Heathrow Scientific

6. Distillation, Separation, Filtration

Separating, centrifuging/Microcentrifuges



1 2 3 4 Mini-Centrifuge Sprout®

- Easy-to-use, dual start/stop functions-control starting and stopping with power button or by opening and closing the lid
- Rubber footplate keeps unit stable and deadens vibrations
- Smooth, durable ABS finish is easy to clean

This compact mini-centrifuge is ideal for quick spin-downs from tube walls and caps. Use to microfilter cell separations and HPLC samples. Most spins last around 20 seconds, so Sprout is designed for easy repeat opening. Ergonomically designed lid allows

one-handed use. Operation is extremely simple - load tubes, close lid, and press on/off button. For repeated spins, simply open/close lid to operate mini-centrifuge. As a safety feature, the motor will not operate if the lid is open. This personal centrifuge uses minimal benchtop space. Remove power supply lead for compact storage. Includes three rotors: two, glass-filled, polycarbonate, microtube rotors and one polycarbonate strip tube rotor. Unit is ETL, cETL, and CE marked.



Sprout includes:

- Three interchangeable rotors to cover all applications. Sprout comes with the circular, one-size (1.5ml) tube rotor attached. Use the allen key included to easily switch to the strip tube rotor or circular, dual-size (1.5ml and 0.5ml) tube rotor.
- Storage case: Safely store extra rotors and adapters when not in use. Padded foam case can be left on benchtop or stored in drawer.

Keeps rotors safe while conveniently on hand.

 Tube rack: Move 2.0ml, 1.5ml, 0.5ml, 0.4ml, and 0.2ml microcentrifuge tubes from station to station. Keep tubes organized in hand-held foam rack.



Specifications

Maximum Speed: 6000rpm
Maximum RCF: 2000xg
Tubes Accommodated

Circular, one-size rotor: Circular, dual-size rotor:

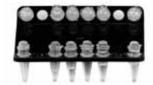
six 1.5- and 2.0ml tubes or use with adapters to spin six 0.4- and 0.5ml tubes three 0.4ml and 0.5ml tubes and three 1.5ml and 2.0ml tubes two 8 \times 0.2ml PCR tube strips or 16 \times individual 0.2ml PCR tubes

Heathrow Scientific LLC

Strip rotor:

153 x 128 x 104mm





Description	PK	Cat. No.
Mini-Centrifuge Sprout®	1	9.945 800

We can SUPPLY this manufactorer's whole product range!



Separating, centrifuging/Microcentrifuges

1 Mini Centrifuge MyFuge™ 12

Unlike traditional mini centrifuges, the new MyFuge 12 eliminates the need to change rotors when switching between microtubes and PCR strips. The included, unique COMBI-Rotor™ is all that is required for running 12 microtubes and 4 PCR strips simultaneously. Benchmark Scientific

(NEW)



- COMBI-Rotor™, for tubes and strips
- Twice the capacity of traditional mini centrifuges
- Near silent operation

Dimensions (WxDxH):

- Starts & stops with opening/closing of the lid

Specifications

Speed: 5500rpm/2000xg 12 x 1.5ml /2.0ml tubes Capacity: 32 x 0.2 ml PCR tubes 4 x PCR strips (8 x 0.2ml)

140 x 200 x 112mm

Weight:

Electrical: 100 to 240V 50/60Hz

Туре	Description	PK	Cat. No.
C1012E	Mini Centrifuge MyFuge™ 12, EU-plug	1	9.943 600
C1012	Mini Centrifuge MyFuge™ 12, US-plug	1	9.943 601
C1008-A5-6	Adapters, 0.5ml	6	9.943 602
C1008-A2-6	Adapters, 0.2ml	6	9.943 603

Mini Centrifuge Spectrafuge™ and Slide Spinner

Spektrafuge™ Mini Centrifuge for tubes

- Ideal for quick spin downs and microfiltration
- For microcentifuge tubes and strips
- convient on/off switch
- smoke grey lid

Slide Spinner for slides

- for quick drying of slides, e.g. microarray slides
- dries 2 slides in less than 10 seconds
- removeable cassettes conveniently catch all liquid (incl. in delivery)
- easy cleaning or changing of removable cassettes

Specifications Spectrafuge Mini:

Maximum speed/RCF: 6000rpm/850xa

Maximum capacity: 2 x 0.2ml strips or 6 x 1.5/2.0ml

Dimensions (WxDxH): 150 x 150 x 117mm

Weight: 0.45kg

Supply requirements: 230V 50Hz or 120V 60Hz

Slide Spinner:

Maximum speed/RCF 4800rpm Maximum capacity 2 standard slides Dimensions (WxDxH) 150 x 150 x 117mm

Weight 0.45ka

230V 50Hz or 120V 60Hz Electrical

Туре	PK	Cat. No.
Mini centrifuge	1	6.224 909 2
Slide Spinner with 2 slide drying cassettes	1	9.945 791 3
Extra cassettes for Slide Spinner	2	9.945 792





9.945 791

4 Centrifuge/vortexer, Combi-spin PCV-2400

Combined centrifuge/vortex mixer for microtubes and 0.2ml strips. For independent centrifuge and vortex mixing, or mixing of an individual tube concurrently with spinning

of multiple tubes. The vortex cup, located at the top of the central shaft, emerges through an opening in the closed lid. In spin-mix-spin applications, the Combi-spin can be used with reagent volumes down to approximately 50µl.

- max RCF(bottom of tubes) g-force 700g
- interchangeable rotors for 2.0ml, 1.5ml, 0.5ml, 0.2ml microtube combinations and 0.2ml stripes.
- fixed speed: 2800rpm
- continuous operation or short spin

Туре	PK	Cat. No.
PCV-2400	1	9.721 001



E & OE. 607

Grant

Separating, centrifuging/Microcentrifuges





1 Centrifuge Multi-spin PCV-3000

Combined centrifuge/vortex mixer for microtubes and 0.2ml strips. For independent centrifuge and vortex mixing operations, or a programmable sequence of spin and mix phases of multiple tubes.

- interchangeable rotors for 2.0ml, 1.5ml, 0.5ml, 0.2ml microtube combinations and 0.2ml strips.

- spin speed: 1000rpm to 3500rpm

- timed spin: 1 sec to 99 min

- vortex mixing speed: three stage adjustment

- timed vortex mixing: 1 to 20 sec

- max RCF(bottom of tubes) g-force 800g

Туре	PK	Cat. No.
PCV-3000	1	9.721 005

Accessories for Centrifuges Combi-spin PCV- 2400 and Multi-spin PCV-3000

Grant

Eppendorf AG

Grant

Туре	Description	PK	Cat. No.
PR2-05	Rotor for 8 x 1.5/2.0ml plus 8 x 0.5ml tubes	1	9.721 006
PR2-05-02	Rotor for $6 \times 1.5/2.0$ ml plus 6×0.5 ml plus 6×0.2 ml tubes	1	9.721 007
PSR-16	Rotor for 2 x 8-well 0.2ml microtube strips	1	9.721 008



2 MiniSpin® and MiniSpin® Plus personal centrifuges

Features:

- Extremely compact and small footprint

- Especially quiet due to its carefully balanced drive
- Maintenance-free motor
- Clear digital display
- Minimal sample heating (after 20min. at max. speed only 12°C max.)
- Separate short-spin button
- Automatic lid opening
- Integral power supply unit
- Capacity: 12 x 1.5/2ml containers
- Autoclaveable rotor (121°C, 20min.)
- Startup/slowdown time less than 13 secs. (to/from max. speed).

Additional features of MiniSpin®

- Includes standard anodised aluminium rotor
- Max. speed: 13400rpm, max. rcf: 12400 xg
- Timer can be set for up to 30 mins.

Additional features of MiniSpin® Plus

- Includes premium "Black Line" aluminium rotor
- Max. speed: 14500rpm, max. rcf: 14100 xg
- Speed/rcf display switch
- Timer can be set for up to 99 mins.
- Permanent centrifuging option

Туре	Dimensions (W x D x H)	Weight	Power	PK	Cat. No.
	mm	kg	W		
MiniSpin®	225 x 240 x 120	4.3	70	1	9.776 500
MiniSpin® plus	225 x 240 x 120	4.3	85	1	9.776 501

Separating, centrifuging/Microcentrifuges

1 Microlitre centrifuges Espresso

Introducing Espresso - the personal microcentrifuge that takes productivity and Thermo Scientific ease-of-use to a whole new level. Compact and stylishly designed, the Espresso microcentrifuge lets you perform all your standard runs with a minimum of adjustments, and offers outstanding performance to handle a wide range of applications across pharmaceutical, biotechnology and academic research.

User friendly:

- Rotors and tubes are inserted and removed with minimal effort.
- A large LED display simplifies viewing of parameters
- Setting parameters is also fast and simple using a single knob-no need to bother with toggling arrow keys or imprecise analog controls
- Espresso is a snap to clean: its plastic rotor is fully autoclavable and non-corroding, and the unit features a brushless motor that offers years of maintenance-free operation

Maximum productivity:

- Espresso offers outstanding performance in a small, versatile package. Operating at 14.500 x g, it can hold 12 micro tubes from 0.5 to 2.0 mL and supports smaller volumes with adapters
- Espresso excels in a wide range of applications including nucleic acid purification, PCR cleanup, plasmid mini-prep, protein processing and forensics
- Its fast spin-up/spindown offers significant time savings that increases productivity

Compact and quiet:

- With its 76.5 square-inch footprint, Espresso delivers consistent results without taking center stage on your benchtop
- its exceptionally quiet so you can conduct your research all day long without distraction

Туре	Max. rcf	Max. speed	Dimensions (W x D x H)	PK	Cat. No.
	хg	rpm	mm		
Espresso	14500	14600	250 x 200 x 150	1	9.945 115

Accessories for microcentrifuge Espresso		(NEW!)
	Theri	no Scientific
Description	РК	Cat. No.
Adapter 0.5mm (D= 8mm)	12	4.009 275
Adapter 0.4mm (D= 6mm)	12	4.009 276

2 Accessories for MiniSpin® and MiniSpin® Plus personal centrifuges

Eppendorf AG



Туре	PK	Cat. No.
Rotor F-55-16-5-PCR incl. lid	1	9.776 521
Lid, stainless steel for F-55-16-5-PCR	1	9.776 522
Adapter for 0.5ml microcentrifuge tubes and 0.6ml microtainers	6	9.776 488
Adapter for 0.4ml microcentrifuge tubes	6	9.776 487
Adapter for 0.2ml PCR-vessels	6	9.776 504



Separating, centrifuging/Microcentrifuges



2

1 Microcentrifuge Spectrafuge™ 24D



The Spectrafuge 24D combines innovations such as a unique, easy access rotor, exclusive multi-flow air cooling system and high performance drive with a digital

microprocessor that precisely regulates operation. Parameters are selected with two "smart" knobs and values are shown on large, easy to read, LED displays. Speed can be set and displayed in rpm or g-force while runs may be timed, continuous or momentary.

The unique design of the 24-place rotor allows easy access to the tops of the tubes. An optional StripSpin™ adapter fits onto the rotor for spinning 0.2ml tubes and strips. A powerful, brushless motor quickly accelerates the rotor to set speed. Air enters the centrifuge through vents on the back of the housing and it is circulated in multiple directions to maximize cooling. The result is a cool running microcentrifuge that keeps samples close to ambient temperature, even during extended runs at maximum speed. For samples that require below ambient temperatures, the Spectrafuge 24D may be used in a cold room.

Specifications:

Maximum speed/RCF: 13.300rpm/16.300xg Maximum capacity: 24 x 1.5ml/2.0ml 1 to 30min or continuos

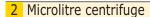
"Quick" button for momentary operation

Ambient operating range: 4°C to 35°C 235 x 293 x 216mm Dimensions (WxDxH):

Weight: 8.1kg

230V 50Hz or 120V 60Hz Supply requirements:

Cat. No. Spectrafuge[™] 24D 9.945 799



Microlitre centrifuge for microtubes up to 2.0ml.

Labnet



- Brushless, induction motor

- Steplessly adjustable speed range: 1000rpm to 14000rpm rpm

- Timer pre-selection from 1 min. to 30 min. with "continuous run" facility

- "quick" pulse button for short time runs

- CE-marked

- Constructed to IEC 1010 requirements

Specifications

Max. capacity: 18 × 1.5/2.0ml Max. speed: 14000rpm Max. rcf.: 15996×g

200 × 180 × 220mm Dimensions (W x H xD):

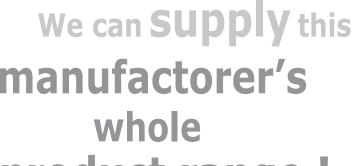
Weight:

Description	PK	Cat. No.
microlitre centrifuge complete with accessories	1	9.945 721

manufactorer's whole product range







(NEW!)

Labnet

Separating, centrifuging/Microcentrifuges

Microcentrifuge Prism/Prism R

Operation can be timed, continuous or momentary, using the "quick" button. Vibration free operation is ensured by an isolation system. In the event of a significant imbalance,

operation of the centrifuge is automatically stopped. Deceleration at the end of a run is very quick, but will not disrupt samples. Supplied with a uniquely designed 24 x 1.5ml/2.0ml rotor that allows easy access to the tops of the sample tubes. Individual tube slots in the solid aluminum rotor support tubes along their length and contain the sample in the event of tube failure. The rotor is seated on a tapered shaft which facilitates easy removal for cleaning and autoclaving.

Adapters for smaller tubes and PCR strips -please oder separately.

Specifications Prism/Prisma R

500 to 15.000rpm/500 to 13.500rpm Speed range:

Max. RCF: 21.200xg/17.135xg 24 x 1.5/2.0ml Max. capacity:

Timer: 0.5 to 99 minutes or continuous "Quick" button for momentary operation

Tempearatur range: ---/-10 to 40°C

Dimensions (WxDxH): 24 x 35 x 19cm/27.7 x 45 x 24.75cm

Weight: 9.6kg/20kg

Power supply: 230V, 50Hz or 120V, 60Hz



9.945 795



9.945 793

Description	PK Cat. No.
Prism ambient microcentrifuge with 24 place rotor	1 9.945 795 1
Prism R ambient microcentrifuge with 24 place rotor and cooling	1 9.945 793 2
StripSpin adapter for 0.2ml tubes and strips	1 9.945 794
Individual adapter for 0.5/0.6ml tubes	6 9.945 796
Individual adapter for 0.4/0.25ml tubes	6 9.945 797
Individual adapter for 0.2ml thermal cycling tubes	6 9.945 798

3 Mini Plate Spinner MPS 1000

- quickly spin down droplets and condensation

- use before and after thermal cycling to increase PCR yield

- accepts skirted, non-skirted and all standard PCR plates

- less than 1/4 x the size of most plate centrifuges

Specifications

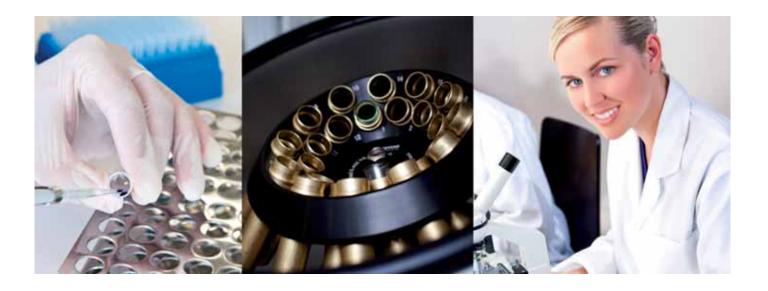
2 PCR Plates Capacity: Rotor Speed: 2500rpm Centifugal force: 500xg Fixed vertically Rotor: Dimensions (WxDxH): 483 x 534 x 465mm

Weight: 3kg

Supply requirements: 230V 50/60Hz

PK Cat. No. Type MPS 1000 9.945 790





Separating, centrifuging/Microcentrifuges

1 Microcentrifuge 5418/5418 R

Microcentrifuge 5418

- 18 place rotor for 1.5/2.0ml tubes
- Lid opens automatically after spinning
- Very small profile, minimal bench space required
- Remarkably silent, even without rotor lid
- Standard, certified aerosol-tight rotor
- Convenient Eppendorf two-dial operation
- rpm/rcf converter
- Short-spin

Microcentrifuge 5418 R, with additional features:

- The patented compressor technology reduces vibration to a minimum
- Temperature range: 0°C to +40°C
- Low access height of 26cm

Supply requirements:

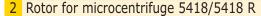
- Keeps a constant 4°C at max. speed
- Fast Temp for rapid pre-cooling of the centrifuge

Specifications 5418/5418 R Max. rcf: 16 873xg Max. speed: 14 000rpm Capacity: 18 x 1.5/2.0ml Warm-up time to max. speed: 16s/11s Slow-down from max. speed: 18s/12s Noise level: <51dB(A)/<56dB(A)

Weight Type Description **Dimensions** Power PK (W x D x H) mm 210 x 300 x 210 170

230V, 50/60Hz





Includes aerosol-tight rotor cover. 18-place rotor.

Туре PK Cat. No. Rotor F-45-18-11 incl. aerosoltight rotor lid 9.776 705



3 Microcentrifuge 5424/5424 R

Microcentrifuge 5424

- 24-place-centrifuge
- aerosol tight rotors
- 4 different rotors
- very quiet in operation, even without rotor lid
- Choice of analogue dial or membrane keypad control
- adjustable soft ramp acceleration

Microcentrifuge R 5424, additional features:

- The patented compressor technology reduces vibration to a minimum
- Temperature range: -9°C to +40°C
- Small footprint and low access height of 26cm
- Keeps a constant 4°C at max. speed
- Fast Temp for rapid pre-cooling of the centrifuge, for example, from about 21°C to 4°C in 8 mins.

Specifications 5424/5424 R Max. rcf: 20238 x q/21130 x q Max. speed: 14.680rpm/15.000rpm Capacity: 24 x 1.5/2ml Warm-up time to max. speed: 15 sec.

Slow-down from max. speed: 16 sec. Noise level: 51 dB(A)/54 dB(A) Supply requirements: 230V 50/60Hz

Description	Dimensions	Weight	Power	PK	Cat. No.
	(W x D x H)				
	mm	kg	W		
with control knobs, with rotor	236 x 320 x 227	13.4	250	1	9.776 710
with foil keypad, with rotor	236 x 320 x 227	13.4	250	1	9.776 711
with control knobs, without rotor	236 x 320 x 227	13.4	250	1	9.776 712
with foil keypad, without rotor	236 x 320 x 227	13.4	250	1	9.776 713
with control knobs, with rotor, aerosol-tight	290 x 480 x 260	21.0	350	1	9.776 762
with foil keypad, with rotor, aerosol-tight	290 x 480 x 260	21.0	350	1	9.776 760
with control knobs, without rotor	290 x 480 x 260	21.0	350	1	9.776 763
with foil keypad, without rotor	290 x 480 x 260	21.0	350	1	9.776 761
	with control knobs, with rotor with foil keypad, with rotor with control knobs, without rotor with foil keypad, without rotor with control knobs, with rotor, aerosol-tight with foil keypad, with rotor, aerosol-tight with control knobs, without rotor	with control knobs, with rotor 236 x 320 x 227 with foil keypad, with rotor 236 x 320 x 227 with foil keypad, without rotor 236 x 320 x 227 with foil keypad, without rotor 236 x 320 x 227 with foil keypad, without rotor 236 x 320 x 227 with control knobs, with rotor, aerosol-tight 290 x 480 x 260 with foil keypad, with rotor, aerosol-tight 290 x 480 x 260 with control knobs, with rotor, aerosol-tight 290 x 480 x 260	(W x D x H) mm kg with control knobs, with rotor 236 x 320 x 227 13.4 with foil keypad, with rotor 236 x 320 x 227 13.4 with control knobs, without rotor 236 x 320 x 227 13.4 with foil keypad, without rotor 236 x 320 x 227 13.4 with control knobs, with rotor, aerosol-tight 290 x 480 x 260 21.0 with control knobs, with rotor, aerosol-tight 290 x 480 x 260 21.0 with control knobs, without rotor 290 x 480 x 260 21.0	(W x D x H) mm kg W with control knobs, with rotor 236 x 320 x 227 13.4 250 with foil keypad, with rotor 236 x 320 x 227 13.4 250 with control knobs, without rotor 236 x 320 x 227 13.4 250 with foil keypad, without rotor 236 x 320 x 227 13.4 250 with control knobs, with rotor, aerosol-tight 290 x 480 x 260 21.0 350 with foil keypad, with rotor, aerosol-tight 290 x 480 x 260 21.0 350 with control knobs, without rotor 290 x 480 x 260 21.0 350 with control knobs, without rotor 290 x 480 x 260 21.0 350	(W x D x H) mm kg W with control knobs, with rotor 236 x 320 x 227 13.4 250 1 with foil keypad, with rotor 236 x 320 x 227 13.4 250 1 with control knobs, without rotor 236 x 320 x 227 13.4 250 1 with foil keypad, without rotor 236 x 320 x 227 13.4 250 1 with foil keypad, with rotor, aerosol-tight 290 x 480 x 260 21.0 350 1 with foil keypad, with rotor, aerosol-tight 290 x 480 x 260 21.0 350 1 with control knobs, without rotor 290 x 480 x 260 21.0 350 1

E & OE. 612







(NEW)

Eppendorf AG

Eppendorf AG

Separating, centrifuging/Microcentrifuges

Rotors for Microcentrifuge 5424/5424 R

Including Rotor lid.

FA-45-24-11

Certified aerosol-tight rotor for 24 x 1.5ml /2.0ml microcentrifuge tubes comes standard (max. 20.238xq). Perfect for standard applications and centrifugation of biohazardous or radioactive samples. Aerosol-tight rotors are easily

FA-45-24-11-Special

Certified aerosol-tight rotor for 24 x 1.5ml /2.0ml tubes with special PTFE-coating for improved chemical resistance (e.g., when working with phenol or chloroform) and easy cleaning (max. 20.238xg). Aerosol-tight rotors are easily identified by a red lid screw.

F-45-18-11-Kit

Innovative 18-place rotor for miniprep spin columns and 1.5/2.0 ml tubes. Designed with an extra high rim to support open tube lids during centrifugation, no more torn off lids (max. 18.111xg).

F-45-32-5-PCR

Rotor for 4 x 8-tube PCR strips or 32 x 0.2ml PCR tubes quickly knocks down liquids and properly supports thin-walled PCR tubes (max. 18.615 xg).





Туре	PK	Cat. No.
FA 45-24-11*	1	9.776 724 1
FA 45-24-11-Special**	1	9.776 721 2
F 45-18-11-Kit	1	9.776 722 3
F 45-32-5-PCR	1	9.776 723 4
Adapter for 0.2ml PCR tubes in fixed angle rotor	6	9.776 504
Adapter for 0.4ml PCR tubes in fixed angle rotor	6	9.776 487
Adapter for 0.5ml PCR tubes in fixed angle rotor/B-D-Microtainer	6	9.776 488
* aerosol-tight		
**aerosol-tight, PTFE-coated		

5 Microcentrifuge 5430/5430 R

Microcentrifuge 5430

- Choice of 8 different rotors, e.g. MTP rotor, Falcon rotor for max. versatility

- 30 place centrifuge for 1.5/2.0ml micro test tubes
- Unique 30.130xg
- Automatic rotor recognition
- Stores up to 50 routine programs
- Menu guided operation in 4 different languages
- Automatic lid opening following application sequence (only 5430)

Microcentrifuge 5430 R, additional features:

- Temp. range: -11 to +40°C
- +4°C at max. speed with all rotors
- Continues cooling after the centrifugation process
- Fast Temp for achieving required temperature in shortest possible time
- Fast Temp for having the centrifuge refrigerated and ready-for-use at your desired pre-set time



Specifications 5430/5430 R Max. rcf: 30130 xg Max. speed: 17500rpm

Capacity: 30 x 1.5/2.0ml or 6 x 50ml

Acceleration time to max. speed: <25 sec. Braking period from max. speed: <25 sec.

Noise level: <67 dB(A)/<63 dB(A)Supply requirements: 230V, 50/60Hz

Туре	Description	Dimensions (W x D x H)	Weight	Power	PK	Cat. No.
		mm	kg	W		
5430	without rotor, with membrane keypad	330 x 420 x 250	29.0	475	1	9.776 731
5430	without rotor, with dial setting	330 x 420 x 250	29.0	475	1	9.776 732
5430	with rotor FA-45-30-11	330 x 420 x 250	29.0	475	1	9.776 730
5430	with rotor FA-45-30-11, with dial setting	330 x 420 x 250	29.0	475	1	9.776 733
5430 R	without rotor, with membrane keypad	380 x 640 x 300	56.0	1050	1	9.776 734
5430 R	without rotor, with dial setting	380 x 640 x 300	56.0	1050	1	9.776 735
5430 R	with rotor FA-45-30-11, with membrane keypad	380 x 640 x 300	56.0	1050	1	9.776 736
5430 R	with rotor FA-45-30-11, with dial setting	380 x 640 x 300	56.0	1050	1	9.776 737

Eppendorf AG

6. Distillation, Separation, Filtration

Separating, centrifuging/Microcentrifuges

9.776 740 9.776 742

9.776 744 9.776 745

9.776 747 9.776 751 Rotors for microcentrifuge 5430/5430 R

Include rotor cover.

FA-45-30-11

Standard rotor, 30 x tubes 1.5/2.0ml, max. 20817xg, speed 14000rpm

F-45-30-11

Fixed angle rotor, 30 x tubes 1.5/2.0ml, max. 20817xg, speed 14000rpm

High speed rotor, 24 x Eppendorf 1.5ml Safe-Lock tubes and 3810X tubes, max. 30130xg, speed 17500rpm

FA-45-24-11-Kit

Kit rotor 24 x spin columns, nucleic acid cleaning kits, tubes up to 2.0ml, max. 19090xg, speed 13200rpm F-45-64-5-PCR

PCR strip rotor, 8 x 5/8 PCR strips or 64 x 0.2ml PCR tubes, max. 13543xg, speed 11800rpm F-45-18-17-Cryo

CryoTube® rotor, 18 x CryoTubes® 1.0/2.0ml, max. 8320xg, speed 8900rpm

F-35-6-30

Falcon® rotor, 6 x 50ml or 6 x 15ml Falcon® tubes, max. 7197xg, speed 7830rpm

A-2-MTP

MTP rotor for PCR plates, CombiSlide adapter, max. loading height 29mm, max. 2204xg, speed 4680rpm

Туре	PK	Cat. No.
F-45-30-11*	1	9.776 740 1
FA-45-30-11**	1	9.776 741
FA-45-24-11-HS**	1	9.776 742 2
FA-45-24-11-Kit**	1	9.776 743
F-45-18-17-Cryo, incl. Adapter	1	9.776 744 3
F-45-64-5-PCR, incl. Adapter	1	9.776 745 4
F-35-6-30, incl. Adapter	1	9.776 747 5
A-2-MTP***	1	9.776 751 6

^{*} PTFE-coated

^{***}incl. 2 MPT-supports



Microcentrifuge 5430/5430 R rotor accessories

	E	Eppendorf AG		
Description	PK	Cat. No.		
Adapter for F-45-64-5-PCR	4	9.776 746		
Adapter for 1 x 15ml Falcon-type tubes	10	9.776 750		
MPT spare supports	2	9.776 752		

We can **SUPPly** this manufactorer's whole product range!



eppendorf

^{**}aerosol-tight, PTFE-coated

Separating, centrifuging/Microcentrifuges

1 2 Refrigerated microlitre centrifuge Z 216 MK



Hermle

The Z 216 MK refrigerated microcentrifuge sets a new standard in this centrifuge class. Capable of centrifuging up to 44 x 1.5/2.0ml, it features a versatile control panel allowing for storage of up to 99 runs. The powerful refrigeration system keeps samples at temperatures as low as 4°C during a continious run at 20000xg.

Specifications:

- Maintenance-free induction drive
- Microprocessor with large LCD Display
- Motor driven lid lock
- Active imbalance-identification and -cut off
- Standstill cooling
- Audible signal at the end of each run
- Rapid acceleration and deceleration (see rotor data)
- Lowest sample temperature 4°C at 20000xg
- Noise level < 56 dBA at 20000xg
- Extremely compact with a space saving footprint
- Quick access to samples with a snap on lid
- Aerosol tight rotor option
- Manufactured according to international safety regulations, i.e. IEC 1010
- Distinct control panel





Technical data

Max. speed: 15000rpm 21380xg Max. RCF: Max. Volume: 44 x 1.5/2.0ml Speed range: 200 to 15000rpm

59 min 50 sec/10 sec increments Running time: 99 h 59 min/1 min increments

Description	Dimensions (W x D x H)	Weight	Rating	PK	Cat. No.
	mm	kg	W		
Refrigerated microlitre centrifuge Z 216 MK	280 x 550 x 290	35	500	1	6.231 520
Refrigerated microlitre centrifuge Z 216 MK incl. angle rotor	280 x 550 x 290	35	500	1	6.230 074

3 4 Accessories for refrigerated Microlitre centrifuge Z 216 MK		NEW!
		Hermle
Description	PK	Cat. No.
Angle rotor 24 x 1.5/2.0ml	1	9.945 715
Angle rotor 24 x 1.5/2.0ml, hermetically sealed	1	9.945 716
Angle rotor 30 x 1.5/2.0ml, hermetically sealed	1	9.945 717
Adapter sets for 0.2 and 0.4ml reaction vessels	6	6.225 371
Adapter sets for 0.5ml reaction vessels	6	6.225 372
Angle rotor for 4 x 8 PCR Stripes	1	9.945 718







Separating, centrifuging/Microcentrifuges



1 2 Refrigerated high speed centrifuge Z 32 HK



With a wide range of accessories, the Z 32 HK high speed centrifuge is applicable in a Hermle wide variety of research settings. In spite of the remarkably small footprint, the Z 32 HK features a powerful refrigeration system capable of maintaining cool sample temperatures even at maximum speed.

Specifications:

- Maintenance-free induction drive
- Microprocessor with large LCD display
- Motor driven lid lock
- Automatic rotor identifi cation system with over speed protection immediately upon rotor installation
- Active imbalance identification and cut off rotor specific
- Imbalance tolerant drive
- CFC-free refrigeration system
- A large variety of rotors and accessories
- Manufactured according to international safety regulations, i.e. IEC 1010
- Audible signal at the end of each run with several melody options
- Quick and easy rotor exchange
- Noise level under 60dBA at max. speed
- Distinct control panel

Technical data

 Max. speed:
 20000rpm

 Max. RCF:
 38012 xg

 Max. Volume:
 4 x 100ml

 Speed range:
 200 to 20000rpm

Running time: 59 min 50 sec./10 sec. increments 99 h 59 min/1 min increments

Description Dimension: (W x D x H				PK	Cat. No.
	mm	kg	W		
Refrigerated High Speed Centrifuge Z 32 HK	400 x 700 x 360	71	1200	1	6.240 037

Accessories for refrigerated High Speed Centrifuge Z 32 HK



Hermle

Description	PK	Cat. No.
Angle rotor for max. 20 x 10ml	1	9.945 915
Angle rotor for max. 24 x 1.5/2.0ml	1	9.945 916

For further accessories see Z 326/Z326K.



3 Microlitre centrifuge MIKRO 120

Compact, powerful microlitre centrifuge that requires little space. With its 24-place rotor With aerosol-tight, phenol-resistant and autoclavable lid sedimentation is fast and safe.

With microprocessor control, impulse key for short centrifuging, one-hand lid locking and lid holding. Easy entry of the parameters via foil keypad. Actual values are displayed during centrifugation.

Specifications

Max. rcf: 18407xg
Max. speed: 14000rpm
Max. capacity: 24 x 0.2 to 2ml

Туре	Description	Dimensions (W x D x H)	Weight	PK	Cat. No.
		mm	kg		
MIKRO 120	without rotor	231 x 292 x 199	approx. 7	1	9.943 116



4 Angle rotor for microlitre centrifuge MIKRO 120

(NEW!

With lid, bio-containment, autoclavable and phenol-resistant.

Hettich

Туре	Description	PK	Cat. No.
1242	for 24 x 1.5 to 2ml	1	9.943 309
Addition	al accessories on request		

Separating, centrifuging/Microcentrifuges

Microlitre centrifuges MIKRO 200/200 R

Refrigerated and non-refrigerated, high-performance microlitre centrifuges. Five exchangeable rotors are available. With frequency drive, microprocessor control with Hettich

4 programmable memories, impulse key for short centrifuging, powered lid locking and "open lid" key. Easy entry of the parameters via select keys and a twist knob. A switch key enables entry/display of rpm (speed) or rcf, as required. Actual values are displayed during centrifugation. The refrigerated MIKRO 200 R allows chamber temperature control between -10 to +40°C. With the Fast Cool function it refrigerates to +4°C in 10 to 15 minutes. The "stand-by" mode maintains the set temperature between runs.

9.943 117

Specifications

Max. rcf: 21382xg Max. speed: 15000rpm Max. capacity: 30 x 0.2 to 2ml



9.943 118

Туре	Description	Dimensions (W x D x H)	Weight	PK	Cat. No.
		mm	kg		
MIKRO 200	without rotor	275 x 344 x 260	approx. 11.5	1	9.943 117 1
MIKRO 200 R	refrigerated, without rotor	281 x 547 x 260	approx. 28	1	9.943 118 2

Accessories for microlitre centrifuges MIKRO 200/200 R

Hettich



Туре	Description	PK	Cat. No.
2427-A	Angle rotor for 30 x 0.2 to 2ml microtubes with standard lid	1	9.943 464
2430-B	Angle rotor for 30 x 0.5ml microtubes with standard lid	1	9.943 322
2426-B	Angle rotor for 20 x 1.8ml cryo tubes with standard lid	1	9.943 323
2418-A	Angle rotor for 32 x 0.2ml or 4 x 8 PCR strips	1	9.943 324
2425	Lid with bio-containment, autoclavable,	1	9.943 342
	for angle rotors 2424-B, 2430-B, 2426-B, 2427-A		
2423	Lid with bio-containment, autoclavable and phenol-resistant,	1	9.943 343
	for angle rotors 2424-B, 2430-B, 2426-B, 2427-A		

Additional accessories on request.



Separating, centrifuging/Microcentrifuges-Benchtop centrifuges



Microlitre centrifuges MIKRO 220/220 R

Microlitre centrifuges with outstanding performance characteristics. Model MIKRO 220 accommodates 9 alternative rotors, the refrigerated version MIKRO 220 R takes

Hettich

13 alternative rotors. The MIKRO 220/220 R feature frequency drive, microprocessor control and impulse key for short period centrifuging. Extremely short acceleration and deceleration times, easy entry of the parameters via a foil keypad and digital display. As necessary, a switch key enables entry/display of rpm (speed) or rcf. 10 complete running programmes can be stored and recalled. The refrigerated MIKRO 220 R can control chamber temperature between -20 and +40°C.

Specifications

 Max. rcf:
 31514xg

 Max. speed:
 18000rpm

 Max. capacity:
 60 x 0.2 to 2ml or 6 x 50ml



9.943 251

Туре	Description	Dimensions (W x D x H)	Weight	PK	Cat. No.
		mm	kg		
MIKRO 220	without rotor	330 x 420 x 313	approx. 23	1	9.943 250 1
MIKRO 220 R	refrigerated, without rotor	330 x 650 x 313	approx. 42	1	9.943 251 2



Accessories for microlitre centrifuges MIKRO 220/220 R

Hettich

Description	PK	Cat. No.
And other ford 2 of 2 to 2 of a factor to be a with Pd		0.040.464
	1	9.943 461
Angle rotor for 24 $ imes$ 0.2 to 2ml microtubes with bio-containment lid	1	9.943 327
Angle rotor for 30 x 0.2 to 2ml microtubes with bio-containment lid	1	9.943 328
Angle rotor, 2-row for 48 x 0.2 to 2ml microtubes with bio-containment lid	1	9.943 329
Angle rotor for $20 imes 1.8$ ml cryo tubes with standard lid	1	9.943 462
Drum rotor for 60 x 0.2 to 2ml microtubes with lid, without adapters	1	9.943 330
Swing-out rotor for 24 x 0.2 to 2ml microtubes with lid	1	9.943 331
Angle rotor for 48 x 0.2ml microtubes or 6 x 8 PCR strips	1	9.943 332
Hematocrit rotor for 24 capillaries with lid as evaluation disk	1	9.943 333
	Angle rotor for 12 x 0.2 to 2ml microtubes with lid Angle rotor for 24 x 0.2 to 2ml microtubes with bio-containment lid Angle rotor for 30 x 0.2 to 2ml microtubes with bio-containment lid Angle rotor, 2-row for 48 x 0.2 to 2ml microtubes with bio-containment lid Angle rotor for 20 x 1.8ml cryo tubes with standard lid Drum rotor for 60 x 0.2 to 2ml microtubes with lid, without adapters Swing-out rotor for 24 x 0.2 to 2ml microtubes with lid Angle rotor for 48 x 0.2ml microtubes or 6 x 8 PCR strips	Angle rotor for 12 x 0.2 to 2ml microtubes with lid Angle rotor for 24 x 0.2 to 2ml microtubes with bio-containment lid Angle rotor for 30 x 0.2 to 2ml microtubes with bio-containment lid Angle rotor, 2-row for 48 x 0.2 to 2ml microtubes with bio-containment lid Angle rotor, 2-row for 48 x 0.2 to 2ml microtubes with bio-containment lid 1 Angle rotor for 20 x 1.8ml cryo tubes with standard lid 2 Drum rotor for 60 x 0.2 to 2ml microtubes with lid, without adapters 1 Swing-out rotor for 24 x 0.2 to 2ml microtubes with lid Angle rotor for 48 x 0.2ml microtubes or 6 x 8 PCR strips

Additional accessories on request.



4 Special-purpose centrifuge HAEMATOKRIT 210

Fast and reliable benchtop centrifuge for accommodating 24 haematocrit capillaries per Hettich run. With microprocessor control, convenient twist lock, lid locking and holding, rotor imbalance cut-out and stop indication. Easy entry of speed and running time using the foil keypad. Display of the actual values during centrifugation.

Specifications

Max. rcf: 16060xg Max. speed: 13000rpm

Max. capacity: 24 haematocrit capillaries

Туре	Description	Dimensions (W x D x H)	Weight	PK	Cat. No.
		mm	kg		
HAEMATOKRIT 210	without rotor	275 x 330 x 247	approx. 10	1	9.943 131

6. Distillation, Separation, Filtration Separating, centrifuging/Benchtop centrifuges

1 Rotor for benchtop centrifuge HAEMATOKRIT 210

Hettich



Туре	Description	PK	Cat. No.
2076	Haematocrit rotor for 24 capillaries with lid as evaluation disk	1	9.943 466

Accessories for benchtop centrifuges ROTINA 420/420 R

Hettich

Type	Description	PK	Cat. No.
4723	Swing-out rotor for max. 4 x 600ml or 16 microtitre plates without carriers	1	9.943 431
4750	Round carrier 600ml for swing-out rotor 4723	1	9.943 356
4751	Bio-containment lid for round carrier 4750	1	9.943 357
4769	Adapter for 13 x 15ml tubes for round carrier 4750	1	9.943 455
4770	Adapter for 5 x 50ml tubes for round carrier 4750	1	9.943 456
4752	Carrier for max. 4 microtitre plates for swing-out rotor 4723	1	9.943 358
4753	Swing-out rotor for max. 4 x 250ml without carriers	1	9.943 432
5092	Round carrier for max. 250ml for swing-out rotor 4753	1	9.943 359
5093	Lid with bio-containment for round carrier 5092	1	9.943 361
5051	Rectangular carrier for max. 100ml for swing-out rotor 4753	1	9.943 458
4754	Swing-out rotor for max. 4 x 100ml without carriers	1	9.943 433
1430	Round carrier for max. 100ml for swing-out rotor 4754	1	9.943 353
1382	Lid for round carrier 1430	1	9.943 341
4758	Swing-out rotor for max. 8 x 50ml without carriers	1	9.943 434
4790-A	Angle rotor for 30 x 0.2 to 2ml microtubes with bio-containment lid	1	9.943 435
4760	Angle rotor for 48 x 0.2ml or 6 x 8 PCR strips	1	9.943 436
4795	Angle rotor for max. 4 x 250ml	1	9.943 437
4794	Angle rotor for max. 6 x 94ml with bio-containment lid	1	9.943 438
A 1 1000 1			

Additional accessories available on request.

2 Compact centrifuge Z 206 A

Compact centrifuge for physicians and clinical laboratories.

Hermle

The Z 206 A accepts up to 12 x 15ml conical and round bottom tubes. For tubes with smaller dimensions we offer several adapters. For larger volumes we offer an angle rotor for 6 x 50ml conical and round bottom tubes.

Specifications:

- Microprocessor with LCD display
- Electrical lid lock
- Pre-selection of the rotor type
- Active imbalance-identification and -cut off
- Manufactured according to international safety regulations
- Noise level under 60dBA at max. speed
- A large variety of rotors and accessoires
- Easy change of rotors
- Distinct control panel

Technical Data

12 x 15ml/6 x 50ml Max. volume: Max. speed: 6000rpm Max. RCF: 4180xg





Description	Dimensions (W x D x H)	Weight	Rating	РК	Cat. No.
	mm	kg	W		
Compact centrifuge Z 206 A	280 x 370 x 260	15	100	1	9.945 737
Compact centrifuge Z 206 A incl. angle rotor 12x15ml	280 x 370 x 260	15	100	1	9.945 738

6. Distillation, Separation, Filtration Separating, centrifuging/Benchtop centrifuges

Accessories for compact centrifuge Z 206 A

Hermle

Description	PK Cat. No.
Angle rotor 12 x 15ml	1 9.945 728 1
Angle rotor 6 x 50ml	1 9.945 729 2
Angle rotor 18 x 1.5/2.0ml	1 9.945 739 3
Swing out rotor 6 x 5ml	1 9.945 740 4





9.945 729



9.945 739



9.945 740

5





6.238 613

Universal centrifuges Z 326/Z 326 K

Universal laboratory centrifuge for medical laboratory, from the large volume (4 \times 100ml) to reaction vessels.

Hermle

Both the table top centrifuge Z 326 and the refrigerated table top centrifuge Z 326 K offer a wide assortment of rotor options, making them ideal for a wide variety of research applications. Rotor exchange between swing out, micro, or high volume angled rotors is very simple and can take place in a matter of seconds. The Z 326 K includes the refrigeration system on the back side of the unit, optimised for the lab bench at only 40cm wide.

Specifications:

- Maintenance-free induction drive
- Microprocessor with large LCD display
- Motor driven lid lock
- Automatic rotor identification system with over speed protection, immediately upon rotor insertion
- Active imbalance-identification and -cut off (rotor specific)
- Imbalance tolerant drive
- CFC free refrigeration system (Z 326 K)
- A large variety of rotors and accessories
- Manufactured according to international safety regulations, i.e. IEC 1010
- Audible signal at the end of each run with several melody options
- Rotor exchange is easy to handle
- Noise level under 60dBA at max. speed
- Optimized airfl ow system keeps the samples cool (Z 326)
- Distinct control panel

Technical data

 Max. speed:
 18000rpm

 Max. RCF:
 23545xg

 Max. volume:
 4 x 100ml

 Speed range:
 200 to 18000rpm

Running time: 59 min 50 sec/10 sec increments 99 h 59 min/1 min increments

Description	Dimensions (W x D x H)	Weight	Rating	PK	Cat. No.
	mm	kg	W		
Universal centrifuges Z 326	400 x 480 x 360	43	230	1	6.241 114 5
Universal centrifuges Z 326 K	400 x 700 x 360	60	230	1	6.238 613 6



6. Distillation, Separation, Filtration Separating, centrifuging/Benchtop centrifuges

Accessories for Universal Centrifuges Z 326/Z 326 K



Description	PK	Cat. No.
Swing out Rotor, 4 place		6.238 614 1
Bucket 1 x 100ml	2	9.945 750
Bucket 1 x 50ml Falcon	2	9.945 752
Bucket 2 x 15ml Falcon	2	9.945 753
Bucket 10 x 1.5ml	2	9.945 771
Swing out Rotor, 4 place	1	6.241 887 2
Bucket 2 x 50ml Falcon	2	9.945 772
Bucket 3 x 15ml Falcon	2	9.945 773
Bucket bermetic for tube racks	2	6.241 888
Tube racks 1 x 100ml	2	6.240 595
Tube racks 1 x 50ml Falcon	2	6.902 309
Tube racks 1 x 30ml Falcon	2	6.902 310
Tube racks 7 x 5 to 7ml	2	9.945 903
Tube racks 5 x 1.5ml	2	
	1	6.902 308
Swing out rotor 2 x 3 Microtiterplates	1	9.945 910 3
Angle rotor for max. 12 x 15ml	1	9.945 912
Angle rotor for max. 6 x 50ml	1	9.945 913
Angle rotor for max. 6 x 85ml	1	6.240 038
Angle rotor for max. 24 x 1.5/2.0ml	1	6.238 615 4
Angle rotor for 4 x 8 PCR Stripes	1	9.945 919



Benchtop centrifuges EBA 20/EBA 20 S

The practical and handy EBA 20 and EBA 20S are supplied with an 8-place angle rotor. Hettich Designed for small sample throughput, they are ideal for use in doctors' surgeries or in large laboratories as auxiliary equipment. With microprocessor control, impulse key for short centrifuging, one-hand lid locking and lid holding. Easy entry of the parameters time and speed (rpm) via foil keypad. Actual values are displayed during centrifugation. Various tubes (incl. glass tubes) can be centrifuged without an adapter. Adapters for additional blood collection tubes are available on request. Model EBA 20 S is supplied with adapters for 13 x 75mm Vacutainers (1.6ml to 5ml).

Specifications

Max. rcf: EBA 20: 3461xg EBA 20 S: 6153xg Max. speed: EBA 20:

6000rpm EBA 20 S: 8000rpm Max. capacity: 8 x 15ml

Туре	Description	Dimensions (W x D x H)	Weight PK		Cat. No.	
		mm	kg			
EBA 20	with angle rotor	231 x 292 x 216	approx. 4	1	9.943 110 5	
EBA 20 S	with angle rotor	231 x 292 x 216	approx. 6	1	9.943 463 6	



9.943 110



9.943 463

Separating, centrifuging/Benchtop centrifuges



1 Benchtop centrifuge EBA 21

Compact, versatile and powerful benchtop centrifuge. With microprocessor control, Hettich impulse key for short centrifuging, convenient twist-lock lid closure, lid holding device and 3 programmable memories. Easy entry of the parameters via foil keypad. Actual values are displayed during centrifugation.

Specifications

 Max. rcf:
 25718xg

 Max. speed:
 18000rpm

 Max. capacity:
 6 x 50ml

Туре	Description	Dimensions (W x D x H)	Weight	PK	Cat. No.
		mm	kg		
EBA 21	without rotor	275 x 330 x 247	approx. 11	1	9.943 112



2 Accessories for benchtop centrifuge EBA 21

Hettich

Hettich

Туре	Description	PK	Cat. No.
1000			22424
1022	Angle rotor for 12 x 0.2 to 2ml microtubes with lid	1	9.943 457
1089-A	Angle rotor for 30×0.2 to 2ml microtubes with lid with bio-containment	1	9.943 376
1416	Angle rotor for max. 12 x 15ml	1	9.943 377
1116	Angle rotor for max. 6 x 50ml	1	9.943 378
1118	Angle rotor for 12 x 5ml or 12 x 7ml with decanting aid	1	9.943 379
1126	Swing-out rotor for max. 12 x 5ml without carriers	1	9.943 380
1127	Carrier for swing-out rotor 1126 for 1 $ imes$ 1.6 to 5ml	1	9.943 348
1120	Swing-out rotor for max. 8 x 10ml without carriers	1	9.943 382
1131	Carrier for swing-out rotor 1120 for $1 imes 1.6$ to $6 imes 1.6$ to	1	9.943 346
1132	Carrier for swing-out rotor 1120 for 1 x 4 to 10ml	1	9.943 347
1114	Swing-out rotor for max. 8 x 10ml without carriers	1	9.943 383
1122	Carrier for swing-out rotor 1114 for 1 x 4 to 10ml	1	9.943 349
1115	Swing-out rotor for max. 6 x 15ml without carriers	1	9.943 384
1123	Carrier for swing-out rotor 1115 for 1 x 1.1 to 1ml	1	9.943 345
1450	Haematocrit rotor for 24 capillaries with lid as evaluation disk	1	9.943 385
1024-A	Angle rotor for 24 x 0.2 to 2ml microtubes with lid*	1	9.943 460

*Aerosol-tight, autoclavable and phenol-resistant lid for this rotor, available on request.

Additional accessories on request.



3 Benchtop centrifuge ROTOFIX 32 A

Microprocessor-controlled benchtop centrifuge with a comprehensive and versatile range of accessories. 11 exchangeable rotors enable a multitude of applications. With

frequency drive, impulse key for short period centrifuging, lid locking and holding. An "rcf" key allows display of the rcf during operation, while the key is pressed. Easy entry of rpm (speed) and time via foil keypad. Actual values are displayed during centrifugation.

Specifications

Max. rcf: 4226xg Max. speed: 6000rpm

Max. capacity: $4 \times 100 \text{ml}/32 \times 15 \text{ml}$

Туре	Description	Dimensions (W x D x H)	Weight	PK	Cat. No.
		mm	kg		
ROTOFIX 32 A	without rotor	366 x 430 x 257	approx. 23	1	9.943 119

6. Distillation, Separation, Filtration Separating, centrifuging/Benchtop centrifuges

Accessories for benchtop centrifuge ROTOFIX 32 A

H	10	tt	ich	

Туре	Description	PK	Cat. No.
1624	Swing-out rotor for max. 4 x 100ml or 4 slide preparations, without carriers	1	9.943 386
1324	Swing-out rotor for max. 4 x 100ml without carriers	1	9.943 387
		1	
1381	Round carrier 100ml fitting into swing-out rotor 1624	1	9.943 340
1390	Round carrier 100ml fitting into swing-out rotor 1324	1	9.943 350
1398	Round carrier 50ml fitting into swing-out rotor 1324	1	9.943 351
1382	Lid for round carriers 1381 and 1390	1	9.943 341
1611	Swing-out rotor for max. 8 x 15ml without carriers	1	9.943 388
1628	Swing-out rotor for max. 12 x 15ml without carriers	1	9.943 389
1619	Swing-out rotor for 6 x 15ml or 6 x 50ml conical tubes with screw cap	1	9.943 392
1617	Swing-out rotor for 8 x 15ml or 8 x 50ml conical tubes with screw cap	1	9.943 393
1418	Angle rotor for 8 x 50ml or 32 x 15ml without carriers	1	9.943 394
1613	Angle rotor for max. 12 x 15ml	1	9.943 395
1620 A	Angle rotor for max. 6 x 85ml	1	9.943 396
1626	Cyto rotor for 6 slide preparations without carriers	1	9.943 397
1648	Cyto rotor for 8 slide preparations with carriers	1	9.943 398

Additional accessories on request.

1 Benchtop centrifuges UNIVERSAL 320/320 R

The UNIVERSAL 320/320 R impress with excellent performance in both the high and low Hettich speed ranges, and versatile, easily exchangeable accessories. At low speeds, they process standard tubes up to a volume of 100ml, microtitre plates, conical tubes with screw cap, blood collection tubes and cyto accessories. Microlitre tubes can be accelerated to an rcf of 21382. A selection of 19 rotors is available for the UNIVERSAL 320/320 R centrifuges. With frequency drive, microprocessor control, impulse key for short centrifuging, quick-entry foil keypad and digital display. As necessary, a switch key enables entry/display of rpm (speed) or rcf. Ten complete running programmes can be stored and recalled. Temperature in the refrigerated UNIVERSAL 320 R is adjustable within a range of -20 to +40°C.



Specifications

Max. rcf: 21382xg Max. speed: 15000rpm Max. capacity:

Description

4 x 100ml/32 x 15ml

Туре	Description	Dimensions (W x D x H)	Weight	PK	Cat. No.
		mm	kg		
UNIVERSAL 320	without rotor	395 x 520 x 346	approx. 31	1	9.943 120
UNIVERSAL 320 R	without rotor, with refrigeration	401 x 695 x 346	approx. 53	1	9.943 121

Accessories for benchtop centrifuges UNIVERSAL 320/320 R

Hettich

Туре	Description	PK	Cat. No.
1494	Swing-out rotor for max. 4 x 100ml without carriers	1	9.943 399
1624	Swing-out rotor for max. 4 x 100ml or 4 slide preparations without carriers	1	9.943 386
1324	Swing-out rotor for max. 4 x 100ml without carriers	1	9.943 387
1425	Round carrier 100ml for swing-out rotor 1494	1	9.943 352
1430	Round carrier 100ml for swing-out rotor 1494, can be closed with lid 1382	1	9.943 353
1381	Round carrier 100ml for swing-out rotor 1624	1	9.943 340
1390	Round carrier 100ml for swing-out rotor 1324	1	9.943 350
1398	Round carrier 50ml for swing-out rotor 1324	1	9.943 351
1382	Lid for round carriers 1430, 1381 and 1390	1	9.943 341
1619	Swing-out rotor for 6 x 15ml or 6 x 50ml conical tubes with screw cap	1	9.943 392
1617	Swing-out rotor for 8 x 15ml or 8 x 50ml conical tubes with screw cap	1	9.943 393
1628	Swing-out rotor for max. 12 x 15ml without carriers	1	9.943 389
1611	Swing-out rotor for max. 8 x 15ml without carriers	1	9.943 388
1460	Swing-out rotor 2-place for max. 10 microtitre plates without carriers	1	9.943 400
1453-A	Carrier for plates fitting into swing-out rotor 1460	1	9.943 354
1645	Swing-out rotor 4-place for max. 4 microtitre plates without carriers	1	9.943 401
4345	Carrier for plates fitting into swing-out rotor 1645	1	6.083 811
1612	Angle rotor for 12 x 0.2 to 2ml with lid	1	9.943 413
1420-B	Angle rotor for 24 x 0.2 to 2ml with lid	1	9.943 414
2425	Lid with bio-containment, autoclavable, for angle rotor 1420-B	1	9.943 342
2423	Lid with bio-containment, autoclavable and phenol-resistant for angle rotor 1420-B	1	9.943 343
1689-A	Angle rotor for 30 x 0.2 - 2ml with lid with bio-containment	1	9.943 417
1620-A	Angle rotor for max. 6 x 85ml	1	9.943 396
1418	Angle rotor for 8 x 50ml or 32 x 15ml without carriers	1	9.943 394
1613	Angle rotor for max. 12 x 15ml, max. 4146 rcf	1	9.943 395
1615	Angle rotor for max. 12 x 15ml, max. 16582 rcf	1	9.943 415
1650	Haematocrit rotor for 24 capillaries with lid as evaluation disk	1	9.943 416
1626	Cyto rotor for 6 slide preparations without carriers	1	9.943 397
1648	Cyto rotor for 8 slide preparations with carriers	1	9.943 398

Separating, centrifuging/Benchtop centrifuges



Benchtop centrifuges ROTINA 380/380 R

High-performance, benchtop centrifuges with a comprehensive range of accessories

Hettich especially for applications in the fields of diagnostics, genetics and microbiology. Both models offer a choice of 11 rotors. With frequency drive, microprocessor control, impulse key for short centrifuging and powered lid locking. The advanced C control panel significantly facilitates daily laboratory routine. Parameter selection is done via the use of symbol keys. Values are set with the control knob, and recorded by pressing the Start key. Digital display. As necessary, a switch key enables entry/display of rpm (speed) or rcf. With 98 programmable memories. Temperature within the chamber of the refrigerated ROTINA 380 R is controllable within a range of -20 to +40°C. The temperature can also be set in degrees Fahrenheit.

Specifications:

 Max. rcf:
 24400xg

 Max. speed:
 15000rpm

 Max. capacity:
 4 x 290ml



9.943 130

Туре	Description	Dimensions (W x D x H)	Weight	PK	Cat. No.
		mm	kg		
ROTINA 380	without rotor	457 x 600 x 418	approx. 51	1	9.943 129 1
ROTINA 380 R	without rotor, with refrigeration	457 x 750 x 418	approx. 81	1	9.943 130 2

Accessories for benchtop centrifuges ROTINA 380/380 R

Hettich

Туре	Description	PK	Cat. No.
1754	Swing-out rotor for max. 4 x 290ml without carriers	1	9.943 467
1752	Round carrier 290ml for swing-out rotor 1754	1	9.943 468
1751	Lid with bio-containment for round carrier 1752	1	9.943 469
1798-A	Swing-out rotor for max. 4 x 250ml without carriers	1	9.943 419
1726	Swing-out rotor for max. 6 x 50ml without carriers	1	9.943 420
1717	Swing-out rotor for 10 x 1ml or 10 x 50ml conical tubes with screw cap	1	9.943 421
1760	Swing-out rotor 2-place for max. 10 microtitre plates without carriers	1	9.943 423
1753-A	Carrier for plates for swing-out rotor 1760	1	9.943 355
1720	Angle rotor for max. 6 x 85ml	1	9.943 426
1792	Angle rotor for max. 6 x 94ml with lid with bio-containment	1	9.943 427
1789-A	Angle rotor for 30 $ imes$ 0.2 to 2ml with lid with bio-containment	1	9.943 428
1711	Drum rotor for max. 60 x 0.2 to 2ml without adapters	1	9.943 429
1748	Cyto rotor for 8 slide preparations without carriers	1	9.943 430
1721	Cyto rotor for 8 x 50ml or 32 x 15ml without carriers	1	9.943 470
Additional	occessories on request		



Separating, centrifuging/Benchtop centrifuges

3 Benchtop centrifuges ROTINA 420/420 R

The compact benchtop centrifuges are designed both for high sample throughput and high sample volumes. With a max. Hettich capacity of 4 x 600ml, 140 blood collection tubes or 16 microtitre plates they are ideal for applications in clinical chemistry, in biotechnology and in life science research facilities. With frequency drive, microprocessor control and impulse key for short centrifuging and motorised lid locking. The advanced C control panel is ideal for daily routine tasks in the laboratory. Parameter selection is achieved via the use of symbol keys. Values are set with the control knob, and recorded by pressing the Start key. Digital display. 98 programmable memories. Temperature in the refrigerated ROTINA 420 R is adjustable within a range of -20 to +40°C. The temperature can also be set in degrees Fahrenheit.

Specifications

Max. rcf: 24400xa Max. speed: 15000rpm Max. capacity: 4 x 600ml

Туре	Description	Dimensions (W x D x H)	Weight	PK	Cat. No.
		mm	kg		
ROTINA 420	without rotor	506 x 650 x 423	approx. 75	1	9.943 125 1
ROTINA 420 R	without rotor, with refrigeration	713 x 654 x 423	approx. 108	1	9.943 126 2



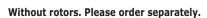




(NEW!

4 5 Centrifuges ROTANTA 460 series

For sample processing in clinical chemistry, biotechnology, molecular biology and the Hettich pharmaceutical industry a wide selection of adapters is available to accommodate the most varied types of tubes. Developed for large volumes, the model offers frequency drive, microprocessor control, impulse key for short centrifuging, and powered lid locking. As necessary, a switch key enables entry/display of RPM (speed) or RCF. All ROTANTA 460 models feature the extended C control panel, which provides up to 98 programmable memories. Temperature in the refrigerated ROTANTA 460 R is controllable within a range of -20°C to +40°C. The temperature can also be set in degrees Fahrenheit. The refrigerated ROTANTA 460 R can also be supplied in an underbench version or as a floorstanding model.



Specifications

Max. capacity: 4 x 750ml 15000rpm Max. speed range: Max. rcf: 24400xg

Running time: 1sec - 99h : 59min : 59sec, ∞ continuous run, short cycle mode





Туре	Description	Dimensions (W x D x H)	Weight	Voltage	PK	Cat. No.
		mm	kg	50/60 Hz		
ROTANTA 460	Benchtop centrifuge, classic	554 x 706 x 456	approx. 93	200-240 V	1	9.943 150
ROTANTA 460	Benchtop centrifuge, classic	554 x 706 x 456	approx. 103	100-127 V	1	9.943 151
ROTANTA 460 R	Benchtop centrifuge, cooled	770 x 706 x 456	approx. 133	200-240 V	1	9.943 152
ROTANTA 460 R	Benchtop centrifuge, cooled	770 x 706 x 456	approx. 143	100-127 V	1	9.943 153
ROTANTA 460 RC	Underbench centrifuge, cooled	554 x 697 x 683	approx. 140	200-240 V	1	9.943 154
ROTANTA 460 RF	Floorstanding centrifuge, cooled	554 x 697 x 961	approx. 164	200-240 V	1	9.943 155

Separating, centrifuging/Benchtop centrifuges



1 Accessories for the ROTANTA 460 centrifuge series

Hettich

Туре	Description	PK	Cat. No.
5624	Swing-out rotor for max. 4 x 750ml or 4 blood bag systems 450ml	1	9.943 439
		1	
5620	Round carrier 750ml for swing-out rotor 5624	1	9.943 362
5621	Lid with bio-containment for round carrier 5620	1	9.943 363
5628	Rectangular carrier for tubes and plates for swing-out rotor 5624	1	9.943 364
5629	Lid with bio-containment for rectangular carrier 5628	1	9.943 365
5694	Swing-out rotor for max. 4 x 250ml without carriers	1	9.943 440
4446	Swing-out rotor for max. 6 x 250ml without carriers	1	9.943 441
5092	Round carrier for max. 290ml for swing-out rotors 5694 and 4446	1	9.943 359
5051	Rectangular carrier for max. 100ml for swing-out rotors 5694 and 4446	1	9.943 458
5093	Lid with bio-containment for round carrier 5092	1	9.943 361
4620	Swing-out rotor 2-place for max. 12 microtitre plates without carriers	1	9.943 442
4489-A	Angle rotor for 30 x 0.2 - 2ml with lid with bio-containment	1	9.943 443
5615	Angle rotor for max. 6 x 94ml with lid with bio-containment	1	9.943 444
5645	Angle rotor for max. 6 x 250ml with lid with bio-containment	1	9.943 445
4474	Swing-out rotor 4-place for 50ml or 100ml ASTM tubes without carriers	1	9.943 446
5616	Angle rotor 6-place for 25 ml or 50ml Schlenk tubes	1	9.943 447
4619	Swing-out rotor 6-place for 30ml chrome bath tubes	1	9.943 448
Additional a	ccessories available on request.		





2 Floor standing centrifuges ROTIXA 50 S/50 RS

Large-capacity, floor standing centrifuges for high sample throughput. ROTIXA 50 Hettich S/50 RS are the centrifuges of choice for development and quality control laboratories in the life science industry and for general medical laboratories. They also accommodate clinical chemistry analyser racks from various manufacturers. Both models feature frequency drive, microprocessor control and impulse key for short period centrifuging. The ROTIXA centrifuges feature the S control panel as standard. This control panel offers 89 programmable memories and many special options. The refrigerated Rotixa 50 RS can control the chamber temperature between -20 and +40°C. On request, it can also be supplied in a heating/cooling version with a temperature range of -20 to +60°C.

Specifications

 Max. rcf:
 5252xg

 Max. speed:
 4.500rpm

 Max. capacity:
 4 x 1000ml

Туре	Description	Dimensions (W x D x H)	Weight	PK	Cat. No.
		mm	kg		
ROTIXA 50 S	without rotor, with S control panel	650 x 720 x 1030	115	1	9.943 127
ROTIXA 50 RS	without rotor, with S control panel and refrigeration	650 x 720 x 1030	172	1	9.943 128

Accessories for floorstanding centrifuges ROTIXA 50 S/50 RS

Hettich

Туре	Description	PK	Cat. No.
4294	Swing-out rotor for max. 4 x 1000ml without carriers	1	9.943 449
4254	Groove ring carrier for swing-out rotor 4294	1	9.943 366
4255	Bucket with lid 1000ml for groove ring carrier 4254	1	9.943 367
4295	Rectangular carrier for max. 750ml for swing-out rotor 4294	1	9.943 368
4229	Lid for rectangular carrier 4295	1	9.943 369
4296	Swing-out rotor for max. 6 x 250ml without carriers	1	9.943 450
5092	Round carrier for max. 250ml for swing-out rotor 4296	1	9.943 359
5093	Lid with bio-containment for round carrier 5092	1	9.943 361
5051	Rectangular carrier for max. 100ml for swing-out rotor 4296	1	9.943 458
5053	Lid for rectangular carrier 5051	1	9.943 459
4282	Swing-out rotor 2-place for racks or max. 16 microtitre plates without carriers	1	9.943 451
4285-A	Carrier for swing-out rotor 4282	1	9.943 371
4274	Swing-out rotor 4-place for 50ml or 100ml ASTM tubes without carriers	1	9.943 453
4316	Angle rotor 6-place for 25ml or 50ml Schlenk tubes	1	9.943 454

6. Distillation, Separation, Filtration Separating, centrifuging/Centrifuge tubes

1 Centrifuge tubes, round bottom, DURAN®

To DIN 58970 part 2. Glass Type I/neutral glass as per USP, EP and JP. Autoclavable.

DURAN Group

Capacity	Dia.	Height	PK	Cat. No.
ml	mm	mm		
6	12	100	1	9.315 010
12	16	100	1	9.315 011
25	24	100	1	9.315 014
50	34	100	1	9.315 017
80*	40	115	1	9.315 024
80	44	100	1	9.315 026
250*	56	147	1	9.315 036
* Not to DIN.				



2 3 Centrifuge tubes, round bottom, AR glass®

Round bottom. Graduated or ungraduated.

Capacity	Dia.	Length	Grad.	PK	Cat. No.
ml	mm	mm	ml		
10 to 15	17	98	no	1	9.315 201
10 to 15	17	107	no	1	9.315 203
50 to 55	35	98	no	1	9.315 207
70 to 100	40	115	no	1	9.315 210
10 to 15	17	98	yes	1	9.315 217
10 to 15	17	107	yes	1	9.315 220
25	25	100	yes	1	9.315 225
			•		





4 Centrifuge tubes, glass, round bottom, graduated, DURAN®

In white enamel, rimless.

Capacity	Dia.	Length	PK	Cat. No.
ml	mm	mm		
10 to 15	17	98	1	9.315 237
10 to 15	17	107	1_	9.315 240
25	25	100	1	9.315 245



5 Centrifuge tubes, AR glass®, conical bottom

Ungraduated. Capacity approx. 15ml. Wall thickness approx. 1mm. Maximum loading: 3500xg rcf.

(NEW!) BRAND



Dia.	Length	Base	Neck	PK	Cat. No.
mm	mm				
17	113	conical, long taper	beaded rim	100	9.315 412
17	98	conical, short taper	rimless	1	9.315 420
17	98	round bottom	rimless	100	9.315 421

Kartell

Kartell

Kartell

Kartell

6. Distillation, Separation, Filtration

Separating, centrifuging/Centrifuge tubes



1 Centrifuge tubes, conical, PP

PP. High chemical resistance. Autoclavable. Can withstand temperatures up to $\pm 120^{\circ}$ C. Cannot be used with naked flame.

Capacity Dia. Height PK Cat. No. ml mm mm 500 9.315 832 10 16 108 15 18 120 500 9.315 833



2 Graduated centrifuge tubes, conical, PP

PP. Autoclavable. Can withstand temperatures up to $\pm 120^{\circ}$ C. Rimmed. High chemical resistance. Good transparency, especially when in contact with liquids. Cannot be used with naked flame. Can be used as conventional test tubes.

Ca	pacity	Grad.	Dia.	Height	PK	Cat. No.
ml		ml	mm	mm		
10		0.10	16	107	100	6.233 811
15		0.20	18	118	100	9.315 834



3 Graduated centrifuge tubes, conical, PMP (TPX®)

PMP (TPX $^{\circ}$). Autoclavable. Can withstand temperatures up to +170 $^{\circ}$ C. Rimmed. High chemical resistance. Crystal clear. Cannot be used with naked flame. Can be used as conventional test tubes.

Capacity	Grad.	Dia.	Height	PK	Cat. No
ml	ml	mm	mm		
10	0.10	16	107	50	6.075 746
15	0.20	18	118	50	6.231 946



4 Centrifuge tubes, cylindrical, PP

Translucent. PP. Autoclavable. Can withstand temperatures up to ± 120 °C. Rimmed. High chemical resistance. Cannot be used with naked flame. Can also be used as conventional test tubes.

Capacity	Dia.	Height	PK	Cat. No.
ml	mm	mm		
7	12	100.0	100	9.315 830
16	17	101.0	500	6.204 878
31	24	93.0	50	6.205 839
48	30	104.0	25	6.205 674
70	35	99.5	20	9.315 831
110	40	119.0	25	6.205 169

Separating, centrifuging/Centrifuge tubes

1 Centrifuge tubes, plastic, round bottom Plastibrand®, graduated

(NEW!)

BRAND

Transparent. PC. Rimless, with moulded graduations.

Slightly yellowish in colour. Round bottom. For use with loads up to 5000xg rcf.

Note: the strength of Polycarbonate is reduced when it is autoclaved or cleaned using alkaline detergents.

Capacity	Grad.	Dia.	Height	PK
ml	ml	mm	mm	
50	1	35	99	1
100	2	41	115	1
100	2	45	98	1



2 LLG-Centrifuge tubes, PP



Polypropylene tubes with very good thermal, mechanical and chemical stability. Fitted with screw-on closure. Packed in boxes or bags. With graduations and labelling area. Cytotoxicity-free, DNase/RNase- and human DNA-free.

Specifications

Centrifugation capacitiy:

6000g 50ml 9000g



Dia.	Height	Capacity	Form	Description	PK	Cat. No.
mm	mm	ml				
17.0	120	15	conical	sterile, single packed	50	9.316 062
17.0	120	50	conical	non-sterile, in rack	480	4.008 507
17.0	120	15	conical	non-sterile	500	9.316 063
30.0	120	50	conical	sterile, single packed	50	9.316 064
30.0	120	50	conical	non-sterile	500	9.316 065
30.0	120	50	conical	non-sterile, in rack	50	9.316 066
30.0	120	50	with rim	sterile, single packed	50	9.316 067
30.0	120	50	with rim	sterile	50	6.238 728
30.0	120	50	with rim	non-sterile	50	4.008 506
30.0	120	50	with rim	non-sterile, in rack	200	4.008 508

3 Centrifuge tubes



Polypropylene tubes with very good thermal, mechanical and chemical stability. Fitted with screw-on closure. Packed in boxes or bags. With graduations and labelling area. Tubes are sterile, cytotoxicity-free, DNase/RNase- and human DNA-free.

Greiner Bio-One

Specifications:

50ml with rim

Centrifugation capacitiy:

15ml without rim 4000xg in swing out rotors

15000xg in fixed angle rotors 3200xg in swing out rotors

50ml with rim 9500xg in fixed angle rotors

> 2800xg in swing out rotors 11500xg in fixed angle rotors

Dia.	Height	Capacity	Form	PK	Cat. No.
mm	mm	ml			
17.0	120	15	conical	50	9.380 423
17.0	120	15	conical	500	7.380 423
17.0	120	15	conical	1000	7.053 718
30.0	115	50	conical	20	9.380 421
30.0	115	50	conical	500	7.380 421
30.0	115	50	conical	300	6.049 748
30.0	115	50	conical, with rim	25	9.380 422
30.0	115	50	conical, with rim	450	7.380 422
30.0	115	50	conical, with rim	300	6.054 664



629

Separating, centrifuging/Centrifuge tubes



1 2 Centrifuge tubes, conical tubes, PP/PE-HD



New and improved conical tubes with the largest writing area on the market for Nunc increased traceability with additional space for labeling information. Recyclable plastic rack reduces waste in the lab. New conical tubes have higher RCF ratings, which enable more applications from low speed to super speed centrifugation. They meet USP class VI requirements and are non-cytotoxic, non-pyrogenic and RNase/DNase free. Graduated, leak proof and sterile (SAL 10-6)

Material tubes: PP Material caps: PE-HD



Capacity	Description	Max.	PK	Cat. No.
ml		rcf		
15	Bulk	10500 x g*	500	9.401 430
15	Racked	10500 x g*	500	9.401 431
50	Bulk	17000 x g*	500	9.401 432
50	Racked	17000 x g*	300	9.401 433

^{*} When fully supported by conical rotor cavity or conical adaptor. Note the maximum speeds listed are guidelines only. These speeds have been achieved in reliability tests based on sedimentation of 1.2 specific gravity fluid at 18°C.



3 Disposable bioreactor CultiFlask 50 ml

Disposable culture system for mammalian cells growing in

suspension, for high throughput screening of process parameters and production cell

lines.

box of 180 pieces total volume: 50ml working volume: 5 to 35ml

Туре	PK	Cat. No.
CultiFlask 50	180	7.624 610



4 Centrifuge tubes, conical, DURAN®

Rimless, with conical base.

DURAN Group

Sartorius Stedim

Capacity	Dia.	Height	Angle	PK	Cat. No.
ml	mm	mm			
12	16	100	30	1	9.315 509
25	24	100	60	1	9.315 514
50	34	100	60	1	9.315 517



5 Centrifuge tubes, AR glass®, conical bottom, graduated

Graduated, with rim and conical bottom.

BRAND

Capacity approx. 15ml. Graduation of approx. volume and labelling in high-contrast white enamel. Graduated from 0 to 15ml x 0.1ml divisions. Wall thickness, approx. 1mm. For use with loads up to 3500xg rcf.

Dia.	Height	PK	Cat. No.
mm	mm		
17	113	1	9.315 416





6 ASTM centrifuge tube BLAUBRAND®

Borosilicate glass 3.3. Cylindrical, with conical base.

BRAND

Complies with ASTM D 91. Capacity 100ml.

Graduations and labelling in high-contrast blue enamel. Maximum loading 700 xg rcf. Supplied singly. Graduated, ml:

In subdivisions, ml:

 Graduated, ml:
 In su

 0 to 0.5
 0.05

 0.5 to 2
 0.10

 2 to 3
 0.20

 3 to 5
 0.50

 5 to 10
 1.00

 10 to 25
 5.00

 25 to 100
 25.0

Capacity ml	PK	Cat. No.
100	1	9.315 810

6. Distillation, Separation, Filtration Separating, centrifuging/Centrifuge tubes

1 ASTM centrifuge tube BLAUBRAND®.

Borosilicate glass 3.3.

Pear-shaped, with cylindrical base.

Former standard ASTM D 96. Capacity 100ml.

Graduations and labelling in high-contrast blue enamel. Maximum loading 700xg rcf. Supplied singly.

Graduated, ml: In subdivisions, ml: 0 to 1.5 0.10 1.5 to 3 0.50 3 to 5 0.50 5 to 10 1.00 10 to 25 5.00 25 to 100 25.0

Capacity ml	PK	Cat. No.
100	1	9.315 815



2 Centrifuge tubes Oak Ridge Typ 3114, FEP

Teflon® FEP with Tefzel® ETFE screw cap. Resistant to all acids, bases and solvents. Nalgene Autoclavable. Operating temperature range -100 to +150°C. Can be used brim-full in refrigerated centrifuges at up to 50000xg rcf. Leak-proof. Accessory sealing cap assemblies are available for all sizes.

Capacity ml	Dia. mm	Height mm	Туре	PK	Cat. No.
10	16.0	81.5	3114	1	9.315 701
30	25.5	93.7	3114	1	9.315 702
50*	28.5	107.7	3114	1	9.315 703



Teflon® and Tefzel® are a registered trademark of DuPont.



Centrifuge tubes Oak Ridge Typ 3115, PSU

Transparent. Polysulphone (PSU) with PP screw cap. As stable and robust as PC Nalgene test-tubes, but considerably more resistant to acids and alkalis. Autoclavable. Can be used in refrigerated or ambient centrifuges at up to 50000xg rcf. Accessory sealing cap assemblies are available for all

Notes: If autoclaving, the tubes must be filled to 80% of their total capacity. Polysulphone must not be used with Tween, as this causes hairline cracks to form.

Туре	Capacity	Dia.	Height	PK	Cat. No.
	ml	mm	mm		
3115	10	16.0	82.0	1	9.315 706
3115	30	25.7	94.5	1	9.315 708
3115	50*	29.0	107.7	1	9.315 709

^{*} Capacity: 43ml to the brim



4 Centrifuge tubes Oak Ridge Typ 3118, PC

Transparent. PC with PP screw cap. Can be used in suitable refrigerated or ambient centrifuges at up to 50000xg rcf. Autoclavable. Accessory sealing cap assemblies are available for 10ml, 30ml and 50ml sizes.

Туре	Capacity	Dia.	Height	PK	Cat. No.
	ml	mm	mm		
3118	10	16.1	81.7	1	9.315 691
3118	28	25.4	101.8	1	9.315 692
3118	30	25.7	94.5	1	9.315 693
3118	50*	28.8	107.0	1	9.315 694
3118	85**	38.2	105.7	1	9.315 695

^{*} Capacity: 43ml to the brim.



Nalgene

^{**}Capacity: 81ml to the brim.

Separating, centrifuging/Centrifuge tubes



1 Centrifuge tubes Oak Ridge Typ 3119, PP-copolymer

PP-copolymer with PP screw cap. PPCO is more resistant to chemicals than PC.

Nalgene Autoclavable. When wet, the translucent test-tube enables observation of the contents.

Can be used in refrigerated and unrefrigerated centrifuges at up to 50000xg rcf. Accessory sealing cap assemblies are available for all sizes.

Type	Capacity	Dia.	Height	PK	Cat. No.
	ml	mm	mm		
3119	10	16.0	81.4	1	9.315 711
3119	28	25.4	101.9	1	9.315 712
3119	30	25.5	94.3	1	9.315 713
3119	50*	28.8	106.7	1	9.315 714

^{*} Capacity: 42ml to the brim.



2 Centrifuge bottles Typ 3120, PP-copolymer

PP-copolymer with PP screw cap. Autoclavable.

Nalgene

Type	Capacity	Dia.	Height	Max.	PK	Cat. No.
	ml	mm	mm	rcf		
3120	250	61.8	127.7	13.200*	1	9.315 716
3120	500	69.5	170.2	4.800	1	9.315 717
3120	500	73.8	170.0	4.800	1	9.315 720
3120	1000	97.5	184.5	7.100	1	9.315 718
3120	1000	97.7	179.0	7.100	1	9.315 719

^{*} Up to 27500xg if using the sealing screw cap 9.315 734.



3 Centrifuge bottles Typ 3122, PC

PC with PP screw cap. Crystal clear. Good mechanical strength. Autoclavable. Leak-proof even at low speeds. In order to ensure that the system is leak-proof even at high speeds and when centrifuging dangerous substances, the 250ml and 1000ml sizes must be used in conjunction with sealing screw cap sets.

Type	Capacity	Dia.	Height	Max.	PK	Cat. No.
	ml	mm	mm	rcf		
3122	250	61.8	127.6	27.500	1	9.315 721
3122	500	69.5	169.6	13.700	1	9.315 723
3122	1000	97.6	188.4	7.100	1	9.315 724
3122	1000	98.1	180.2	7.100	1	9.315 725



4 Sealing cap assemblies Typ DS 3131, PP

PP screw cap with Tefzel® ETFE plug liner and viton O-ring. Leak-proof at recommended Malgene maximum speed and rcf for tubes. Suitable for working with aggressive chemicals. The 38mm assembly has a PP shoulder reinforcement ring to prevent collapsing of the 250ml bottles.

Туре	For tubes	Screw cap dia.	PK	Cat. No.
	ml	mm		
DS3131	30	20	1	9.315 732
DS3131	50	24	1	9.315 733
DS3131	250	38	1	9.315 734

Tefzel® is registered trademark of DuPont.

Separating, centrifuging/Centrifuge tubes

1 Sealing cap assemblies with silicone seal Typ DS 3132, PP

For Oak Ridge centrifuge test tubes made of PP, PC and polysulphone.

Nalgene

Туре	For	Screw cap	PK	Cat. No.
	tubes	dia.		
	ml	mm		
DS3132	28 / 30	20	2	9.315 738
DS3132	50	24	2	9.315 739
DS3132	250	58	2	9.315 740
DS3132	500 / 1000	63	2	9.315 741



2 Wide-mouth centrifuge bottles Typ 3141, PP-copolymer

PP-copolymer with sealing screw cap. Autoclavable.

Nalgene



Туре	Capacity	Dia.	Height	Max. rcf	PK	Cat. No.
	ml	mm	mm	хg		
3141	250	60.7	133.4	27500	1	9.315 763
3141	450	69.5	160.0	13700	1	9.315 764

3 Centrifuge Bottles with Sealing Cap, SuperSpeed, Types 3140, 3141

NEW

Designed to boost productivity and pellet recovery in super speed, large volume gross separation applications. Process one full Litre in each window-clear bottle at speeds up to 15810xg. Graduated, wide-mouth bottle simplifies decanting, re-suspensions and pellet removal. Smooth inner walls are less likely to shear delicate cells. Ideal for bacterial, yeast and tissue isolations. Improve viral harvesting in vaccine production. Reduce shearing in mammalian culture separations. PC offers excellent clarity. Ergonomic design facilitates loading, recovery and storage of samples. Recommended operating temperature range is from 4°C to 22°C; storage to -70°C. Brim capacity is 1.055ml. Nominal Dimensions (Diam. x H): 96.52 x 195.58mm. Before autoclaving, just set closure on top of bottles without engaging the threads. For proper performance these bottles must be filled to at least 80% of the total capacity.



Туре	Capacity	Material	PK	Cat. No.
	ml			
3140	1000	PC	1	9.315 729
3141	1000	PPCO	1	6.236 915

4 Centrifuge bottles Type 3120, BioBottle

Nalgene

Centrifuge bottle with 2L capacity.

- Separating large volumes up to 12L
- Centrifugation up to 7333xg, at temperatures from 4°C to 22°C
- Bottle meets the requirements of USP VI
- Non-cytotoxic, not hemolytic
- PPCO bottle, PP seal screw cap with silicone seal
- Graduated, total volume of 2380ml
- Excellent chemical resistance
- Before autoclaving, unscrew the cap and place it on the bottle neck
- Bottles must always be at least 80% filled

Туре	Capacity ml	Material	PK	Cat. No.
3120	2000	PPCO	1	9.315 727
3120	2000	PPCO, sterile	1	9.315 728



Sartorius Stedim

Sartorius Stedim

6. Distillation, Separation, Filtration

Separating, centrifuging/Centrifuge tubes



1 Centrifugal concentrators, Vivaspin 500

Vivaspin 500µl unit with 2.2ml sample carrier tube can be used in a fixed angle rotor. The vertical, built-in membrane guarantees minimal membrane fouling and provides rapid sample concentration. Low protein adsorption gives minimal sample loss.

Membrane surface: 0.5cm² Max. rcf.: 15000 x g Hold-up volume: $< 5\mu l$



2 Centrifugal concentrators, Vivaspin 500

Membrane: polyethersulphone	Sart	Sartorius Stedim	
мwсо	PK	Cat. No.	
3000	25	9.049 863	
5000	25	9.049 755	
10000	25	9.049 756	
30000	25	9.049 757	
50000	25	9.049 758	
100000	25	9.049 759	
Starter kit (5 ea. 5K to 100K)	25	9.049 750	
3000	100	9.049 864	
5000	100	9.049 850	
10000	100	9.049 851	
30000	100	9.049 852	
50000	100	9.049 853	
100000	100	9.049 854	



3 Centrifugal concentrators, Vivaspin 2

This 2 ml volume unit combines the rapidity of the classic Vivaspin products with reduced internal surface and membrane areas for superior recoveries from very dilute solutions.

With a choice of suitable membranes (PES, CTA, Hydrosart) Vivaspin 2 provides the highest flexibility for process optimisation.

Vivaspin 2 guarantees maximum sample recovery either by reverse centrifuging into the concentrate recovery cap or by directly pipetting the concentrate from the deadstop pocket built into the bottom of the concentrator.

 Membrane surface:
 1.2cm²

 Max. rcf.:
 8000 x g

 Hold-up volume:
 < 10µl</td>



4 Centrifugal concentrators, Vivaspin 2

Membrane: polyethersulphone Sartorius Stedim

MWCO PK Cat. No.

		cuti itoi
3000	25	9.049 861
5000	25	9.049 760
10000	25	9.049 761
30000	25	9.049 762
50000	25	9.049 763
100000	25	9.049 764
3000	100	9.049 862
5000	100	9.049 777
10000	100	9.049 778
30000	100	9.049 779
50000	100	9.049 780
100000	100	9.049 781



5 Vivaspin 6

Vivaspin 6ml concentrators have been developed to offer increased volume flexibility and performance. Vivaspin 6 can process an impressive 6ml in either swing-out buckets or fixed angle rotors accepting standard 15ml conical bottom test tubes. The Vivaspin 6 features twin vertical membranes for unparalleled filtration speeds and 100x plus concentrations.

Membrane area: 2.5cm^2 Max. centrifugal force: $10000 \times g$ Dead volume: $< 10 \mu l$

Separating, centrifuging/Centrifuge tubes

1 Centrifugal concentrators, Vivaspin 6

Membrane: polyethersulphone Sartorius Stedim MWCO PK Cat. No. 5000 9.049 765 25 10000 25 9.049 766 30000 25 9.049 767 50000 9.049 768 100000 25 9.049 769 9.049 770 0.2 µm 9.049 782 10000 9.049 783 30000 9.049 784 50000 9.049 785 100000 9.049 786 100 9.049 787 0.2 µm Starter kit (5 ea. 5K to 100K) 9.049 753



2 Vivaspin 20

Vivaspin 20ml centrifugal concentrators have been developed to offer increased volume flexibility and performance.

Sartorius Stedim

Vivaspin 20 handles up to 20ml in swing bucket centrifuges and 14ml in 25° fixed angle rotors accepting 50ml centrifuge tubes. Featuring twin vertical membranes for unparalleled filtration speeds the Vivaspin 20 can achieve 100x plus concentrations. Remaining volume is easy to read off the printed scale on the side of the concentrator and the modified dead stop pocket further simplifies direct pipette recovery of the final concentrate.

6.0cm² Membrane area: Max. centrifugal force: 8000xg Dead volume: < 20µl

3 Centrifugal concentrators, Vivaspin 20

Membrane: polyethersulphone Sartorius Stedim

MWCO	PK	Cat Na
MWCO	PK	Cat. No.
3000	12	9.049 855
5000	12	9.049 771
10000	12	9.049 772
30000	12	9.049 773
50000	12	9.049 774
100000	12	9.049 775
300000	12	9.049 857
1000000	12	9.049 858
0.2 μm	12	9.049 776
3000	48	9.049 856
5000	48	9.049 788
10000	48	9.049 789
30000	48	9.049 790
50000	48	9.049 791
100000	48	9.049 792
300000	48	9.049 859
1000000	48	9.049 860
0.2 μm	48	9.049 793
Starter kit	12	9.049 754
(2 ea. 5K to 0.2 μm)		



4 Centrifugal filtration units, Centrisart I

Centrisart I is a ready to use unit for small volume centrifugal ultrafiltration to separate proteins from low molecular weight substances in biological samples.

Sartorius Stedim

Typical applications include:

- Drug binding studies
- Determination of metabolites in serum
- Protein removal from blood samples
- Cleaning of liposomes (virus removal)

Туре	PK	Cat. No.
Centrisart 5,000 MWCO CTA	12	9.054 671
Centrisart 10,000 MWCO CTA	12	9.054 672
Centrisart 20,000 MWCO CTA	12	9.054 673
Centrisart 100,000 MWCO PES	12	9.054 674
Starter pack (3 units each of 5K, 10K, 20K, 100K)	12	9.054 675

CTA = Cellulose tri-acetate



635

PES = Polyethersulphone

Separating, centrifuging/Centrifuge tubes-Separating funnels



1 Crossflow filter units, VivaFlow

Thin channel, crossflow filter units with 50cm²/200cm² filter areas for capacities between 100ml/500ml and 5L. This system provides high crossflow rates at minimum pumping pressure and does not require additional fittings for scale-up.

VivaFlow 50 is easy to operate with a flow restrictor and, optionally, a pressure indicator. Modular construction with luer connections allows interlocking of units in series for easy scale-up. Recovery rates are maximised due to optimised recirculation volume and by use of low adsorption materials. Disposable.

For greater volumes, VivaFlow 200 is available with a filter area of 200cm² and includes pressure indicator, flow restrictor, filtrate tubing and connectors.



2 Centrifugal concentrators, Vivacell 70

Membrane: polyethersulphone

Sartorius Stedim

Sartorius Stedim

MWCO	Description	PK	Cat. No.
5000	with 2 x filtrate bottles to fit 250ml centrifuge rotors	2	9.049 730
10000	with 2 x filtrate bottles to fit 250ml centrifuge rotors	2	9.049 731
30000	with 2 x filtrate bottles to fit 250ml centrifuge rotors	2	9.049 732
50000	with 2 x filtrate bottles to fit 250ml centrifuge rotors	2	9.049 733
100000	with 2 x filtrate bottles to fit 250ml centrifuge rotors	2	9.049 734
0.2 μm	with 2 x filtrate bottles to fit 250ml centrifuge rotors	2	9.049 735
5000	without filtrate bottles	10	9.049 736
10000	without filtrate bottles	10	9.049 737
30000	without filtrate bottles	10	9.049 738
50000	without filtrate bottles	10	9.049 739
100000	without filtrate bottles	10	9.049 740
0.2 μm	without filtrate bottles	10	9.049 741
A	Halana manasak		

Accessories available on request.

3



3 Separating funnels "squibb"

Supplied with PTFE stopcock, graduated or ungraduated. According to DIN 12452.

Isolab

Capacity	NS	Description	PK	Cat. No.
ml				
50	19/26	ungraduated	1	4.008 422
100	19/26	ungraduated	1	6.241 670
250	29/32	ungraduated	1	6.238 526
500	29/32	ungraduated	1	6.238 527
1000	29/32	ungraduated	1	6.241 669
2000	29/32	ungraduated	1	6.241 668
50	19/26	graduated	1	6.236 317
100	19/26	graduated	1	6.236 318
250	29/32	graduated	1	6.236 319
500	29/32	graduated	1	6.236 320
1000	29/32	graduated	1	6.236 321
2000	29/32	graduated	1	6,240 412

Separating, centrifuging/Separating funnels

1 Separating funnels, Borosilicate glass 3.3, Squibb-pattern, with PTFE key

Squibb-pattern. With glass stopcock, PTFE key and retaining device. Available with, or without, graduations to read the approximate volume. With PP conical stopper.

Lenz

Capacity	Socket	Bore	Graduations	PK	Cat. No.
ml	NS	mm	ml		
50	19/26	2.5	2	1	9.203 372
100	19/26	2.5	5	1	9.203 373
250	29/32	4.0	5	1	9.203 375
500	29/32	4.0	10	1	9.203 376
1000	29/32	6.0	20	1	9.203 377
2000	29/32	6.0	50	1	9.203 378
50	19/26	2.5	without	1	9.203 322
100	19/26	2.5	without	1	9.203 323
250	29/32	4.0	without	1	9.203 325
500	29/32	4.0	without	1	9.203 328
1000	29/32	6.0	without	1	9.203 330
2000	29/32	6.0	without	1	9.203 332



2 Separating funnels, conical, borosilicate glass 3.3

Supplied with PTFE stopcock, graduated or ungraduated. According to DIN 12452.



Capacity	Description	PK	Cat. No.
ml			
50	ungraduated	1	4.008 423
100	ungraduated	1	4.008 424
250	ungraduated	1	6.242 395
500	ungraduated	1	4.008 425
1000	ungraduated	1	6.242 694
2000	ungraduated	1	4.008 426
50	graduated	1	4.008 427
100	graduated	1	6.241 980
250	graduated	1	6.241 671
500	graduated	1	6.241 981
1000	graduated	1	6.244 011
2000	graduated	1	6.242 394



Separating funnels, Borosilicate glass 3.3, conical, with PTFE key

Conical pattern. With glass stopcock, PTFE key and retaining device. Available with, or without, graduations to read the approximate volume. With PP conical stopper.

Lenz

Capacity	Socket	Bore	Grad.	PK	Cat. No.
ml	NS	mm	ml		
50	19/26	2.5	2	1	9.203 482
100	19/26	2.5	5	1	9.203 483
250	29/32	4.0	10	1	9.203 485
500	29/32	4.0	10	1	9.203 486
1000	29/32	6.0	20	1	9.203 487
2000	29/32	6.0	50	1	9.203 488
50	19/26	2.5	without	1	9.203 462
100	19/26	2.5	without	1	9.203 463
250	29/32	4.0	without	1	9.203 465
500	29/32	4.0	without	1	9.203 466
1000	29/32	6.0	without	1	9.203 467
2000	29/32	6.0	without	1	9.203 468

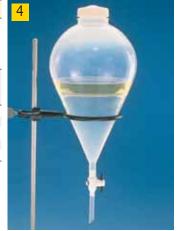


4 Separating funnels with screw cap, Type 4301, FEP

Transparent. Teflon® FEP, Tefzel® ETFE stopcock and ETFE screw cap. Impact resistant. Non-wetting surfaces ensure no liqiud residue adhesion. Chemically stable. Length of stem under stopcock 65mm. Autoclavable.

Nalgene

Туре	Capacity	Screw cap	PK	Cat. No.
		dia.		
	ml	mm		
4301	125	28	1	9.203 531
4301	250	33	1	9.203 532
4301	500	43	1	9.203 533
4301	1000	53	1	9.203 534
4301	2000	53	1	9.203 535



Teflon® and Tefzel® are registered trademark of DuPont.

Separating, centrifuging/Separating funnels



1 Separating funnel holder PP

(NEW!)

Isolab

Manufactured from best quality polypropylene. Suitable to hold all types of laboratory funnels and also separatory funnels with diameter up to 150mm. Two tapered wedges are provided to ensure firm grip.

Туре	PK	Cat. No.
Separating funnel holder	1	9.251 559



Dropping funnels, cylindrical, with pressure equalizing tube



Borosilicate glass 3.3, cylindrical shape, with pressure equalising tube. DIN 12451 and DIN 12567.

Isolab

Capacity ml	NS	PK	Cat. No.
100	19/26	1	4.008 428
250	29/32	1	6.240 982
500	29/32	1	6.240 983



3 4 Dropping funnels, cylindrical, with pressure equalising tube



Lenz

Borosilicate glass 3.3. Cylindrical shape, with pressure equalising tube. With NS socket and interchangeable PE stopper, plug with retaining device. With graduations for reading of the approx. volume.

Two types available:

- With solid glass key
- With PTFE key

Capacity	NS	Bore	Grad.	Keys	PK	Cat. No.
ml		mm	ml			
25	14/23	2.5	1	solid	1	6.072 172
50	29/32	2.5	1	solid	1	9.012 767
50	14/23	2.5	1	solid	1	9.012 755
100	14/23	2.5	2	solid	1	9.012 756
100	29/32	2.5	2	solid	1	9.012 768
250	14/23	4.0	5	solid	1	9.012 757
250	29/32	4.0	5	solid	1	9.012 769
500	29/32	4.0	10	solid	1	9.012 770
1000	29/32	6.0	20	solid	1	7.601 147
25	14/23	2.5	1	PTFE	1	9.012 751
50	14/23	2.5	1	PTFE	1	9.012 752
50	29/32	2.5	1	PTFE	1	6.223 427
100	14/23	2.5	2	PTFE	1	9.012 753
100	29/32	2.5	2	PTFE	1	6.900 312
250	29/32	4.0	5	PTFE	1	9.012 764
500	29/32	4.0	10	PTFE	1	9.012 765
1000	29/32	6.0	20	PTFE	1	9.012 766

