

## MSC basic

The "New" magnetic stirrer with heating

- × Large heating plate made of glass-ceramic
- × Excellent resistance to chemicals
- × Max. heating plate temperature: 450 °C
- × Special connector for temperature controller

TC 2 according to DIN 12878

Stirring quantity (H <sub>2</sub> O):	15 l
Motor rating input / output:	8 / 2 W
Speed range:	150 - 1.200 rpm
Heating output:	500 W
Temperature range:	RT - 450 °C
Heating plate material:	glass-ceramic
Heating plate surface (L x W):	140 x 140 mm
Max. load:	15 kg
Dimensions (W x D x H):	184 x 276 x 98 mm
Weight:	2,9 kg
Protection class acc. to DIN 40050:	IP 22

Package\* Id-Nr. 9009300  
\* MSC basic, TC 2, H 16 V,  
H 36, H 44



MSC basic Id-Nr. L005245

## TC 2

Electronic temperature controller

### Electronic temperature controller TC 2

Special electronic temperature controller with digital display for magnetic stirrer MSC basic.

Sensor:	PT 1000
Measuring / control range:	0 - 350 °C
Resolution:	0,1 K (< 100 °C) 1,0 K (> 100 °C)
Measuring accuracy:	± 1 K
Control deviation:	± 3 K
Protection class acc. to DIN 40050:	IP 44

### Accessories:

#### 1.1

#### Support rod H 16 V

Support rod made of stainless steel for secure clamping of the temperature controller TC 2 to the MSC basic.

Diameter:	10 mm
Length:	450 mm

#### 1.2

#### Holding rod H 36

The holding rod is used to support the temperature controller TC 2 to the boss head clamp H 44 and the support rod H 16 V.

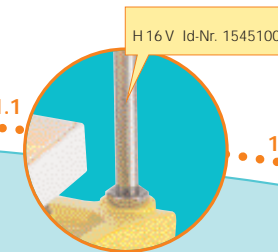
#### 1.3

#### Boss head clamp H 44

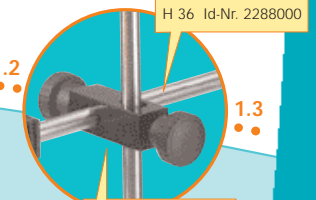
The boss head clamp H 44 is used to fasten the holding rod H 36 to the support rod H 16 V.



TC 2 Id-Nr. 3349000



H 16 V Id-Nr. 1545100



H 36 Id-Nr. 2288000

H 44 Id-Nr. 2437700

# MST basic and MST basic C

## Magnetic stirrers with heating

- ✕ With adjustable safety temperature circuit
- ✕ With a new, extremely powerful magnetic inductive stirring drive
- ✕ With new hot-plate technology for equal heat distribution and fast heat-up cycles

Speed range:	15 to 1.250 rpm
Heat output:	600 W
Temperature range:	RT - 310 °C ± 20 K
Max. power consumption:	630 W
Protection class acc. to DIN 40050:	IP 53
Separate adjustable safety temperature circuit:	50 - 350 °C ± 10 K
Heating plate diameter:	135 mm
Control accuracy of medium during operation with temperature controller TC 1:	± 1 K
Temperature controller connection:	acc. to DIN 12 878
Dimensions (W x D x H):	160 x 280 x 85 mm
Weight:	3,2 kg

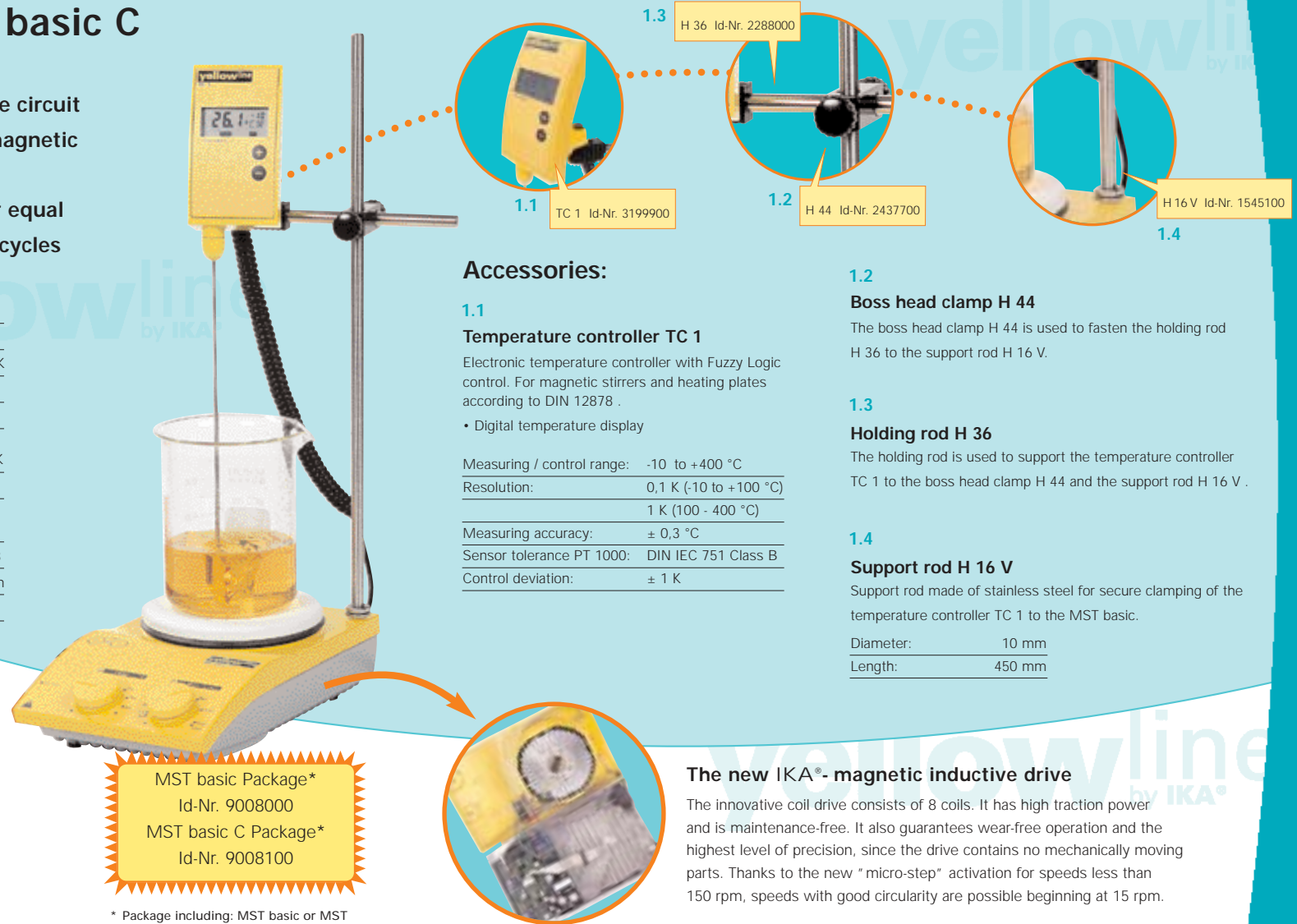
The MST is available in two versions:

### MST basic

with a stainless steel plated heating plate surface, which is very fast in comparison to standard Silumin heating plates .  
Id-Nr. 2987000

### MST basic C

with a chemical resistant white coated heating plate surface.  
Id-Nr. 2989900



## Accessories:

### 1.1

#### Temperature controller TC 1

Electronic temperature controller with Fuzzy Logic control. For magnetic stirrers and heating plates according to DIN 12878 .

- Digital temperature display

Measuring / control range:	-10 to +400 °C
Resolution:	0,1 K (-10 to +100 °C) 1 K (100 - 400 °C)
Measuring accuracy:	± 0,3 °C
Sensor tolerance PT 1000:	DIN IEC 751 Class B
Control deviation:	± 1 K

### 1.2

#### Boss head clamp H 44

The boss head clamp H 44 is used to fasten the holding rod H 36 to the support rod H 16 V.

### 1.3

#### Holding rod H 36

The holding rod is used to support the temperature controller TC 1 to the boss head clamp H 44 and the support rod H 16 V .

### 1.4

#### Support rod H 16 V

Support rod made of stainless steel for secure clamping of the temperature controller TC 1 to the MST basic.

Diameter:	10 mm
Length:	450 mm

MST basic Package\*

Id-Nr. 9008000

MST basic C Package\*

Id-Nr. 9008100

\* Package including: MST basic or MST basic C and accessories 1.1 to 1.4

## The new IKA®- magnetic inductive drive

The innovative coil drive consists of 8 coils. It has high traction power and is maintenance-free. It also guarantees wear-free operation and the highest level of precision, since the drive contains no mechanically moving parts. Thanks to the new "micro-step" activation for speeds less than 150 rpm, speeds with good circularity are possible beginning at 15 rpm.

## yellow MAG HS 10 / HS 7 / HS 4

New magnetic stirrers with heating

- Heating plate made of glass-ceramic
- Excellent resistance to chemicals
- Exact temperature setting via digital potentiometer
- Target value display for hot plate control
- Simultaneous digital display of target and actual temperatures via LCD display
- Display of actual temperature value in medium with 0,1°C resolution when using PT 1000 temperature sensor
- Control accuracy in medium +/- 0,5 °C (in combination with PT 1000)
- Integrated contact thermometer TC 3 (all TC 3 functions contained in appliance)
- Device control using two microcontrollers
- Option of directly connecting PT 1000 temperature sensor
- Error code display for faults
- Safety temperature limit: appliance switches off over 550 °C
- 3 operating modes to choose from (standard, safe, adjustment protection)
- Warning when plate is hot: flashing display "HOT" to prevent burns

new



	yellow MAG HS 10	yellow MAG HS 7	yellow MAG HS 4
Stirring quantity (H <sub>2</sub> O)	15 l	10 l	5 l
Speed range	100 - 1.500 min <sup>-1</sup>	100 - 1.500 min <sup>-1</sup>	100 - 1.500 min <sup>-1</sup>
Heat output	1.500 W	1.000 W	250 W
Temperature range	50 - 500 °C	50 - 500 °C	50 - 500 °C
Safety circuit (fixed)	550 °C	550 °C	550 °C
Heating plate (L x W)	260 x 260 mm	180 x 180 mm	100 x 100 mm
Dimensions (W x D x H)	300 x 415 x 105 mm	215 x 330 x 105 mm	150 x 260 x 105 mm
Weight	approx. 6 kg	approx. 5 kg	approx. 3 kg
Protection class acc. to DIN EN 60529	IP 21	IP 21	IP 21

yellow MAG  
HS 10 incl. PT 1000  
Ident. No. 3597000

yellow MAG  
HS 7 incl. PT 1000  
Ident. No. 3596600

yellow MAG  
HS 4 incl. PT 1000  
Ident. No. 3596000

## Magnetic stirrers from 0,8 - 5 l (H<sub>2</sub>O)

### MST mini

Magnetic stirrer without heating.  
White surface for viewing color change (titration).



MST Mini Id-Nr. 3287000

Stirring quantity (H <sub>2</sub> O):	800 ml
Motor rating input/output:	2 / 1 W
Infinitely variable speed:	0 - 1.500 rpm
Set-up surface:	115 x 115 mm
Max. load:	2 kg
Dimensions (W x D x H):	115 x 130 x 40 mm
Weight:	0,23 kg
Protection class acc. to DIN 40050:	IP 42

### BIG SQUID

- x With very good chemical resistance provided by glass top
- x Electronically controlled motor with infinitely variable speed

Stirring quantity (H <sub>2</sub> O):	1,5 l
Motor rating input / output:	2 / 1 W
Torque:	0,5 Ncm
Speed range:	0 - 1.500 rpm
Max. length of the magnetic bar:	30 x 7 mm
Set-up surface:	160 mm
Max. load:	5 kg
Dimensions (W x D x H):	180 x 180 x 48 mm
Weight:	1 kg
Protection class acc. to DIN 40050:	IP 54



BIG SQUID Id-Nr. 3286000

### MSH basic

Magnetic stirrer with stainless steel heating plate.

Stirring quantity (H <sub>2</sub> O):	5 l
Temperature range:	RT - 350 °C
Speed range:	0 - 2.000 rpm
Heat output:	400 W
Dimensions (W x D x H):	160 x 210 x 105 mm
Weight:	2,3 kg



MSH basic Id-Nr. 3131200

## Overhead stirring drive OST basic

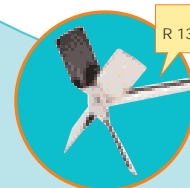
- x For use up to the "medium viscosity" range
- x With constant torque through micro-processor-driven control
- x Push-through agitator shafts, drive protected against overload

Stirring quantity (H <sub>2</sub> O):	20 l
Speed range:	50 - 2.000 rpm
Viscosity range:	up to 10.000 mPas
Motor rating input / output:	75 / 55 W
Output at stirring shaft:	53 W
Maximum torque at chuck:	30 Ncm
Speed variation under changing load:	2,5 %
Chuck range:	0,5 - 10 mm
Hollow shaft, inner diameter:	11 mm
Dimensions (W x D x H):	80 x 190 x 175 mm
Weight:	2,8 kg



OST basic Id-Nr. 3145000

Package\* Id-Nr. 9006300  
\*OST basic, R 1826,  
R 182, R 1342



R 1342 Id-Nr. 0741000

### Propeller stirrer R 1342

Matches lab stirrer-mixer OST basic.

Material stainless steel:	1.4401
Diameter of stirrer:	50 mm
Stirrer length:	350 mm
Diameter of shaft:	8 mm

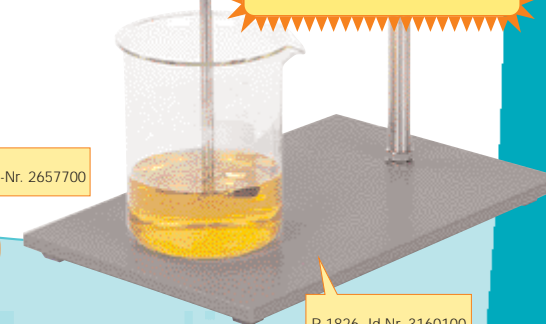


R 182 Id-Nr. 2657700

### Boss head clamp R 182

Matches plate stand R 1826.

Clamping range of column:	6 - 16 mm
Clamping range of boom:	6 - 16 mm



R 1826 Id-Nr. 3160100

### Plate stand R 1826

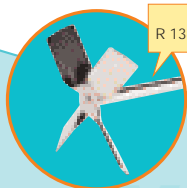
Stable, slip-free plate stand.  
(including PUR cover)

Diameter of column:	16 mm
Height:	800 mm

## Overhead stirring drive OST 20 basic /OST 20 digital

- x **Sturdy, slim stirrer**
- x **Up to 20 l (H<sub>2</sub>O) with constant power drive**
- x **Two speed ranges for universal use from 60 - 2.000 rpm**
- x **Push-through agitator shafts**
- x **OST 20 digital with digital display**

Stirring quantity (H <sub>2</sub> O):	20 l
Speed range I (50 Hz):	60 - 500 rpm
Speed range II (50 Hz):	240 - 2.000 rpm
Viscosity range:	10.000 mPas
Motor rating input / output:	70 / 30 W
Output at stirring shaft:	20 W + 35 %
Permissible ON-time:	100 %
Maximum torque at chuck:	150 Ncm (100 rpm)
Speed variation under changing load:	5 %
Chuck range:	0,5 - 10 mm
Hollow shaft, inner diameter:	10,5 mm
Diameter of extension arm:	13 mm
Dimensions (W x D x H):	88 x 212 x 294 mm
Weight:	3 kg



R 1342 Id-Nr. 0741000

### Propeller stirrer R 1342

Matches OST 20 basic / digital.  
For description, see page 7.



R 182 Id-Nr. 2657700

### Boss head clamp R 182

For description, see page 7.



OST 20 basic Id-Nr. 3292000

OST 20 digital Id-Nr. 3293000

Package\* Id-Nr. 9008800

\*OST 20 digital,  
R 1826, R 182, R 1342

Package\* Id-Nr. 9008700

\*OST 20 basic,  
R 1826, R 182, R 1342

R 1826 Id-Nr. 3160100

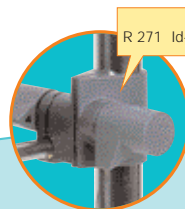
### Plate stand R 1826

For description, see page 7.

## Overhead stirring drive OST 20 hightorque

- x **Powerful laboratory stirrer**
- x **Sturdy and streamlined design**
- x **For high viscosities and intensive mixing**

Stirring quantity (H <sub>2</sub> O):	20 l
Speed range (50 Hz):	16 - 135 rpm
Viscosity range:	100.000 mPas
Motor rating input / output:	70 / 30 W
Output at stirring shaft:	20 W + 35 %
Permissible ON-time:	100 %
Maximum torque at chuck:	600 Ncm (100 rpm)
Speed variation under changing load:	5 %
Speed display:	digital
Chuck range:	0,5 - 10 mm
Hollow shaft, inner diameter:	10,5 mm
Diameter of extension arm:	16 mm
Dimensions (W x D x H):	88 x 212 x 383 mm
Weight:	4,2 kg

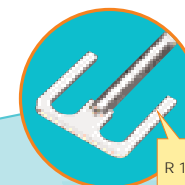


R 271 Id-Nr. 2664000

### Boss head clamp R 271

Matches telescopic stand R 2723.

Clamping range stand:	34 mm
Clamping range extension arm:	16 mm

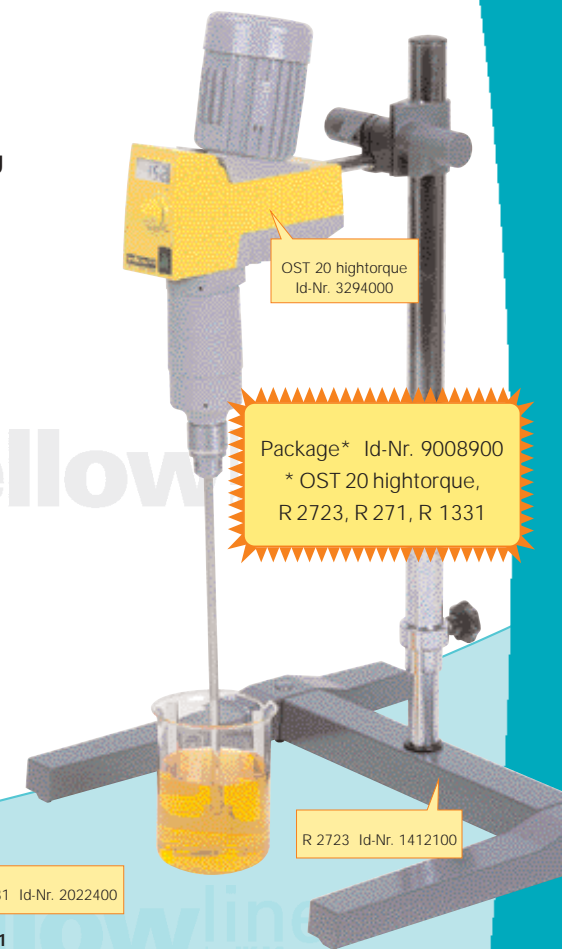


R 1331 Id-Nr. 2022400

### Anchor stirrer R 1331

Matches OST 20 hightorque.

Material stainless steel:	1.4571
Diameter of stirrer:	90 mm
Shaft length:	350 mm
Diameter of shaft:	8 mm



OST 20 hightorque  
Id-Nr. 3294000

Package\* Id-Nr. 9008900

\* OST 20 hightorque,  
R 2723, R 271, R 1331

R 2723 Id-Nr. 1412100

### Telescopic stand R 2723

For heavy instruments and attachments.

Diameter of support rod:	34 mm
Height:	620 - 1.010 mm
Stroke:	390 mm

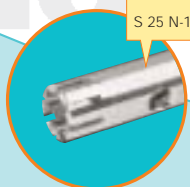
## Dispersing device DI 25 basic

- x High performance dispersion device for use in numerous applications

Speed range:	8.000 - 24.000 rpm
Motor rating input / output:	600 / 350 W
Speed adjustment:	infinitely variable
Speed stability:	1%
Speed display:	scale / analog
Dimensions (W x D x H):	70 x 66 x 221 mm
Weight:	1,6 kg



Drive DI 25 basic  
Id-Nr. 3130000



S 25 N-18G Id-Nr. 0593400

### Dispersing tool S 25 N-18G

Tool made of stainless steel 1.4571 with PTFE bearing.

- Suitable for solvents and abrasive substances
- Dispersion tool can be sterilized using all methods

Diameter of stator:	18 mm
Working range:	10 - 1.000 ml
Temperature range:	up to 180 °C

Package\* Id-Nr. 9006400  
\*DI 25 basic, R 1826,  
R 182, S 25 N - 18G

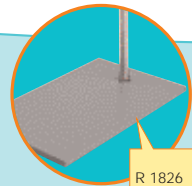


R 182 Id-Nr. 2657700

### Boss head clamp R 182

Matches plate stand R 1826.

Clamping range of column:	6 - 16 mm
Clamping range of boom:	6 - 16 mm



R 1826 Id-Nr. 3160100

### Plate stand R 1826

Stable, slip-free plate stand.

Diameter of column:	16 mm
Height:	800 mm

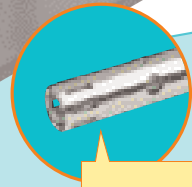
## Dispersing device DI 18 basic

- x An affordable low cost high value unit for simple mixing tasks
- x The wide speed range makes it possible to work at high circumferential speed
- x Accepts plug-in dispersing tools

Speed range:	6.000 - 24.000 rpm
Motor rating input / output:	300 / 160 W
Speed adjustment:	infinitely variable
Speed display:	scale / analog
Dimensions (W x D x H):	78 x 78 x 220 mm
Weight:	1,2 kg



Drive DI 18 basic  
Id-Nr. L005118



S 18 N-10G Id-Nr. L004639

Package\* Id-Nr. 9007900  
\*DI 18 basic, R 1826,  
R 182, S 18 N - 10G

### Dispersing tool S 18 N-10G

Tool made of stainless steel 1.4571 with PTFE bearing.

- Suitable for solvents and aggressive substances
- Dispersion tool can be sterilized using all methods

Diameter of stator:	10 mm
Working range:	1 - 100 ml
Temperature range:	up to 180 °C

## Orbital shaker OS 5 basic

- x Quiet operation, wear-free
- x Adjustable timer from 5 - 50 min or continuous operation
- x LED display for speed and time setting
- x AS 130.1 universal attachment allows to use almost all shapes and sizes of vessels.
- x With constant torque through micro-processor-driven control
- x Drive protected against overload
- x Intrinsically safe by permanent supervision of all electric components



OS 5 basic Id-Nr. 3180100

Shaking motion:	orbital
Shaking orbit:	Ø 4 mm
Permissible shaking weight (with attachment):	2 kg
Motor rating input:	45 W
Permissible ON-time:	100 %
Speed range infinitely adjustable:	80 - 800 rpm
Speed display:	LED line
Time switch clock:	5 - 50 min
Dimensions without attachment (W x D x H):	270 x 316 x 98 mm
Weight:	7,7 kg

Package\* Id-Nr. 9007300  
\*OS 5 basic, AS 130.1

## Orbital shaker OS 5 control

Details as per OS 5 basic plus the following:

- x Digital display for speed and time
- x An RS 232 interface makes it possible to control and document all functions with a PC
- x Adjustable timer up to max. 9 hrs 59 min or continuous operation



AS 130.1 Id-Nr. 8017300

### Universal attachment AS 130.1

Can be adjusted to fit all types of vessels with 3 universal, infinitely adjustable clamping rolls.

Dimensions (W x D x H):	325 x 234 x 88 mm
Holding surface:	220 x 220 mm
Weight:	0,85 kg

Package\* Id-Nr. 9007400  
\*OS 5 control, AS 130.1

OS 5 control Id-Nr. 3180200

## Orbital shaker OS 10 basic Reciprocating shaker RS 10 basic

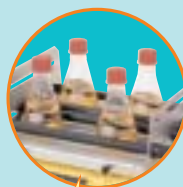
- x Compact, flat laboratory shakers available with orbital or reciprocating motion
- x Adjustable timer from 5 - 50 min or continuous operation
- x LED display for speed and time setting
- x AS 260.1 universal attachment (accessory) allows to use almost all shapes and sizes of vessels
- x With constant torque, protected against overload and intrinsically safe operation

OS 10 basic + AS 260.1  
Id-Nr. 9007500  
RS 10 basic + AS 260.1  
Id-Nr. 9007700

Shaking motion:	orbital (OS), reciprocating (RS)
Shaking movement:	10 mm (OS), 20 mm (RS)
Perm. shaking weight (with attachment):	7,5 kg
Motor rating input:	45 W
Permissible ON-time:	100 %
Speed range infinitely adjustable:	0 - 500 rpm (OS), 0 - 300 rpm (RS)
Speed display:	LED line
Timer:	5 - 50 min
Dimensions (W x D x H):	360 x 420 x 98 mm
Weight:	8,1 kg



OS 10 basic Id-Nr. 3180300  
RS 10 basic Id-Nr. 3180700



AS 260.1 Id-Nr. 8017400

## Orbital shaker OS 10 control Reciprocating shaker RS 10 control

Details as per OS 10 basic/ RS 10 basic, but with these additional features:

- x Digital display for speed and time
- x An RS 232 interface will allow remote control and documentation of all functions with a PC
- x Time setting: max. 9 hrs 59 min or continuous operation



OS 10 control Id-Nr. 3180400  
RS 10 control Id-Nr. 3180800



### Universal attachment AS 260.1

Can be adjusted to fit all types of vessels with 4 universal, infinitely adjustable clamping rolls.

Dimensions (W x D x H):	425 x 335 x 135 mm
Holding surface:	320 x 320 mm
Weight:	1,6 kg

OS 10 control + AS 260.1  
Id-Nr. 9007600  
RS 10 control + AS 260.1  
Id-Nr. 9007800

## Orbital shaker OS 2 basic

- x Cost effective orbital shaker that includes universal attachment, 2 clamping rolls and 4 fastening screws
- x Very stable and sturdy housing
- x With constant torque through micro-processor-driven control
- x Wide adjustable speed range
- x Drive protected against overload
- x Intrinsically safe by permanent supervision of all electric components
- x Incl. protection cover



OS 2 basic Id-Nr. 3295000  
(incl. attachment)

Shaking motion:	orbital
Shaking orbit:	Ø 4 mm
Shaking weight:	2 kg
Motor rating input:	45 W
Permissible ON-time:	100 %
Speed range:	0 - 1.100 rpm
Speed display:	scale
Dimensions (W x D x H):	375 x 152 x 383 mm
Weight:	11,6 kg

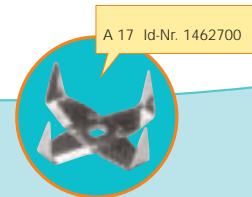
## Analytical grinder A 10

- x With a built-in cooling chamber
- x Suitable for low-loss dry grinding of soft, hard and brittle substances
- x Removable, easy-to-clean, high-grade steel chamber
- x 3 interchangeable cutters available
- x Electronic overload protection

Maximum task granularity:	6 - 7 mm
Nominal speed:	20.000 rpm
Effective vol. of grinding chamber:	50 ml
Dimensions (W x D x H):	120 x 105 x 225 mm
Weight:	2,2 kg



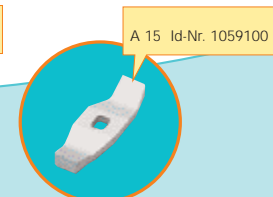
A 10 Id-Nr. 3250000  
(incl. A 14 and A 18)



A 17 Id-Nr. 1462700

### Star-shaped cutter A 17

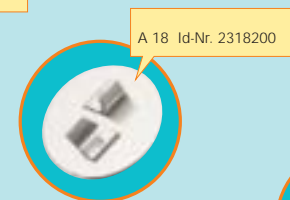
Suitable to grind fibrous substances such as paper and dried vegetation, soil samples, frozen meat and plastic granulates with low volume weight.



A 15 Id-Nr. 1059100

### Hard metal cutter A 15

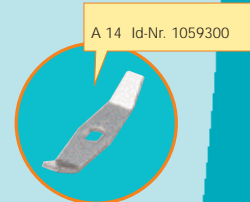
Made of tungsten carbide for hard materials suitable for Mohs hardness up to 9.



A 18 Id-Nr. 2318200

### Grinding chamber reduction A 18

For pulverizing only very small test samples.  
(incl. in the A 10 supply schedule)



A 14 Id-Nr. 1059300

### Stainless steel cutter A 14

For pulverizing most brittle materials, suitable for Mohs hardness up to 5.  
(incl. in the A 10 supply schedule)

## Bath vessels EH 4.1, EH 4.2 and EH 4.3

- x Suitable for the immersion thermostat ET basic
- x Constructed of Polycarbonate

Bath vessels:	EH 4.3	EH 4.2	EH 4.1
Material:	Polycarbonate		
Filling quantity without vessels:	max. 18 l	max. 11 l	max. 5 l
Outer dimensions (W x D x H):	350 x 473 x 168 mm	350 x 313 x 168 mm	132 x 280 x 160 mm
Inner dimensions (W x D x H):	302 x 455 x 150 mm	302 x 295 x 150 mm	120 x 262 x 150 mm



EH 4.3 Id-Nr. 3335200

EH 4.2 Id-Nr. 3335100

EH 4.1 Id-Nr. 3335000

\*Package Id-Nr. 9009200  
\*ET basic, EH 4.3

\*Package Id-Nr. 9009100  
\*ET basic, EH 4.2

\*Package Id-Nr. 9009000  
\*ET basic, EH 4.1

## Immersion Thermostat ET basic

- x For temperature control up to 100 °C, in all open water baths
- x Short heating cycles
- x High pump capacity
- x Universal mounting
- x Safe operation and maintenance free
- x Analog temperature setting
- x Adjustable safety circuit

Temperature range:	RT - 100 °C
Control accuracy:	± 0,2 K
Heat output:	1.500 W
Immersion depth:	150 mm
Voltage:	230/115 V
Frequency:	50/60 Hz
Dimensions (W x D x H):	105 x 139 x 319 mm
Weight:	2,3 kg

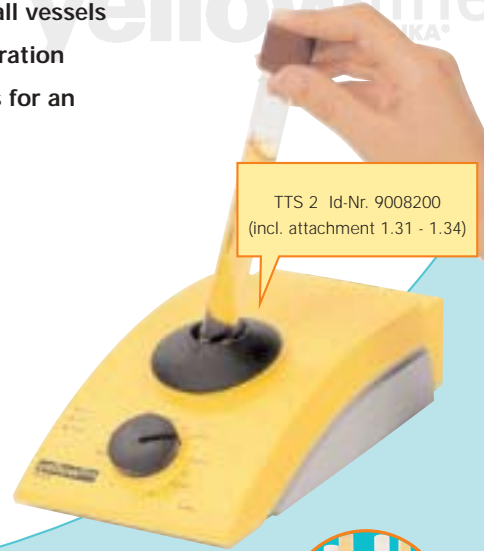


ET basic Id-Nr. 3163000

## Test tube shaker TTS 2

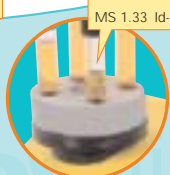
- × Universal shaker for test tubes and small vessels
- × Continuous or automatic - "touch" operation
- × A large selection of attachments allows for an extensive range of applications

Shaking motion:	orbital
Shaking orbit:	Ø 4,5 mm
Perm. agitation weight (with attachment):	0,5 kg
Motor rating input / output:	18 / 10 W
Permissible ON-time:	100 %
Speed range (infinitely adjustable):	0 - 2.500 rpm
Speed display:	scale / analog
Dimensions (W x D x H):	115 x 225 x 60 mm
Weight:	3,5 kg



MS 1.34 Id-Nr. L001830

**Test tube insert MS 1.34**  
No pre-drilled holes. Any number of holes may be drilled.



MS 1.33 Id-Nr. L001860

**Test tube insert MS 1.33**  
4 holes, Ø 15 mm



MS 1.32 Id-Nr. L001850

**Test tube insert MS 1.32**  
6 holes, Ø 10 mm



MS 1.31 Id-Nr. L001840

**Test tube insert MS 1.31**  
14 holes, Ø 8 mm

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Subject to technical changes. Indications not binding for delivery.

