

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. (registration KR 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.
- Applied a direct drive motor that has outstanding durability, a 5-year warranty for the motor.



OS-3000

with Universal Platform, Flask Clamp (option)

Use Convenience Features

- Accurate shaking with PID feedback control.
- Precision control with rpm calibration function.
- Stable control system even at low-speed agitation.
- 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. (Requires LC GreenBox, option)
- 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.



- 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)

Smart Self-diagnosis

- Real-time self-diagnostics to check equipment for abnormal conditions.
- Alarm from monitoring actual rpm error relative to the set rpm.
- Automatic restart in the event of sudden power loss.

Optimized Rational Model Configuration

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



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
AAA3031	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
Shaking system					
Motion type	Dual Action (Orbital/Reciprocal)	Dual Action (Orbital/Reciprocal)	Dual Action (Orbital/Reciprocal)	Orbital	Orbital
Speed range (rpm)	20 to 500	20 to 500	20 to 500 (Orbital) / 20 to 450 (Reciprocal)	30 to 500	30 to 300
Max. speed per permissible load ¹⁾	500rpm (max. 10 kg) 300rpm (max. 16 kg)	500rpm (max. 10 kg) 300rpm (max. 18 kg)	Orbital: 500 (max. 14kg), 400 (max. 21 kg) Recipro.: 450 (max. 10kg), 300 (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 (default) (12.7 / 0.5 available)	19.1 / 0.8 (default) (25.4 / 1 available)	19.1 / 0.75 (default) 25.4 / 1 (available)	25.4 / 1	50.8 / 2
Speed stability ²⁾ (rpm, %)	±1	±1	±1	±1	±1
Timer (count-down)	999hr 59min	999hr 59min	999hr 59min	999hr 59min	999hr 59min
Dimension					
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 (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	
Electrical requirements (230V, 50/60Hz, A)	0.3	0.3	0.3	0.4	
Cat. No.	AAH3D1115K	AAH3D1215K	AAH3D1315K	AAH3D1415K	AAH3D1515K
Electrical requirements (120V, 60Hz, A)	0.6	0.6	0.6	0.8	
Cat. No.	AAH3D1165U	AAH3D1265U	AAH3D1365U	AAH3D1465U	AAH3D1565U

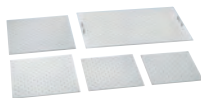
- 1) In Orbital Shaking mode, Regarding the maximum controllable rpm and amplitude by weight, the measurement is performed based on the default value.
2) Actual rpm allowable error for set rpm (1rpm if setting is less than 100rpm, ±1% if setting is higher than 100rpm)

Accessories Page 136

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, Starter Kit

Accessories for Shaker

Universal Platform



Universal Platform

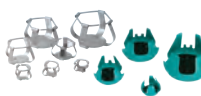
Basic accessories required to use separated funnels, erlenmeyer flask, test tube, etc.



Dual Universal Platform

Maximum sample loading possible with two-stage structure.
(SKC-7000 series model exclusively)

Accessories for Universal Platform



Flask Clamp (STS / Plastic)

Erlenmeyer flask mounting (50ml – 6L)
High-strength spring maintains excellent clamping.



Starter Kit

Consisting of plastic clamps that are commonly used on Universal Platforms.
50ml, 100ml, 250ml, 500ml, 1L, 2L.



Funnel Clamp

Separated funnel mounting (250ml - 2L)
Easy detachment and stable clamping.



Test Tube Rack

Test tube mounting (Ø8 mm - Ø35 mm)
Easily adjustable angle.



Microplate Holder

Various configurations for microplate
Single, Tower, Flat A (Large), Flat B (Small)



Lab Sticker

Excellent adhesion at 200mm x 200mm size,
applied to petri dishes, culture bottles, etc.
Temp. Range (°C): 15 to 60 Max. Speed (rpm): 250

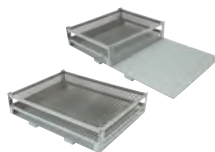
LC Connected



LC GreenBox

Real-time monitoring of device operation via mobile app.
Up to 4 devices can be connected.

Set Accessories



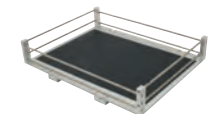
Spring Wire Rack, Half Spring Wire Rack

Available to load various sample container shapes.
For SKC-7000, half type can be used that providing both a universal platform and spring wire rack.



Dedicated Platform

Accessories (250 ml, 500 ml) installed on platform with maximum quantity of flask clamps.



Rubber Mat

Convenient for use with culture bottles and petri dishes with rubber plate to prevent slipping on the floor.



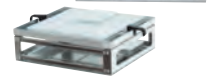
Universal Attachment

Floor rubber plate and adjustable clamping rod make it a convenient structure for a wide range of applications.



Microplate Tray (Dual Stacking Tray)

Dual stacking structure for microplate allows for excellent space utilization.



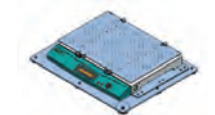
Microplate Tray (Large Tray)

The tray for microplates with anti-slip rubber plate on the bottom. (OS-2000, CMS-350)



Stage Rack

The rack maximizes space efficiency by stacking up to four shakers.
(OS-3000/4000/7000)



Weight Increaser

Accessories allowing for use of SKC series shaker up to 500rpm.

Starter Kit

Description	Composition of Clamp	Cat. No.
Starter Kit I	50 ml (2), 100 ml (2), 250 ml (4), 500 ml (4), 1L (2), 2L (2)	AAA30581
Starter Kit II	50 ml (3), 100 ml (3), 250 ml (6), 500 ml (6)	AAA30582

Description	OS-2000	OS-3000	OS-4000	OS-7000 Series	SKC-7000 Series		CMS-350
Spring Wire Rack (Half)	-	-	-	-	AAA30525 ¹⁾	AAA30526 ²⁾	-
Dedicated Platforms (250 mL)	-	AAA23611-V1	AAA23621-V1	AAA23634	-	-	-
Dedicated Platforms (500 mL)	-	AAA23613-V1	AAA23622-V1	AAA23635	-	-	-
Rubber Mat	AAA3A531-V1	AAA23531-V1	AAA23532-V1	AAA23534	AAA30533 ¹⁾	AAA30534 ²⁾	AAA38501
Universal Attachment	AAA3A511-V1	AAA23511-V1	AAA23512-V1	AAA23505	AAA30513 ¹⁾	AAA30514 ²⁾	AAA3B521
Lab Sticker	AAA30551	AAA30551	AAA30551	AAA30551	AAA30551	AAA30551	AAA30551
Microplate Tray	Dual Stacking	AAA3A541	-	-	-	-	AAA3B531
	Large Tray	AAA3A542	-	-	-	-	AAA3B532
Stage Rack	4 Stages	-	AAA31541-V1	AAA31542-V1	AAA31702-V1	-	-
	3 Stages	-	-	-	AAA31703-V1	-	-
Weight Increaser	-	-	-	-	AAA30561	AAA30561	-

1) Small Size
2) Large Size

Description		Model	OS-2000	OS-3000	OS-4000	OS-7000 Series	SKC-7000 series		CMS-350
		Platform Size (mm / inch)	320 x 260 / 13.8 x 10.2	350 x 350 / 13.8 x 13.8	450 x 450 / 17.7 x 17.7	755 x 520 / 29.7 x 20.5	755 x 520 / 29.7 x 20.5 (Small)	885 x 520 / 34.8 x 20.5 (Large)	276 x 276 / 10.9 x 10.9
Universal Platform		Cat. No.	AAA3A501-V2	AAA23501-V3	AAA23502-V3	AAA23503-V3	AAA30502 ¹⁾ AAA30541 ²⁾	AAA30504 ¹⁾ AAA30542 ²⁾	AAA3B501
Flask Clamp for Erlenmeyer Flask (Stainless steel) ⁴⁾	50 mL	AAA23550	20	36	49	88	108 (216) ³⁾	126 (252) ³⁾	16
	100 mL	AAA23551	16	28	39	68	72 (144) ³⁾	84 (168) ³⁾	9
	250 mL	AAA23552	8	14	24	39	42 (84) ³⁾	51 (102) ³⁾	9
	300 mL	AAA23556	8	14	24	39	36	40	9
	500 mL	AAA23553	6	10	16	28	27	30	5
	1 L	AAA23554	3	6	9	18	18	20	4
	2 L	AAA23555	-	4	6	11	12	13	1
	2.8 L	AAA23557	-	3	5	8	9	11	-
	4 L	AAA23558	-	1	4	6	8	9	-
	6 L	AAA23559	-	1	3	5	6	7	-
Flask Clamp for Erlenmeyer Flask (Plastic) ⁵⁾	50 mL	AAA30570	20	36	49	88	72	80	16
	100~125 mL	AAA30571	12	19	29	48	54	60	9
	200 mL	AAA30572	8	13	21	35	30	32	9
	250 mL	AAA30573	8	13	19	35	30	32	9
	300 mL	AAA30574	6	12	19	35	30	32	9
	500 mL ⁶⁾	AAA30575	6	9	12	24	24	28	5
	1 L ⁶⁾	AAA30576	3	5	9	12	12	15	4
	2 L ⁶⁾	AAA30577	-	4	5	8	6	9	1
Funnel Clamp	250 mL	AAA23562	4	4	6	15	18	20	3
	500 mL	AAA23563	3	3	4	10	11	14	2
	1 L	AAA23564	3	3	3	7	9	12	2
	2 L	AAA23565	-	2	2	5	7	8	-
Test Tube Rack ⁴⁾	Ø8 mm (86ea)	AAA23581	2	2	4	7	9	12	2
	Ø10 mm (86ea)	AAA23582	2	2	4	7	9	12	2
	Ø12 mm (58ea)	AAA23583	2	2	4	7	9	12	2
	Ø14 mm (58ea)	AAA23584	2	2	4	7	9	12	2
	Ø17 mm (32ea)	AAA23585	2	2	4	7	9	12	2
	Ø25 mm (19ea)	AAA23586	2	2	4	7	9	12	2
	Ø30 mm (10ea)	AAA23587	2	2	4	7	9	12	2
	Ø35 mm (10ea)	AAA23594	2	2	4	7	9	12	2
Microplate Holder ⁴⁾	Single	AAA23654	6	8	15	25	25	28	6
	Tower	AAA23651	4	6	10	21	22	25	6
	Flat A (Large)	AAA23652	-	-	2	4	4	5	-
	Flat B (Small)	AAA23653	1	2	3	6	6	7	-

1) Single platform installed in SKC-7000

2) Dual platform installed in SKC-7000, only flasks less than 250ml can be installed on the lower platform. (Height of lower platform is about 175mm)

3) The numbers in parentheses indicate the maximum number of 250ml flasks that can be installed when Dual Platform is mounted.

4) Maximum quantity that can be mounted on each platform (For test tube rack, it is the maximum quantity when the rack is not to be tilted)

5) In the case of plastic flask clamps mounting, deformation may occur at temperatures over 40°C. Stainless steel flask clamps are recommended when using in a high temperature environment.

6) Possible to use under 300rpm

Spring Wire Rack		OS-2000	OS-3000	OS-4000	OS-7000 Series	SKC-7000 Series		CMS-350
						Small	Large	
Spring Wire Rack (Cat. No.)		AAA3A521	AAA31521-V1	AAA31522-V1	AAA23514	AAA30523	AAA30524	AAA3B511
Quantity of Erlenmeyer Flask	50 mL	15	16	25	45	45	50	15
	100 mL	9	9	16	28	28	32	9
	250 mL	4	4	9	18	18	21	4
	300 mL	4	4	9	18	18	21	4
	500 mL	4	4	5	15	15	18	4
	1 L	2	2	4	10	10	12	2
	2 L	-	1	2	6	6	7	-
	2.8 L	-	1	2	4	4	5	-

LC GreenBox

Description	OS-2000	OS-3000	OS-4000	OS-7000 Series
LC GreenBox	AAHQ1011K			