder Funnels
PP122
Power Supplies553
Preparative Systems for HPLC325-326
Printers
Thermal.....557-558
Protein Purification Kits516-518
Pumps
Adapters122-123
Peristaltic122-123
Vacuum, Diaphragm76-77
Vacuum Systems78

Q

Qualitative Filter Paper258-259
Quantitative Filter Paper.....259-261

R

Racks
Acrylic.....280
Centrifuge Tubes281-282
Cryoboxes242
Cryotubes.....240
Draining63
Freezers.....242
Microtubes279-280
PCR532
Test Tubes87-88,90
Test Tubes, Floating.....281
Test Tubes, PP88-91
Test Tubes, PTFE91
Radiation Protection
Beta Radiation Bins.....48-49
Beta Radiation Boxes for Test Tubes48
Beta Radiation Shields47
Ready-to-use Media490,492,496,498,502
Ready-to-use Media
Dip Slides.....493-494,503
Media in Tubes and Bottles492,495-499,501-502
Reagent Bottles
Glass.....97
Glass, Brown.....97
Mason Jars, PP.....161
Narrow Mouth, HDPE.....98
Narrow Mouth, HDPE, Brown99
Narrow Neck, Brown, LDPE.....102
Square, Wide Mouth, HDPE.....103
Wide Mouth, LDPE100
Wide Mouth, PP.....102
Wide Mouth, PTFE.....102-103
Wide Mouth, Rectangular, HDPE.....103
Wide Mouth, Square, Graduated, HDPE103-104
Reagent Reservoirs.....376
Reagents
Molecular Diagnostics527-529
Stains512-513
Reciprocal Shakers.....201
Redox
Electrodes470-471

Refractometers
Handheld 457

Refrigeration
Ice Packs 118-119

Refrigerators
Sparkfree 233

Respiratory Protection
Half Masks 4

Retort Plates 129

Retort Rods 127-128

Retort Stands
Bossheads 129-130
Burette Clamps 132
Clamps 132
Funnel Holders, PP 128
Support Plates 133

RNA
Extraction Kits 525

Robotic Tips 391

Rocking Shakers 203-204

Rotary Evaporators 284-288

Rotators
Tube 203-204

Rotors 266-267,269-270

S

Safeskin
Gloves, Latex 5
Gloves, Nitrile 7

Safety
Beta Radiation Bins 48-49
Beta Radiation Boxes for Test Tubes 48
Beta Radiation Shields 47
Chemical Spill Sorbents 50
Containers, Waste 51
Fire Blankets 47
Goggles 3
Hazard Warning Labels 47
Safety Spectacles 2-3

Safety Caps 316-317

Safety Spectacles 2

Sample Bags 142,514

Sample Collection
Jars, PTFE 113
Sample Vessels 110-111
Scoops, PTFE 125
Spatulas, PP 125
Transport Swabs 144-145

Sample Containers 117

Samplers
Air 487-490

Sample Storage
Bags 140-142

Sampling
Containers, PP 110-112,117
Fluids 139
Fluids, Disposable 493
Sample Splitters 256
Spoons, PS 125
Templates 145
Water Testing 138-139

Scoops
PTFE 125

Screw Caps
LDPE 100

Sealing
Films 155-157,536-537,560-561
Films, Parafilm 135
Foil 535,562
Mats, PCR Plates 537

Separating Funnels
Conical 289
Holders 132
Squibb 289

Serology
Pipettes 357

Shakers
Accessories 166-167
Incubating 193,196-197,201,206-209
Microplate 187-189,196-197,199,207-209
Orbital 188-201
Reciprocal 201
Rocking 203-204
Sieve 248-250
Vortex 183-186
Vortex, Multi-Tube 187
Wave 205-207
Wave Gyrotory 202

Shaking Incubators 193,196-197,201,206,208-209

Shaking Water Baths 228

Sieves
Testing 251-256

Sieve Shakers 248-250

Silica Gel
Self Indicating 231

Silicone
Tubing 123-124

Sleeve Protectors 29

Slide Boxes 447-448,450

Slide Holders 445-447,450-451

Slide Mailers 449,451

Slides
Adhesion 445
Boxes 449,451

Soaps
Dispensers 37

Software 319,321-323,327

Spatulas
Sterile, Disposable, PP 125

Specimen Containers 112,117

Spectrophotometer Cells, Visible 456

Spectrophotometers
Accessories 456
Cuvettes, PMMA 456
Cuvettes, PS 456
UV/VIS 454-456
UV/VIS Scanning 454-455

Spillage
Granules 50
Kits 50

Spoons
Sample, Sterile, PS 125

Spreaders
L-Shaped 149
Triangular 150
T-Shaped 150

Staining
Reagents 512-513

Standards
Conductivity 477

Stands
Bossheads 129-130
Clamps 130-132
Laboratory Jacks 133-134
Micropipettes 370-376
Pipettes 366
Retort 127-129,132-133
Retort Plates 129

Stereo Microscopes 438-440

Sterilisation
Autoclaves 244-246
Boxes 366
Deodorisers, Autoclave 246

Stirrers
Overhead, Electronic 166-167
Stirring Bars, Magnetic 175-182
Stirring Blades, PTFE 168
Stirring Rods, ETFE 168
Stirring Shafts, PTFE 168

Stirring Bars 175-182

Stoppers
Cellulose..... 150-152
Cork..... 119
Ground Glass Joints, PTFE..... 119
PTFE..... 119

Stopwatches.....330-333

Storage
Boxes, Personal Protective Equipment..... 33
Cabinets..... 450
Deep Well Plates..... 559
Drawers, Embedding Cassettes/Rings..... 451
Jars, PC..... 161
Jars, PMP..... 161
Jars, PP..... 161
Liquid Nitrogen..... 234,236
Racks..... 280

Supports
Flask..... 96

Surface Sampling Kits..... 144

Swabs
Cotton..... 142-143
Foam..... 143-144
Foam Covered Cotton..... 142
Template Masks..... 145
Transport..... 144-145

Syringe Filters.....262-263

Syringes
Microlitre..... 313-315

T

Tables
Weighing..... 354

Tapes.....568-569

Tapes, Adhesive
Cleanroom..... 569-570
Construction..... 570
Waferbox..... 569

Test Papers
pH..... 485

Test Sieves.....251-256

Test Strips
pH..... 484
Temperature..... 400

Test Tubes
Closures..... 86-87
Glass..... 84-85
PP..... 86-87,110
PS..... 86-87
Racks..... 87-91,280-281,283
Stoppers..... 86

Thermo-Hygrometers
Analygue..... 421
Digital..... 422-424

Thermometers
Accessories..... 400,421,424
Digital..... 418
General Purpose..... 392,397-398
Precision, Glass..... 392-395

Thermometers probes..... 407,409,412,415-419,423,428

Thermomixers.....219-220

Thermoshakers
Microplate..... 219-220
Microtube..... 219-220
Microtube, Accessories..... 219-220

Timers.....330-334

Tips
Gel Loading..... 385
Pipette..... 376-386
Pipette, Filter..... 386-390
Pipette, Robotic..... 391

Tissue Grinders
Potter-Elvehjem..... 163

Torches
Emergency..... 61

Transilluminators.....555-558

Transportation
Safety containers..... 514

Trays
Blood Collection..... 109-110
Pipettes..... 109

Trousers..... 11,13,16-17,22,35

Tube Rotators..... 204

Tubes
Centrifuge..... 275-278
Closures..... 151
Cryogenic..... 239-240
Culture, PP..... 85
Culture, PS..... 85
Culture Tube Closures..... 85
Microcentrifuge..... 271-274
NMR, Glass..... 457-458
PCR..... 531-532
Racks..... 90
Storage..... 283
Test Tubes..... 84-87,110

Tubing
Silicone..... 123-124

Tunics.....21-22

Tweezers..... 126,515

U

Ultrasonic Baths.....74-75

Ultra-Violet
Replacement Tubes..... 556
Transilluminators..... 555-558

Urine Collection
Containers..... 112,117-118

V

Vacuum Filter Units.....263-264

Vacuum Pumps
Diaphragm..... 76-77

Valves
HPLC..... 327

Vertical Gel Systems.....545-550

Vials, Caps and Septa..... 295-296,302-303,305-309,327

Vials
96-Position, Glass Insert..... 312-313
Cryoboxes..... 241-242
Cryogenic..... 239-240
Cryotube Sleeves..... 240
Drosophila..... 153-154
EPA, Screw Neck..... 306-307
Glass, Crimp Top..... 290,302,305-306,309
Glass, Screw Neck..... 291-292,296,301-302,306-308
Glass, Short Thread..... 292-295,299-300
Glass, Snap Ring..... 299-300,307
Glass, Snap Ring, without Cap..... 307
Headspace, Crimp..... 304-305
Insert, Glass..... 291-292,297-299,301-302,309
Kits, Crimp Top..... 309
Kits, Screw Neck..... 291-292,301-302
Kits, Short Thread..... 292-295
Kits, Snap Ring..... 299-300
PP, Screw Caps..... 292-295
PP, Short Thread..... 292-295
PP, Snap Ring..... 299-300
PTX, Snap Ring..... 299-300
Screw Caps..... 311-312
Shell, PE Plug..... 308-309
Spring, Insert..... 301-302
TPX, Insert, Glass..... 292-295,309
TPX, Short Thread..... 292-295

Volumetric Flasks
Glass, Class A..... 355

Vortex Mixers..... 183-187

VWR Hitachi
Centrifuges..... 270
HPLC Systems..... 318-322,325
Microcentrifuges..... 268-269
Software..... 319,321-322

W

Wash Bottles
LDPE..... 105
Safety..... 105

Washing Machines
Detergents 71-72

Waste Disposal
Autoclave Bags 53-54
Bags 51
Bags, Biohazard..... 51-53
Bins..... 54
Containers..... 55

Watch Glasses
PTFE..... 109

Water Baths 223

Water Baths
Accessories 228
Circulating, SS..... 223,225
Circulators, Plastic 222
Immersion Thermostats 221
Spheres, PP 229

Water Testing
Sample Bottles..... 138-139
Spectroquant 485
Test Kits..... 485-486

Wave Gyratory Shakers 202

Weather Stations 427-428

Weighing
Boats 354
Boats, Anti-Static..... 351-352
Boats, Glass 354
Boats, PS 350-352
Dishes, Aluminium 352-353
Paper 352
Weighing Tables..... 354

Weights
Calibration 347,350
E2, Certified 340
E2, Non-Certified 340
F1, Certified 343
F1, Non-Certified 343
F2, Certified 343
F2, Non-Certified 348
M1, Certified 348
M1, Non-Certified..... 348
M2, Certified 340
M2, Non-Certified..... 348

Weight Sets
E2, Certified 341-342
F1, Certified 342,344-345

Wipes
Cleanroom Class 1 41
Cleanroom Class 10..... 39
Cleanroom Class 10, Sterile 39
Cleanroom Class 100..... 37,40
Cleanroom Class 100, Sterile 38
Disinfectant 43
General Purpose, Paper 42
Non-Woven..... 38
Tissues 42

Workstations 532

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