



Designed
to work perfectly

201103_Catalog_EN_IWS

Subject to technical changes.

www.ika.com

IKA® Catalog 2011 EN



Designed
to work perfectly

Catalog 2011

IKA®



RV 10 control

p. 106

RV 10 Rotary evaporators awarded for outstanding performance. For over 50 years the iF design award has served as a recognized trademark for outstanding design all over the world. We are delighted that our RV 10 series has just been selected to receive one of these coveted design prizes. The RV 10 series was among the top entries in one of the world's most well-known design competitions, asserting itself in a highly competitive field.



ULTRA-TURRAX®
Tube Drive control

p. 69

The new control version offers the following **additional advantages:**

- USB interface for experiment control and documentation
- Collecting tray for protection against leaking liquids
- Simple and precise menu navigation thanks to the OLED display
- Programmable sample conditions (library)



KS 4000 i control

p. 54

Incubator shaker with innovative design allowing unattended operation in a temperature-controlled environment.

- Optionally available with built-in cooling coil for connecting an external refrigerator, e.g. KV 600
- Collecting tray with drainage hose at rear of device
- Incl. PT 1000.60 temperature sensor
- Integrated PID temperature control (use of two PT 1000 temperature sensors)



topolino

p. 19

Extremely convenient magnetic mini-stirrer.

- For mixing quantities up to 250 ml
- High magnetic adhesion
- Continuously adjustable speed range
- Durable, brushless motor



ULTRA-TURRAX®
Tube Drive Tubes

p. 70

Hermetically sealable disposable sample tubes for safe processing of infectious, toxic and high-odour sample materials.

new: Gamma-sterilized tubes
new: Tubes with piercable membrane covers
new: Tubes with 2 - 15 ml and 15 - 50 ml



C-MAG HP 7

p. 98

Hotplate made of glass ceramic.

- Offers excellent chemical resistance
- Fixed safety circuit of 550 °C
- Exact temperature setting via digital display (LED)



STICKMAX

p. 62

New universal adhesive mat for the fixing clip attachments of various shakers.

- Ideal for frequently changing vessel types and sizes
- Self-adhesive
- Devices can be easily removed by side tilting movement
- Suitable for disinfection



Reaction Block
System

p. 29

The reaction block allows syntheses to be carried out in round flasks at temperatures of up to 180 °C. This system ensures optimal heat transfer from the heating plate directly into the medium. Uniform mixing is also guaranteed because there is no interference of the magnetic field from the aluminium blocks.



color squid

p. 22

The popular color squids are back with new designs. This compact magnetic stirrer not only stands out thanks to its new functions, such as a digital speed display, but the color squid now features a new electronically controlled motor for more stirring capacity.



Quarter System

Multiple syntheses with just one magnetic stirrer (RCT and RET line) using aluminium quarters which guarantee optimal heat transfer. The different colours used for the various quarters make them easier to distinguish from one another.

Page 28

| | |
|-------------------|---------|
| Magnetic stirrers | 10 – 33 |
| Overhead stirrers | 34 – 47 |
| Shakers | 48 – 65 |



RET basic *safety control* IKAMAG®
The classic: now with new design and many new functions.



ETS-D5
Electronic contact thermometer with PID control and RESET function, incl stainless steel temperature sensor H 62.51, **page 26**
Ident. No. 3378000

H 44
Boss head clamp, **page 31**
Ident. No. 2437700

H 38
Holding rod for connecting ETS-D5 with H 44 to the support rod H 16 V, **page 31**
Ident. No. 3547700

H 16 V
Support rod for all magnetic stirrers with M 10 threaded bushing, **page 31**
Ident. No. 1545100

RCT basic *safety control* IKAMAG®
Magnetic stirrer with digital display, incl. protective cover H 100, **page 12**
Ident. No. 3810000



| | |
|------------|----------------|
| Ident. No. | |
| 3810000 | 230 V 50/60 Hz |
| 3810001 | 115 V 50/60 Hz |



included with unit
Ident No. 3516800

RCT basic *safety control* IKAMAG®

- The improvement of the bestseller: Now with new technology for more capacity.
new: Stronger motor for a higher speed range
new: Additional temperature control mode for faster heating of medium
- Integrated temperature control
 - Incl. PT 1000 temperature sensor (PT 1000.60)
 - Exact temperature and speed setting via digital display, even when switched off
 - Digital display of set safety temperature limit
 - Hot Top indicator >> hot surface warning to prevent burns!
 - Digital error code display
 - With adjustable safety circuit of heating plate temperature (50 - 360 °C)
 - Safety magnetic stirrer with heating, suitable for unsupervised operation
 - Bushing according to DIN 12878 for connecting a contact thermometer, e.g. ETS-D5, enables precise temperature control
 - High level of safety due to improved heat control technology
 - Enclosed assembly (IP 42) guarantees long service life
 - Highly polished aluminum heating plate for optimal heat transfer
 - Improved magnetic adhesion
 - Incl. protective cover H 100

Accessories (page):
Quarter System (28), Reaction Block System (29), PT 1000.70 Temperature sensor (27), ETS-D5 Electronic contact thermometer (26), IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RS 1 Set of stirring bars (32), RSE Stirring bar remover (32), H 16.1 Extension (31)

| Technical data | |
|---------------------------------------|-------------------------------------|
| Stirring quantity (H ₂ O) | 20 l |
| Motor rating input | 16 W |
| Motor rating output | 9 W |
| Speed display | digital |
| Speed range | 50 – 1.500 rpm |
| Max. magnetic bar (L x Ø) | 80 x 10 mm |
| Heating function | |
| Heat output | 600 W |
| Heating rate (1 l H ₂ O) | 6,5 K/min |
| Temperature range | RT – 310 °C |
| Setting accuracy | ± 1 K |
| Temp. undulation without temp. sensor | ± 2 K |
| Adjustable safety circuit | 50 – 360 °C |
| Digital temperature limit display | 50 – 360 °C |
| Control accuracy with sensor | PT 1000 / ± 1 K ETS-D5 / ± 0,5 K |
| Heating plate | |
| Material | aluminum alloy |
| Dimensions | Ø 135 mm |
| General data | |
| Dimensions (W x D x H) | 160 x 270 x 85 mm |
| Weight | 2,5 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |

| Technical data | |
|---------------------------------------|-------------------------------------|
| Stirring quantity (H ₂ O) | 20 l |
| Motor rating input | 16 W |
| Motor rating output | 9 W |
| Speed display | digital |
| Speed range | 50 – 1.700 rpm |
| Max. magnetic bar (L x Ø) | 80 x 10 mm |
| Heating function | |
| Heat output | 600 W |
| Heating rate (1 l H ₂ O) | 7 K/min |
| Temperature range | RT – 340 °C |
| Setting accuracy | ± 1 K |
| Temp. undulation without temp. sensor | ± 2 K |
| Adjustable safety circuit | 50 – 360 °C |
| Control accuracy with sensor | PT 1000 / ± 1 K ETS-D5 / ± 0,5 K |
| Heating plate | |
| Material | stainless steel |
| Dimensions | Ø 135 mm |
| General data | |
| Dimensions (W x D x H) | 160 x 270 x 95 mm |
| Weight | 2,5 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |

RET basic *safety control* IKAMAG®

- The classic: Now with new design, functions and features.
new: Wide speed range from 50 - 1.700 rpm
new: Integrated temperature control
new: Incl. PT 1000 temperature sensor (PT 1000.60)
new: Exact temperature and speed setting via digital display, even when switched off
new: Digital display of set safety temperature limit
new: Hot Top indicator >> hot surface warning to prevent burns!
new: Digital error code display
- With adjustable safety circuit of heating plate temperature (50 - 360 °C)
 - Safety magnetic stirrer with heating, suitable for unsupervised operation
 - Bushing according to DIN 12878 for connecting a contact thermometer, e.g. ETS-D5, enables precise temperature control
 - High safety standard due to improved heat control technology
 - Enclosed assembly (IP 42) guarantees long service life
 - Very broad temperature range (RT - 340 °C)
 - Extremely fast heating times
 - Electronic speed control
 - High magnetic adhesion
 - Incl. protective cover H 100

Accessories (page):
Quarter System (28), Reaction Block System (29), PT 1000.70 Temperature sensor (27), ETS-D5 Electronic contact thermometer (26), IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RS 1 Set of stirring bars (32), RSE Stirring bar remover (32), H 16.1 Extension (31)



| | |
|------------|----------------|
| Ident. No. | |
| 3622000 | 230 V 50/60 Hz |
| 3622001 | 115 V 50/60 Hz |



included with unit
Ident No. 3516800

IKA® Mixing



| | |
|------------|----------------|
| Ident. No. | |
| 3964000 | 230 V 50/60 Hz |
| 3964001 | 115 V 50/60 Hz |



RET control/t IKAMAG®

- New safety magnetic stirrer with heating, suitable for unsupervised operation.
- Timer: min. 1 min / max. 9 h 59 min
 - 2 adjustable safety circuits
 - Stirring bar crack detection
 - Setting acc. medium temperature: 0,5 K
 - HOT warning display indicating any residual heat when unit is switched off
 - Easy-to-read backlit LCD display
 - Actual medium temperature resolution displayed: 0,5 K (RT to 100 °C); 1 K (from 100 °C upwards)
 - Fuzzy control and microprocessor technology guarantee maximum control accuracy
 - PC control via RS 232 interface, with optional safety function
 - Software labworldsoft® is available to control and document all measured values via PC
 - 3 modes of operation, e.g. stirring and heating functions can be secured against inadvertent changes of set parameters
 - Enclosed assembly (IP 42) guarantees long service life
 - Incl. protective cover H 99

Accessories (page):

Quarter System (28), Reaction Block System (29), Temperature sensors (27): PT 100.50, PT 100.51, PT 100.52, IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RS 1 Set of stirring bars (32), RSE Stirring bar remover (32), labworldsoft® (139)

Note: Not available in USA.

| Technical data | |
|---------------------------------------|------------------------------------|
| Stirring quantity (H ₂ O) | 20 l |
| Motor rating input | 12 W |
| Motor rating output | 5 W |
| Speed display | digital |
| Speed range | 0 – 1.200 rpm |
| Timer | 1 min - 9 h 59 min |
| Max. magnetic bar (L x Ø) | 80 x 10 mm |
| Heating function | |
| Heat output | 600 W |
| Heating rate (1 l H ₂ O) | 7 K/min |
| Temperature range | RT – 340 °C |
| Setting accuracy | 0,5 K (< 100 °C) 1 K (> 100 °C) |
| Adjustable safety circuit | 50 – 350 °C |
| Sensor for temperature in medium | 1 x PT 100 or 2 x PT 1000 |
| Control accuracy with sensor | ± 0,2 K |
| Heating plate | |
| Material | stainless steel |
| Dimensions | Ø 135 mm |
| General data | |
| Dimensions (W x D x H) | 160 x 280 x 97 mm |
| Weight | 2,8 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |
| Interface | RS 232 / analog |

IKA® Mixing

| Technical data | | |
|--|------------|----------------------------|
| Stirring quantity (H ₂ O) | RH basic 1 | 5 l |
| | RH basic 2 | 10 l |
| Motor rating input | | 15 W |
| Motor rating output | | 2 W |
| Speed display | | scale (0 – 6) |
| Speed range | RH basic 1 | 150 – 1.500 rpm |
| | RH basic 2 | 100 – 2.000 rpm |
| Max. magnetic bar (L x Ø) | | 40 x 8 mm |
| Heating function | | |
| Heat output | | 400 W |
| Heating rate (1 l H ₂ O in H15) | | 3 K/min |
| Temperature range | | RT – 320 °C |
| Heating plate | | |
| Material | | stainless steel (AISI 304) |
| Dimensions | | Ø = 125 mm |
| General data | | |
| Dimensions (W x D x H) | | 168 x 220 x 105 mm |
| Weight | | 2,4 kg |
| Permissible ambient temperature | | 5 – 40 °C |
| Permissible relative humidity | | 80 % |
| Protect. class acc. to DIN EN 60529 | | IP 21 |

RH basic 1 IKAMAG®

RH basic 2 IKAMAG®

- Economic magnetic stirrer with stainless steel heating plate.
- Fixed safety circuit 400 °C
 - Soft-start stirring motor

Accessories (page):

IKAFロン®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remove (32)

Note: RH basic 1 is only available in Asia, Australia and South America.



| | |
|------------|----------------|
| RH basic 1 | |
| Ident. No. | |
| 3479000 | 230 V 50/60 Hz |
| 3479001 | 115 V 50/60 Hz |



| | |
|------------|----------------|
| RH basic 2 | |
| Ident. No. | |
| 3339000 | 230 V 50/60 Hz |
| 3339001 | 115 V 50/60 Hz |



C-MAG HS 4
Ident. No.
3581000 230 V 50/60 Hz
3581026 115 V 50/60 Hz



C-MAG HS 7
Ident. No.
3581200 230 V 50/60 Hz
3581226 115 V 50/60 Hz



C-MAG HS 10
Ident. No.
3581400 230 V 50/60 Hz
3581426 115 V 50/60 Hz

C-MAG HS 4 / C-MAG HS 7 /
C-MAG HS 10 IKAMAG®

New magnetic stirrers with heating and glass ceramic heating plate which offers excellent chemical resistance.

- Powerful motor for stirring quantities of up to 5 l, 10 l, 15 l (H₂O)
- Fixed safety circuit of 550 °C
- Hot Top indicator >> hot surface warning to prevent burns!
- Precise temperature setting via digital display (LED)
- Digital error code display
- Elevated control panel to protect against leaking liquids

C-MAG HS 7, C-MAG HS 10 additionally:

- Bushing according to DIN 12878 for connecting a contact thermometer, e.g. ETS-D5, enables precise temperature control

Accessories (page):

IKAFLO®-Stirring bars (32), TRIKA®-Stirring bars (32), RS 1 Set of stirring bars (32), RSE Stirring bar remover (32), H 16 V Support rod (31)

C-MAG HS 7, C-MAG HS 10 additionally: ETS-D5 Electronic contact thermometer (26)

| Technical data | | | |
|--------------------------------------|--------------|------------------|--|
| Stirring quantity (H ₂ O) | HS 4 | 5 l | |
| | HS 7 | 10 l | |
| | HS 10 | 15 l | |
| Motor rating input | | 15 W | |
| Motor rating output | | 1,5 W | |
| Speed display | | scale | |
| Speed range | | 100 – 1.500 rpm | |
| Max. magnetic bar (L x Ø) | HS 4 | 30 x 8 mm | |
| | HS 7 | 80 x 10 mm | |
| | HS 10 | 80 x 10 mm | |
| Heating function | | | |
| Heat output | HS 4 | 250 W | |
| | HS 7 | 1.000 W | |
| | HS 10 | 1.500 W | |
| Heating rate (1 l H ₂ O) | HS 4 | 2,5 K/min | |
| | HS 7 / HS 10 | 5 K/min | |
| Temperature range | | 50 – 500 °C | |
| Setting accuracy | | ± 10 K | |
| Safety circuit fixed | | 550 °C | |
| Control accuracy with sensor | HS 4 | – | |
| | HS 7 / HS 10 | ETS-D5 / ± 0,5 K | |

| Heating plate | | |
|---------------|-------|--------------|
| Material | | |
| glass ceramic | | |
| Dimensions | HS 4 | 100 x 100 mm |
| | HS 7 | 180 x 180 mm |
| | HS 10 | 260 x 260 mm |

| General data | | | |
|-------------------------------------|-------|--------------------|--|
| Dimensions (W x D x H) | HS 4 | 150 x 260 x 105 mm | |
| | HS 7 | 220 x 330 x 105 mm | |
| | HS 10 | 300 x 415 x 105 mm | |
| Weight | HS 4 | 3 kg | |
| | HS 7 | 5 kg | |
| | HS 10 | 6 kg | |
| Permissible ambient temperature | | 5 – 40 °C | |
| Permissible relative humidity | | 80 % | |
| Protect. class acc. to DIN EN 60529 | | IP 21 | |

| Technical data | |
|---|----------------|
| Stirring positions | 5 |
| Max. stirring quantity per stirrer (H ₂ O) | 0,4 l |
| Distance between stirring places | 90 mm |
| Motor rating input | 7,2 W |
| Motor rating output | 1,8 W |
| Speed display | scale (1 – 10) |
| Speed range | 0 – 1.100 rpm |
| Deviation for individual stirring positions | 5 % |
| Max. magnetic bar (L x Ø) | 30 x 8 mm |
| Heating function | |
| Heat output | 175 W |
| Temperature range (surface) | RT – 120 °C |
| Max. temperature medium (dep. on vessel) | 70 °C |
| Heat control | scale (1 – 10) |
| Temperature consistency in the medium | ± 2 K |
| Heating plate | |
| Material | |
| silicone | |
| Dimensions | |
| 120 x 450 mm | |
| General data | |
| Dimensions (W x D x H) | |
| 138 x 552 x 65 mm | |
| Weight | |
| 3 kg | |
| Permissible ambient temperature | |
| 5 – 40 °C | |
| Permissible relative humidity | |
| 80 % | |
| Protection class acc. to DIN EN 60529 | |
| IP 42 | |

| Technical data | |
|------------------------|--------|
| Stirring positions | 10 |
| Motor rating input | 14,4 W |
| Motor rating output | 3,6 W |
| Heating function | |
| Heat output | 375 W |
| Heating plate | |
| Dimensions | |
| 180 x 450 mm | |
| General data | |
| Dimensions (W x D x H) | |
| 198 x 552 x 65 mm | |
| Weight | |
| 4,2 kg | |

| Technical data | |
|------------------------|--------|
| Stirring positions | 15 |
| Motor rating input | 21,6 W |
| Motor rating output | 5,4 W |
| Heating function | |
| Heat output | 580 W |
| Heating plate | |
| Dimensions | |
| 270 x 450 mm | |
| General data | |
| Dimensions (W x D x H) | |
| 288 x 552 x 65 mm | |
| Weight | |
| 6 kg | |

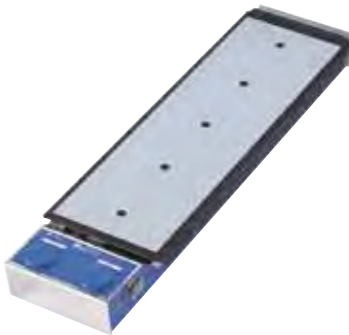
RT 5 power IKAMAG®

The RT 5 power is a high-performance multi-position magnetic stirrer with 5 stirring positions and integrated temperature control plate. Precise temperature distribution on the heating plate allows for performing series experiments, max. temperature of medium is 70 °C.

- Simultaneously operating stirrers
- Sample conditions consistent throughout individual samples

Accessories (page):

IKAFLO®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)



Ident. No.
2930300 230 V 50/60 Hz
2930301 115 V 50/60 Hz

RT 10 power IKAMAG®

Same features as RT 5 power, but with 10 stirring positions.

Accessories (page):

IKAFLO®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)



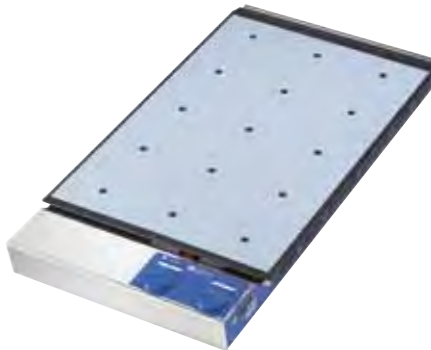
Ident. No.
2930500 230 V 50/60 Hz
2930501 115 V 50/60 Hz

RT 15 power IKAMAG®

Same features as RT 5 power, but with 15 stirring positions.

Accessories (page):

IKAFLO®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)



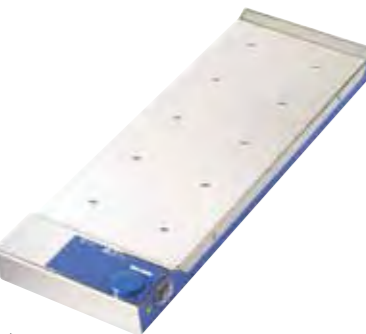
Ident. No.
2930700 230 V 50/60 Hz
2930701 115 V 50/60 Hz

IKA® Mixing

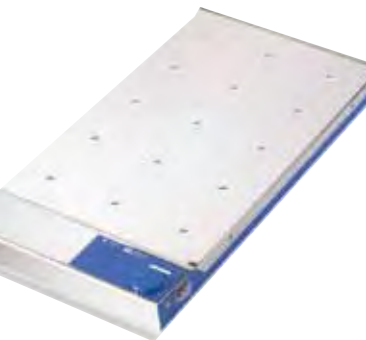
18 Multi-position magnetic stirrers without heating



| | |
|------------|----------------|
| Ident. No. | |
| 2930200 | 230 V 50/60 Hz |
| 2930201 | 115 V 50/60 Hz |



| | |
|------------|----------------|
| Ident. No. | |
| 2930400 | 230 V 50/60 Hz |
| 2930401 | 115 V 50/60 Hz |



| | |
|------------|----------------|
| Ident. No. | |
| 2930600 | 230 V 50/60 Hz |
| 2930601 | 115 V 50/60 Hz |

RO 5 power IKAMAG®

Multi-position magnetic stirrer with 5 stirring positions, without heating. The stainless steel surface covers the unit allowing easy cleaning and providing protection against the penetration of liquids.

- Optimal use of laboratory space
- Incl. removable PUR cover

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)

RO 10 power IKAMAG®

Same features as RO 5 power, but with 10 stirring positions.

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)

RO 15 power IKAMAG®

Same features as RO 5 power, but with 15 stirring positions.

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)

| Technical data | |
|---|----------------------------|
| Stirring positions | 5 |
| Max. stirring quantity per stirrer (H ₂ O) | 0,4 l |
| Distance between stirring places | 90 mm |
| Motor rating input | 7,2 W |
| Motor rating output | 1,8 W |
| Speed display | scale (1 – 10) |
| Speed range | 0 – 1.100 rpm |
| Deviation for individual stirring positions | 5 % |
| Max. magnetic bar (L x Ø) | 30 x 8 mm |
| Set-up plate | |
| Material | stainless steel (AISI 304) |
| Dimensions | 120 x 450 mm |
| General data | |
| Dimensions (W x D x H) | 122 x 552 x 65 mm |
| Weight | 2,3 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |

| Technical data | |
|------------------------|-------------------|
| Stirring positions | 10 |
| Motor rating input | 14,4 W |
| Motor rating output | 3,6 W |
| Set-up plate | |
| Dimensions | 180 x 450 mm |
| General data | |
| Dimensions (W x D x H) | 182 x 552 x 65 mm |
| Weight | 3,2 kg |

| Technical data | |
|------------------------|-------------------|
| Stirring positions | 15 |
| Motor rating input | 21,6 W |
| Motor rating output | 5,4 W |
| Set-up plate | |
| Dimensions | 270 x 450 mm |
| General data | |
| Dimensions (W x D x H) | 272 x 552 x 65 mm |
| Weight | 4,7 kg |

| Technical data | |
|---------------------------------------|---|
| Stirring quantity (H ₂ O) | max. 250 ml |
| Motor rating input | 1,1 W |
| Motor rating output | 0,8 W |
| Speed range | 300 – 1.800 rpm |
| Max. magnetic bar (L x Ø) | 40 x 6 mm |
| Set-up plate | |
| Material | PP |
| Dimensions | Ø 80 mm |
| General data | |
| Dimensions (W x D x H) | topolino 95 x 115 x 40 mm topolino mobil Ø 140 x 40 mm |
| Weight | topolino 300 g topolino mobil 320 g |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |

| Technical data | |
|---------------------------------------|-------------------|
| Stirring quantity (H ₂ O) | 1,0 l |
| Motor rating input | 3 W |
| Motor rating output | 2 W |
| Speed range | 0 – 2.500 rpm |
| Max. magnetic bar (L x Ø) | 30 x 8 mm |
| Set-up plate | |
| Material | polyester |
| Dimensions | 115 x 115 mm |
| General data | |
| Dimensions (W x D x H) | 114 x 127 x 37 mm |
| Weight | 0,25 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |

| Technical data | |
|---------------------------------------|----------------------------|
| Stirring quantity (H ₂ O) | 5 l |
| Motor rating input | 14 W |
| Motor rating output | 4 W |
| Speed display | scale |
| Speed range | 0 – 1.100 rpm |
| Max. magnetic bar (L x Ø) | 50 x 8 mm |
| Set-up plate | |
| Material | stainless steel (AISI 304) |
| Dimensions | 140 x 120 mm |
| General data | |
| Dimensions (W x D x H) | 140 x 200 x 75 mm |
| Weight | 1,4 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |

topolino IKAMAG®

Extremely convenient magnetic mini-stirrer for mixing quantities up to 250 ml.

- Durable, brushless motor
- Continuously adjustable speed range
- High magnetic adhesion

Topolino mobil additionally:
Same features as the Topolino, plus:

- Portable unit with long operating time (8 - 12 h)
- Short charging time (2 - 3 h)
- Standard replaceable AA rechargeable batteries
- Optional power mode:

a) Mains-free with standard batteries
b) With supplied mains adapter (without batteries)
c) Combined mains/battery operation (with batteries fitted)

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)

Mini MR standard IKAMAG®

The improvement of the magnetic stirrer.
new: For stirring quantities up to 1.000 ml (H₂O)
new: Infinitely variable speed from 0 - 2.500 rpm

- White set-up plate suitable for observing color reactions

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)

KMO 2 basic IKAMAG®

Small, powerful magnetic stirrer without heating.

- Strong magnetic field
- Motor with optoelectronic speed control
- Infinitely variable speed from 0 - 1.100 rpm
- Stainless steel casing facilitates cleaning and sterilization
- Incl. M 10 thread for H 16 V support rod

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RS 1 Set of stirring bars (32), RSE Stirring bar remover (32), H 16 V Support rod (31)

IKA® Mixing

Magnetic stirrers without heating

19



| | |
|------------|----------------|
| Ident. No. | |
| 3368000 | 230 V 50/60 Hz |



| | |
|------------|----------------|
| Ident. No. | |
| 3381300 | 230 V 50/60 Hz |



| | |
|------------|----------------------|
| Ident. No. | |
| 3674000 | 100 – 240 V 50/60 Hz |



| | |
|------------|----------------|
| Ident. No. | |
| 2812000 | 230 V 50/60 Hz |
| 2812001 | 115 V 50/60 Hz |

lab disc IKAMAG® –
the ultra-flat magnetic stirrer with new designs



Height only
12mm

| | |
|------------|----------------------|
| Ident. No. | |
| 3907500 | 100 – 240 V 50/60 Hz |

lab disc IKAMAG®

Ultra-flat compact magnetic stirrer, guaranteed with modern magnet coil technology. Wear-free drive with no moving parts. To ensure better mixing, the lab disc can reverse direction of rotation automatically every 30 seconds.

- High IP protection class (IP 65)
- Set-up plate and casing made from chemically resistant materials
- Slip-proof, safe stand

Accessories (page):

IKAFLO®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)

| Technical data | |
|--|-------------------|
| Stirring quantity (H ₂ O) | 800 ml |
| Motor rating input | 5 W |
| Motor rating output | 3 W |
| Speed range | 15 – 1.500 rpm |
| Reversion of rotation direction (switchable) | every 30 s |
| Max. magnetic bar (L x Ø) | 30 x 8 mm |
| Set-up plate | |
| Material | polyester |
| Dimensions | Ø 100 mm |
| General data | |
| Dimensions (W x D x H) | 117 x 180 x 12 mm |
| Weight | 0,3 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 65 |



1 pattern



2 white



3 stream



4 meadow



5 maracuja

Integrated safety
guaranteed by IKA®

See how Lilly was saved:
www.ika.com



Designed
to work perfectly

IKA®



| Ident. No. | Design |
|------------|--------|
| 3671000 | white |

color squid IKAMAG®

The improved small magnetic stirrers now in new designs.
new: Digital speed display (LED)
new: Electronically controlled motor for more capacity
new: Higher speed range from 0 - 2.500 rpm
new: Max. stirring quantity 1 l
- Outstanding chemical resistance due to glass top and synthetic bottom made of TPE
- Recyclable materials

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)

| Technical data | |
|---------------------------------------|-------------------|
| Stirring quantity (H ₂ O) | 1 l |
| Motor rating input | 3 W |
| Motor rating output | 2 W |
| Speed display | digital |
| Speed range | 0 – 2.500 rpm |
| Max. magnetic bar (L x Ø) | 30 x 8 mm |
| Set-up plate | |
| Material | glass |
| Dimensions | Ø 115 mm |
| General data | |
| Dimensions (W x D x H) | 145 x 160 x 45 mm |
| Weight | 0,55 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 54 |



| Ident. No. | Design |
|------------|--------|
| 3672000 | white |

big squid IKAMAG®

The improved magnetic stirrers now in new designs.
new: Digital speed display (LED)
new: Electronically controlled motor for more capacity
new: Higher speed range from 0 - 2.500 rpm
- Outstanding chemical resistance due to glass top and synthetic bottom made of PA
- Recyclable materials

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32), RSE Stirring bar remover (32)

| Technical data | |
|---------------------------------------|-------------------|
| Stirring quantity (H ₂ O) | 1,5 l |
| Motor rating input | 3 W |
| Motor rating output | 2 W |
| Speed display | digital |
| Speed range | 0 – 2.500 rpm |
| Max. magnetic bar (L x Ø) | 30 x 8 mm |
| Set-up plate | |
| Material | glass |
| Dimensions | Ø 160 mm |
| General data | |
| Dimensions (W x D x H) | 180 x 195 x 40 mm |
| Weight | 0,7 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 54 |



color squid IKAMAG® –
the compact magnetic stirrer with attractive designs



1 white



2 zebra



3 bubbles



4 wave



5 palm tree



1 white

| Ident. No. | Design |
|------------|-----------|
| 1 3671000 | white |
| 2 3698200 | zebra |
| 3 3698300 | bubbles |
| 4 3698400 | wave |
| 5 3698500 | palm tree |

Technical data on page 22.

big squid IKAMAG® –
the magnetic stirrer with the extra large set-up plate



1 white



2 leaves



3 frozen



4 twist



5 hibiscus



1 white

| Ident. No. | Design |
|------------|----------|
| 1 3672000 | white |
| 2 3857100 | leaves |
| 3 3857200 | frozen |
| 4 3857300 | twist |
| 5 3857400 | hibiscus |

Technical data on page 22.

IKA® Mixing



| | |
|------------|----------------|
| Ident. No. | |
| 2621900 | 230 V 50/60 Hz |
| 2621901 | 115 V 50/60 Hz |

Midi MR 1 digital IKAMAG®

Powerful magnetic stirrer without heating.

- Flat, sturdy stainless steel casing
- Non-locking motor
- Infinitely variable speed
- Digital LED speed display
- Timer (0 - 56 min) or continuous operation
- For stirring quantities up to 50 liters (H₂O)
- Incl. magnetic stirring bar IKAFLON® 50

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32),
RSE Stirring bar remover (32)



| | |
|------------|----------------|
| Ident. No. | |
| 2621800 | 230 V 50/60 Hz |
| 2621801 | 115 V 50/60 Hz |

Maxi MR 1 digital IKAMAG®

Same features as Midi MR 1 digital.

- For stirring quantities up to 150 l (H₂O)

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32),
RSE Stirring bar remover (32)

| Technical data | |
|---------------------------------------|----------------------------|
| Stirring quantity (H ₂ O) | 50 l |
| Motor rating input | 70 W |
| Motor rating output | 19 W |
| Speed display | digital |
| Speed range | 0 – 1.000 rpm |
| Max. magnetic bar (L x Ø) | 80 x 10 mm |
| Set-up plate | |
| Material | stainless steel (AISI 304) |
| Dimensions | 350 x 350 mm |
| General data | |
| Dimensions (W x D x H) | 360 x 430 x 110 mm |
| Weight | 10,7 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |

| Technical data | |
|---------------------------------------|----------------------------|
| Stirring quantity (H ₂ O) | 150 l |
| Motor rating input | 80 W |
| Motor rating output | 35 W |
| Speed display | digital |
| Speed range | 0 – 600 rpm |
| Max. magnetic bar (L x Ø) | 155 x 27 mm |
| Set-up plate | |
| Material | stainless steel (AISI 304) |
| Dimensions | 500 x 500 mm |
| General data | |
| Dimensions (W x D x H) | 505 x 585 x 110 mm |
| Weight | 16 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |

IKA® Mixing

| Technical data | | |
|---------------------------------------|-------|--------------------|
| Stirring quantity (H ₂ O) | MS 4 | 5 l |
| | MS 7 | 10 l |
| | MS 10 | 15 l |
| Motor rating input | | 15 W |
| Motor rating output | | 1,5 W |
| Speed display | | scale |
| Speed range | | 100 – 1.500 rpm |
| Max. magnetic bar (L x Ø) | MS 4 | 30 x 8 mm |
| | MS 7 | 80 x 10 mm |
| | MS 10 | 80 x 10 mm |
| Set-up plate | | |
| Material | | glass ceramic |
| Dimensions | MS 4 | 100 x 100 mm |
| | MS 7 | 180 x 180 mm |
| | MS 10 | 260 x 260 mm |
| General data | | |
| Dimensions (W x D x H) | MS 4 | 150 x 260 x 105 mm |
| | MS 7 | 220 x 330 x 105 mm |
| | MS 10 | 300 x 415 x 105 mm |
| Weight | MS 4 | 3 kg |
| | MS 7 | 5 kg |
| | MS 10 | 6 kg |
| Permissible ambient temperature | | 5 – 40 °C |
| Permissible relative humidity | | 80 % |
| Protection class acc. to DIN EN 60529 | | IP 21 |

C-MAG MS 4 / C-MAG MS 7 /
C-MAG MS 10 IKAMAG®

New magnetic stirrers without heating. With glass ceramic set-up plate which offers excellent chemical resistance.

- Powerful motor for stirring quantities of up to 5 l, 10 l, 15 l (H₂O)
- Elevated control panel to protect against leaking liquids

Accessories (page):
IKAFLON®-Stirring bars (32), TRIKA®-Stirring bars (32),
RS 1 Set of stirring bars (32), RSE Stirring bar
remover (32)



| | |
|------------|----------------|
| C-MAG MS 4 | |
| Ident. No. | |
| 3582200 | 230 V 50/60 Hz |
| 3582226 | 115 V 50/60 Hz |



| | |
|------------|----------------|
| C-MAG MS 7 | |
| Ident. No. | |
| 3582400 | 230 V 50/60 Hz |
| 3582426 | 115 V 50/60 Hz |



| | |
|-------------|----------------|
| C-MAG MS 10 | |
| Ident. No. | |
| 3582600 | 230 V 50/60 Hz |
| 3582626 | 115 V 50/60 Hz |



Ident. No.
3378000

Electronic Contact Thermometer
ETS-D5

Ensures perfect temperature control without overshooting the set temperature, even in the case of quick heating. With optimized PID control and RESET function, incl. stainless steel sensor H 62.51. For all magnetic stirrers with contact thermometer bushing according to DIN 12878, class 2 (e.g. IKA®, Heidolph and Corning with adapter AD-C1, Ident. No. 3414000, please order separately).

3 modes of operation guarantee optimum adjustment to your working method:
Operating mode A
Suitable for work with varying parameters (from -50 °C to 450 °C). Safety temperature adjustable.
Operating mode B
Suitable for series operation under uniform conditions.
Operating mode C
Suitable for unsupervised operation.
All values are taken from the memory.
This ensures protection against inadvertent adjustment.

Accessories ETS-D5 (page):
Sensor (26): H 62.51, H 66.51, H 70 Extension cable (27), H 16 V Support rod (31), H 44 Boss head clamp (31), H 38 Holding rod (31)



Ident. No.
2735451

H 62.51 Stainless steel sensor

Spare sensor for use with ETS-D5.



Ident. No.
2735551

H 66.51 Stainless steel sensor
glass-coated

For use with ETS-D5, for work with aggressive media such as acid and alkaline solutions.

| Temperature | |
|---------------------------------------|---|
| Temperature measuring range | -50 – 450 °C |
| Resolution | 0,1 K |
| Measuring accuracy | ± 0,2 K + Sensor tolerance PT 1000 DIN IEC 751 class A |
| Setting accuracy | 0,1 K |
| Control deviation | ± 0,5 K |
| General data | |
| Supply voltage | 8 – 16 VDC |
| Power consumption | 15 mA (at 9 V) |
| Max. ON time | 100 % |
| Plug | 6 pin DIN 45322 |
| Connection | DIN 12878 class 2 |
| Dimensions (W x D x H) | 82 x 22 x 83 mm (without sensor) |
| Weight | 0,2 kg |
| Permissible ambient temperature | 0 – 60 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 54 |

| General data | |
|--------------------|-------------|
| Depth of immersion | 230 mm |
| Diameter | 3 mm |
| Length | 260 mm |
| Material | AISI 316 Ti |

| General data | |
|--------------------|------------------------|
| Depth of immersion | 230 mm |
| Diameter | 6 mm |
| Length | 260 mm |
| Material | borosilicate glass 3.3 |

| General data | |
|--------------|-----|
| Length | 1 m |

| General data | |
|--------------------|-------------|
| Depth of immersion | 230 mm |
| Diameter | 3 mm |
| Material | AISI 316 Ti |

| General data | |
|--------------------|------------------------|
| Depth of immersion | 230 mm |
| Diameter | 8 mm |
| Material | borosilicate glass 3.3 |

| General data | |
|--------------------|-------------|
| Depth of immersion | 230 mm |
| Diameter | 3 mm |
| Material | AISI 316 Ti |

| General data | |
|--------------------|------------------------|
| Depth of immersion | 230 mm |
| Diameter | 7 mm |
| Material | borosilicate glass 3.3 |

H 70 Extension cable

To separate the casing from the sensor. The casing with the electronics may thus be kept away from dangerous vapor released by the medium (for use with ETS-D5).



Ident. No.
2735600

PT 100.50 Temperature sensor

For use with RET control/t.

Accessories (page):
H 16 V Support rod (31), H 44 Boss head clamp (31), H 38 Holding rod (31)



Ident. No.
2601900

PT 100.51 Temperature sensor

For use with RET control/t, glass-coated for work with aggressive media such as acid and alkaline solutions.

Accessories (page):
H 16 V Support rod (31), H 44 Boss head clamp (31), H 38 Holding rod (31)



Ident. No.
2600300

PT 1000.60 Temperature sensor

Made of stainless steel, for use with RCT basic (3380000 and 3810000) and RET basic (3622000).



Ident. No.
3516800

PT 1000.70 Temperature sensor
glass-coated

Glass-coated, for work with aggressive media such as acid and alkaline solutions, for RCT basic (3380000 and 3810000) and RET basic (3622000).



Ident. No.
3736000

Quarter System

The carrier plate can be fitted with four identical or differing aluminium quarters, allowing up to 36 reaction vessels to be processed at the same time. The aluminium quarters guarantee optimal heat transfer throughout the process with no interference to the magnetic field. This ensures that all the containers are processed at the same temperature and that the contents are uniformly mixed. The different colours used for the various quarters makes them easier to distinguish.

- Multiple syntheses with only one magnetic stirrer
- Uniform mixing in every vessel
- High-precision thermal conduction directly into the quarters
- Same temperature in all vessels
- Wide range of applications thanks to exchangeable quarters
- Safe and clean working

| Code | Name | Description | Colour | Ident. No. |
|-----------|---------------------------------|---|--------|------------|
| H 135.3 | Carrier plate | Ø 135 mm | Green | 3904000 |
| H 135.310 | *Quarter, 20 ml reaction vessel | 4 bore holes (Ø 28 mm, 24 mm deep) | Black | 3904100 |
| H 135.311 | *Quarter, 30 ml reaction vessel | 4 bore holes(Ø 28 mm, 30 mm deep) | Green | 3904200 |
| H 135.312 | *Quarter, 40 ml reaction vessel | 4 bore holes (Ø 28 mm, 42,8 mm deep) | Orange | 3904300 |
| H 135.313 | *Quarter, 4 ml reaction vessel | 9 bore holes (Ø 15,2 mm, 19 mm deep) | Gold | 3904400 |
| H 135.314 | *Quarter, 8 ml reaction vessel | 8 bore holes (Ø 17,75 mm, 25,5 mm deep) | Blue | 3904500 |
| H 135.315 | *Quarter, 16 ml reaction vessel | 4 bore holes (Ø 21,6 mm, 31,7 mm deep) | Red | 3904600 |

*Glassware not included



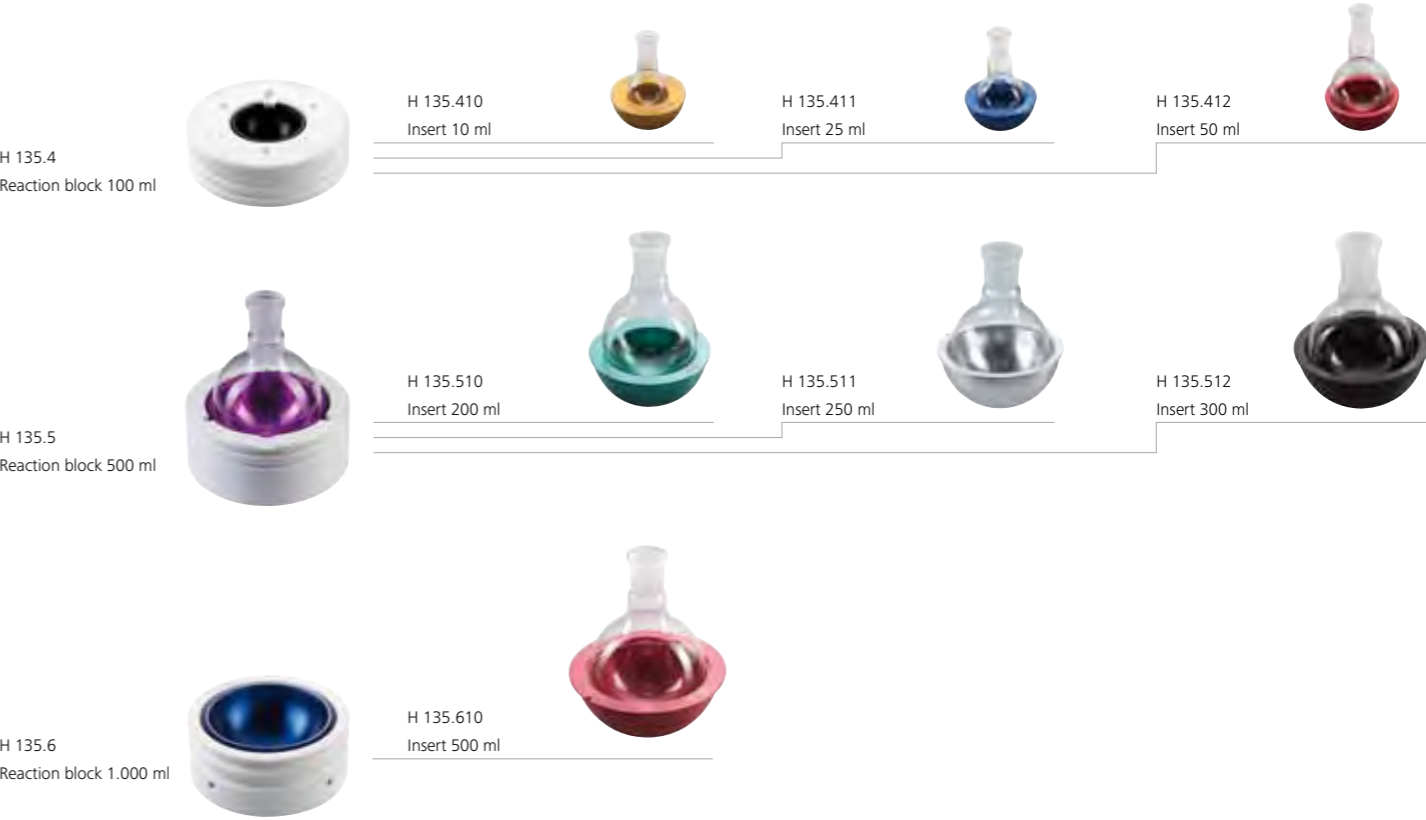
Reaction Block System

The reaction block allows syntheses to be carried out in round flasks at temperatures of up to 180 °C. This system ensures optimal heat transfer from the heating plate directly into the medium. Uniform mixing is also guaranteed because there is no interference to the magnetic field from the aluminium blocks. The Teflon coating prevents burning and ensures that working with the system is safe. Reaction blocks are available in three standard sizes. These can be adapted to various flask sizes using the appropriate inserts.

- Syntheses in round flasks at up to 180 °C
- Uniform mixing
- High-precision thermal conduction directly into the reaction block
- Teflon coating protects against burning
- Wide range of applications thanks to exchangeable inserts
- Safe and clean working

| Code | Name | Suitable inserts | Colour | Ident. No. |
|-----------|---------------------------------------|---------------------------------|-----------|------------|
| H 135.4 | *Reaction block, 100 ml round flask | H 135.410, H 135.411, H 135.412 | Black | 3904700 |
| H 135.5 | *Reaction block, 500 ml round flask | H 135.510, H 135.511, H 135.512 | Purple | 3905100 |
| H 135.6 | *Reaction block, 1.000 ml round flask | H 135.610 | Blue | 3905600 |
| H 135.410 | *Insert, 10 ml round flask | | Gold | 3904800 |
| H 135.411 | *Insert, 25 ml round flask | | Blue | 3904900 |
| H 135.412 | *Insert, 50 ml round flask | | Red | 3905000 |
| H 135.510 | *Insert, 200 ml round flask | | Turquoise | 3905200 |
| H 135.511 | *Insert, 250 ml round flask | | Silver | 3905300 |
| H 135.512 | *Insert, 300 ml round flask | | Black | 3905400 |
| H 135.610 | *Insert, 500 ml round flask | | Purple | 3905500 |

*Glassware not included



H 16 V
Support rod for all magnetic stirrers with
M 10 threaded bushing, **page 31**
Ident. No. 1545100

PT 1000.70
Temperature sensor, glass-coated, **page 27**
Ident. No. 3378100

H 38
Holding rod for fastening ETS-D5 with H 44 to the
support rod H 16 V, **page 31**
Ident. No. 3547700

H 44
Boss head clamp, **page 31**
Ident. No. 2437700

H 135.310, H 135.311, H 135.312, H 135.314
Quarter, **page 28**
Ident. No. 3904100, 3504200, 3504300, 3504400

H 135.3
Carrier plate, **page 28**
Ident. No. 3904000

H 135.511
Insert 250 ml, **page 29**
Ident. No. 3505300

H 135.4
Reaction block 500 ml, **page 29**
Ident. No. 3905100

RCT basic *safety control* IKAMAG®
The improvement of the bestseller, incl. protec-
tive cover H 100, **page 12**
Ident. No. 3810000



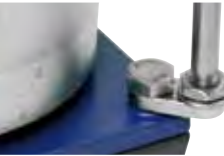
| General data | |
|--------------|----------------------------|
| Diameter | 10 mm |
| Length | 450 mm |
| Thread | M 10 |
| Material | stainless steel (AISI 304) |

H 16 V Support rod
Stainless steel support rod for all magnetic
stirrers with M 10 threaded bushing.
Accessories (page):
H 16.1 Extension (31), H 44 Boss head clamp (31),
H 38 Holding rod (31)



Ident. No.
1545100

H 16.1 Extension
For work with bath attachment over 180 mm Ø.



Ident. No.
5000500

H 44 Boss head clamp
For fastening the holding rod H 38 (p. 31) to the
support rod H 16 V (p. 31).



Ident. No.
2437700

H 38 Holding rod
For fastening ETS-D5 and PT 1000 with H 44 (p. 31) to
the support rod H 16 V (p. 31).



Ident. No.
3547700



IKAFLON® Magnetic stirring bars

Round, PTFE-coated.

| Ident. No. | Description | Length | Ø |
|------------|--------------|--------|-------|
| 1572000 | IKAFLON® 10* | 10 mm | 6 mm |
| 1572100 | IKAFLON® 15* | 15 mm | 6 mm |
| 1572200 | IKAFLON® 20* | 20 mm | 8 mm |
| 1572300 | IKAFLON® 25* | 25 mm | 8 mm |
| 1572400 | IKAFLON® 30* | 30 mm | 8 mm |
| 1572500 | IKAFLON® 40* | 40 mm | 8 mm |
| 1572600 | IKAFLON® 50* | 50 mm | 8 mm |
| 1572800 | IKAFLON® 80* | 80 mm | 10 mm |
| 0793300 | IKAFLON® 110 | 110 mm | 27 mm |
| 1129000 | IKAFLON® 155 | 155 mm | 27 mm |



TRIKA® Magnetic stirring bars

Triangular, PTFE-coated, especially suited for stirring liquids which have a low solids content and where sedimentation is not desired.

| Ident. No. | Description | Length |
|------------|-------------|--------|
| 0356600 | TRIKA® 25* | 25 mm |
| 0356500 | TRIKA® 40* | 40 mm |



Ident. No.
1358600



Ident. No.
1293100

RS 1 Set of magnetic stirring bars

Consisting of the IKAFLON® and TRIKA® Magnetic stirring bars marked with *, see above.

RSE Stirring bar remover

For all stirring bars up to 80 mm in length, PTFE-coated.



H 99
Ident. No.
2734500

H 100
Ident. No.
3661000

H 99 Protective cover
H 100 Protective cover

Resistant to most acids, alkaline solutions and organic solvents.
The protective cover is included with the magnetic stirrer.

| General data | |
|------------------|--|
| Material | silicone |
| Max. temperature | 135 °C |
| Protective cover | |
| H 99 | for RET control/t (3964000), RET basic (3188800, 3197600) |
| H 100 | for RET basic (3622000), RCT basic (3380000, 3810000) |

| Ident. No. | |
|------------|-----------|
| 1091500 | Euro plug |
| 3564500 | USA plug |
| 2410700 | UK plug |
| 1091600 | CH plug |

H 11 Mains cable

Spare





RW 20 digital
Overhead stirrer with digital display. Technical improvements on the trusted RW 20 series designs.

EUROSTAR power control-visc

Stirrer for quantities up to 40 l, with RS 232 interface, **page 39**

Ident. No. 2600000

R 271

Boss head clamp, **page 122**

Ident. No. 2664000

R 2723

Telescopic stand, **page 121**

Ident. No. 1412100

R 1375

Paddle stirrer, **page 44**

Ident. No. 0757700

RH 5

Strap clamp, **page 122**

Ident. No. 3159000



With labworldsoft® you can network up to 64 laboratory devices and control these from a PC, see **page 139**.





creamy blue
Ident. No.
2830004 100 – 240 V 50/60 Hz

RW 11 basic „Lab egg“

- Small-sized stirrer.
- Glass-housing resistant to chemicals
 - Max. stirring quantity 2 l (H₂O)
 - Incl. paddle stirrer R 1001 and extension arm
- Accessories** (page):
R 1001 Spare paddle stirrer (46), R 1002 Screw-type stirrer (46), R 104 Stand (120)

| Technical data | |
|---------------------------------------|--------------------|
| Stirring quantity H ₂ O | 2 l |
| Max. viscosity | 100 mPas |
| Motor rating input | 8 W |
| Motor rating output | 1 W |
| Output at stirring shaft | 1 W |
| Max. ON-time | 100 % |
| Max. torque (plug-in coupling) | 0,8 Ncm |
| Speed range | 0 – 2.000 rpm |
| Speed display | none |
| Plug-in coupling Ø | 4 mm |
| Support holder Ø | integrated (10 mm) |
| General data | |
| Dimensions (W x D x H) | 86 x 175 x 89 mm |
| Weight | 0,39 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |

EUROSTAR digital

Stirrer for quantities up to 20 l, **page 38**
Ident. No. 2482000

RW 16 basic

Stirrer for quantities up to 10 l, **page 38**
Ident. No. 2572100

R 182

Boss head clamp, **page 122**
Ident. No. 2657700

R 1330

Anchor stirrer, **page 44**
Ident. No. 2022300

RH 3

Strap clamp, **page 122**
Ident. No. 3008600

R 1825

Plate stand, **page 120**
Ident. No. 3160000



IKA® Mixing



| | |
|------------|----------------|
| Ident. No. | |
| 2572100 | 230 V 50/60 Hz |
| 2572101 | 115 V 50/60 Hz |

RW 16 basic

Laboratory stirrer for simple stirring tasks of up to 10 liters (H₂O) with ideal speed range from 40 - 1.200 rpm. Especially suitable for schools, universities and inspection laboratories.

- Infinitely adjustable without gear shifting
- Slim casing
- Quiet operation
- Safety circuit
- Non-locking, overload capabilities

Accessories (page):
Stands (120): R 1822, R 1826, R 1827, R 182
Boss head clamp (122), FK 1 Flexible coupling (46), RH 3 Strap clamp (122), R 301 Stirring shaft protection (46), Stirring elements (44 / 46): e.g. R 1342, R 1330

| Technical data | |
|---------------------------------------|-------------------|
| Stirring quantity (H ₂ O) | 10 l |
| Max. viscosity | 10.000 mPas |
| Motor rating input | 75 W |
| Motor rating output | 55 W |
| Output at stirring shaft | 53 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | 40 Ncm |
| Speed range | 40 – 1.200 rpm |
| Speed display | scale (1 – 10) |
| Chuck range | 0,5 – 10 mm |
| Hollow shaft, inner diameter | 11 mm |
| Diameter / length of extension arm | 13 mm / 160 mm |
| General data | |
| Dimensions (W x D x H) | 80 x 190 x 222 mm |
| Weight | 2,8 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |



| | |
|------------|----------------|
| Ident. No. | |
| 2482000 | 230 V 50/60 Hz |
| 2482001 | 115 V 50/60 Hz |

EUROSTAR digital

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

- Constant speed due to microprocessor control
- Digital display of 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 due to smooth start

Accessories (page):
Stands (120): R 1822, R 1826, R 1827, R 182 Boss head clamp (122), FK 1 Flexible coupling (46), RH 3 Strap clamp (122), R 301 Stirring shaft protection (46), Stirring elements (44 / 46): e.g. R 1342, R 1330

| Technical data | |
|---------------------------------------|-------------------|
| Stirring quantity (H ₂ O) | 20 l |
| Max. viscosity | 10.000 mPas |
| Motor rating input | 75 W |
| Motor rating output | 55 W |
| Output at stirring shaft | 53 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | 30 Ncm |
| Speed range | 50 – 2.000 rpm |
| Speed display | digital |
| Chuck range | 0,5 – 10 mm |
| Hollow shaft, inner diameter | 11 mm |
| Diameter / length of extension arm | 13 mm / 160 mm |
| General data | |
| Dimensions (W x D x H) | 80 x 190 x 222 mm |
| Weight | 2,8 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |

IKA® Mixing



| | |
|------------|----------------|
| Ident. No. | |
| 2572200 | 230 V 50/60 Hz |
| 2572201 | 115 V 50/60 Hz |

EUROSTAR power basic

Powerful laboratory stirrer for tasks up to “high viscosity” range.

- Constant speed due to microprocessor control
- Infinitely adjustable without gear shifting
- Slim casing
- Quiet operation
- Safety circuit
- Non-locking, overload capabilities
- Push-through agitator shafts
- Enhanced safety due to smooth start
- Analog recording of speed parameters is possible

Accessories (page):
Stands (120 / 121): R 2722, R 2723, R 271 Boss head clamp (122), FK 1 Flexible coupling (46), RH 5 Strap clamp (122), R 301 Stirring shaft protection (46), Stirring elements (44 / 46): e.g. R 1345, R 1375

| Technical data | |
|---------------------------------------|-------------------|
| Stirring quantity (H ₂ O) | 40 l |
| Max. viscosity | 50.000 mPas |
| Motor rating input | 130 W |
| Motor rating output | 110 W |
| Output at stirring shaft | 105 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | 60 Ncm |
| Speed range | 50 – 2.000 rpm |
| Speed display | scale |
| Chuck range | 0,5 – 10 mm |
| Hollow shaft, inner diameter | 11 mm |
| Diameter / length of extension arm | 16 mm / 200 mm |
| General data | |
| Dimensions (W x D x H) | 80 x 190 x 253 mm |
| Weight | 3,8 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |
| Interface | analog |

EUROSTAR power control-visc

Powerful, digital laboratory stirrer for tasks up to “high viscosity” range. Same features as EUROSTAR power basic, additionally:

labworldsoft® software is available to allow speed and torque parameters to be controlled, regulated and documented via PC.

- Digital display of rated - / actual speed
- Integrated torque trend display for viscosity control
- Analog interface for recording speed and torque
- RS 232 interface

Accessories (page):
Stands (120 / 121): R 2722, R 2723, R 271 Boss head clamp (122), FK 1 Flexible coupling (46), RH 5 Strap clamp (122), R 301 Stirring shaft protection (46), Stirring elements (44 / 46): e.g. R 1345, R 1375, labworldsoft® (139)

| Technical data | |
|---------------------------------------|-------------------|
| Stirring quantity (H ₂ O) | 40 l |
| Max. viscosity | 50.000 mPas |
| Motor rating input | 130 W |
| Motor rating output | 110 W |
| Output at stirring shaft | 105 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | 60 Ncm |
| Speed range | 50 – 2.000 rpm |
| Speed display | digital |
| Chuck range | 0,5 – 10 mm |
| Hollow shaft, inner diameter | 11 mm |
| Diameter / length of extension arm | 16 mm / 200 mm |
| General data | |
| Dimensions (W x D x H) | 80 x 190 x 253 mm |
| Weight | 3,8 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |
| Interface | RS 232 / analog |
| Torque measurement | trend |



| | |
|------------|----------------|
| Ident. No. | |
| 2600000 | 230 V 50/60 Hz |
| 2600001 | 115 V 50/60 Hz |



Ident. No.
3460000 230 V 50/60 Hz
3460001 115 V 50/60 Hz



Ident. No.
3330000 230 V 50/60 Hz



EUROSTAR power control-visc 6000

High-performance digital laboratory stirrer for tasks up to “medium viscosity” range.
Same features as EUROSTAR power control-visc (page 39), additionally:

- Speed range up to 6.000 rpm
- Agitator shafts are not push-through
- Cone seat for precision shaft, incl. with delivery (stirring elements can be screw-connected, please order separately, see page 46)
- Analog output of speed and torque

Accessories (page):
Stands (120 / 121): R 2722, R 2723, R 271 Boss head clamp (122), RH 5 Strap clamp (122), R 301 Stirring shaft protection (46), R 1402 Dissolver (46), R 1405 Propeller (46), R 1401 Propeller (46), labworldsoft® (139)

EUROSTAR power control-visc P1

Powerful, digital laboratory stirrer for tasks up to “high viscosity” range.

- Constant speed due to microprocessor control
- Infinitely adjustable without gear shifting
- Slim casing
- Quiet operation
- Safety circuit
- Non-locking, overload capabilities
- Push-through agitator shafts
- Enhanced safety due to smooth start
- Digital display of rated- and actual speed
- Integrated torque trend display for viscosity control
- Analog interface for recording speed and torque
- RS 232 interface
- Software labworldsoft® is available to control and document all measuring values via PC

Accessories (page):
Stands (120 / 121): R 2722, R 2723, R 271 Boss head clamp (122), RH 5 Strap clamp (122), R 301 Stirring shaft protection (46), Stirring elements (44 / 46): e.g. R 1331, R 1312, labworldsoft® (139)

| Technical data | |
|---------------------------------------|-------------------|
| Stirring quantity (H ₂ O) | 20 l |
| Max. viscosity | 10.000 mPas |
| Motor rating input | 130 W |
| Motor rating output | 110 W |
| Output at stirring shaft | 95 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | 15 Ncm |
| Speed range | 150 – 6.000 rpm |
| Speed display | digital |
| Diameter / length of extension arm | 16 mm / 220 mm |
| General data | |
| Dimensions (W x D x H) | 80 x 190 x 317 mm |
| Weight | 4,8 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |
| Interface | RS 232 / analog |
| Torque measurement | trend |

| Technical data | |
|---------------------------------------|-------------------|
| Stirring quantity (H ₂ O) | 60 l |
| Max. viscosity | 70.000 mPas |
| Motor rating input | 153 W |
| Motor rating output | 134 W |
| Output at stirring shaft | 126 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | 100 Ncm |
| Speed range | 50 – 1.200 rpm |
| Speed display | digital |
| Chuck range | 0,5 – 10 mm |
| Hollow shaft, inner diameter | 11 mm |
| Diameter / length of extension arm | 16 mm / 200 mm |
| General data | |
| Dimensions (W x D x H) | 80 x 190 x 253 mm |
| Weight | 4 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |
| Interface | RS 232 / analog |
| Torque measurement | trend |

| EUROSTAR power control-visc P4 | |
|--------------------------------------|----------------|
| Transmission reduction | 4-fold |
| Stirring quantity (H ₂ O) | 40 l |
| Max. viscosity | 100.000 mPas |
| Motor rating input | 130 W |
| Motor rating output | 110 W |
| Output at stirring shaft | 95 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | 200 Ncm |
| Speed range | 14 – 530 rpm |
| Speed display | digital |
| Chuck range | 0,5 – 10 mm |
| Diameter / length of extension arm | 16 mm / 200 mm |

| General data | |
|---------------------------------------|-------------------|
| Dimensions (W x D x H) | 80 x 190 x 330 mm |
| Weight | 4,9 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |
| Interface | RS 232 / analog |
| Torque measurement | trend |

| EUROSTAR power control-visc P7 | |
|--------------------------------------|----------------|
| Transmission reduction | 7-fold |
| Stirring quantity (H ₂ O) | 40 l |
| Max. viscosity | 150.000 mPas |
| Motor rating input | 130 W |
| Motor rating output | 110 W |
| Output at stirring shaft | 95 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | 380 Ncm |
| Speed range | 8 – 290 rpm |
| Speed display | digital |
| Chuck range | 0,5 – 10 mm |
| Diameter / length of extension arm | 16 mm / 200 mm |

| General data | |
|---------------------------------------|-------------------|
| Dimensions (W x D x H) | 80 x 190 x 330 mm |
| Weight | 4,9 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |
| Interface | RS 232 / analog |
| Torque measurement | trend |

EUROSTAR power control-visc P4
EUROSTAR power control-visc P7

Powerful, digital laboratory stirrer for tasks up to “high viscosity” range.

- Constant speed due to microprocessor control
- Infinitely adjustable without gear shifting
- Slim casing
- Quiet operation
- Safety circuit
- Non-locking, overload capabilities
- Enhanced safety due to smooth start
- Digital display of rated- and actual speed
- Integrated torque trend display for viscosity control
- Analog interface for recording speed and torque
- RS 232 interface
- Software labworldsoft® is available to control and document all measuring values via PC

P4 with 4-fold transmission reduction and P7 with 7-fold transmission reduction; agitator shafts are not push-through.

Accessories (page):
Stands (120 / 121): R 2722, R 2723, R 271 Boss head clamp (122), RH 5 Strap clamp (122), R 301 Stirring shaft protection (46), Stirring elements (44 / 46): e.g. R 1331, R 1312, labworldsoft® (139)



EUROSTAR power c.-v. P4
Ident. No.
2850000 230 V 50/60 Hz
2850001 115 V 50/60 Hz

EUROSTAR power c.-v. P7
Ident. No.
2850700 230 V 50/60 Hz
2850701 115 V 50/60 Hz





| | |
|------------|----------------|
| Ident. No. | |
| 3593000 | 230 V 50/60 Hz |
| 3593001 | 115 V 50/60 Hz |

RW 20 digital

Overhead stirrer with digital display. Technical improvements on the trusted RW 20 series designs.

- With digital display
- Robust, slim line, ergonomic design
- With constant power-drive
- Two speed ranges for universal use from 60 - 2.000 rpm
- Push-through agitator shafts (only when stationary)

Accessories (page):
Stands (120): R 1822, R 1826, R 1827, R 182 Boss head clamp (122), FK 1 Flexible coupling (46), RH 3 Strap clamp (122), R 301 Stirring shaft protection (46), Stirring elements (44 / 45): e.g. R 1342, R 1381

| Technical data | |
|---------------------------------------|-------------------|
| Stirring quantity (H ₂ O) | 20 l |
| Max. viscosity | 10.000 mPas |
| Motor rating input | 70 W |
| Motor rating output | 35 W |
| Output at stirring shaft | 26 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | 150 Ncm |
| Speed range I (per 50 Hz) | 60 – 500 rpm |
| Speed range II (per 50 Hz) | 240 – 2.000 rpm |
| Speed display | digital |
| Chuck range | 0,5 – 10 mm |
| Diameter / length of extension arm | 13 mm / 160 mm |
| General data | |
| Dimensions (W x D x H) | 88 x 212 x 294 mm |
| Weight | 3,1 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 20 |



| | |
|------------|----------------|
| Ident. No. | |
| 2760000 | 230 V 50/60 Hz |
| 2760001 | 115 V 50/60 Hz |

RW 28 basic

Powerful, mechanically controlled stirrer. Suitable for quantities up to 80 l (H₂O) for use in laboratories and pilot plant stations.

- Two selectable speed ranges for high viscosity (range I) or intensive mixing (range II)
- Push-through agitator shafts

Accessories (page):
Stands (120 / 121): R 2722, R 2723, R 271 Boss head clamp (122), FK 1 Flexible coupling (46), RH 5 Strap clamp (122), R 301 Stirring shaft protection (46), R 301.1 Support holder (46), Stirring elements (44 / 45): e.g. R 1345, R 1300

| Technical data | |
|---------------------------------------|--------------------|
| Stirring quantity (H ₂ O) | 80 l |
| Max. viscosity | 50.000 mPas |
| Motor rating input | 220 W |
| Motor rating output | 90 W |
| Output at stirring shaft | 90 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | |
| per 60 rpm | 1.144 Ncm |
| per 100 rpm | 900 Ncm |
| per 1.000 rpm | 86 Ncm |
| Speed range I (per 50 Hz) | 60 – 400 rpm |
| Speed range II (per 50 Hz) | 240 – 1.400 rpm |
| Speed range I (per 60 Hz) | 72 – 480 rpm |
| Speed range II (per 60 Hz) | 288 – 1.680 rpm |
| Speed display | scale |
| Chuck range | 1 – 10 mm |
| Hollow shaft, inner diameter | 10,5 mm |
| Diameter / length of extension arm | 16 mm / 145 mm |
| General data | |
| Dimensions (W x D x H) | 123 x 252 x 364 mm |
| Weight | 7,4 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 42 |

| Technical data | |
|---------------------------------------|--------------------|
| Stirring quantity (H ₂ O) | 200 l |
| Max. viscosity | 100.000 mPas |
| Motor rating input | 513 W |
| Motor rating output | 370 W |
| Output at stirring shaft | 300 W |
| Max. ON-time | 100 % |
| Max. torque at chuck | |
| per 60 rpm | 4.642 Ncm |
| per 100 rpm | 3.000 Ncm |
| per 1.000 rpm | 285 Ncm |
| Speed range I (per 50 Hz) | 57 – 275 rpm |
| Speed range II (per 50 Hz) | 275 – 1.300 rpm |
| Speed range I (per 60 Hz) | 69 – 330 rpm |
| Speed range II (per 60 Hz) | 330 – 1.560 rpm |
| Speed display | scale |
| Chuck range | 3 – 16 mm |
| Hollow shaft, inner diameter | 13 mm |
| Fixing | flange |
| General data | |
| Dimensions (W x D x H) | 145 x 340 x 445 mm |
| Weight | 15 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 54 |

RW 47 D

The most powerful IKA® stirrer for laboratories, pilot plant stations and small-scale production.

- For stirring tasks up to 200 l (H₂O)
- Two speed ranges for highly viscous material and intensive mixing
- Cables with plugs not included in delivery

Accessories (page):
R 472 Floor stand (121), R 474 Telescopic stand (121), R 302 Stirring shaft protection (47), Stirring elements (44 / 45): e.g. R 2305, R 2311, SI 400 Safety switch (47), Fixing devices (47): SI 472, SI 474



| | |
|------------|-----------------|
| Ident. No. | |
| 1602000 | 3 x 400 V 50 Hz |
| 1602010 | 3 x 230 V 60 Hz |



Propeller stirrer, 4-bladed

Standard stirring element. For drawing the material to be mixed from the top to the bottom. Local shearing forces. Generates axial flow in the vessel. Used at medium to high speeds.

Propeller stirrer, 3-bladed

Flow-efficient design. For drawing the material to be mixed from the top to the bottom. Minimum shearing forces. Used at medium to high speeds.

Turbine stirrer

For drawing the material to be mixed from above. Generates axial flow in the vessel. Minimum danger of injury when contact is made with vessel. Minimum shearing forces. Used at medium to high speeds.

Dissolver stirrer

Radial flow, for drawing the material to be mixed from the top and the bottom. High turbulence, high shearing forces. Particle reduction. Used at medium to high speeds.

Centrifugal stirrer

Two-bladed, blades open with increasing speed. For stirring in round vessels with narrow necks. Effect is similar to that of a 4-bladed propeller stirrer. Medium to high speeds required.

Paddle stirrer

Tangential flow, minimum turbulence, good heat exchange, gentle treatment of product. Used at low to medium speeds.

Anchor stirrer

Tangential flow, high shearing rate at edges, minimum deposits on the vessel wall. Used at low speeds. Polymer reactions, even distribution of high mineral contents in liquids. The ideal stirrer for medium to highly viscous fluids.

| | Ident. No. | Stirrer Ø | Shaft Ø | Shaft length | Max. speed | RW 16 basic | EUROSTAR digital | EUROSTAR power basic / power control-visc / P1 | EUROSTAR power control-visc P4 / P7 | RW 20 digital | RW 28 basic | RW 47 D |
|-----------------------------|------------|-----------|---------|--------------|------------|-------------|------------------|--|-------------------------------------|---------------|-------------|---------|
| Propeller stirrer, 4-bladed | | | | | | | | | | | | |
| R 1342 | 0741000 | 50 mm | 8 mm | 350 mm | 2.000 rpm | • | • | • | • | • | | |
| R 1345 | 0741300 | 100 mm | 8 mm | 540 mm | 800 rpm | | | • | • | | • | • |
| R 2302 | 0739000 | 150 mm | 13 mm | 800 mm | 600 rpm | | | | | | | • |

| | | | | | | | | | | | | |
|-----------------------------|---------|--------|-------|--------|-----------|---|---|---|---|---|---|---|
| Propeller stirrer, 3-bladed | | | | | | | | | | | | |
| R 1381 | 1296000 | 45 mm | 8 mm | 350 mm | 2.000 rpm | • | • | • | • | • | | |
| R 1382 | 1295900 | 55 mm | 8 mm | 350 mm | 2.000 rpm | • | • | • | • | • | | |
| R 1385 | 0477700 | 140 mm | 10 mm | 550 mm | 800 rpm | | | | • | | • | • |
| R 1388 | 0477800 | 140 mm | 10 mm | 800 mm | 400 rpm | | | | • | | • | • |
| R 1389 (PTFE-coated) | 2343600 | 75 mm | 8 mm | 350 mm | 800 rpm | • | • | • | • | • | | |

| | | | | | | | | | | | | |
|-----------------|---------|-------|-------|--------|-----------|---|---|---|---|---|---|--|
| Turbine stirrer | | | | | | | | | | | | |
| R 1311 | 2332900 | 30 mm | 8 mm | 350 mm | 2.000 rpm | • | • | • | • | • | | |
| R 1312 | 2333000 | 50 mm | 8 mm | 350 mm | 2.000 rpm | • | • | • | • | • | | |
| R 1313 | 2333100 | 70 mm | 10 mm | 400 mm | 800 rpm | | | • | • | | • | |

| | | | | | | | | | | | | |
|-------------------|---------|--------|-------|--------|-----------|---|---|---|--|---|---|---|
| Dissolver stirrer | | | | | | | | | | | | |
| R 1300 | 0513500 | 80 mm | 8 mm | 350 mm | 2.000 rpm | | • | • | | • | • | |
| R 1302 | 2387900 | 100 mm | 10 mm | 350 mm | 1.000 rpm | | | • | | | • | • |
| R 1303 | 2746700 | 42 mm | 8 mm | 350 mm | 2.000 rpm | • | • | • | | • | | |

| | | | | | | | | | | | | |
|---------------------|---------|-------------|------|--------|-----------|---|---|---|--|---|---|---|
| Centrifugal stirrer | | | | | | | | | | | | |
| R 1352 | 0756900 | 60 / 15 mm | 8 mm | 350 mm | 2.000 rpm | • | • | • | | • | | |
| R 1355 | 1132700 | 100 / 24 mm | 8 mm | 550 mm | 800 rpm | | | • | | | • | • |

| | | | | | | | | | | | | |
|----------------|---------|--------|-------|--------|---------|--|--|---|---|--|---|---|
| Paddle stirrer | | | | | | | | | | | | |
| R 1375 | 0757700 | 70 mm | 8 mm | 550 mm | 800 rpm | | | • | • | | • | |
| R 1376 | 0757800 | 150 mm | 10 mm | 550 mm | 800 rpm | | | | • | | • | • |
| R 2311 | 0739500 | 150 mm | 13 mm | 800 mm | 600 rpm | | | | | | | • |

| | | | | | | | | | | | | |
|----------------|---------|--------|-------|--------|-----------|---|---|---|---|---|---|---|
| Anchor stirrer | | | | | | | | | | | | |
| R 1330 | 2022300 | 45 mm | 8 mm | 350 mm | 1.000 rpm | • | • | • | • | • | | |
| R 1331 | 2022400 | 90 mm | 8 mm | 350 mm | 1.000 rpm | | | • | • | | • | |
| R 1333 | 2747400 | 150 mm | 10 mm | 550 mm | 800 rpm | | | | • | | • | • |

Note: Recommended stirring elements are marked with a dot.



Ident. No.
0527400

R 1001 Paddle stirrer

Spare for use with RW 11 basic.



Ident. No.
0527500

R 1002 Screw-type stirrer

For use with RW 11 basic.



| | |
|------------|--------|
| Ident. No. | |
| 1242900 | R 1401 |
| 1243300 | R 1402 |
| 1289800 | R 1405 |

R 1401 Propeller

R 1402 Dissolver

R 1405 Propeller

For use with EUROSTAR power control-visc 6000.



Ident. No.
2336000

FK 1 Flexible coupling

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



Ident. No.
2603000

R 301 Stirring shaft protection

Prevents potential injuries at the rotating shafts and stirring elements. Can be directly attached to the stirring motors RW 16 basic, RW 20 digital and the EUROSTAR series.



Ident. No.
2604000

R 301.1 Support holder

For fixing the stirring shaft protection R 301 to the stand.

Accessories (page):
Boss head clamp (122): R 182, R 270

| General data | |
|--------------|--------|
| Shaft length | 160 mm |
| Shaft Ø | 4 mm |
| Stirrer Ø | 34 mm |

| General data | |
|--------------|--------|
| Shaft length | 140 mm |
| Shaft Ø | 4 mm |
| Stirrer Ø | 12 mm |

| R 1401 Propeller | |
|------------------|-------------|
| Working range | 1 – 30 l |
| Rotor diameter | 55 mm |
| R 1402 Dissolver | |
| Working range | 1 – 30 l |
| Rotor diameter | 42 mm |
| R 1405 Propeller | |
| Working range | 0,25 – 30 l |
| Rotor diameter | 45 mm |

| General data | |
|----------------|-----------|
| Clamping range | 6 – 10 mm |
| Max. torque | 10 Ncm |

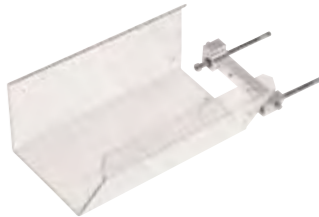
| General data | |
|-------------------|--------------|
| Length adjustment | 190 – 310 mm |
| Material | plexiglass |

| General data | |
|------------------------|--------|
| Length | 275 mm |
| Diameter extension arm | 13 mm |

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 139 x 99 x 250 mm |
| Material | macrolon |

R 302 Stirring shaft protection

Prevents potential injuries due to the rotating shafts and stirring elements. Can be directly attached to the stirrer RW 47 D.



Ident. No.
2953800

| General data | |
|---------------------------------------|---------------------------|
| Dimensions end switch (W x D x H) | 84 x 19 x 16 mm |
| Dimensions switch contact (W x D x H) | 73 x 10 x 19 mm |
| Contact | 1 normally closed contact |
| Casing material | plastic (ABS) |
| Protection class | IP 67 |
| Operating temperature | - 10 – 65 °C |
| Voltage / current | max. 250 VAC / 2A |

SI 400 Safety switch

The SI 400 consists of an end switch (normally closed contact / switch) and a magnetic switch contact (actuator) which is mounted on the floor stand R 472 with the fixing device SI 472 and on the telescopic stand R 474 with the fixing device SI 474. The stirring unit RW 47 can only be switched on through the SI 400, when the agitator is adjusted in the mixing vessel to the user designated height. The power of the RW 47 automatically shuts off if the stirring unit is lifted off the designated height. Also suitable for dispersing instrument T 65 D ULTRA-TURRAX®.

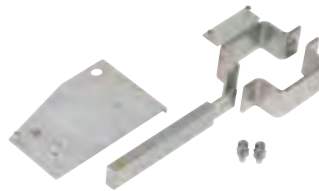
Accessories (page):
Fixing devices (47): SI 472, SI 474



Ident. No.
3294800

SI 472 Fixing device

To attach the safety switch SI 400 to the floor stand R 472.



Ident. No.
3264000

SI 474 Fixing device

To attach the safety switch SI 400 to the telescopic stand R 474 and to the telescopic stand T 653 (for T 65 D ULTRA-TURRAX®).



Ident. No.
3264400



KS 4000 i control
New, innovative incubator shaker design allowing unattended operation.

| Technical data | | |
|--|-------------------|---|
| Shaking movement | orbital | |
| Orbital diameter | 4,5 mm | |
| Max. permitted shaking weight (incl. attachment) | 0,5 kg | |
| Motor rating input | 10 W | |
| Motor rating output | 8 W | |
| Permissible ON time | 100 % | |
| Infinitely adjustable speed range | 0 – 3.000 rpm | |
| Speed display | scale | |
| Timer | MS 3 basic | no |
| | MS 3 digital | yes |
| Time setting | MS 3 basic | – |
| | MS 3 digital | 1 s – 999 min |
| Operating mode | MS 3 basic | Continuous / touch operation |
| | MS 3 digital | Timer and continous mode, touch operation |
| General data | | |
| Dimensions (W x D x H) | 148 x 205 x 63 mm | |
| Weight | 2,9 kg | |
| Permissible ambient temperature | 5 – 40 °C | |
| Permissible relative humidity | 80 % | |
| Protection class acc. to DIN EN 60529 | IP 21 | |

| Technical data | |
|---------------------------------------|--------------|
| Shaking movement | orbital |
| Orbital diameter | 4,5 mm |
| Shaken quantity (1 test tube) | max. 50 ml |
| Motor rating input | 1,2 W |
| Motor rating output | 0,8 W |
| Speed (fixed) | 2.800 rpm |
| General data | |
| Material casing | PP |
| Material attachment | TPU |
| Material bottom | zinc, coated |
| Dimensions (Ø x H) | 100 x 70 mm |
| Weight | 0,55 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 40 |

MS 3 basic
MS 3 digital

Compact, universal small shaker suitable for shaking small vessels and microtiter plates

- Wide range of attachments
- Attachment detection
- Continuous or touch operation (with standard attachment)
- Two operating modes:
Mode A (safe mode with attachment detection)
The maximum speed of 3.000 rpm is only reached with the standard attachment in touch mode. When using other attachments the speed is limited to 1.300 rpm.
Mode B (without attachment detection)
A speed of 3.000 rpm is possible with all attachments.
- Stable in all speed ranges
- Sturdy zinc die cast casing

MS 3 digital additionally:
Timer with countdown function

Accessories (page):
Attachments (56): MS 1.31, MS 1.32, MS 1.33, MS 3.5

Included with delivery (page):
MS 3.1 Standard attachment (56), MS 3.3 Universal attachment (56), MS 1.21 One-hand insert (56), MS 3 digital complete with MS 3.4 Microtiter attachment and MS 1.32 Test tube insert (56)



MS 3 basic
Ident. No.
3617000 100 – 240 V 50/60 Hz
3617001 100 – 240 V 50/60 Hz



MS 3 digital
Ident. No.
3319000 100 – 240 V 50/60 Hz
3319001 100 – 240 V 50/60 Hz

lab dancer

Economic, compact test tube shaker with touch function. Its compact and clever design makes it an indispensable tool for every laboratory.

- Can be used with all small vessels of up to 30 mm in diameter, e.g. test tubes, centrifuge tubes, Eppendorf vessels
- Excellent mixing action
- The upper casing and the test tube surface are made from inert plastic
- Secure stand due to coated zinc die cast base
- Incl. light 12 V power pack set



Ident. No.
3365000 100 – 240 V 50/60 Hz



| | |
|------------|----------------|
| Ident. No. | |
| 3340000 | 230 V 50/60 Hz |
| 3340001 | 115 V 50/60 Hz |

VORTEX Genius 3

- Vortex shaker suitable for short-time operation (touch function), activated through pressing shaker attachment or continuous operation.
- Wide speed range, infinitely adjustable
 - Different applications due to 3 interchangeable attachments and 7 inserts (e.g. Eppendorf tubes, microtiter plates, Erlenmeyer flasks 250 ml etc.), please order separately
 - Attachments securely click onto appliance in any position
 - Special strap (VG 3.36, page 57) ensures easy handling of round/Erlenmeyer flasks
 - Sturdy metal zinc die cast casing
 - Compact design
 - Short-time operation activated by pressing attachment (touch function)
 - Stable at high speeds due to special feet (silicon base with ultra high vibration damping)
 - Eccentric with ball bearings
 - Suitable for continuous operation with low self heating due to self ventilation of motor

Accessories (page):
Attachments (57): VG 3.1, VG 3.2, VG 3.3
Inserts (57): VG 3.31, VG 3.32, VG 3.33, VG 3.34, VG 3.35, VG 3.36, VG 3.37

| Technical data | |
|---------------------------------------|--------------------|
| Shaking movement | orbital |
| Orbital diameter | 4 mm |
| Max. shaking weight | 0,4 kg |
| Motor rating input | 58 W |
| Motor rating output | 10 W |
| Permissible ON time | 100 % |
| Infinitely adjustable speed range | 500 – 2.500 rpm |
| Speed display | scale 0 – 6 |
| Speed setting | knob, front |
| General data | |
| Dimensions (W x D x H) | 127 x 149 x 136 mm |
| Weight | 4,5 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |

| Technical data | |
|---------------------------------------|--------------------|
| Shaking movement | orbital |
| Orbital diameter | 4 mm |
| Max. shaking weight (with attachment) | 2 kg |
| Motor rating input | 35 W |
| Motor rating output | 13,2 W |
| Permissible ON time | 100 % |
| Speed range | 0 – 2.200 rpm |
| Speed display | scale |
| General data | |
| Dimensions (W x D x H) | 157 x 247 x 130 mm |
| Weight (without attachment) | 6,1 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |



| | |
|------------|----------------|
| Ident. No. | |
| 2819000 | 230 V 50/60 Hz |
| 2819001 | 115 V 50/60 Hz |

VXR basic Vibrax®

- Opto-electronically controlled small shaker with a very wide speed range.
- Suitable for continuous operation
 - New design and improved drive system
 - Circular shaking motions
 - Slow speeds are well maintained
 - Attachments are interchangeable

Accessories (page):
Attachments (58 / 59): VX 1, VX 2, VX 2E, VX 7, VX 8, VX 8.1, VX 11, VX 11.1, VX 11.2, VX 11.3, VX 11.4

| Technical data | |
|---------------------------------------|--------------------------|
| Shaking movement | orbital |
| Orbital diameter | 3 mm |
| Max. shaking weight | 2 or 4 microtiter plates |
| Motor rating input | 35 W |
| Motor rating output | 13,2 W |
| Permissible ON time | 100 % |
| Speed range | 0 – 1.100 rpm |
| Speed display | scale |
| Timer | ∞ / 1 – 99 min |
| Timer display | digital |
| General data | |
| Dimensions (W x D x H) | 185 x 320 x 105 mm |
| Weight | 2,7 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |

| Technical data | |
|---------------------------------------|-----------------------------------|
| Shaking movement | orbital |
| Orbital diameter | 4 mm |
| Max. shaking weight (with attachment) | 2 kg |
| Motor rating input | 45 W |
| Motor rating output | 10 W |
| Permissible ON time | 100 % |
| Speed range | 80 – 800 rpm |
| Speed display | LED line |
| | KS 130 control digital |
| Timer | KS 130 basic ∞ / 5 – 50 min |
| | KS 130 control ∞ / 0 – 9 h 59 min |
| General data | |
| Dimensions (W x D x H) | 270 x 316 x 98 mm |
| Weight | KS 130 basic 8,8 kg |
| | KS 130 control 9,8 kg |
| Permissible ambient temperature | 5 – 50 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |
| Interfacetrol | KS 130 control RS 232 / analog |

MTS 2/4 digital Microtiter shaker

- Special shaker for shaking two or four microtiter plates.
- Electronic speed control
 - Digital timer
 - Alarm to indicate set time has expired
 - Incl. attachment (without microtiter plate)



| | |
|------------|----------------|
| Ident. No. | |
| 3208000 | 230 V 50/60 Hz |
| 3208001 | 115 V 50/60 Hz |

KS 130 basic

KS 130 control

- Small, quiet shaker ensures long life with ideal swivel motion, for a maximum shaking weight of 2 kg.
- Electronic adjustment of speed and timer
 - LED display for speed and time adjustment
 - Wide range of attachment combinations allows for using almost all shapes and sizes of vessels
 - Attachments are not included, please order separately

- KS 130 control additionally with:**
- A digital display allows for reading the speed, timer function and operating modes
 - Electronic time switching clock: 0 - 9 h 59 min or continuous operation (∞)
 - With integrated end point positioning (for automated robot-controlled sampling)
 - All functions can be controlled and documented with labworldsoft®
 - Special version with reverse rotating direction available upon request

Accessories (page):
Attachments (60): AS 130.1, AS 130.2, AS 130.3, AS 130.4, STICKMAX (62)
KS 130 control additionally:
labworldsoft® (139), PC 1.5 Cable (143)



| | |
|--------------|----------------|
| KS 130 basic | |
| Ident. No. | |
| 2980000 | 230 V 50/60 Hz |
| 2980001 | 115 V 50/60 Hz |



| | |
|----------------|----------------|
| KS 130 control | |
| Ident. No. | |
| 2980100 | 230 V 50/60 Hz |
| 2980101 | 115 V 50/60 Hz |



KS 260 basic
Ident. No.
2980200 230 V 50/60 Hz
2980201 115 V 50/60 Hz



KS 260 control
Ident. No.
2980300 230 V 50/60 Hz
2980301 115 V 50/60 Hz



KS 260 basic
KS 260 control

Compact, flat shaker with optimal swivel motion, for a maximum shaking weight of 7,5 kg.

- Electronic adjustment of speed and timer
- LED display for speed and time adjustment
- Wide range of attachment combinations allows for using almost all shapes and sizes of vessels
- Attachments are not included, please order separately

KS 260 control additionally with:

- Digital display allows for reading the speed, timer function and operating modes
- Electronic time switching clock: 0 - 9 h 59 min or continuous operation
- With integrated end point positioning (for automated robot-controlled sampling)
- All functions can be controlled and documented with labworldsoft®
- Special version with reverse rotating direction available upon request

Accessories (page):

Attachments (60 / 61): AS 260.1, AS 260.2, AS 260.3, STICKMAX (62)
KS 260 control additionally:
labworldsoft® (139), PC 1.5 Cable (143)

KS 501 digital

Low profile laboratory shaker with a pleasant design, large mounting surface and load capacity of up to 15 kg.

- Infinitely variable speed control of 0 - 300 rpm
- Digital display
- Ideal for vessels with a volume of more than 250 ml, e.g. round flasks, Erlenmeyer flasks, culture flasks and culture bottles
- Guaranteed continuous operation (∞) even under extreme loads
- Incl. timer
- Attachments are not included, please order separately

Accessories (page):

Attachments (61 / 62): AS 501.1, AS 501.4, AS 501.5, STICKMAX (62)



Ident. No.
2526400 230 V 50/60 Hz
2526401 115 V 50/60 Hz

| Technical data | | | |
|---------------------------------------|----------------|--------------------|--|
| Shaking movement | | orbital | |
| Orbital diameter | | 10 mm | |
| Max. shaking weight (with attachment) | | 7,5 kg | |
| Motor rating input | | 45 W | |
| Motor rating output | | 10 W | |
| Permissible ON time | | 100 % | |
| Infinitely adjustable speed range | | | |
| | KS 260 basic | 20 – 500 rpm | |
| | KS 260 control | 10 – 500 rpm | |
| Speed display | KS 260 basic | LED line | |
| | KS 260 control | digital | |
| Timer | KS 260 basic | ∞ / 5 – 50 min | |
| | KS 260 control | ∞ / 0 - 9 h 59 min | |
| Timer display | KS 260 control | digital | |
| General data | | | |
| Dimensions (W x D x H) | | 360 x 420 x 98 mm | |
| Weight | KS 260 basic | 8,5 kg | |
| | KS 260 control | 8,8 kg | |
| Permissible ambient temperature | | 5 – 50 °C | |
| Permissible relative humidity | | 80 % | |
| Protection class acc. to DIN EN 60529 | | IP 21 | |
| Interface | KS 260 control | RS 232 / analog | |

| Technical data | |
|---------------------------------------|--------------------|
| Shaking movement | orbital |
| Orbital diameter | 30 mm |
| Max. shaking weight (with attachment) | 15 kg |
| Motor rating input | 70 W |
| Motor rating output | 19 W |
| Permissible ON time | 100 % |
| Infinitely adjustable speed range | 0 – 300 rpm |
| Speed display | digital |
| Timer | ∞ / 1 – 56 min |
| General data | |
| Dimensions (W x D x H) | 505 x 585 x 120 mm |
| Weight | 26 kg |
| Permissible ambient temperature | 5 – 50 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |

| Technical data | | |
|---------------------------------------|----------------|--------------------|
| Shaking movement | | reciprocating |
| Orbital diameter | | 20 mm |
| Max. shaking weight (with attachment) | | 7,5 kg |
| Motor rating input | | 45 W |
| Motor rating output | | 10 W |
| Permissible ON time | | 100 % |
| Infinitely adjustable speed range | | |
| | HS 260 basic | 20 – 300 rpm |
| | HS 260 control | 10 – 300 rpm |
| Speed display | HS 260 basic | LED line |
| | HS 260 control | digital |
| Timer | HS 260 basic | ∞ / 5 – 50 min |
| | HS 260 control | ∞ / 0 - 9 h 59 min |
| Timer display | HS 260 control | digital |
| General data | | |
| Dimensions (W x D x H) | | 360 x 420 x 100 mm |
| Weight | HS 260 basic | 8,5 kg |
| | HS 260 control | 8,8 kg |
| Permissible ambient temperature | | 5 – 50 °C |
| Permissible relative humidity | | 80 % |
| Protection class acc. to DIN EN 60529 | | IP 21 |
| Interface | HS 260 control | RS 232 / analog |

HS 260 basic
HS 260 control

Compact, flat shaker with optimal swivel motion, for a maximum shaking weight of 7,5 kg.

- Electronic adjustment of speed and timer
- LED display for speed and time adjustment
- Wide range of attachment combinations allows for using almost all shapes and sizes of vessels
- Attachments are not included in delivery, please order separately

HS 260 control additionally:

- Digital display allows for reading the speed, timer function and operating mode
- Electronic time switching clock: 0 - 9 h 59 min or continuous operation
- With integrated endpoint positioning (for automated robot-controlled sampling)
- All functions can be controlled and documented with labworldsoft® software

Accessories (page):

Attachments (60 / 61): AS 260.1, AS 260.2, AS 260.3, AS 260.5, STICKMAX (62)
HS 260 control additionally:
labworldsoft® (139), PC 1.5 Cable (143)



HS 260 basic
Ident. No.
3066600 230 V 50/60 Hz
3066601 115 V 50/60 Hz



HS 260 control
Ident. No.
3066700 230 V 50/60 Hz
3066701 115 V 50/60 Hz



HS 501 digital

Low profile laboratory shaker with a pleasant design, large mounting surface and load capacity of up to 15 kg.

- Infinitely variable speed control of 0 - 300 rpm
- Digital display
- Ideal for all lying vessels, e.g. separating funnels
- Guaranteed continuous operation even under extreme loads
- Includes timer
- Attachments are not included in delivery, please order separately

Accessories (page):

Attachments (61 / 62): AS 501.1, AS 501.2, AS 501.3, AS 501.4, AS 501.5, AS 501.6, STICKMAX (62)



Ident. No.
2527000 230 V 50/60 Hz
2527001 115 V 50/60 Hz



KS 4000 i control
Ident. No.
3510000 220 – 240 V 50/60 Hz
3510001 110 – 120 V 50/60 Hz



KS 4000 ic control with built-in cooling coil

KS 4000 ic control
Ident. No.
3510100 220 – 240 V 50/60 Hz
3510101 110 – 120 V 50/60 Hz



included with unit
Ident. No. 3516800

KS 4000 i control
KS 4000 ic control

New incubator shaker with innovative design allowing unattended operation in a temperature-controlled environment.

KS 4000 ic control with built in cooling coil for connecting an external cooling unit e.g. KV 600.

- Large LED display for speed and time settings
- Controls with antimicrobial coating for reduction of bacteria
- Integrated PID temperature control (use of two PT 1000 temperature sensors)
- Junction box in the workspace for connection of an additional temperature sensor e.g. PT 1000.60 (incl. with delivery)
- Electronic temperature and speed control
- Electronic timer switch: ∞ / 1 s - 999 h (set by the minute or by the hour)
- Unit switches off automatically if unstable
- Unit stops automatically when hood is lifted
- Collecting tray with drain hose on rear of unit
- Simple operation
- All functions can be controlled and documented using the labworldsoft® software
- Attachments not included – please order accessories as needed

Accessories (page):
AS 4000.1 Universal attachment (55), AS 4000.2 Fixing clip attachment (55), AS 4000.3 Dish attachment (55), STICKMAX (62)

| Technical data | | |
|---|------------|---------------------|
| Shaking movement | | orbital |
| Orbital diameter | | 20 mm |
| Max. shaker weight (with attachment) | | 20 kg |
| Motor rating input | | 82 W |
| Motor rating output | | 24 W |
| Power consumption (at 230 V) | | 1.120 W |
| Permissible ON time | | 100 % |
| Speed range | | 10 – 500 rpm |
| Heater power | | 1.000 W |
| Temperature range | | RT + 5 °C to 80 °C |
| Temperature stability | | 0,1 K |
| (200 ml H ₂ O at target T = 37 °C, RT 25 °C) | | |
| Timer switch | | ∞ / 1 s - 999 h |
| (select minutes/hours) | | |
| Speed, time and temperature display | | digital |
| Additional cooling function for KS 4000 ic control | | |
| Cooling coil | | built in |
| Temperature range | | RT - 10 °C to 80 °C |
| at flow temperature (3 °C) KV 600 | | |
| Cooling connection for hose | | Ø 10 mm |
| Adapter nipple for hose connection | | yes |
| General data | | |
| Dimensions (W x H x D) | | 580 x 750 x 525 mm |
| Space required (W x D) | | 600 x 600 mm |
| Weight | KS 4000 i | 50 kg |
| | KS 4000 ic | 55 kg |
| Permissible ambient temperature | | 15 – 32 °C |
| Permissible relative humidity | | 80 % |
| Protection class acc. to DIN EN 60529 | | IP 30 |
| Interface | | RS 232 |

| General data | |
|------------------------|--------------------|
| Dimensions (W x D x H) | 470 x 447 x 135 mm |
| Set-up plate | 380 x 410 mm |
| Weight | 3.200 g |

| General data | |
|---------------------------------|-----------------------|
| Dimensions (W x D x H) | 470 x 444 x 25 mm |
| Number of fixing clips (volume) | 50 x AS 2.1 (25 ml) |
| | 48 x AS 2.2 (50 ml) |
| | 25 x AS 2.3 (100 ml) |
| | 16 x AS 2.4 (250 ml) |
| | 12 x AS 2.5 (500 ml) |
| | 7 x AS 2.6 (1.000 ml) |
| Set-up plate | 430 x 430 mm |
| Weight | 2.650 g |

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 470 x 444 x 25 mm |
| Set-up plate | 430 x 430 mm |
| Weight | 800 g |

| General data | |
|------------------------|--------------------|
| Dimensions (W x D x H) | 446 x 447 x 135 mm |

| General data | |
|--------------|--------|
| Length | 417 mm |

AS 4000.1 Universal attachment

For various types of vessels. Infinitely variable clamping rolls allow universal adaptation to the vessels.

Included with delivery:
1 x Basic holder, 6 x Clamping roll, 12 x Fastening screw

AS 4000.2 Fixing clip attachment

For shaking flasks, Erlenmeyer flasks and bottles with a round crosssection (without fixing clips).

Accessories (page):
Fixing clips (65): AS 2.1, AS 2.2, AS 2.3, AS 2.4, AS 2.5

AS 4000.3 Dish attachment

For smooth shaking operations in the low viscosity range, e.g. for cell cultures, nutrient media in Petri dishes, culture bottles and vessels with a low center of gravity. With integrated slip-resistant foil (PP).

AS 1.400 Basic holder

Spare for use with universal attachment AS 4000.1.

Accessories (page):
AS 1.401 Clamping roll (55), AS 1.402 Fastening screw (55)

AS 1.401 Clamping roll

Spare for use with universal attachment AS 4000.1.

AS 1.402 Fastening screw

Spare for use with universal attachment AS 4000.1. Two AS 1.402 fastening screws are required for fastening a clamping roll onto the corresponding basic holder.



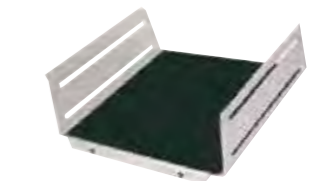
Ident. No.
8022200



Ident. No.
3710100



Ident. No.
3710000



Ident. No.
3710200



Ident. No.
3712000



Ident. No.
3712300



Ident. No.
3426300

MS 3.1 Standard attachment

For test tubes and small vessels up to Ø 50 mm, included with the minishakers MS 3 basic and MS 3 digital.



Ident. No.
3426600

MS 3.3 Universal attachment

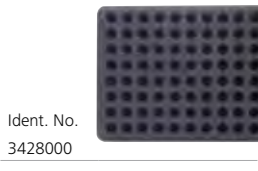
For various foam inserts, included with the minishakers MS 3 basic and MS 3 digital.



Ident. No.
3426400

MS 3.4 Microtiter plate attachment

For use with a microtiter plate, included with the minishaker MS 3 digital.



Ident. No.
3428000

MS 3.5 PCR plate attachment

For holding PCR plates, 96-well.



Ident. No.
L001540

MS 1.21 One-hand insert

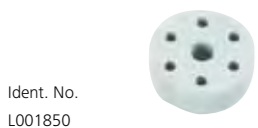
For inserting into the universal attachment, included with the minishakers MS 3 basic and MS 3 digital.



Ident. No.
L001840

MS 1.31 Test tube insert

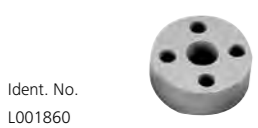
For inserting into universal attachment, for 14 test tubes Ø 10 mm, material: ethylvinyl-acetate.



Ident. No.
L001850

MS 1.32 Test tube insert

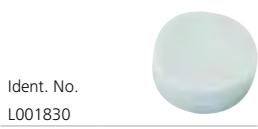
For inserting into the universal attachment, for 6 test tubes Ø 12 mm. Material: ethylvinyl-acetate. Included with the minishakers MS 3 digital.



Ident. No.
L001860

MS 1.33 Test tube insert

For inserting into the universal attachment, for 4 test tubes Ø 16 mm. Material: ethylvinyl-acetate.



Ident. No.
L001830

MS 1.34 Test tube insert

For inserting into the universal attachment, for any number of bore holes. Material: ethylvinyl-acetate.

VG 3.1 Standard attachment

Standard attachment for reagent glasses / small vessels (continuous / touch operation), included with delivery.



Ident. No.
3341200

VG 3.2 One-hand attachment

One-hand attachment, 88 mm, round, with rubber insert (continuous / touch operation).



Ident. No.
3342300

VG 3.3 Universal attachment

Universal attachment, 150 mm, with rubber insert (continuous operation).



Ident. No.
3342400

VG 3.31 Test tube attachment*

For 54 Eppendorf tubes (continuous operation).



Ident. No.
3344300

VG 3.32 Test tube attachment*

For 18 reagent glasses, 10 mm (continuous operation).



Ident. No.
3343900

VG 3.33 Test tube attachment*

For 12 reagent glasses, 12 mm (continuous operation).



Ident. No.
3344000

VG 3.34 Test tube attachment*

For 8 reagent glasses, 16 mm (continuous operation).



Ident. No.
3344100

VG 3.35 Test tube attachment*

For 8 reagent glasses, 20 mm (continuous operation).



Ident. No.
3344200

VG 3.36 Erlenmeyer flask attachment*

For 1 Erlenmeyer / round flask from 100 to 250 ml (continuous operation).



Ident. No.
3342100

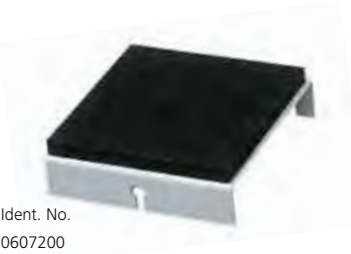
VG 3.37 Microtiter plate attachment*

For 1 standard microtiter plate (continuous operation).



Ident. No.
3344400

* for VG 3.3 Universal attachment



Ident. No.
0607200

VX 1 One-hand attachment

For shaking single, non-fixed vessels of 1 - 250 ml.

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 130 x 135 x 40 mm |
| Weight | 160 g |



Ident. No.
0568900

VX 2 Test tube attachment

For up to 36 test tubes or centrifugal tubes with a diameter of 16 mm.

| General data | |
|------------------------|--------------------|
| Dimensions (W x D x H) | 140 x 145 x 115 mm |
| Material | macrolon |
| Weight | 300 g |



Ident. No.
1618100

VX 2E "Eppendorf" attachment

For intensive mixing of up to 64 "Eppendorf" tubes (1,5 ml).

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 210 x 210 x 65 mm |
| Weight | 790 g |

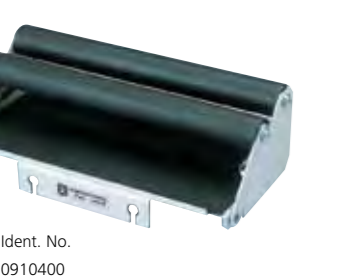


Ident. No.
0953300

VX 7 Dish attachment

For careful mixing of culture bottles, Petri dishes, etc.

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 410 x 210 x 40 mm |
| Weight | 740 g |



Ident. No.
0910400

VX 8 Universal attachment

For rapid and secure clamping, e.g. 2 Erlenmeyer flasks up to 500 ml.

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 265 x 136 x 60 mm |
| Clamping range | 25 – 135 mm |
| Min. height of vessel | 80 mm |
| Weight | 760 g |



Ident. No.
3375400

VX 8.1 Clamping roll

Spare for use with VX 8 universal attachment.



Ident. No.
3627700

VX 11 Basic holder

Attachment for test tube inserts.



Ident. No.
3659000

VX 11.1 Test tube insert

Attachment for Eppendorf tubes or test tubes.

| General data | |
|---------------------|-------|
| Bore holes (number) | 70 |
| Hole Ø | 10 mm |



Ident. No.
3659100

VX 11.2 Test tube insert

Attachment for test tubes.

| General data | |
|---------------------|-------|
| Bore holes (number) | 41 |
| Hole Ø | 12 mm |



Ident. No.
3659200

VX 11.3 Test tube insert

Attachment for test tubes.

| General data | |
|---------------------|-------|
| Bore holes (number) | 32 |
| Hole Ø | 16 mm |

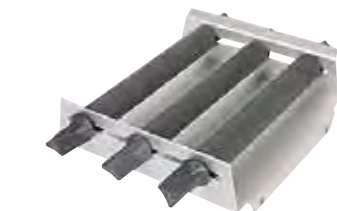


Ident. No.
3659300

VX 11.4 Test tube insert

Attachment for test tubes.

| General data | |
|---------------------|-------|
| Bore holes (number) | 18 |
| Hole Ø | 20 mm |



Ident. No.
8017300

AS 130.1 Universal attachment

For use with various types of vessels by means of universal, infinitely variable clamping rolls.

Included with delivery (page):
1 x AS 1.30 Basic holder (63),
3 x AS 1.31 Clamping roll (63),
6 x AS 1.5 Fastening screw (64)

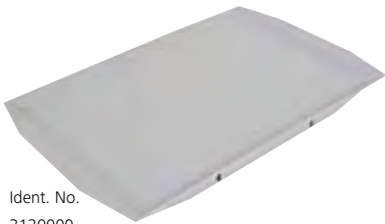


Ident. No.
3115000

AS 130.2 Fixing clip attachment

For processing round flasks, measuring flasks and Erlenmeyer flasks. Please order fixing clips separately.

Accessories (page):
Fixing clips (65): AS 2.1, AS 2.2, AS 2.3,
AS 2.4, AS 2.5



Ident. No.
3120000

AS 130.3 Dish attachment

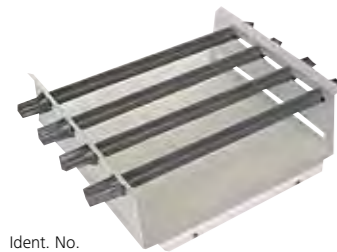
For smooth shaking operations in the low viscosity range, e.g. Petri dishes or culture bottles. With integrated slip-resistant foil (PP).



Ident. No.
3120300

AS 130.4 Test tube attachment

For intensive shaking, e.g. small tubes, test tubes, cuvettes, centrifuge tubes.



Ident. No.
8017400

AS 260.1 Universal attachment

For various types of vessels. Infinitely variable clamping rolls allow universal adaptation to the vessels.

Included with delivery (page):
1 x AS 1.60 Basic holder (63),
4 x AS 1.61 Clamping roll (63),
8 x AS 1.5 Fastening screw (64)

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 325 x 234 x 88 mm |
| Set-up plate | 220 x 220 mm |
| Weight | 850 g |

| General data | |
|---------------------------------|--|
| Dimensions (W x D x H) | 230 x 230 x 24 mm |
| Number of fixing clips (volume) | 20 x AS 2.1 (25 ml) 12 x AS 2.2 (50 ml) 12 x AS 2.3 (100 ml) 4 x AS 2.4 (250 ml) 4 x AS 2.5 (500 ml) |
| Weight | 650 g |

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 420 x 270 x 32 mm |
| Set-up plate | 220 x 340 mm |
| Weight | 370 g |

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 220 x 230 x 95 mm |
| Capacity | 64 |
| Vessel Ø | 10 – 16 mm |
| Min. height of vessel | 80 mm |
| Weight | 670 g |

| General data | |
|------------------------|--------------------|
| Dimensions (W x D x H) | 425 x 335 x 135 mm |
| Set-up plate | 320 x 320 mm |
| Weight | 1.600 g |

| General data | |
|---------------------------------|--|
| Dimensions (W x D x H) | 330 x 330 x 24 mm |
| Number of fixing clips (volume) | 56 x AS 2.1 (25 ml) 23 x AS 2.2 (50 ml) 23 x AS 2.3 (100 ml) 11 x AS 2.4 (250 ml) 9 x AS 2.5 (500 ml) 5 x AS 2.6 (1.000 ml) |
| Weight | 1.290 g |

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 410 x 370 x 32 mm |
| Set-up plate | 320 x 320 mm |
| Weight | 460 g |

| General data | |
|--|---|
| Dimensions (W x D x H) | 334 x 425 x 145 mm |
| Capacity: (number of separating funnels per volume, pear-shaped) | 6 x 50 ml 5 x 100 ml 3 x 250 ml 3 x 500 ml |
| Weight | 1.550 g |

| General data | |
|------------------------|--------------------|
| Dimensions (W x D x H) | 480 x 500 x 120 mm |
| Set-up plate | 420 x 420 mm |
| Weight | 4.000 g |

| General data | |
|---------------------------------|--|
| Dimensions (W x D x H) | 475 x 460 x 95 mm |
| Number of fixing clips (volume) | 110 x AS 2.1 (25 ml) 55 x AS 2.2 (50 ml) 35 x AS 2.3 (100 ml) 16 x AS 2.4 (250 ml) 12 x AS 2.5 (500 ml) 8 x AS 2.6 (1.000 ml) |
| Weight | 2.640 g |

AS 260.2 Fixing clip attachment

For shaking flasks, Erlenmeyer flasks and bottles with a round crosssection (without fixing clips).

Accessories (page):
Fixing clips (65): AS 2.1, AS 2.2, AS 2.3, AS 2.4, AS 2.5

AS 260.3 Dish attachment

For smooth movement for cell cultures, nutrient media in Petri dishes, culture bottles and vessels with a low center of gravity. With integrated slip-resistant foil (PP).

AS 260.5 Separating funnel attachment

For shaking out, salting out, extracting, eluting, enriching. The 3 clamping rolls (included in delivery) are height-adjustable for adaption to different separating funnel sizes. The separating funnels are secured with O-rings (6 O-rings included).

AS 501.1 Universal attachment

For various types of vessels with a minimum volume of 50 ml. Ideally more than 250 ml. The clamping rolls may be adjusted to two levels.

Included with delivery (page):
1 x AS 1.10 Basic holder (63), 6 x AS 1.11 Clamping roll (63), 12 x AS 1.6 Fastening screw (64)

AS 501.4 Fixing clip attachment

For shaking flasks, Erlenmeyer flasks and pear-shaped flasks (without fixing clips).

Accessories (page):
Fixing clips (65): AS 2.1, AS 2.2, AS 2.3,
AS 2.4, AS 2.5



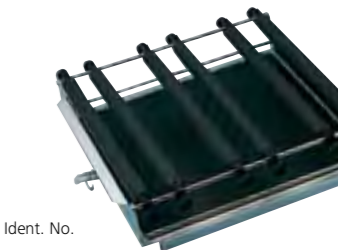
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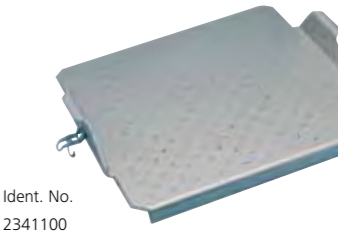
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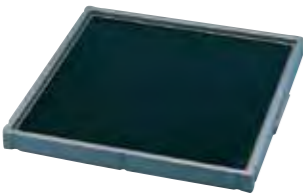
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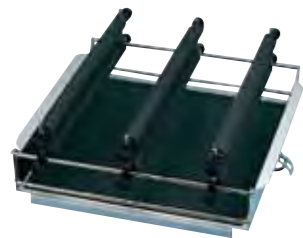
Ident. No.
8000200



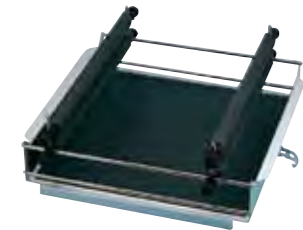
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2341100



Ident. No.
2339600



Ident. No.
8000300



Ident. No.
8000400



Ident. No.
8000500



Ident. No.
3920000

AS 501.5 Dish attachment

For smoothly shaking dishes, but also for smooth mixing in vessels with a large, flat bottom (wide-necked Erlenmeyer flasks and beakers). A plastic foil with mild adhesive prevents the vessel from slipping.

AS 501.2 Separating funnel attachment

For shaking out, eluting, extracting, gassing out, dissolving, enriching, etc. Adjustment for the clamping rolls is infinitely variable, the set-up height can be changed by means of clamping devices.

Included with delivery (page):
1 x AS 1.10 (63), 6 x AS 1.11 (63), 6 x AS 1.6 (64),
6 x AS 1.7 (64)

AS 501.3 Separating funnel attachment

Same features as AS 501.2.

Included with delivery (page):
1 x AS 1.10 (63), 4 x AS 1.11 (63), 4 x AS 1.6 (64),
4 x AS 1.7 (64)

AS 501.6 Separating funnel attachment

Same features as AS 501.2. This attachment will hold 4 x 1.000 ml separating funnels.

Included with delivery (page):
1 x AS 1.10 (63), 4 x AS 1.6 (64), 4 x AS 1.12 (65),
8 x AS 1.13 (65)

STICKMAX

New universal adhesive mat for the fixing clip attachments of KS 130, KS/HS 260, KS/HS 501 and KS 4000 i shakers.

- Ideal for frequently changing vessel types and sizes
- Self-adhesive
- Devices can be easily removed by side tilting movement
- Suitable for disinfection
- Peel-away strength required: 5 N/cm²

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 450 x 450 x 45 mm |
| Set-up plate | 420 x 420 mm |
| Weight | 1.120 g |

| General data | |
|--|---|
| Dimensions (W x D x H) | 480 x 505 x 190 mm |
| Capacity: (number of separating funnels per volume, pear-shaped) | 12 x 50 ml 10 x 100 ml 6 x 250 ml |
| Weight | 4.180 g |

| General data | |
|--|--|
| Dimensions (W x D x H) | 480 x 505 x 190 mm |
| Capacity: (number of separating funnels per volume, pear-shaped) | 4 x 500 ml 3 x 1.000 ml 2 x 2.000 ml |
| Weight | 3.720 g |

| General data | |
|--|--------------------|
| Dimensions (W x D x H) | 480 x 505 x 225 mm |
| Capacity: (number of separating funnels per volume, pear-shaped) | 4 x 1.000 ml |
| Weight | 5.500 g |

| General data | |
|------------------------------------|---|
| Dimensions (W x D x H) | 200 x 200 mm |
| Permissible ambient temperature | 5 – 80 °C |
| Max. speed | 300 rpm |
| Number of adhesive mats per shaker | KS 130 1 pcs. KS/HS 260 3 pcs. KS/HS 501 4 pcs. KS 4000 i 4 pcs. |

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 252 x 234 x 88 mm |

AS 1.30 Basic holder

For use with universal attachment AS 130.1.

Accessories (page):
AS 1.31 (63), AS 1.5 (64)

| General data | |
|------------------------|--------------------|
| Dimensions (W x D x H) | 348 x 335 x 135 mm |

AS 1.60 Basic holder

For use with universal attachment AS 260.1.

Accessories (page):
AS 1.61 (63), AS 1.5 (64)

| General data | |
|------------------------|--------------------|
| Dimensions (W x D x H) | 480 x 480 x 120 mm |

AS 1.10 Basic holder

For use with universal attachment AS 501.1 and separating funnel attachments AS 501.2, AS 501.3 and AS 501.6.

Accessories (page):
AS 1.11 (63), AS 1.6 (64), AS 1.7 (64), AS 1.8 (64),
AS 1.12 (65), AS 1.13 (65)

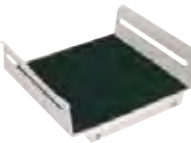
| AS 1.31 | |
|------------------|---------|
| For basic holder | AS 1.30 |
| Length | 228 mm |
| AS 1.61 | |
| For basic holder | AS 1.60 |
| Length | 335 mm |
| AS 1.11 | |
| For basic holder | AS 1.10 |
| Length | 410 mm |

Clamping roll

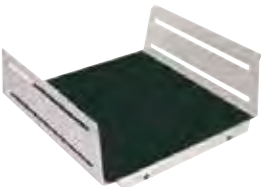
AS 1.31

AS 1.61

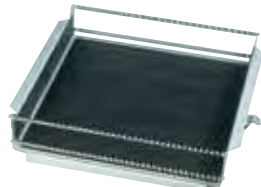
AS 1.11



Ident. No.
3148000



Ident. No.
3149000



Ident. No.
2339700



| | |
|------------|---------|
| Ident. No. | |
| 3030500 | AS 1.31 |
| 3030501 | AS 1.61 |
| 2339800 | AS 1.11 |



Ident. No.
2979400

AS 1.5 Fastening screw

Fastening screw for the universal attachments AS 130.1, AS 260.1 and the separating funnel attachment AS 260.5. Two AS 1.5 fastening screws are required for fastening a clamping roll onto the corresponding basic holder.



Ident. No.
1268400

AS 1.6 Fastening screw

Two AS 1.6 clamping devices are required for fastening a clamping roll to the corresponding basic holder (for basic holder AS 1.10 only).



Ident. No.
1269200

AS 1.7 Clamping device

Two AS 1.6 and two AS 1.7 clamping devices are required for fastening two clamping rolls one above the other (for clamping separating funnels). For basic holder AS 1.10 only.



Ident. No.
1268900

AS 1.8 Supporting clamping device

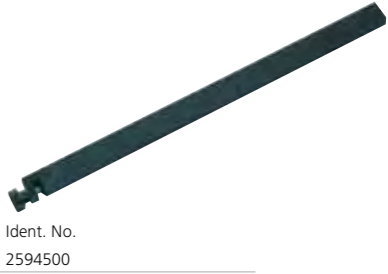
Two AS 1.6 clamping devices and two AS 1.8 supporting clamping devices are required if a clamping roll is to be attached at a higher position (e.g. for fixing a vessel which has a higher point of gravity). For basic holder AS 1.10 only.

| General data | |
|--------------|--------|
| Length | 437 mm |

AS 1.12 Supporting bar

For attaching two AS 1.13 ground section holders for fixing 1.000 ml separating funnels. For basic holder AS 1.10 only.

Accessories (page):
AS 1.13 (65)



Ident. No.
2594500

AS 1.13 Ground section holder

For attaching separating funnels with ground opening NS 29 (2 x AS 1.13 necessary per separating funnel). For basic holder AS 1.10 only.



Ident. No.
2597000

| General data | | |
|------------------|--------|-----------------|
| For flask volume | AS 2.1 | 25 ml |
| | AS 2.2 | 50 ml |
| | AS 2.3 | 100 ml |
| | AS 2.4 | 200 ml / 250 ml |
| | AS 2.5 | 500 ml |
| | AS 2.6 | 1.000 ml |

- 1 AS 2.1 Fixing clip
- 2 AS 2.2 Fixing clip
- 3 AS 2.3 Fixing clip
- 4 AS 2.4 Fixing clip
- 5 AS 2.5 Fixing clip
- 6 AS 2.6 Fixing clip

| Ident. No. | | |
|------------|---------|--------|
| 1 | 1234300 | AS 2.1 |
| 2 | 1234400 | AS 2.2 |
| 3 | 1234500 | AS 2.3 |
| 4 | 1234600 | AS 2.4 |
| 5 | 1234700 | AS 2.5 |
| 6 | 3819300 | AS 2.6 |



Crushing



BMT-20-S-M

20 ml tube with stainless steel balls and with pierceable membrane.

Page 72

| | |
|------------|---------|
| Dispersers | 68 – 89 |
| Mills | 90 – 95 |

IKA® Crushing

68 Dispersers (batch operation)



DT-20 Tube
Now more types of tube!

IKA® Crushing

Dispersers (batch operation)

69

| Technical data | |
|---------------------------------------|-------------------|
| Rating input | 20 W |
| Rating output | 17 W |
| Speed range, infinitely adjustable | 300 – 6.000 rpm |
| Timer | |
| 1 – 59 s | (300 – 6.000 rpm) |
| 1 – 29 min | (300 – 4.000 rpm) |
| Speed display | scale (0 – 9) |
| Display | LED (timer) |
| Dimensions (W x D x H) | 100 x 160 x 40 mm |
| Volume 20 ml Tube | 2 - 15 ml |
| 50 ml Tube | 15 - 50 ml |
| Weight | 0,75 kg |
| Protection class acc. to DIN EN 60529 | IP 20 |

ULTRA-TURRAX® Tube Drive

- A unique, universal, single-use dispersing system with hermetically sealable sample vessels. Protection and security for: Infectious sample materials, toxic substances, high-odor substances.
- Gamma-sterilized tubes
 - Tubes with piercable membrane covers
 - Tubes with 2 - 15 ml and 15 - 50 ml
 - Disperse, stir and grind using a single drive unit
 - No possibility of cross-contamination
 - Hermetically sealable disposable sample tubes
 - High level of user safety
 - Suitable for individual use and use in series
 - Anti-locking function
 - Increases safety due to low voltage (24 V)
 - Chemical-resistant plastic
 - Simple and safe disposal
 - Worldwide service guaranteed by IKA®
 - Reproducible tests
 - Patented



Ident. No.
3646000 100 – 240 V 50/60 Hz

| Technical data | |
|---------------------------------------|-----------------------------|
| Rating input | 20 W |
| Rating output | 17 W |
| Speed range, infinitely adjustable | 400 – 6.000 rpm / 8.000 rpm |
| Timer, infinitely adjustable | 10 s – 30 min |
| Speed display | digital |
| Display | OLED |
| Dimensions (W x D x H) | 122 x 178 x 48 mm |
| Volume 20 ml Tube | 2 - 15 ml |
| 50 ml Tube | 15 - 50 ml |
| Weight | 1,0 kg |
| Protection class acc. to DIN EN 60529 | IP 20 |

ULTRA-TURRAX® Tube Drive control

- The new control version offers the following additional advantages:
- USB interface for experiment control and documentation
 - Collecting tray for protection against leaking liquids
 - Simple and precise menu navigation thanks to the OLED display
 - Programmable sample conditions (library)
 - Adjustable reverse operation
 - Turbo-button for short time intensive mixing, homogenizing or grinding
 - Multilingual menu
 - Digital display for all functions



Ident. No.
4135300 100 – 240 V 50/60 Hz

| | UTTD Workstation | UTTD control Workstation |
|---|------------------|--------------------------|
| Included with delivery (page) | | |
| ULTRA-TURRAX® Tube Drive (69) | 1 | - |
| ULTRA-TURRAX® Tube Drive control (69) | - | 1 |
| ST-20 Tube with stirring device (72) | 2 | 2 |
| DT-20 Tube with rotor-stator element (72) | 2 | 1 |
| BMT-20 G / S Tube for grinding with glass (G) or stainless steel balls (S) (72) | 2 | 1 |
| Removal hook for removal of rotor-stator | 1 | 1 |
| Power supply | 1 | 1 |

ULTRA-TURRAX® Workstations

- Application areas:
Human medicine, pathology, veterinary medicine, animal hygiene institutes, clinical diagnosis research, foodstuffs testing laboratories, diagnostic laboratories, toxicology, medical research, pharmaceutical research, biological research, tumor biology, immunology, chemistry, cosmetics.



Ident. No.
UTTD Workstation
3645000 100 – 240 V 50/60 Hz
UTTD control Workstation
3827500 100 – 240 V 50/60 Hz

IKA® Crushing

Accessories Dispersers (Tube Drive)

IKA® Crushing

Accessories Dispersers (Tube Drive)

ST



- Tube with stirring device**
Suitable for:
- Mixing
 - Stirring
 - Extractions
 - Preparation of soil sample suspensions

- Application examples for the ST Tube**
- Dissolving properties of drugs
 - Incorporation of coloured pigments into a solvent
 - Accelerated dissolution of sugar solutions
 - Extraction of plant substances
 - Accelerated dissolution of tablets, suppositories and capsules
 - Mixing of fluids with higher viscosities

DT



- Tube with rotor-stator element**
Suitable for:
- Dispersion
 - Homogenization
 - Suspensions
 - Pharmacokinetics
 - Metabolism studies
 - Diagnosis

- Application examples for the DT Tube**
- Homogenization of tissue samples including brain, liver, muscle tissue, kidney and lung
 - Milling of plant samples including rosemary, rapeseed, tomato seeds, grapes, potatoes, cress, leaves and roots
 - Homogenization of effluent samples

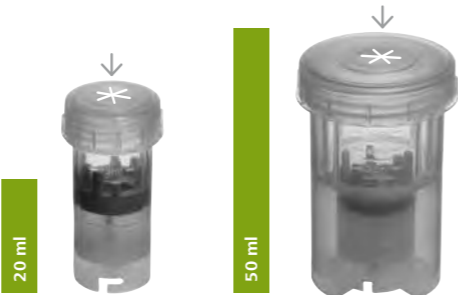
BMT G/S



- Tube for grinding with glass balls (G) or with stainless steel balls (S)**
Suitable for:
- Dry milling of dry and brittle samples (e.g. kaolin, gypsum, coloured pigments, tablets)
 - Cell maceration
 - Processing of materials mixed with fluids

- Application examples for the BMT G/S Tube**
- Decomposition of animal, plant and human cells
 - Dry milling of e.g. pigments, building materials and coal samples
 - Dry milling of freeze-dried samples
 - Milling of samples to determine water content

M



- Tube with pierceable membrane**
Suitable for:
- Introduction of media during the stirring, dispersing or milling process
 - Sample extraction during the stirring, dispersing or milling process

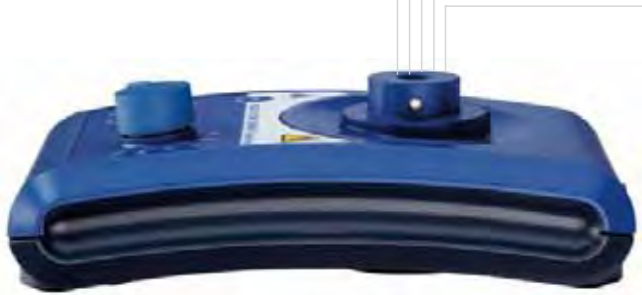
- Application examples for the M Tube**
- Sample extraction from dissolved pharmaceuticals
 - Addition of a reaction partner, e.g. for pigment reactions
 - Storage of samples in the tube, with option to remove material from the closed container at any time
 - No contamination when removing samples of materials hazardous to health

gamma



- γ-sterilized tube**
Suitable for:
- Grinding, mixing and dispersing under sterile conditions
 - Aseptic storage of samples (tissue, blood, etc.)

- Application examples for the γ-sterilized Tube**
- Homogenization of sterile samples e.g. for medical, pathology and pharmaceutical use
 - Storage of sterile sample material after preparation directly in the sample vessel (even at temperatures down to -20 °C)
 - Simple handling during preparation of aseptic samples in the laboratory



IKA® Crushing

Accessories Disperser (Tube Drive)

| 20 ml | | | | | |
|------------|-------|---------------------|--------------------------|------------------|-------------------|
| Ident. No. | | Product description | With pierceable membrane | Gamma sterilized | Quantity per pack |
| 3703000 | tube | ST-20 | — | — | 25 |
| 3703100 | tube | DT-20 | — | — | 25 |
| 3703200 | tube | BMT-20-S | — | — | 25 |
| 3703300 | tube | BMT-20-G | — | — | 25 |
| 3749700 | cover | TC-20 | — | — | 25 |
| 3702500 | tube | ST-20-M | + | — | 25 |
| 3702600 | tube | DT-20-M | + | — | 25 |
| 3702700 | tube | BMT-20-S-M | + | — | 25 |
| 3702800 | tube | BMT-20-G-M | + | — | 25 |
| 3700500 | tube | ST-20-M-γ | + | + | 20 |
| 3700600 | tube | DT-20-M-γ | + | + | 20 |
| 3700700 | tube | BMT-20-S-M-γ | + | + | 20 |
| 3749900 | cover | TC-20-M | + | — | 25 |

| 50 ml | | | | | |
|------------|-------|---------------------|--------------------------|------------------|-------------------|
| Ident. No. | | Product description | With pierceable membrane | Gamma sterilized | Quantity per pack |
| 3699500 | tube | ST-50 | — | — | 10 |
| 3699600 | tube | DT-50 | — | — | 10 |
| 3699700 | tube | BMT-50-S | — | — | 10 |
| 3699800 | tube | BMT-50-G | — | — | 10 |
| 3749800 | cover | TC-50 | — | — | 10 |
| 3629500 | tube | ST-50-M | + | — | 10 |
| 3629600 | tube | DT-50-M | + | — | 10 |
| 3629700 | tube | BMT-50-S-M | + | — | 10 |
| 3629800 | tube | BMT-50-G-M | + | — | 10 |
| 3701500 | tube | ST-50-M-γ | + | + | 10 |
| 3701600 | tube | DT-50-M-γ | + | + | 10 |
| 3701700 | tube | BMT-50-S-M-γ | + | + | 10 |
| 3750000 | cover | TC-50-M | + | — | 10 |

| BMT | | |
|------------|------------------------------|-------------------|
| Ident. No. | Product description | Quantity per pack |
| 3599200 | Glass balls Ø 6 mm | 250 g |
| 3599300 | Stainless steel balls Ø 6 mm | 250 g |



Dispersion example in a DT-20 tube: liver

IKA® Crushing

Dispersers (batch operation)

| Technical data | |
|---------------------------------------|--------------------------|
| Motor rating input | 125 W |
| Motor rating output | 75 W |
| Volume range (H ₂ O) | 0,5 – 100 ml |
| Max. viscosity | 5.000 mPas |
| Speed adjustment | stepless |
| Speed range | 8.000 – 30.000 rpm |
| Speed stability | < 6 % |
| Speed display | scale |
| Noise without dispersing element | 65 dB (A) |
| Overload protection | yes |
| Permitted ON-time (ON / OFF) | max. 10 min / min. 5 min |
| General data | |
| Dimensions (W x D x H) | 46 x 57 x 201 mm |
| Weight | 0,4 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 30 |

T 10 basic ULTRA-TURRAX®

- Competitively priced dispersing instrument for volumes of 0,5 to 100 ml. A wide speed range allows you to work at high circumferential speeds even with small rotor diameters. Perfect ergonomic finish.
- Quick-release coupling makes changing the dispersing elements easy
 - Immense speed stability with various materials due to high performance 125 Watt drive
 - Ideal for manual operation due to its light weight and ergonomic form
 - Extremely mobile due to direct line power (no transformer required)
 - Stainless steel dispersing elements (5 mm, 8 mm and 10 mm diameter) can be cleaned quickly and easily as they can be dismantled without tools
 - Plastic disposable dispersing elements in two sizes, particularly suitable for PCR analysis

Accessories (page):
R 200 Clamp (122), R 104 Stand (120),
H 44 Boss head clamp (122), Dispersing
elements (80): S 10 N – 5 G, S 10 N – 8 G,
S 10 N – 10 G, Plastic dispersing elements (81):
S 10 D – 7 G – KS – 65, S 10 D – 7 G – KS – 110



| | |
|------------|----------------|
| Ident. No. | |
| 3420000 | 230 V 50/60 Hz |
| 3420001 | 115 V 50/60 Hz |



Ident. No.
3561000 230 V 50/60 Hz
3561001 115 V 50/60 Hz

T 18 basic ULTRA-TURRAX®

Competitively priced dispersing instrument for volumes of 1 to 1.500 ml (H₂O).
A wide speed range allows you to work at high circumferential speeds.

- Electronic speed control
- Electronic overload protection
- Quick release button for dispersing element
- As standard, the T 18 is equipped with a connection for a revolution counter
- Dispersing elements not included with delivery

Accessories (page):
Dispersing instruments (78 / 79), Stands (120):
R 1825, R 1826, R 1827, R 182 Boss head clamp (122)

| Technical data | |
|---------------------------------------|--------------------|
| Motor rating input | 500 W |
| Motor rating output | 300 W |
| Volume range (H ₂ O) | 1 – 1.500 ml |
| Max. viscosity | 5.000 mPas |
| Speed adjustment | stepless |
| Speed range (under load) | 3.500 – 24.000 rpm |
| Speed display | scale |
| Noise without dispersing element | 73 dB (A) |
| Overload protection | yes |
| Diameter / length of extension arm | 13 mm / 175 mm |
| General data | |
| Dimensions (W x D x H) | 65 x 80 x 240 mm |
| Weight | 1,6 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 20 |



Ident. No.
3565000 230 V 50/60 Hz
3565001 115 V 50/60 Hz

T 25 digital ULTRA-TURRAX®

High-performance dispersing instrument for volumes from 1 - 2.000 ml (H₂O).
The spectrum of applications ranges from homogenizing waste water samples to the use in laboratory reactors, to dispersion tasks under vacuum / pressure and sample preparation in medical diagnostics.

- Three types of shaft bearings
- Standard version with digital display and a connection for a revolution counter
- Rotor-stator configurations have thirty years of proven, guaranteed comparability of test results
- Wide range of dispersing elements (not included with delivery, page 78 /79)

Accessories (page):
Dispersing instruments (78 / 79), Stands (120):
R 1825, R 1826, R 1827, R 182 Boss head clamp (122), RH 3 Strap clamp (122)

| Technical data | |
|---------------------------------------|--------------------|
| Motor rating input | 500 W |
| Motor rating output | 300 W |
| Volume range (H ₂ O) | 1 – 2.000 ml |
| Max. viscosity | 5.000 mPas |
| Speed adjustment | stepless |
| Speed range (under load) | 3.400 – 24.000 rpm |
| Speed display | digital |
| Noise without dispersing element | 73 dB (A) |
| Overload protection | yes |
| Diameter / length of extension arm | 13 mm / 175 mm |
| General data | |
| Dimensions (W x D x H) | 65 x 80 x 240 mm |
| Weight | 1,6 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 20 |

T 25 digital ULTRA-TURRAX®

Dispersing instrument for quantities up to approx. 2.000 ml, **page 74**
Ident. No. 3565000

T 18 basic ULTRA-TURRAX®

Dispersing instrument for quantities up to approx. 1.500 ml, **page 74**
Ident. No. 3561000

R 182

Boss head clamp, **page 122**
Ident. No. 2657700

S 18 N – 19 G

Dispersing element for quantities between 10 – 1.500 ml, **page 78**
Ident. No. L004640

S 25 N – 18 G

Dispersing element for quantities between 10 – 1.500 ml, **page 79**
Ident. No. 0593400

RH 3

Strap clamp, **page 122**
Ident. No. 3008600

R 1827

Plate stand, **page 120**
Ident. No. 3160200





Ident. No.
3783500 230 V 50/60 Hz
3783501 115 V 50/60 Hz

T 50 basic ULTRA-TURRAX®

- High-performance dispersing instrument for volumes from 0,25 - 30 l (H₂O)
- Three types of shaft bearings
- Several rotor-stator configurations
- Agitator shaft R 50 allows the use of the T 50 basic as a “high-speed stirrer” (not included in delivery, page 83)
- Infinitely variable speed control, for continuous operation
- Reproducible operations due to constant speed even with viscosity changes
- Large selection of dispersing elements
- Plug-in connectors facilitate exchange of dispersing elements
- Electronic safety circuit and smooth start
- As standard, the T 50 basic is equipped with a connection for the revolution counter
- Wide range of dispersing elements (not included in delivery, page 80)

Accessories (page):
Dispersing elements (80), Special dispersing elements (83), Stands (120 / 121): R 2722, R 2723, R 271 Boss head clamp (122), RH 5 Strap clamp (122)

T 50 basic ULTRA-TURRAX®

Dispersing instrument for quantities up to approx. 30 l, **page 78**

Ident. No. 3783500

R 271

Boss head clamp, **page 122**

Ident. No. 2664000

S 50 N – G 45 G

Dispersing element for coarse crushing, **page 80**

Ident. No. 8003000

RH 5

Strap clamp, **page 122**

Ident. No. 3159000

R 2723

Telescopic stand, **page 121**

Ident. No. 1412100



| Technical data | |
|---------------------------------------|--------------------|
| Motor rating input | 1.100 W |
| Motor rating output | 700 W |
| Volume range (H ₂ O) | 0,25 – 30 l |
| Max. viscosity | 5.000 mPas |
| Speed adjustment | stepless |
| Speed range | 500 – 10.000 rpm |
| Speed stability | 1 % |
| Speed display | scale |
| Noise without dispersing element | 72 dB (A) |
| Diameter / length of extension arm | 16 mm / 220 mm |
| Overload protection | yes |
| General data | |
| Dimensions (W x D x H) | 125 x 120 x 367 mm |
| Weight | 6 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 20 |

T 65 D ULTRA-TURRAX®

The high-performance T 65 D dispersing instrument has been designed for typical pilot plant stations quantities from 2 - 50 l (H₂O).

- Three rotor-stator configurations for a variety of applications (not included with delivery)
- Plug-in connectors facilitate exchange of dispersing elements
- Speed controller on request
- Dispersing instruments for the production area: ask for our process technology catalogs
- Cables and plugs not included with delivery

Accessories (page):
Dispersing elements (81), T 653 Stand (121), SI 400 Safety switch (47), Fixing device SI 474 (47)



Ident. No.
1602800 3 x 400 V 50 Hz
1602802 3 x 230 V 60 Hz

Nomenclature dispersing elements

The variety of media to be processed also requires a variety of rotor-stator configurations and seals. In many cases it is necessary to use subsequently two dispersing elements, for pre-crushing and fine crushing. The plug-in connectors facilitate the exchange of the dispersing elements.



Example of the S 50 N – G 45 M dispersing element set-up

| For dispersing instrument | Dispersing element Shaft / Agitator shaft | With seal or bearing type* | Generator or element** | With outer diameter (mm) | Degree of fineness achieved*** |
|---------------------------|---|----------------------------|------------------------|--------------------------|--------------------------------|
| T 10 | S 10 | N | – | 5 / 8 / 10 | G |
| T 18 | S 18 | N | – | 10 / 19 | G |
| T 25 | S 25 | N / KR / KV / NK | – | 8 / 10 / 18 / 19 / 25 | G / F |
| T 50 | S / R 50 | N / KV / KR / KG – HH | G / W | 45 / 65 / 80 | G / M / F |
| T 65 | S 65 | KG – HH | G | 65 | G / M / F |

* N = PTFE bearing, KR = Ball bearing with FKM- seal, KV = Ball bearing with vacuum-tight sliding-ring seal with silicon carbide seal rings, NK = PTFE bearing with additional ball bearing without seal, KG - HH = Ball bearing with sliding-ring seals of hard metal allow with FFPM seal rings

** G = proved configuration, W = special element

*** G = coarse, M = medium, F = fine



Ident. No.
1 1024200



Ident. No.
2 0594000



Ident. No.
3 0593400



Ident. No.
4 1713300



Ident. No.
5 1713800

Dispersing elements T 18 basic, T 25 digital

For nomenclature see page 77

| Dispersing element | S 18 N – 10 G | S 18 N – 19 G | S 25 N – 8 G | S 25 N – 10 G | S 25 N – 18 G | S 25 KV – 18 G |
|------------------------------------|-------------------|-------------------|-----------------|-----------------|-----------------|-----------------------|
| Ident. No. | L004639 | L004640 | 1024200 | 0594000 | 0593400 | 2348000 |
| Fig. | similar to fig. 2 | similar to fig. 3 | 1 | 2 | 3 | without fig. |
| Suitable for dispersing instrument | T 18 basic | T 18 basic | T 25 digital | T 25 digital | T 25 digital | T 25 digital |
| Working range | 1 – 100 ml | 10 – 1.500 ml | 1 – 50 ml | 1 – 100 ml | 10 – 1.500 ml | 10 – 1.500 ml |
| Stator diameter | 10 mm | 19 mm | 8 mm | 10 mm | 18 mm | 18 mm |
| Rotor diameter | 7,5 mm | 12,7 mm | 6,1 mm | 7,5 mm | 12,7 mm | 12,7 mm |
| Gap between rotor and stator | 0,35 mm | 0,4 mm | 0,25 mm | 0,35 mm | 0,3 mm | 0,3 mm |
| Circumferential speed | 9,4 m/s | 15,9 m/s | 7,7 m/s | 9,4 m/s | 15,9 m/s | 15,9 m/s |
| Min. / max. immersion depth | 25 / 70 mm | 35 / 170 mm | 27 / 85 mm | 22 / 85 mm | 40 / 165 mm | 40 / 225 mm |
| Shaft length | 108 mm | 204 mm | 108 mm | 105 mm | 194 mm | 270 mm |
| Materials in contact with medium | PTFE, AISI 316L | PTFE, AISI 316L | PTFE, AISI 316L | PTFE, AISI 316L | PTFE, AISI 316L | FFPM / SIC, AISI 316L |
| pH range | 2 – 13 | 2 – 13 | 2 – 13 | 2 – 13 | 2 – 13 | 2 – 13 |
| Suitable for solvents | yes | yes | yes | yes | yes | yes |
| Suitable for abrasive substances | yes | yes | yes | yes | yes | no |
| Max. temperature | 180 °C | 180 °C | 180 °C | 180 °C | 180 °C | 220 °C |
| Sterilization methods | all methods | all methods | all methods | all methods | all methods | wet chemical |
| Min. vacuum | – | – | – | – | – | 1 mbar |
| Max. pressure | – | – | – | – | – | 6 bar |
| Ultimate fineness, suspensions | 10 – 50 µm | 10 – 50 µm | 10 – 50 µm | 10 – 50 µm | 10 – 50 µm | 10 – 50 µm |
| Ultimate fineness, emulsions | 1 – 10 µm | 1 – 10 µm | 1 – 10 µm | 1 – 10 µm | 1 – 10 µm | 1 – 10 µm |

| Dispersing element | S 25 NK – 19 G | S 25 N – 25 G | S 25 KV – 25 G | S 25 N – 25 F | S 25 KV – 25 F |
|------------------------------------|-------------------|-----------------|-----------------------|-----------------|-----------------------|
| Ident. No. | 2494700 | 1713300 | 2466900 | 1713800 | 2404000 |
| Fig. | similar to fig. 3 | 4 | without fig. | 5 | without fig. |
| Suitable for dispersing instrument | T 25 digital | T 25 digital | T 25 digital | T 25 digital | T 25 digital |
| Working range | 25 – 1.500 ml | 50 – 2.000 ml | 50 – 2.000 ml | 100 – 2.000 ml | 100 – 2.000 ml |
| Stator diameter | 19 mm | 25 mm | 25 mm | 25 mm | 25 mm |
| Rotor diameter | 12,7 mm | 17 mm | 17 mm | 18 mm | 18 mm |
| Gap between rotor and stator | 0,3 mm | 0,5 mm | 0,5 mm | 0,5 mm | 0,5 mm |
| Circumferential speed | 15,9 m/s | 21,4 m/s | 21,4 m/s | 22,6 m/s | 22,6 m/s |
| Min. / max. immersion depth | 40 / 165 mm | 40 / 165 mm | 40 / 225 mm | 40 / 165 mm | 40 / 225 mm |
| Shaft length | 194 mm | 194 mm | 270 mm | 194 mm | 270 mm |
| Materials in contact with medium | PTFE, AISI 316L | PTFE, AISI 316L | FFPM / SIC, AISI 316L | PTFE, AISI 316L | FFPM / SIC, AISI 316L |
| pH range | 2 – 13 | 2 – 13 | 2 – 13 | 2 – 13 | 2 – 13 |
| Suitable for solvents | yes | yes | yes | yes | yes |
| Suitable for abrasive substances | yes | yes | no | yes | no |
| Max. temperature | 120 °C | 180 °C | 220 °C | 180 °C | 220 °C |
| Sterilization methods | wet chemical | all methods | wet chemical | all methods | wet chemical |
| Min. vacuum | – | – | 1 mbar | – | 1 mbar |
| Max. pressure | – | – | 6 bar | – | 6 bar |
| Ultimate fineness, suspensions | 10 – 50 µm | 15 – 50 µm | 15 – 50 µm | 5 – 25 µm | 5 – 25 µm |
| Ultimate fineness, emulsions | 1 – 10 µm | 1 – 10 µm | 1 – 10 µm | 1 – 5 µm | 1 – 5 µm |



Dispersing elements T 10 basic

For nomenclature see page 77

| Dispersing element | S 10 N – 5 G | S 10 N – 8 G | S 10 N – 10 G |
|------------------------------------|-----------------|-----------------|-----------------|
| Ident. No. | 3304000 | 3305500 | 3370100 |
| Fig. | 1 | 2 | 3 |
| Suitable for dispersing instrument | T 10 basic | T 10 basic | T 10 basic |
| Working range | 0,5 – 10 ml | 1 – 50 ml | 1 – 100 ml |
| Stator diameter | 5 mm | 8 mm | 10 mm |
| Rotor diameter | 3,8 mm | 6,1 mm | 7,6 mm |
| Gap between rotor and stator | 0,1 mm | 0,25 mm | 0,2 mm |
| Min. / max. immersion depth | 20 / 75 mm | 20 / 95 mm | 20 / 100 mm |
| Shaft length | 92 mm | 115 mm | 115 mm |
| Materials in contact with medium | PTFE, AISI 316L | PTFE, AISI 316L | PTFE, AISI 316L |
| pH range | 2 – 13 | 2 – 13 | 2 – 13 |
| Suitable for solvents | yes | yes | yes |
| Suitable for abrasive substances | yes | yes | yes |
| Max. temperature | 180 °C | 180 °C | 180 °C |
| Sterilization methods | all methods | all methods | all methods |
| Min. vacuum | – | – | – |
| Max. pressure | – | – | – |
| Ultimate fineness, suspensions | 5 – 25 µm | 5 – 25 µm | 5 – 25 µm |
| Ultimate fineness, emulsions | 1 – 10 µm | 1 – 10 µm | 1 – 10 µm |



Dispersing elements T 50 basic

For nomenclature see page 77

| Dispersing element | S 50 N – G 45 G | S 50 N – G 45 M | S 50 N – G 45 F |
|------------------------------------|-----------------|-----------------|-----------------|
| Ident. No. | 8003000 | 8003300 | 8003900 |
| Fig. | 1 | 2 | 3 |
| Suitable for dispersing instrument | T 50 basic | T 50 basic | T 50 basic |
| Working range | 0,5 – 20 l | 0,5 – 15 l | 0,25 – 10 l |
| Stator diameter | 45 mm | 45 mm | 45 mm |
| Rotor diameter | 36 mm | 40,5 mm | 40 mm |
| Circumferential speed | 18,8 m/s | 21,2 m/s | 20,9 m/s |
| Min. / max. immersion depth | 70 / 250 mm | 70 / 250 mm | 70 / 250 mm |
| Shaft length | 300 mm | 290 mm | 290 mm |
| Materials in contact with medium | PTFE, AISI 316L | PTFE, AISI 316L | PTFE, AISI 316L |
| pH range | 2 – 13 | 2 – 13 | 2 – 13 |
| Suitable for solvents | yes | yes | yes |
| Suitable for abrasive substances | yes | yes | yes |
| Max. temperature | 180 °C | 180 °C | 180 °C |
| Sterilization methods | all methods | all methods | all methods |
| Min. vacuum | – | – | – |
| Max. pressure | – | – | – |
| Ultimate fineness, suspensions | 40 – 100 µm | 25 – 50 µm | 10 – 30 µm |
| Ultimate fineness, emulsions | 10 – 30 µm | 5 – 20 µm | 1 – 10 µm |

S 50 N - Special length shafts also available in 430 mm (order label S 50 N 1)

Dispersing elements T 65 D

For nomenclature see page 77

| Dispersing element | S 65 KG – HH – G 65 G | S 65 KG – HH – G 65 M | S 65 KG – HH – G 65 F |
|------------------------------------|-----------------------|-----------------------|-----------------------|
| Ident. No. | 8005500 | 8005700 | 8005900 |
| Fig. | 1 | 2 | 3 |
| Suitable for dispersing instrument | T 65 D | T 65 D | T 65 D |
| Working range | 2 – 50 l | 2 – 40 l | 2 – 30 l |
| Stator diameter | 65 mm | 65 mm | 65 mm |
| Rotor diameter | 58 mm | 58 mm | 58 mm |
| Circumferential speed | 21,9 m/s | 21,9 m/s | 21,9 m/s |
| Min. / max. immersion depth | 90 / 450 mm | 80 / 450 mm | 80 / 450 mm |
| Shaft length | 520 mm | 510 mm | 500 mm |
| Materials in contact with medium | FFPM / SIC, AISI 316L | FFPM / SIC, AISI 316L | FFPM / SIC, AISI 316L |
| pH range | 2 – 13 | 2 – 13 | 2 – 13 |
| Suitable for solvents | yes | yes | yes |
| Suitable for abrasive substances | no | no | no |
| Max. temperature | 180 °C | 180 °C | 180 °C |
| Sterilization methods | wet chemical | wet chemical | wet chemical |
| Min. vacuum | 1 mbar | 1 mbar | 1 mbar |
| Max. pressure | 6 bar | 6 bar | 6 bar |
| Ultimate fineness, suspensions | 25 – 75 µm | 20 – 50 µm | 5 – 20 µm |
| Ultimate fineness, emulsions | 5 – 25 µm | 5 – 15 µm | 1 – 10 µm |

Nomenclature: Plastic dispersing elements

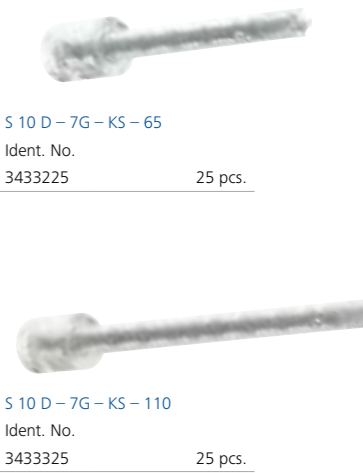
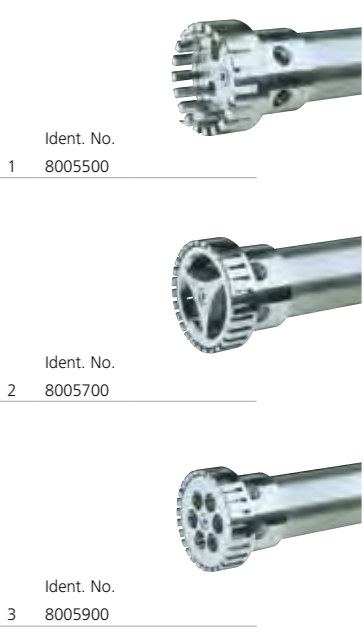
Plastic dispersing elements are ideal for those applications where absolutely no cross-contamination is permitted. They are disposable and can be thrown away after a single use. The element is disposable and designed for one-way use. However, it can be re-used several times in applications where this is permitted. If you decide to re-use the element, make sure that you follow the cleaning instructions carefully. Example use: homogenizing tissue samples.

| For disperser | Dispersing element shaft | Seals | Diameter stator (mm) | Degree of fineness achieved | Material |
|---------------|--------------------------|------------------|----------------------|-----------------------------|--------------|
| T 10 | S 10 | D = without seal | 7 | G = coarse | KS = plastic |
| T 18 | S 18 | D = without seal | 10 / 14 | G = coarse | KS = plastic |
| T 25 | S 25 | D = without seal | 10 / 14 | G = coarse | KS = plastic |

Plastic dispersing elements for T 10 basic

| Dispersing element | S 10 D – 7 G – KS – 65 | S 10 D – 7 G – KS – 110 |
|------------------------------------|--|--|
| Ident. No. [Packing unit] | 3433225 [25 pcs.] | 3433325 [25 pcs.] |
| Suitable for dispersing instrument | T 10 basic | T 10 basic |
| Working range | 1 – 20 ml | 1 – 40 ml |
| Stator diameter | 7 mm | 7 mm |
| Rotor diameter | 4,8 mm | 4,8 mm |
| Min. / max. immersion depth | 20 / 50 mm | 20 / 90 mm |
| Shaft length | 65 mm | 110 mm |
| Materials in contact with medium | Polycarbonate (PC) Polysulfon (PSU) | Polycarbonate (PC) Polysulfon (PSU) |
| Max. temperature | 100 °C | 100 °C |
| Sterilization methods | yes, autoclavable | yes, autoclavable |

Plastic materials used approved by FDA.





S 18 D – 10 G – KS
Ident. No.
3452400 10 pcs.*



S 18 D – 14 G – KS
Ident. No.
3452300 10 pcs.*



S 25 D – 10 G – KS
Ident. No.
3452200 10 pcs.*



S 25 D – 14 G – KS
Ident. No.
3452100 10 pcs.*



Ident. No.
3452500

Plastic dispersing elements for T 18 basic

| Dispersing element | S 18 D – 10 G – KS | S 18 D – 14 G – KS |
|------------------------------------|--|--|
| Ident. No. [Packing unit] | 3452400 [10 pcs.*] | 3452300 [10 pcs.*] |
| Suitable for dispersing instrument | T 18 basic | T 18 basic |
| Working range | 10 – 100 ml | 10 – 500 ml |
| Stator diameter | 10 mm | 14 mm |
| Rotor diameter | 6,75 mm | 9,5 mm |
| Min. / max. immersion depth | 15 / 85 mm | 15 / 85 mm |
| Shaft length | 150 mm | 150 mm |
| Materials in contact with medium | Polycarbonate (PC) Polyetheretherketon (PEEK) | Polycarbonate (PC) Polyetheretherketon (PEEK) |
| Max. temperature | 100 °C | 100 °C |
| Sterilization methods | yes, autoclavable | yes, autoclavable |

Plastic materials used approved by FDA.
* incl. 1 Disposable tube

Plastic dispersing elements for T 25 digital

| Dispersing element | S 25 D – 10 G – KS | S 25 D – 14 G – KS |
|------------------------------------|--|--|
| Ident. No. [Packing unit] | 3452200 [10 pcs.*] | 3452100 [10 pcs.*] |
| Suitable for dispersing instrument | T 25 digital | T 25 digital |
| Working range | 10 – 100 ml | 10 – 500 ml |
| Stator diameter | 10 mm | 14 mm |
| Rotor diameter | 6,75 mm | 9,5 mm |
| Min. / max. immersion depth | 15 / 85 mm | 15 / 85 mm |
| Shaft length | 150 mm | 150 mm |
| Materials in contact with medium | Polycarbonate (PC) Polyetheretherketon (PEEK) | Polycarbonate (PC) Polyetheretherketon (PEEK) |
| Max. temperature | 100 °C | 100 °C |
| Sterilization methods | yes, autoclavable | yes, autoclavable |

Plastic materials used approved by FDA.
* incl. 1 Disposable tube

Disposable tube S 18 / 25-ET50

50 ml for attaching onto plastic tools from S 18 D and S 25 D series. Allows dispersing in a closed system (splash guard).

| General data | |
|--------------|----|
| Material | PP |

| General data | |
|---------------------------------|---------------------------|
| Immersion depth | 180 mm |
| Working range | 0,25 – 30 l |
| Max. circumferential speed | 15,7 – 23 m/s |
| Max. permissible rotor diameter | 50 mm |
| Material | stainl. steel (AISI 316L) |

R 50 “high speed” stirring shaft

With the stirring shaft R 50, the T 50 basic is quickly converted into a high speed stirrer. 700 W and 10.000 rpm are provided for rapid mixing, dissolving, and disagglomerating pigment agglomerates. The conical shaft is supported by means of ball bearings, the mixing elements have a screw connection. For operational safety a protective cage is fitted around the mixing element.

Included with delivery (page):
R 1402 Dissolver (83)

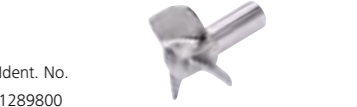
Accessories (page):
Dispersing elements (83): R 1405 , R 1402



Ident. No.
1689300

| General data | |
|----------------|-------------|
| Working range | 0,25 – 10 l |
| Rotor diameter | 45 mm |

R 1405 Propeller



Ident. No.
1289800

| General data | |
|----------------|----------|
| Working range | 1 – 30 l |
| Rotor diameter | 42 mm |

R 1402 Dissolver



Ident. No.
1243300

| Min. / max. immersion depth | 140 / 350 mm |
|-----------------------------|-------------------|
| Working range | 1 – 50 l |
| Generator diameter | 80 mm |
| Available seals | S 50 N S 50 KR |

S 50 N – W 80 SMK Jet mixer head

For shortening mixing and dissolving times. The vertical flow and the high circumferential speed up to 10.000 rpm ensure intensive mixing. The head is used for adding gases or liquids, for lump-free suspension of difficult to dissolve powders or for dissolving sedimented, already hardened substances.



Ident. No.
8006300 S 50 N – W 80 SMK

| General data | |
|-----------------------------|-------------|
| Min. / max. immersion depth | 80 / 350 mm |
| Working range | 1 – 10 l |
| Generator diameter | 65 mm |
| Available seals | S 50 N |

S 50 N – W 65 SK Cutting head

To crush large pieces (up to 50 mm) of fibrous materials, such as vegetation, vegetables and fruit



Ident. No.
8005100

One machine for many mixing tasks. Same working modules for laboratory and production.



Module DISPAX-REACTOR® DR



Module Colloid mill MK



Module MHD (mixing, homogenizing, dispersing)



Module CMS



magic LAB® with module UTL

magic LAB® with module CMS and accessories
- for powder incorporation into liquid in recirculation mode



magic LAB® with module Micro-Plant 1 l
- for recirculation process in the open vessel



magic LAB® with module Micro-Plant 2 l
- for recirculation process in the closed vessel



magic LAB®
- for batch process as ULTRA-TURRAX®



IKA® magic LAB® 2000/03

Small inline dispersing laboratory machine for the production of emulsions and suspensions with extension capabilities for specific mixing tasks in the continuous and recirculation operation. Control and info center for adjustment and indication of speed, torque and temperature. Double-walled working chamber. Module ULTRA-TURRAX® UTL with rotor-stator system 4M.

All metal parts in contact with the product are made of stainless steel. Temperature sensor PT 100, transport box with wheels and drawers for various modules, telescopic handle and built-in power supply are included.

Optional: Software labworldsoft® for the control of the machine magic LAB® from the PC, additional modules and tools, peripherals for extension into a batch plant.



| | |
|------------|---------------|
| Ident. No. | |
| U078310 | 230 V / 50 Hz |
| U077729 | 115 V / 50 Hz |

Optional generators (rotor-stator systems) for one-stage dispersing module ULTRA-TURRAX® UTL



6F (fine)



4M (medium)



2C (coarse)

Basic version with module UTL



magic LAB® as a mobile inline machine with transport box

Modules and application

More information please see page 86 and page 87.

| Module | Application |
|------------------------|--|
| DISPAX-REACTOR® DR | Three-stage dispersing |
| Module Colloid mill MK | Wet-milling |
| Module Cone mill MKO | Wet-milling as with the MK-module |
| Module MHD | Continuous mixing and dispersion of powders in liquids |
| Module CMS | Suction of solids into fluids in the recirculation process |
| ULTRA-TURRAX® UTC | Single-stage batch dispersing |
| Micro-Plant | Recirculation process using UTL , DR, MK, MKO module |



Module ULTRA-TURRAX® UTL

Single-stage dispersing for manufacturing of emulsions and suspensions. Included with delivery.

| Technical data (at 50 Hz) | magic LAB® | LABOR-PILOT | PROCESS-PILOT |
|-------------------------------|------------|-------------|---------------|
| Flow rate (H ₂ O)* | 130 l/h | 500 l/h | 500 l/h |
| Standard rotational speed | 16.000 rpm | 8.050 rpm | 8.050 rpm |
| Circumferential speed* | 23 m/s | 23 m/s | 23 m/s |
| Inlet socket | clamp ¾" | DN 25 | DN 25 |
| Outlet socket | clamp ½" | DN 15 | DN 15 |



Module DISPAX-REACTOR® DR

Three-stage dispersing for manufacturing of fine emulsions and suspensions.

| Technical data | magic LAB® | LABOR-PILOT | PROCESS-PILOT |
|-------------------------------|------------|-------------|---------------|
| Flow rate (H ₂ O)* | 80 l/h | 210 l/h | 210 l/h |
| Standard rotational speed | 16.000 rpm | 8.050 rpm | 8.050 rpm |
| Circumferential speed* | 23 m/s | 23 m/s | 23 m/s |
| Inlet socket | clamp ¾" | DN 25 | DN 25 |
| Outlet socket | clamp ½" | DN 15 | DN 15 |
| Ident. No. | U078352 | T055013 | T058133 |



Module MHD

Continuous mixing and dispersion of powders in liquids. Patented process. Fast and homogeneous mixing in only one passage, avoiding agglomerates. Solids content up to 80%.

| Technical data | magic LAB® | LABOR-PILOT | PROCESS-PILOT |
|-------------------------------|---------------|-------------|---------------|
| Flow rate (H ₂ O)* | 60 l/h | 200 l/h | 200 l/h |
| Standard rotational speed | 11.000 rpm | 8.050 rpm | 8.050 rpm |
| Circumferential speed* | 23 m/s | 23 m/s | 23 m/s |
| Inlet socket (solids) | 25 mm / 35 mm | DN 50 | DN 50 |
| Inlet socket (liquids) | 6 mm | DN 15 | DN 15 |
| Outlet socket | clamp 1/2" | DN 15 | DN 15 |
| Ident. No. | U075262 | T055142 | T058148 |

* At standard speed and 50 Hz.

Module CMS

Suction of solids into fluids in the recirculation process. Free from lumps and dust processing of powders and granules. Energy-efficient homogeneous mixing.

| Technical data | magic LAB® | PROCESS-PILOT*** |
|-------------------------------|------------|------------------|
| Flow rate (H ₂ O)* | 1.000 l/h | 6.500 l/h |
| Standard rotational speed | 11.000 rpm | 8.050 rpm |
| Circumferential speed* | 27 m/s | 27 m/s |
| Inlet socket (solids) | clamp 3/4" | DN 25 |
| Inlet socket (liquids) | clamp 3/4" | DN 25 |
| Outlet socket | clamp 3/4" | DN 25 |
| Ident. No. | U075333 | T061272 |



Module Colloid mill MK

Wet-milling by means of spiral gearing milling tool. Production of colloidal solutions (finest suspensions) and emulsions. Adjustable flow rate and friction by setting the gap between the rotor and stator.

| Technical data | magic LAB® | LABOR-PILOT | PROCESS-PILOT |
|--------------------------------|------------|-------------|---------------|
| Flow rate (H ₂ O)** | 200 l/h | 1.500 l/h | 1.500 l/h |
| Standard rotational speed | 16.000 rpm | 8.050 rpm | 8.050 rpm |
| Circumferential speed* | 23 m/s | 23 m/s | 23 m/s |
| Inlet socket (liquids) | clamp 3/4" | DN 25 | DN 25 |
| Outlet socket | clamp 1/2" | DN 15 | DN 15 |
| Ident. No. | U076662 | T054917 | T058583 |



Module Cone mill MKO

Wet-milling as with the MK-module. The cones are furnished with an abrasion-resistant tungsten carbide-cobalt coating. Narrowest grinding gap enables producing of even finer suspensions.

| Technical data | magic LAB® | LABOR-PILOT | PROCESS-PILOT |
|--------------------------------|------------|-------------|---------------|
| Flow rate (H ₂ O)** | 25 l/h | 75 l/h | 75 l/h |
| Standard rotational speed | 16.000 rpm | 8.050 rpm | 8.050 rpm |
| Circumferential speed* | 23 m/s | 23 m/s | 23 m/s |
| Inlet socket | clamp 3/4" | DN 25 | DN 25 |
| Outlet socket | clamp 1/2" | DN 15 | DN 15 |
| Ident. No. | U079664 | T061069 | T061674 |

* At standard speed and 50 Hz.

** At standard speed, 50 Hz and minimal gap between the rotor and stator.

*** Only with 4 kw motor.



Ident. No.
T055396 (with on/off switch)



Ident. No.
T058102 (with on/off switch)



IKA® LABOR-PILOT 2000/04

Inline dispersing machine in pilot size with upscale possibilities on the production scale. Three phase asynchron motor with V-belt drive. PTFE shaft seal. All metal parts in contact with the product are made of stainless steel. CIP-/SIP-capable. Standard execution with module UTL: Single stage dispersing chamber including rotor-stator system 4M. Exchangeable modules for special mixing tasks (see pages 86 and 87) as well as accessories for extension into a system working in recirculation available. Can be delivered with on/off switch or with LABOR-PILOT-CONTROLLER for variable speed adjustment.

| Technical data | | |
|----------------------------------|-------------------------|--|
| Power supply | 3 x 380 - 420 V / 50 Hz | |
| Motor power | 1,5 kW | |
| Max. admissible temperature | 120 °C | |
| Max. process pressure | 3 bar | |
| Rotational speed | 8.050 rpm | |
| Circumferential speed | 23 m/s | |
| Flow capacity (H ₂ O) | approx. 500 l/h | |
| General data | | |
| Dimensions (W x D x H) | 450 x 250 x 350 mm | |
| Weight | 36 kg | |

IKA® PROCESS-PILOT 2000/04

Inline dispersing machine in pilot size; suitable for working under vacuum / pressure and at elevated temperatures (when using optional temperature-resistant materials). Equipped with double mechanical seal in cartridge design. This allows, in addition to other LABOR-PILOT modules, the use of the CMS module for easy and dust-free suction of powders into liquids in batch operation. A locking pressure system guarantees safe working even at dry run. Standard execution with module ULTRA-TURRAX® UTL. Exchangeable modules for special mixing tasks (see pages 86 and 87) as well as accessories for extension into a system working in recirculation available. Can be delivered with on/off switch or with PROCESS-PILOT-CONTROLLER for variable speed adjustment.

| Technical data | | |
|----------------------------------|-------------------------|--|
| Power supply | 3 x 380 - 420 V / 50 Hz | |
| Motor power | 2,2 kW | |
| Max. admissible temperature | 120 °C | |
| Max. process pressure | 10 bar | |
| Rotational speed | 8.050 rpm | |
| Circumferential speed | 23 m/s | |
| Flow capacity (H ₂ O) | approx. 500 l/h | |
| General data | | |
| Dimensions (W x D x H) | 425 x 250 x 900 mm | |
| Weight | 53 kg | |

Controller for LABOR-PILOT / PROCESS-PILOT

| Technical data | LABOR-PILOT-CONTROLLER | PROCESS-PILOT-CONTROLLER |
|---|------------------------|--------------------------|
| Power | 2,2 kW | 4 kW |
| Frequency range | 20 - 87 Hz | 20 - 87 Hz |
| Rotational speed range (drive + controller) | 3.170 - 13.789 rpm | 3.170 - 13.789 rpm |
| Circumferential speed (drive + controller) | 9,4 - 41 m/s | 9,4 - 41 m/s |
| Ident. No. | T055171 | T058761 |

High pressure homogenizer HPH 2000/04-SH5

High energy density and highly turbulent flow at the valve outlet. Particle and droplet size reduction to the nano range. Optimal setting of homogenizing effect by infinite adjustment of the valve gap as well as optional adjustment of the speed. Versions with one piston. All metal parts in contact with the product are made of stainless steel. The standard version is equipped with an on / off switch. Variable speed control via a HPH-CONTROLLER optionally available.



Ident. No.
U068906

High pressure homogenizer HPH 2000/04-DH5

High energy density and highly turbulent flow at the valve outlet. Particle and droplet size reduction to the nano range. Optimal setting of homogenizing effect by infinite adjustment of the valve gap as well as optional adjustment of the speed. Version with two pistons. All metal parts in contact with the product are made of stainless steel. The standard version is equipped with an on / off switch. Variable speed control via a HPH-CONTROLLER optionally available.



Ident. No.
U071735

HPH-CONTROLLER

| Technical data | |
|------------------------|--------------------|
| Power | 1,5 kW |
| Frequency range | 20 - 50 Hz |
| Dimensions (W x D x H) | 200 x 310 x 405 mm |
| Weight | 17 kg |



Ident. No.
U071728



| | |
|------------|----------------|
| Ident. No. | |
| 2900000 | 230 V 50/60 Hz |
| 2900001 | 115 V 50/60 Hz |



Ident. No.
2904600



Ident. No.
2905200



Ident. No.
2983000

A 11 basic Analytical mill

Batch mill for 2 different grinding procedures:
Impact grinding of hard, brittle or non-elastic grinding materials with high-grade stainless steel beater. This beater can be used for a Mohs hardness up to 6 (incl. with delivery).
Cutting grinding for pulverizing soft, fibrous materials with a cutting blade (not incl. with delivery).
- Moist and gluey materials can be pulverized by adding water
- Grinding chamber made of Tefcel (ETFE, glass fiber-reinforced) with stainless steel inlet (AISI 316L), useful volume 80 ml (incl. with delivery). For embrittlement of grinding materials with liquid nitrogen in the grinding chamber
- Optionally, a 250 ml grinding chamber is available (page 91)

Accessories (page):
A 11.1 Spare beater (90), A 11.2 Cutting blade (90), A 11.3 Beater (90), A 11.4 Grinding chamber (91), A 11.5 Spare grinding chamber (91), A 11.6 Double beater (91), A 11.7 Funnel (91)

A 11.1 Spare beater

For pulverizing substances with a Mohs hardness up to 6. Included with the analytical mill A 11 basic.

A 11.2 Cutting blade

For pulverizing soft, fibrous grinding materials. Not included with the analytical mill A 11 basic.

A 11.3 Beater

For pulverizing substances with a Mohs hardness up to 9, coated with chromium carbide. Not included with the analytical mill A 11 basic.

| Technical data | |
|---------------------------------------|--------------------|
| Motor rating input | 160 W |
| Motor rating output | 100 W |
| Speed | 28.000 rpm (fixed) |
| Useful volume | 80 ml |
| Duty cycle ON / OFF | 1 min / 10 min |
| Overload protection | yes |
| Circumferential speed | 53 m/s |
| Max. granularity of task | 10 mm |
| Dimensions (W x D x H) | 85 x 85 x 240 mm |
| Weight | 1,5 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 43 |

| General data | |
|--------------|--------------------------|
| Material | stainl. steel (AISI 420) |

| General data | |
|--------------|---------------------------|
| Material | stainl. steel (AISI 440B) |

| General data | |
|--------------|---------------------------|
| Material | stainl. steel (AISI 440B) |

| General data | |
|---------------|---------------------------|
| Useful volume | 250 ml |
| Material | stainl. steel (AISI 316L) |

| General data | |
|---------------|---------------------------|
| Useful volume | 80 ml |
| Material | stainl. steel (AISI 316L) |

| General data | |
|--------------|----------------------------|
| Material | titanium, surface-hardened |

| General data | |
|-----------------|---------------------------|
| Material jacket | PTFE |
| Material sieve | stainl. steel (AISI 316L) |

A 11.4 Grinding chamber

Made of polycarbonate with stainless steel inlet. Not suitable for cooling with N₂, only applicable with double beater A 11.6.
Not included with the analytical mill A 11 basic.

A 11.5 Spare grinding chamber

Made of Tefcel (ETFE, glass fibre-reinforced) with stainless steel inlet. Excellent resistance to chemicals and low temperatures (- 200 °C).
Included with the analytical mill A 11 basic.

A 11.6 Double beater

For use up to Mohs hardness 3.
Only applicable with grinding chamber A 11.4.
Not included with the analytical mill A 11 basic.

A 11.7 Funnel

Prevents splashing by pouring in liquid nitrogen in the grinding chamber A 11.5.
Not included with the analytical mill A 11 basic.



Ident. No.
2904100



Ident. No.
2983100



Ident. No.
3302900



Ident. No.
3048700



Ident. No.
1603500 230 V 50/60 Hz
1603502 115 V 50/60 Hz

A 10 basic

Suitable for low-loss dry grinding of soft, hard and brittle substances

- With a built-in cooling chamber
- Removable, easy-to-clean, high-grade steel chamber
- 3 interchangeable cutters available
- Electronic overload protection
- A 14 Spare cutter and A 18 Grinding chamber reduction included with delivery

Accessories (page):

A 14 Spare cutter (92), A 15 Hard metal cutter (92), A 17 Star-shaped cutter (92), A 18 Grinding chamber reduction (92)

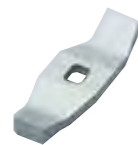
| Technical data | |
|--|------------------------|
| Motor rating input | 180 W |
| Motor rating output | 80 W |
| Speed max. | 20.000 rpm |
| Usable volume max. | 50 ml |
| Circumferential speed max. | 57 m/s |
| Feed hardness max. | 5 Mohs |
| Feed grain size max. | 6 mm |
| Material beater/cutter | stainless steel 1.4034 |
| Material milling chamber | stainless steel 1.4301 |
| Duty cycle ON / OFF | 5 min / 10 min |
| Dimensions (W x H x D) | 120 x 225 x 105 mm |
| Weight | 2,2 kg |
| Permissible ambient temperature | 5 - 40 °C |
| Permissible relative moisture | 80 % |
| Protection class according to DIN EN 60529 | IP 21 |



Ident. No.
1059300

A 14 Spare cutter

Suitable for crushing materials up to Mohs hardness 5. Included with A 10.



Ident. No.
1059100

A 15 Hard metal cutter

Made of tungsten carbide for hard materials up to Mohs hardness 9. Not included with A 10.



Ident. No.
1462700

A 17 Star-shaped cutter

Used to crush fibrous substances such as paper and vegetation, but also for plastics and material with a low specific weight. Not included with A 10.



Ident. No.
2318200

A 18 Grinding chamber reduction

Included with A 10.

| Technical data | |
|----------------|--------------------------|
| Material | stainl. steel (AISI 420) |

| Technical data | |
|----------------|-------------------------------------|
| Material | tungsten carbide (86,5 WC 13,5 Col) |

| Technical data | |
|----------------|--------------------------|
| Material | stainl. steel (AISI 304) |

| Technical data | |
|----------------|---------------------------|
| Material | stainl. steel (AISI 440B) |

| Technical data | |
|---------------------------------------|--------------------------|
| Motor rating input | 440 W |
| Motor rating output | 225 W |
| Speed | 20.000 rpm (fixed) |
| Circumferential speed | 72 m/s |
| Overload protection | current limitation |
| Useful volume | 250 ml |
| Material grinding chamber | stainl. steel (AISI 304) |
| Material cover | stainl. steel (AISI 304) |
| Max. granularity of task | max. 5 – 7 mm |
| Duty cycle ON / OFF (with cooling) | 7 min / 10 min |
| Weight | 6,6 kg |
| Dimensions (W x D x H) | 170 x 170 x 350 mm |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |

M 20 Universal mill

Batch mill suitable for dry grinding of hard and brittle substances.

- Double-walled grinding chamber can be cooled with water through two hose adapters
- Removable grinding chamber, easy to clean
- Two grinding chambers can be alternately operated using one drive
- M 21 Spare cutter incl. with delivery

Accessories (page):

M 21 Spare cutter (93), M 22 Hard metal cutter (93), M 23 Star-shaped cutter (93), M 20.1 Grinding chamber (93)



Ident. No.
1603600 230 V 50/60 Hz
1603603 115 V 50/60 Hz

| General data | |
|--------------|------------------------|
| Material | stainl. steel (1.4122) |

M 21 Spare cutter

Suitable for crushing materials up to Mohs hardness 5. Included with M 20.

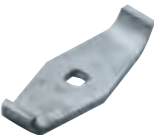


Ident. No.
0328200

| General data | |
|--------------|-------------------------------------|
| Material | tungsten carbide (86,5 WC 13,5 Col) |

M 22 Hard metal cutter

Made of tungsten carbide for hard materials up to Mohs hardness 9. Not included with M 20.



Ident. No.
0521800

| General data | |
|--------------|--------------------------|
| Material | stainl. steel (AISI 304) |

M 23 Star-shaped cutter

Used to crush fibrous substances such as paper and vegetation, but also for plastics and material with a low specific weight. Not included with M 20.



Ident. No.
1443400

M 20.1 Grinding chamber

A second grinding chamber ensures effective processing. The grinding chambers can be placed on the drive alternately. One chamber is cleaned and filled while the other is being processed.

Accessories (page):

M 21 Spare cutter (93), M 22 Hard metal cutter (93), M 23 Star-shaped cutter (93)



Ident. No.
8006200



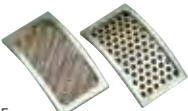
Ident. No.
2836000 230 V 50/60 Hz
2836001 115 V 50/60 Hz



Ident. No.
2870900



Ident. No.
2871000



| | |
|------------|---------|
| Ident. No. | |
| 2938900 | MF 0.25 |
| 2939000 | MF 0.5 |
| 2939200 | MF 1.0 |
| 2939400 | MF 2.0 |
| 2939500 | MF 3.0 |
| 2939600 | MF 4.0 |

MF 10 basic Microfine grinder drive

- Continuously operating universal grinder.
- Powerful drive
 - Easy to clean working surface made of stainless steel
 - Two different grinding heads can be attached to the drive
 - Heads are easily changeable
 - Grinding heads not incl. with delivery

Accessories (page):
MF 10.1 Cutting-grinding head (94),
MF 10.2 Impact grinding head (94)

MF 10.1 Cutting-grinding head

For crushing fibrous substances such as paper and vegetation, but also for plastics and material with a low volume weight. Before being discharged, the ground material passes through a sieve. This sieve is interchangeable and available in different hole sizes (not incl. with delivery). The ground material can then be collected using an NS 29 standard ground vessel.

Accessories (page):
MF Sieve (94)

MF 10.2 Impact grinding head

For crushing brittle, hard materials such as minerals, building materials up to Mohs hardness 6. Before being discharged, the ground material passes through a sieve. This sieve is interchangeable and available in different hole sizes (not incl. with delivery). The ground material can then be collected using an NS 29 standard ground vessel.

Accessories (page):
MF Sieve (94)

MF Sieve

Interchangeable sieves for insertion into the grinding heads ensure maximum particle size filtering.

| Technical data | |
|---------------------------------------|---------------------------|
| Motor rating input | 1.000 W |
| Motor rating output | 500 W |
| Speed range | 3.000 – 6.500 rpm |
| Circumferential speed | |
| Cutting-grinding head | 22,5 m/s |
| Impact grinding head | 31,4 m/s |
| Materials in contact with medium | stainl. steel (AISI 316L) |
| Duty cycle* ON / OFF | 120 / 30 min |
| Overload protection | yes |
| Weight | 320 x 300 x 380 mm |
| Dimensions (W x D x H) | 9,7 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 22 |

| Technical data | |
|----------------------------------|--------------------|
| Circumferential speed | 22,5 m/s |
| Max. granularity of task | max. 15 mm |
| Dimensions including MF 10 basic | 320 x 300 x 560 mm |
| Weight incl. MF 10 basic | 11,9 kg |
| Materials in contact with medium | stainl. steel |
| Grinding channel and cover | (AISI 304) |
| Blades | (AISI 440B) |
| Shaft, rotor, screws | (AISI 316L) |

| Technical data | |
|----------------------------------|--------------------|
| Circumferential speed | 31,4 m/s |
| Max. granularity of task | max. 10 mm |
| Dimensions including MF 10 basic | 320 x 300 x 450 mm |
| Weight incl. MF 10 basic | 12,4 kg |
| Materials in contact with medium | stainl. steel |
| Grinding channel and cover | (AISI 304) |
| Hammer beater | (AISI 304) |
| Shaft, rotor, screws | (AISI 316L) |

| General data | | | |
|------------------------|--------------------------|--------|--------|
| Material | stainl. steel (AISI 304) | | |
| Hole size (diameter) | | | |
| MF 0.25 | 0,25 mm | MF 2.0 | 2,0 mm |
| MF 0.5 | 0,5 mm | MF 3.0 | 3,0 mm |
| MF 1.0 | 1,0 mm | MF 4.0 | 4,0 mm |
| Wider holes on request | | | |

MF 10 basic

Drive for inline microfine grinder.
Grinding head and sieves not incl.
with delivery, **page 94**
Ident. No. 2836000

MF 10.1

Cutting-grinding head,
interchangeable with impact
grinding head MF 10.2, **page 94**
Ident. No. 2870900

MF 10.2

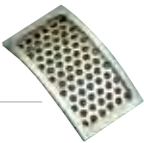
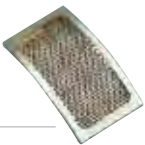
Impact grinding head, inter-
changeable with cutting-grinding
head MF 10.1, **page 94**
Ident. No. 2871000

MF 0.5

Sieve for insertion into cutting-grinding head MF 10.1 or
impact grinding head MF 10.2, with hole size 0.5 mm, **page 94**
Ident. No. 2939000

MF 2.0

Sieve for insertion into cutting-grinding head MF 10.1 or
impact grinding head MF 10.2, with hole size 2,0 mm, **page 94**
Ident. No. 2939400



Heating / Tempering



C-MAG HP 7

- New hotplate made of glass ceramic which offers excellent chemical resistance.
- Fixed safety circuit of 550 °C
 - Hot Top indicator >> hot surface warning to prevent burns!
 - Exact temperature setting via digital display (LED)

| | |
|---------------|----------|
| Hotplates | 98 |
| Heating baths | 98 – 99 |
| Thermostats | 99 – 101 |



C-MAG HP 4

| | |
|------------|----------------|
| Ident. No. | |
| 3581600 | 230 V 50/60 Hz |
| 3581626 | 115 V 50/60 Hz |



C-MAG HP 7

| | |
|------------|----------------|
| Ident. No. | |
| 3581800 | 230 V 50/60 Hz |
| 3581826 | 115 V 50/60 Hz |



C-MAG HP 10

| | |
|------------|----------------|
| Ident. No. | |
| 3582000 | 230 V 50/60 Hz |
| 3582026 | 115 V 50/60 Hz |

C-MAG HP 4 / HP 7 / HP 10 IKATHERM®

New hotplate made of glass ceramic which offers excellent chemical resistance.

- Fixed safety circuit of 550 °C
- Hot Top indicator >> hot surface warning to prevent burns!
- Precise temperature setting via digital display (LED)
- Digital error code display
- Elevated control panel to protect against leaking liquids

C-MAG HP 7, C-MAG HP 10 additionally:

- Bushing according to DIN 12878 for connecting a contact thermometer, e.g. ETS-D5, enables precise temperature control

Accessories (page):

C-MAG HP 7, C-MAG HP 10 additionally:

Electronic contact thermometer ETS-D5 (123)

HB 10 digital Heating bath

The digital display featured on IKA®’s heating bath HB 10 offers each user a high ease of operation. The heating bath HB 10 digital’s key characteristics are:

- Heating power 1.350 watts
- Particularly suited for operation with the rotary evaporator RV 10
- Optimized bath shape for quick heating
- Integrated carrying handles for safe handling
- Adjustable safety circuit, for a safe switch-off in the case of errors
- Protection against dry running
- High-quality recyclable materials
- Digital display makes for easy operation
- Temperature controlled by micro controller
- IR interface for communication with the rotary evaporator RV 10 digital / control
- Choice of operating modes A, B, C

Accessories (page):

HB 10.1 Shield (109), HB 10.2 Protective cover (109)



| | |
|------------|----------------|
| Ident. No. | |
| 3642000 | 230 V 50/60 Hz |
| 3642001 | 115 V 50/60 Hz |

| Heating function | | |
|---------------------------------------|--------------|--------------------|
| Temperature display | | digital |
| Heat output | HP 4 | 250 W |
| | HP 7 | 1.000 W |
| | HP 10 | 1.500 W |
| Heating rate (1l H ₂ O) | HP 4 | 2,5 K/min |
| | HP 7 / HP 10 | 5 K/min |
| Temperature range | | 50 – 500 °C |
| Setting accuracy | | ± 10 K |
| Safety circuit fixed | | 550 °C |
| Control accuracy with sensor HP 4 | | – |
| | HP 7 / HP 10 | ETS-D5 / ± 0,5 K |
| Heating plate | | |
| Material | | glass ceramic |
| Dimensions | HP 4 | 100 x 100 mm |
| | HP 7 | 180 x 180 mm |
| | HP 10 | 260 x 260 mm |
| General data | | |
| Dimensions (W x D x H) | HP 4 | 150 x 260 x 105 mm |
| | HP 7 | 220 x 330 x 105 mm |
| | HP 10 | 300 x 415 x 105 mm |
| Weight | HP 4 | 3 kg |
| | HP 7 | 5 kg |
| | HP 10 | 6 kg |
| Permissible ambient temperature | | 5 – 40 °C |
| Permissible relative humidity | | 80 % |
| Protection class acc. to DIN EN 60529 | | IP 21 |

| Heating function | | |
|---|--|------------------------|
| Heat output | | 1.350 W |
| Temperature range | | RT – 180 °C |
| Setting tolerance | | ± 1 K |
| Deviation (3 l H ₂ O, 90 °C) | | ± 1 K |
| Temperature display | | digital |
| Safety class acc. to DIN 12877 | | 2 |
| Filling point min | | 50 mm |
| Fixed safety circuit | | 180 °C |
| Adjustable safety circuit min | | 50 °C |
| Adjustable safety circuit max | | 190 °C |
| General data | | |
| Useful volume | | 3 l |
| Material | | stainless steel 1.4301 |
| Dimensions (W x H x D) | | 295 x 190 x 265 mm |
| Outer height | | 185 mm |
| Inner height | | 134 mm |
| Weight | | 3 kg |
| Permissible ambient temperature | | 5 – 40 °C |
| Permissible relative humidity | | 80 % |
| Protection class acc. to DIN EN 60529 | | IP 21 |

| Heating function | |
|---|--------------------------|
| Heat output | 1.000 W |
| Temperature range | RT – 200 °C |
| Setting tolerance | ± 1 K |
| Deviation (3 l H ₂ O, 90 °C) | ± 1 K |
| Temperature display | digital |
| Safety class acc. to DIN 12877 | 2 |
| Stirring function | |
| Stirring function | yes |
| Speed range | 100 – 800 rpm |
| General data | |
| Useful volume | 4 l |
| Material | stainl. steel (AISI 304) |
| Outer diameter | 250 mm |
| Inner diameter | 200 mm |
| Outer height | 250 mm |
| Inner height | 160 mm |
| Weight | 4,4 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 21 |

| Heating function | |
|---------------------------------------|-------------------------------|
| Operating temperature range | 28 – 300 °C |
| Min. temperature with refrigerator | -20 °C |
| Temperature stability at 70 °C | 0,02 K |
| Temperature adjustment | digital |
| Resolution of display | 0,1 K |
| Absolute accuracy | setup for calibration |
| Temperature control internal | PT 100 |
| External sensor | PT 100 |
| Analog Interface In/Out | 4 – 20 mA alternative 1 – 5 V |
| Safety classification | FL |
| Heating power | 3 kW |
| Pressure pump | |
| Pump flow (pressure) max. | 33 l/min |
| Delivery pressure (head) | 0,7 bar |
| Pump flow (suction) max. | 22 l/min |
| Delivery suction pressure (head) | 0,4 bar |
| Pump connection | M 16 x 1 |
| General data | |
| Max. permissible kin. viscosity | 50 mm²/s |
| Bath volume | 8,5 l |
| Bath capacity with displacement rack | 5,2 l |
| Width bath opening W x D / bath depth | 130 x 110 / 155 mm |
| Dimensions (W x D x H) | 240 x 405 x 390 mm |
| Height of bath opening | 190 mm |
| Weight | 18 kg |
| Ambient Temperature | 5 – 32 °C |

HBR 4 digital Heating bath

The heating bath is characterized by the following features:

- Cylindrical bath shape
- High-grade recyclable materials
- The heating elements are situated underneath the bath vessel
- Either low viscosity oil (50 mPas) or water can be used as the heat transfer fluid
- Infinitely adjustable safety temperature limiter acc. to DIN 12877
- Double jacket provides protection against burns
- Digital display presents rated, actual and safety temperature as well as speed
- Fuzzy logic control
- Integrated magnetic stirring drive to circulate the tempering fluid, which contributes to improved heat distribution
- The safety elements are checked when the unit is switched on

Accessories (page):

H 240 Ring set (100), H 159 Intermediate bottom (100), IKAFLON®-Stirring bars (32)



| | |
|------------|----------------|
| Ident. No. | |
| 2602300 | 230 V 50/60 Hz |
| 2602301 | 115 V 50/60 Hz |

CC3-308B vpc Circulation thermostat

Heating circulator bath with housing, bath and all moistened parts are made of stainless steel. With cooling coil for water-cooling, pressure and suction pump. Adjustable overtemperature protection according to DIN 12876.

Complete functions: With level protection and maximum and minimum set point for additional safety, external temperature sensor connection, external temperature control and temperature programmer (50 segments, may be split into 10 programs), interactive, contains a digital RS 232 / RS 485 interface as well as a (4...20 mA) analog interface for bidirectional communication.

Plug & Play Technology - new generation of microprocessor controlled compatible control. Simple operation with a rotary knob and digital display, easy control, clear text, menu-driven, set point limiting, visually and acoustically alarm, mains failure automatic, programmable.

Accessories (page):

LT 5.20 Hose (101), LT 5.24 Hose adapter (101), PC 2.1 Cable (101), labworldsoft® (139), PT 100.5 Temperature sensor (101)



| | |
|------------|----------------|
| Ident. No. | |
| 3658800 | 230 V 50/60 Hz |
| 3658801 | 115 V 50/60 Hz |

IKA® Heating / Tempering

Thermostats / accessories heating baths, heating plates and thermostats



Ident. No.
3164000 230 V 50/60 Hz
3164001 115 V 50/60 Hz

EH 4 basic Immersion thermostat

For temperature control of liquids (NFL/I) up to 100 °C in open baths (min. bath depth 160 mm, min. usable depth 75 mm).

- Complies with all safety requirements for electrically operated devices
- Intended for supervised use
- For operation with non-flammable liquids only
- With universal clamp, suitable for all standard bath vessels

Accessories (page):
Bath vessels (100)

| Heating function | |
|---------------------------------------|--------------------|
| Heat output | 1.500 W |
| Temperature range | 25 – 100 °C |
| Temperature display | scale |
| Temperature stability (70 °C) | ± 0,12 K |
| Adjustable temperature limitation | 25 – 200 °C |
| Max. pump pressure | 0,08 bar |
| Max. delivery rate | 5 l/min |
| General data | |
| Dimensions (W x D x H) | 105 x 139 x 319 mm |
| Weight | 2,3 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 31 |
| Safety class acc. to DIN 12876 | yes |

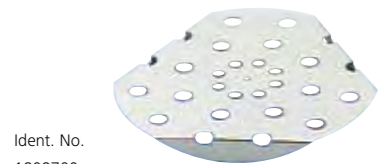


Ident. No.
2858700

H 240 Ring set

To cover the heating bath HBR 4 digital. Prevents dust penetration, uncontrolled heat dissipation as well as water absorption and the formation of oil mist when working with oil.

| General data | |
|--------------------------------|-------------|
| Number of rings | 10 |
| Diameter of opening (variable) | 25 – 185 mm |



Ident. No.
1809700

H 159 Intermediate bottom

Allows vessels to be inserted in the heating bath HBR 4 digital without obstructing movement of the rotating magnetic bars.



Ident. No.
3335000 EH 4.1 (5 l)
3335100 EH 4.2 (11 l)
3335200 EH 4.3 (18 l)

Bath vessels

Polycarbonate bath vessels, suitable for use with the immersion thermostat EH 4 basic, up to 100 °C.

| General data | | | |
|------------------------------|--------|--------------------|--|
| Material | | polycarbonate | |
| Volume without vessels | | 5, 11, 18 l | |
| Outer dimensions (W x D x H) | EH 4.1 | 132 x 280 x 160 mm | |
| | EH 4.2 | 350 x 313 x 168 mm | |
| | EH 4.3 | 350 x 473 x 168 mm | |
| Inner dimensions (W x D x H) | EH 4.1 | 120 x 262 x 150 mm | |
| | EH 4.2 | 302 x 295 x 150 mm | |
| | EH 4.3 | 302 x 455 x 150 mm | |

IKA® Heating / Tempering

Accessories thermostats

| General data | |
|------------------|--------|
| Material | metal |
| Length | 1 m |
| Max. temperature | 300 °C |

LT 5.20 Hose

Coated metal hoses for circulation thermostat CC3-308B vpc. Package contains 2 hoses.

Accessories (page):
LT 5.24 Hose adapter (101)



Ident. No.
2606700

| General data | |
|--------------------|-------------------|
| Dimensions adapter | R 1/8" x M 16 x 1 |

LT 5.24 Hose adapter

For connection to the reactor vessels LR 2000.1 and LR 2000.2.



Ident. No.
2578100

| General data | |
|--------------|-----|
| Length | 3 m |

PC 2.1 Cable

For connection to the circulation thermostat CC3-308B vpc control to a PC (9 pin interface).



Ident. No.
2700700

| General data | |
|--------------|---------------------------|
| Length | 255 mm |
| Diameter | 6 mm |
| Material | stainl. steel (AISI 316L) |

PT 100.5

Temperature sensor for use with laboratory reactor systems LR 2000.



Ident. No.
2506800

R 350 Universal clamp

For clamping flask necks, condensers, etc. up to 11 cm diameter.



Ident. No.
1752900

Distilling

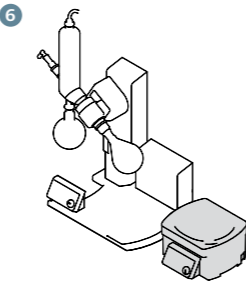


RV 10 control V

RV 10 Rotary evaporators awarded for outstanding performance.
Page 106



- 1 Vertical glassware (other options available)
- 2 Various flask sizes
- 3 Vacuum connection plus Woulf bottle
Highly solvent-resistant PTFE seal
- 4 Adjustable safety stop
- 5 Two displays for optimal view
- 6 Heating bath can be used separately
Ergonomic carrying handles on heating bath
- 7 Can be moved by 150 mm to accommodate
different flasks
- 8 Motorised height-adjustable lift
Lift raised automatically in case of power outage
- 9 Choice of angle



5 Year warranty*

* 2 + 3 years after registering at
www.ika.com/register,
glassware and wearing parts excluded

RV 10 basic

The RV 10 basic rotary evaporator with integrated HB 10 heating bath is the base system of IKA®’s new rotary evaporator line. The RV 10 basic is available with vertical glassware, either coated or uncoated.

- Analog heating bath with adjustable safety circuit, “stand alone” operation is possible, pivoting safety hood as an accessory
- Safe and simple operation by means of ergonomically shaped control unit in the front
- Motorised lift (stroke 140 mm) with “safety stop” function, if the power cuts out the evaporator flask is automatically lifted out of the heating bath
- Adjustable end position recognition to protect the glass from breaking
- Speed range from 20 to 280 rpm
- Smooth start from 100 rpm
- Digital speed display
- Rotates clockwise and counterclockwise in interval operation for the drying process
- Timer function for time lapse control
- Water/oil heating bath with integrated carrying handles for safe handling
- Heats up quickly because of optimized bath volumes
- Push-off mechanism to loosen tightly fitting flasks
- 5 year warranty after registration

| RV 10 Basic | | |
|-----------------|---|------------|
| Model | Description | Ident. No. |
| RV 10 basic V | with heating bath HB 10 basic and vertical glassware RV 10.1 | 8022300 |
| RV 10 basic V-C | with heating bath HB 10 basic and vertical glassware, coated RV 10.10 | 8022900 |

RV 10 digital

IKA®’s RV 10 digital is a combination of performance, reliability and versatility and offers users the precision of an accurate, digitally controlled heating bath. The perfectly coordinated data transfer between the heating bath and the drive unit as well as the option of remote operation from a PC ensure results that can be reproduced any time.

Same properties as RV 10 basic, with the following additional functions:

- Digital water/oil heating bath with integrated carrying handles, “stand alone” operation is possible
- Temperature control of the heating bath by a micro controller
- Digital temperature display
- Infrared interface for data transfer from the heating bath to the drive unit
- RS 232 interface for PC remote operation with labworldsoft®
- Timer function shuts off heating bath at completion of timer sequence
- 5 year warranty after registration

| RV 10 Digital | | |
|--------------------|---|------------|
| Model | Description | Ident. No. |
| RV 10 digital V | with heating bath HB 10 digital and vertical glassware RV 10.1 | 8022500 |
| RV 10 digital V-C | with heating bath HB 10 digital and vertical glassware RV 10.10 | 8023100 |
| RV 10 digital FLEX | with heating bath HB 10 digital, incl. Wouloff bottle | 8031500 |

! Required glassware for the FLEX package has to be ordered separately.





RV 10 control

The RV 10 control is the flagship of the new rotary evaporator series by IKA®. It offers all the functions of the RV 10 digital. But the IKA® RV 10 control goes one step further. Like the RV 10 digital, it can be precisely controlled via the RS 232 interface for remote PC operation with IKA®'s labworldsoft and is thus ideal for automatic operation but that’s not all; the control functions also enable completely automatic distillation both for volume-based processes and full drying depending on the area of application. The expandable solvent library also allows you to incorporate new processes.

Functions and benefits

- Same properties as RV 10 digital, with the following additional functions:

 - Integrated vacuum controller with central display for automatic distilling and ramp programming
 - Integrated solvent library, which can be extended by the user
 - Distillation specific parameters stored for standard distillations
 - Automatic transfer of measurements and distillation type with one key press
 - Programmable volume controlled distillation
 - Color graphic display for safe and comfortable operation
 - Display of distillation curves
- Multiple languages
 - Automatic ventilation at the end of each test
 - Cooling water switched off automatically at the end of the test
 - Integrated cooling water monitoring
 - Heating bath safety management; automatic heating bath monitoring with distillation stop in case of temperature errors
 - Heating bath switched off automatically at the end of the test
 - USB interface
 - 5 years warranty after registration
 - New: Now RV 10.4002 Magnetic Valve included in delivery

| RV 10 control | | |
|--------------------|--|------------|
| Model | Description | Ident. No. |
| RV 10 control V | with heating bath HB 10 control, vertical glassware RV 10.1 and RV 10.4002 Magnetic valve laboratory vacuum | 8022700 |
| RV 10 control V-C | with heating bath HB 10 control, vertical glassware, coated RV 10.10 and RV 10.4002 Magnetic valve laboratory vacuum | 8023300 |
| RV 10 control FLEX | with heating bath HB 10 control, incl. Woulff bottle and RV 10.4002 Magnetic valve laboratory vacuum | 8031600 |

! Required glassware for the FLEX package has to be ordered separately.

| | RV 10 basic | RV 10 digital | RV 10 control |
|-------------------------|--|--|--|
| Packages with glassware | RV 10 basic V RV 10 basic V-C | RV 10 digital V RV 10 digital V-C | RV 10 control V RV 10 control V-C |
| Cooler type | V=vertical V-C=vertical coated D=diagonal D-C=diagonal coated | V=vertical V-C=vertical coated D=diagonal D-C=diagonal coated | V=vertical V-C=vertical coated D=diagonal D-C=diagonal coated |
| Cooling surface | 1.200 cm² | 1.200 cm² | 1.200 cm² |

| Drive | | | |
|--|--------------------------|--------------------------|--------------------------|
| Motor type | brushless DC drive motor | brushless DC drive motor | brushless DC drive motor |
| Motor rating input | 50 W | 50 W | 50 W |
| Speed range | 20 to 280 rpm | 20 to 280 rpm | 20 to 280 rpm |
| Speed display | digital | digital | digital |
| Clockwise and counter-clockwise interval operation | yes | yes | yes |
| Smooth start | yes | yes | yes |
| Head angle adjustable | 0 to 45° | 0 to 45° | 0 to 45° |
| Stroke displacement | 140 mm, motorised | 140 mm, motorised | 140 mm, motorised |
| Setting of lower end stop | 60 mm, contact-free | 60 mm, contact-free | 60 mm, contact-free |
| Vacuum controller | accessories | accessories | integrated |

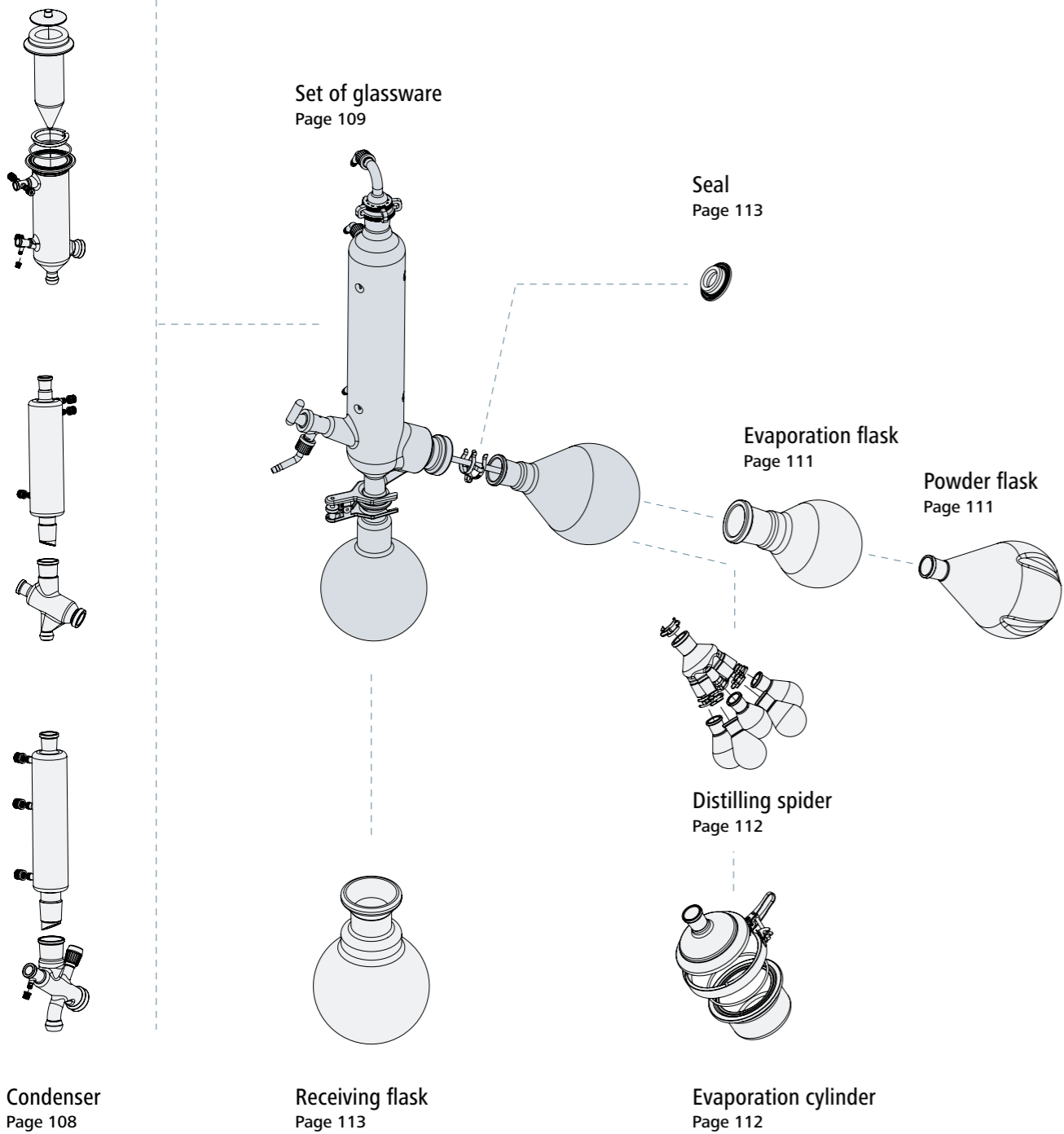
| Heating bath | HB 10 basic | HB 10 digital | HB 10 control |
|---------------------|---------------------------|------------------|------------------|
| Temperature range | RT to 180 °C | RT to 180 °C | RT to 180 °C |
| Heating power | 1.300 W | 1.300 W | 1.300 W |
| Controller | capillary tube controller | micro controller | micro controller |
| Temperature display | scale | digital | digital |
| Setting accuracy | scale | 1 K | 1 K |
| Control deviation | ± 5 K | ± 1 K | ± 1 K |

| Required accessories for an existing vacuum* | | | |
|---|----|----|------------------------------|
| In-house vacuum (industrial vacuum source for many users) | 1) | 1) | RV 10.4002 Magnetic valve ** |
| Laboratory vacuum pump (multiple connections) | 1) | 1) | RV 10.4002 Magnetic valve ** |
| Diaphragm vacuum pump (one single connection) | 1) | 1) | RV 10.4002 Magnetic valve ** |

| General data | | | |
|---|--------------------|--------------------|--------------------|
| Dimensions without glassware (W x D x H) | 530 x 410 x 570 mm | 530 x 410 x 570 mm | 530 x 410 x 570 mm |
| RV 10 diagonal (W x D x H) | 890 x 410 x 670 mm | 890 x 410 x 670 mm | 890 x 410 x 670 mm |
| RV 10 vertical (W x D x H) | 680 x 410 x 990 mm | 680 x 410 x 990 mm | 680 x 410 x 990 mm |
| Weight of evaporator incl. heating bath without glass parts | 20 kg | 20 kg | 21.5 kg |
| Permissible ambient temperature | 5 to 40 °C | 5 to 40 °C | 5 to 40 °C |
| Protection class acc. to DIN EN 60529 | IP 20 | IP 20 | IP 20 |

| Ident. No. | | | |
|--|---------|---------|---------|
| Package with vertical glassware | 8022300 | 8022500 | 8022700 |
| Package with vertical coated glassware | 8022900 | 8023100 | 8023300 |

* will be controlled by the vacuum controller of the RV 10 control rotary evaporator.
** Magnetic valve now included with delivery of every RV 10 control.
1) no accessories required for vacuum pump connection (vacuum level must be controlled by external vacuum controller)



| General data | |
|-----------------|-----------|
| Condenser type | vertical |
| Cooling surface | 1.200 cm² |

RV 10.1 Set of glassware, vertical

Compact vertical condenser for all standard distillations. The solvent to be distilled can be continuously fed in through the PTFE inlet tube. A 1.000 ml evaporator and 1.000 ml receiving flask are included. Also available with coating for shatter protection.

! Glassware included in all packages, except FLEX.



| | |
|------------|-------------------|
| Ident. No. | |
| 3655300 | RV 10.1 |
| 3755400 | RV 10.10 (coated) |

| General data | |
|-----------------|-----------|
| Condenser type | diagonal |
| Cooling surface | 1.200 cm² |

RV 10.2 Set of glassware, diagonal

Diagonal condenser for all standard distillations. A 1.000 ml evaporator and 1.000 ml receiving flask are included. Also available with coating for shatter protection.



| | |
|------------|-------------------|
| Ident. No. | |
| 3755300 | RV 10.2 |
| 3755500 | RV 10.20 (coated) |

| General data | |
|--------------|---------------|
| Material | polycarbonate |

HB 10.1 Shield

For heating bath HB 10; for optimal protection against splashes of hot liquid.



| |
|------------|
| Ident. No. |
| 3641800 |

| General data | |
|--------------|---------------|
| Material | polycarbonate |

HB 10.2 Protective cover

For heating bath HB 10; essential accessory if it is not possible to work in an extractor hood. Protects the user against splashes of hot liquid and in the event of the evaporator flask breaking.



| |
|------------|
| Ident. No. |
| 3641000 |



Ident. No.
3741000 RV 10.3
3741100 RV 10.30 (coated)

RV 10.3 Vertical-intensive condenser with manifold

Vertical-intesive condenser with double jacket and manifold for particularly efficient condensation. The solvent to be distilled can be continuously fed in at the manifold using the PTFE inlet tube. Also available with coating for shatter protection.

| General data | |
|-----------------|--------------------|
| Condenser type | vertical-intensive |
| Cooling surface | 1.400 cm² |



Ident. No.
3742000 RV 10.4
3742100 RV 10.40 (coated)

RV 10.4 Dry ice condenser

Dry ice condenser for distilling low-boiling point solvents. The solvent to be distilled can be continuously fed in through the PTFE inlet tube. Cooling by dry ice, no cooling water required. Max. condensation thanks to low temperatures. Also available with coating for shatter protection.

! Not possible with autodistillation mode on RV 10 control.

| General data | |
|-----------------|-------------------|
| Condenser type | dry ice condenser |
| Cooling surface | 620 cm² |



Ident. No.
3743000 RV 10.5
3743100 RV 10.50 (coated)

RV 10.5 Vertical-condenser with manifold and cut-off valve for reflux distillation

The solvent to be distilled can be continuously fed in through the PTFE inlet tube. Also available with coating for shatter protection.

! Requires RV 10.74 Vapor tube short.

| General data | |
|-----------------|-----------|
| Condenser type | vertical |
| Cooling surface | 1.200 cm² |

| General data | |
|-----------------|--------------------|
| Condenser type | vertical-intensive |
| Cooling surface | 1.400 cm² |

RV 10.6 Vertical-intensive condenser with manifold and cut-off valve for reflux distillation

The manifold features a condensate cover and an outlet channel which prevent the condensate from coming into contact with the seal. The solvent to be distilled can be continuously fed in through the PTFE inlet tube. Also available with coating for shatter protection.

! Requires RV 10.74 Vapor tube short.



Ident. No.
3744000 RV 10.6
3744100 RV 10.60 (coated)

| General data | |
|--------------|--------------------|
| Material | borosilicate glass |

RV 10.70 Vapor tube NS 29/32

For all glassware.



Ident. No.
3812200

| General data | |
|--------------|--------------------|
| Material | borosilicate glass |

RV 10.74 Vapor tube short NS 29/32

For vertical condensers RV 10.5 and RV 10.6.



Ident. No.
3971700

| General data | | | |
|----------------|--------|--------------------|----------|
| Material | | borosilicate glass | |
| Volume (in ml) | | RV 10.83 | 500 ml |
| RV 10.80 | 50 ml | RV 10.84 | 1.000 ml |
| RV 10.81 | 100 ml | RV 10.85 | 2.000 ml |
| RV 10.82 | 250 ml | RV 10.86 | 3.000 ml |

Evaporation flask NS 29/32

The flask, which is made of high quality borosilicate glass, is available in seven different sizes.



Ident. No.
3740100 RV 10.80
3740200 RV 10.81
3740300 RV 10.82
3740400 RV 10.83
3740500 RV 10.84
3740600 RV 10.85
3740700 RV 10.86

| General data | | | |
|----------------|--|--------------------|----------|
| Material | | borosilicate glass | |
| Volume (in ml) | | RV 10.300 | 500 ml |
| | | RV 10.301 | 1.000 ml |
| | | RV 10.302 | 2.000 ml |

Powder flask NS 29/32

The flask, which is made of high quality borosilicate glass, is available in three different sizes. The powder flask optimizes powder drying applications by avoiding the accumulation of powder on the walls of the flask and makes full use of the clockwise and counterclockwise interval rotation.



Ident. No.
3738200 RV 10.300
3738300 RV 10.301
3738400 RV 10.302



| | |
|-----------|-----------|
| Ident. No | |
| 3738800 | RV 10.400 |
| 3738900 | RV 10.401 |

Evaporation cylinder NS 29/32

The cylinder, which is made of high quality borosilicate glass, is available in two different sizes. Makes retrieval of viscous substances easy.

| General data | | |
|----------------|--------------------|----------|
| Material | borosilicate glass | |
| Volume (in ml) | RV 10.400 | 500 ml |
| | RV 10.401 | 1.500 ml |



| |
|-----------|
| Ident. No |
| 3739200 |

RV 10.500 Foam brake NS 29/32

The rising foam produces bursts in the glass ball extension. This stops foam from entering the receiving flask.

⚠ Note: when using a 3 liter evaporation flask, RV 10.3000 Extension plate is required.

| General data | | |
|--------------|--------------------|--|
| Material | borosilicate glass | |



| | |
|-----------|-----------|
| Ident. No | |
| 3739400 | RV 10.600 |
| 3739500 | RV 10.601 |
| 3739600 | RV 10.602 |
| 3919400 | RV 10.610 |

Distilling spider with distilling sleeves NS 29/32

For simultaneous distillation in 6, 12 or 20 distilling sleeves, 20 ml. Included with purchase.

| General data | | |
|--------------|--------------------|----------------------------|
| Material | borosilicate glass | |
| Model | RV 10.600 | with 6 distilling sleeves |
| | RV 10.601 | with 12 distilling sleeves |
| | RV 10.602 | with 20 distilling sleeves |
| | RV 10.61 | Distilling sleeve, 20 ml |



| | |
|-----------|-----------|
| Ident. No | |
| 3740800 | RV 10.606 |
| 3740900 | RV 10.607 |
| 3741200 | RV 10.90 |
| 3741300 | RV 10.91 |

Distilling spider with 5 flasks NS 29/32

For simultaneous distillation in 5 evaporation flasks. Included with purchase.

| General data | | |
|--------------|--------------------|---------------------------|
| Material | borosilicate glass | |
| Model | RV 10.606 | with 5 flasks, 50 ml |
| | RV 10.607 | with 5 flasks, 100 ml |
| | RV 10.90 | Evaporation flask, 50 ml |
| | RV 10.91 | Evaporation flask, 100 ml |



| | |
|------------|--------------------|
| Ident. No. | |
| 3742200 | RV 10.100 |
| 3742300 | RV 10.101 |
| 3742400 | RV 10.102 |
| 3742500 | RV 10.103 |
| 3742600 | RV 10.104 |
| 3742700 | RV 10.105 |
| 3743200 | RV 10.200 (coated) |
| 3743300 | RV 10.201 (coated) |
| 3743400 | RV 10.202 (coated) |
| 3743500 | RV 10.203 (coated) |
| 3743600 | RV 10.204 (coated) |
| 3743700 | RV 10.205 (coated) |

Receiving flask KS 35/20

The flask, which is made of high quality borosilicate glass, is available in six different sizes, either coated or uncoated.

| General data | | | |
|--------------|----------|-----------|----------|
| Model | | | |
| RV 10.100 | 100 ml | RV 10.200 | 100 ml |
| RV 10.101 | 250 ml | RV 10.201 | 250 ml |
| RV 10.102 | 500 ml | RV 10.202 | 500 ml |
| RV 10.103 | 1.000 ml | RV 10.203 | 1.000 ml |
| RV 10.104 | 2.000 ml | RV 10.204 | 2.000 ml |
| RV 10.105 | 3.000 ml | RV 10.205 | 3.000 ml |

| General data | |
|------------------------|-------------------|
| Dimensions (W x D x H) | 200 x 270 x 27 mm |

RV 10.3000 Extension plate

Accessories required when using the RV 10.500.

⚠ Note: Allows the heating bath to be moved 150 mm horizontally. Accessory required when using the RV 10.500 foam brake and 3 liter evaporation flask.



| |
|------------|
| Ident. No. |
| 3859000 |

| General data | |
|--------------|-------------|
| Material | FFKM / PTFE |

RV 06.15 Seal

Particularly solvent-resistant. Included in delivery.



| |
|------------|
| Ident. No. |
| 2114700 |

| General data | |
|--------------|-----------------------|
| Material | PTFE, stainless steel |

RV 10.8001 Seal

New airtight lip-seal from a PTFE compound with a built-in stainless steel spring.



| |
|------------|
| Ident. No. |
| 3907000 |



Ident. No.
3880300

RV 10.4002 Magnetic valve laboratory vacuum

For single or multiple connection benchtop diaphragm vacuum pump.

! Accessory required for an existing vacuum.
New: now included with each RV 10 control system.

| General data | |
|---------------|---------------|
| Power | 24 V / 9 W |
| Accessory for | RV 10 control |



Ident. No.
3900200

RV 10.4003 Pump control incl. magnetic valve

One rotary evaporator at one pump / tabletop operation. Pump stops when the set pressure is reached and automatically switches back on again.

! Accessory required for an existing vacuum.
For non EU countries plug adapter required.

| General data | |
|----------------------|---------------------|
| Power magnetic valve | 24 V / 6 W |
| Power pump control | 100-240 V, 50/60 Hz |
| Accessory for | RV 10 control |



Ident. No.
3902700

RV 10.5001 Choke water valve

To regulate the water flow. The integrated magnetic valve closes/opens the water circuit during automatic distillation.

! Accessory recommended for tap water connection.

| General data | |
|---------------|---------------|
| Power | 24 V / 6 W |
| Connection Ø | 10 mm |
| Accessory for | RV 10 control |

| General data | |
|----------------|---------------|
| Mesh thickness | 100 µm |
| Connection Ø | 10 mm |
| Pressure | max. 11 bar |
| Accessory for | RV 10 control |

RV 10.5002 Filter

To prevent contamination of the water pipes. With removable filter for easy cleaning.

! Accessory recommended for tap water (faucet) connection.



Ident. No.
3903800

| General data | |
|---------------|---|
| Connection Ø | 10 mm |
| Pressure | max. input 25 bar, max. output 1 bar |
| Accessory for | RV 10 basic, RV 10 digital, RV 10 control |

RV 10.5003 Pressure regulating valve

For adjusting the cooling water pressure when connecting to a tap water system.

! Accessory recommended for tap water (faucet) connection.



Ident. No.
3907100

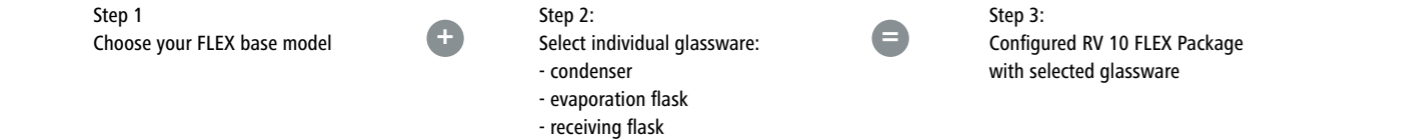
IKA® Distilling

FLEX-ability with the new IKA® RV 10 FLEX Packages

The IKA® FLEX Packages enable the customer who requires specialty glassware the FLEX-ability of customizing their glassware setup for their specific application.

| RV 10 FLEX | | |
|--------------------|---|------------|
| Package | Description | Ident. No. |
| RV 10 digital FLEX | RV 10 digital drive, HB 10 digital heating bath, RV 10.70 vapor tube NS 29/32, clamps for glassware, Woulff bottle | 8031500 |
| RV 10 control FLEX | RV 10 control drive, HB 10 control heating bath, RV 10.70 vapor tube NS 29/32, clamps for glassware, Woulff bottle, RV 10.4002 Magnetic valve laboratory vacuum | 8031600 |

Only three steps to configure your personalized rotary evaporator system:



RV 10.4
Dry ice condenser, **page 110**
Ident. No. 3742000
Ident. No. 3742100 (coated)

KS 35/20
Receiving flask, **page 113**

NS 29/32
Evaporation flask, **page 111**

RV 10 control
Rotary evaporator drive, **page106**
Ident. No. 3560000

HB 10 control
Heating bath



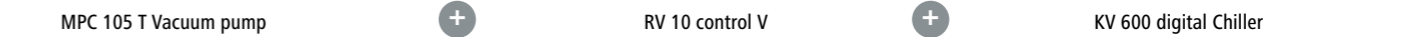
! More information about IKA® Rotary evaporators at www.ika.com/distilling.

IKA® Distilling

Rotary evaporators RV 10 control “all in one” Package

Would you like a complete package including vacuum system and chiller? Then the RV 10 control „all in one“ package is your best option.

| Rotary Evaporators RV 10 control “all in one” Package | | |
|---|---|-----------|
| Model | Description | Ident. No |
| RV 10 control V | includes Heating bath HB 10 control and set of glassware vertical | 8022700 |
| MPC 105 T Vacuum pump | – | 4067700 |
| KV 600 digital Chiller | – | 3410500 |



KV 600 digital
Chiller, **page 155**
Ident. No. 3410500

RV 10 control V
Rotary evaporator, **page 106**
Ident. No. 8022700

MPC 105 T
Vacuum pump, **page 125**
Ident. No. 4067700



Accessories



ETS-D5

Electronic contact thermometer ensures perfect temperature control without overshooting the set temperature, even in the case of quick heating. With optimized PID control and RESET function, incl. stainless steel sensor H 62.51.

Page 123

| | |
|----------------------------------|-----------|
| Stands | 120 – 121 |
| Fixing elements | 122 |
| Temperature measuring instrument | 123 – 124 |
| Vacuum controller | 125 |
| Vacuum pump / valve | 125 |



Ident. No.
3386000

R 104 Stand

Small stand for T 10 basic and RW 11 basic.

Accessories (page):
R 200 Clamp (122),
H 44 Boss head clamp (122)



Ident. No.
1163100s R 1822
3160000 R 1825
3160100 R 1826
3160200 R 1827

Plate stands
R 1822
R 1825
R 1826
R 1827

With slip resistant foil.

Accessories (page):
Boss head clamp R 182 (122),
RH 3 Strap clamp (122)

Note: R 1822 is only available in Asia, Australia, South America and New Zealand.



Ident. No.
1412000

R 2722 H-Stand

Particularly stable stand with H-shape base which prevents the stand from tipping backwards. Provides optimum stability required for larger, heavier instruments and attachments, for example with rheological measurements using overhead stirrers.

The stand has an adjustment screw which can be used to compensate for an uneven laboratory table surface.

Accessories (page):
Boss head clamps (122): R 270, R 271, RH 5 Strap clamp (122)



Ident. No.
1412100

R 2723 Telescopic stand

Similar to R 2722, additionally equipped with a pneumatic spring stand rod, which enables heavy instruments / attachments to be raised and lowered smoothly without difficulty, e.g. with rheological measurements using overhead stirrers. The stand has an adjustment screw which can be used to compensate for an uneven laboratory table surface.

Accessories (page):
Boss head clamps (122):
R 270, R 271, RH 5 Strap clamp (122)



Ident. No.
1608000

T 653 Telescopic stand

Specially designed for the dispersing instrument T 65 D. The stand is equipped with a pneumatic spring which enables effortless raising and lowering of the dispersion unit.



Ident. No.
1643000

R 474 Telescopic stand

Specially designed for the overhead stirrer RW 47 D; can be adapted for use with other instruments. The stand is equipped with a pneumatic spring which enables effortless raising and lowering of the dispersion unit.

Accessories (page):
SI 400 Safety switch (47),
SI 474 Fixing device (47)



Ident. No.
0738700

R 472 Floor stand

Mobile floor stand, specially designed for the overhead stirrer RW 47 D; can be adapted for use with other instruments.

Accessories (page):
SI 400 Safety switch (47),
SI 472 Fixing device (47)

| Description | R 104 Stand | R 1822* | R 1825 | R 1826 | R1827 | R 2722 H-Stand | R 2723 Telescopic stand | T 653 Telescopic stand | R 474 Telescopic stand | R 472 Floor stand |
|-------------------------|--------------|--------------|--------------|--------------|--------------|----------------|-------------------------|------------------------|------------------------|-------------------|
| Ident. No. | 3386000 | 1163100 | 3160000 | 3160100 | 3160200 | 1412000 | 1412100 | 1608000 | 1643000 | 0738700 |
| Diameter of support rod | 10 mm | 16 mm | 16 mm | 16 mm | 16 mm | 34 mm | 34 mm | 48 mm | 48 mm | – |
| Dimensions (W x D) | 242 x 355 mm | 200 x 315 mm | 200 x 316 mm | 200 x 316 mm | 200 x 316 mm | 460 x 420 mm | 460 x 420 mm | 460 x 530 mm | 460 x 530 mm | 80 x 80 mm |
| Height | 370 mm | 800 mm | 560mm | 800 mm | 1.000 mm | 1.010 mm | 620 – 1.010 mm | 1.200 mm | 1.200 mm | 2.020 mm |
| Max. load | 0,7 kg | – | 5 kg | 5 kg | 5 kg | 10 kg | 10 kg | – | – | – |
| Stroke | – | – | – | – | – | – | 390 mm | 500 – 1.000 mm | 500 – 1.000 mm | 980 – 1.860 mm |

IKA® Mechanical accessories

Fixing elements



Ident. No.
2437700

H 44 Boss head clamp



Ident. No.
2657700

R 182 Boss head clamp



Ident. No.
2657800

R 270 Boss head clamp



Ident. No.
2664000

R 271 Boss head clamp

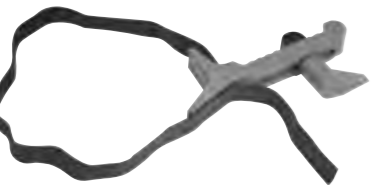
Specialized clamp with openings for the stands R 2722 (page 120) and R 2723 (page 121) as well as extensions with Ø 16 mm.



Ident. No.
3372000

R 200 Clamp

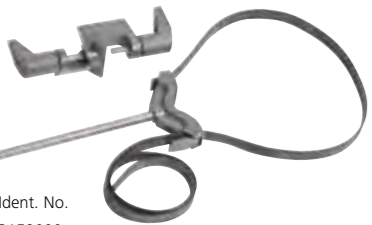
For fastening the T 10 basic to the stand R 104 (page 120). Included with delivery of T 10 basic.



Ident. No.
3008600

RH 3 Strap clamp

For securing vessels against walls or for synchronized rotation during stirring or dispersing.



Ident. No.
3159000

RH 5 Strap clamp

For securing vessels against walls or for synchronized rotation during stirring or dispersing, incl. boss head clamp R 270 (page 122).

| General data | |
|--------------------------------|---------------|
| Clamping range - stand | 10 – 11 mm |
| Clamping range - extension arm | 11 mm |
| Material | cast aluminum |

| General data | |
|--------------------------------|---------------|
| Clamping range - stand | 6 – 16 mm |
| Clamping range - extension arm | 6 – 16 mm |
| Material | cast aluminum |

| General data | |
|--------------------------------|---------------|
| Clamping range - stand | 25 – 36 mm |
| Clamping range - extension arm | 5 – 21 mm |
| Material | cast aluminum |

| General data | |
|--------------------------------|---------------|
| Clamping range - stand | 34 mm |
| Clamping range - extension arm | 16 mm |
| Material | cast aluminum |

| General data | |
|---------------------------|--------|
| Diameter of extension arm | 8 mm |
| Length of extension arm | 130 mm |

| General data | |
|---------------------|-------------|
| For stand diameter | 8 – 16 mm |
| For vessel diameter | 40 – 300 mm |

| General data | |
|---------------------|-------------|
| For stand diameter | 25 – 36 mm |
| For vessel diameter | 40 – 300 mm |

IKA® Electronic accessories

Temperature measuring instrument

| Temperature | |
|---------------------------------------|---|
| Temperature measuring range | -50 – 450 °C |
| Resolution | 0,1 K |
| Measuring accuracy | ± 0,2 K + Sensor tolerance PT 1000 DIN IEC 751 class A |
| Setting accuracy | 0,1 K |
| Control deviation | ± 0,5 K |
| General data | |
| Supply voltage | 8 – 16 VDC |
| Power consumption | 10 mA (at 9 V) |
| Max. ON time | 100 % |
| Plug | 6 pin DIN 45322 |
| Connection | DIN 12878 class 2 |
| Dimensions (W x D x H) | 82 x 22 x 83 mm (without sensor) |
| Weight | 0,2 kg |
| Permissible ambient temperature | 0 – 60 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 54 |

| Measuring device | |
|---------------------------------------|-------------------|
| Sensor | PT 100 |
| Measuring range | -200 – 400 °C |
| Temperature display | digital |
| Resolution | 0,01 K |
| General data | |
| Interface | Almemo, analog |
| Dimensions (W x D x H) | 125 x 150 x 70 mm |
| Weight | 1,1 kg |
| Permissible ambient temperature | 0 – 50 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 50 |

Electronic contact thermometer ETS-D5

Ensures perfect temperature control without overshooting the set temperature, even in the case of quick heating. With optimized PID control and RESET function, incl. stainless steel sensor H 62.51. For all magnetic stirrers with contact thermometer bushing according to DIN 12878, class 2 (e.g. IKA®, Heidolph and Corning with adapter AD-C1).

3 modes of operation guarantee optimum adjustment to your working method.

Operating mode A

Suitable for work with varying parameters (from -50 °C to 450 °C). Safety temperature adjustable.

Operating mode B

Suitable for series operation under uniform conditions.

Operating mode C

Suitable for unsupervised operation. All values are taken from the memory. This ensures perfect protection against inadvertent improper adjustment.

Accessories ETS-D5 (page):

Sensors (26): H 62.51, H 66.51, H 70 Extension cable (27), H 16 V Support rod (31), H 44 Boss head clamp (31), H 38 Holding rod (31)



Ident. No.
3378025

DTM 12 IKATRON®
Digital temperature measuring instrument

For measuring temperatures between -200 °C up to +400 °C

- LED display
- Analog output (1 °C = 1mV)
- Almemo interface for PC connection
- Sensor connection: Almemo

Accessories (page):

Temperature sensors (124): PT 100.23, PT 100.24, PT 100.25, PT 100.27, DTM 12.10 Data cable (123), labworldsoft® (139)



Ident. No.
3113200

90 – 240 V 50/60 Hz

DTM 12.10 Data cable, 9 pins (F)

Data cable with RS 232 interface to connect the DTM 12 with a PC.

PC 1.2 Adapter, 25 pins

9 pins (M) to 25 pins (F).



Ident. No.
3127800

DTM 12.10

2616800

PC 1.2

IKA® Electronic accessories



| | | |
|------------|---------|-----------|
| Ident. No. | | |
| 1 | 3122100 | PT 100.23 |
| 2 | 3122200 | PT 100.24 |
| 3 | 3122300 | PT 100.25 |

Temperature sensors

1 PT 100.23

Standard sensor for a wide range of laboratory tasks.

2 PT 100.24

Protective pipe, glass-coated. For use in acid and alkaline solutions.

3 PT 100.25

E.g. for use with IKA® laboratory reactors in combination with sensor receptacle LR 2000.60 (page 133).

| | |
|-----------------------------|---------------------------|
| PT 100.23 | |
| Material of protective pipe | stainl. steel (AISI 316L) |
| Diameter | 3 mm |
| Length | 250 mm |
| Measuring range | -50 – 200 °C |
| Resolution | 0,01 K |

| | |
|-----------------------------|--------------------|
| PT 100.24 | |
| Material of protective pipe | borosilicate glass |
| Diameter | 8 mm |
| Length | 250 mm |
| Measuring range | -50 – 200 °C |
| Resolution | 0,01 K |

| | |
|-----------------------------|---------------------------|
| PT 100.25 | |
| Material of protective pipe | stainl. steel (AISI 316L) |
| Diameter | 6 mm |
| Length | 255 mm |
| Measuring range | -50 – 400 °C |
| Resolution | 0,1 K |



Ident. No.
1980700

VC 1.1 Water jet pump

With valves for water jet and cooling water. Automatic cooling water cut-off at end of distillation. Suitable for rotary evaporators. Low water consumption. For RV 05, RV 06, RV 10 basic, digital.



Ident. No.
2163500

VC 1.3 Magnetic solenoid valve

In conjunction with the vacuum controller VC 2, the solenoid valve can be used to regulate an in-house vacuum, the vacuum of uncontrolled water jet pumps or electrical vacuum pumps. The pump works constantly, the pipe is disconnected by the solenoid valve. For RV 05, RV 06, RV 10 basic, digital.



Ident. No.
2439100 100 – 240 V 50/60 Hz

VC 2.4 Pump control

The pump control is required when using electrical vacuum pumps, in conjunction with the vacuum controller VC 2. The pump is disconnected from the mains and then reconnected. For RV 05, RV 06, RV 10 basic, digital. Magnetic solenoid valve and power pack included with delivery.

Advantage over VC 1.3:

Due to the interruption of the pumps current lead, noise levels and energy costs are reduced.

IKA® Electronic accessories



Ident. No.
4067800

LVS 105 T 10-ef

- Compact, dry-running, chemical resistant pump systems, the ideal solution for many applications in chemical laboratories and research
- Fully automatic pump system with built-in solvent library
- Graphic display
- Close to 100% solvent recovery
- User-friendly operation
- Optimal stability
- Quick and easy maintenance
- Equipped with a speed regulated vacuum controller and a chemical resistant diaphragm pump. The pumping speed can be precisely controlled, e.g. for gentle distillations



Ident. No.
4067700

MPC 105 T

- For dry, oil-free applications in the low vacuum range
- Compact and space saving design
- Quiet running and long lifetime
- Easy to service and low operating costs
- Chemically resistant diaphragm pumps (MPC) are resistant to aggressive solvents and acidic vapors - diaphragms and gas contacting parts consist of PTFE and PTFE compounds and the pumping and connection heads are carbon fiber reinforced with electrical conductivity



Ident. No.
2300000 230 V 50/60 Hz
2300001 115 V 50/60 Hz

VC 2 IKAVAC® Vacuum controller

Used to create a controlled partial vacuum in laboratory applications. Typical tasks are the evacuation of desiccators, vacuum apparatus, etc. Solvent recovery rates of up to 99 % are possible if rotary evaporators are used. For RV 05, RV 06, RV 10 basic, digital.

- Microprocessor-controlled
- Minimum solvent loss
- Considerable reductions in water costs
- Integrated air release valve
- Easy operation
- Space-saving stand-supported instrument
- Automatic setpoint correction
- Clearly organized membrane keyboard

Accessories (page):

VC 1.1 Water jet pump (124)

| | |
|---|--------------------------|
| Technical data | |
| Pumping speed 50/60 Hz (DIN 28432 at speed of 1350 rpm) | 1,2 m³ / h 20 l / min |
| Ultimate vacuum | < 2,0 mbar |
| Operating pressure | 1 bar |
| Connectors for tube | ID 8 mm |
| Permissible ambient temperature | +10...+40 °C |
| Voltage | 90 - 240 V |
| Motor protection | IP 20 |
| Power | 830 W |
| Frequency | 50 - 60 Hz |
| Weight | 9 kg |
| Dimensions (W x D x H) | 250 x 260 x 435 mm |
| Ports | RS 232 / SUB-D 9-pole |

| | |
|---|--------------------------|
| Technical data | |
| Pumping speed 50/60 Hz (DIN 28432 at speed of 1350 rpm) | 0,8 m³ / h 13 l / min |
| Ultimate vacuum | < 2,0 mbar |
| Operating pressure | 1 bar |
| Connectors for tube | ID 8 mm |
| Permissible ambient temperature | +10...+40 °C |
| Voltage | 115/230 V |
| Motor protection | IP 42 |
| Power | 68 W |
| Frequency | 50-60 Hz |
| Weight | 7,5 kg |
| Dimensions (W x D x H) | 235 x 145 x 327 mm |

| | |
|---------------------------------------|------------------|
| Technical data | |
| Power input | 14 W |
| Control range | 1 – 1.200 mbar |
| Setting accuracy | 1 mbar |
| Display | digital (LED) |
| Dimensions (W x D x H) | 150 x 57 x 85 mm |
| Weight | 1,0 kg |
| Permissible ambient temperature | 5 – 40 °C |
| Permissible relative humidity | 80 % |
| Protection class acc. to DIN EN 60529 | IP 50 |

Laboratory reactors



Anchor stirrer

With PEEK scrapers or with flow borings,
for all laboratory reactors.

Page 132

Flow breaker

Page 132

Systems up to 2 liters 128 – 135

LR-2.ST Package 2



EUROSTAR power control-visc P7
Overhead stirrer, **page 41**
Ident. No. 2850700

LR 2000.11
Anchor stirrer with flow borings, **page 132**
Ident. No. 2509500

LR 2000.1
Double-walled reactor vessel, **page 132**
Ident. No. 2508300

LR-2.ST
Stand system

LR-2.SI
Safety stop

Laboratory reactor system LR-2.ST

The system LR-2.ST is a modularly expandable laboratory reactor, designed and planned for reproducing and optimizing chemical reaction processes as well as mixing, dispersing and homogenization processes at laboratory scales.

- Some examples for these processes are:
- Manufacturing creams, lotions, emulsions, and liposome preparations in the pharmaceutical and cosmetic sector
 - Mixing of solids such as calcium carbonate,talc, titanium oxide, etc. into liquid polymers
 - Mixing of additives and solid polymer compounds into mineral oils
 - Grinding and disintegrating of solids and fibers in liquids and polymers

The cost efficient LR-2.ST laboratory reactors is available for vacuum applications.

| Technical data | |
|---|---------------------------|
| Min. volume (anchor stirrer) | 500 ml |
| Min. volume (T 25 digital) | 800 ml |
| Max. volume | 2.000 ml |
| Max. temperature Kalrez | 230 °C |
| Attainable vacuum | 25 mbar |
| Max. viscosity (EUROSTAR power control-visc P7) | 150.000 mPas |
| Speed range (EUROSTAR power control-visc P7) | 8 – 290 rpm |
| Height of telescopic stand | 620 – 1.010 mm |
| Dimensions (W x D x H) | 460 x 430 x 1.240 mm |
| Materials in contact with medium | stainl. steel (AISI 316L) |
| | FFPM |
| | borosilicate glass 3.3 |



The system can be adapted individually to a wide range of different applications and specific requirements. IKA® laboratory devices, e.g. temperature measuring instruments, laboratory stirrers and dispersing instruments, pumps and thermostats can be combined and controlled via PC using labworldsoft®.

The IKA® laboratory reactors features among others are:

- Modularly expandable to accommodate interchangeable instruments for various applications (3 x NS 29 and 2 x NS 14 groand joints)
- Single- and double-walled jacketed 2 liter vessels available made of borosilicate glass, with or without bottom discharge valve
- Sealing materials (FFPM) resist solvents and temperatures for applications up to 230 °C



LR-2.ST Packages



Package 1

LR-2.ST
Basic package with reactor cover
(sealing material: FFPM)
consisting of:

- Stand system LR-2.ST
- LR-2.SI Safety disconnection
- EUROSTAR power control-visc P7
- LR 2000.11 Anchor stirrer with flow borings
- LR 2.1 Single walled reactor vessel

Accessory (page):
HBR 4 digital Heating bath (99)

| | |
|------------|----------------|
| Ident. No. | |
| 9008400 | 230 V 50/60 Hz |
| 9008401 | 115 V 50/60 Hz |



Package 2

LR-2.ST
Basic package with reactor cover
(sealing material: FFPM)
consisting of:

- Stand system LR-2.ST
- LR-2.SI Safety disconnection
- EUROSTAR power control-visc P7
- LR 2000.11 Anchor stirrer with flow borings
- LR 2000.1 Double-walled reactor vessel with quick-action connectors

Safety accessory (page):
LR-2.SP Splinter protection (133)

| | |
|------------|----------------|
| Ident. No. | |
| 9008500 | 230 V 50/60 Hz |
| 9008501 | 115 V 50/60 Hz |



Package 3

LR-2.ST
Basic package with reactor cover
(sealing material: FFPM)
consisting of:

- Stand system LR-2.ST
- LR-2.SI Safety disconnection
- EUROSTAR power control-visc P7
- LR 2000.11 Anchor stirrer with flow borings
- LR 2000.2 Double-walled reactor vessel with quick-action connectors and bottom discharge valve

Safety accessory (page):
LR-2.SP Splinter protection (133)

| | |
|------------|----------------|
| Ident. No. | |
| 9008600 | 230 V 50/60 Hz |
| 9008601 | 115 V 50/60 Hz |

Configuration possibilities

Basic package (page 130 – 132)

LR-2.ST Laboratory reactor system
consisting of:

- LR-2.ST Stand system
- LR-2.SI Safety disconnection
- EUROSTAR power control-visc P7
- LR 2000.11 Anchor stirrer

Ident. No. 8016500

Reactor vessels (page 132) and accessories (chapter Heating / Tempering)

| | | |
|--|---|--|
| LR 2000.1 Double-walled reactor vessel borosilicate glass Ident. No. 2508300 | LR 2000.2 Double-walled reactor vessel with bottom discharge valve, borosilicate glass Ident. No. 2509600 | LR 2.1 Single-walled reactor vessel, borosilicate glass Ident. No. 3070000 |
| LT 5.24 Hose adapter (2 pieces required) Ident. No. 2578100 | LT 5.24 Hose adapter (2 pieces required) Ident. No. 2578100 | HBR 4 digital Heating bath Ident. No. 2602300 |
| LT 5.20 Hoses Ident. No. 2606700 | LT 5.20 Hoses Ident. No. 2606700 | |
| CC3-308B vpc Circulation thermostat Ident. No. 3658800 | CC3-308B vpc Circulation thermostat Ident. No. 3658800 | |

Add-on units

| | | |
|---|---|--|
| DTM 12 IKATRON® Digital temperature measuring instr., p. 123, Ident. No. 3113200 | T 25 digital ULTRA-TURRAX® Disperser, p. 74 Ident. No. 3565000 | LVS 105 T 10-ef Vacuum pump with integrated controller, p. 125 Ident. No. 4067800 |
|---|---|--|

Software (page 138 – 145)

labworldsoft®
PC software
Ident. No. 2970000

Accessories (page 132)

| | | |
|---|---|---|
| LR 2000.10 Anchor stirrer with PEEK scraper Ident. No. 2508400 | LR 2000.11 Anchor stirrer with flow borings Ident. No. 2509500 | LR 2000.20 Flow breaker Ident. No. 2508500 |
|---|---|---|

Necessary components

Optional components



Ident. No.
2508400

LR 2000.10 Anchor stirrer

With PEEK scrapers, for all laboratory reactors.



Ident. No.
2509500

LR 2000.11 Anchor stirrer

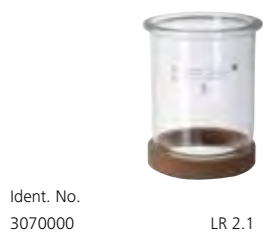
With flow borings, for all laboratory reactors.



Ident. No.
2508500

LR 2000.20 Flow breaker

For LR-2.ST.



Ident. No.
3070000

LR 2.1

LR 2.1 Reactor vessel

Single-walled, for LR-2.ST.



Ident. No.
2508300

LR 2000.1

LR 2000.1 Reactor vessel

Double-walled, with quick-action connectors, for LR-2.ST.

Accessories (page):
LT 5.24 Hose adapter (2 pieces required) (101),
LT 5.20 Hose (101)



Ident. No.
2509600

LR 2000.2

LR 2000.2 Reactor vessel

Double-walled, with quick-action connectors and bottom discharge valve, for LR-2.ST.

Accessories (page):
LT 5.24 Hose adapter (2 pieces required) (101),
LT 5.20 Hose (101)

| General data | |
|--------------|---------------------------------|
| Material | stainl. steel (AISI 316L), PEEK |

| General data | |
|--------------|---------------------------|
| Material | stainl. steel (AISI 316L) |

| General data | |
|---------------------|---------------------------|
| Material | stainl. steel (AISI 316L) |
| Installation length | 180 mm |

| General data | |
|------------------|------------------------|
| Useful volume | 2.000 ml |
| Material | borosilicate glass 3.3 |
| Max. temperature | 230 °C |

| General data | |
|------------------|------------------------|
| Useful volume | 2.000 ml |
| Material | borosilicate glass 3.3 |
| Max. temperature | 230 °C |

| General data | |
|------------------|------------------------|
| Useful volume | 2.000 ml |
| Material | borosilicate glass 3.3 |
| Max. temperature | 230 °C |

| General data | |
|------------------|------|
| Material of seal | FFPM |

LR 2000.40 Shaft receptacle

To install the dispersing elements S 25 KV (page 79).



Ident. No.
2509200

| General data | |
|------------------|------|
| Material of seal | FFPM |

LR 2000.60 Sensor receptacle

To install the temperature sensors
PT 100.25 (page 124) and PT 100.5
(page 101).



Ident. No.
2509300

LR 2000.52 Tool set (without fig.)

Spare. Included in the packages of the laboratory reactors.

Ident. No.
2508800

LR-2.SP Splinter protection (without fig.)

Prevents potential injuries caused by broken glass and burns as a result of accidentally touching the hot reactor vessel.

Ident. No.
3326400

Data processing: software, cable and adapters

Software (page 138 – 145)

labworldsoft®

PC software

Ident. No. 2970000

Instruments with interface

EUROSTAR power control-visc P7

Overhead stirrer, p. 41

Ident. No. 2850700

DTM 12 IKATRON®

Digital temperature measuring instrument, p. 123

Ident. No. 3113200

CC3-308B vpc

Circulation thermostat, p. 99

Ident. No. 3658800

Cable and plug connectors (page 143)

PC 1.4

Adapter

15 – 9 pin

Ident. No. 2755900

PC 2.1

Cable

9 pin

Ident. No. 2700700

PC 1.5

Cable

15 – 25 pin

Ident. No. 2756000

DTM 12.10

Cable,

Special plug 9 pin

Ident. No. 3127800

PC 2.1

Cable

9 pin

Ident. No. 2700700

PC 2.2

Adapter

9 – 25 pin

Ident. No. 2753200

PC 1.2

Adapter

9 – 25 pin

Ident. No. 2616800

Interface / PC (page 143)

PC 4.1

RS 232 Server with 9 pin interface and RJ 45 plug for network connection

Ident. No. 3192000

PC

with 9 pin interface

PC

with 25 pin interface

PC

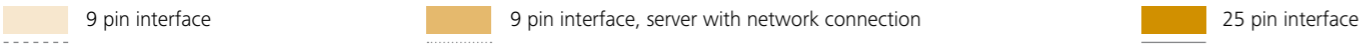
with 25 pin interface or multi-serial card PCI 8.2

Ident. No. 8017500

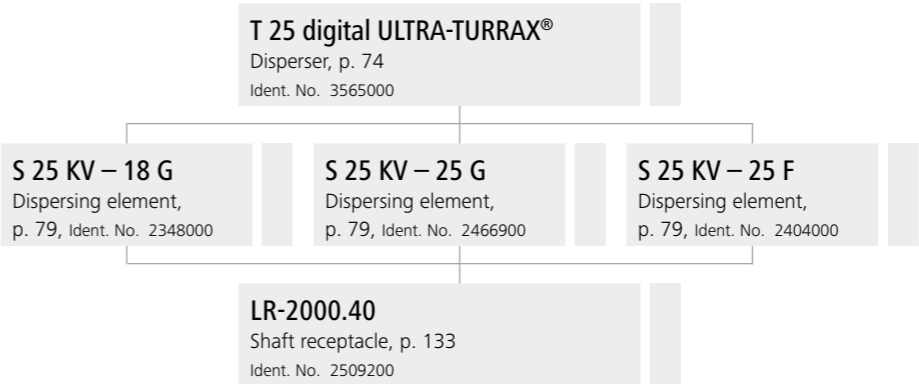
PC 4.1

RS 232 Server with 9 pin interface and RJ 45 plug for network connection

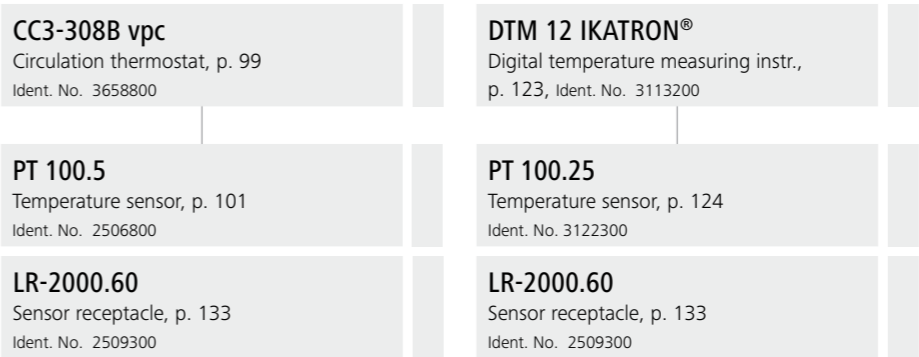
Ident. No. 3192000



Dispersing / Homogenizing



Temperature control resp. temperature measurement



Software



labworldsoft®

Eases life in the laboratory. With this laboratory software, you can network up to 64 laboratory devices simultaneously via one PC. That makes the automation of your laboratory experiments and processes possible.

Page 138 / 139

Laboratory software
for control and
data collection

138-145



labworldsoft®

With this laboratory software, you can network up to 64 laboratory devices simultaneously via one PC.

labworldsoft®

With this laboratory software, you can network up to 64 laboratory devices simultaneously via one PC. That makes the automation of your laboratory experiments and processes possible. Measurements and processes may be run independently from one another. This helps to avoid long waits and you increase your productivity. The communication between PC and laboratory device is performed via the serial interface RS 232 (COM1 or COM2). With the help of plug-in cards and Ethernet RS 232 servers, up to 64 laboratory devices can be used simultaneously via one PC. All laboratory instruments can be controlled independently from each other and the measured values (speed, temperature, torque, pH, etc.) can be documented separately.

Hard- and software requirements:

Pentium 90 with at least 16 MB RAM, and a mouse. VGA display: monochrome with at least 16 levels of grey or color. Windows 95/98/2000/NT/ME/XP/Vista.

Accessories (page):

PCI 8.2 Plug-in card (143), PC 4.1 RS 232 Server (143)

Networking, monitoring

With labworldsoft® you can network up to 64 laboratory instruments simultaneously via one PC. From sample preparation to synthesis, all steps of research and development in the lab can be automated using labworldsoft®.

Controlling

Desired temperature and speed sequences can be precisely controlled by means of freely selectable ramp functions. The ramp functions can be graphically generated, stored, and then loaded again at any time.

Recording, evaluating

labworldsoft® enables a fast and easy recording of many physical parameters which are required in the laboratory, such as pH, conductivity, temperature, torque, weight, pump rates etc.

Exporting

Data recorded using labworldsoft® can be directly written to an Excel sheet or exported to any standard application at a later stage.

Storing / reproducing measured data

Do your test arrangements repeat themselves? With labworldsoft® all test arrangements can be stored. The stored data is available to reproduce the test, with one mouse click. The reproducibility of tests is warranted within the scope of ISO 9000 and within GLP.

Documentation

For documentation purposes, all measuring results as well as the measurement flowcharts can be printed or plotted according to GLP, ISO and QA.

For more information and a download of your free trial version please visit:
www.labworldsoft.com



Ident. No.
2970000



Manufactures with interface devices compatible to labworldsoft®:

- | | |
|---------------------------|----------------------------|
| - Ahlborn | - Lauda |
| - Ehret | - Martin Christ |
| - Eyela | - Metrohm |
| - Fritsch | - Mettler-Toledo |
| - Gerhardt | - MLT |
| - GFL | - PM Tamson Instruments |
| - Harvard | - PolyScience |
| - Heidolph | - Sartorius Stedim Biotech |
| - Hermle | - Scaltec |
| - Huber | - Sigma |
| - IKA® | - Telab |
| - Ilmvac / Gardner Denver | - Thermo Haake |
| - Infors | - Thermo Neslab |
| - Ismatec | - Troemner |
| - Julabo | - Vaccubrand |
| - Kern | |
| - KNF Flodos | |
| - KNF Neuberger | |
| - Knick | |

Interfaces to additional devices from other manufacturers will soon be available. Please ask for a current reference list.

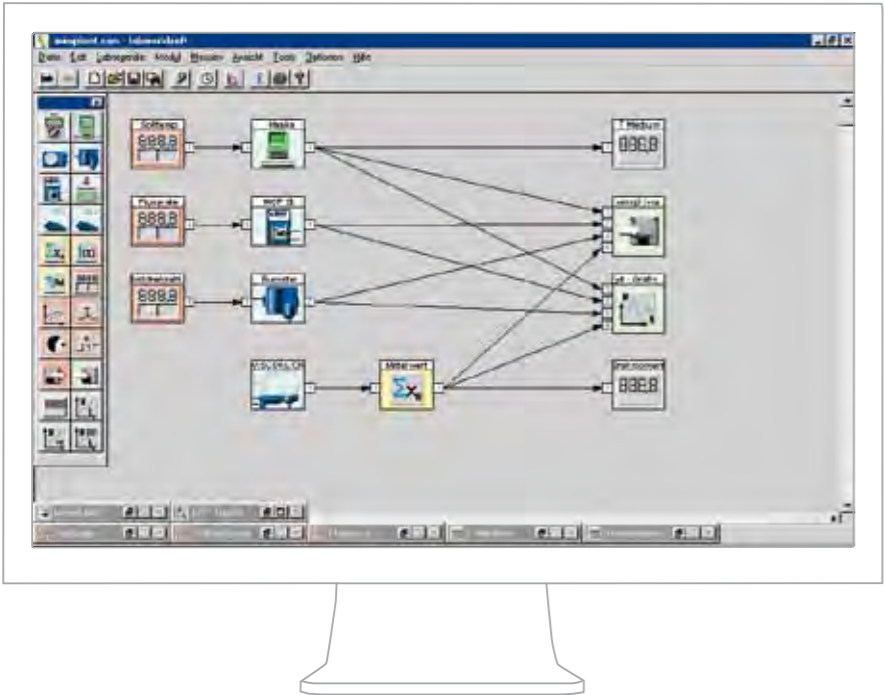


Figure 1: Configuration of a laboratory reactor with peripherals.

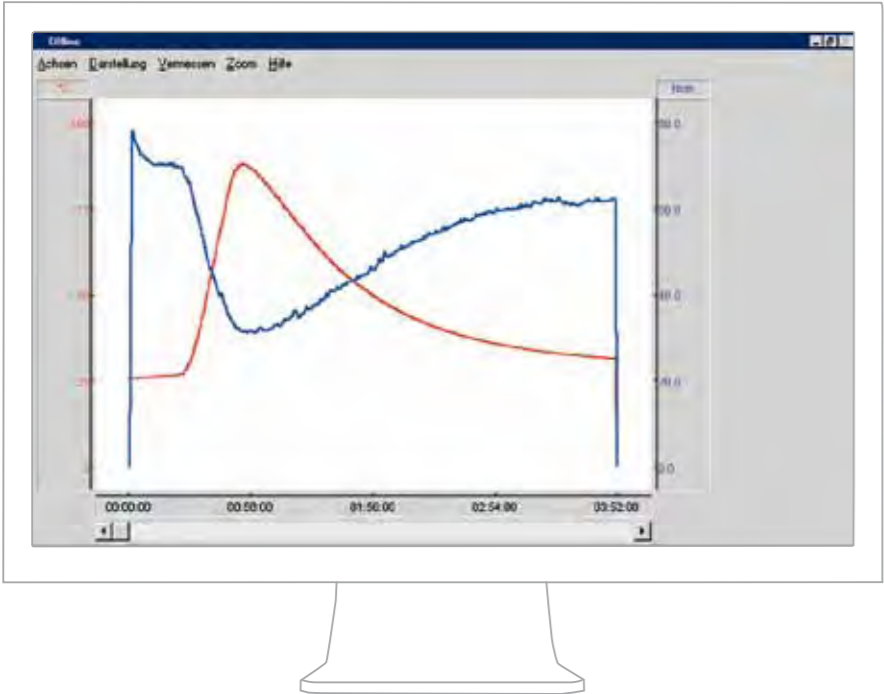


Figure 2: y/t-graphic: Shows torque and temperature changes in medium.

Presentation of results

The measuring results are directly displayed online or offline graphically with a selectable coordination system or numerically. Several numerical displays as well as four-channel displays are possible.

Storing a measuring configuration

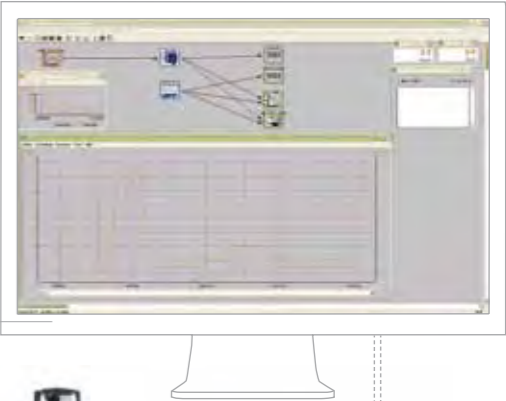
The complete measuring configuration with all current parameters and the position of all opened windows can be stored. As a result, preconfigured flowcharts which are immediately ready for operation can be provided for the widest variety of tasks.

Fig. 1: Configuration example of a laboratory reactor with peripherals in operation. The speed of an overhead stirrer, the target temperature of a thermostat and a pump are controlled. Torque and temperature of the medium are recorded and are represented in a y/t-graphic (fig. 2).

Configuration example – Recording rheological data during the stirring process

labworldsoft®

Laboratory software for control and data collection, **page 139**
Ident. No. 2970000



EUROSTAR power control-visc

Stirrer, **page 39**
Ident. No. 2600025

R 270

Boss head clamp, **page 122**
Ident. No. 2657800

R 1375

Paddle stirrer, **page 44**
Ident. No. 0757700

RH 5

Strap clamp for securing the vessel, incl. boss head clamp R 270, **page 122**
Ident. No. 3159000

R 2723

Telescopic stand, **page 121**
Ident. No. 1412100



Configuration example – Controlling and recording temperature data during magnetic stirring with heating



labworldsoft®
Laboratory software for control and data collection,
page 139
Ident. No. 2970000

H 44
Boss head clamp, **page 31**
Ident. No. 2437700

H 38
Holding rod for casing of the PT 100.50 sensor, **page 31**
Ident. No. 3547700

PT 100.50
Temperature sensor for RET control / t, **page 27**
Ident. No. 2601900

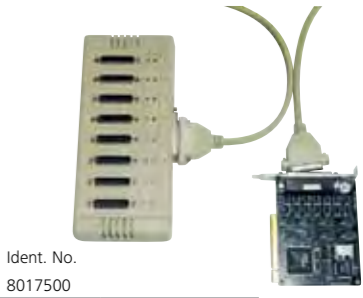
H 16 V
Support rod for attachment to
RET control / t, **page 31**
Ident. No. 1545100

RET control / t IKAMAG®
Safety magnetic stirrer with RS 232 interface, **page 14**,
incl. protective cover H 99, **page 33**
Ident. No. 3964000



PCI 8.2 Plug-in card

For mounting in the PC to connect up to 8 instruments simultaneously. Plug-in cards for up to 64 instruments available on request.



Ident. No.
8017500

PC 4.1 RS 232 Server

Up to 4 lab units can be controlled through the ethernet with the PC 4.1 RS 232 server. The server supports 4 RS 232 ports with a 10/100 mbps ethernet interface by TCP/IP. The server can be set-up through the ethernet and works as a transparent serial COM-Port without restrictions of platform and distance.

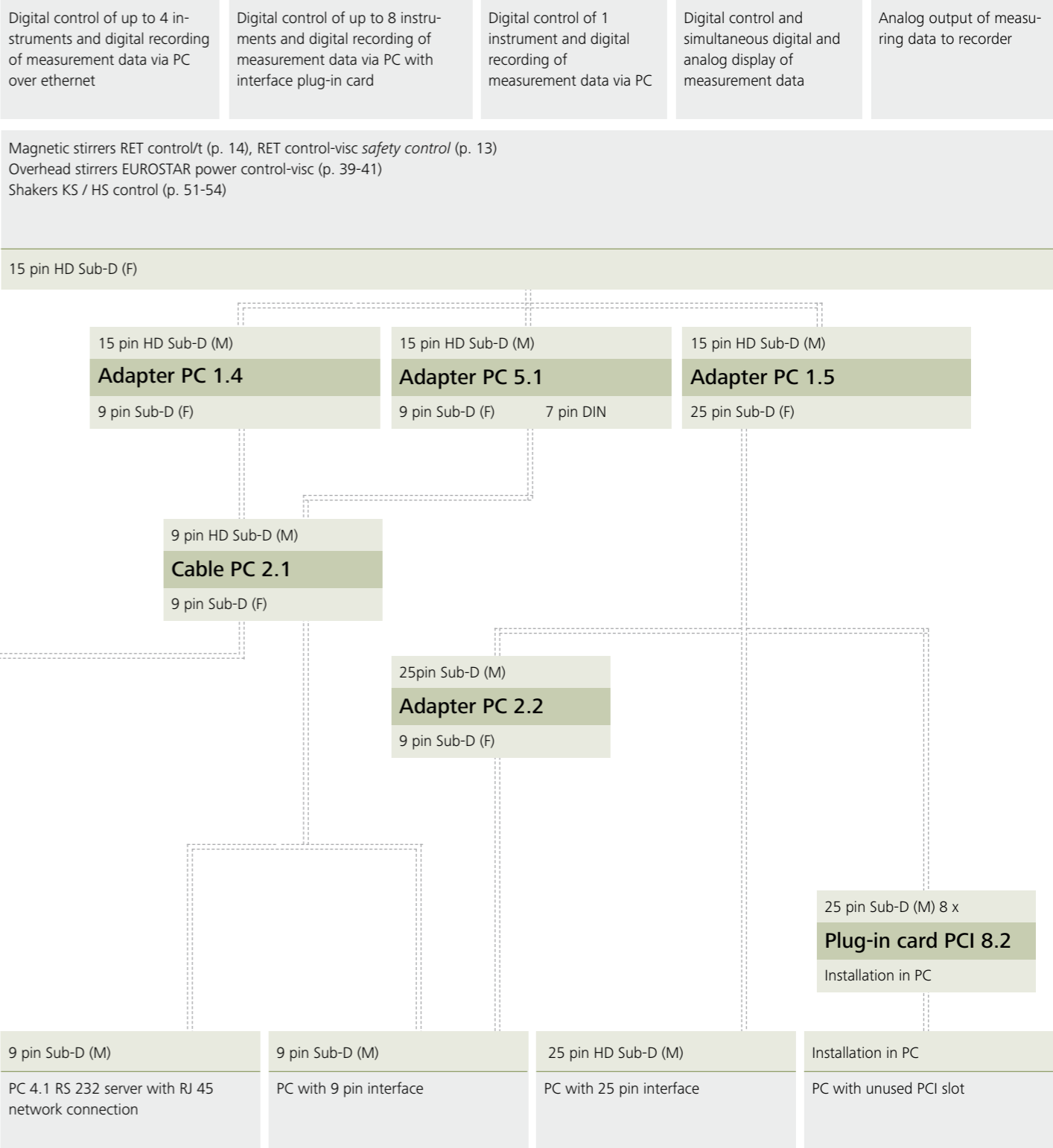
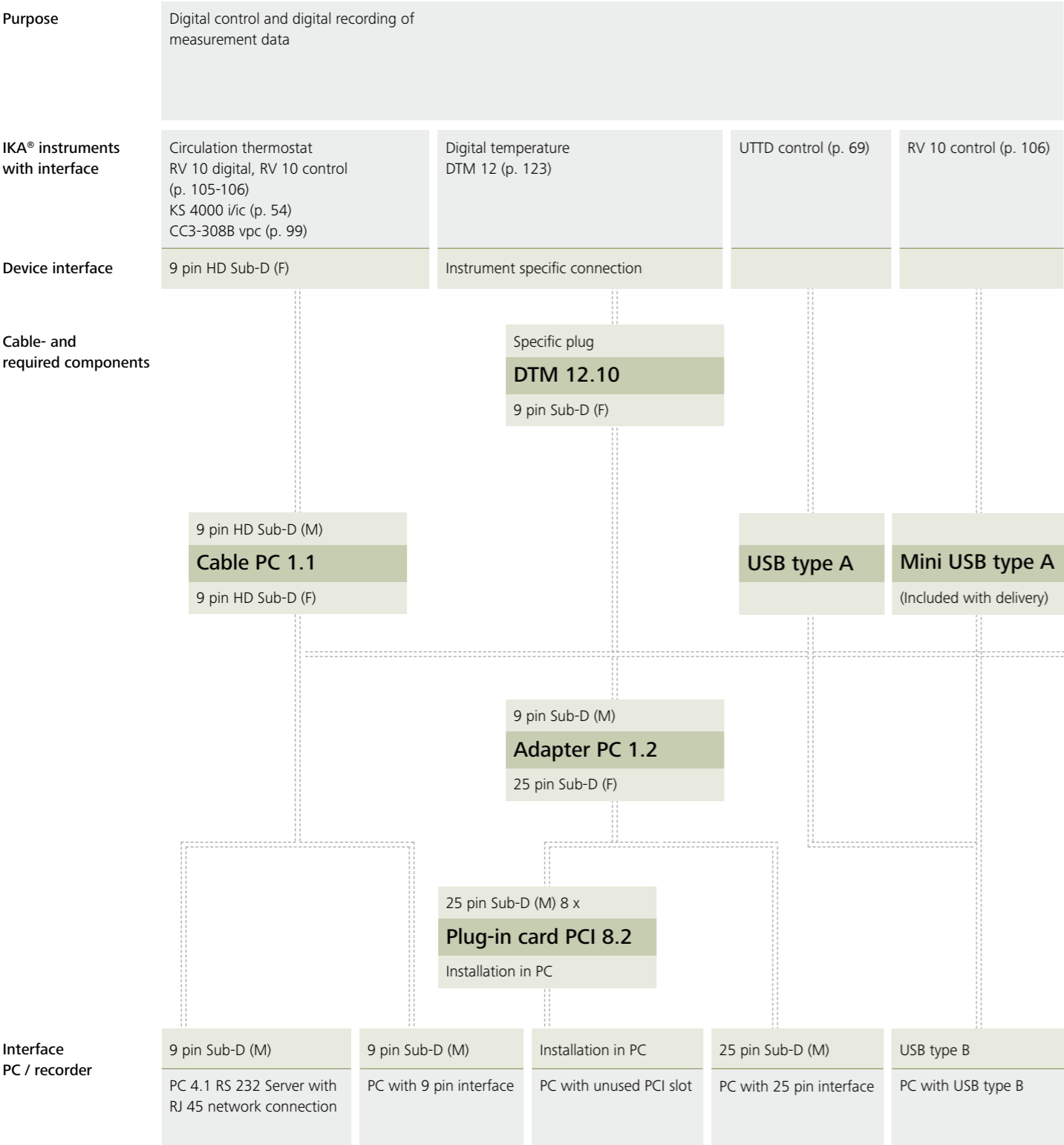


Ident. No.
3192000

Server for connection of up to 64 instruments available on request.

| Cable | Length | Ident. No. |
|-----------|--------|------------|
| PC 1.1 | 3 m | 2616700 |
| PC 1.5 | 2,5 m | 2756000 |
| PC 2.1 | 5 m | 2700700 |
| PC 2.3 | 3 m | 3036200 |
| DTM 12.10 | 2,5 m | 3127800 |
| Adapter | | |
| PC 1.2 | | 2616800 |
| PC 1.4 | | 2755900 |
| PC 2.2 | | 2753200 |
| PC 5.1 | | 2621500 |

Cable and Adapter (without fig.)





AOD 1 Decomposition system

Consisting of:
AOD 1.1 Decomposition vessel
C 48 Oxygen station
AOD 1.2 External ignition unit
AOD 1.11 Control standard (50 ml)

- Oxidative decomposition of solid and liquid organic samples under pressure in a closed system
- Quantitative decomposition of all halogens, sulfur, as well as volatile metals, e.g. As and Hg
- Absorption of the combustion products in an aqueous medium
- Catalytic support of the oxidation process with auto-regenerating catalytic inside walls of the decomposition vessel
- Pressure vessel of high-grade stainless steel
- Decomposition temperature up to 1.200 °C
- Max. operating pressure during decomposition 195 bar
- Decomposition time < 3 min
- The decomposition vessel can be changed to use disposable crucibles C 14 (page 156 / 157)
- Control standards for Cl, S, F and Br
- Introduction of the combustion gases into the absorption solution via venting station C 7030

Ident. No.
8801300

Protective device AOD 1.3

As per Pressure Vessel Directive 97 / 23 / EC
(not included with delivery), **page 159**
Ident. No. 3308000

Oxygen filling station C 48

For filling decomposition vessel with oxygen,
30 bar, **page 159**
Ident. No. 1560000

Venting station C 7030

With DIN 12596 gas wash bottle, for gas absorption (not
included with delivery), **page 159**
Ident. No. 3013300

Control standard AOD 1.11 (without fig.)

For sulfur and chlorine, **page 159**
Ident. No. 3044000

Decomposition vessel AOD 1.1

High-alloy, halogen-resistant stainless steel, **page 159**
Ident. No. 3303000

External ignition unit AOD 1.2

Ignition triggered by pressing the Ignite button
Cable length: 5 m, **page 159**
Ident. No. 3348000

| Technical data | |
|---------------------------------|------------|
| Decomposition time | < 3 min |
| Core temperature | > 1.200 °C |
| Max. operating temperature | 50 °C |
| Max. operating pressure | 195 bar |
| Volumen of decomposition vessel | 210 ml |
| Oxygen pressure | 30 bar |

Important information:

If protective device AOD 1.3 is not used, an AOD 1.13 remote ignition head is required.

The AOD principle is based on the bomb method as per DIN 51577, Part 1 of 1982. Other standards: DIN / EN 14582, „Characterisation of waste - Halogen and sulphur content“ and DIN 51727, Testing of solid fuels - Determination of chlorine content.

AOD 1.3 Protective device

For use with decomposition vessel AOD 1.1 operated in accordance with Pressure Vessel Directive 97/23/ EC. If the unit is used improperly (e.g. use of unknown explosive substances or high energy overloads) or if the decomposition vessel is worn, bursting can not totally excluded. In this case the protective device protects the user from inquiry.

Ident. No.
3308000



C 7030 Venting station

The controls venting of the combustion gases after decomposition. Complete with DIN 12596 gas wash bottle. For use with decomposition vessels AOD 1.1, C 7010 and C 7012.

Ident. No
3013300



Decomposition system accessories

| | Ident. No. |
|--|------------|
| AOD 1.1 Decomposition vessel | 3303000 |
| AOD 1.2 External ignition unit | 3348000 |
| AOD 1.13 Remote ignition head (required where AOD 1.3 is not used) | 3348100 |
| AOD 1.3 Protective device | 3308000 |
| C 21 Pelleting press | 1605300 |
| C 29 Pressure gauge, oxygen | 0750200 |
| C 48 Oxygen filling station | 1560000 |
| C 5010.4 Attachment for combustible crucible, C 14 | 3016900 |
| C 7030 Venting station | 3013300 |

Decomposition system consumables

| | Ident. No. |
|---|------------|
| C 4 Quartz dish | 1695500 |
| C 9 Gelatine capsules (100 pieces) | 0749900 |
| C 10 Acetobutyrate capsules (100 pieces) | 0750000 |
| C 12 Combustion bags 40 x 35 (100 pieces) | 2201400 |
| C 12 A Combustion bags 70 x 40 mm (100 pieces) | 2201500 |
| C 14 Combustible crucible (100 pieces) | 7224500 |
| C 15 Paraffin strips (600 pieces) | 3131100 |
| C 5012.3 Platinum ignition wire (2 pieces) | 2994900 |
| C 710.4 Cotton thread, cut to length (not suitable for trace range) | 1483700 |
| AOD 1.11 Control standard for sulfur and chlorine (50 ml) | 3044000 |
| AOD 1.12 Control standard for fluorine and bromine (50 ml) | 3080200 |
| C 723 Benzoic acid, blister package (Combustion aid) (50 pieces) | 3243000 |
| C 723 Benzoic acid, blister package (450 pieces), big pack | 3717400 |