

## BOECO THERMO-SHAKER FOR MICROTUBES, TS-100

is a compact and cost-efficient solution for shaking and temperature control of small samples in 0,5 ml, 1,5 ml and 2,0 ml microtubes. The TS-100 is microprocessor controlled and has a display which indicates simultaneous set and actual time, temperature and shaking speed.

### Specification:

Orbit size:	2 mm
Temperature range:	25°C - 100°C
Speed range:	250 - 1400 1/min, increment 10 rpm
Acceleration time:	3 sec
Timer with sound signal:	digital, 1 min - 96 h increment 1 min
Power (external):	DC 12 V. 5 A
Overall size:	205 x 230 x 130 mm
Weight:	3,20 kg

Code	Description
BOE 8064000	Thermo-Shaker for microtubes TS-100, without block, AC 100-240V 50/60 Hz
BOE 8064001	Interchangeable block, SC-18 for 20x0,5 ml and 12 x 1,5 ml microtubes
BOE 8064004	Interchangeable block, SC-18/02 for 20x0,2 and 12 x 1,5 ml microtubes
BOE 8064005	Interchangeable block, SC-24N for 24x1,5 ml microtubes
BOE 8064007	Interchangeable block, SC-24 for 24x2,0 ml microtubes
BOE 8064006	Interchangeable block, SC-96A for 96-well PCR microplate



TS-100 with block SC-24N

## BOECO THERMO-SHAKER FOR MICROTUBES, TS-100C

is a heating and cooling thermomixer. Active cooling using Peltier technology offers a temperature regulation range from +4°C to +100°C. Temperature control and mixing modes can be used simultaneously and independently. The TS-100C is microprocessor controlled and has a display which indicates simultaneous set and actual time, temperature and shaking speed. The low voltage power supply enables safe cold room or incubator operation. The TS-100C is applicable for DNA analysis, extraction of proteins, polysaccharids, lipids and other cell components

### Specification:

Speed range:	250 - 1400 1/min, increment 10 rpm
Acceleration time:	3 sec
Orbit size:	2 mm
Temperature control range:	15°C below room temp. to +100°C
Temperature setting range:	+4°C to 100°C
Average heating rate:	5°C / min (from +25 to +100°C in 15 min)
Average cooling speed:	From +100°C to +25°C: 5°C / min From +25°C to +4°C: 1,8°C / min
Timer with sound signal:	digital, 1 min - 96 h, increment 1 min
Power (external):	DC 12 V. 5 A
Overall size:	205 x 230 x 130 mm (w x d x h)
Weight:	3,7 kg

Code	Description
BOE 8064050	Thermo-Shaker for microtubes TS-100C, without block, AC 100-240V 50/60 Hz
BOE 8064051	Interchangeable block, SC-18C for 20x0,5 ml and 12 x 1,5 ml microtubes
BOE 8064054	Interchangeable block, SC-18/02C for 20x0,2 ml and 12 x 1,5 ml microtubes
BOE 8064057	Interchangeable block, SC-24NC for 24x1,5 ml microtubes
BOE 8064055	Interchangeable block, SC-24C for 24x2,0 ml microtubes
BOE 8064056	Interchangeable block, SC-96AC for 96-well PCR microplate



TS-100C with block





MMS 3000

## BOECO MAGNETIC STIRRER MMS 3000

Motor drive magnetic stirrer, with stainless steel plate and speed regulation up to 3000 rpm. An optional to be ordered detachable support rod allows to fix different sensors (temperature, pH etc.) inside the Liquid.

### Specification:

Speed range:	0 - 3000 1/min
Max. stirring volume:	up to 20,0 l
Platform size:	160 mm diam.
Platform material:	stainless steel
Support rod height:	320 mm
Overall size:	185 x 230 x 75 mm
Weight:	1,5 kg
Power:	12 V. DC 2,0A (External power adapter)

### Code

BOE 8056500

BOE 8056501

### Description

Magnetic stirrer MMS-3000, AC Adapter  
100-240V with Multi plug (EU, US, UK, AU)

Detachable support rod

Available Q3/2018 !



MSH 140



MSH 140 DIGITAL

## BOECO MAGNETIC STIRRER WITH HOTPLATE MSH 140, MSH 140 DIGITAL

Motor drive Magnetic stirrer with ceramic coated stainless steel hot plate for simultaneously stirring and heating of chemical reagents. „Hot-Surface“ alert indicator light when the plate temperature exceeds 50°C

### Specification:

	MSH140 digital	MSH140
Over all dimensions(LxBxH) (mm)	156x248x104	156x248x104
Set-up plate dimensions (mm)	140	140
Stirring quantity in Ltr (max)	10	10
Number of stirrer positions	1	1
Setup plate feature (Coating)	ceramic coated stainless steel plate	
IP Rating	IP 21	IP 21
Product weight (kg)	2,2	2,2
Safety temp circuit	Yes	no
Safe temp. (°C)	345	no
Power supply	110/240VAC	110/240VAC
Maximum bar size (mm)	25 - 60	25 -60
Speed range (rpm)	200 - 2200	200 - 2200
Heating temp. range (°C)	320	320
Hot surface alert (°C)	50	50

### Control

Time range	1 to 999 minutes & continuous	no
Motor type	DC	DC
Motor rating input & Output (W)	5-7	5-7
Accuracy in RPM (+/- RPM)	+/-80	-
speed step	10	-
Heat Output (W)	600	600
Power output (W)	610	610
Temp Accuracy [+/-K]	1	-
Temp increment	1	-
Temp indication	yes	no
Permissible ambient temp (°C)	5-40	5-40
Error code Display	yes	no
Housing Material	ABS	ABS
Display	Yes	no

### Code

BOE 8014000

BOE 8014001

BOE 8014110

BOE 8014111

### Description

Magnetic stirrer with hotplate MSH 140, 240V

Magnetic stirrer with hotplate MSH 140, 110V

Magnetic stirrer with hotplate MSH 140 digital, 240V

Magnetic stirrer with hotplate MSH 140 digital, 110V

500 ML REACTION  
BLOCK

### Accessories for MSH 140 digital

#### Code

BOE 8014120

BOE 8014121

BOE 8014122

#### Description

Support stand with boss head clamp for PT 1000  
sensor probe

PT 1000 sensor

Reaction block, 500 ml

## BOECO MAGNETIC STIRRER WITH HOTPLATE MSH 420

Motor drive Magnetic stirrer with all in one glass-ceramic hot plate for simultaneously stirring and heating of chemical reagents.

The Glass-ceramic top plate is easy to clean, chemical-resistant, corrosion-resistant and scratch resistant.

The MSH 420 provides LED Indicators for Power, Heating and Stirring.

### Specification:

Speed range:	60 - 1110 1/min
Temperature regulation:	ambient temperature to 450 °C.
Max. stirring volume:	up to 15,0 l
Hot Platform size:	200 x 200 mm
Hot Platform material:	glass-ceramic
“Hot Top” indicator:	a “Hot” light illuminates if the temperature on the hot plate exceeds 55°C
Over-Heat protection:	The heating power will cut-off in abnormal situations by limiting top plate temperature to 550 °C and light flash
Overall size:	320 (w) x 210 (d) x 105 (h) mm
Heating power:	750 Watts
Weight:	3,6 kg



MSH 420

Code	Description
BOE 8054000	Magnetic stirrer with hotplate MSH 420, 220V
BOE 8054100	Magnetic stirrer with hotplate MSH 420, 110V

## BOECO OVERHEAD STIRRERS OST-25 / OST-40

- ▶ With digital display
- ▶ Compact size
- ▶ Brushless DC maintenance free long life motor
- ▶ The speed will remain constant even with changing viscosities
- ▶ Suitable for viscosities 10.000 and 30.000 mPas and volumes (25/40l)

Technical details	OST-25	OST-40
Stirring quantity (H <sub>2</sub> O):	25 l	40 l
Max. viscosity:	10.000 mPas	30.000 mPas
Motor rating input/output:	59 W / 45 W	
Output at stirring shaft:	42 W	
Max. ON-time	100%	
Max. torque at chuck (100rpm)	20 Ncm	40 Ncm
Speed range	50 - 2.000 rpm	50 - 1.000 rpm
Speed display:	digital (LED)	
Speed control:	stepless	
Setting accuracy speed:	± 1 rpm	
Reversible direction of rotation:	yes	
Power intermittent operation	yes, (resumes from last run)	
Chuck range:	0,7 - 10 mm	
Extension arm diameter:	13 mm	
Length of extension arm:	160 mm	
Timer (LED):	Yes	
Timer setting range:	1 min - 99 hr 59 min & continuous.	
Protection class:	IP 54 (acc. to DIN EN 60529)	
Protection:	Overload, overcurrent, overtemperature	
Voltage:	100-240 V	
Frequency	50/60 Hz	
DC voltage:	24 V	
Housing material	Thermoplastic polymer	
Dimensions in (WxHxD):	79 x 173 x 176 mm	
Net weight:	approx. 1,4 kg	

Code	Description
BOE 8901170	BOECO overhead stirrer OST-25, 100-240V, 50/60 Hz, <b>package</b> , incl. plate stand, boss head clamp, and 4-bladed propeller stirrer
BOE 8901180	BOECO overhead stirrer OST-40, 100-240V, 50/60 Hz, <b>package</b> , incl. plate stand, boss head clamp, and 4-bladed propeller stirrer



Available Q3/2018 !



PACKAGE WITH PLATE STAND, BOSS HEAD CLAMP AND 4-BLADED PROPELLER STIRRER INCLUDED