

# ES-20, Orbital Shaker-Incubator



## DESCRIPTION

The **ES-20** is a compact bench-top Shaker-Incubator used for mixing of biological liquids as well as for incubation and cultivation of biological liquids according to the operator set program

Built-in microprocessor thermocontroller provides constant temperature control in the incubator chamber. Forced heated air circulation inside the transparent plexiglas chamber guarantees even temperature distribution. Dismountable construction makes transportation easy.

Orbital shaking is controlled by the digital tachometer (rpm) and Digital time setting regardless of the temperature. The unit is equipped with the direct-drive system ensuring most reliable stable long-time operation (up to 30 day nights).

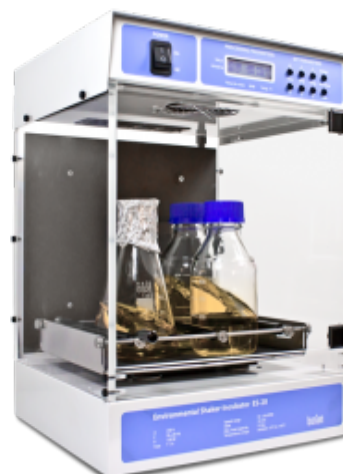
The **ES-20** is extremely easy to operate, with very straightforward setup of temperature, speed and time, using the two line set-up and status display, which clearly indicates both set and actual values for each of the three parameters.

Five interchangeable platforms allow using the **ES-20** for:

- Growing cell cultures in flasks and other laboratory glassware;
- Extracting tissue samples at physiological temperatures;
- Other sample preparation processes.

## SPECIFICATION

Temperature setting range	+25°C ... + 42°C
Temperature control range	5°C above ambient ... + 42°C
Setting resolution	0.1°C / 1 rpm
Temperature stability	±0.5°C
Temperature accuracy at +37°C	±0.5°C
Temperature uniformity at +37°C	±0.5°C
Speed control range	50-250 rpm
Orbit	10 mm
Display	LCD, 2 x 16 signs
Digital time setting	1 min-96 hrs / non-stop
Plexiglas walls thickness	7 mm
Load capacity	2.5 kg
Overall dimensions (WxDxH)	340x340x435 mm
Internal chamber dimensions	305x260x250 mm
Weight	13.2 kg
Nominal operating voltage	230 V, 50/60 Hz or 120 V, 50/60 Hz
Power consumption (230V / 120 V)	160 W (0.7 A) / 170 W (1.6 A)



## CAT. NR.

	ES-20 w-out platform, incl. power plug
BS-010111-AAA	230VAC 50/60Hz Euro plug
BS-010111-AAB	230VAC 50/60Hz UK plug
BS-010111-AA3	230VAC 50/60Hz AU plug
BS-010111-AAC	100VAC 50/60Hz US plug
BS-010111-AAC	120VAC 60Hz US plug
-----	<b>Optional accessories</b>
BS-010108-BK	Platform PP-4
BS-010108-AK	Platform UP-12
BS-010108-FK	HB-200 additional holding bar for UP-12 platform
BS-010108-EK	Platform P-12/100
BS-010108-DK	Platform P-6/250

# ES-20, Orbital Shaker-Incubator



BS-010116-BK	Platform P-16/88
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BS-010111-CK	IQ OQ document
BS-010111-DK	PQ document

## ACCESSORIES



### PP-4

Flat platform with non-slip silicone mat for Petri dishes, culture flasks, agglutination cards.  
Dimensions: w/d 215x215 mm



### UP-12

Universal platform with adjustable bars for different types of flasks, bottles, and beakers with silicone mat. Working area 270x195 mm



### HB-200

Additional holding bar for UP-12



### P-6/250

Platform with clamps for flasks, 250 - 300 ml (6 places). Dimensions: w/d 250x190 mm

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## P-12/100

Platform with clamps for flasks, 100-150 ml (12 places). Dimensions: w/d 250x190 mm



## P-16/88

Platform with spring holders for up to 88 tubes up to 30 mm diameter (e. g. 10 ml, 15 ml, 50 ml tubes) Dimensions: w/d 275x205 mm



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