

## PSU-20i, Multi-functional Orbital Shaker



### DESCRIPTION

Shaker **PSU-20i** provides three motion types: orbital, reciprocal and vibrating, which can be performed separately, pairwise and sequentially in repeated cycles. Shaker is designed for applications both in small specialized laboratories and in large multidisciplinary laboratories. **PSU-20i** is an ideal instrument for laboratories conducting research in biopharmaceutics and biomedicine.



Shaker PSU-20i is noiseless and reliable in operation, incorporates a direct drive system and brushless motor with a guaranteed service life up to 35,000 working hours. The use of direct drive and brushless motor allows for continuous mixing up to 7 days and ensures reliable operation for more than 2 years.

A choice of nine (9) different interchangeable platforms provides possibility of performing various procedures and techniques. Special attention should be paid to a multilevel platform, which allows accommodation of a large number of various microplates, Petri dishes, cultural bags and other low containers.

Shaker can be used in cold rooms or incubators, operating at ambient temperature range +4°C to +40°C.



### SPECIFICATION

Speed control range	20-250* RPM (increment 5 rpm) * max. speed depends on the load and vessels' shape
Digital speed control	+
Maximum continuous operation time	168 hrs
Orbit	20 mm
Digital time setting	1 min-96 hrs / non-stop (increment 1 min)
Maximum load	8 kg
Overall dimensions (WxDxH)	410x410x130 mm
Weight	11.7 kg
Input current/power consumption	12 V, 3.2 A / 40 W
External power supply	Input AC 100-240 V; 50/60 Hz; Output DC 12 V

Motion types	Description	Speed range	Tilting angle	Motion timer *	General operation timer (1 min stop)
Orbital	Simple orbital motion with an option of shifting direction (clockwise/anticlockwise) after set time	20-250 rpm	—	0-250 sec	1 min-96 hrs
Reciprocal	Orbital motion with shifting direction of rotation	20-250 rpm	0°-360° 10° increment	0-250 sec	1 min-96 hrs
Vibrating	High speed, low amplitude motion	—	0°-5° 1° increment	0-5 sec	1 min-96 hrs

\* for switching to the next motion in the cycle

### CAT. NR.

	PSU-20i with external power supply unit w-out platform
BS-010145-ACI	230VAC 50/60Hz Euro plug
BS-010145-ACQ	230VAC 50/60Hz UK plug
BS-010145-AC4	230VAC 50/60Hz AU plug
BS-010145-ACJ	100VAC 50/60Hz US plug
BS-010145-ACJ	120VAC 60Hz US plug
-----	<b>Optional accessories</b>
BS-010135-DK	Platform P-6/1000
BS-010135-AK	Platform P-9/500
BS-010135-CK	Platform P-16/250
BS-010135-BK	Platform P-30/100
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BS-010135-JK	Platform UP-168
BS-010126-MK	FC-50, clamp 50ml
BS-010126-HK	FC-100, clamp 100ml
BS-010126-JK	FC-250, clamp 250ml
BS-010126-LK	FC-500, clamp 500ml
BS-010126-IK	FC-1000, clamp 1000ml
BS-010126-NK	FC-2000, clamp 2000ml
BS-010135-KK	TR-21/50, test tube rack, 50ml
BS-010135-LK	TR-44/15, test tube rack, 15ml
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BS-010145-AK	Platform UP-330
BS-010145-BK	HB-330 additional holding bar for UP-330
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BS-010126-BK	Platform PP-20
BS-010126-CK	Platform PP-20-2
BS-010126-DK	Platform PP-20-3
BS-010126-EK	Platform PP-20-4
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BS-010145-CK	IQ OQ document
BS-010145-DK	PQ document

### ACCESSORIES



#### **P-6/1000**

Platform with 6 clamps for 1000 ml flasks (360x400 mm)



#### **P-9/500**

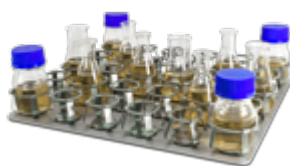
Platform with 9 clamps for 500 ml flasks (360x400 mm)

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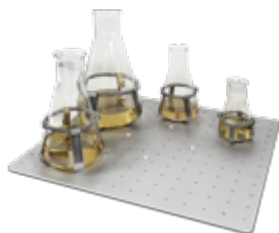
### **P-16/250**

Platform with 16 clamps for 250 ml flasks (360x400 mm)



### **P-30/100**

Platform with 30 clamps for 100 ml flasks (360x400 mm)



### **UP-168**

Universal platform with clamps can accommodate flasks or bottles of different volume sizes. Clamps and racks are not included with platform and need to be ordered separately. (360x400 mm)



### **FC-50, FC-100, FC-250, FC-500, FC-1000, FC-2000**

Clamp for  
50 ml - Ø50 mm,  
100 ml - Ø65 mm,  
250 ml - Ø85 mm,  
500 ml - Ø105 mm,  
1000 ml - Ø130 mm,  
2000 ml - Ø166 mm  
flask (for UP-168)



### **TR-21/50**

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

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### TR-44/15

Adjustable angle test tube rack for up to 44 tubes 15 ml (for UP-168)



### UP-330

Universal platform with adjustable bars can accommodate laboratory glassware of different shapes (345x430x105 mm)



### HB-330

Additional holding bar for UP-330



### PP-20 --- PP-20-4

Flat platform with non-slip rubber mat can accommodate various low profile containers (380x480x170/340/510 mm)