

## 1 Overhead stirrers RW 11 basic "Lab egg"

Laboratory stirrers for low volumes up to 2L (H:O) 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. A blade rotor is included. Can be used worldwide with a voltage range of 100V to 240V.

IKA



### Specifications

Max. stirring vol. (water):	2L
Motor rating, input/output:	8/1W
Viscosity range:	0 to 100mPas
Speed range:	0 to 2000rpm
Plug-in coupling (diam.):	4mm
Support rod (diam.):	integrated (10mm)
Max. torque (plug-in coupling):	0.8 Ncm
Dimensions (WxDxH):	86 x 175 x 89mm
Weight:	0.39kg
Housing IP rating to DIN EN 60529:	IP42
Tested to DIN EN IEC 61010-1.	

Colour	PK	Cat. No.
Creamy blue	1	9.816 613

Optional accessories: R 1001 Paddle stirrer, R 1002 Screw-type stirrer, R 104 Stand

## Spare part for overhead stirrer RW 11 basic "Lab egg"

Tested to DIN EN IEC 61010-1.

IKA

Type	Description	Stirrer dia.	Shaft dia.	Shaft length	PK	Cat. No.
		mm	mm	mm		
R 1002	Propeller stirrer, fine blade	12	4	140	1	9.816 619 <span style="color:red">2</span>
R 1001	Blade rotor	34	4	160	1	7.018 065 <span style="color:red">3</span>



9.816 619



7.018 065

## 4 Overhead stirrer RW 16 basic

For simple stirring tasks up to 10L (H:O). Stepless speed adjustment without gear changing

- Compact housing
- Quiet operation
- With electronical safety circuit
- Non-locking motor with overload capacity

Especially suitable for schools, universities and test laboratories.

IKA



### Specifications

Stirring volume:	10L
Viscosity range:	10000mPas.
Motor rating input/output:	75/55W
Output max. at stirring shaft:	53W
Torque max. at stirring shaft:	40Ncm
Speed range:	40 to 1200rpm
Speed indication:	Scale (1 to 10)
Chuck shaft range:	0.5 to 10mm dia.
Hollow shaft, inner diam.:	11mm
Diam./length of support rod:	13mm/160mm
Dimensions (WxDxH):	80 x 190 x 222mm
Protection class acc. to DIN EN 60529:	IP42
Weight:	2.8kg
Supply requirements:	230V 50/60Hz
Tested to DIN EN IEC 61010-1.	

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

Optional accessories: Stands: R 1825, R 1826, R 1827, R 182 Boss head clamp, FK 1 Flexible coupling, RH 3 Strap clamp, R 301 Stirring shaft protection, Stirring elements: e.g. R 1342, R 1330, R 1373

**1**


### 1 Overhead stirrer RW 20 digital

- Technical improvements on the trusted RW20 series design, mechanically controlled
- with digital display
- robust, ergonomic design
- constant power-drive
- two speed ranges for universal use from 60rpm to 2000rpm
- hollow-shafted chuck for rotor shaft height adjustment (only when stationary)

IKA

#### Specifications

Stirring volume (H <sub>2</sub> O):	20L
Viscosity range:	up to 10000mPas
Motor rating input/output:	70/35W
Output max. at stirring shaft:	26W
Max. stirring shaft torque (at 100rpm.):	150Ncm
Speed range I (at 50Hz):	60 to 500rpm.
Speed range II (at 50Hz):	240 to 2000rpm.
Chuck range:	0.5 to 10mm
Diameter/length of extension arm:	13mm/160mm
Dimensions (WxDxH)	88 x 212 x 294mm
Weight:	3.1kg
Protection class acc. to DIN EN 60529:	IP20
Supply requirements:	230V 50/60Hz
Tested to DIN EN IEC 61010-1.	

Type	PK	Cat. No.
RW 20 digital	1	9.816 622
RW 20 digital UK	1	6.227 717

Optional accessories: Stands: R 1825, R 1826, R 1827, R 182 Boss head, FK 1 Flexible coupling, RH 3 Strap clamp, R 301 Stirring shaft protection, Stirring elements: e.g. R 1342, R 1381

**2**


### 2 Overhead stirrer RW 28 basic

- Highly efficient, 2-range (high speed or high torque), mechanically controlled, overhead stirrer for volumes up to 80L (H<sub>2</sub>O). Suitable for work in laboratories and technology colleges. Supplied without rotor.

IKA

#### Specifications

Max. volume stirred (water):	80L
Max. sample medium viscosity:	50000mPas
Motor rating input/output:	220/90W
Output max at stirring shaft:	90W
Max. torque at chuck	
per 60 rpm:	1144Ncm
per 100 rpm:	900Ncm
per 1000 rpm:	86Ncm
Speed display:	scale
Hollow shaft, inner diameter:	10.5mm
Diameter/length of support rod:	16mm/145mm
Speed range I:	60 to 400rpm.
Speed range II:	240 to 1400rpm.
Chuck range:	1 to 10mm
Overall (WxDxH):	123 x 252 x 364mm
Weight:	7.4kg
Protection class DIN EN 60529:	IP42
Supply requirements:	230V 50Hz
Tested to DIN EN IEC 61010-1.	

Type	PK	Cat. No.
RW 28 basic	1	9.816 629

Optional accessories: Stands: R 2722, R 2723, R 271 Boss head clamp, FK 1 Flexible coupling, RH 5 Strap clamp, R 301 Stirring shaft protection, R 301.1 Support holder, Stirring elements: e.g. R 1345, R 1300

Accessories for the IKA overhead stirrers please see page 419

#### 1 Overhead stirrer RW47 D

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

- for stirring tasks up to 200L (H<sub>2</sub>O).
- two speed ranges provided for very viscous media and for intensive mixing.
- 3-phase motor supplied without mains cables or plugs.

##### Specifications:

Max. volume stirred (H <sub>2</sub> O):	200L
Viscosity limit:	100000mPas
Motor rating input/output:	513/370W
Output at the shaft:	300W
Max. torque at the shaft	
at 60rpm	4642Ncm
at 100rpm	3000Ncm
at 1000rpm	285Ncm
Speed range I (at 50 cycles per second):	57 to 275rpm
Speed range II (at 50 cycles per second):	275 to 1300rpm
Speed range I (at 60 cycles per second):	69 to 330 rpm
Speed range II (at 60 cycles per second):	330 to 1560rpm
Chuck clamping range:	3 to 16mm
Hollow shaft, inside diameter:	13mm
Attachment:	Flange
Dimensions (W x H x D):	145 x 340 x 445mm
Weight:	15kg
Protection class acc. to DIN EN 60529:	IP54
Supply requirements:	400V 50Hz 3ph./230V 60 Hz 3ph.
Tested to DIN EN IEC 61010-1.	

IKA



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

Optional accessories: R 472 Floor stand, R 474 Telescopic stand, R 302 Shaft protection, Stirring elements: e.g. R 2305, R 2311, SI 400 Safety switch, Clamps: SI 472, SI 474

#### 2 Overhead stirrer Eurostar digital

Laboratory stirrer that can be used up to the medium viscosity range.

- Constant speed by microprocessor control
- Digital display presents set and actual speed
- Infinitely adjustable without gear shifting
- Slim casing
- Quiet operation
- Safety circuit
- Non-locking, overload capabilities
- Push-through agitator shafts
- Enhanced safety as a result of smooth start

##### Specifications

Stirring volume (H <sub>2</sub> O):	20L
Viscosity limit:	10000mPas
Motor rating input/output:	75/55W
Output max. at stirring shaft:	53W
Torque max. at stirring shaft:	30Ncm
Speed range:	50 to 2000rpm.
Chuck shaft range:	0.5 to 10mm
Hollow shaft, inner diam.:	11mm
Diam./length of extension arm:	13mm/160mm
Dimensions (WxDxH):	80 x 190 x 222mm
Weight:	2.8kg
Protection class DIN EN 60529:	IP42
Supply requirements:	230V 50/60Hz
Tested to DIN EN IEC 61010-1.	

IKA



Type	PK	Cat. No.
EUROSTAR digital	1	9.816 672
EUROSTAR digital UK	1	6.202 476

Optional accessories: Stands: R 1825, R 1826, R 1827, R 182 Boss head clamp, FK 1 Flexible coupling, RH 3 Strap clamp, R 301 Stirring shaft protection, Stirring elements: e.g. R 1342, R 1330, R 1373



9.816 674



9.816 678

### Overhead stirrers, Eurostar power basic/control-visc

Single-range, high torque, laboratory overhead stirrers with powerful, 130W motors. Provide constant torque over their entire speed range from 50rpm to 2000rpm.

IKA

- constant speed by microprocessor control
- infinitely adjustable without gear shifting
- Safety circuit
- non-locking, overload capability
- push-through stirrer shafts
- enhanced safety due to soft-start
- analogue recording of speed parameters available

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.

#### Specifications

Stirring volume (H <sub>2</sub> O):	40L
Viscosity limit:	50000mPas
Motor rating input/output:	130/110W
Output max. at stirring shaft:	105W
Torque max. at stirring shaft:	60Ncm
Speed range:	50 to 2000rpm
Chuck range:	0.5 to 10mm
Hollow shaft, inner diameter:	11mm
Diameter/length of extension arm:	16mm/200mm
Overall (WxDxH):	80 x 190 x 253mm
Weight:	3.8kg
Protection class acc. to DIN EN 60529:	IP42
Supply requirements:	230V 50/60Hz
Tested to DIN EN IEC 61010-1.	

Type	PK	Cat. No.
EUROSTAR power basic	1	9.816 674
EUROSTAR power basic UK	1	4.007 925
EUROSTAR power control-visc	1	9.816 678
EUROSTAR power control-visc UK	1	6.230 572

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

Optional accessories: Stands: R 2722, R 2723, R 271 Boss head clamp, FK 1 Flexible coupling, RH 5 Strap clamp, R 301 Stirring shaft protection, Stirring paddles: e.g. R 1345, R 1375

Options for Eurostar power control-visc only: labworldsoft®



### 3 Overhead stirrer Eurostar power control-visc 6000

High-performance, digital laboratory stirrer for tasks within the "medium viscosity" range. With the same features as Eurostar power control-visc, but additionally:

IKA

- Speed range up to 6000rpm
- Stirrer shafts are not push-through
- Cone seat for precision shaft (stirring elements can be screw connected, please order separately)
- Analogue output of speed and torque

#### Specifications

Stirring volume (H <sub>2</sub> O):	20L
Viscosity limit:	10000mPas
Motor rating input/output:	130/110W
Output max. at stirring shaft:	95W
Torque max. at stirring shaft:	15Ncm
Speed range:	150 to 6000rpm
Speed display:	digital
Diameter/length of extension arm:	16mm/220mm
Overall (WxDxH):	80 x 190 x 317mm
Weight:	4.8kg
Protection class DIN EN 60529:	IP42
Supply requirements:	230V 50/60 Hz
Tested to DIN EN IEC 61010-1.	

Type	PK	Cat. No.
Eurostar power control-visc 6000	1	6.224 437

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

Optional accessories: Stands: R 2722, R 2723, R 271 Bosshead, RH 5 Strap clamp, R 301 Stirring shaft protection, R 1402 Dissolver, R 1405 Propeller, R 1401 Propeller, labworldsoft®

## 4. Stirring, Shaking, Mixing Overhead stirrers/Instruments-Stirrers

### Stirrers for overhead stirrer Eurostar power control-visc 6000

IKA

Type	Description	For Volume l	Rotor diam. mm	PK	Cat. No.
R 1401	Propeller	1 to 30	55	1	<b>9.197 054</b>
R 1405	Propeller	0.25 to 30	45	1	<b>9.197 053</b>
R 1402	Dissolver	1 to 30	42	1	<b>9.197 055</b>

1



9.197 053

2



9.197 055

### 3 4 KPG stirrer shafts, DURAN®

DURAN®. Interchangeable. Bearing surface ground and polished.

DURAN Group

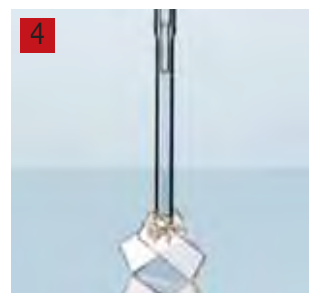
WG: 4 fixed blades  
 WS: 2 movable blade  
 KPG diameter: 10mm  
 KPG length: 160mm.

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

3



4



### Stands

IKA

Type	Description	Rod dia. mm	Height mm	Max. load kg	PK	Cat. No.
R 1825	Stand with baseplate	16	560	5	1	<b>9.224 031</b>
R 1826	Stand with baseplate	16	800	5	1	<b>9.224 032</b>
R 1827	Stand with baseplate	16	1000	5	1	<b>9.224 033</b>
R 2722	H-stand	34	1010	10	1	<b>9.224 026</b>
R 2723	Telescopic stand	34	620 - 1010	10	1	<b>9.224 028</b>
R 474	Telescopic stand	48	500 - 1000	30	1	<b>9.816 735</b>
R 472	Floor stand	80x80	980 - 1860	30	1	<b>9.816 736</b>

5



9.224 031

6



9.224 026

7



9.816 735

8



9.816 736



# 4. Stirring, Shaking, Mixing

## Overhead stirrers/Stirrers

### Bossheds

IKA

Type	Jaw opening mm	PK	Cat. No.
R 182	Stand / extension arm: 6 to 16	1	9.224 292 <b>1</b>
R 270	Stand / extension arm: 25 to 36 / 5 to 21	1	9.224 293 <b>2</b>
R 271	Stand / extension arm: 34 / 16	1	9.224 266 <b>3</b>



9.224 292



9.224 293



9.224 266

### Strap clamps

IKA

Type	Rod dia. mm	Vessel Ø mm	PK	Cat. No.
RH 3	8 to 16	40 to 300	1	9.224 761 <b>4</b>
RH 5*	25 to 36	40 to 300	1	9.224 762 <b>5</b>

\*with R 270 bosshead



9.224 761



9.224 762



### 6 Flexible clutch

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

IKA

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

Type	PK	Cat. No.
FK 1	1	9.197 060



### 1 Mechanical Stirrers RZR series

#### Powerful Stirring

Heidolph

1



These models are ideal for standard stirring tasks. They are designed to mix and disperse media, that require no-reproducible results, of high viscosity applications under high speeds. The torque to speed graph is provided below to represent this dynamic relationship.

- A through-shaft design allows for easy adjustment of the impeller position that is most convenient for you
- A 2 gear stage design guarantees the highest power over the entire speed range
- The speed is adjustable over a large scale from 40rpm to 2000rpm
- An optimal shaft guard prevents any accidents involving contact with the impeller shaft running at high speeds
- Shipment includes a 10mm chuck as standard

#### RZR 2020 and RZR 2021 - For standard applications

- Both are outstanding choices for all medium to high viscosity mixing tasks with a maximum viscosity of 60000mPa s
- Model RZR 2021 features a bright digital display for accurate speed setting. Model RZR 2020 is designed for applications that do not require accurate settings and comes without a display.
  - A 2 gear stage design guarantees the highest power over the entire speed range of 40rpm to 2000rpm
  - A maintenance-free sparkles motor ensures 27W output power and performs stirring torque peaks up to 400Ncm

#### RZR 2041 - For high viscosity

- The model RZR 2041 is an excellent choice for any high viscosity mixing with a maximum viscosity up to 100000mPa s
- This model features a bright digital display for accurate speed settings
  - A 2 gear stage design guarantees the highest power over the entire speed range of 40rpm to 2000rpm
  - A maintenance-free sparkles motor ensures 37W output power and performs stirring torque peaks up to 520Ncm

Type	Power W	Speed range		Max. torque Ncm	Speed control	PK	Cat. No.
		I: rpm	II: rpm				
RZR 1	18	I: 35 - 250, II: 280 - 2200	100	dial	1	9.816 510	
RZR 2020	27	I: 40 - 400, II: 200 - 2000	400	dial	1	9.816 400	
RZR 2020 UK	27	I: 40 - 400, II: 200 - 2000	400	dial	1	6.201 981	
RZR 2021	27	I: 40 - 400, II: 200 - 2000	400	digital	1	9.816 402	
RZR 2021 UK	27	I: 40 - 400, II: 200 - 2000	400	digital	1	6.240 191	
RZR 2041	37	I: 40 - 400, II: 200 - 2000	520	digital	1	9.816 389	

### Accessories for Overhead Stirrers

**NEW!**

Heidolph

Type	PK	Cat. No.
Stand clamp for holder rod 13 to 32mm	1	9.816 562
Chuck, clamping range 10mm	1	9.816 563 <b>2</b>
Stand S 2, 425 x 420 x 700mm, 5.8kg	1	9.816 564 <b>3</b>
Stirrer shaft guard, Plexiglass, height-adjustable	1	9.816 566 <b>4</b>
Flexible shaft including chuck, 8mm	1	7.047 043 <b>5</b>
Software Watch & Control for Profibus	1	6.203 518
Base Stand S2 XXL	1	6.228 500
Flexible stirrer coupling with clamping pin for agitator shaft dia. 10mm	1	7.047 042
Stirrer shaft gland NS 29/32 - PTFE	1	7.076 415 <b>6</b>
Telescopic stand	1	7.621 811
Chuck 8mm for RZR 1	1	9.816 508
Flexible stirrer coupling with clamping pin for agitator shaft dia. 5 to 8mm for RZB 1	1	9.816 511 <b>7</b>
Remote control with start/stop function	1	9.816 512

2



9.816 563

3



9.816 564

4



9.816 566

5



7.047 043

6



7.076 415

7



9.816 511

1



### 1 Electronic Stirrers RZR Series

#### Powerful Stirring

Heidolph

- A through-shaft design allows for easy adjustment of the impeller position to make height adjustments more convenient
- 2 gear stage design guarantees the highest power over the entire speed range and is designed for continuous operation, even in polymer research
- All electronic stirrers maintain exact speed under changing loads and even can accept 200% peak overload for a limited period of time without interrupting the process
- Reduce process times by utilizing patented inoJET® Impellers for mixing gels and other challenging media with ease
- The motor will be switched off if a high thermal load situation occurs to provide operator safety
- Sealed housing guarantees longevity and maintenance-free 24 hour operation in an aggressive environment

#### RZR 2051 control and RZR 2052 control - For standard applications

Both RZR 2051 control and RZR 2052 control are 1 gear stage stirrers which hold speed constant under changing loads

- **RZR 2051 control:** Accepts torque of 40Ncm in an overload situation and 20Ncm for continuous operation at speeds from 50rpm to 2000rpm. Viscosity range up to 10000mPa s
- **RZR 2052 control:** Accepts torque of 180Ncm in an overload situation and 90Ncm for continuous operation at speeds from 30rpm to 1000rpm. Viscosity range up to 40000mPa s
- Calibrate your torque at the beginning or even during your process to monitor viscosity changes over time
- Speed control uses rheostat or interface
- Enhanced bright digital display for torque and speed

#### RZR 2102 control and RZR 2102 control Z - For high viscosity

Both models RZR 2102 control and RZR 2102 control Z are 2 gear stage stirrers which hold speed constant under significant load changes such as sticky media like polymers for example

- Choose between 2 options for gear setting and experience the power of the 100W output motor which allows for torque of 400Ncm in an overload situation and 200Ncm for continuous operation at speeds from 12rpm to 2000rpm
- Calibrate your torque at the beginning or even during your process to monitor viscosity changes over time
- Speed control uses rheostat or interface
- Viscosity range up to 100000mPa s

#### RZR 2102 control Z - For high viscosity

Features identical technical specifications as the RZR 2102 control except for:

- Speed: 4rpm to 540rpm
- Torque: 800Ncm in an overload situation, 700Ncm at continuous operation
- An additionally flanged planet gear for extreme viscosities up to 350000mPa s

The RZR 2102 control Z does not feature the through-shaft design for impeller adjustment

Type	Power	Speed range	Max. torque		Speed control	PK	Cat. No.
	W		rpm.	Ncm			
RZR 2051 control	50	50 to 2000	40		Digital	1	<b>9.816 395</b>
RZR 2052 control	100	30 to 1000	180		Digital	1	<b>9.816 398</b>
RZR 2102 control	100	1: 12 to 400, 2: 60 to 2000	400		Digital	1	<b>9.816 396</b>
RZR 2102 control UK	100	1: 12 to 400, 2: 60 to 2000	400		Digital	1	<b>7.071 045</b>
RZR 2102 control Z	100	1: 4 to 108, 2: 17 to 540	800		Digital	1	<b>9.816 397</b>





### 3 PLR-Compressed air stirrers without/with tachometer

**Basic models include:**

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

Buddeberg



9.778 950

PLR 10 constructed to Ex II 2G c IIB T4,  
 PLR 11 to PLR 13, PLR 28 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	PK	Cat. No.
PLR 10	15000	0.3		low	1	9.778 950 <b>1</b>
PLR 11	1750	2.3	1	medium	1	9.778 951
PLR 12	1000	3.5	2	high	1	9.778 952
PLR 28	600	7.6	2	high	1	9.778 954
PLR 13	80	25.0	3	maximum	1	9.778 953
PLR 10T*	15000	0.3		low	1	9.778 960 <b>2</b>
PLR 11T*	1750	2.3	1	medium	1	9.778 961
PLR 12T*	1000	3.5	2	high	1	9.778 962
PLR 28T*	530	7.6	2	high	1	9.778 964
PLR 13T*	80	25.0	3	maximum	1	9.778 963

\* analogue tachometer



9.778 960



### Compressed air powered stirrers, PLR, accessories

9.779 052: Chuck:

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

Buddeberg

9.779 003: Connection couplings:

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

9.198 010: 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 6mm to 10mm diameter shafts.

9.779 013: 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 6mm to 10 mm diameter shafts, input shaft receiver fits 10mm or 10/13mm diameter drives, secured by allen screws.

9.779 065: Double-Cardan-Coupling:

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

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



9.779 052



9.779 003



9.198 010



9.779 013



9.779 065



### 1 Compressed air, floor standing, stirrers

Basic modules include:

Buddeberg

- motor type: PM
- plastic-coated housing and stand base
- valve for stepless speed regulation
- tubing nozzle 9mm diameter
- spherical clamping device with support arm 16mm diameter length 200mm
- floor stand with rod (W x H - 600mm x 1000mm) and cross bosshead
- operating pressure max. 6bar
- power output 560W
- air consumption 800 L/min
- clockwise rotation
- stirring capacity approx. 200L
- all data shown is at 6bar air pressure

BSR 56 available to Ex II 2G c IIB T5 according with Directive 94/9 EG (ATEX)

Type	Off-load speed rpm.	Torque Nm	Viscosity range	Weight kg	Gears	PK	Cat. No.
BSR 56/160-V	2500	3.0	low	13.5	1	1	9.779 161
BSR 56/65-V	1300	8.1	medium	14.1	2	1	9.779 162
BSR 56/30-V	600	17.5	high	14.1	2	1	9.779 178



### 2 Floor stand

With angle foot, side length 600mm, rod o.d 34mm.

Buddeberg

Length mm	PK	Cat. No.
1000	1	9.224 000



9.197 021

### Propeller stirrers, 3-blade, stainless steel/PTFE

IKA

Type	Stirrer dia. mm	Shaft dia. mm	Shaft length mm	Rotation speed rpm	PK	Cat. No.
R 1381	45	8	350	2000	1	9.197 021 <b>3</b>
R 1382	55	8	350	2000	1	9.197 022
R 1385	140	10	550	800	1	9.197 023
R 1388	140	10	800	400	1	9.197 024
R 1389*	75	8	350	800	1	9.197 026 <b>4</b>

\*PTFE coated



9.197 026



### 5 Propeller stirrer, 4-bladed, stainless steel

IKA

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

## 4. Stirring, Shaking, Mixing Overhead stirrers/Stirrers

### 1 Turbine stirrer rotors, stainless steel

IKA

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



### 2 Dissolver stirrers, stainless steel

IKA

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



### 3 Centrifugal stirrers, stainless steel

IKA

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



### 4 Paddle stirrers with 6 holes, stainless steel

IKA

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



### 5 Anchor stirrers, stainless steel

IKA

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





### Impellers for Overhead Stirrers

#### Powerful Stirring

Heidolph

Shaft diameter: 8mm

#### Blade and Half-Moon Impeller

- These impellers are recommended for applications which require an average speed
- For mixing products with average viscosity
- Models BR 12, BR 14 and HR 18 come with collapsible blade for narrow neck vessels

#### Propeller-Type Impeller

- These impellers are recommended for applications which require an average or high speed
- For mixing products with medium or high viscosity
- Excellent mixing properties for homogenisation and suspensions
- These models create an axial flow

#### Radial Flow Impeller

- These impellers are recommended for applications which require an average speed
- For mixing products with average viscosity up to <500mPa s
- Ideal for gassing of liquids
- These impellers create a radial flow

#### Anchor-Type Impeller

- These impellers are recommended for applications which require a low speed
- For mixing products with medium or high viscosity

Type	Material	Dimensions mm	PK	Cat. No.
Blade stirrer BR 10 (2 blades)	V 2A	50 x 12	1	9.816 540 <b>1</b>
Blade stirrer BR 11 (1 blade)	V 2A	50 x 12	1	9.816 541
Blade stirrer BR 12	V 2A	60 x 15	1	9.816 542
Blade stirrer BR 13	V 2A	70 x 70	1	9.816 543
Blade stirrer BR 14	V 2A	90 x 10	1	9.816 544
Turbine stirrer TR 20	V 2A	29 dia.	1	9.816 548 <b>2</b>
Turbine stirrer TR 21	V 2A	50 dia.	1	9.816 549
Propeller stirrer PR 30	V 2A	58 dia.	1	9.816 550 <b>3</b>
Propeller stirrer PR 32*	V 2A	33 dia.	1	9.816 551
Propeller stirrer PR 32*	V 2A	45 dia.	1	9.816 552
Propeller stirrer PR 33*	V 2A	66 dia.	1	9.816 553
Propeller stirrer PR 39	PTFE	75 dia.	1	9.816 554 <b>4</b>
Anchor stirrer AR 19	PTFE	60 x 40 x 5	1	9.816 557 <b>5</b>
Half-moon stirrer HR 18	PTFE	65 x 18 x 3	1	9.816 558 <b>6</b>

\* with guide ring.



### 7 Stirrer rotors, crescent-shaped paddle, PTFE

BOLA

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.

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



### 8 Overhead stirrer rotors, 3-blade propeller, PTFE

BOLA

PTFE, with PTFE-coated, stainless steel shaft.

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

## 4. Stirring, Shaking, Mixing Overhead stirrers/Stirrers

### 1 Maxi Propeller Stirrer Shafts, PTFE

PTFE-jacketed stainless steel shaft, propeller completely made of PTFE with three 45° angled blades. Universal chemical resistance since the product is only exposed to PTFE. The product is sucked bottom-up, very good axial flow with low local shear force.

BOLA



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

### 2 U-Shaped Stirrer Shafts, PTFE

PTFE-jacketed stainless steel shaft, u-shaped stirrer blade completely made of PTFE. Universal chemical resistance since the product is only exposed to PTFE. Strong, tangential flow with high shear rate in the margin area, little sediments on the wall of the vessel. Ideal for mixing viscous liquids.

BOLA



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

### Additional Stirrer Blades for Bola Stirrer Shafts, PTFE

Useful extension to the existing range of Bola stirrer shafts. The additional blades can optionally be fixed in your preferred position on every stirrer shaft with diameter 8mm or 10mm (a flat spanner is included). The stirrer blades are entirely made of PTFE, the mounting devices are made of a special PTFE-compound. A high chemical and thermal (-200°C to +250°C) resistance is assured. This "building block system" allows the user to define a stirrer of their own special requirements.

BOLA

Description	Shaft dia. mm	Length mm	Paddle dia. mm	PK	Cat. No.
Propeller-three-bladed	8		75	1	6.233 277 <b>3</b>
Propeller-three-bladed	10		75	1	6.231 491
Maxi Propeller-three-bladed	10		140	1	7.651 149 <b>4</b>
Maxi Propeller-three-bladed	16		200	1	6.227 770
Impeller-three-bladed	10		100	1	9.197 170 <b>5</b>
Impeller-three-bladed	10		150	1	6.401 547
Anchor	8		60	1	9.197 171 <b>6</b>
Anchor	8		100	1	9.197 172
Anchor	10		80	1	6.233 254
Anchor	10		100	1	9.197 173
Blade	8		80	1	9.197 174 <b>7</b>
Blade	10		110	1	6.229 275
Blade	16		140	1	9.197 175
Solo stirrer shaft	8	350		1	6.240 615
Solo stirrer shaft	10	500		1	7.654 870
Solo stirrer shaft	10	600		1	6.228 187
Solo stirrer shaft	10	800		1	6.241 097



6.233 277



7.651 149



9.197 170



9.197 171



9.197 174

### 8 Overhead stirrer rotors, centrifugal paddle, PTFE

With PTFE-coated, stainless steel shaft.

BOLA



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





### 1 Stirrer rotor, PP propeller

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

BRAND

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



### 2 Paddles, 2 blade propeller

For stirrer rotors with M6 thread. Stainless steel 1.4301.

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



### 3 Paddles, 3 blade propeller

Stainless steel 1.4301. With screwthread fitting as outlined below.

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



### 4 Paddles, 4 blade propeller

Stainless steel 1.4301. With screwthread shaft connection as outlined below.

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



### 5 Paddles, flask with holes

Stainless steel. With screwthread fitting as outlined below.

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

### 1 Impellers inoJET®

The all rounder for thick and thin

Heidolph

Worldwide the only impeller capable of completely mixing larger quantities of high-viscosity liquids and gels.

**Principle of Functionality:**

The worldwide patented inoJET® Mixing System is the result of the so-called cone-principle. Turbulent flows are created at the taper end by acceleration, displacement and retardation. These flows advance through the stirred medium and result in the new dynamic mixing motion.

**Your advantages:**

- One system for literally all mixing tasks for low to high viscosity media
- Patented cone-principle creates even at low speeds a turbulent flow which is unique to the inoJET®
- Even with high-viscosity media and gels which naturally do not mix by using common impellers you will observe an immediate flow through the entire beaker
- This technology allows for de-gassing of gels while preventing air intake and foaming
- Reduce your process times significantly while performing the best mixing result ever



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

Other versions available.

### 2 Paddles, adjustable, for narrow mouth flasks

Stainless steel. With screwthread fitting as outlined below.

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

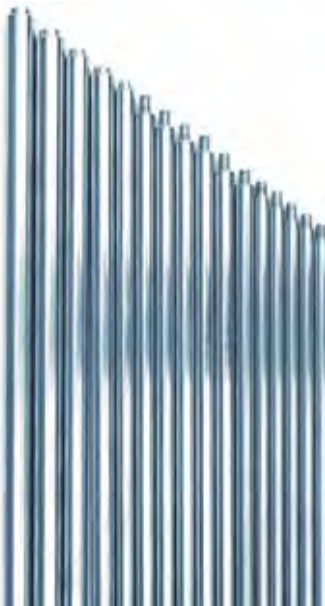


### 3 Paddles, flask, centrifugal

Stainless steel. With screwthread fitting as outlined below.

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



**1**

**1** Rods for stirrer rotor shafts, M6 and M10 screwthread end

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

**Stirrer glands (stirrer guides), with NS**

Made of DURAN® tubing. Other materials used: PTFE (bearing), silicone (gasket) and Stirrer guides, GL male thread. Cone size 29/32. Guide bore 10mm i.d.

Lenz

Type	PK	Cat. No.
With precision-formed, cylindrical sleeve	1	<b>9.197 351</b> <b>2</b>
With GL male thread	1	<b>9.197 355</b> <b>3</b>



9.197 351



9.197 355

**4**

**4** KPG stirrer bearings, DURAN®

Interchangeable. Bearing surface ground, polished. With or without standard ground cone NS 29/32.

DURAN Group

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

## 4. Stirring, Shaking, Mixing Overhead stirrers/Magnetic stirrer heads

### 1 Stirrer Bearings, PTFE

**NEW!**

The sealing rings on these bearings ensure a perfect sealing. The ground joint no longer sticks, the danger of breaking is reduced and the cone can be removed easily from the socket. A special gasket made of PTFE and an FPM o-ring which is compressed by a GL screw cap provide a good sealing of the stirrer shaft. This gasket can be exchanged after wearing. Suitable for vacuum, perfect bearing for stainless steel, glass and BOLA Stirrer Shafts.

BOLA



Cone	For diam. stirring rod	Overall length	Neck thread	PK	Cat. No.
<b>NS</b>	<b>mm</b>	<b>mm</b>	<b>GL</b>		
29/32	6	72	18	1	<b>6.087 538</b>
29/32	8	74	25	1	<b>6.076 532</b>
29/32	10	72	25	1	<b>6.088 058</b>

### 2 Glass Stirrer Bearings, PTFE

**NEW!**

Combination of a borosilicate glass piece with ground joint, an interior PTFE shaft guide with integrated special gasket and a GL screw cap made of PPS. The special gasket made of PTFE and an FPM o-ring which is compressed by a GL screw cap provide a good sealing of the stirrer shaft. This gasket can be exchanged after wearing. Suitable for vacuum, perfect bearing for stirrer shafts made of stainless steel, glass and for BOLA Stirrer Shafts.

BOLA



Cone	For diam. stirring rod	Overall length	Neck thread	PK	Cat. No.
<b>NS</b>	<b>mm</b>	<b>mm</b>	<b>GL</b>		
29/32	8	90	25	1	<b>6.510 032</b>
29/32	10	90	25	1	<b>6.088 059</b>

### 3 Magnetic Stirrer Heads P-MRK

**NEW!**

Ideal stirrer head for PTFE-jacketed stirrer shafts from BOLA. Consisting of capsuled drive shaft (stainless steel) with ball bearings, rotor and lower bearing made of PTFE/PEEK and a hollow shaft made of borosilicate glass. Requires little space due to compact construction. No leakage or memory effects due to non-porous, welded rotor. Compression fittings for safe fixing of stirrer shaft and optimum power transmission. Joint-Cone with nut (Safe-Lab) for easy locking and unlocking of the ground joint. Square size 6mm for accepting an agitator or a stirrer coupling. Insertion length of shaft 95mm. Drive shaft outside diameter 50mm.

BOLA



- gastight stirrer head for perfect vacuum
- stirrer shaft's height adjustable, approx. 40mm
- also suitable for shortened stirrer shafts
- powerful transmission of up to 90Ncm
- excellent chemical resistance
- all products which are exposed to the medium do not contain any metals
- no grease required/save to run dry
- high speed of up to max. 1.500rpm
- drive shaft fixed for your safety
- high durability
- easy disassembly of all parts for cleaning

Joint size	For diam. stirring rod	Height	PK	Cat. No.
<b>NS</b>	<b>mm</b>	<b>mm</b>		
29/32	8	145	1	<b>9.197 205</b>
29/32	10	145	1	<b>9.197 206</b>
45/40	10	145	1	<b>9.197 207</b>

### 4 | 5 | 6 | 7 Magnetic stirrer heads

Magnetic stirrer heads are available on request.

BOLA

