

## PSU-20i multi-functional orbital multi platform shaker

Powerful and efficient microprocessor controlled, multi-functional orbital shaker providing all that is required to mix your samples – rotation, reciprocation and vibration. This enables optimisation of the mixing, whether in flasks, beakers, petri dishes or other laboratory vessels.

- **Orbital motion (20 to 250 rpm), reciprocation (20 to 250 rpm) and vibration functions all in one product**
- **Loading capacity: 8kg**
- **Fully programmable sequence that can use one or all the functions**
- **6 interchangeable platforms for vessels up to 1000ml including a multi-level platform to hold a large number of various microplates, Petri dishes and culture bags.**
- **Reciprocal rotation: 0 to 360° turning angle, in 30 degree steps**
- **Vibration: 0 to 5° turning angle, 1 degree steps**



### PSU-20i fitted with PUP-330

**Universal detachable platform** accommodates vessels of different shapes and sizes for maximum flexibility. **Please order separately.** See page 9.4 for full list of accessory platforms. No tools are needed to change the platform.

**Powerful, reliable and exceptionally quiet motor** – combines an 8kg loading capacity with consistent even motion and quiet operation.

**2-line LCD status display** of actual and set parameters.

**Very easy to operate**, with simple set-up of multi-segment programs via push buttons.

**Direct drive system** and brushless motor.



**All mixing functions – orbital motion, reciprocation and vibration** – can be set for **continuous or timed operation**, or be linked together in different combinations to establish optimum mixing and ensure accurately repeatable conditions for your application.

**Low voltage cord easily fits through door gaskets**, allowing use in incubators, refrigerators and workstations. Safe and low energy consumption.

Platform sold separately

### Applications:

- Biomedical and biopharmaceutical laboratories - cultivation of cells, extracting, dissolving slow reacting samples, extraction of mineral oil of soil, tissue culture for analytical diagnostics, de-aeration of tested biodegradable materials and samples, rotating closed containers for dialysis, bacterial growth

## PSU-10i orbital platform shaker

Microprocessor controlled shaking platform providing smooth and quiet horizontal orbital motion for mixing in bottles, flasks and beakers.

- Variable shaking speed: 50 to 450rpm
- Reliable direct drive system
- Automatic load balancing system
- Continuous or timed operation with automatic switch-off
- 5 interchangeable platforms for vessels up to 250ml including an 88 place spring loaded platform for tubes up to 30mm diameter
- Simple to set up and easy to operate
- Loads up to 3kg



\* Platforms sold separately.



- Applications:**
- Biotechnology and microbiology - micro-organism cultivation and extraction of biologically active substances
  - Immunology and biochemistry - agglutination and precipitation assay
  - Biochemistry - washing off electrophoresis gel
  - Molecular and cell biology - cultivation of biological liquids

## Shakers, mixers and stirrers » PSU-20i and PSU10i » Models and specifications

## Shakers – Technical specifications

• = optional

(all heights exclude platform)

		Multi platform shaker	Shaking platform
		PSU-20i	PSU-10i
		 h: 130mm d: 410mm w: 410mm weight: 11.7kg	 h: 90mm d: 205mm w: 220mm weight: 3.4kg
Speed (load dependent)	rpm	20 to 250	50 to 450
Orbit $\phi$	mm	20	10
Maximum load	kg	8	3
Timer, with automatic switch-off		1 min to 96 hours	
Motion timer (orbital/reciprocal modes)	sec	0 to 250	–
Motion timer (vibration mode)	sec	0 to 5	–
Display		2-line 16 character LCD	
Angle (reciprocal mode)	$^{\circ}$	0 to 360	–
Angle (vibration mode)	$^{\circ}$	0 to 5	–
External power supply		Input AC 120-230V, 50/60Hz Output DC 12V	
Input voltage	V dc	12	
Power consumption	W	40 (3.2A)	10 (0.8A)
Operating temperature range	$^{\circ}\text{C}$	4 to 40	

## Accessories

<b>P16-88</b> Platform with spring holders for up to 88 tubes up to 30mm diameter		–	•
<b>P12-100</b> Platform with clamps for 12 x 100/150ml flasks/beakers. Dimensions: 250 x 190mm		–	•
<b>BIO-PP-4</b> Flat platform with non-slip rubber mat. Dimensions: 230 x 230mm		–	•
<b>P6-250</b> Platform with clamps for 6 x 250-300 ml flasks/beakers. Dimensions: 250 x 190mm		–	•
<b>PUP-12</b> Universal platform, with adjustable bars. Dimensions: 270 x 195mm HB-200 extra holding bars		–	•
<b>PUP-330</b> Adjustable bars and two fixing levels. Dimensions: 345 x 430 x 105mm HB-330 extra holding bars		•	–
<b>PP-20-(2/3/4 level)</b> Flat platform with non-slip rubber mat. Dimensions: 480 x 380mm Height between levels: 140mm		•	–
<b>P30-100</b> Platform with clamps for 30 x 100-150ml flasks		•	–
<b>P16-250</b> Platform with clamps for 16 x 250-300ml flasks		•	–
<b>P9-500</b> Platform with clamps for 9 x 500ml flasks		•	–
<b>P6-1000</b> Platform with clamps for 6 x 1000ml flasks		•	–