



GERMANY

LABORATORY TECHNOLOGY®
Buddeberg

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LABORATORY

C A T A L O G U E

partner of the



Lab Logistics Group

2007/2008



Welcome to Buddeberg,

Buddeberg is your competent and friendly supplier of laboratory equipment. We can provide the complete range of products for your requirements.

As a modern service provider for laboratory supply, our policy is to ensure the highest quality of products and services, advice and consultancy, rapid delivery times and a "can-do" attitude to customer support.

As shareholders in LLG (Lab Logistics Group) and therefore backed by an extensive stock and warehousing facility, Buddeberg can react very quickly and effectively to your requirements.

Please feel free to contact us. We will find the solution that suits your requirements. Our product experts will be pleased to actively assist you with their customer service know-how.



Do you need chemicals ?

We offer the complete range needed in your laboratory.

- Chemicals and reagents
- Solvents for HPLC, analysis and synthesis
- Buffers and ready-to-use reagents for gel electrophoresis, scintillation and histochemistry
- Products for the biomolecular laboratory

Please contact us. We would be pleased to inform you on the variety of our product range.

Buddeberg GmbH
Mallastr. 49
D - 68219 Mannheim, Germany

- **Magnetic stirrers / Hotplates** **310**
- **Overhead stirrers** **329**
- **Shakers and Mixers** **343**



Magnetic hotplate stirrer
RCT basic safety control / IKAMAG®
new: with digital display,
incl. Temperature sensor

Cat. No.
9.720 240



1

Mechanical stirring motor
RW 20 digital
new: with digital display

Cat. No.
9.816 622



2

ULTRA-TURRAX® Workstation
incl. 2x Tube with stirring device,
2x Tube with rotor-stator element,
2x Tube for grinding with glass balls
and with stainless steel balls



Cat. No.
9.570 500

Dispersing drive (Batch operation)
ULTRA-TURRAX® Tube Drive
World first! Disposable Disperser System with
hermetically sealable disposable sample tubes

Cat. No.
9.570 500



5

Dispersing drive (Batch operation)
T 18 basic ULTRA-TURRAX®
new: wide speed range

Cat. No.
9.570 840



8

ALL NEW AT-A-GLANCE

IKA® news

Electronic contact thermometer **ETS-05**
new: with optimised PID control and RESET function



Cat. No.
9.720 241

3

Electronic contact thermometer **ETS-06**
new: incl. pH measurement



Cat. No.
9.720 242

4

Orbital shaker **MS 3 basic**
new: wide range of attachments



Cat. No.
9.720 930

6

Orbital shaker **MS 3 digital**
new: incl. timer



Cat. No.
9.720 930

7

Dispensing drive (Batch operation)
T 25 digital ULTRA-TURRAX®
new: with digital display



Cat. No.
9.570 040

8

Further information can be found at www.ika.net /

- 1 Mixing / Magnetic Stirrers / with heating
- 2 Mixing / Overhead Stirrers / mechanical
- 3 Mixing / Magnetic Stirrers / Accessories
- 4 Mixing / Magnetic Stirrers / Accessories
- 5 Crushing / Dispersers / batch operation
- 6 Mixing / Shakers / orbital
- 7 Mixing / Shakers / orbital
- 8 Crushing / Dispersers / batch operation
- 9 Crushing / Dispersers / batch operation

new



1 Magnetic stirrers, lab disc

Without heating. lab disc is an innovative, very flat magnetic stirrer. With its modern toroidal coil technology it guarantees a wear-free drive entirely without moving parts. lab disc can automatically change its rotational direction every 30 seconds and obtain thus a better mixing of the medium.

IKA

- Ex protection zone 2
- High IP protection
- Wear-free motor
- Automatic rotational direction change

Max. volume stirred (water):	800 ml
Motor rating input/output:	5/3 W
Speed range:	15 to 1500 rpm
Max. stirrer bar (L x dia.):	30 x 8 mm
Usable plate area dia.:	90 mm
Dimensions (W x D x H):	114 x 161 x 12 mm
Weight:	0.3 kg
Housing IP rating to DIN EN 60529:	IP 65

Description	Cat. No.	PK
White	9.720 452	1
Sunny Side Up	9.720 450	1
Orange	9.720 463	1
Green	9.720 464	1
Pink	9.720 465	1
Brown	9.720 466	1



2 Magnetic stirrers, Ikamag® Color Squid series

Without heating. Individually motified, small magnetic stirrers developed for research, quality control and routine laboratories, pharmacies and schools. "Dual-component" magnetic stirrers, combining the transparency and resistance of a glass top with the flexibility and chemical resistance of Hytrel plastic. Optimally sealed against aggressive vapours or spilt liquid penetration. Suitable for magnetic stirring bars of up to 30 mm in length and for stirring volumes of low viscosity media up to 800 ml. With 110 mm diameter top plate. Further motifs are available on request.

IKA

Max. stirring volume (H ₂ O):	0.8 litres
Speed range:	0 to 1500 rpm.
Motor rating, input/output:	2/1 W
Top plate:	glass, 110 mm dia.
Dimensions (W x D x H):	130 x 135 x 50 mm
Weight:	480 g
Supply requirements:	100 - 240 V ±10 % 50/60 Hz a.c.
Protection level:	IP 54

Type	Cat. No.	PK
Mighty Mouse	9.720 380	1
Wildcat	9.720 385	1
Zip	9.720 377	1
Harry's notes	9.720 375	1
Curly	9.720 367	1
Sunny	9.720 368	1
Bighead	9.720 369	1
Balloon	9.720 370	1
Number one	9.720 374	1

1 Magnetic stirrers, Ikamag® Big Squid

IKA

Without heating. Individually motified, magnetic stirrers for research, quality control and routine laboratories, pharmacies and schools.
With 160 mm diameter top plate.
Volume stirred up to 1500 ml (water).

Speed: 0 to 1500 rpm
Max. load: 5 kg
Humidity: 80% R.H. max.
Dimensions (W x D x H): 180 x 180 x 48 mm
Weight: 1 kg
Supply requirements: 100 - 240V ±10 % 50/60 Hz a.c.
Protection level: IP 54



Type	Cat. No.	PK
Froggy	9.720 390	1
Star	9.720 391	1
Ocean	9.720 392	1
White	9.720 394	1
IKAmäleon	9.720 395	1
Pineapple	9.720 396	1
Strawberry	9.720 397	1
Orange	9.720 398	1
Kiwi	9.720 399	1

2 Magnetic stirrer, KMO 2 basic, Ikamag®

IKA

Small but very powerful magnetic stirrer, without heating.
- strong magnetic field resists stir bar decoupling
- motor with opto-electronic speed control
- adjustable speed up to 1100 rpm
- stainless steel housing for easy cleaning and sterilization
- with thread M 10 for support rod H 16 V

Max. volume stirred (water): 5 litres
Motor rating input/output: 14/4 W
Speed range: 0 to 1100 rpm
Surface: 140 x 120 mm, stainless steel (AISI304)
Dimensions (W x D x H): 140 x 200 x 75 mm
Weight: 1.4 kg
Supply requirements: 230 V 50/60 Hz
Housing IP rating to DIN EN 60529: IP 21



Type	Cat. No.	PK
KMO 2 basic Ikamag®	9.720 210	1

3 Magnetic stirrer REO basic C Ikamag®

IKA

Classic, unheated, magnetic stirrer in a modern design.
Outstanding chemical resistance due to the white coated heating plate.
- Non-locking, electronically controlled motor
- Maintains constant speed even during changes in load
- Infinitely variable speed

Stirring volume: up to 20 litres (water)
Motor rating input/output: 12/5 W
Speed range: 0 to 1500 rpm
Top plate material: enamelled stainless steel
Top plate dimensions: 135 mm dia.
Dimensions (W x D x H): 160 x 280 x 97 mm
Weight: 2.4 kg
Supply requirements: 230 V 50/60 Hz
Housing IP rating to DIN EN 60529: IP 42



Type	Cat. No.	PK
REO basic C	9.720 237	1



1 Magnetic stirrer Ikamag® Mini MR standard

Generally as Color Squid, but with classic design housing.

IKA

Max. stirring volume, (water):	800 ml
Motor rating, input/output:	4/0.5 W
Speed range:	0 to 1500 rpm
Top plate:	115 x 115 mm Polyester film
Size (W x D x H):	115 x 130 x 40 mm
Weight:	0.23 kg
Protection to DIN EN 60529:	IP 42
Mains supply:	100 - 240 V 50/60 Hz

Type	Cat. No.	PK
Mini MR standard IKAMAG®	9.720 211	1



2 3 Magnetic stirrers, Ikamag® MR 1 digital

High power, magnetic stirrer without heating.

IKA

- Flat stable stainless steel housing
- Non-locking motor
- Adjustable speed
- LED digital speed display
- Timer 0 to 56 minutes, or continuous operation

Midi MR 1 digital Ikamag®

Motor rating input/output:	70/19 W
Max. volume stirred (water):	50 L
Speed range:	0 to 1000 rpm
Top plate:	350 x 350 mm, stainless steel
Dimensions (W x D x H):	360 x 430 x 110 mm
Weight:	9 kg
Protection system to DIN EN 60529:	IP 21

Maxi MR 1 digital Ikamag®

Motor rating input/output:	80/35 W
Max. volume stirred (water):	150 litres
Speed range:	0 to 600 rpm
Top plate:	500 x 500 mm, stainless steel
Dimensions (W x D x H):	505 x 585 x 110 mm
Weight:	16 kg
Protection system to DIN EN 60529:	IP 21



Type	Cat. No.	PK
Maxi MR 1 digital Ikamag®	9.720 305	1
Midi MR 1 digital Ikamag®	9.720 306	1

4 Magnetic stirrer SM27

For use in the field or inside incubators or gloveboxes where external power supply is impractical. Maximum speed 1300 rpm. Maximum volume stirred 1.5 litres (water).

Stuart

Top plate 150 x 160 mm. Variable speed control with battery status indicator. ABS casing 70 mm high. Maximum operating conditions +60°C and 80% R.H. Weight 1.3 kg. Supplied with 4 x 1.5V size 'D' alkaline batteries giving up to 600 hours operation, and a 25 mm PTFE coated follower. Accessory adapters are available for use on 230 V 50 Hz mains or 12 V vehicle supply using the cigar lighter socket. With BioCote, silver-based, antimicrobial protection.

Type	Cat. No.	PK
SM27	9.950 408	1

Accessories for magnetic stirrer, SM27

Stuart

Description	Cat. No.	PK
Mains adapter, SM27/1 for UK / Ireland, 230 V 50 Hz single phase supplies	9.950 409	1
Mains adapter, SM27/1 for continental Europe, 230 V 50Hz single phase supplies	9.950 410	1
Vehicle battery adapter, SM27/2 with cigarette lighter plug	9.950 411	1



1 | 2 | 3 Magnetic stirrer MR Hei-Mix S/D/L

Heidolph

Without heating.

MR Hei-Mix S

- Especially recommended for titration
- Electronic speed control without digital display
- Housing made of chemically resistant Polyamide
- IP 21

MR Hei-Mix D

- Recommended for use in cell biology laboratories
- Electronic speed control with digital display
- Enhanced heavy-duty stirring magnet drives stirringbars with ease
- Even after extended operation minor heat transfer to the top plate only
- IP 32

MR Hei-Mix L

- Same as MR Hei-Mix D, except for digital display



Type	Rotation speed	Stirring capacity	Plate material	Dimensions (W x D x H)	Cat. No.	PK
	rpm	ml		mm		
Hei-Mix D	1400	20000	V2A	173 x 277 x 94	9.720 167	1
Hei-Mix L	1400	20000	V2A	173 x 277 x 94	9.720 138	1
Hei-Mix S	2200	5000	PVDF	126 x 140 x 80	9.720 137	1

4 Magnetic stirrer, Mono

Thermo Electron

With non-mechanical, electronic induction drive. For routine work.

Constant rotation speed even if the viscosity of the stirring medium changes.

With separate power supply for 230V 50/60 Hz.

Stirring capacity:	1 ml to 3 L
Stirring output selectable:	5 W
Speed range:	100 to 990 rpm
Dimensions (W x D x H):	180 x 215 x 35 mm
Operating conditions:	-10 to +56°C at 80% R.H. max.
Housing:	Stainless steel
Colour:	Grey

Type	Cat. No.	PK
Mono, stainless steel, powder-coated	9.720 501	1



5 Magnetic stirrer CB161

Stuart

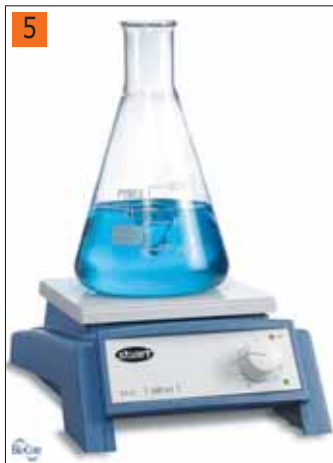
Speed range 100 to 1500 rpm. Maximum volume stirred 15 litres.

Glass ceramic top plate 160 x 160 mm. Overall (W x D x H) 190 x 300 x 100 mm.

Electronic variable speed control with off position.

With facility for mounting a 12.5 mm diameter retort rod at the rear of the case.

With BioCote silver based antimicrobial protection.



Type	Cat. No.	PK
CB161	9.950 413	1



1 Magnetic stirrer model Mobil direct

Thermo Electron

For universal stirring applications in science and industry. Suitable for use with heavy-walled reservoir bases, round bottom flasks and jacketed reaction vessels. Can also stir over larger distances (max. 60 mm). With long range, extremely powerful magnetic field, which produces dual torque when starting up. Offers optimal operation safety by consistent speed regulation and 3 second quick-stop without motor overrun. Can be cleaned under running water. Supplied with mains adapter for 230 V 50/60 Hz.

Stirring capacity:	1 to 150 L
Stirring output:	40 W
Speed range:	100 to 1000 rpm
Speed accuracy:	±0.5 %
Dimensions (W x D x H):	330 x 330 x 80 mm
Operating conditions:	-10 to +56°C at 95 %R.H. max.
Housing:	Stainless steel

Type	Cat. No.	PK
Mobil direct	9.720 619	1



2 Magnetic stirrer Maxi direct

Thermo Electron

With non-mechanical, electronic induction drive and dust/watertight, easy-clean stainless steel housing. Constant speed irrespective of load even if viscosity changes. Maxi direct: With large footprint and a strong and more penetrating magnetic field. Not suitable for use in incubators. With mains adapter.

Stirrer:	1
Speed range:	80 to 2000 rpm
Operating conditions:	-10 to +56°C at 95 % R.H. max.
Casing:	Stainless steel

Type	Stirring capacity	Power	Dimensions (W x D x H)	Cat. No.	PK
	ml	W	mm		
Maxi direct	100 to 5000	5 to 20	180 x 215 x 35	9.720 618	1



3 Magnetic stirrer Variomag Power Direct

Thermo Electron

Super flat, powerful magnetic stirrer for volumes from 100 ml up to 40 litres, with long-range, magnetic field for stirring over long distances up to max. 40 mm, ideal for thick-walled, glass vessels, round bottom flasks or double-walled containers, wash- and abrasion-resistant, stainless steel housing, speed range 100 to 2000 rpm with feedback control, quick stop within 2 sec., 4-step stirring power adjustment (5/10/15/20 Watt), digital speed display, bi-directional RS232 interface allowing up to 14 units to be directly and individually controlled by the user's PC and 24 V d.c. output, a.c. adapter for 100 - 240 V.

Dimensions (W x D x H):	240 x 294 x 30 mm
Weight:	approx. 3 kg
Ambient operating temperature:	-10 to +40°C and max. 95% humidity

Type	Cat. No.	PK
Variomag Power Direct	9.720 595	1



4 Magnetic stirrer, non-electric

Kartell

PP-ABS construction. This unique stirrer is operated either by water pressure between 1 and 2.5 Kg/cm² (15 to 40 psi) or by air pressure. No electrical supply is needed, thus eliminating heat, electric shock and explosion hazards. Corrosion-proof, all-plastic construction. Can be used on the bench or clamped to a stand with a 12 mm (1/2") diameter rod using the integral bosshead.

Dia. mm	Height mm	Cat. No.	PK
129	61	9.303 043	1

1 Magnetic stirrer, compressed air

Grade 1.4104 stainless steel drive housing with aluminium cased, magnetic stirring head, incl. speed control valve, support arm with tubing nozzle and magnetic stirring head, output 55 W, working pressure max. 2 bar.
Volume stirred (water): max. 10 litres.
Maximum magnetic stirrer bar (L x dia.): 80 x 10 mm.
Other PLR compressed air drives with pump attachments, e.g. gear, magnetic, centrifugal and drum pumps, are available on request.

Buddeberg

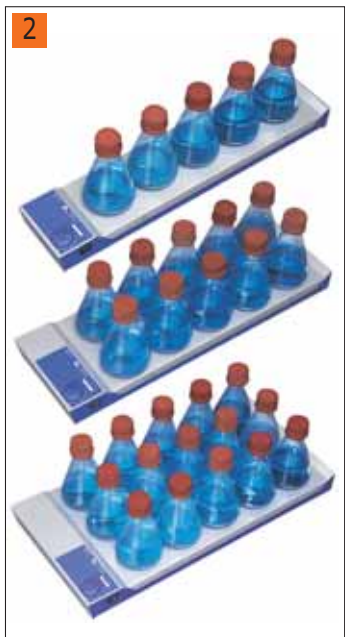


Type	Off-load speed rpm.	Pressure bar	Rating W	Cat. No.	PK
PLR 10-V/M	2000	2	55	9.779 160	1

2 Multi-position magnetic stirrers, Ikamag® RO 5/10/15 Power series

Unheated. For 5, 10, or 15 stirring positions. For max. 400 ml (H₂O) stirring volume per stirring position. Speed range 0 to 1100 rpm.
Super flat new design.
With profiled, stainless steel surface to protect against liquid penetration and for easy cleaning.
Serially arranged, 1 x, 2 x, or 3 x 5-stirring position platform arrays enable optimum use of bench space. Distance between stirring position centres: 90 mm.
Supply requirements: 230V 50 Hz.
Accessory thermostatic bath fittings are available on request.

IKA



Motor rating
Input/Output: RO5: 7.2/1.8 W
RO10: 14.4/3.6 W
RO15: 21.6/5.4 W
Speed indication: Scale (1 to 10)

Type	Dimensions (W x D x H) mm	Weight g	Stirring positions	Cat. No.	PK
RO 5	122 x 552 x 65	2300	5	9.720 205	1
RO 10	182 x 552 x 65	3200	10	9.720 206	1
RO 15	272 x 552 x 65	4700	15	9.720 207	1

3 Multi-position magnetic stirrers, Biosystem 1 and 4

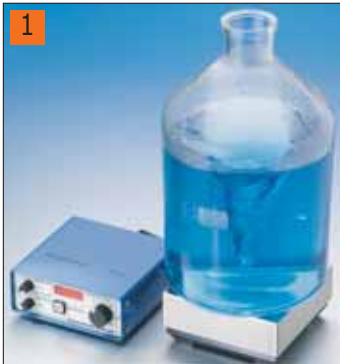
For cell suspension and tissue cultures. For biological and clinical cell culture applications. Completely germ-proof and in accordance with the hygiene requirements of the Genetic Engineering Safety Code. Ideal for long-term operation in CO₂ incubators.
Choice of models with 1 or 4 stirring positions. Slow, gentle running.
Low-heat generation due to separately adjustable, remote controller.
With digital speed indicator and timer. Cell culture bottles are available on request.
Accessories required: Biomodul 40 B controller.

Thermo Electron



Stirring power: 0.4 to 4 W
Speed range: 5 to 120 rpm
Operating conditions: -10 to +56°C at 100 %R.H.
Operating temp. in water: 0 to +50°C
Housing: Stainless steel

Type	Stirring positions	Cat. No.	PK
Biosystem 1B	1	9.720 807	1
Biosystem 4B	4	9.720 813	1
Controller Biomodul 40B		9.720 806	1



1 Multi-position magnetic stirrers, Mobil 200

Thermo Electron

Without heating. With extremely strong, magnetic coupling power for very large stirring volumes in thick-walled vessels and over larger distances (max. 60mm). Can be controlled remotely via a separate remote controller with digital speed indicator. Continuous or timed operation is selectable. Rapid stop in 2 seconds without motor overrun. Running time can be preselected in accordance with the viscosity. Overload protected and housed in an easy to clean, hermetically sealed casing which can be washed under running water. Also available to special order with 50 or 80 mm diameter central hole for biotech applications requiring minimal vibration and sterile stirring. Requires, but is not supplied with, Telemodul 40 M or 80 M controllers for operation (depending on output power required).

Volume stirred	
40 M:	5 to 150 litres
80 M:	5 to 200 litres
Speed range:	100 to 990 rpm
Speed uniformity:	±0.5 %
Dimensions (W x D x H):	180 x 180 x 80 mm
Operating conditions:	-10 to +56°C at 100 %R.H.
Casing:	Stainless steel

Type	Description	Cat. No.	PK
Magnetic stirrer Mobil 200		9.720 791	1
Telemodul 40 M	Controller (40 W nominal capacity) for Mobil 200	9.720 794	1
Telemodul 80 M	Controller (80 W nominal capacity) for Mobil 200	9.720 795	1



Accessories for multi-position magnetic stirrers, Mobil 200

Thermo Electron

Type	Description	Cat. No.	PK
Stand with wheels	for stirrer and sample bottles	9.720 797	1
Mount	for clamping control unit at optimal height on stand	9.720 799	1



3 Multi-position magnetic stirrers, Poly 15

Thermo Electron

With non-mechanical, electronic induction drive. With 15 stirring spaces, for e.g. 6 x 1-litre erlenmeyer flasks or 15 x 250 ml beakers. For mass screening and biological applications, even in humidity incubators. With built-in controller, digital speed indicator and soft-start drive. With mains adaptor.

Stirring positions:	15
Distance between stirring centres:	65 mm
Volume stirred:	1 to 1000 ml
Stirring power:	10 W
Speed range:	100 to 990 rpm
Dimensions (W x D x H):	250 x 420 x 35 mm
Operating conditions:	-10 to + 56°C at 80 % R.H. max.
Housing:	Stainless steel, powder coated
Colour:	grey

Type	Cat. No.	PK
Poly 15	9.720 650	1

1 Multi-position magnetic stirrers, Telesystem

With non-mechanical, electronic induction drive and dust/watertight housing. Ideal for batch series stirring and for use in water baths. Choice of 6-place stirring position models (06.xx) which can stir up to 6 x 1 litre erlenmeyer flasks, 15-place models (15.xx) for up to 15 x 250 ml beakers and 60-place models (60.xx) for small sample containers and, using appropriate test tube stands, up to 60 test tubes or centrifuge tubes. Can be remotely operated and is supplied with controller. Available as standard, high-power 20 watt or ultra high-power 40 watt versions. Telesystem 06.20, 06.40, 15.20, 15.40 and 60.20 controllers include freely selectable stirring and pause times. Model 60.40 controller has a built-in RS232 interface .

Thermo Electron



Dimensions (W x D x H): 240 x 420 x 35 mm
 Operating conditions (in air): -10 to +56°C at 100% R.H. max.
 Operating temp. range in water: (up to 95°C on request) 0 to +50°C
 Stirrer unit housing: Stainless steel

Type	Stirring centre distances mm	Stirring capacity ml	Power W	Controller Telemodul	Rotation speed rpm	Cat. No.	PK
06.07	130	1 to 800	7	Standard	130 to 1000	9.720 506	1
06.20	130	1 to 1500	5 to 20	20 C	130 to 1400	9.720 520	1
06.40	130	1 to 2000	4 to 40	40 C	100 to 2000	9.720 534	1
15.07	65	1 to 500	7	Standard	130 to 1000	9.720 552	1
15.20	65	1 to 1000	5 to 20	20 C	130 to 1400	9.720 521	1
15.40	65	1 to 1200	4 to 40	40 C	100 to 2000	9.720 536	1
60.07	32.5	1 to 10	7	Standard	130 to 1000	9.720 508	1
60.20	32.5	1 to 50	5 to 20	20 C	130 to 1400	9.720 522	1
60.40	32.5	1 to 100	4 to 40	40 C	100 to 2000	9.720 538	1

2 Multi-position magnetic stirrers, Multipoint

With non-mechanical, electronic induction drive. Ideal for batch series stirring. Choice of 6-place, stirring position models which can stir up to 6 x 1 litre erlenmeyer flasks or 15-place models for up to 15 x 250 ml beakers. With digital stirring speed display and soft-start function. With 4 adjustable power level stirring speeds (5 to 20 W), easy to clean, hermetically sealed casing which can be washed under running water, ultra flat, space-saving profile and 100% synchronous speed control in all stirring positions. Supplied with mains adapter for 230 V 50/60 Hz.

Thermo Electron



Speed range: 80 to 2000 rpm
 Dimensions (W x D x H): 240 x 420 x 35 mm
 Operating conditions: -10 to +56°C at 95 % R.H. max.
 Housing: Stainless steel

Type	Stirring positions	Stirring centre distances mm	Stirring capacity ml	Cat. No.	PK
Multipoint 6	6	130	1 to 3000	9.720 624	1
Multipoint 15	15	65	1 to 3000	9.720 625	1

3 Magnetic stirrer/hotplate RH basic 2

Low-priced, magnetic stirrer with stainless steel hot plate
 - Fixed overtemperature safety cut-out at 400°C
 - Soft-start motor

IKA



Stirring volume: 10 litres
 Motor rating: 15/2 W
 input/output: 15/2 W
 Speed indication: Scale (0 to 6)
 Speed range: 100 up to 2000 rpm
 Heating power: 400 W
 Heating rate (1 litre water): 3 K/min
 Temperature range: Amb. to +320°C
 Hotplate surface: Stainless steel (AISI304) Ø = 125 mm
 Dimensions (W x D x H): 168 x 220 x 105 mm
 Weight: 2.4 kg
 Enclosure according to DIN EN 60529: IP 21

Description	Cat. No.	PK
RH basic 2	9.720 402	1



1 2 Magnetic stirrer/hotplates RH basic and RH basic KT/C

IKA

RH basic KT/C:

- large, chemically-resistant top plate
- heating power: 500 W
- high-efficiency hotplate
- Long-life, foil heater with solid-state switch for heating control
- adjustable overtemperature safety circuit: 100 to 400°C
- Soft-start motor
- Safety feature: in the event of motor failure the heating switches off automatically
- Connection for an accessory contact thermometer in accordance with DIN 12878 class 2, e.g. ETS-D 5

RH digital KT/C safety control:

- as RH basic KT/C, but additionally with digital indication of set and actual temperature.

Specifications:

Stirring volume:	15 litres
Motor rating	15/2 W
input/output:	
Speed indication:	Scale (0 to 6)/digital
Speed range:	100 to 2000 rpm
Heating power:	500 W
Heat-up rate (1 litre water)	4.5 K/min
Temperature range:	Amb. to +320°C
Sensitivity with sensor:	±3 K
Hotplate surface:	white coated, 130 x 130 mm
Dimensions (W x D x H):	168 x 220 x 105 mm
Weight:	2.4 kg
Housing according to DIN EN 60529:	IP 21

Description	Cat. No.	PK
RH basic KT/C <i>safety control</i>	9.720 400	1
RH digital KT/C <i>safety control</i>	9.720 401	1

1 Magnetic stirrer/hotplate, Ikamag® RCT basic safety control

IKA



The new improved version with revolutionary technology and new functions:

- Integral temperature control
- Incl. Pt1000 temperature sensor (Pt1000.60)
- Exact temperature and speed setting via digital display, even when switched off
- Set safety temperature limit displayed digitally
- Hot Top indicator >> hot surface warning to prevent burns!
- Digital error code display
- With adjustable safety circuit for hotplate temperature (50 to 360°C)
- Safety magnetic stirrer with heating, suitable for unsupervised operation
- DIN 12878 connection for a contact thermometer, e.g. ETS-D5, enables precise temperature control
- High level of safety thanks to improved heat control technology
- Enclosed housing (IP 42) guarantees long service life
- Highly polished aluminium heating plate for optimum heat transfer
- Strong magnetic coupling

Magnet stirrer:

Stirring quantity max. per stirring position (H₂O): 20 litres
 Speed display: digital
 Speed range: 50 to 1200 rpm
 Max. stirring bar (l x dia.): 80 x 10 mm

Heating capacity:

Heat output: 600 W
 Heating rate (1 l H₂O in H15): 6.5 K/min
 Temperature range: 50 to 310°C
 Control accuracy: ±1 K
 Temperature corrugation without sensor: ±2 K
 Adjustable safety area: 50 to 360°C
 Indication of temperature restricting with digital indication: 50 to 360°C
 Sensor in medium/ control accuracy: Pt1000/±1 K
 ETS-D5/±0.5 K
 ETS-D6/±0.2 K

Usable plate area:

Plate material: aluminium alloy
 Dimensions: 135 mm dia.

General information:

Dimensions (W x D x H): 160 x 270 x 85 mm
 Weight: 2.5 kg
 Ambient operating temperature range: 5 to 40°C
 Max. operating humidity: 80 %
 Protection class according to DIN EN 60529: IP 42

Type	Cat. No.	PK
RCT basic safety control with Pt 1000 temperature probe	9.720 240	1



1 2 Magnetic stirrer/hotplates, Ika RET control visc/ RET control visc C safety control

Safety magnetic stirrer/hotplates, suitable for unsupervised operation.

IKA

- Options available: Pt100 sensor for controlling heated medium temperature or 2 separate Pt1000 temperature sensors for monitoring heat transfer fluid and heated medium (automatic identification)
- 2 adjustable safety circuits
- Stirring bar crack detection
- Fuzzy control and microprocessor technology guarantee maximum control accuracy
- Easy-to-read backlit LCD Display
- Actual medium temperature display resolution: 0.1 K (up to 100°C); 1 K (above 100°C)
- Setting acc. medium temperature: ±0.5 K
- PC control via RS232-interface, with optional safety function.
- labworldsoft® software is available to control and document all measuring values via PC
- "Hot" warning display indicating presence of any residual heat when the unit is switched off
- Protection cover H 99 included

Stirring

Max. stirring vol. (water):	20 litres
Motor rating input/output:	12/5 W
Speed range:	0 to 1500 rpm
Max. stirring bar L x dia.:	80 x 10 mm

Heating

Heat output:	600 W
Temperature range:	Amb. to 340°C
Sensor for monitoring medium temp.:	1 x Pt100 or 2 x Pt1000

Hotplate

Diameter:	135 mm
RET control-visc:	stainless steel

General data

RET control-visc C:	stainless steel, white coated
Dimensions (W x D x H):	160 x 280 x 97 mm
Weight:	2.8 kg
Protection class acc. to DIN EN 60529:	IP 42

Type	Cat. No.	PK
RET control visc C safety control	9.720 403	1
RET control visc safety control	9.720 404	1



3 Temperature sensor for RET control-visc *safety control*

2 separate sensors for heat transfer fluid and medium.

IKA

Description	Cat. No.	PK
Stainless steel, PT 1000.50	9.720 348	1
Stainless steel, glass coated, for corrosive media	9.720 349	1
Stainless steel, with MAS 50 plug	9.720 350	1
Stainless steel, glass coated, for corrosive media, with MAS 50 plug	9.720 351	1

1 | 2 Electronic Contact thermometers ETS-D5 and ETS-D6

IKA

ETS-D5/ETS- D6

- Patented: 3 possible operation modes guarantee optimum adjustment to your application:
- Operating mode A
Suitable for work with varying parameters (from -50°C to 450°C). Adjustable safety temperature
 - Operating mode B
Suitable for repeated operation under uniform conditions and parameters
 - Operating mode C
Suitable for unsupervised operation
- With optimised PID control
 - Reset function
 - Incl. stainless steel sensor H 62
 - For all magnetic stirrers with a DIN 12878 class 2 contact thermometer connection, e.g. Ika®, Heidolph and Corning with adapter AD-C1

ETS-D6

Additionally incorporates integral pH measurement, please order pH-Electrode separately e.g. inLab 407 (9.041 406), with BNC plug

Technical Data

Temperature

Measuring range:	-50 to +450°C
Resolution:	
ETS-D5:	±0.1 K
ETS-D6:	±0.01 K
Accuracy*:	
ETS-D5:	±0.2 K
ETS-D6:	±0.05 K
Control accuracy:	0.1 K
Control accuracy (with sensor)	
ETS-D5:	±0.5 K
ETS-D6:	±0.2 K

pH-Measurement, ETS-D6 only

Measuring range:	0 to 14
Resolution:	±0.1 pH
Accuracy:	±0.01 pH
Voltage:	8 to 16 V d.c.
Current (at 9 V)	
ETS-D5:	10 mA
ETS-D6:	15 mA
Operating range:	0 to 60°C
Max. R.H.:	80%
Protection class:	IP 44
Connector:	6-pole, DIN 45322
Weight:	0.2 kg

Type	Dimensions (W x D x H)	Cat. No.	PK
	mm		
ETS-D5	82 x 22 x 83	9.720 241	1
ETS-D6	96 x 45 x 98	9.720 242	1

*Sensor: Pt1000 DIN IEC 751 Class A

3 Accessories for ETS D5 + ETS D6 contact thermometer

IKA

Type	Cat. No.	PK
Bosshead	9.232 994	1
Stainless steel support rod	9.720 257	1
Replacement sensor, stainless steel	9.232 998	1
Stainless steel sensor, glass sleeved	9.232 999	1
Extension cable, 1 metre	9.233 000	1
Power pack set	9.233 001	1
Holding rod	9.232 996	1





1 2 Magnetic stirrer/hotplates, RET basic and RET basic C safety control

Magnetic stirrers with improved heating and stirring technology.
 RET basic (with stainless steel top plate) and RET basic C (white coated hotplate)
 feature:

IKA

- Extremely rapid heating times
- Very high hotplate temperatures (amb. to 340°C)
- Adjustable temperature limiter (50 to 380°C)
- Electronic speed control
- Wide speed range (0 to 1500 rpm)
- DIN 12878 socket for connecting an electronic contact thermometer
- Supplied with housing protection (working) cover, H99.

Magnetic stirring

Volume stirred (water): 20 litres
 Motor rating input/output: 12/5 W
 Speed adjustment: Dial
 Speed range: 0 to 1500 rpm
 Maximum magnetic stirrer bar (L x dia.): 80 x 10 mm

Heating

Heat output: 600W
 Temperature range: Amb. to 340°C
 Adjustable overheat protection: 50 to 380°C
 Setting accuracy: ±10°K
 Media temp. probe: ETS-D 4 fuzzy
 Control accuracy with temp. probe: ±1°K
 Hotplate material: Stainless steel (RET basic)
 White coated (RET basic C)

Maximum load: 25 kg
 Hotplate dia.: 135 mm
 Dimensions (W x D x H): 160 x 280 x 97 mm
 Weight: 2.4 kg
 Protection system to DIN EN 60529: IP 42
 Voltage/Frequency: 230V 50/60Hz

Type	Cat. No.	PK
RET basic safety control	9.720 248	1
RET basic C safety control	9.720 249	1

1 2 3 4 Magnetic stirrer/hotplates MR Hei-Standard/Hei-Tec/Hei-End

With heating.

MR Hei-Standard

- Hot plate made of Silumin (aluminium-silicon alloy) with ceramic coating: excellent heat conduction and distribution, extremely resistant against scratches and chemicals
- Plate diameter: 145 mm
- Extra safety control circuit and hot plate cut-out by two independent temperature sensors
- An independent safety circuit with separate circuit switches off the heating if the set hotplate temperature is exceeded by 50°C
- Connector for electronic temperature control (optional EKT Hei-Con)
- Accuracy temperature setting: ±1K with EKT Hei-Con (optional)
- Sample medium temperature control accuracy: ±1K with EKT Hei-Con (optional)

MR Hei-Tec

As MR Hei-Standard, but with digital display for speed and temperature

MR Hei-Tec []

As MR Hei-Tec, but with 132 x 132 mm hotplate

MR Hei-End

As MR Hei-Tec, but additionally with:

- Independent safety circuit switches off the heating if a predetermined temperature difference (T) above set temperature is reached
- No accidental temperature setting
- Digital display for speed and temperature (both set and actual)
- RS232 interface

Specifications

Speed, max.:	1400 rpm
Heating power:	800 W
Hot plate temperature:	20 to 300°C
Medium temperature, max.:	250°C
Stirring capacity, max. (H ₂ O):	20 litres
Dimensions (W x D x H):	173 x 277 x 94 mm
Weight:	2.6 kg
Protection class (DIN 60529):	IP 32

Type	Cat. No.	PK
MR Hei-Standard	9.720 156	1
MR Hei-Tec	9.720 145	1
MR Hei-Tec []	9.720 149	1
MR Hei-End	9.720 183	1

Heidolph



5 Contact Thermometer EKT Hei-Con

- Can be combined with models Hei-Tec, Hei-Tec [] and Hei-Standard
 - Avoids sample medium temperature overshoots
 - Temperature sensor on a flexible lead avoids damage to the controller caused by heat and vapours
 - With clear double-spaced display
 - Separate digital displays for set and actual temperature
 - Tendency signal for rising sample medium temperature
 - Safety and control circuit complies with DIN 12878, class 1 and 2
- Supplied with 2 different clamps for attachment to rods with dia. either 10 mm or 13 mm.
Please order rod and temperature sensor holder separately

Heidolph

Technical specifications

Temperature range:	-50 to +300°C
Resolution:	1 K
Accuracy:	±1K
Response:	1.5 sec
Control accuracy:	±0.5 K
Sensor length:	210 mm
Cable length:	700 mm
Min. imm. depth:	20 mm
Dimensions (W x D x H):	54 x 22 x 126 mm
Weight:	0.3 kg
Protection class (DIN 60529):	IP 40

Type	Description	Cat. No.	PK
EKT Hei-Con	stainless steel sensor (V2A)	9.720 168	1
EKT Hei-Con G	glass coated sensor	9.720 169	1





1 DrySyn heating attachments

Insert heating blocks for round bottom flasks and cylindrical reaction vessels

Heidolph

- Up to 12 reactions at the same time
- Clean and safe alternative to an oil bath
- Greater versatility, do any combination of reaction adapters
- Powerful stirring in all configurations
- Controlled heating and temperature control
- Temperature sensor fits directly in insert for greater accuracy
- No special glassware required, no additional costs
- Setting up reactions is easy with the DrySyn clamp

Type	Description	Cat. No.	PK
Set DrySyn MULTI	Base incl. 3 inserts for round bottom flasks 25 ml, 50 ml or 100 ml	9.720 185	1
Set DrySyn MULTI M	Base incl. 3 inserts for round bottom flasks 100 ml or 250 ml	9.720 186	1
DrySyn MULTI Clamp	3 position clamp incl. bosshead	9.720 187	1
DrySyn MULTI M Clamp	3 position clamp incl. bosshead	9.720 188	1



Round bottom flasks - please see page 431



2 Magnetic Stirrer/Hotplate, CD162

Stuart

Maximum speed 1300 rpm, volume stirred 15 litres, and temperature 300°C. Glass ceramic top plate 160 x 160 mm, accommodating beakers up to 15 litres capacity. With digital setting and control, via a bright, fluorescent display which also simultaneously displays set and actual temperature to 1°C and speed to 10 rpm, separate safety circuit, dial setting, stirrer 'on' and heater 'on' warning indicators (the heater lamp flashes whilst plate temperature remains above 70°C). A PTFE-coated, remote temperature probe which allows control of liquid temperature to $\pm 0.5^\circ\text{C}$ and up to 200°C is also provided and facility for mounting a 12.5 mm retort rod at rear of the case. Overall (W x D x H) 190 x 300 x 112 mm. Weight 3.4 kg. For 90-250V 50/60Hz single phase supplies. Hotplate rating 750W. With BioCote, silver-based, antimicrobial protection.

Type	Cat. No.	PK
CD162	9.950 418	1



3 Magnetic Stirrer/Hotplate, CB162

Stuart

Maximum speed 1500 rpm, volume stirred 15 litres. Maximum temperature 450°C. With glass ceramic top plate 160 x 160 mm, microprocessor controlled heating with separate safety circuit to prevent overheating, variable speed control with off position, stirrer 'on' and heater 'on' warning lamps. With facility for mounting a 12.5 mm diameter retort rod at rear of the case. Overall (W x D x H) 190 x 300 x 110 mm. Weight 3.4 kg. For 90-250V 50/60Hz single phase supplies. Hotplate rating 550W. With BioCote, silver-based, antimicrobial protection.

Type	Cat. No.	PK
CB162	9.950 419	1

1 2 Stirrer hotplates, CB302 and SB302

- Choice of robust aluminium or chemically resistant, ceramic top plate
- Flashing "Hot" warning light to warn when top plate is too hot to touch
- Independent safety circuit to protect against overheating
- Powerful stirring action up to 1500 rpm and volumes of up to 15 litres
- Ideal for handling large vessels
- Fitting for retort rod and supplied complete with 2 x 25 mm PTFE coated stir bars.

Stuart

Model CB302 has a glass ceramic top that has excellent chemical and temperature resistance. The chemical properties make the surface very easy to keep clean and the thermal properties allow very high plate temperatures while ensuring the edges stay cooler, reducing the chance of accidental burns.

Model SB302 has a robust aluminium/silicon alloy top plate. The very good heat transmission of this material gives rapid heating and ensures even temperature distribution across the whole of the plate. With BioCote, silver based, antimicrobial protection.

Specifications

Plate dimensions:	300 x 300 mm
Heated area: CB302	200 x 200 mm
SB302	300 x 300 mm
Heater Power: CB302	1200 W
SB302	600 W
Stirrer speed range:	100 to 1500
Overall dimensions (W x D x H):	300 x 365 x 105 mm
Weight:	7 kg
Supply requirements:	230 V, 50 Hz
Maximum stirring capacity:	15 litres
Max. plate temperature: CB302	450°C
SB302	300°C



Type	Description	Cat. No.	PK
CB302	Ceramic plate, 1200 W	9.645 333	1
SB302	Aluminium plate, 600 W	9.645 334	1
SR1	Retort Rod 600 x 12.5 mm	9.645 335	1

3 Magnetic stirrer/hotplate, SD162

Maximum speed 1300 rpm, volume stirred 15 litres and temperature 325°C. Cast aluminium/silicon alloy hotplate 160 x 160 mm, accommodating beakers up to 15 litres capacity. With digital setting and control, via a bright, fluorescent display which also simultaneously displays set and actual temperature to 1°C and speed to 10 rpm, separate safety circuit, dial setting, stirrer 'on' and heater 'on' warning indicators. A PTFE-coated remote temperature probe which allows control of liquid temperature to ±1°C and up to 200°C is also available and a facility for mounting a 12.5mm diameter retort rod is provided at the rear of the case. Overall (W x D x H) 190 x 300 x 112 mm. Weight 3.4 kg. For 90-250V 50/60Hz single phase supplies. Hotplate rating 750 W. With BioCote, silver-based, antimicrobial protection.

Stuart



Type	Cat. No.	PK
SD162	9.950 417	1

4 5 Magnetic stirrer/hotplates, multi-position, Ikamag® RT 5/10/15 power

High performance, multi-position magnetic stirrer/hotplates with integral temperature control. Precise temperature distribution and simultaneously running stirring positions as indicated.

IKA

Specifications

Speed range:	0 to 1100 rpm
Maximum hotplate temperature:	120°C
Max. capacity per stirring position:	0.4 litres
Stirring point separation:	90 mm
Motor rating input/output:	RT5: 7.2/1.8 W RT10: 14.4/3.6 W RT15: 21.6/5.4 W
Speed indication:	Scale (1 to 10)



Type	Dimensions (W x D x H)	Weight	Stirring positions	Cat. No.	PK
	mm	g			
RT 5 power	138 x 552 x 65	3000	5	9.720 600	1
RT 10 power	198 x 552 x 65	4200	10	9.720 601	1
RT 15 power	288 x 552 x 65	6000	15	9.720 602	1



1 Magnetic stirrer/ hotplate SB162

Maximum speed 1500 rpm, volume stirred 15 litres, and temperature 325°C. Cast aluminium/silicon alloy hotplate 160 x 160 mm, accommodating beakers up to 15 litres capacity. With microprocessor speed and temperature control with separate safety circuit, arbitrary scaled dial setting, stirrer 'on' and heater 'on' warning indicators and facility for mounting a 12.5 mm retort rod at the rear of the case. Overall (W x D x H) 190 x 300 x 112 mm. Hotplate rating 750 W. With BioCote, silver-based, antimicrobial protection.

Stuart

Type	Cat. No.	PK
SB162	9.950 416	1



2 Magnetic stirrer/hotplate, 3-Position, SB162-3

Maximum speed 1500 rpm. Maximum temperature 325°C. With 3 independently adjustable aluminium hotplates 160 x 160 mm, overheat protection mechanism and warning light which switches on when the plate temperature exceeds 50°C. With facility for mounting a 12.5 mm retort rod at the rear of each plate and 3 x 25 mm PTFE coated followers. Overall (W x D x H) 600 x 270 x 110 mm. Weight 11 kg. For 230V 50/60Hz single phase supplies. Hotplate 2250 W. With BioCote, silver-based, antimicrobial protection.

Stuart

Type	Stirring positions	Cat. No.	PK
SB162-3	3	9.950 424	1



3 Magnetic stirrer/bath systems 6, 15 and 60-place

Comprise remote-controlled, non-mechanical, electronic induction drive magnetic stirring system with 6, 15 or 60-place (Type 06.xx, 15.xx, 60.xx) stirring positions, controller and maintenance-free, hermetically sealed, waterproof stirring platform, mounted in a transparent acrylic bath fitted with a thermostatic immersion controller with circulation pump. The stirring platform can also be mounted below the bath tank. Choice of stirring power versions: 20 watt models for basic requirements or 40 watt models for more demanding stirring and mixing processes, e.g. in bacteria culture. Temperature control up to +50°C (stirring platform directly in bath) or up to +60°C (stirring platform below bath). Versions up to +95°C are available on request. Dimensions (W x D x H): 300 x 610 x 185 mm. Heating: 1500 W. Operating conditions: 0 to +40°C at 80% R.H. max. Stirring system housing: Stainless steel.

Thermo Electron

Type	Stirring centre distances mm	Stirring capacity ml	Power W	Controller Telemodul	Rotation speed rpm	Cat. No.	PK
06.20	130	1 to 800	5 to 20	20 C	130 to 1400	9.720 711	1
06.40	130	1 to 1500	4 to 40	40 C	100 to 2000	9.720 716	1
15.20	65	1 to 500	5 to 20	20 C	130 to 1400	9.720 712	1
15.40	65	1 to 1000	4 to 40	40 C	100 to 2000	9.720 717	1
60.20	32.5	1 to 10	5 to 20	20 C	130 to 1400	9.720 713	1
60.40	32.5	1 to 50	4 to 40	40 C	100 to 2000	9.720 718	1



4 Magnetic stirrers, RM series

For use in conjunction with standard heating mantles from 500 ml to 6000 ml. With 60 mm diameter stirring dome to fit aperture in base of mantle. Range: 100 to 1600 rpm. With heating plates and connection for contact thermometer KT5.

Type	Cat. No.	PK
RM 3003	9.642 301	1
RM 3003 with adapter	9.642 302	1

1 Digital Contact thermometer KT 5

Suitable for attachment and control of magnetic stirrer/hotplates RM 3003. Digital display. Measuring range: -50°C to +300°C

Type	Cat. No.	PK
KT 5	9.725 130	1



2 Magnetic stirring bar set, RS 1

Comprises one each, plain, cylindrical IKAflon® stirring bars, 10 to 80 mm long and 25 and 42 mm long Trika® triangular bars.

IKA

Type	Cat. No.	PK
Set-RS 1	9.197 686	1



3 Magnetic stirring bars, cylindrical

Encapsulated in PTFE. Cylindrical. Round, smooth surface. Versatile. Further sizes available on request.

BRAND

Length mm	Dia. mm	Cat. No.	PK
2.5	2.5	9.197 502	1
3.5	3.5	9.197 505	1
5.0	2.0	9.197 503	1
6.0	3.0	9.197 506	1
7.0	2.0	9.197 504	1
8.0	1.7	9.197 509	1
10.0	3.0	9.197 507	1
10.0	6.0	9.197 510	1
12.0	4.5	9.197 512	1
13.0	3.0	9.197 508	1
15.0	1.7	9.197 515	1
15.0	4.5	9.197 514	1
20.0	6.0	9.197 520	1
25.0	6.0	9.197 525	1
30.0	6.0	9.197 530	1
35.0	6.0	9.197 535	1
40.0	8.0	9.197 540	1
45.0	8.0	9.197 545	1
50.0	8.0	9.197 550	1
60.0	9.0	9.197 560	1
70.0	9.0	9.197 570	1
80.0	9.0	9.197 580	1



4 Magnetic stirring bars, triangular

Plastibrand®. PTFE. Triangular. Wedge-shaped, ideal for dissolving solids and re-suspending sediments due to scraping action. Angular surface produces high turbulence, even at low stirring speeds.

BRAND

Length mm	Dia. mm	Cat. No.	PK
25	8	9.197 652	1
40	14	9.197 654	1
55	14	9.197 655	1
80	16	9.197 658	1



5 Magnetic stirring bars, dumbbell

Plastibrand®. PTFE. Dumbbell-shaped. Excellent centring, low surface contact and high turbulence even at low stirring speeds, ends 20 mm dia. Stem diameter: 8 mm

BRAND

Length mm	Cat. No.	PK
37	9.197 603	5
54	9.197 605	5



6 Magnetic stirring bars, oval

Encapsulated in PTFE. Oval. Ideal for round bottom flasks.

Bohlender

Length mm	Dia. mm	Cat. No.	PK
20	10	9.197 590	1
25	12	9.197 591	1
30	15	9.197 592	1
35	15	9.197 593	1
40	20	9.197 594	1
50	20	9.197 595	1
65	20	9.197 596	1
70	20	9.197 597	1





1 Magnetic stirring bars, spherical

PTFE. BRAND
For test tubes or vigorous, eccentric stirring.

Dia. mm	Cat. No.	PK
12	9.197 599	1



2 Magnetic stirring bars, Starhead®

Type 6600. Teflon® PTFE-coated Alnico-V-Magnet. Symmetrical stirring fins above and below generate a strong vortex action, even at low speeds. Nalgene
For flat or round bottom containers.
Resistant to chemicals and temperatures up to +260°C.
Autoclavable.

Dia. mm	Height mm	Cat. No.	PK
10	8	9.198 211	1
14	12	9.198 212	1
17	13	9.198 213	1
22	15	9.198 214	1
30	12	9.198 215	1
35	12	9.198 216	1
40	14	9.198 217	1
58	15	9.198 218	1



3 Magnetic stirring bars, Komet

Ultra strong SmCo magnetic core, giving up to 3 x higher torque than conventional magnetic bars, ideal for highly viscous materials and difficult stirring conditions, PTFE-coated and autoclavable without demagnetization.

New feature: Komet discs and rings for vertical operation, ideal for test tubes.

Type	Description	Dia. mm	Length mm	Cat. No.	PK
Komet 90	Round form	24	90	9.720 568	1
Komet 50	Round form	21	50	9.720 569	1
Komet 30	Round form	13	30	9.720 571	5
Komet 15	Round form	9	15	9.720 572	5



4 Beaker insert stirrers, Magneto-stabil

For all beakers from 100 to 2000 ml capacity. Comprises conical lid made of chemical-resistant plastic with stirrer bearing, two pipette openings and captive Teflon magnetic stirring bar with support shaft. Guarantees gentle running, with no de-coupling of the stirrer bar. Schütt



Type	For neck dia. mm	Cat. No.	PK
1	60 to 95	9.197 810	1
2	86 to 118	9.197 820	1
3	110 to 143	9.197 830	1

5 Magnetic stirring bar retrievers

Plastibrand®. PTFE. Fully encapsulated magnetic core. BRAND

Length mm	Dia. mm	Cat. No.	PK
250	8	9.197 725	1
350	8	9.197 735	1



6 Magnetic stirring bar retrievers

PE. With fully encapsulated magnet at one end and a retaining ring at the other. VITLAB

Length mm	Cat. No.	PK
300	9.197 740	1
450	9.197 742	1

1 Overhead stirrers RW 11 basic "Lab egg" IKA

Colour-coded, laboratory stirrers for low volumes up to 2 litres (water) with a unique design. The lower half, which is exposed to the vapour from the medium being processed, is constructed in high quality borosilicate glass. This glass section is available in a choice of 6 different colours. A blade rotor is included. Can be used worldwide with a voltage range of 100 to 240 V.

Specifications:

Motor rating, input/output:	8/1 W
Viscosity range:	0 to 100 m Pas
Speed range:	0 to 2000 rpm
Dimensions (W x D x H):	86 x 175 x 89 mm
Weight:	0.39 kg
Housing IP rating to DIN EN 60529:	IP 42

Colour	Cat. No.	PK
Salmon pink	9.816 617	1
Creamy blue	9.816 613	1
Lavender white	9.816 616	1
Transparent	9.816 618	1



2 Overhead stirrer RW 14 basic IKA

Quiet, economical laboratory stirrer with direct motor drive which can be infinitely adjusted by electronic means. For stirring substances of low to medium viscosity.

Specifications:

Stirring quantity max. (H ₂ O):	8 litres
Viscosity max.:	10000 mPas
Motor rating	
input /output:	28.5 W/17 W
Output max. at stirring shaft:	17 W
Permissible ON time:	100%
Torque max. at stirring shaft:	8 Ncm
Speed range:	100 to 2000 rpm
Speed display:	scale
Chuck range diameter:	0.5 to 8 mm
Extension arm diameter/length:	13/160 mm
Dimensions (W x D x H):	70 x 176 x 197 mm
Weight:	2 kg
Ambient operating temp. range:	5 to 40°C
Max. operating humidity:	80%
Protection class according to DIN EN 60529:	IP 20

Type	Cat. No.	PK
RW 14 basic	9.816 610	1



3 Overhead stirrer RW 16 basic IKA

For simple stirring tasks up to 10 litres (water). With stepless adjustment without gear changing, compact housing and quiet operation. With safety circuit. Non-locking, overload capacity. Specially suitable for schools, universities and test laboratories.

Specifications:

Stirring volume (max.):	10 litres
Viscosity range:	10000 mPas.
Motor rating input/output:	75/55 W
Output max. at stirring shaft:	53 W
Torque max. at stirring shaft:	40 Ncm
Speed range:	40 to 1200 rpm
Speed indication:	Scale (1 to 10)
Chuck shaft range:	0.5 to 10 mm dia.
Dimensions (W x D x H):	80 x 190 x 222 mm
Supply requirements:	230V 50/60 Hz
Weight:	2.8 kg
Protection class (DIN EN 60529):	IP 42

Type	Cat. No.	PK
RW 16 basic	9.816 611	1





1 Stands

IKA

Description	Rod Ø mm	Height mm	Max. load kg	Cat. No.	PK
H-stand	34	1010	10	9.224 026	1
Stand with baseplate	10	360	1	9.816 665	1
Stand with baseplate	16	560	5	9.224 031	1
Stand with baseplate	16	800	5	9.224 032	1
Stand with baseplate	16	1000	5	9.224 033	1
Telescopic stand	34	620 to 1010	10	9.224 028	1
Telescopic stand	48	500 to 1000	15	9.816 735	1
Floor stand	80 x 80	980 to 1860	15	9.816 736	1



2 Bossheads

IKA

Type	Jaw opening mm	Cat. No.	PK
R 182	Stand / extension arm: 6 to 16	9.224 292	1
R 270	Stand / extension arm: 25 to 36 / 5 to 21	9.224 293	1
R 271	Stand / extension arm: 34 / 16	9.224 266	1



3 Strap clamps

IKA

Type	Rod Ø mm	Vessel Ø mm	Cat. No.	PK
RH 3	8 to 16	40 to 300	9.224 761	1
RH 5*	25 to 36	40 to 300	9.224 762	1

*with R 270 bosshead



4 Rotor shields

IKA

For	Cat. No.	PK
EUROSTARs, RW 16 basic, RW 20 digital	9.224 294	1
RW 47 D	9.816 742	1



5 Flexible clutch

Required for stirring tasks using glass stirring rods. The flexible coupling compensates for any structural variances.

Clamping range: 6 to 10 mm
Torque max. 10 Ncm

IKA

Type	Cat. No.	PK
FK 1	9.197 060	1



6 Speed meter (tachometer)

Connection of an opto-electronic sensor enables measurement of rotating shaft speed from 0 to 50000 rpm. The signals received are displayed on the monitor. This enables all Ika overhead stirrers and homogenising instruments to be retrofitted with a speed display, thereby allowing reproducible work. An RS232 interface allows the values to be recorded digitally on a PC. An analogue output signal for a recorder is also available. The monitor can be used as a table-top device or mounted on a retort stand rod.

IKA

Specifications

Sensor:	DZM-S.o
Speed range:	0 to 50000 rpm
Temperature coefficient:	0.005 %/°C
Measuring error of the measured value:	0.4 % = 1 Digit
Analogue signal (0 to 4000 rpm):	1 mV
Analogue signal (> 4000 rpm):	0.1 mV
Interface:	RS232
Dimensions (W x H x D):	70 x 180 x 75 mm
Weight:	0.2 kg
Ambient operating temp. range:	5 to 40°C
Max. operating humidity:	80 %
Protection class according to DIN EN 60529:	IP 42

Type	Description	For	Cat. No.	PK
DZM control.o	Speed meter	T 25 basic ULTRA-TURAX®	9.224 271	1

1 Overhead stirrer Eurostar digital

An economically priced stirrer suitable for up to 20 litres of low to medium viscosity liquids. Continuously variable, microprocessor controlled speed range 50 to 2000 rpm. with digital speed display. With 0.5 to 10 mm i.d. hollow-shafted chuck and 13 mm dia. clamping rod for mounting on a stand. Supplied without rotor.

IKA

Specifications

Stirring volume (max.):	20 litres
Viscosity limit:	10000 mPas
Motor rating input/output:	75/55 W
Output max. at stirring shaft:	53 W
Torque max. at stirring shaft:	30 Ncm
Speed range:	50 to 2000 rpm
Chuck shaft range:	0.5 to 10 mm
Dimensions (W x D x H):	80 x 190 x 222 mm
Weight:	2.8 kg
Supply requirements:	230 V 50/60 Hz
Protection class DIN EN 60529:	IP 42

Type	Cat. No.	PK
Eurostar digital	9.816 672	1



2 Overhead stirrer RW 20 digital

- With digital display
- robust, slimline, ergonomic design
- technical improvements on the trusted RW 20 series design
- with constant power-drive
- two speed ranges for universal use from 60 to 2000 rpm
- hollow-shafted chuck for rotor shaft height adjustment (only when stationary)

IKA

Specifications

Max. stirring volume (H ₂ O):	20 l
Viscosity range:	up to 10000 mPas
Motor rating input/output:	70/35 W
Output max. at stirring shaft:	26 W
Speed range I (at 50 Hz):	60 to 500 rpm
Speed range II (at 50 Hz):	240 to 2000 rpm
Supply requirements:	230V 50/60 Hz
Max. stirring shaft torque (at 100 rpm.):	150Ncm
Protection class (DIN EN 60529):	IP 20

Type	Width mm	Depth mm	Height mm	Weight kg	Cat. No.	PK
RW 20 digital	88	212	294	3.1	9.816 622	1



3 Overhead stirrers, Eurostar power basic/control-visc

Single-range, high torque, laboratory overhead stirrers with powerful, 130 Watt motors. Provide constant torque over their entire speed range from 50 to 2000 rpm. The Eurostar Power control-visc also has an RS232 interface for control via the user's PC, an integral digital torque trend and speed display as well as an analogue interface for documentation of speed range and axial torque. Supplied without rotor.

IKA

Specifications

Stirring quantity (max):	40 l
Viscosity limit:	50.000mPas
Motor rating input/output:	130/110 W
Output max. at stirring shaft:	105 W
Torque max. at stirring shaft:	60 Ncm
Speed range:	50 to 2.000 min
Chuck range:	0.5 to 10 mm
Overall (W x D x H):	80 x 190 x 253 mm
Weight:	3.5 kg
Supply requirements:	230V 50/60 Hz
Protection class DIN EN 60529:	IP 42

Type	Cat. No.	PK
Eurostar power basic	9.816 674	1
Eurostar power control-visc	9.816 678	1

Further agitators for the "high viscosity" range (Eurostar power control visc P1, P4 and P7) on request.





1 Remote Control RC 1

For operating the Eurostar power control-visc stirrers (also P1, P4 and P7) via a cable length of up to 10 metres.

IKA

- trouble-free control of stirrers even on raised scaffolding constructions
- selectable display of set and actual values
- displays actual speed, target speed and overload status

Specifications

Power supply:	2 x 1.5 V AA batteries (included in delivery)
Max. cable length:	10 m
Remote control power consumption	
Turned off:	about 7 µA
Turned on:	about 7 mA
Dimensions (W x D x H):	65 x 140 x 30 mm
Weight (incl. battery):	0.3 kg

Type	Cat. No.	PK
RC 1	9.816 690	1



2 Overhead stirrer RW 28 basic

Highly efficient, 2-range (high speed or high torque), mechanically controlled, overhead stirrer for volumes up to 80 litres (water).

IKA

Suitable for work in laboratories and technology colleges.
Supplied without rotor.

Specifications

Max. volume stirred (water):	80 litres
Maximum torque at the chuck:	900 Ncm
Max. sample medium viscosity:	50000 mPas
Speed range I:	60 to 400 rpm
Speed range II:	240 to 1400 rpm
Chuck range:	1 to 10 mm
Output max at stirring shaft:	90 W
Motor rating input/output:	220/90 W
Overall (W x D x H):	123 x 252 x 364 mm
Weight:	7.4 kg
Supply requirements:	230 V 50 Hz
Protection class DIN EN 60529:	IP 42

Type	Cat. No.	PK
RW 28 basic	9.816 629	1
RW 28 D with three-phase motor available on request.		



3 Overhead stirrer RW 47 D

The most powerful Ika stirrer for laboratory, technical school and pilot plant assemblies.

IKA

- For stirring tasks up to 200 litres (water)
- Two speed ranges provided for very viscous media and for intensive mixing
- Supplied without cables or plugs for operation.

Specifications

Max. volume stirred (water):	200 litres
Suitable for viscosities up to:	100.000 mPas
Motor rating input/output:	513/370 W
Output at the shaft:	300 W
Max. torque at the shaft	
at 60 rpm	4642 Ncm
at 100 rpm	3000 Ncm
at 1000 rpm	285 Ncm
Speed range I (at 50 cycles per second):	57 to 275 rpm
Speed range II (at 50 cycles per second):	275 to 1300 rpm
Speed range I (at 60 cycles per second):	69 to 330 rpm
Speed range II (at 60 cycles per second):	330 to 1560 rpm
Chuck clamping range:	3 to 16 mm
Hollow shaft, inside diameter:	13 mm
Attachment:	Flange
Dimensions (W x H x D):	145 x 340 x 445 mm
Weight:	15 kg
Housing IP rating to DIN EN 60529:	IP 44

Type	Cat. No.	PK
RW 47 D	9.816 647	1

1 Propeller stirrer, fine blade

IKA

Type	Stirrer dia. mm	Shaft dia. mm	Shaft length mm	Cat. No.	PK
R 1002	12	4	140	9.816 619	1



Further stirrers - please see page 339

2 Propeller stirrer, 4-bladed

IKA

Type	Stirrer dia. mm	Shaft dia. mm	Shaft length mm	Rotation speed rpm	Cat. No.	PK
R 1342	50	8	350	2000	9.197 006	1
R 1345	100	8	540	800	9.197 009	1
R 2302	150	13	800	600	9.197 041	1
R 2305	150	13	550	1300	9.197 043	1



3 Propeller stirrers, 3-blade

IKA

Type	Stirrer dia. mm	Shaft dia. mm	Shaft length mm	Rotation speed rpm	Cat. No.	PK
R 1381	45	8	350	2000	9.197 021	1
R 1382	55	8	350	2000	9.197 022	1
R 1385	140	10	550	800	9.197 023	1
R 1388	140	10	800	400	9.197 024	1
R 1389 (PTFE)	75	8	350	800	9.197 026	1



4 Turbine stirrer rotors

IKA

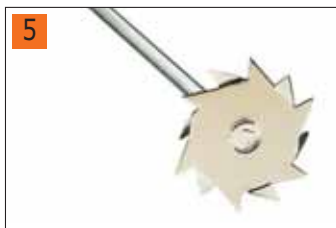
Type	Stirrer dia. mm	Shaft dia. mm	Shaft length mm	Rotation speed rpm	Cat. No.	PK
R 1311	30	8	350	2000	9.197 030	1
R 1312	50	8	350	2000	9.197 031	1
R 1313	70	10	400	800	9.197 032	1



5 Dissolver stirrers

IKA

Type	Stirrer dia. mm	Shaft dia. mm	Shaft length mm	Rotation speed rpm	Cat. No.	PK
R 1300	80	8	350	2000	9.197 001	1
R 1302	100	10	350	1000	9.197 003	1
R 1303	42	8	350	2000	9.197 007	1



6 Centrifugal stirrers

IKA

Type	Stirrer dia. mm	Shaft dia. mm	Shaft length mm	Rotation speed rpm	Cat. No.	PK
R 1352	60/15	8	350	2000	9.197 011	1
R 1355	100/24	8	550	800	9.197 013	1



7 Paddle stirrers

IKA

Type	Stirrer dia. mm	Shaft dia. mm	Shaft length mm	Rotation speed rpm	Cat. No.	PK
R 1373	70	8	350	1000	9.197 018	1
R 1375	70	8	550	800	9.197 019	1
R 1376	150	10	550	800	9.197 020	1
R 2311	150	13	800	600	9.197 046	1





1 Anchor stirrers

IKA

Type	Stirrer dia. mm	Shaft dia. mm	Shaft length mm	Rotation speed rpm	Cat. No.	PK
R 1330	45	8	350	1000	9.197 033	1
R 1331	90	8	350	1000	9.197 034	1
R 1332 (PTFE)	60	8	350	800	9.197 035	1
R 1333	150	10	550	800	9.197 036	1



2 Kneading stirrer

IKA

Type	Stirrer dia. mm	Shaft dia. mm	Shaft length mm	Rotation speed rpm	Cat. No.	PK
R 1335	45	8	350	2000	9.197 010	1



3 Overhead stirrers, RZR 2051, RZR 2102 control

Heidolph

General features:

- Consistently high torque over full operating speed range
- Constant speed even when viscosity changes
- Digital torque setting and speed display
- Set speed displayed when stirrer at rest
- Withstand peak overloads up to 200%
- Integral serial interface and analogue output (0 to 10 V)

Model RZR 2051 control:

- standard stirrer as described
- single speed range setting
- speed range 50 to 2000 rpm
- output power 50 W
- max. torque 40 Ncm (20 Ncm in continuous operation)
- viscosity range up to 10000 mPa s

Model RZR 2052 control:

- standard stirrer as described
- single speed range setting
- speed range 30 to 1000 rpm
- max. torque 180 Ncm (90 Ncm in continuous operation)
- viscosity range up to 40000 mPa s

Model RZR 2102 control:

- similar to RZR 2051 but with
- 2 speed range settings
- setting 1: 12 to 400 rpm
- setting 2: 60 to 2000 rpm
- output power 100 W
- max. torque 400 Ncm (200 Ncm in continuous operation)
- viscosity range up to 100000 mPa s

Model RZR 2102 control Z:

- Similar to RZR 2102 control, but with an additional planetary drive (62 x 81 mm, H x dia.)
- Speed range stage 1: 4 to 108 rpm
- Speed range stage 2: 17 to 540 rpm
- max. torque 800 Ncm (700 Ncm in continuous operation)
- viscosity range up to 350000 mPa s
- supplied with 10.5 mm dia. chuck

Type	Power W	Speed range rpm.	Max. torque Ncm	Speed control	Cat. No.	PK
RZR 2051 control	50	50 to 2000	40	Digital	9.816 395	1
RZR 2052 control	100	30 to 1000	180	Digital	9.816 398	1
RZR 2102 control	100	1: 12 to 400, 2: 60 to 2000	400	Digital	9.816 396	1
RZR 2102 control Z	100	1: 4 to 108, 2: 17 to 540	800	Digital	9.816 397	1

1 Overhead stirrers, RZR 2020, RZR 2021, RZR 2041

Heidolph

General features

- Impact and chemical resistant casing
- Highest torque in their class
- Suitable for unsupervised continuous operations
- Optimum safety with overheat cut-out

Mechanical overhead stirrers

- Standard equipment for every laboratory
- 2 speed range setting system for optimal torque
- Fully adjustable, dial control speed setting from 40 to 2000 rpm.
- Withstand peak overloads up to 200%

RZR 2020:

- Medium duty stirrer for up to 25 litres of low viscosity liquids
- max. torque 400 Ncm
- output power 27 W
- speed control dial
- viscosity range to 60000 mPa s

RZR 2021:

- Similar to RZR 2020 but with
- digital speed display for reproducible results
- viscosity range to 60000 mPa s

RZR 2041:

- Higher power stirrer
- max. torque 520 Ncm
- Output power 37W
- digital speed display for reproducible results.
- viscosity range to 100000 mPa s

For 230V 50Hz supplies.



Type	Power	Speed range	Max. torque	Speed control	Cat. No.	PK
	W					
RZR 2020	27	1: 40 to 400, 2: 200 to 2000	400	dial	9.816 400	1
RZR 2021	37	1: 40 to 400, 2: 200 to 2000	400	digital	9.816 402	1
RZR 2041	27	1: 40 to 400, 2: 200 to 2000	520	digital	9.816 389	1

2 Accessories for stirrer motors

Heidolph

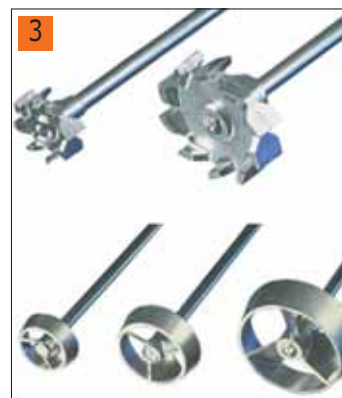
Type	Cat. No.	PK
Stand clamp for holder rod 13 to 32 mm	9.816 562	1
Chuck, clamping range 10.5 mm	9.816 563	1
Stand S 2, 425 x 420 x 700 mm, 5.8 kg	9.816 564	1
Stirrer shaft guard, Plexiglass, height-adjustable	9.816 566	1



3 Stirrer blades and shafts for overhead stirrers

Heidolph

Type	Material	Dimensions	Shaft dia. mm	Cat. No.	PK
		mm			
Blade stirrer BR 10 (2 blades)	V 2A	50 x 12	8	9.816 540	1
Blade stirrer BR 11 (1 blade)	V 2A	50 x 12	8	9.816 541	1
Blade stirrer BR 12	V 2A	60 x 15	8	9.816 542	1
Blade stirrer BR 13	V 2A	70 x 70	8	9.816 543	1
Blade stirrer BR 14	V 2A	90 x 10	8	9.816 544	1
Turbine stirrer TR 20	V 2A	29 dia.	8	9.816 548	1
Turbine stirrer TR 21	V 2A	50 dia.	8	9.816 549	1
Propeller stirrer PR 30	V 2A	58 dia.	8	9.816 550	1
Propeller stirrer PR 32 (with guide ring)	V 2A	33 dia.	8	9.816 551	1
Propeller stirrer PR 32 (with guide ring)	V 2A	45 dia.	8	9.816 552	1
Propeller stirrer PR 33 (with guide ring)	V 2A	66 dia.	8	9.816 553	1
Propeller stirrer PR 39	PTFE	75 dia.	8	9.816 554	1
Anchor stirrer AR 19	PTFE	60 x 40 x 5	8	9.816 557	1
Half-moon stirrer HR 18	PTFE	65 x 18 x 3	8	9.816 558	1





1 General purpose stirrers , SS10, SS20, SS30

Choice of stirring capacities:

- SS10, up to 15 litres
- SS20, up to 25 litres
- SS30, up to 40 litres with dual torque range
- Sophisticated speed control with feedback monitoring and soft-start
- Keyless chuck allows fast and easy rotor fitting
- Power lead is fed through the stirrer support arm keeping it away from moving parts
- Overload protection facility
- 230V 50Hz

With BioCote silver based antimicrobial protection.

Stuart

Type	Speed range rpm.	Viscosity max. mPa.	Torque Nm	Dimensions (W x D x H) mm	Cat. No.	PK
SS10	100 to 2000	10000	15	85 x 175 x 230	9.950 395	1
SS20	100 to 2000	20000	27	85 x 195 x 230	9.950 396	1
SS30	50 to 500 / 100 to 2000	40000	27 / 90	85 x 195 x 230	9.950 397	1



2 Overhead Stirrer shafts

Stainless steel. Supplied as separate 8 mm diameter shaft with tapped screwthread end onto which can be attached a choice of paddle types.
Lengths as indicated.

Stuart

Type	Cat. No.	PK
Shaft, 350 mm long	9.950 401	1
Shaft, 550 mm long	9.950 402	1



3 Paddles

For use with 9.950 401 and 9.950 402 shafts.

Stuart

Type	Cat. No.	PK
Large	9.950 404	1
Anchor	9.950 407	1
Small	9.950 403	1
2-blade propeller	9.950 406	1
4-blade propeller	9.950 405	1



Further stirrers - please see page 339



4 Compressed air stirrers type PLR

Basic models include:

- PLR motor
- all-stainless steel housing, grade 1.4104
- continuously adjustable, fine control valve speed regulation
- 14 mm dia. support arm with 9 mm dia. nozzle tubing connector
- operating pressure max. 6 bar
- power output 200 W at 6 bar
- clockwise rotation
- air consumption 260 L/min. at 6 bar
- output shaft (L x dia.): 24 x 10 mm
- stirring capacity max. 25 L

Buddeberg



Type PLR 10 constructed to Ex II 2G c IIB T4 and types PLR 11 - PLR 13 constructed to Ex II 2G c IIB T5 according with Directive 94/9 EG (ATEX).

Type	Off-load speed rpm	Torque Nm	Gears	For fluid viscosity	Cat. No.	PK
PLR 10	15000	0.3	0	low	9.778 950	1
PLR 11	1750	2.3	1	medium	9.778 951	1
PLR 12	1000	3.5	2	high	9.778 952	1
PLR 13	80	25.0	3	maximum	9.778 953	1

1 Compressed air stirrer type PLR with tachometer

Basic models include:

- PLR motor
- all-stainless steel housing, grade 1.4104
- analogue tachometer
- continuously adjustable, fine control valve speed regulation
- 14 mm dia. support arm with 9 mm dia. nozzle tubing connector
- operating pressure max. 6 bar
- power output 200 W at 6 bar
- clockwise rotation
- air consumption 260 L/min. at 6 bar
- output shaft (L x dia.): 24 x 10 mm
- stirring capacity max. 25 L

Buddeberg



Type PLR 10 T constructed to Ex II 2G c IIB T4 and types PLR 11 T - PLR 13 T constructed to Ex II 2G c IIB T5 according with Directive 94/9 EG (ATEX).

Type	Off-load speed rpm	Torque Nm	Gears	For fluid viscosity	Cat. No.	PK
PLR 10T	15000	0.3	0	low	9.778 960	1
PLR 11T	1750	2.3	1	medium	9.778 961	1
PLR 12T	1000	3.5	2	high	9.778 962	1
PLR 13T	80	25.0	3	maximum	9.778 963	1

2 3 4 5 6 Compressed air powered stirrers, PLR, accessories

Fig. 3: Chuck:

For quick, easy attachment of stirring rods.
Not to be used in potentially explosive atmospheres.

Buddeberg



Fig. 4: Connection couplings:

Fixed-diameter connection for motor/magnetic coupling drive shaft and stirring rod.
Suitable for use in potentially explosive atmospheres.



Fig. 5: Flexible glass tube couplings:

For stirring tasks using glass stirring rods. Elastic connector between motor and stirring shaft.
Provides exact alignment of motor and shaft, and evens out axial and height differences.
Accepts 6 to 10 mm diameter shafts.



Fig. 6: Flexible glass tube couplings:

For stirring tasks using glass stirring rods. Elastic connector between motor and stirring shaft.
Provides exact alignment of motor and shaft, and evens out axial and height differences.
Output drive accepts 6 to 10 mm diameter shafts, input shaft receiver fits 10 or 10/13 mm diameter drives, secured by allen screws.



Fig. 7: Double-Cardan-Coupling:

With 8 mm dia. hexagonal input drive receiver and 6 mm square socket drive output.



Type	Description	Cat. No.	PK
F 8	Chuck for shafts 0.5 to 8.5 mm (Fig. 3)	9.779 052	1
VK 10 x 6	Connection coupling (Fig. 4)	9.779 003	1
VK 10 x 8	Connection coupling (Fig. 4)	9.779 005	1
VK 10 x 10	Connection coupling (Fig. 4)	9.779 006	1
K 10	Flex coupling receiver inner diam. 10 mm (Fig. 5)	9.198 010	1
K 10/13	Flex coupling receiver inner diam. 10/13 mm (Fig. 5)	9.197 400	1
PK 10	Flex coupling receiver inner diam. 10 mm (Fig. 6)	9.779 013	1
PK 10/13	Flex coupling receiver inner diam. 10/13 mm (Fig. 6)	9.779 014	1
DCK	Stainless steel, L = 110 mm (Fig. 7)	9.779 065	1

7 Floor stand

With angle foot, side length 600 mm, rod Ø 34 mm.

Buddeberg

Length mm	Cat. No.	PK
1000	9.224 000	1





1 2 Stirrer glands (stirrer guides), ground glass joint

Duran®. Other materials used: PTFE (bearing), silicone (gasket) and PBTP (screwcap).
Cone size 29/32. Guide bore 10 mm i.d.

Lenz

Type	Cat. No.	PK
With precision-formed, cylindrical sleeve	9.197 351	1
With PTFE bearing	9.197 355	1



3 KPG stirrer bearings

Duran®. Interchangeable. Bearing surface ground.
With or without standard ground cone NS 29/32.

SCHOTT Duran

Type	Cone	Dia.	Height	Cat. No.	PK
	NS	mm	mm		
HA 10	no	10	65	9.197 251	1
HB 10	no	10	75	9.197 252	1
HB 16	no	16	90	9.197 257	1
HQ 10	yes	10	75	9.197 253	1
HT 10	yes	10	65	9.197 256	1
HT 16	yes	16	85	9.197 258	1

4 KPG stirrer shafts

Duran®. Interchangeable. Bearing surface ground and polished.
WB: shaft only

SCHOTT Duran

Type	Dia.	Length	Cat. No.	PK
	mm	mm		
WB 10	10	160	9.197 264	1
WB 16	16	160	9.197 267	1



5 KPG stirrer shafts

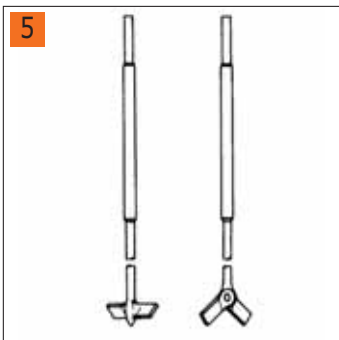
Duran®. Interchangeable. Bearing surface ground and polished.

SCHOTT Duran

WG: 4 fixed blades
WS: 2 movable blades
KPG dia.: 10 mm
KPG length: 160 mm



Type	Length	For neck dia.	Cat. No.	PK
	mm	mm		
WG 10	320	60	9.197 321	1
WG 10	370	60	9.197 322	1
WG 10	410	60	9.197 323	1
WG 10	440	60	9.197 324	1
WS 10	320	25	9.197 311	1
WS 10	370	25	9.197 312	1
WS 10	410	25	9.197 313	1
WS 10	440	25	9.197 314	1



6 Magnetic stirrer drive bearing MRK series with ground joint

With permanent magnetic coupling, absolute gas and vacuum-tight construction and resistant to acids and alkaline solutions. Constructed in Cr/Ni/Mo materials to DIN 1.4435 X2. Viton O-ring seals on the cone prevent heat expansion or clamping on the glass joint. Provides a low friction bearing for any drive.

Buddeberg

Maximum speed: 2500 rpm. There is no through-shaft, as the drive and impeller elements are magnetically coupled.

Alternative torque sizes, stirrers and special materials available on request.



Type	Joint size	Torque	For fluid viscosity	Capacity	Cat. No.	PK
	NS	Nm	mPa.	ml		
MRK 1/20	29/32	2.0	1500	2000	9.779 201	1
MRK 1/60	29/32	6.0	3500	6000	9.779 203	1
MRK 1/90	29/32	9.0	4000	10000	9.779 204	1
MRK 2/40	45/40	4.0	2500	4000	9.779 211	1
MRK 2/90	45/40	9.0	4000	10000	9.779 213	1

1 KPG stirrers

Choice of interchangeable paddles and shafts for use in flasks as indicated.
Stirring paddles are 3.2 mm thick Teflon. Stirring shafts are 10 mm diameter Duran® glass.

Type	Width	Length	For flasks	Cat. No.	PK
	mm	mm			
Stirring paddle	12	38	50	9.197 220	1
Stirring paddle	12	47	100	9.197 221	1
Stirring paddle	18	47	100	9.197 222	1
Stirring paddle	12	65	250	9.197 223	1
Stirring paddle	18	65	250	9.197 224	1
Stirring paddle	18	76	0.5 L/1 L	9.197 225	1
Stirring paddle	24	110	2 L/3 L	9.197 226	1
Stirring shaft to fit paddles with width 12 mm	-	-	-	9.197 215	1
Stirring shaft to fit paddles with width 18/24 mm	-	-	-	9.197 214	1



2 Stirrer rotors, crescent-shaped paddle

PTFE-coated stainless steel shaft with solid PTFE paddle which pivots into a keyhole frame allowing insertion through narrow mouthed vessels. The stainless steel core provides the required rigidity. They can therefore easily be clamped into overhead stirrer chucks. Since the medium only comes in contact with PTFE, the rotors are almost entirely chemically and temperature resistant. Bola stirrer rotors correspond dimensionally with (KPG) glass stirring shafts and can therefore be interchanged at any time.

Bohlender



Length	Shaft dia.	To fit chuck dia.	Paddle dia.	Cat. No.	PK
mm	mm	mm	mm		
350	8	6.5	65	9.197 121	1
450	8	6.5	90	9.197 122	1
350	10	8.0	90	9.197 127	1
450	10	8.0	90	9.197 124	1
510	10	8.0	90	9.197 128	1
600	10	8.0	90	9.197 125	1
800	16	14.0	125	9.197 126	1

3 Overhead stirrer rotors, 3-blade propellor

Bohlender



Length	Shaft dia.	To fit chuck dia.	Paddle dia.	Cat. No.	PK
mm	mm	mm	mm		
450	6	4.7	50	9.197 138	1
350	8	6.5	75	9.197 130	1
350	8	6.5	75	9.197 139	1
450	10	8.0	75	9.197 140	1
600	10	8.0	75	9.197 129	1
600	10	8.0	75	9.197 149	1

4 Overhead stirrer rotors, Maxi propeller

Bohlender



Length	Shaft dia.	To fit chuck dia.	Paddle dia.	Cat. No.	PK
mm	mm	mm	mm		
600	10	8.0	140	9.197 194	1
800	10	8.0	200	9.197 195	1
1000	16	14.0	200	9.197 196	1

5 Overhead stirrer rotors, impellor

Bohlender



Length	Shaft dia.	To fit chuck dia.	Paddle dia.	Cat. No.	PK
mm	mm	mm	mm		
600	10	8.0	100	9.197 192	1
600	10	8.0	150	9.197 193	1
350	10	8.0	100	9.197 197	1
450	10	8.0	100	9.197 198	1
800	10	8.0	100	9.197 199	1



1 Overhead stirrer rotors, centrifugal paddle

Bohlender

Length	Shaft dia.	To fit chuck dia.	Paddle dia.	Cat. No.	PK
mm	mm	mm	mm		
350	6	4.7	50	9.197 176	1
450	8	6.5	90	9.197 177	1
350	10	8.0	90	9.197 178	1
450	10	8.0	90	9.197 179	1
600	10	8.0	90	9.197 180	1



2 Overhead stirrer rotors, anchor

Bohlender

Length	Shaft dia.	To fit chuck dia.	Paddle dia.	Cat. No.	PK
mm	mm	mm	mm		
350	8	6.5	60	9.197 144	1
600	8	6.5	100	9.197 145	1
350	10	8.0	80	9.197 146	1
600	10	8.0	100	9.197 147	1



3 Stirrer rotor, PP propeller

With four-bladed, PP propeller.
PE-coated, metal stirrer shaft.

BRAND

Dia.	Length	Rotor dia.	Cat. No.	PK
mm	mm	mm		
6	380	45	9.197 101	1



4 Paddles, 2 blade propeller

Stainless steel. For stirrer rotors with M6 thread.

Type	Blade	Cat. No.	PK
	mm		
2 blades, M6	50	9.156 164	1
2 blades, M6	70	9.156 165	1
2 blades, M6	100	9.156 166	1
2 blades, 90° offset, M6	50	9.156 167	1
2 blades, 90° offset, M6	70	9.156 168	1
2 blades, 90° offset, M6	100	9.156 169	1



5 Paddles, 3 blade propeller

Stainless steel. With screwthread fitting as indicated.

Type	Blade	Cat. No.	PK
	mm		
3 blades, M6 thread	50	9.156 170	1
3 blades, M6 thread	70	9.156 171	1
3 blades, M6 thread	100	9.156 172	1
3 blades, M6 thread	140	9.156 173	1
3 blades, M10 thread	140	9.156 148	1



6 Paddles, 4 blade propeller

Stainless steel. With screwthread shaft connection as indicated.

Description	Blade	Cat. No.	PK
	mm		
4 blades, M6 thread	50	9.156 174	1
4 blades, M6 thread	70	9.156 175	1
4 blades, M6 thread	100	9.156 176	1
4 blades, M6 thread	150	9.156 177	1
4 blades, M10 thread	150	9.156 142	1
4 blades, 90° offset, M6 thread	50	9.156 178	1
4 blades, 90° offset, M6 thread	70	9.156 179	1
4 blades, 90° offset, M6 thread	100	9.156 180	1

1 Paddles, flask

Stainless steel. With screwthread fitting as indicated.

Description	Blade	Cat. No.	PK
mm			
10 hole, M6 thread	70 x 100	9.156 187	1
14 hole, M6 thread	70 x 150	9.156 188	1



2 Visco Jet® stirring system

Stirring system that mixes low to high viscosity media using jet-vortices.

Principle:

The worldwide patent-pending Visco Jet® stirring system is based on the cone-jet principle. Turbulent flows are created at the tapered end of the cone nozzle by acceleration, displacement and deceleration, resulting in vortices. These flows influence each other and create a novel, dynamic mixing movement.

Advantages:

This system is ideal for all types of mixing

- no aeration
- no foaming
- no temperature rise
- gentle mixing for delicate samples
- short mixing times
- minimum power consumption whilst mixing at low speeds.

Heidolph



Type	Material	Dia.	For neck dia.	Wave-length	Rotation speed	Cat. No.	PK
		mm	mm	mm	rpm		
Visco Jet® - 60 mm	V4A	60	80 to 150	500	200 to 800	9.816 595	1
Visco Jet® - 80 mm	V4A	80	115 to 200	500	200 to 700	9.816 596	1
Visco Jet® - 80 mm	POM	80	115 to 200	500	200 to 700	9.816 597	1
Visco Jet® - 120 mm	V4A	120	170 to 300	500	120 to 500	9.816 598	1
Visco Jet® - 120 mm	POM	120	170 to 300	500	120 to 500	9.816 599	1

3 Paddles, adjustable, for narrow mouth flasks

Stainless steel. With screwthread fitting as indicated.

Type	Blade	Cat. No.	PK
mm			
1 blade, M6 thread	60	9.156 181	1
2 blade, M6 thread	60	9.156 182	1
2 blade, M6 thread	90	9.156 183	1
2 blade, M6 thread	100	9.156 184	1



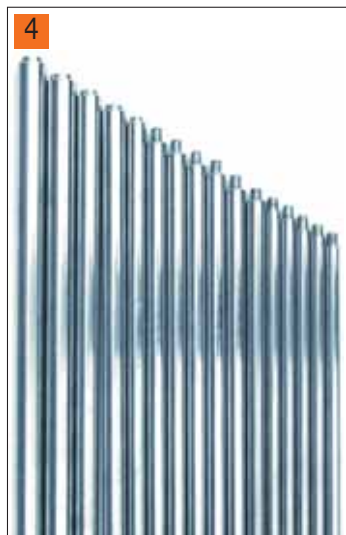
Paddles, flask, centrifugal

Stainless steel. With screwthread fitting as indicated.

Type	Blade	Cat. No.	PK
mm			
3 hole, M6 thread	70 x 70	9.156 185	1
6 hole, M6 thread	70 x 70	9.156 186	1

4 Rods for stirrer rotor shafts, M6 and M10 screwthread end

Description	Dia. mm	Length mm	Cat. No.	PK
Rod, screwthread M6	6	150	9.156 100	1
Rod, screwthread M6	6	300	9.156 101	1
Rod, screwthread M6	6	350	9.156 102	1
Rod, screwthread M6	6	400	9.156 103	1
Rod, screwthread M6	6	450	9.156 104	1
Rod, screwthread M6	6	500	9.156 105	1
Rod, screwthread M6	6	600	9.156 106	1
Rod, screwthread M6	6	700	9.156 107	1
Rod, screwthread M6	6	800	9.156 108	1
Rod, screwthread M10	10	550	9.156 129	1
Rod, screwthread M10	10	750	9.156 130	1
Rod, screwthread M10	10	1000	9.156 131	1
Rod, screwthread M10	10	1300	9.156 132	1
Rod, screwthread M10	12	550	9.156 133	1
Rod, screwthread M10	12	750	9.156 134	1
Rod, screwthread M10	12	800	9.156 135	1
Rod, screwthread M10	12	1000	9.156 136	1
Rod, screwthread M10	12	1300	9.156 137	1
Rod, screwthread M10	12	1500	9.156 138	1





1 Test tube shaker, lab dancer

A new, attractively designed, test tube shaker. IKA
 Designed for mixing small test samples by touch function.
 - Small, compact and reliable
 - For small containers up to 30 mm in diameter, e.g. test tubes, centrifuge tubes, Eppendorf tubes
 - Fixed speed (2800 rpm)
 - Excellent mixing
 - Top of housing and the test tube accessories are made from chemical inert plastic.
 The bottom section is a coated, zinc die-casting.
 - Includes light 12 V adapter

Mixing:	orbital
Orbit:	4.5 mm
Mixing Volume:	1 tube, max. 50 ml
Motor rating input/output:	1.2 W/0.8 W
Speed:	2800 rpm (fixed)
Dimensions (Dia. x H):	100 x 70 mm
Weight:	550 g
Material housing:	PP
Attachment:	TPU
Base:	Zinc, coated
Enclosure according to DIN EN 60529:	IP 40
Supply requirement:	100-240 V
Frequency:	50/60 Hz

Type	Cat. No.	PK
lab dancer	9.729 936	1



2 3 Minishaker MS 3 basic/digital

Compact, universal small shaker suitable for shaking tasks with all small vessels and microtitre plates: IKA

- Continuous or touch operation (with standard attachment)
- Two operating modes available:

Mode A (safe mode with attachment detection) the maximum speed of 3000 rpm is only attained with the standard attachment in touch mode. When using other attachments the speed is limited to 1300 rpm.

Mode B (without attachment detection) a speed of 3000 rpm is possible with all attachments.

- Stable in all speed ranges
 - Sturdy, zinc, die-cast casing
- MS 3 digital additionally with timer with countdown function.



Type of movement:	orbital
Orbit:	4.5 mm
Motor rating output:	8 W
Speed range:	0 to 3000 rpm
Dimensions (W x D x H):	148 x 205 x 63 mm
Weight:	2.9 kg

Type	Cat. No.	PK
MS 3 basic with mode A	9.729 938	1
MS 3 digital with mode B	9.729 939	1



4 5 6 Accessories for Minishaker MS 3

IKA

Description	Cat. No.	PK
Standard attachment (Fig. 4)	9.729 942	1
Universal attachment (Fig. 5)	9.729 944	1
Microtitre plate attachment (Fig. 6)	9.729 943	1
One-hand insert	9.729 945	1
Test tube insert, with 14 holes	9.729 946	1
Test tube insert, with 6 holes	9.729 947	1
Test tube insert, with 4 holes	9.729 948	1
Test tube insert, for any number of holes	9.729 949	1



1 Shaker Vortex Genius 3

Vortex shaker suitable for intermittent operation (touch function), activated by pressing shaker attachment, or for continuous operation.

IKA

- Wide speed range, infinitely adjustable
- Versatile, due to 3 accessory interchangeable attachments and 7 inserts (e.g. Eppendorf tubes, microtitre plates, 250 ml Erlenmeyer flasks etc.), please order separately
- Attachments securely click onto shaker in any position
- Strap clamp (VG 3.36) ensures easy handling of round/Erlenmeyer flasks
- Sturdy, die cast zinc casing
- Stable at high speeds due to special feet (silicone base with ultra high vibration damping)
- Eccentric drive with ball bearings
- Self-ventilated motor allows continuous operation with minimal warm-up of the housing

Type of movement:	orbital
Orbital diameter:	4 mm
Motor rating input/output:	160 W/10 W
Speed range:	500 to 2500 rpm
Speed indication:	scale 0 to 6
Dimensions (W x H x D):	127 x 149 x 136 mm
Weight:	4.5 kg
Protection class acc. to DIN EN 60529:	IP 21

Type	Cat. No.	PK
Vortex Genius 3	9.729 950	1

2 3 4 Accessories for shaker Vortex Genius 3

IKA

Description	Cat. No.	PK
Standard attachment (Fig. 1)	9.729 954	1
One-hand attachment (Fig. 2)	9.729 955	1
Standard tray 150 mm, rubber inlet	9.729 951	1
Insert for 54 Eppendorf tubes	9.729 956	1
Insert for 18 x 10 mm dia. test tubes (Fig. 3)	9.729 957	1
Insert for 12 x 12 mm dia. test tubes	9.729 958	1
Insert for 8 x 16 mm dia. test tubes	9.729 959	1
Insert for 8 x 20 mm dia. test tubes	9.729 952	1
Attachment for Erlenmeyer and round vessels 100 to 250 ml (Fig. 4)	9.729 953	1
Holder for 1 standard microtitre plate	9.729 960	1

5 6 Vortex mixers

Reax top/Reax control

Heidolph

For excellent mixing

- Circular vibrating action, with 5 mm orbit
- Contact pressure requirement reduced by approx. 50%
- For intermittent or continuous operation
- Adjustable speed range: 0 to 2500 rpm
- Heavy duty die cast housing with rubber feet for stability
- With dial speed setting and supplied with top adapter for test tubes up to 20 mm dia.
- A larger top attachment can be supplied for test tubes up to 50 ml (see accessories)

Reax top

- with analogue speed control

Reax control

- with digital electronic speed control

Type	Cat. No.	PK
Reax top, incl. attachment	9.730 040	1
Reax control, incl. attachment	9.730 042	1
Attachment, large, for tubes or flasks up to 50 ml	9.730 019	1

7 Vortex mixer PV-1

With low profile and small footprint.

Grant

- variable speed: 250 to 3000 rpm
- low voltage supply for safe, cold-room use
- operating ambient 4°C to 45°C

Type	Cat. No.	PK
PV-1	9.721 000	1





1 Mixers, vortex, SA7, SA8

- low profile, ergonomic design
 - Robust, die-cast housing avoids unnecessary movement during use
 - Powerful vortex mixing action, ideal for a range of tubes
 - Two models available
 - Economic fixed speed model
 - Variable speed model with choice between intermittent or continuous operation
 - Integral retort rod fixing
 - Range of accessory heads available
- With BioCote, silver-based, antimicrobial protection.

Stuart

Specifications

	SA 7	SA 8
Speed:	2500 rpm	250 to 2500 rpm
Orbit:	4.2 mm	4.2 mm
Continuous mode:	No	Yes
Accessory heads:	No	Yes
Maximum load:	1 kg	1 kg
Overall dimension:	78 x 135 x 215 mm	78 x 135 x 215 mm
Net weight:	3.2 kg	3.2 kg
Electrical supply:	90-240 V, 20 W	90-240 V, 20 W

Type	Cat. No.	PK
SA7	9.950 433	1
SA8	9.720 969	1
Accessory head for micro plates and micro tubes	9.720 970	1
Support rod 300 x 12.5 mm	9.720 971	1



2 Vortex mixer, Multi-Pulse Vortexer

- For efficient vortexing of large samples
- Pulse-action function prevents sample stratification
- Fits all commercial sample vessels

Schütt

Powerful mixing of large volumes

The multi-pulse vortexer is also suitable for mixing of multiple samples.

Each of the two attachments supplied will hold up to 22 test tubes.

The powerful d.c. motor (2500 rpm. max.) ensures thorough mixing of even the toughest samples.

The speed range is continuously adjustable.

Pulse-action function

Sample sedimentation build-up is not a problem for the Multi-Pulse Vortexer.

The pulse function interrupts the vortex action for short intervals to ensure complete mixing and is steplessly time-adjustable.

Complete homogenization

By adding glass or steel balls to the sample material the Multi-Pulse Vortexer is able to homogenize samples.

The pulse function guarantees constant, complete homogenization throughout the entire sample.

Versatility

Multi-Pulse Vortexer can work with all commercial sample vessels. The Multi-Pulse Vortexer adapts to all sample volumes, without the need to buy additional attachments. Suitable for microtitration plates, cryogenic tubes, test tubes, Falcon tubes, Erlenmeyer flasks and many other vessels all with the same rack attachment, it only requires a different accessory attachment.

With stepless attachment height adjustment. For example with optional empty attachments it is possible to use test tube racks.

Dimensions (W x H x D): 450 x 180 x 360 mm

Shaking speed: 0 to 2500 rpm

Description	Cat. No.	PK
Multi-Pulse Vortexer, 230V, incl. 1 attachment for 12 to 13 and 15 to 16 mm Ø tubes	9.197 704	1

Vortex mixer, Multi-Pulse Vortexer, accessory attachments

Schütt

Vessel Ø	Capacity	Cat. No.	PK
mm	mm		
12 to 13	22	9.197 692	1
15 to 16	22	9.197 693	1
18 to 20	19	9.197 694	1
25	12	9.197 695	1
28 to 29	10	9.197 696	1

Vortex mixer, Multi-Pulse Vortexer, accessory attachments

Schütt

Container type	Capacity	Cat. No.	PK
96-well microtitration plate	2 plates	9.197 697	1
125 ml erlenmeyer flasks	2 flasks	9.197 698	1
250 ml erlenmeyer flasks	2 flasks	9.197 699	1
1.5 / 2.0 ml test tubes	84 tubes	9.197 700	1
12 mm cryogenic tubes	36 tubes	9.197 702	1
Empty attachment for holding other vessels or racks		9.197 703	1

1 Test tube shaker, Multi Reax

Heidolph

The only test tube shaker for up to 26 tubes of differing diameters.

- circular vibrating motion (orbit 3 mm)
- continuously adjustable shaking frequency (150 to 2000 rpm)
- digital speed indicator
- digital timer (to 999 min), with audible alarm (duration: 3 s)
- supplied with 2 tube carousels
- carousel for up to 26 test tubes (10 to 16 mm dia., maximum length 160 mm)
- carousel for up to 12 test tubes (16 to 32 mm dia., maximum length 120 mm)
- long service life, 3 year guarantee



Description	Cat. No.	PK
Multi Reax	9.839 810	1
Carousel for 26 test tubes (10 to 16 mm dia.)	9.739 258	1
Carousel for 12 test tubes (16 to 32 mm dia.)	9.739 259	1

2 Vibrating shaker, Vibrax® VXR

IKA

Opto-electronically controlled, mini shaker with very wide speed range from 0 to 2200 rpm. Circular shaking motion with 4 mm orbit. Slow speeds can be safely maintained. Suitable for continuous operation. Maximum load weight depends on attachment used, from 500 to 2000 g.

Please order the required shaker attachment separately.

Shaking motion: Orbital
 Orbit: 4 mm
 Motor rating input/output: 38/6.3 W
 Speed range: 0 to 2200 rpm
 Dimensions (W x D x H): 157 x 247 x 130 mm
 Weight (without attachment): 5.7 kg
 Max. loading: 2 kg
 Protection class DIN EN 60529: IP 21



Type	Cat. No.	PK
Ika-Vibrax® VXR	9.729 900	1

3 Vibrating shaker, Vibrax® VXR basic, accessory attachments

IKA

Type	Description	Width mm	Depth mm	Height mm	Cat. No.	PK
VX 1 one-hand attachment	For shaking individual loose containers of 1 to 250 ml	130	135	40	9.729 901	1
VX 2 test tube attachment	For up to 36 test tubes or centrifuge tubes of 16 mm dia. Material: Makrolon	140	145	115	9.729 902	1
VX 7 bowl attachment	For gentle mixing of petri dishes, culture bottles etc.	410	210	40	9.729 907	1
VX 8 Universal attachment	For rapid and safe mixing of up to 2 x 500 ml Erlenmeyer flasks	265	136	60	9.729 908	1
VX 2E "Eppendorf" attachment	For intensive mixing of up to 64 Eppendorf tubes	210	210	65	9.729 914	1





1 Orbital shaker, KS 130 basic

Small, quiet running, low-friction shaker with effective orbital movement and a maximum loading of 2 kg.

- Electronic speed control and timer adjustment
- LED scale bar speed and time display
- Large selection of attachments for different container types and sizes
- Attachments not included, please order separately.

Shaking movement:	orbital
Orbit:	4 mm
Max. capacity including attachment	2 kg
Motor rating input/output:	45 W/10 W
Speed range:	80 to 800 rpm
Speed indication:	LED scale bar
Timer:	5 to 50 min/continuous
Dimensions (W x D x H):	270 x 316 x 98 mm
Weight:	7.7 kg
Housing IP rating to DIN EN 60529:	IP 21

IKA

Type	Cat. No.	PK
KS 130 basic	9.838 150	1



2 Orbital shaker, KS 130 control

Small, quiet running, low-friction shaker with effective orbital movement and a maximum loading of 2 kg.

- electronic speed control and timer adjustment
- digital display for speed, timer function, and operating modes
- electronic timer: 0 to 9 h 59 min or continuous mode (∞)
- integral stop positioning function (automated sample removal by robot possible)
- all functions can be controlled and documented using labworldsoft® software
- special variant with rotation reversal available on request
- large selection of attachments for various vessel shapes and sizes
- attachments are not included, please order appropriate attachment separately

Shaking motion:	orbital
orbit:	4 mm
Max. capacity including attachment:	2 kg (incl. attachment)
Motor rating in/output	45 W/10 W
Speed range:	80 to 800 rpm
Speed display:	digital
Timer:	0 to 9 h 59/continuous min
dimensions (W x D x H):	270 x 316 x 98 mm
weight:	8.8 kg
Housing IP rating to DIN EN 60529:	IP 21
Interface:	RS232/analogue

IKA

Type	Cat. No.	PK
KS 130 control	9.838 155	1

3 4 5 6 Accessories for orbital shaker KS 130

Universal attachment

Able to hold most types of container using adjustable tension rollers.

Fixing clip platform

For shaking round bottom vessels, volumetric and Erlenmeyer flasks. Supplied without clips.

Petri dish attachment

For gentle mixing and suspension of cell cultures or growth media in petri dishes, culture bottles and containers. With integral anti-slide mat (PP).

Test tube holder

For intensive vibrating of small tubes, test tubes, cuvettes, centrifuge tubes.

IKA



Type	Figure	Cat. No.	PK
Separating funnel attachment	3	9.838 160	1
Fixing clip platform	4	9.838 161	1
Petri dish attachment	5	9.838 162	1
Test tube holders	6	9.838 163	1

1 Orbital shaker, KS 260 basic

Compact, low-level, platform shaker with highly effective, orbital motion, maximum capacity 7.5 kg.

IKA

- Electronic speed control and timer adjustment
- LED indicator display
- Large selection of attachments for different container types and sizes
- Attachments not included, please order separately.

Shaking motion: Orbital
 Orbit: 10 mm
 Max. loading
 incl. attachment: 7.5 kg (incl. attachment)
 Motor rating
 input/output: 45/10 W
 Speed range: 20 to 500 rpm
 Speed indication: LED scale
 Timer: 5 to 50 min/continuous
 Dimensions (W x D x H): 360 x 420 x 98 mm
 Weight: 8.1 kg
 Housing IP rating to DIN EN 60529: IP 21



Type	Cat. No.	PK
KS 260 basic	9.838 074	1

2 Orbital shaker, KS 260 control

Compact, low-level, platform shaker with highly effective, orbital motion, maximum capacity 7.5 kg.

IKA

- Electronic speed control and timer adjustment
- Separate digital speed and timer displays with operating mode indication
- Timer: 0 to 9 h 59 min or continuous operation
- Controlled stop-point positioning function (enables use in automated robotic sampling routines)
- All functions can be controlled and documented using labworldsoft® software
- Special variant with reverse rotation function available on request
- Large selection of attachments enable use with a wide variety of vessel shapes and sizes
- Attachments are not included, please order separately

Shaking motion: orbital
 Orbit: 10 mm
 Max. loading
 incl. attachment: 7.5 kg
 Speed range: 10 to 500 rpm
 Speed indication: digital
 Time switch clock: ∞/9 to 59 min
 Dimensions (W x D x H): 360 x 420 x 98 mm
 Weight: 8.8 kg
 Housing IP rating to DIN EN 60529: IP 21
 Interface: RS 232/analogue



Type	Cat. No.	PK
KS 260 control	9.838 175	1

3 Reciprocating shaker, HS 260 basic

Compact, low-level, platform shaker with highly effective, reciprocating motion, maximum capacity 7.5 kg.

IKA

- Electronic speed control and timer adjustment
- LED scale bar indicator display
- Large selection of attachments for different container types and sizes
- Attachments are not included, please order separately.

Shaking motion: reciprocating
 Stroke: 20 mm
 Max. loading
 incl. attachment: 7.5 kg
 Speed range: 20 to 300 rpm
 Speed indication: LED scale bar
 Timer: 5 to 50 min/continuous
 Dimensions (W x D x H): 360 x 420 x 100 mm
 Weight: 8.1 kg
 Housing IP rating to DIN EN 60529: IP 21



Type	Cat. No.	PK
HS 260 basic	9.838 063	1



1 Horizontal shaker, HS 260 control

Compact, low-level, platform shaker with highly effective, reciprocating motion, maximum capacity 7.5 kg.

IKA

- Electronic speed control and timer adjustment
- Separate digital speed and timer displays with operating mode indication
- Timer: 0 to 9 h 59 min or continuous operation
- Controlled stop-point positioning function (enables use in automated robotic sampling routines)
- All functions can be controlled and documented using labworldsoft® software
- Special variant with reverse rotation function available on request
- Large selection of attachments enable use with a wide variety of vessel shapes and sizes
- Attachments are not included, please order separately

Shaking motion:	reciprocating
Stroke:	20 mm
Max. loading	
incl. attachment:	7.5 kg incl. attachment
Motor rating input/output	45W/10 W
Speed range:	10 to 300 rpm
Speed indication:	digital
Time switch clock:	9 h 59 min/continuous
Dimensions (W x D x H):	360 x 420 x 100 mm
Weight:	8.8 kg
Housing IP rating to DIN EN 60529:	IP 21
	RS 232/analogue

Type	Cat. No.	PK
HS 260 control	9.838 185	1



2 3 Accessories for orbital shakers HS/KS 260

Universal attachment

IKA

Able to hold most types of container using adjustable tension rollers.

Surface: 320 x 320 mm

Fixing clip platform

For shaking round bottom vessels, volumetric and Erlenmeyer flasks. Supplied without clips.

Petri dish attachment

For gentle mixing and suspension of cell cultures or growth media in petri dishes, culture bottles and containers. With integral anti-slide mat (PP).

Separating funnel attachment

For shaking, elution, extraction, gassing out, dissolving, enriching.

The 3 tension rollers supplied are height-adjustable to accommodate different separating funnel sizes.

The separating funnels are secured by means of O-rings (five O-rings supplied).



Description	Dimensions (W x D x H)	Cat. No.	PK
	mm		
Universal attachment	425 x 335 x 135	9.838 080	1
Gridded clip platform attachment	330 x 330 x 24	9.838 191	1
Petri dish attachment	410 x 370 x 32	9.838 192	1
Separating funnel attachment	334 x 425 x 145	9.838 193	1



4 Shakers, KS/HS 260, accessories

Clamps for orbital shakers Ika KS 260 basic/control, KS 130 basic/control and reciprocating shakers Ika HS 260 basic/control.

IKA

For flasks ml	Max. no. plates	Cat. No.	PK
25	28	9.838 091	1
50	22	9.838 092	1
100	16	9.838 093	1
200/250	8	9.838 094	1
500	8	9.838 095	1

1 Orbital shaker, KS 501 digital

Orbital movement. Low-profile laboratory shaker with large platform and load capacity of 15 kg, depending on the attachment. With continuously adjustable speed range: 0 to 300 rpm., 30 mm orbit, digital display and timer. Ideally suited for vessel sizes over 250 ml, e.g. round bottom flasks, erlenmeyer flasks, culture flasks, bottles etc. Developed for biological and microbiological growth tests and for production of stock solutions. Continuous operation is guaranteed even under extreme loads. Requires, but is not supplied with, accessory attachments for operation.

IKA



Max. operating time: 100%
 Timer: 0 to 56 mins
 Dimensions (W x D x H): 505 x 585 x 120 mm
 Weight (without attachment): 24 kg
 Operating conditions: +5 to +50°C at 80% R.H. max.
 Supply requirements: 230 V 50/60 Hz
 Protection class according to DIN 60529: IP 21

Type	Cat. No.	PK
KS 501 digital	9.838 040	1

2 Reciprocating shaker, HS 501 digital

Reciprocating movement. Low-profile laboratory shaker with large platform and maximum load capacity of 15 kg, depending on the attachment. With continuously adjustable speed range: 0 to 300 rpm, 30 mm stroke, digital display and timer. Ideally suited for flasks, measuring cylinders and particularly separating funnels. Developed for universal applications. Continuous operation is guaranteed even under extreme loads. Requires, but is not supplied with, accessory attachments for operation.

IKA



Max. operating time: 100%
 Timer: 0 to 56 mins
 Dimensions (W x D x H): 505 x 585 x 120 mm
 Weight (without attachment): 24 kg
 Operating conditions: +5 to +50°C/80% R.H. max.
 Supply requirements: 230 V 50/60 Hz
 Protection class according to DIN 60529: IP 21

Type	Cat. No.	PK
HS 501 digital	9.838 041	1

3 4 5 Shakers, KS/HS 501 digital, accessories

For orbital shaker Ika KS 501 digital and reciprocating shaker Ika HS 501 digital.

IKA

Universal attachment:

For a variety of vessels (flasks, beakers etc.) with volumes of at least 50 ml, ideally greater than 250 ml. With tension rollers that can be mounted on 2 levels.
 Usable area: 420 x 420 mm.
 Dimensions (W x D x H) 480 x 500 x 120 mm.

Separating funnel attachment type 1:

For shaking separating funnels from 50 to 250 ml capacity. Comprises basic holder, 6 tension rollers, 6 clamping devices and 6 clamping devices with rod. Suitable for 12 x 50 ml, 10 x 100 ml or 6 x 250 ml separating funnels.

Separating funnel attachment typ 2:

For shaking separating funnels of 500 to 2000 ml. Comprises basic holder, 4 tension rollers, 4 clamping devices and 4 clamping devices with rod. Suitable for 4 x 500 ml, 3 x 1000 ml or 2 x 2000 ml separating funnels.



Type	Figure	Cat. No.	PK
Universal attachment	3	9.838 046	1
Separating funnel attachment 1	4	9.838 047	1
Separating funnel attachment 2	5	9.838 048	1



1 Shakers, KS/HS 501 digital, accessories

Gridded clip attachment.

(Without spring clips). For shaking round bottom, flat-bottom, pear-shaped, volumetric and erlenmeyer flasks etc. Minimum volume 25 ml.

Dimensions (W x D x H) 475 x 460 x 95 mm.

Dish attachment.

For the gentle movement of petri dishes, but also suitable for gentle mixing in vessels with large, flat bottoms (wide mouth erlenmeyers, beakers). Fitted with a non-slip, plastic mat.

Dimensions (W x D x H) 450 x 450 x 45 mm.

and 4 clamping devices with rod AS 1.7.

Suitable for 4 x 500 ml, 3 x 1000 ml or 2 x 2000 ml separating funnels.

Separating funnel attachment.

For shaking 4 x 1000 ml separating funnels.

Comprising basic holder, 4 clamping devices, 4 support bars and 8 ground cone section holders.

IKA

Type	Cat. No.	PK
Gridded clip attachment	9.838 050	1
Dish attachment	9.838 049	1
Separating funnel attachment	9.838 045	1



2 3 Shakers, Titramax 100/101/1000

General features

- Vortexing motion
- shaking, mixing and incubating in one system 6 different actions possible: from single to three dimensional
- Choice of max. loadings: 2 kg, 5 kg and 10 kg
- Suitable for use in incubators up to 50°C and 80% R.H. max.
- Thermally insulated drive unit gives minimal rise in platform temperature
- Timer for accurate and reproducible process duration
- Overheat cut-out resets automatically
- Comprehensive range of accessories, including multi-storey assemblies

Heidolph



Titramax

- shaking speed 150 to 1350 rpm.
- Fully adjustable speed setting
- Integral 0 to 120 mins. timer with audible alarm
- Continuous operation motor with overheat cut-out
- Specially designed, moulded rubber platform for secure mounting of microtitre plates

Titramax 100

- Orbit 1.5 mm
- For up to 4 microtitre plates

Titramax 101

- Orbit 3.0 mm
- For up to 4 microtitre plates

Titramax 1000

- Orbit 1.5 mm
- For up to 6 microtitre plates
- can be used with modular incubator 1000

Type	Orbit mm	Rotation speed rpm	Max. no. plates	Width mm	Depth mm	Height mm	Cat. No.	PK
Titramax 100	1.5	100 to 1350	4	245	310	125	9.839 831	1
Titramax 101	3.0	100 to 1350	4	245	310	125	9.839 832	1
Titramax 1000	1.5	100 to 1350	6	320	375	125	9.839 830	1

1 | 2 Platform shakers, Vibramax 100/Vibramax 110

Heidolph

- Vibration vortexing action with 1.5 to 3.0 mm orbit
- Speed range 100 to 2500 rpm
- Adjustable speed control
- Integral 0 to 120 mins timer with continuous operation setting
- Supplied with non-slip rubber mat

Vibramax 100

Accessories - see category B (page 353)

Vibramax 110

Accessories - see category C (page 353)



Type	Orbit mm	Rotation speed rpm	Max. loading kg	Internal dimensions (W x D x H) mm	Cat. No.	PK
Vibramax 100	3.0	150 to 1350	2	245 x 310 x 125	9.839 833	1
Vibramax 110	1.5	150 to 2500	2	245 x 310 x 140	9.839 835	1

3 Platform shakers, Duomax 1030

Heidolph

- Reciprocating motion with a shaking frequency up to 50 cycles/min.
- Shaking frequency is adjustable and electronically controlled
- Choice of 5° or 10° platform tilt angle setting
- Integral 0 to 120 mins. timer with continuous operation setting
- Duomax 1030 is compatible with the modular incubator 1000
- Accessories - see category D (page 353)



(WxDxH): 320 x 185 x 375 mm

Type	Angle	Rotation speed rpm	Max. loading kg	Cat. No.	PK
Duomax 1030	5	2 to 50	5	9.839 855	1
Duomax 1030	10	2 to 50	5	9.839 856	1

4 | 5 Platform shakers, Polymax 1040/Polymax 2040

Heidolph

- Oscillating 3-dimensional motion with a maximum frequency up to 50 cycles/min.
- Two models are offered with 5 or 10 kg max. loadings
- Choice of 5° or 10° platform tilt angle setting
- Adjustable, electronically controlled rolling frequency
- Integral 0 to 120 mins. timer with continuous operation setting

Polymax 1040

- Adjustable dial speed setting
- compatible with the modular incubator 1000
- Accessories - see category D (page 353)

Polymax 2040

- digital set-and-read speed display
- Accessories - see category E (page 353)



Type	Angle	Rotation speed rpm	Max. loading kg	Dimensions (W x D x H) mm	Cat. No.	PK
Polymax 1040	5	2 to 50	5	320 x 375 x 195	9.839 857	1
Polymax 1040	10	2 to 50	5	320 x 375 x 195	9.839 859	1
Polymax 2040	5	2.5 to 50	10	426 x 455 x 208	9.839 804	1
Polymax 2040	10	2.5 to 50	10	426 x 455 x 208	9.839 800	1



1 2 3 Platform shakers, Rotamax 120/Unimax 1010/2010

Heidolph
Rotamax 120

- Speed range: 20 to 300 rpm
- Orbital shaker with 20 mm orbit
- Built-in timer, 0 to 120 mins. with audible alarm (3 sec.)
- Maximum loading: 2 kg
- Accessories - see category B (page 353)

Unimax 1010

- Speed range: 30 to 500 rpm
- Orbital shaker with 10 mm orbit
- Digital timer up to 999 mins. with audible alarm (3 sec.)
- Can be used with modular Incubator 1000
- Maximum loading: 5 kg
- Accessories - see category D (page 353)

Unimax 2010

- Speed range 20 to 400 rpm
- Orbital shaker with 20 mm orbit
- Inbuild timer 0 to 120 mins. with audible alarm (3 sec.)
- Maximum loading: 10 kg
- Accessories - see category E (page 353)

Type	Orbit mm	Rotation speed rpm	Max. loading kg	Dimensions (W x D x H) mm	Cat. No.	PK
Rotamax 120	20	20 to 300	2	245 x 310 x 125	9.839 837	1
Unimax 1010	10	30 to 500	5	320 x 125 x 375	9.839 851	1
Unimax 2010	20	20 to 400	10	426 x 135 x 455	9.839 801	1



4 5 Platform shakers, Promax 1020/2020

Heidolph
Promax 1020

- Reciprocating motion
- Shaking frequency 20 up to 250 strokes/min.
- Maximum stroke: 32 mm
- with digital timer (0 to 999 mins)
- can be used with modular incubator 1000
- Maximum loading: 5 kg
- Accessories - see category D (page 353)

Promax 2020

- Reciprocating motion
- Shaking frequency 20 up to 400 strokes/min.
- Maximum stroke: 20 mm
- Integral 0 to 120 mins. timer with audible alarm (3 sec.)
- Maximum loading: 10 kg
- Accessories - see category E (page 353)

Type	Orbit mm	Rotation speed rpm	Max. loading kg	Dimensions (W x D x H) mm	Cat. No.	PK
Promax 1020	32	20 to 250	5	320 x 375 x 125	9.839 853	1
Promax 2020	20	20 to 400	10	426 x 455 x 135	9.839 802	1

1 Heidolph shakers and mixers, accessories

Heidolph

Type	Category	Cat. No.	PK
Attachment with 2 tension rollers	B	9.839 844	1
Test tube attachment for up to 49 test tubes, 12 x 80 mm (Ø x L)	C	9.839 841	1
Test tube attachment for up to 36 test tubes, 16 x 80 mm (Ø x L)	C	9.839 842	1
Attachment for up to 22 x 25 ml erlenmeyer flasks	D	9.839 861	1
Attachment for up to 14 x 50 ml erlenmeyer flasks	D	9.839 862	1
Attachment for up to 9 x 100 ml erlenmeyer flasks	D	9.839 863	1
Attachment for up to 5 x 250 ml erlenmeyer flasks	D	9.839 864	1
Attachment for up to 4 x 500 ml erlenmeyer flasks	D	9.839 865	1
Attachment for up to 2 x 1000 ml erlenmeyer flasks	D	9.839 866	1
Attachment with 2 tension rollers	D	9.839 869	1
Spare tension roller	D	9.839 870	1
Attachment for up to 4 conical separating funnels, 50 ml or 100 ml	D	9.839 871	1
Universal perforated platform 1000. Please order clamps separately	E	9.839 814	1
Universal perforated platform 2000. Please order clamps separately	E	9.839 813	1
Size 1, 25 ml erlenmeyer clamp with attachment clip for the perforated platform, max. 36 per platform	E	9.839 816	1
Size 2, 50 ml erlenmeyer clamp with attachment clip for the perforated platform, max. 36 per platform	E	9.839 817	1
Size 3, 100 ml erlenmeyer clamp with attachment clip for the perforated platform, max. 23 per platform	E	9.839 818	1
Size 4, 250 ml erlenmeyer clamp with attachment clip for the perforated platform, max. 12 per platform	E	9.839 819	1
Size 5, 500 ml erlenmeyer clamp with attachment clip for the perforated platform, max. 9 per platform	E	9.839 821	1
Size 6, 1000 ml erlenmeyer clamp with attachment clip for the perforated platform, max. 5 per platform	E	9.839 822	1
Size 1 separatory funnel clamp with attachment clip for the perforated platform. (250 ml - max. 4, 500/ 1000 ml - max. 3 per platform)	E	9.839 823	1
Size 2 separatory funnel clamp with attachment clip for the perforated platform. (2000 ml - max. 2 per platform)	E	9.839 827	1
Frame for tension roller only. Supplied without tension roller	E	9.839 811	1
Tension roller and frame complete. Order at least 2	E	9.839 812	1
Multi-storey attachment. Includes perforated platform and 4 supporting rods	E	9.839 826	1



2 | 3 Modular incubator 1000

Heidolph

- Unique modular incubation system comprising heating module and hood for simultaneous heating and cooling and, in conjunction with compatible Heidolph shakers, shaking and mixing of samples
- Choice of low or high incubation hoods
- Gives rapid heating, with no fogging of the plexiglass hood
- Compatible with Unimax 1010, Promax 1020, Duomax 1030, Polymax 1040 and Titramax 1000 models
- Upward-opening hood enables vessels to be changed or refilled easily

Heating module

- Adjustable temperature from ambient +5 to +65°C
- Digital display of set-point and actual temperatures
- Heating module with fan-assisted air-circulation, heat rating 300 W
- Temperature accuracy of ±2°K up to +50°C, ±4°K over +50°C



Type	Width mm	Depth mm	Height mm	Cat. No.	PK
Incubator 1000, heating module	170	375	97	9.839 875	1
Incubation hood, low, for dishes, tubes etc.	546	394	163	9.839 876	1
Incubation hood, high, for beakers, flasks and funnels	546	394	267	9.839 877	1



1 2 Shakers, 3000 series

With upper housing constructed in rigid polystyrene and electro-galvanized sheet steel base plate, both powder coated in grey white finish (RAL 9002). Platforms are either anodized aluminium (Models 3005 to 3018 and 3023) with four plastic posts, or electro-galvanized sheet steel (Models 3019/3020), powder coated in off-white (RAL 9002) with four "chrome stainless steel" corner rods and collars to hold accessory attachments. Control panels are clear and logical for easy operation. Continuously adjustable, electronic speed control with soft start. Maintain constant, load independent, movement during continuous operation. Very low unit weight, highly portable, making movement around the lab easy. Models 3005 to 3018 are suitable for use in incubators and warming cabinets at temperatures between +10 and +50°C and max. 70% R.H. (non-condensing). The devices are GS tested and maintenance-free. Almost all types of bottles, flasks and containers can easily be accommodated on the platforms using accessory attachments.

GFL

Analogue controlled:

Features of models 3005/3006/3011/3013/3015/3016/3019/3023:

Mechanical timer, which can be switched between continuous or timed operation up to 60 minutes.

Digital controlled:

Features of models 3013/3014/3017/3018/3020:

Microprocessor controller, for continuous, or timed operation up to 99 hours and 59 minutes with RS232 interface for control via user's PC. With LCD time and speed readout.



3 Orbital shaker Model 3005

With orbital movement.

Small footprint, versatile. Suitable for gentle movement of liquids, as well as powerful mixing. Particularly suitable for the cultivation of micro-organisms, cell and tissue culture applications. Compact, low-friction mechanism with compensation weight for safe, steady and reliable, continuous operation.

GFL

Specifications

Overall (W x D x H):	380 x 510 x 140 mm	Shaking speed:	20 to 500 rpm
Platform (W x D):	330 x 330 mm	Supply requirements:	230/50/60 Hz/40 W
Max. loading:	8 kg	Net/gross weight:	11/17 kg
Type of movement:	Orbital	Timer:	to 60 min or continuous operation
Orbit:	10 mm		

Type	Cat. No.	PK
3005	9.837 905	1



4 Shaker, reciprocating, Model 3006

Reciprocating movement.

For the intensive shaking of liquids - particularly in spherical separating funnels.

GFL

Specifications

Overall (W x D x H):	380 x 510 x 140 mm	Shaking speed:	20 to 300 rpm.
Platform (W x D):	330 x 330 mm	Supply requirements:	230 V/50/60 Hz/40 W
Max. loading:	8 kg	Net/gross weight:	11/17 kg
Type of movement:	Reciprocating	Timer:	to 60 min or continuous operation
Stroke:	20 mm		

Type	Cat. No.	PK
3006	9.837 906	1



5 3-dimensional shakers, Models 3011/3012

With 3-dimensional, tumbling motion.

Used primarily for cell culture and in AIDS research.

Stable, low-friction, gentle movement.

GFL

Specifications

Overall (W x D x H):	510 x 625 x 168 mm
Platform (W x D):	450 x 450 mm
Max. loading:	15 kg
Type of movement:	Three-dimensional, gyratory
Platform angle:	3°
Shaking speed:	2 to 50 rpm.
Supply requirements	
3011:	230 V, 50/60 Hz, 90 W
3012:	230 V, 50 or 60 Hz, 90 W*
Net/gross weight:	20/26 kg
Timer 3011/3012:	to 60 min or continuous operation/1 min to 99:59 hours or continuous operation
Model 3012:	microprocessor controlled; RS232 interface

Type	Cat. No.	PK
3011	9.837 911	1
3012**	9.837 912	1

* Please specify when placing your order !

**With digital speed display.

1 Shakers, Rocking, Models 3013/3014

Rocking movement.

Stable, low-friction mechanics. With slow, rocking action about a central pivot. Provide reproducible growth and preparation conditions for cell cultures and other media and ensure optimum and even rinsing and circulation of samples.

GFL

**Specifications**

Overall (W x D x H):	510 x 625 x 168 mm
Platform (W x D):	450 x 450 mm
Max. loading:	15 kg
Platform angle:	3°
Shaking speed:	2 to 50 rpm

Supply requirements

3013:	230 V 50/60 Hz, 90 W
3014:	230 V 50 or 60 Hz, 90 W*
Net/gross weight:	18/24 kg
Timer:	1 to 60 min or continuous operation/1 min to 99:59 hours or continuous operation
Model 3014:	microprocessor controlled, RS232 interface

Type	Cat. No.	PK
3013	9.837 913	1
3014**	9.837 914	1

* Please specify when placing your order!

**With digital speed display.

2 Shakers, orbital, Models 3015/3017

Orbital movement.

Suitable for universal applications, both for the gentle circulation of liquids and for powerful mixing. Particular areas of use include micro-organism reproduction, cell and tissue culture. Compact, low-friction mechanics with counterbalanced platform drive for secure and reliable, continuous operation.

GFL

**Specifications**

Overall (W x D x H):	510 x 625 x 142 mm
Platform (W x D):	450 x 450 mm
Max. loading:	15 kg
Type of movement:	Orbital
Orbit:	30 mm
Shaking speed:	20 to 300 rpm

Supply requirements

3015:	230 V 50/60 Hz, 65 W
3017:	230 V 50 or 60 Hz, 65 W*
Net/gross weight:	19/25 kg
Timer:	up to 60 min. or continuous operation/ 1 min up to 99:59 hours or continuous operation
Model 3017:	microprocessor controlled, RS232 interface

Type	Cat. No.	PK
3015	9.837 915	1
3017**	9.837 917	1

* Please specify when placing your order!

**With digital speed display.



1 Shakers, reciprocating, Models 3016/3018

Reciprocating movement.

GFL

Robust shakers for the powerful, intensive shaking of bottles, measuring cylinders, separating funnels, etc. held in a horizontal position. The jerky, to-and-fro platform movement provides a high level of turbulence and ensures that media is well mixed. With stable, low-friction mechanics.

Specifications

Overall (W x D x H):	510 x 625 x 145 mm
Platform (W x D):	450 x 450 mm
Max. loading:	15 kg
Type of movement:	Reciprocating
Stroke:	30 mm
Shaking speed:	20 to 300 rpm
Supply requirements	
3016:	230 V 50/60 Hz, 65 W
3018:	230 V 50 or 60 Hz, 65 W*
Net/gross weight:	19/25 kg
Timer:	Up to 60 min. or continuous operation/1 min. up to 99:59 h or continuous operation
Model 3018:	is microprocessor controlled

Type	Cat. No.	PK
3016	9.837 916	1
3018**	9.837 918	1

* Please specify when placing your order!
**With digital speed display!



2 Shakers, orbital, Models 3019/3020

Orbital movement.

GFL

With large platforms for high shaking loads. For universal laboratory applications. A large, 32 mm orbit and continuously adjustable speed range make these shakers suitable for both the gentle circulation of liquids and for powerful mixing. Particular application areas include breeding of micro-organisms, cell and tissue culture. Compact, low-friction mechanics with counterbalanced platform drive for secure and reliable, continuous operation.

Specifications

Overall (W x D x H):	745 x 730 x 135 mm
Platform (W x D):	676 x 540 mm
Max. loading:	30 kg
Type of movement:	Orbital
Orbit:	32 mm
Shaking speed:	20 to 250 rpm
Supply requirements	
3019:	230 V 50/60 Hz, 90 W
3020:	230 V 50 or 60 Hz, 90 W*
Net/gross weight:	33.6/50 kg
Timer:	Up to 60 min. or continuous operation/1 min. up to 99:59 h or continuous operation
Model 3020:	microprocessor controlled, with a built-in RS 232 interface

Type	Cat. No.	PK
3019	9.837 919	1
3020**	9.837 920	1

* Please specify when placing your order!
**With digital speed display.

Overview accessories for shakers and shaking incubators

GFL

Accessories	Cat.-No. 9.837 xxx	Type	3005	3006	3011	3012	3013	3014	3015	3016	3017	3018	3019	3020	3023	3031	3032	3033	9887	979
			905	906	911	912	913	914	915	916	917	918	919	920	921	926	927	929	987	979
Non-slip support 3951		971	x	x																
Non-slip support 3965		935			x	x	x	x	x	x	x					x				
Universal attachment 3952		973	x	x																
Universal attachment 3967		937			x	x	x	x	x	x	x					x				
Universal attachment 3982		982											x	x						
Multi-storey attachment 3968		938			x	x	x	x												
Test tube rack 3953		974	x	x					x	x	x	x	x	x		x				
Multi-storey attachment 3981		981											x	x						
Tray 3950		972	x	x															x	x
Tray 3966		936			x	x	x	x	x	x	x					x			x	x
Tray 3970		990															x			x
Tray 3980		980											x	x				x	x	x

1 Non-slip support

Non-slip support Type 3965 can also be used in shaking incubator type 3031.
For slow speed applications, e.g. circulating petri dish media, etc.

GFL



Type	For Type	Width mm	Length mm	Cat. No.	PK
3951	3005 / 3006	300	300	9.837 971	1
3965	3011 to 3018 / 3031	420	420	9.837 935	1

GFL shaking incubators - please see page 599



2 3 Trays

Type 3950 for Models 3005/3006
"Chrome stainless steel". With grid for attaching clips to hold separating funnels, erlenmeyer flasks and test tube racks.

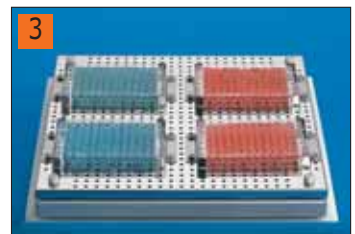
GFL

Type 3966 for models 3011 to 3018
"Chrome stainless steel". With grid for attaching clips to hold erlenmeyer flasks and test tube racks (Models 3015 to 3018 only).

Type 3980 for Models 3019/3020
3 mm thick, anodized aluminium. With 99 holes for attaching clips to hold erlenmeyer flasks and test tube racks.



Type	For Type	Cat. No.	PK
3950	3005 / 3006	9.837 972	1
3966	3011 to 3018 / 3031	9.837 936	1
3980	3019 / 3020 / 3033	9.837 980	1



Erlenmeyer flask clips

Erlenmeyer flask clips for **models 3005 to 3020 shakers**.
"Chrome stainless steel".

GFL

Type	For flasks ml	Clips required shaker Model	Clips required shaker Model	Clips required shaker Model	Cat. No.	PK
		3005, 3006	3011 to 3018	3019, 3020		
3983	25	45	79	99	9.837 983	1
3984	50	25	49	99	9.837 984	1
3985	100	16	36	50	9.837 985	1
3986	200	12	22	26	9.837 986	1
3987	250 to 300	9	16	26	9.837 987	1
3988	500	9	12	26	9.837 988	1
3989	1000	4	9	12	9.837 989	1
3989	2000	2	4	9	9.837 991	1

Grid attachment clips for spherical separating funnels

"Chrome stainless steel". For spherical separating funnels (in accordance with ISO).
For screw mounting onto trays **Type 3950/3966** attachments.

GFL

Type	Capacity ml	Max. clips per tray	Cat. No.	PK
3957	50	6 / 11	9.837 975	1
3958	100	6 / 11	9.837 976	1
3959	250	4 / 8	9.837 977	1
3956	500	3 / 6	9.837 978	1



Holding frame for Microtitre- and DeepWell-Plates

Made of stainless steel, for attachment of a test plate, for screwing on to **shaking trays 3950/3966/3980**.

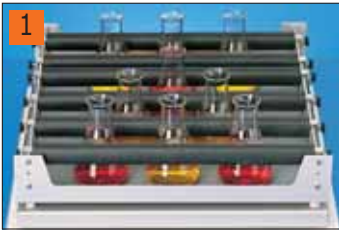
GFL

Complete with attachment materials.

Technical Specification:

For trays: number of plates:
3950 4
3966 6
3980 15

Type	Cat. No.	PK
3910	9.837 979	1



1 Universal attachments

Universal attachments for shakers.

GFL

Type 3952 - for models 3005/3006 and shaking incubator 3031

For securely attaching a variety of vessels between the 4 rubber-coated crossbars.

Type 3967 - for Models 3011 - 3018

For securely attaching a variety of vessels between the rubber-coated crossbars.

Type 3982 - for models 3019/3020 (see fig.)

For securely attaching a variety of vessels. Comprises 2 longitudinal bars and 6 transverse bars.

The longitudinal bars can be adjusted vertically and the transverse bars horizontally using clamp screws.

Type	For Type	Cat. No.	PK
3952	3005 / 3006	9.837 973	1
3967	3011 - 3018 / 3031	9.837 937	1
3982	3019 / 3020	9.837 982	1



2 Multi-storey attachment

Type 3968. For shakers **Models 3011 - 3014**.

GFL

With 4 platform levels, 3 of which have bevelled front edges and can be removed.

Constructed in "chrome stainless steel" and each platform level is fitted with a ridged, non-slip rubber mat.

Type	For Type	Cat. No.	PK
3968	3011 - 3014	9.837 938	1



3 Test tube racks

Type 3953. For **shakers models 3005/3006, 3015 to 3020** and shaking incubator 3031. "Chrome stainless steel". Rack apertures can be angled up to 90°.

GFL

A built-in, spring clip maintains a secure hold on the tubes 12 to 17 mm diameter and enables noise-free shaking.

For trays:	Number of racks:
3950	3
3966	6
3980	9

Type	For Type	Cat. No.	PK
3953	3005 / 3006 and 3015 to 3020 / 3031	9.837 974	1



GFL shaking incubators - please see page 599



4 Multi-storey attachment

Type 3981. For shakers **models 3019/3020**.

GFL

For doubling shaker capacity by enabling two **type 3980** gridded attachments to be fitted to the platform.

Type	For Type	Cat. No.	PK
3981	3019 / 3020	9.837 981	1

1 Shakers, large platform, SSL1 & SSL2

- Available with orbital or reciprocating action
- Digital speed selection to 300 rpm with soft start
- Built-in digital timer
- Reliable, quiet running mechanism
- Fully adjustable cradle system

Stuart

These lab scale platform shakers have powerful yet quiet shaking mechanisms and have been designed for trouble-free, continuous use. The cradle type platforms have six rubber cushioned horizontal securing bars which can be easily adjusted both vertically and horizontally to hold most sizes and types of vessel, including flasks, bottles and beakers. For example, they will accommodate the following Erlenmeyer flasks or bottles: 12 x 250 ml or 8 x 500 ml or 6 x 1000 ml or 2 x 2000 ml.

Speed is fully variable and is set digitally. The speed is accurately maintained, even over long runs. A built-in digital timer allows shaking times from 1 to 999 minutes to be set. Alternatively the unit can be set for continuous operation.

With BioCote silver based antimicrobial protection.



Specifications

	SSL1	SSL2
Platform dimensions (W x D):	335 x 335 mm	335 x 335 mm
Speed range:	30 to 300 rpm	25 to 250 rpm
Orbit/stroke:	16 mm	20 mm
Maximum loading:	10 kg	10 kg
Overall dimensions (W x D x H):	360 x 420 x 270 mm	360 x 420 x 270 mm
Net weight:	11 kg	11 kg
Supply requirements:	230 V 50 Hz, 50W	230 V 50 Hz, 50W

Type	Description	Cat. No.	PK
SSL1	Shaker, orbital, large platform	9.728 840	1
SSL2	Shaker, reciprocating, large platform	9.728 841	1
SSL1/1	Accessory platform 510 x 510 mm with twelve rubber securing bars*	9.728 842	1

* For use with SSL1 only !

2 3 Rocking shakers, large platform, SSL3 and SSL4

- Large platform rockers - ideal for multiple users
- Gentle rocking action
- Choice of two models
- 3D gyratory action SSL3
- See-saw, wave action SSL4
- Digital speed control and built-in timer
- Optional tier system available to increase capacity

Stuart

These rockers have large platforms able to accommodate a number of samples, ideal for a busy lab. They are very quiet in operation and designed to be run continuously. There are two models available: **Model SSL3** provides a 3D gyratory motion, ideal for low foaming agitation, DNA extractions, staining and de-staining procedures etc. The tilt angle can be adjusted to any position by hand to optimise mixing of vessels.

Model SSL4 has a see-saw rocking action that creates a wave motion within vessels such as culture flasks, ipetri dishes etc.

Both models are supplied with a non-slip mat and have digital selection of both speed and time. An accessory tier system is available. Fitted in seconds, without the need for tools, it triples the available space for samples.

With BioCote, silver-based, antimicrobial protection.



Specifications

	SSL3	SSL 4
Rocking action:	3D gyratory	See-saw wave
Platform dimensions (W x D):	355 x 355 mm	335 x 355 mm
Speed range:	5 to 70 rpm	5 to 70 rpm
Angle of tilt:	3 to 12°	7°
Angle adjustable:	Yes by hand	No
Maximum load:	10 kg	10 kg
Overall dimensions (W x D x H):	360 x 420 x 170 mm	360 x 420 x 160 mm
Net weight:	10 kg	10 kg
Supply requirements:	230 V 50 Hz, 50W	230 V 50 Hz, 50W

Type	Description	Cat. No.	PK
SSL3	Rocker, gyratory, lab scale	9.728 800	1
SSL4	Rocker, see-saw, lab scale	9.728 801	1



1 2 Shaker, orbital, mini, SSM1

- Smooth orbital shaking action
- Built-in digital timer
- Variable speed control to 300 rpm
- Supplied with non-slip mat for microplates etc.
- Optional accessory cradle system for flasks and bottles

Stuart

The compact SSM1 provides a smooth uniform circular motion with an orbit of 16 mm. It is supplied with a non-slip mat that can hold up to four microplates or diagnostic cards. Alternatively, an accessory cradle system is available that can accommodate a variety of vessels including flasks, bottles or beakers via four rubber securing bars. It will hold up to:

4 x 250 ml or 2 x 500 ml or 1 x 1000 ml Erlenmeyer Flasks or bottles.
 Speed is variable from 30 to 300 rpm. Once set on the digital display, the shaking speed is effectively maintained even over long periods of time. Shaking times can be set to run for 1 to 999 minutes on the built-in digital timer, or the unit can also be set for continuous operation.
 With BioCote, silver-based, antimicrobial protection.

Specifications

Platform dimensions (W x D):	220 x 220 mm
Speed range:	30 to 300 rpm
Orbit diameter:	16 mm
Maximum load:	3 kg
Overall dimensions (W x D x H):	240 x 300 x 140 mm
Net weight:	5 kg
Supply requirement:	230 V 50 Hz, 50 W

Type	Description	Cat. No.	PK
SSM1	Shaker, orbital, mini	9.728 830	1
SSM1/1	Accessory cradle with 4 securing bars	9.728 831	1



3 Rocking Shakers, mini, SSM3 and SSM4

- Small space saving design, ideal for personal use
- Gentle rocking action
- Digital speed control and built-in timer
- Optional tier system available to increase capacity

Stuart

These compact rockers are ideal where gentle mixing is required. There is a choice of two models:

Model SSM3 provides a 3D gyratory motion, ideal for low foaming agitation, DNA extractions, staining and de-staining procedures etc. The tilt angle can be adjusted to any position by hand to optimise mixing of vessels.

Model SSM4 has a see-saw rocking action that creates a wave motion within vessels such as culture flasks, Petri dishes etc.

Both models are supplied with a non-slip mat and have digital selection of both speed and time. An accessory tier system is available. Fitted in seconds, without the need for tools, it triples the available space for samples.

With BioCote, silver-based, antimicrobial protection.

Specifications

	SSM3	SSM4
Rocking action:	3D gyratory	See-saw wave
Platform dimensions (W x D):	235 x 235 mm	235 x 235 mm
Speed range:	5 to 70 rpm	5 to 70 rpm
Angle of tilt:	3 to 12°	7°
Angle adjustable:	Yes by hand	No
Maximum load:	3 kg	3 kg
Overall dimensions (W x D x H):	240 x 300 x 165 mm	240 x 300 x 150 mm
Net weight:	5 kg	5 kg
Electrically supply:	230 V 50 Hz, 50 W	230 V 50 Hz, 50 W

Type	Description	Cat. No.	PK
SSM3	Rocker, gyratory, mini	9.728 820	1
SSM4	Rocker, see-saw, mini	9.728 821	1

1 Shaker, microtitre plate, mini, SSM5

Stuart

- Vibrational mixing action - ideal for microtitre plates
- Digital selection of mixing speed
- Built-in digital timer or continuous operation
- Optional tube holders available for mixing microcentrifuge tubes

Designed for use with microtitre plates and microcentrifuge tubes. The aluminium tray is fitted with a specially designed mat that securely holds in place up to four wellplates. High speed combined with a tiny orbit creates the vibrational shaking action required for mixing the very small volumes contained in the wells or in microcentrifuge tubes. Speed is variable from 250 to 1200 rpm and is easily set via the digital display. Shaking times can be set from 1 to 999 minutes on the built in digital timer. The unit can also be set for continuous operation. Tube holders are available as optional accessories. They fit securely onto the platform turning the unit into an effective tube mixer. With BioCote, silver-based, antimicrobial protection.



Specifications

Platform dimensions (W x D):	220 x 220 mm
Number of plate positions:	4
Speed range:	250 to 1200 rpm
Orbit diameter:	3 mm
Maximum load:	3 kg
Overall dimensions (W x D x H):	240 x 300 x 160 mm
Net weight:	5 kg
Supply requirements:	230 V 50 Hz, 50 W

Description	Cat. No.	PK
SSM5, shaker, microtitre, mini	9.728 850	1
SSM5/1, tube holder for 1.5 ml tubes	9.728 851	1
SSM5/2, tube holder for 0.5 ml tubes	9.728 852	1

2 Microtitre shaker MTS 2/4 digital

IKA

Dedicated shaker for two or four microtitre plates. Orbital movement.

- Electronic speed regulation
- Digital timer
- Acoustic signal at end of timed period
- With attachment but without plates

Motor performance

Input/Output:	35/13.2 W
Orbit:	3 mm
Capacity:	two or four microtitre plates
Speed range:	0 to 1100 rpm
Speed scale:	Analogue scale
Timer:	1 to 99 min/continuous
Dimensions (W x D x H):	185 x 320 x 105 mm
Weight:	2.7 kg
Housing IP rating to DIN EN 60529:	IP 21

Type	Cat. No.	PK
MTS 2/4 digital	9.838 195	1



3 4 Microplate shaker PMS-1000

Grant

Reliable, regulated shaking for two or four microplates. Simple screw attachments allow quick and easy fitting of any standard depth 96- or 384-well plates, holding the plate securely in place.

- variable speed: 150 to 1000 rpm
- orbit: 2 mm
- continuous or timed operation
- integral timer: 1 min to 24 hours
- standard option for two microplates
- optional platform for four microplates
- low voltage supply for cold room operation
- operating ambient +4°C to +45°C



Type	Type	Cat. No.	PK
PMS-1000	Microplate shaker	9.721 025	1
MPP-4	Platform for 4 micro plates	9.721 026	1



1 Vibration shaker 3023

For 6 microtitration plates.
High speed (up to 1450 rpm.) with a small orbit (3 mm) guarantees optimal mixing of materials even in small vessels. Counterbalanced for secure, steady operation even when used continuously. Supplied with fitted platform for up to six microplates.
Areas of application: medical diagnostics, biotechnology or microbiology.

GFL

Specifications

Overall (W x D x H):	380 x 510 x 125 mm
Platform (W x D x H):	330 x 330 mm
Shaking speed, stepless adjustment:	up to 1450 rpm
Orbit:	3 mm
Max. loading:	1.2 kg
Supply requirements:	230 V/50/60 Hz/65 W
Net/gross weight:	9/ 12 kg
Timer	up to 60 min. or continuous operation

Type	Cat. No.	PK
3023	9.837 921	1



2 3D platform rotator PS-3D

Smooth 3D orbital motion for mixing in tubes, culture flasks, dishes and boxes.
- ideal size for personal use
- variable speed: 15 to 30 rpm
- fixed position: 7° tilt angle
- 200 x 200 mm platform
- low voltage supply for cold room operation
- operating ambient +4°C to +45°C

Grant

Type	Description	Cat. No.	PK
PS-3D	3D platform mixer	9.721 014	1



3 4 Accessories for 3D platform rotator PS-3D

Grant

Type	Description	Figure	Cat. No.	PK
PDM	Dimpled mat, prevents tubes from rolling around	3	9.721 013	1
PTP-26	Adaptor for 26 tubes up to 11 mm dia.	4	9.721 012	1



5 Multi-function 3D rotator PS-M3D

With consistent and reproducible agitation throughout the speed range, multi segment program.
- multi function: rotation, reciprocation, vibration
- reciprocal 3D rotation: 1 to 360°
- vibration: 1 to 6°
- variable speed: 5 to 30 rpm
- fixed position: 7° tilt angle
- 215 x 215 mm platform
- low voltage supply for cold room operation
- operating ambient +4°C to +45°C

Grant

Type	Description	Cat. No.	PK
PS-3D	3D platform mixer	9.721 017	1



6 7 Accessories for Multi-function 3D rotator PS-M3D

Grant

Type	Description	Figure	Cat. No.	PK
PTP-26	Adaptor for 26 tubes up to 11 mm dia.	6	9.721 012	1
PDM	Dimpled mat, prevents tubes from rolling around	7	9.721 013	1

1 Orbital shaking platform POS-300

Smooth horizontal orbital motion for mixing in bottles, flasks and beakers.

- variable speed: 50 to 300 rpm
- orbit: 10 mm
- integral timer: 1 min to 100 hrs
- interchangeable platforms
- for loads up to 2.5 kg
- soft start and noise free operation
- operating ambient +4°C to +45°C
- low voltage supply for cold room operation

Grant



Type	Description	Cat. No.	PK
POS-300	Orbital shaking platform without accessories	9.721 020	1

2 Accessories for Orbital shaking platform POS-300

Type	Description	Cat. No.	PK
PUP-12	Universal platform	9.721 021	1
PP-4	Flat platform	9.721 022	1
P12-100	Platform with clamps for 12 x 100 ml flasks / 150 ml beakers	9.721 023	1
P6-250	Platform with clamps for 6 x 250 ml flasks / 400 ml beakers	9.721 024	1

Grant



3 Platform rocker PMR-30

Smooth rocking motion for gentle sample agitation in tubes, culture flasks, dishes and boxes.

- side to side rocking motion
- variable speed: 7 to 30 rpm
- fixed position: 7° tilt angle
- continuous or timed operation
- integral timer: 1 min to 24 hours
- 215 x 215 mm platform
- low voltage supply for safe cold room operation
- operating ambient +4°C to +45°C

Grant



Type	Description	Cat. No.	PK
PMR-30	Platform rocker	9.721 011	1

4 Accessories for platform rocker PMR-30

Type	Description	Cat. No.	PK
PDM	dimpled mat, prevents tubes from rolling around	9.721 013	1

Grant



5 Fixed speed rotator FSR20

Speed approximately 20 rpm, tilt angle 23°. Ambient operating temperature range +4°C to +55°C. With 300 x 300 mm aluminium platform, fitted with removable dimpled rubber mat to hold test tubes of various diameters up to a load capacity of 1 kg. Overall (W x D x H) 310 x 310 x 254 mm. Powered by a 12V a.c. adapter with slim cable allowing use in an incubator, and requiring a 230V 50/60Hz single phase supply.

Grant

Type	Description	Cat. No.	PK
FSR20	fixed speed rotator	9.951 459	1



6 Variable speed rotator VSR23

Similar to FSR20 but with analogue speed adjustment over range 6 to 23 rpm and adjustable tilt angle from 0 to 23° without the need for using tools. Supplied with dimpled rubber mat for test tubes and smooth non-slip mat for flasks, boxes, plates or dishes up to a load capacity of 1 kg. Overall (W x D x H) 310 x 310 x 254 mm. Powered by a 12 V a.c. adapter with slim cable allowing use in an incubator, and requiring a 230V 50/60Hz single phase supply.

Grant

Type	Description	Cat. No.	PK
VSR23	adjustable speed rotator	9.951 460	1





1 Rotators FSR20/VSR23, accessory

Accessory aluminium platform OP. Size: 200 x 200 mm. With dimpled and non-slip mats.

Grant

Type	Description	Cat. No.	PK
OP	platform, 200 x 200 mm	9.951 461	1



2 Variable speed rocker BFR25

With analogue speed adjustment between 3 and 25 rpm, and adjustable tilt angle from 0 to 20° without the need for using tools. Ambient operating temperature range +4°C to +55°C. With 300 x 300 mm aluminium platform fitted with removable smooth non-slip mat to hold flasks, boxes, plates or dishes up to a load capacity of 2.7 kg. Overall (W x D x H) 310 x 310 x 178 mm. Powered by a 12 V a.c. adapter with slim cable allowing use in an incubator, and requiring a 230V 50/60Hz single phase supply.

Grant

Type	Description	Cat. No.	PK
BFR 25	variable speed rocker	9.951 465	1



3 Variable speed rocker BFR25, accessories

Grant

Type	Description	Cat. No.	PK
ST-BFR	single stacking tray which attaches to the rocker platform, doubling the working area. Platform 300 x 300 mm	9.951 466	1



4 Tumble shaker Model 3040

Stable stirring unit for "end-over-end" mixing of sedimentation bottles, measuring cylinders and other containers. Particularly suitable for suspending soil samples in liquids within glass/plastic 2000 ml wide-neck bottles for DIN 38414 - Section 4 (elution) testing. Double ball-race axle bearings. With 4 compartments each with 3 holders for carrying 12 bottles in total of the same size or containers (not included) up to 110 mm diameter and 270 mm height. A lockable brake switch is built into the control panel. Holders and axles are made of grade 1.4301 stainless steel. Electronically controlled, d.c. gear motor. Housing made of electro-galvanized sheet steel, powder-coated grey-white (RAL-9002), bottle supports and control panel are claret red (RAL 3005). LED speed display. Stands on 4 non-slip rubber feet. Device carries the "GS safety tested" mark. Delivered with mains cable and earthed plug.

GFL

Specifications

Speed range:	1 to 20 rpm
Speed control:	Electronic, stepless
Speed display:	Digital
Capacity:	12 bottles
Bottle height range:	to 270 mm height
Max. bottle dia.:	110 mm
Drive:	d.c. geared motor
Dimensions (W x D x H):	770 x 700 x 715 mm
Supply requirements:	230V 50/60 Hz, 100 W
Max. load:	20 kg
Net/gross weight:	approx. 65/ 78 kg

Type	Cat. No.	PK
3040	9.837 931	1

1 Multi-function-rotators PTR-30 and PTR-60

Vertical multi-function rotators for thorough mixing in tubes, with multi-segment programme.

Grant

- multi-function: vertical rotation, reciprocation, vibration
- continuous or timed operation for each phase
- adjustable angle, reciprocal mode: 15 to 90°
- low voltage supply for safe cold room operation
- operating ambient +4°C to +45°C
- alternative platforms for larger tubes



Variable speed

PTR-30: 5 to 30 rpm
PTR-60: 5 to 60 rpm

Type	Type	Cat. No.	PK
PTR-30	Multi-function-rotator for 22 microtubes up to 15 mm dia.	9.721 027	1
PTR-60	Multi-function-rotator for 48 microtubes up to 15 mm dia.	9.721 030	1

2 Accessories for multi-function-rotators PTR-30 and PTR-60

Grant

Type	Type	Cat. No.	PK
PPRS4-12	Platform for PTR-30 (4 tubes up to Ø 30 mm plus 12 tubes up to Ø 15 mm)	9.721 029	1
PRS8-26	Platform for PTR-60 (8 tubes up to Ø 30 mm plus 24 tubes up to Ø 15 mm)	9.721 031	1
PRS-14	Platform for PTR-60 (14 tubes up to Ø 30 mm)	9.721 032	1



3 Test tube rotator, Model 3025, tumbling action

For gentle to intensive mixing of powders or liquids held in test tubes. Applications include haematocrit and haemoglobin analysis, bone marrow experiments, various separation processes, tissue analysis etc.

GFL

A powerful geared motor drives the spindle-mounted rack, which can accommodate up to 24 test tubes. The rack is removable and can also be loaded remotely from the rotator. The electronic feedback, constant speed control has stepless adjustment. Maintenance free.

For max. 24 tubes:
160 x 16/17 mm diameter,
100 x 16/17 mm diameter,
100 x 12 mm diameter,
or 75 x 12 mm diameter

Technical Specification:
External dimensions (W x D x H): 490 x 330 x 220 mm
Rotational speed: 6 to 80 rpm.
Supply requirements: 230V 50/60 Hz , 80 W
Net/gross weight: 9.6/15 kg



Type	Cat. No.	PK
3025	9.837 925	1



1 Flask shaker SF1

Creates a vigorous shaking action. With clamps to accept 8 flasks up to 500 ml capacity. With stepless variable speed control and 10 to 60 minute timer with off and continuous run settings. Electronic feedback control ensures a constant speed irrespective of the load. Overall (W x D x H) 780 x 270 x 240 mm. Weight 8.3 kg. For 230V 50Hz single phase supplies. Accessory side-arms are available for converting 9.950 372 to shake up to 12 flasks. Maximum load: 3 litres. Each side arm accepts six clamps. Supplied with 4 clamps. With BioCote, silver-based, antimicrobial protection.

Stuart

Type	Cat. No.	PK
SF1	9.950 372	1
Spare clamp	9.950 373	1
Accessory side arm	9.950 374	1



2 Rotator drive unit STR4

For use with the STR4/1 drum, STR4/2 flask/bottle rotator Drum, STR4/3 figure 8 drum, STR4/4 bottle holder or STR4/5 eppendorf-type tube rack holder. Fitted with illuminated mains on/off switch. Has variable speed with electronic speed control, range 6 to 60 rpm, fitted with 10 to 60 minute timer with off and manual over-ride position. Fitted with panel mounted fuse. For use on 230V 50 Hz single phase supplies. Overall dimensions (W x D x H) 650 x 250 x 250 mm. Net weight 6 kg. Requires accessory drums for operation. With BioCote, silver-based, antimicrobial protection.

Stuart

Type	Cat. No.	PK
STR4	9.950 375	1



3 Drum STR4/1 for rotator drive unit STR4

Square drum which accepts one plate of clips on each side. The plates plug into the drum which is fitted with a push button release/lock mechanism. Without accessory plates.

Stuart

Type	Cat. No.	PK
STR4/1	9.950 376	1

Accessory plates for STR4/1 drum for STR4

To fit drum 9.950 376. Fitted with clips to accept tubes vertically. Supplied in pairs.

Stuart

No. of tubes	Dia. mm	Cat. No.	PK
12	12	9.950 378	2
10	16	9.950 379	2
8	19	9.950 380	2
7	24	9.950 381	2



4 Drum, flask, STR4/2 for rotator drive unit STR4

Drum with two platforms for STR4. Accepts two 500 ml conical flasks or reagent bottles. The support columns can be detached to give two platforms 10.5 x 17.5 cm each for separating funnels, jars or test tube racks. With BioCote, silver-based, antimicrobial protection.

Stuart

Type	Cat. No.	PK
STR4/2	9.950 382	1



5 Drum, figure-of-8, STR4/3 for rotator drive unit STR4

The drum has a platform which can be adjusted within the drum from horizontal to 45°. In this way the sample container can be rolled and turned end over end at the same time. Suitable for extractions, paint mixing, powders and granular samples. The sample container is held by an adjustable velcro strap. With BioCote, silver-based, antimicrobial protection.

Stuart

Type	Cat. No.	PK
STR4/3	9.950 384	1

1 Bottle holder STR4/4 for rotator drive unit STR4

Perspex four segment cradle with velcro straps for STR4. Holds 2 to 4 bottles each up to 1000 ml capacity.
With BioCote, silver-based, antimicrobial protection.

Stuart



Type	Cat. No.	PK
STR4/4	9.950 385	1

2 Rack cradle STR4/5 for rotator drive unit STR4

Holds four acrylic racks for end over end mixing of Eppendorf tubes by STR4. The racks fit under the cradle plates and are held by clips ensuring that the tube lids are pressed firmly against the plate and thus remain sealed. Supplied with four racks, each with a capacity of 60 Eppendorf tubes.
With BioCote, silver-based, antimicrobial protection.

Stuart



Type	Cat. No.	PK
Rack cradle STR4/5	9.950 386	1
Spare rack for STR4/5.	9.950 387	1

3 Roller mixers

Recommended for mixing blood samples, viscous substances and liquid-solid suspensions where minimum aeration is required. Units can be used in incubators up to 60°C and humidity up to 80%, or in cold rooms down to 4°C. A magnetic block, stacking system is available separately to stack up to three units without tools, optimizing bench space.
- Rocking and rolling action for complete mixing
- Choice of analogue fixed speed or digital variable speed model
- Digital models have integral timer function
- Designed for continuous quiet operation

Stuart



Specifications

Amplitude: 16 mm
Maximum load: 10 kg
Roller size (l x d): 340 x 30 mm
Power supply: 230 V, 50 Hz, 50 W

Description	Dimensions (W x D x H)	Rotation speed	Weight	Cat. No.	PK
	mm	rpm	kg		
6 rollers, analogue	565 x 240 x 110	33	5.1	9.728 810	1
6 rollers, digital	565 x 240 x 110	5 to 60	5.1	9.728 811	1
9 rollers, analogue	565 x 360 x 110	33	6.9	9.728 812	1
9 rollers, digital	565 x 360 x 110	5 to 60	6.9	9.728 813	1

Stacking system for roller mixers

Stuart

Type	Cat. No.	PK
SRT/STACK	9.728 815	4

4 5 Rotators SB2/SB3

The Stuart rotators give gentle but effective mixing ideal for life sciences applications such as keeping blood samples in suspension. The angle of tilt is fully adjustable. The Rotators can be used in incubators up to 60°C and in cold rooms down to 4°C.

Stuart

There are six types of tube holder available. Please order separately.

SB2:
Fixed speed of 20 rpm.
SB3:
Variable speed of 2 to 40 rpm.
Additional digital timer of 1 to 999 minutes.
Digital speed control.

Specifications

Dimensions (W x D x H): 200 x 270 x 230 mm
Supply: 230 V/50 Hz, 50 W
Weight: 3.2 kg

Type	Cat. No.	PK
SB2	9.645 322	1
SB3	9.645 323	1





Tube holders for rotators SB2/SB3

Stuart

Type	For	No. of vessels	Cat. No.	PK
SB3/1	Micro tubes, 10 to 11.5 mm dia.	40	9.645 324	1
SB3/2	Test/blood tubes, 9 to 20 mm dia.	20	9.645 325	1
SB3/3	50 ml centrifuge tubes, 25 to 35 mm dia.	12	9.645 326	1
SB3/4	Culture tubes, 12 mm dia.	63	9.645 327	1
SB3/5	Culture tubes, 16 mm dia.	63	9.645 328	1
SB3/6	Culture tubes, 26 mm dia.	30	9.645 329	1