

BOECO ORBITAL SHAKER INCUBATOR ES-20/80

Our BOECO ES-20/80 shaker-incubator for biotechnological and pharmaceutical laboratories is a professional category equipment. The typical applications include microbiological and cell culture cultivation, protein expression, solubility studies, general mixing, as well as other various applications in the fields of biology and chemistry. The unit is equipped with a newly developed triple eccentric mechanism for platform motion that provides supreme balancing characteristics, superior reliability and quiet operation. The achieved stability of the unit during vigorous mixing allows for stacking installation of up to 3 units which enables to save space. The new display and easy to use interface provide a clear and intuitive control of parameters and also allow data logging, storage and display over time. Additional features like out of balance sensor and automatic thermostat failure detection make this shaker-incubator an advanced and safe product. Bluetooth connectivity to PC allows for data management, data logging, parameter control and profiling in a dedicated software that can be requested separately.

A built-in heat-resistant brushless fan provides precise temperature distribution inside the chamber (from 10°C above ambient up to +80°C). Additionally, excellent sample temperature uniformity of $\pm 0.3^{\circ}\text{C}$ at 37°C is achieved. The inner chamber is made of stainless steel. State-of-the-art motor, thermal insulation materials and parameter PID-control decrease the energy consumption and make the shaker-incubator highly energy efficient despite its relatively large size.

Specification:

Speed control range	50–400 rpm (increment 10 rpm)
Digital time setting	1 min–96 hrs / non-stop (1 min increment)
Maximum continuous operation time	30 days
Maximum load	10,6 kg
Orbit	20 mm
Stacking	up to 3
Display	TFT
Data transfer	Bluetooth
Temperature setting range	+25°C... +80°C (increment 0,1°C)
Temperature control range	10°C above ambient... +80°C
Sample temperature uniformity	$\pm 0.3^{\circ}\text{C}$ at 37°C
Temperature precision	$\pm 0.1^{\circ}\text{C}$ at 37°C
Temperature accuracy	$\pm 0.1^{\circ}\text{C}$ at 37°C
Sample temperature stability	$\pm 0.1^{\circ}\text{C}$ at 37°C
Heat up time to max. temperature	75 min
Overall dimensions (WxDxH)	620 x 530 x 510 mm
Dimensions of the inner chamber	460 x 350 x 400 mm
Weight	48 kg
Nominal operating voltage	230 V, 50/60 Hz or 120 V, 50/60 Hz
Power consumption	230 V / 450 W (2 A) 120 V / 450 W (4.5 A)

Code

BOE 8086000	Orbital Shaker Incubator ES 20/80 230V, 50/60Hz, without platform
BOE 8086100	Orbital Shaker Incubator ES 20/80 120V, 50/60Hz, without platform

Accessories

Code	Description
BOE 8086400	Platform PP-400 360 x 400 mm with silicone mat
BOE 8080005	Universal tray platform 360 x 360 mm clamps have to be ordered separately
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 8086015	Test tube rack for 44 x 15 ml tubes
BOE 8086050	Test tube rack for 21 x 50 ml tubes



Available Q3/2018 !

BOECO PERSONAL DIGITAL INCUBATOR SI-22

due to its compact architecture the SI-22 provides an economical, efficient and space saving personal solution for incubating culture flasks, dishes, tubes and test plates.

A personal incubator avoids contamination and reagent confusion caused by multiple people using one machine.

The integrated UV light provides disinfection after use. The UV disinfection mode is blocked during incubation.

The SI-22 has a double-deck metal plate reinforced door with door open alarm and automatic turn off UV lamp function. The watch window adopts anti-UV-explosion-proof glass, which allows people to inspect running condition of the machine.

The inner chamber is made out of stainless steel and easy to clean.

A small cord port at the back of the unit allows the use of small mixers.

Specification:

Volume:	22,5 l
Operating Temp. Range:	Room Temperature + 5°C... + 80°C
Temp. Uniformity:	± 0.65 (37°C)
Temp. Fluctuation:	± 0.65 (37°C)
Temperature Setting:	0,1°C
Ramping Time:	30 min.
Timekeeping Time:	99 hours, 59 min, 59 sec.
UV Disinfection Power:	6 W
Max. Number of shelves:	2
Internal Dimension:	273 x 300 x 304 mm (L x W x H)
External Dimension:	400 x 345 x 463 mm (L x W x H)
Weight net:	18 kg

Code

BOE 8038000	Digital Incubator SI-22, 220V, 50/60 Hz incl. 1 stainless steel shelf
BOE 8038100	Digital Incubator SI-22, 115V, 60 Hz incl. 1 stainless steel shelf

Accessories

Code

BOE 8038001	Additional perforated stainless steel shelf
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BOECO ASPIRATOR WITH TRAP FLASK MODEL FTA-1

is designed for aspiration/removal of alcohol/buffer remaining quantities from microtest tube wells during DNA/RNA purification and other macromolecule reprecipitation techniques.

The FTA-1 can also be used for routine operations of cell washing from culture medium and resuspension in buffer.

A suction microbiological filter eliminates the risk of contamination from the trap flask with bacteria, viruses and infected particles.

Specification:

Operating Principle: Creating negative pressure in trapping flask using built-in microprocessor

Vacuum	-500mbar
Trap Flask vol.:	1000 ml
Dimension:	160 x 210 x 340 mm (with trap flask)
Power:	External power supply DC 12 V, 125 A
Net Weight:	1,7 kgs.

Code

BOE 8039000	Aspirator with trap flask, model FTA-1
BOE 8039001	Optional 8-channel adapter manifold MA-8



MA-8
ADAPTER

SUCTION
HYDROPHOBIC
MICROBIOLOGIC
FILTER