

# Mini Shaker



Compact and lightweight design for space saving and portability with real-time responsive speed control knob.



## CMS-350

with optional universal platform, flask clamp

**Optional accessories**  
see page 150-153

- Spring wire racks, Microplate tray
- Test tube racks, Funnel clamps

### Performance

- Suitable for low rpm sensitive applications.
  - Hybridization, immunocytochemistry, gel staining/destaining, and other bioscience applications.
- Microprocessor PID control.
- Wide speed range from 50 to 300 rpm.
- Orbital shaking motion in 13mm diameter.
- Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion.

### Convenience

- Vivid and colorful vacuum fluorescent display (VFD) with touch-sensitive keypad.
- One-touch timer for time-dependent shaking operation. (1 min. to 99 hr. 59 min.)
- Removable tray for easy transport of well-plates (max. 6 ea) and dishes. (optional)
- Compact and lightweight design allow for use in cold rooms or incubators.
- Variety of accessories are available to meet application demands.

### Safety

- Self-diagnostic function identifying errors.
- Its polypropylene main body is highly chemical-resistant and easy-to-clean.
- Over-current protection.

Model		CMS-350
Control system		PID feedback control
Display		VFD
Shaking system	Motion type	Orbital
	Speed range (rpm)	50 to 300
	Accuracy at 100 rpm	±5
	Timer	1 min. to 99hr. 59min.
	Orbit size (mm / inch, dia)	13 / 0.51
	Max. load (kg / lbs)	up to 5.2 / 11.46
Dimension	Tray (WxD) (mm / inch)	276×276 / 10.87×10.87
	Platform (WxD) (mm / inch)	250×250 / 9.8×9.8
	Body <sup>1)</sup> (WxDxH) (mm / inch)	249×325×109 / 9.8×12.8×4.3
	Net weight (kg / lbs)	8 / 17.6
Electrical requirements		AC 100 ~ 240 V, 50 / 60 Hz
Cat. No.	KR Plug	<b>AAH3B1115K</b>
	US Plug	<b>AAH3B1115U</b>

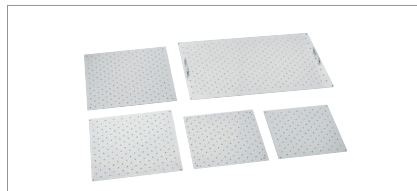
1) Main body dimension without accessories.

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

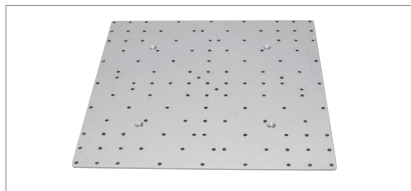
\* FDA establishment registered company. FDA listed products.

# Accessories & Options

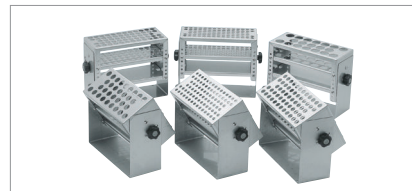
## for Open-air Shakers (OS models) / Mini Shaker



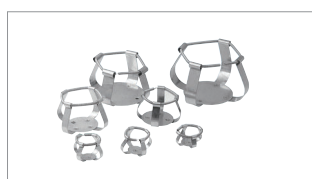
Universal platforms (OS models)



Universal platform (CMS-350)



Test tube racks



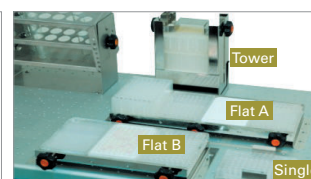
Flask clamps (stainless steel)



Flask clamps (plastic)



Funnel clamps



Microplate holders

Description		OS-2000	OS-3000	OS-4000	OS-7100 OS-7200	CMS-350
Cat.No.	Universal platform	AAA3A501-V2	AAA23501-V3	AAA23502-V3	AAA23503-V3	AAA3B501
-	Erlenmeyer flask size	Max. mountable flask clamps				
AAA23550	for 50 ml	20	36	49	88	16
AAA23551	for 100 ml	16	28	39	68	9
AAA23552	for 250 ml	8	14	24	39	9
AAA23556	for 300 ml	8	14	24	39	9
AAA23553	for 500 ml	6	10	16	28	5
AAA23554	for 1L	3	6	9	18	4
AAA23555	for 2L	-	4	6	11	1
AAA23557	for 2.8L	-	3	5	8	-
AAA23558	for 4L	-	1	4	6	-
AAA23559	for 6L	-	1	3	5	-
-	Erlenmeyer flask size	Max. mountable flask clamps				
AAA30570	for 50 ml	20	36	49	88	16
AAA30571	for 100 ~ 125 ml	12	19	29	48	9
AAA30572	for 200 ml	8	13	21	35	9
AAA30573	for 250 ml	8	13	19	35	9
AAA30574	for 300 ml	6	12	19	35	9
AAA30575	for 500 ml	6	9	12	24	5
AAA30576	for 1L	3	5	9	12	4
AAA30577	for 2L	-	4	5	8	1
-	Separating funnel size	Max. mountable funnel clamps				
AAA23562	for 250 ml	4	4	6	15	3
AAA23563	for 500 ml	3	3	4	10	2
AAA23564	for 1L	3	3	3	7	2
AAA23565	for 2L	-	2	2	5	-
-	Test tube size	Mountable capacity of racks				
AAA23581	for 86 test tubes, ø8mm	2	2	4	7	2
AAA23582	for 86 test tubes, ø10mm					
AAA23583	for 58 test tubes, ø12mm					
AAA23584	for 58 test tubes, ø14mm					
AAA23585	for 32 test tubes, ø17mm					
AAA23586	for 19 test tubes, ø25mm					
AAA23587	for 10 test tubes, ø30mm					
AAA23594	for 10 test tubes, ø35mm					
AAA23593	for 4 test tubes, ø50mm					
-		Max. mountable microplate holders				
AAA23654	Single	6	8	15	25	6
AAA23651	Tower	4	6	10	21	6
AAA23652	Flat A (large)	-	-	2	4	-
AAA23653	Flat B (small)	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



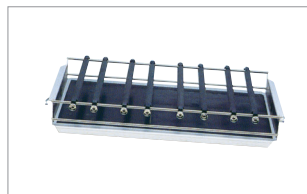
Dedicated platform



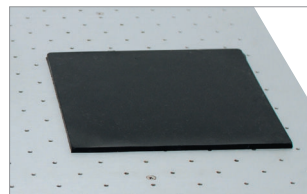
Spring wire racks



Rubber mats (SK, SKF)



Universal attachment



Lab sticker (200x200, mm)



Stage rack (OS models)



Rubber mat (CMS-350)



Dual stacking tray



Large tray

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

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

Description		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	-