

# Shaker

## Dual action / General type

### Optimal model configuration with powerful performance

#### Structural Functional Features

- World Class, up to 500rpm.
- OS-2000, 3000, and 4000 models application of BLDC motor & belt system selectable orbital/reciprocal motion.
- Compact and powerful shaking.
- OS-7000 model  
Application of DD motor & triple cam system stable shaking ability. (Patent registration no. 10-1678160)
- Stable shaking with low center of gravity structure.
- Powder coating applied to outer surface for reinforced corrosion resistance.
- Structure prevents the sample from flowing into the inside.

#### Use Convenience Features

- Accurate shaking with PID feedback control.
- Precision control with rpm calibration function.
- Count-down timer. (up to 999 hours and 59 minutes)
- Intuitive and useful real-time rpm changes.
- Soft start and stop shaking function.
- Monitor via mobile app anytime, anywhere with LC Connected. (mobile monitoring system) (when purchased LC GreenBox)
- Soft start and stop shaking function.
- The user can select a clockwise / counterclockwise rotation
- Usable when ambient temperature is at least 4°C.
- Various accessories depending on sample containers.
- Possible to stop the equipment at the same position.

#### Smart Self-diagnosis

- Real-time self-diagnostics to check equipment for abnormal conditions.
- Alarm from monitoring actual rpm error relative to the set rpm.
- When device instability occurs. (high rpm, overload, weight imbalance, etc.)
- Detects abnormal conditions relating to the platform on which the sample is placed and stops the operation.
- Automatic restart in the event of sudden power loss.

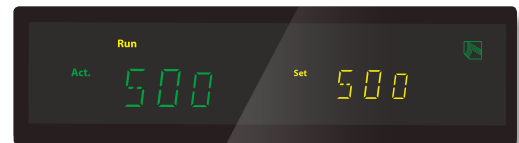
#### Optimized Rational Model Configuration

- Wide range of models from small to large type.
- 10 - 500 rpm for all applications.
- Applies four different shaking diameters. (amplitudes)
- Provides four sizes of platform models.
- Dual Action model. (orbital/reciprocal motion)
- Accessories for shared use.



#### OS-3000

with Universal Platform, Flask Clamp (option)



- Displays sets rpm and actual rpm simultaneously.
- Provides all information on equipment operation.
- Convenient operation with shaking start/stop button.
- Convenient operation by changing rpm with control knob.
- Clear display. (clear VFD)



Remote control and monitoring via mobile app.



## Heavy Duty Holder (Option) for large capacity shaking

- Shaking up to 50L carboy on OS-7100 / 7200 models.
- Select 20L / 50L Holder Sponge depending on the amount of shaking.

### Controllable rpm according to water weight

Model	Holder sponge	Water weight (L)					
		0	10	20	30	40	50
OS-7100 (rpm)	20L x 2	300	280	180	160	160	-
	50L x 1	300	190	150	130	130	130
OS-7200 (rpm)	20L x 2	210	180	160	150	150	-
	50L x 1	210	140	120	110	100	100

Cat.No	Description
AAA3D501	Heavy duty holder for OS-7000 series
AAA3D502	Heavy duty holder sponge (Φ376mm x 1hole) for 50L Carboy
AAA3D503	Heavy duty holder sponge (Φ290mm x 2hole) for 20L Carboy
AAAJ3031	20L Carboy (260 x 317 x 539mm)



**OS-7100**

with Heavy duty holder (option) + 1 hole-Heavy duty holder sponge (option)



**OS-7100**

with Heavy duty holder (option) + 2-hole Heavy duty holder sponge (option)

## Specification

Model	OS-2000	OS-3000	OS-4000		OS-7100	OS-7200
<b>Shaking system</b>						
Motion type	Orbital / Reciprocal	Orbital / Reciprocal	Orbital	Reciprocal	Orbital	Orbital
Speed range (rpm)	20 to 500	20 to 500	20 to 500	20 to 450	30 to 500	30 to 300
Max. speed per permissible load <sup>1)</sup>	500rpm (max. 10 kg) 300rpm (max. 16 kg)	500rpm (max. 10 kg) 300rpm (max. 18 kg)	500rpm (max. 14 kg) 400rpm (max. 21 kg)	450 rpm (max. 10 kg) 300 rpm (max. 21 kg)	500rpm (max. 10 kg) 400rpm (max. 30 kg)	300rpm (max. 23 kg) 250rpm (max. 35 kg)
Amplitude size (mm / inch, dia.)	19.1 / 0.8 (12.7 / 0.5 available)	19.1 / 0.8 (25.4 / 1 available)	19.1 / 0.75 (default)	25.4 / 1 (available)	25.4 / 1	50.8 / 2
Speed stability <sup>2)</sup> (rpm, %)	1	1	1		1	1
Timer (count-down)	999hr 59min	999hr 59min	999hr 59min		999hr 59min	999hr 59min
<b>Dimension</b>						
Platform (W x D, mm / inch)	320 x 260 / 12.6 x 10.2	350 x 350 / 13.8 x 13.8	450 x 450 / 17.7 x 17.7		755 x 520 / 29.6 x 20.5	
Body <sup>1)</sup> (W x D x H, mm/inch)	354 x 388 x 146 / 13.9 x 15.3 x 5.7	409 x 508 x 141 / 16.1 x 20 x 5.6	510 x 632 x 156 / 20.1 x 24.9 x 6.1		755 x 627 x 151 / 29.7 x 24.7 x 5.9	
Net weight (Kg / lbs)	22 / 48.5	28 / 61.7	43 / 94.8		117 / 257.9	
<b>Electrical requirements (230V, 50 / 60Hz, A)</b>						
	0.3	0.3	0.3		0.4	
Cat. No.	AAH3D1115K	AAH3D1215K	AAH3D1315K		AAH3D1415K	AAH3D1515K
<b>Electrical requirements (120V, 60Hz, A)</b>						
	0.6	0.6	0.6		0.8	
Cat. No.	AAH3D1165U	AAH3D1265U	AAH3D1365U		AAH3D1465U	AAH3D1565U

1) In Orbital Shaking mode, Regarding the maximum controllable rpm and amplitude by weight, the measurement is performed based on the default value.  
2) Actual rpm allowable error for set rpm (1rpm if setting is less than 100rpm, ±1% if setting is higher than 100rpm)

## Accessories Page 122

Universal Platform, Spring Wire Rack, Dedicated Platforms, Rubber Mat, Universal Attachment, Lab Sticker, Microplate Tray, Stage Rack, Flask Clamp, Funnel Clamp, Test Tube Rack, Microplate Holder, LC Green Box