## **Open-air Shakers** (Dual-action)



### Performance

- · Dual-action shaking motion: Orbital / Reciprocating.
- Microprocessor PID control / Shaking speed calibration.
- Competitive high shaking speed up to 500 rpm. Also stable shaking is available even at low speed.
- Shaking motion in various amplitude.
- 12.7mm or 19.1mm for OS-2000
- 19.1mm or 25.4mm for OS-3000
- Wide speed range even with heavy workload.
  Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion.
- Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity.
- Pleasant test environment by the smooth acceleration and deceleration control.
- Low-profile design minimizes vibration or sliding caused by the high speed shaking motion.

## Convenience

- User friendly control panel.
- Lab Companion's unique VFD-bright, clear, easy to read.
- Durable membrane touch switch and control knob.
- Easy-set digital timer. (1 min. to 999 hr. 59 min.)
- Repetitive task can be easily performed as the platform stops where it starts.
- Stopping the shaking platform always at the same position is highly beneficial for automated dosing or sampling process.
- Speed is basically set and displayed in increments of 1 rpm. Also speed increment interval can be set among 1, 5, 10 rpm according to users preference.
- RS-232 port and USB port for external control and data collection.

### Safety

- Automatic run after power interruption.
- Shaking speed deviation alarm.
- Over-current protection, Stalled platform check.

# Dual-action benchtop platform shakers accommodate flask up to 6L.

The most versatile shakers at a reasonable price offer an ideal solution for your mixing needs.



REMOTE CONTROL with your MOBILE DEVICE see page 8-9



## **OS-3000**

with optional dedicated platform

Optional accessories see page 158-159

- Rubber mats, Universal attachments
- Funnel clamps, Test tube racksGateway
- Control panel



	Model	OS-2000	OS-3000			
	Motion type	Orbital or Reciprocating motion selectable				
Chaking	Amplitude size (mm / inch, dia.)	19.1 / 0.8 (12.7 / 0.5 available)	19.1 / 0.8 (25.4 / 1 available)			
Shaking system	Speed range <sup>2)</sup> (rpm)	20 to 500				
System	Accuracy	±1% of set speed (>100rpm) / ±1 (≤100rpm)				
	Timer	1 min. to 999 hr. 59 min.				
Max. load (kg / lbs)		10 / 22.0 at 500 rpm in orbital shaking motion 8.5 / 18.7 at 500 rpm in reciprocating shaking motion				
Dimension	Platform (W×D) (mm / inch)	320×260 / 12.6×10.2	350×350 / 13.8×13.8			
	Body <sup>1)</sup> (W×D×H) (mm/inch)	354x388x146/ 13.9x15.3x5.7	409x508x141/ 16.1x20x5.6			
	Net weight (Kg / Ibs)	22 / 48.5	28 / 61.7			
Electrical requirements (230V, 50 / 60Hz)		0.3A	0.3A			
Cat. No.		AAH3D1115K	AAH3D1215K			
Electrical requirements (120V, 50 / 60Hz)		0.6A	0.6A			
Cat. No.		AAH3D1165U	AAH3D1265U			

1) Main body dimension without accessories.

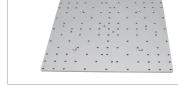
2) In case of operating at high speed (350 to 500 rpm), it is recommended to be fixed on the working surface.

\* Permissible environmental conditions: temperature (5-40°C) and relative humidity (up to 80%).

\* FDA establishment registered company. FDA listed products.

### for Open-air Shakers (OS models) / Mini Shaker





Universal platform (CMS-350)



Universal platforms (OS models)









Flask clamps (stainless steel)

Flask clamps (plastic)

Funnel clamps

Microplate holders (universal platform is optional)

Desc	Develotion		OS-2000	OS-3000	OS-4000	OS-7200	CMS-350
Description		Platform size	320×260mm / 13.8x10.2″	350×350mm / 13.8x13.8″	450×450mm / 17.7×17.7″	755×520mm / 29.7×20.5″	276×276mm / 10.9x10.9″
Universal platform			AAA3A501-V2	AAA23501-V3	AAA23502-V3	AAA23503-V3	AAA3B501
	Erlenmeyer flask size	Max. mountable flask clamps					
	for 50 ml	AAA23550	20	36	49	88	16
	for 100 ml	AAA23551	16	28	39	68	9
	for 250 ml	AAA23552	8	14	24	39	9
Flask	for 300 ml	AAA23556	8	14	24	39	9
clamps	for 500 ml	AAA23553	6	10	16	28	5
(Stainless steel)	for 1L	AAA23554	3	6	9	18	4
-	for 2L	AAA23555	-	4	6	11	1
-	for 2.8L	AAA23557	-	3	5	8	-
-	for 4L	AAA23558	-	1	4	6	-
	for 6L	AAA23559	-	1	3	5	-
	Erlenmeyer flask size	1	Max. mountable	flask clamps			1
-	for 50 ml	AAA30570	20	36	49	88	16
-	for 100 ~ 125 ml	AAA30571	12	19	29	48	9
Flask	for 200 ml	AAA30572	8	13	21	35	9
clamps	for 250 ml	AAA30573	8	13	19	35	9
(plastic)	for 300 ml	AAA30574	6	12	19	35	9
-	for 500 ml	AAA30575	6	9	12	24	5
-	for 1L	AAA30576	3	5	9	12	4
	for 2L	AAA30577	-	4	5	8	1
	Separating funnel size		Max. mountable funnel clamps				
	for 250 ml	AAA23562	4	4	6	15	3
Funnel	for 500 ml	AAA23563	3	3	4	10	2
clamps	for 1L	AAA23564	3	3	3	7	2
-	for 2L	AAA23565	-	2	2	5	-
	Test tube size		Mountable capacity of racks			0	
-	for 86 test tubes, ø8"	AAA23581		2	4	7	2
-	for 86 test tubes, ø10"	AAA23582	2				
-	for 58 test tubes, ø12"	AAA23583					
-	for 58 test tubes, ø12	AAA23584					
Test Tube Racks <sup>1)</sup>	for 32 test tubes, Ø17	AAA23585					
	for 19 test tubes, Ø25"	AAA23586					
-	for 10 test tubes, Ø20	AAA23587					
	for 10 test tubes, Ø35	AAA23594					
	for 4 test tubes, ø50"	AAA23593					
	Microplate holders type		Max. mountable microplate holders				
	Single	AAA23654	6	8	15	25	6
Microplate holders	Tower	AAA23651	4	6	10	21	6
	Flat A (large)	AAA23652	-	-	2	4	-
-	Flat B (small)	AAA23653	- 1	2	3	6	_

1) No declination.

\* Above accessories need to be mounted on a universal platform which is sold separately.



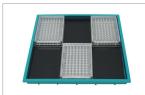
## for Open-air Shakers (OS models) / Mini Shaker



Dedicated platform (universal platform is optional)



Rubber mats



Rubber mat (CMS-350)



Spring wire racks (two tier rack with flexible crossed spring)



Universal attachment



Dual stacking tray



Lab sticker (200x200, mm)

Large tray





Stage rack (OS models)

Description		OS-3000	OS-4000	OS-7100 OS-7200	
	Universal platform +250ml flask clamps	AAA23611-V1	AAA23621-V1	AAA23634	
Dedicated	No. of flask clamps	14	24	39	
platform	Universal platform +500ml flask clamps	AAA23613-V1	AAA23622-V1	AAA23635	
	No. of flask clamps	10	16	28	

#### Gateway

Establish Jeio Tech Network by Gateway. No computer use is required at all. Remote monitoring of operating status through a device (Android only) is simply available when you place a Gateway in your laboratory. Maximum 4 units can be connected to Gateway by RS-232 cable.

Cat. No.	Description	Suitable for
AAAQ1011	Gateway (2.4GHz, 100~240V, 50/60Hz)	OS models

\* A dedicated platform is sold with setting each max. mountable amount of flask clamps on.

Des	cription	OS-2000	OS-3000	OS-4000	OS-7100 OS-7200	CMS-350	
Spring wire racks	-	AAA3A521	AAA31521-V1	AAA31522-V1	AAA23514	AAA3B511	
	Erlenmeyer flask size	Max. inserting flasks					
	for 50 ml	15 16		25	45	15	
	for 100 ml	9	9	16	28	9	
	for 250 ml	4	4	9	18	4	
	for 300 ml	4	4	9	18	4	
	for 500 ml	4	4	5	15	4	
	for 1L	2	2	4	10	2	
	for 2L	-	1	2	6	-	
	for 2.8L	-	1	2	4	-	
Rubber mat		AAA3A531-V1	AAA31531	AAA31532	AAA23534	AAA38501	
Universal attachments		AAA3A511-V1	AAA23511-V1	AAA23512-V1	AAA23505	AAA3B521	
Lab sticker		AAA30551					
Dimpled mat		AAA3A532	-	-	-	AAA38502	
Microplate tray	Dual stacking	AAA3A541	-	-	-	AAA3B531	
	Large tray	AAA3A542	-	-	-	AAA3B532	
Stage racks	4 stage rack	-	AAA31541-V1	AAA31542-V1	AAA31702-V1	-	
	3 stage rack	-	-	-	AAA31703-V1	-	