

# ES-20/80 Orbital Shaker-Incubator with Cooling

## Description

The orbital shaker incubator ES-20/80 is particularly suitable for biotechnological and pharmaceutical laboratories.

### Typical applications:

- microbial and cell culture cultivation
- protein expression
- solubility studies
- general mixing
- as well as other various applications in the fields of biology and chemistry

It is the new version with integrated cooling capability of highly successful shaker-incubator ES 20/80. 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 three units which enables to save space.

The new display and easy to use user 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 the included software.

A combination of an electric heating element and a built-in heat-resistant brushless fan provides precise temperature distribution inside the chamber from 10 °C below ambient up to +80 °C. Cooling of the chamber is provided by additional Peltier modules allowing to cool until -10 °C from the ambient temperature. Additionally, an excellent sample temperature uniformity of  $\pm 0.3$  °C at 37 °C is achieved.

**Part number ES-20/80C:** 104.3545  
Without platform, incl. power plug.



ES-20/80C with platform HSP-6/1000

Temperature setting range	+4°C up to +80°C
Temperature control range	10°C above ambient up to +80°C
Speed control range	50 – 400 rpm (increment 10 rpm)
Temperature setting resolution	0.1°C
Temperature stability	$\pm 0.1$ °C
Temperature accuracy at +37°C	$\pm 0.1$ °C
Temperature uniformity at +37°C	$\pm 0.3$ °C
Maximum load	10.6 kg
Orbit	20 mm
Digital time setting	1 min–96 hrs / non–stop (1 min increment)
Timer sound signal	yes
Display	TFT, 5 inches
Overall dimensions (WxDxH)	620 × 530 × 510 mm
Dimensions of the inner chamber	460 × 400 × 310 mm
Weight	48 kg
Nominal operating voltage	230 V, 50/60 Hz
Power consumption	500 W (2.2 A)

## Platforms for ES-20/60, Orbital Shaker-Incubator

**HSP-6/1000**



**Platform with 6 clamps  
for 1000 ml flasks**

**Dimensions:**  
360 × 400 mm  
**Part number:**  
105.3534

**HSP-30/100**



**Platform with 30 clamps  
for 100 ml flasks**

**Dimensions:**  
360 × 400 mm  
**Part number:**  
105.3531

**HSP-9/500**



**Platform with 9 clamps  
for 500 ml flasks**

**Dimensions:**  
360 × 400 mm

**Part number:**  
105.3533

**HSP-16/250**



**Platform with 16 clamps  
for 250 ml flasks**

**Dimensions:**  
360 × 400 mm  
**Part number:**  
105.3532

## UP-168



**Universal platform with clamps for flasks/bottles**  
Clamps are not included with platform and need to be ordered.

**Dimensions:**  
360 × 400 mm

**Part number:**  
105.3536

## PP-400



**Flat platform with non-slip silicone mat**  
Can accommodate various low profile containers

**Working Area:**  
360 × 400 mm  
**Part number:**  
105.3535

**HSC-50, HSC-100, HSC-250,  
HSC-500, HSC-1000**



**Clamps for  
platform UP-168  
for flasks with**

50 ml - Ø 50 mm  
100 ml - Ø 65 mm  
250 ml - Ø 85 mm  
500 ml - Ø 105 mm  
1000 ml - Ø 130 mm

**Maximum number of  
clamps for platform  
UP-168**

100 ml	16
250 ml	9
500 ml	9
1000 ml	4

## TR-21/50



**Adjustable  
angle test tube rack  
for up to 21 tubes 50 ml  
(for UP-168)**

**TR-44/15**



**Adjustable  
angle test tube rack  
for up to 21 tubes 50 ml  
(for UP-168)**