

SHAKER AND STIRRER



V1 PLUS

BOECO VORTEX MIXER V 1 PLUS

Vortex mixer V1 plus with variable speed control. Continuous operation as well as with automatic starter, triggered by pressing the attachment. Incl. standard attachment for test tubes up to 20 mm Ø

Specification:

Kind of motion:	orbital, 4 mm
Speed range (1/min):	300 - 3000 1/min
Time of acceleration:	3 s
Tube's capacity:	1,5-50ml
Speed display:	scale (min/max)
Switch:	touch / continuous mode
Overall size:	80 x 140 x 70 mm
Weight:	0,9 kg
Power:	12 V. 500 mA (External power adapter)

Code	Description
BOE 8055000	Vortex mixer V1 plus, AC Adapter 220V
BOE 8055100	Vortex mixer V1 plus, AC Adapter 110V

BOECO MAGNETIC STIRRER MMS 3000

Motor drive magnetic stirrer MMS 3000, with stainless steel plate and speed regulation up to 3000 rpm. A 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 80 mm
Weight:	1,5 kg
Power:	12 V. 300 mA (External power adapter)

Code	Description
BOE 8056500	Magnetic stirrer MMS-3000, AC Adapter 220V
BOE 8056510	Magnetic stirrer MMS-3000, AC Adapter 110V
BOE 8056501	Detachable support rod



MMS 3000

BOECO MAGNETIC STIRRER WITH HOTPLATE MSH 300N

Motor drive Magnetic stirrer with aluminum hot plate for simultaneously stirring and heating of chemical reagents. Equipped with feed-back thermoregulation.

Specification:

Speed range:	250 - 1250 1/min
Temperature regulation:	+30 - 330 C°.
Max. stirring volume:	Up to 2,0 L
Hot Platform size:	145 x 145 mm
Hot Platform material:	aluminium
Overall size:	190 x 275 x 100 mm
Heating power:	600 Watts
Weight:	3,3 kg

Code	Description
BOE 8057000	Magnetic stirrer with hotplate MSH300N,220V
BOE 8057100	Magnetic stirrer with hotplate MSH300N,110V



MSH 300N

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 cutoff 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

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



MSH 420

BOECO SUNFLOWER MINI-SHAKER 3D

Mini-Shaker 3D with adjustable speed and constant angle of mixing. Very small and ideal for private diagnostics. Incl. black non-slip rubber mat.

Specification:

Kind of motion:	three-dimensional orbital movement
Angle:	7 °
Speed range:	10 - 30 rpm
Speed display:	scale (min/max)
Platform size:	200 x 200 mm
Overall size:	85 x 150 x 80 mm
Max Loading:	500 g
Weight:	1,0 kg
Power:	12 V. 300 mA (External power adapter)

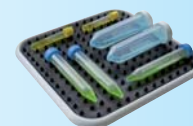
Code	Description
BOE 8058000	Sunflower Mini Shaker 3D, AC Adapter 220V
BOE 8058100	Sunflower Mini Shaker 3D, AC Adapter 110V
BOE 8050100	TP-26 tube attachment, for tubes 13 x 75 mm
BOE 8050200	Dimpled mat



3D



TP-26



DIMPLED MAT

BOECO ROTATOR RS-24

Mini-rotator with vertical rotation of the platform for soft mixing of test tubes, microtubes and vacutainers. Incl. Standard platform PRS-22 for 22 tubes up to 15 mm diam.

Specification:

Speed range:	5 - 30 1/min.
Digital Timer:	from 1 min to 23 H 59 min
Overall size:	310 x 40 x 175 mm
Weight:	1,5 kg
Power:	12 V. 500 mA (External power adapter)

Code	Description
BOE 8024000	Rotator RS-24, with platform PRS-22 AC adapter 220V 50/60 Hz
BOE 8024100	Rotator RS-24, with platform PRS-22 AC adapter 110V 60 Hz
BOE 8073001	Platform PRS-4/12 (4x30 mm diam and 12x15 mm)



RS-24



MR-1

BOECO MINI-ROCKER SHAKER MR-1

provides gentle rocking motion. It is perfect for soft mixing of biological components. Incl. black non-slip rubber mat

Specification:

Kind of motion: rocking with fixed 7° angle
 Speed range: 7,5 - 30 rpm
 Speed display: scale (min/max)
 Timer: digital, 1 min - 23h. 59 min.
 Platform size: 200 x 200 mm
 Overall size: 220 x 205 x 120 mm
 Max Loading: 500 g
 Weight: 1,6 kg
 Power: 12 V. 500 mA (External power adapter)

Code	Description
BOE 8058500	MR-1, Mini-rocker Shaker, AC Adapter 220V
BOE 8058510	MR-1, Mini-rocker Shaker, AC Adapter 110V

BOECO BIOROTATOR MULTI RS-24

is a intelligent rotator for soft mixing microtubes and vacutainers
 The BioRotator RS-Multi provides 3 types of motion, which can be used separately (except for vortex mode, which works in conjunction with reciprocal motion mode) and consecutively in a cycle:

1. Orbital motion



simple even circular motion - common type of motion used in Rotators.
 Adjustable speed from 5 to 30 rpm.

2. Reciprocal motion



vertical rotation with changing direction of rotation.
 Adjustable turning angle (from 15° to 90°, increment 15°) sets the limits for this type of motion. The speed is the same as set for rotational motion (from 5 to 30 rpm). In this type of motion there is a pause function (from 0 to 5 sec., increment 1 sec.) settable in the Vortex/pause mode.

3. Vortex motion

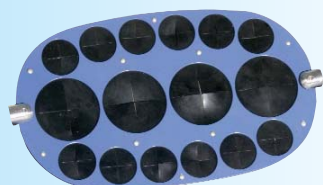


intensive mixing of samples at high speed with small amplitude - Vortex motion. The vortex mode is necessary for intensive mixing in and it is provided to decrease adhesion of solutions with tube surface, which is especially important for conducting microquantity research when the sample weight may be equal to the adhesion force. The Vortex Mode has a adjustable turning angle of 0° to 5° (increment 1°) and the timer has a pause function from 0 to 5 sec., increment 1 sec.)

Specification:

Standard platform Capacity: 22 (Microtubes and vacutainers)
 Power (external): 12 V. 500 mA
 Size: 310mm x 110mm x 175 mm
 Weight: 1,6 kg

Code	Description
BOE 8073000	BioRotator Multi RS-24, with platform PRS-22 AC adapter 220V 50/60 Hz
BOE 8073100	BioRotator Multi RS-24, with platform PRS-22 AC adapter 110V 60 Hz
BOE 8073001	Platform PRS-4/12 (4x30 mm diam and 12x15 mm)

BIOROTATOR
RS-MULTI

PRS-4/12

BOECO MICROTITER PLATE SHAKER PSU-2T PLUS

specially designed for medical diagnostic. Orbital shaking platform IPP-2 with a holding mechanism for 2 standard microtiter plates. The variable speed control provides a optimally adapted speed range from 150 to 1000 rpm with a orbit of 2 mm.

Specification:

Orbit size: 2 mm
 Speed range: 150 - 1000 1/min
 Speed display: scale (min/max)
 Timer: digital, 1 min - 23h. 59 min.
 Overall size: 220 x 205 x 90 mm
 Weight: 2,5 kg
 Power: 12 V. 500 mA (External power adapter)

Code	Description
BOE 8052000	Microtiter Plate Shaker PSU-2T plus, AC adapter 220V
BOE 8052100	Microtiter Plate Shaker PSU-2T plus, AC adapter 110V
BOE 8052002	Platform IPP-4 for 4 Microtiter Plates



PSU-2T PLUS



BOECO MICROPLATE INCUBATOR SHAKER PST-60 HL

The PST-60 HL shakers provide orbital shaking of the samples and have a heating platform for 2 x 96 or 4 x 96 wells microplates and an upper heating lid. The display indicates simultaneous set and actual time, temperature and shaking speed. The PST-60 HL are ideal for a variety of cytochemistry, immunochemistry, biochemistry and research applications.

Specification:

Temperature regulation range: 25°C 60 °C
 Accuracy: ± 0,1 °C
 Temp. Uniformity over the platform: ± 0,2 °C
 Time of thermoblock heating from RT till 37°C: 15 - 20 min.
 Orbit : 2 mm
 Speed regulation: 250 -1200 rpm / increment 10 rpm
 Timer with sound signal: 0 min - 96 hrs, increment 1 min
 Power (external) : DC 12 V. 4,16 A

	PST-60 HL	PST-60 HL 4
Platform dimensions:	250 x 150 mm	210 x 290
Number of microplates:	2	4
Size :	270x260x125 mm	380x390x140mm
Weight incl. power supply :	6,0 kg	9,0 kg

Code	Description
BOE 8072000	Microplate Incubator Shaker PST-60 HL, for 2 plates, AC 100-240V, 50/60 Hz
BOE 8072040	Microplate Incubator Shake PST-60 HL 4, for 4 plates, AC 100V-240V, 50/60 Hz



PST-60 HL PLUS



PST-60 HL 4 PLUS



OS-20 ILLUSTRATED WITH
PP-4 PLATFORM

BOECO UNIVERSAL ORBITAL SHAKER OS-20

Compact, low-profile, orbital laboratory shaker for versatile applications in the fields of biotechnology, microbiology and medical diagnostics. The OS-20 provides gentle rotational mixing and precise circulation at each point of the platform. Variable digital displayed speed control from 50-250 rpm. Digital timer for setting a time interval and continuous operation.

Specification:

Kind of motion:	orbital
Orbit size:	20 mm
Speed regulation:	50 - 250 rpm
speed display:	digital (LED)
Timer:	from 1 min to 999 min / continuous
Time display:	digital (LED)
Max. load:	2,5 kg excl. attachment
Power:	12VDC 500 mA (External power adapter)
Overall size (w/o attachment):	265 x 270 x 70 mm
weight:	3,9 kg.

Code	Description
BOE 8059000	Universal Orbital Shaker OS-20, AC Adapter 220V
BOE 8059100	Universal Orbital Shaker OS-20, AC Adapter 110V



PSU-10i ILLUSTRATED WITH
UP-12 PLATFORM

BOECO UNIVERSAL ORBITAL SHAKER PSU-10i

New generation, now equipped with the direct drive system and brushless motor, of our compact, powerful and quiet microprocessor controlled orbital laboratory shaker for many general purpose shaking applications. Speed and time setting are easy and during operation the LCD status display clearly indicates both set and actual speed, plus set and elapsed time.

Specification:

Kind of motion:	orbital
Orbit size:	10 mm
Speed regulation:	50 - 350 rpm
speed display:	digital (LCD)
Timer:	from 1 min to 96 hours / continuous
Time display:	digital (LCD)
Max. load:	3 kg excl. attachment
Power:	12V. AC 1000 mA (External power adapter)
Overall size (w/o attachment):	270 x 260 x 85 mm
weight:	3 kg

Code	Description
BOE 8069200	Universal Orbital Shaker PSU-10i, Adapter 220V
BOE 8069210	Universal Orbital Shaker PSU-10i, Adapter 110V



PLATFORM P-6/250



PLATFORM P-12/100

ACCESSORIES FOR OS-20 AND PSU-10i

Code	Description
BOE 8059001	Dish platform PP-4 with rubber mat for petri dishes, culture flasks etc. 230 x 230 mm
BOE 8059002	Universal platform UP-12 for all kind of flasks 285 x 215 mm, stainless steel with variable clamping rolls and rubber mat. Numbers of flasks at the platform 100- 150 ml flasks max 12-9 pieces 200- 250 ml flasks max 6-4 pieces 500-1000 ml flasks max 4-2 pieces
BOE 8059003	Platform P-6/250 with fixed clamps for 6 flasks 250/300 ml. 250 x 190 mm
BOE 8059004	Platform P-12/100 with fixed clamps for 12 flasks 100/150 ml.

BOECO PROGRAMMABLE ORBITAL SHAKER PSU-15i

The PSU-15i belongs to a new generation of multifunctional mixing devices: The new design, direct drive system, brushless motor (service life up to 35000 hours) and automatic loading balancing system make the new PSU-15i even more reliable especially for the long non-stop operation. The PSU-15i has a microprocessor control which allows real-time program correction, indication of set and actual speed, angle and time, operation timer in the display.

1. Orbital motion



simple even circular motion - common type of motion used in shakers. Adjustable speed from 30 to 250 rpm.

2. Reciprocal motion



vertical rotation with changing direction of rotation. Adjustable turning angle (from 15° to 360°, increment 30°) sets the limits for this type of motion. The speed is the same as set for rotational motion (from 20 to 250 rpm).

3. Vortex motion of the platform (vibration)



intensive mixing of samples at high speed with small amplitude - Vortex motion.. Adjustable turning angle of 0° to 5° (increment 1°)

Specification:

Kind of motion:	orbital
Orbit size:	20 mm
Speed regulation:	20 - 250 rpm
Speed display:	digital (LCD)
Timer:	from 1 min to 96 hours / continuous
Time display:	digital (LCD)
Max. load:	8 kg
Continuous operation time:	max 168 hrs.
Power (external):	DC 12 V. 4,1 A
Overall size (w/o platform):	410 x 410 x 130 mm
weight:	14 kg

Code	Description
BOE 8079000	Orbital Shaker PSU-15i, 100-240VAC/12DC 4,16A without platform

Accessories

Code	Description
BOE 8079010	Universal platform UP-330 for all kind of flasks 430 x 330 mm, stainless steel with 4 variable clamping rolls and rubber mat.
BOE 8080011	Flat platform PP-20, 480 x 380 mm
BOE 8080012	4 level platform PP-20-4, 480 x 380 mm Distance between platforms: 140 mm Total height: 460 mm
BOE 8080005	Tray platform made out of Aluminium, 360 x 360 mm with holes to accommodate clamps for Erlenmeyer flasks, separating funnels and test tube racks
BOE 8081001	Spring clamp, 25 ml max.: 36 pcs.
BOE 8081002	Spring clamp, 50 ml max.: 36 pcs.
BOE 8081003	Spring clamp, 100 ml max.: 25 pcs.
BOE 8081004	Spring clamp, 250 ml max.: 16 pcs.
BOE 8081005	Spring clamp, 500 ml max.: 9 pcs.
BOE 8081006	Spring clamp, 1000 ml max.: 9 pcs.
BOE 8081007	Spring clamp, 2000 ml max.: 4 pcs.

BOE 8081009 Holding device for Separating funnels 250-1000 ml



PSU-15i WITH PLATFORM UP-330



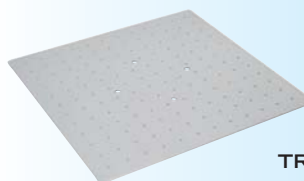
PSU-15i WITH TRAY PLATFORM



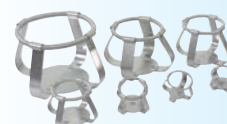
PP-20



PP-20-4



TRAY PLATFORM



SPRING CLAMPS



HOLDING DEVICE FOR SEPARATING FUNNELS

BOECO COLONY COUNTER CC-1

is suitable for counting bacteria growing on agar contained Petri dishes.

Built-in electronic register, operated by any pen. Every time a count is registered the beeper gives an audible signal to verify entry. The pressure sensor system provides uniform sensitivity over the whole of working field;

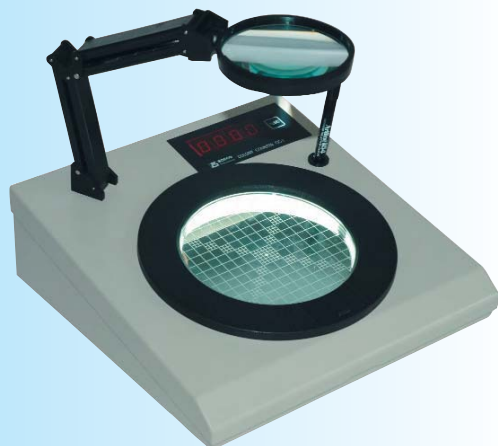
A reset button provides immediate zeroing of the 4-digit counter
Flexible adjuster accepts 10 cm to 15cm petri dishes

The adjustable focusing arm allows the 1.5x magnifying glass to be placed at various angles of working position

The background plate can be changed to white or black for easy counting

Ring-shaped lamp provides uniform working field illumination

The number of counts is capable of being registered to maximum of 4-digits i.e. 9999, and displayed on bright red LED.



CC-1

Specification:

Working Principle: Pressure sensor system provides uniform sensitivity over the whole working field

Readout: 4-digit bright red, 0,6" LED display

Modes of Counting: Marking pen Counting (any pen)

Dimension: 30 cm x 33 cm x 10 cm (W x D x H)

Power: 115 / 230 VAC, 50/60 Hz

Net Weight: 5 kgs.

Code

Description

BOE 5157000

Colony Counter CC-1, with 1,5x standard lens, adjustable focusing arm, marking pen, power cord