Shakers

Shakers - Slim Open-Air.
Shakers - Open-Air.
Separatory Funnel Shakers.

Selection Guide

Shakers

Description			Speed Range [RPM]	Maximum Orbit Size [mm / inch, dia]	Net Weight [kg/lbs]	Page
Benchtop type	SKC-6075	Shakers - Slim Open-Air [Platform]	10 to 500	19.1 / 0.75	65 / 143.3	74
	SKC-6100			25.4 / 1.0		
	SKC-6200			50.8 / 2.0		
	SKC-7075			19.1 / 0.75	75 / 165.4	74
	SKC-7100			25.4 / 1.0		
	SKC-7200			50.8 / 2.0		
	SK-300	Shakers - Open-Air [Platform]	10 to 300	40 / 1.6	24 / 52.9	76
	SK-600				29 / 63.9	
	SK-71			70 / 2.4	50 / 110.2	

Separatory Funnel Shakers

Description			Speed Range [RPM]	Vertical Stroke Length [mm / inch]	Net Weight	Page
Benchtop type	RS-1	Separatory Funnel Shakers	50 to 300	40 / 1.6	24.0 / 52.9	77

Accessories & Options

Description	Page
for Shakers	78-81

General Applications

General applications	Open-Air and Separatory funnel Shakers		
	SKC series	SK series	RS series
Bacterial suspensions	•	•	
Cell culture	•	•	
Diagnostic tests	•	•	
Drug analysis			•
Environmental technology (waste water and soil analysis)	•	•	•
Extraction procedures	•	•	
General mixing	•	•	•
Hemolyzing blood sparation			•
Hybridization	•	•	
Inorganic solvent extraction			•
Soil compound extraction			•
Solubility studies	•	•	•
Solvent extraction for water quality analysis			•
Staining and destaining	•	•	
Perparation for metal analysis			•

Technical Benefits

Safety functions

1) Self-protecting cut-off function :
   - Over-current fuses for user safety. (SK models)
2) Operating settable function : After a power interruption, select automated run or manual run.
3) Acceleration / deceleration circuit : (without RS models)
   - For stable operating and always stops at a same position for user convenience.
   - Prevents sudden start / stop and to minimize spillage from flasks and tubes.
4) Unbalanced load sensor limits shaking motions. (SKC models)

Optimum control performance

1) Easy to operate, wide range of rpm covers most applications.
2) Professional control electronics and programmable control :
   - Microprocessor PID controls.
   - Self-diagnostic function identifies any errors and advises correction procedures.
3) Multi-function shaking system :
   - Run time.
   - Forward & Backward, Pause.
4) Very similar key arrangement throughout all products.
   - Splash-proof / easy-to-clean keypads and clear LED displays. (SK models)
   - Bright and recognizable VFD display, and useful capacitive touch sensor button. (SKC models)
5) End of session is marked by audible alarm. (RS models)

Ideal construction

1) Dual shaking action - orbital or reciprocating motion selectable. (SK models)
2) Slim and low-profile design, it can minimize the vibration and sliding caused by the process of high speed mixing.
3) Brushless DC motor applications for smooth and uniform shaking. (SK models)
4) Innovative triple-cam shaking system.
5) It possible Heavy loads, Silent, and high speed, reduces noise, and improves durability by using the Ideal DD motor. (SKC models)
6) Dirt-repellent powder coating external surface.
7) Wide range of accessories.

Lab Companion
Best Products for Reliable Results

Shakers - Open-Air

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CE

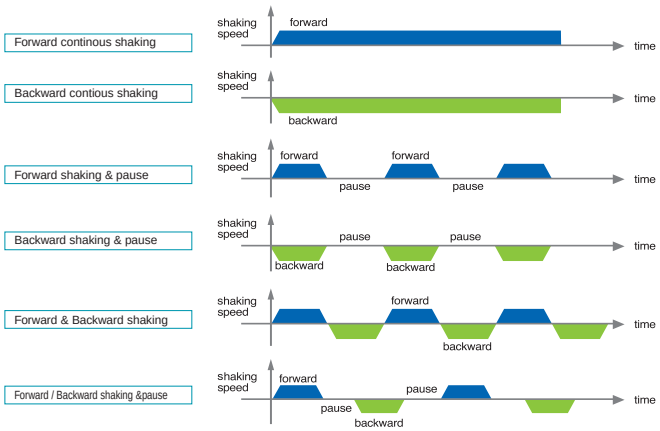
Shaking System

Dual-action Shaking System

All SK, SI, IS Shaking System performance dual-action. Choose between Orbital or Reciprocating motion in one unit! Simply interchange the motions by converting the way of platforms connection.

Multi-function Shaking System

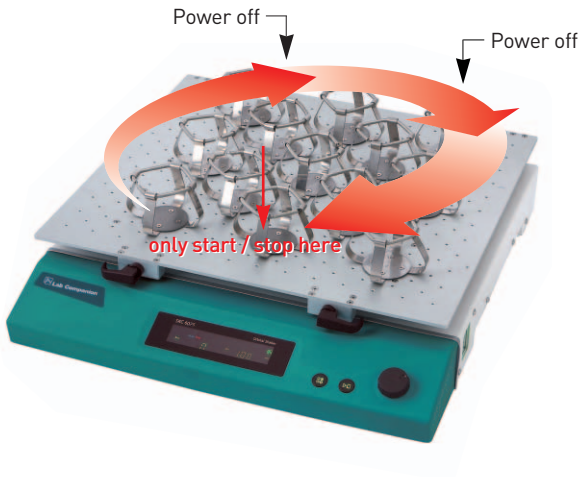
Intensive multi-function shaking system surpasses all previous levels of experience! You can multi-set the shaking motions in maximum six ways of Forward / Backward / Pause / Mix & match upon your various laboratory purposes.



Convenient and unique Shaking Functions

Shakers are always stop at the same position, even though operators stop the unit any position that allows for semi-automated sampling or dosing to be added without manual setting every time.

- These sensitive shaking system also give a very stable low speed shaking motion between 10 through 25rpm, the 10rpm would be used extensively for low damage biological mixing tests and cells cultivation.



Shakers - Open-Air Slim Type

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CE

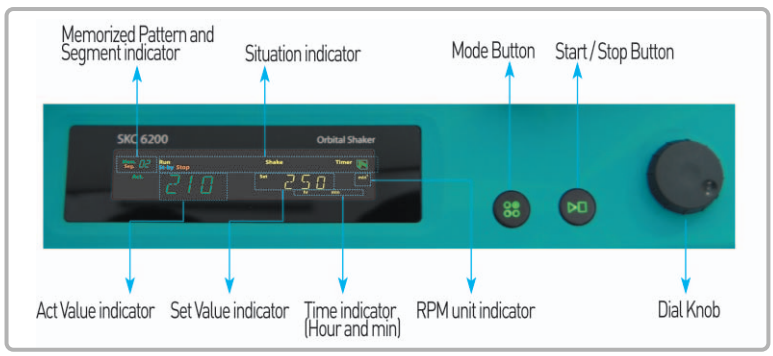
SKC-7075

Optional Accessories

see page 78-81

- Universal platforms, Dual universal platforms, Rubber mats, Universal attachments
- Flask clamps, Funnel clamps
- Test tube racks, Spring wire racks, Half Spring wire racks
- Microplate holders
- Lab sticker

SKC Control Display



Shakers - Open-Air Slim Type

Innovative triple-cam shaking system with compact design and superior fabrications.

Exclusive SKC shaker series can carry out the applications that demand heavy duty continuous operation, high reliability, and low maintenance in both laboratory and other operational environments.

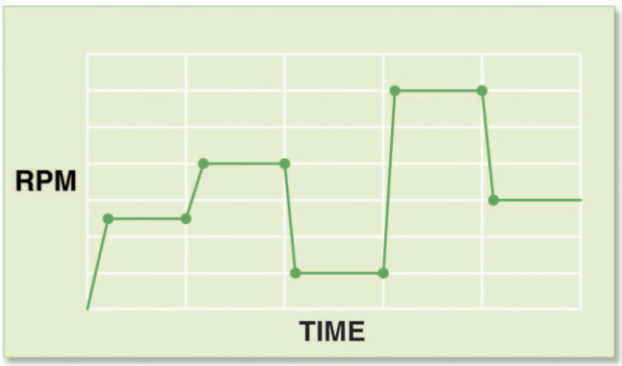
Constructional features

- Microprocessor PID controller provides feedback to motor to maintain constant speed during operation.
- Ideal DD (Outer rotor direct drive) motor allows unique operation of heavy loads is silent (no belt, brushless, and gearless), maintenance free, delivers high torque at high speed, smooth rotation.
- Slim and low-profile design (122mm tall) allows use for various application for example usage in confined areas.
- Excellent chemical resistance and high production standards for long life operation.
- Convenient universal platform exchange sliding.
- Triple cam system handles heavy loads and provides long maintenance-free operation with reduced vibration.
- Soft start features eliminates splashing of vessel contents.
- The shaker always stops the platform in the same position allowing for semi-automated sampling or dosing.
- A wide range of accessories are available for attachment of any flask or vessel.
- Unbalanced load sensor limits shaker motion when excess vibration is detected : visual / audible alarms signal.

Programmable shaking motion

Programming parameters		
Maximum Number of Segments in one (1) pattern (Cycle)		20
Maximum Number of Patterns (Cycle) saved		20
Shaking Motion- Forward & Backward, Pause	Time	1min to99hr 59min
	RPM	10 to 500

- Adopted bright VFD display, and capacitive touch sensor button.
- Digital timer: 1min 999hr 59min, delayed ON / OFF.



Operating features

- Precise Orbital shaking action.
- Powerful speed range :
  10~500rpm-with vibration free operation.

Specifications & Ordering Informations

Model		SKC-6075	SKC-6100	SKC-6200	SKC-7075	SKC-7100	SKC-7200
Control system		Feedback control PID					
Display		VFD					
Shaking system	Motion type	Orbital					
	Frequency[1] (RPM)	10 to 500					
	Rpm Control at 100rpm	±1					
	Orbit size (mm / inch, dia)	19.1 / 0.75	25.4 / 1.0	50.8 / 2.0	19.1 / 0.75	25.4 / 1.0	50.8 / 2.0
Dimensions	Platform (W×D) (mm / inch)	Optional two different universal platforms[2]					
	Overall (W×D×H) (mm / inch)	582.8×618×122.2 22.9×24.3×4.8			754.8×662×122.2 29.7×26.1×4.8		
	Net weight (kg / lbs)	65 / 143.3			75 / 165.4		
Electric requirements (230V, 50 / 60Hz)		0.4A					
Cat. No.		AAH30105	AAH30115	AAH30125	AAH30205	AAH30215	AAH30225
Electric requirements (120V, 50 / 60Hz)		0.8A					
Cat. No.		AAH30106	AAH30116	AAH30126	AAH30206	AAH30216	AAH30226

1) Due to higher speed range between 350 rpm and 500 rpm, we recommend that the shakers need extra attachment to be fixed on the floor of the working place.
2) Refer to P.78

Shakers - Open-Air Type

Benchtop platform shakers with advanced dual-shaking features, for flask up to maximum 6L.

Performances ***orbital or reciprocating*** action and variable-speed control provided gentle to vigorous agitation. Offers user-friendly operating and safety features for reliable shaking of lab glassware.

SK-300

Optional Accessories
see page 78-81

- Universal / Dedicated platforms, Rubber mats, Universal attachments.
- Flask clamps, Funnel clamps
- Test tube racks, Spring wire racks
- Microplate holders
- Lab sticker
- Stage rack (max. 4 stages)

Operating features

- Select between orbital or reciprocating action.
- Speed range: 10 to 300 rpm.
- Programmable shaking motion.
  - Run time: 10 sec to 999 hr 59 min 59 sec.
  - Forward & Backward, Pause: 10 sec to 59 min 50 sec.
- Maximum orbit size.
  - 40mm dia. (1.6" dia.) for SK-300, 600.
  - 70mm dia. (2.8" dia.) for SK-71.
- Digital LED display for speed, and shaking motions.

Constructional features

- Brushless DC motor for long maintenance-free operation.
- Soft start features eliminates splashing of vessel contents.
- Shakers always stops at same position allowing for semi-automated sampling or dosing.
- Low-profile design can be stacked up with an optional rack and space-saved small foot print.
- A wide range of accessories are available for various teat purposes.

Specifications & Ordering Informations

Model		SK-300	SK-600	SK-71
Shaking system	Motion type	Orbital or Reciprocating motion selectable		
	Frequency (RPM)	10 to 300		
	Timer	Run time: 10 sec to 999 hr 59 min 59 sec Forward & Backward, Pause: 10 sec to 59 min 50 sec		
	Orbit size (mm / inch, dia.)	20, 30, 40 / 0.8, 1.2, 1.6 Available - Standard 30 / 1.2		30, 40, 50, 60, 70 / 1.2, 1.6, 2.0, 2.4, 2.8 Available - Standard 30 / 1.2
	Recip stroke length (mm / inch)	20, 30, 40 / 0.8, 1.2, 1.6 Available - Standard 30 / 1.2		30, 40, 50, 60, 70 / 1.2, 1.6, 2.0, 2.4, 2.8 Available - Standard 30 / 1.2
Dimensions	Platform (W×D) (mm / inch)	350×350 / 13.8×13.8	450×450 / 17.7×17.7	755×481 / 29.7×18.9
	Overall (W×D×H) (mm/inch)	410×490×150 / 16.1×19.3×5.9	510×595×150 / 20.1×23.4×5.9	820×610×166 / 32.3×24.0×6.5
	Net weight (Kg / lbs)	24.0 / 52.9	29.0 / 63.9	50.0 / 110.2
Electrical Requirements (230V, 50 / 60Hz)		0.2A	0.2A	0.2A
Cat. No.		**AAH31105K**	**AAH31205K**	**AAH31305K**
Electrical Requirements (120V, 50 / 60Hz)		0.4A	0.4A	0.4A
Cat. No.		**AAH31106U**	**AAH31206U**	**AAH31306U**

Separatory Funnel Shakers

Intensive vertical reciprocating performance for quick solvent extraction.

This separatory funnel shaker can shake up to 6 samples in identical conditions for any series or comparative protocols in chemistry, biotech, and medical lads.

Operating features

- Vertical reciprocating action.
- Speed range: 50 to 300 rpm.
- Time range: up to 60 min / continuos operation.
- Maximum shaking width: 40mm. (1.6")
- Digital LED display for speed.

Constructional features

- Easy to operate, wide range of rpm covers all applications.
- Precision of speed control, feedback loop to a digital controller.
- Standard timer period is 60 min, can be overridden upon request.
- End of session is marked by audible alarm and the unit will stop.
- Easily adjustable holders / possibly install max. 5 holders per each side. (10 in total)

RS-1

Included Accessories • Funnel holder 6 sets
(Ordering information - Cat. No.: AAA32501)

see page 78-81

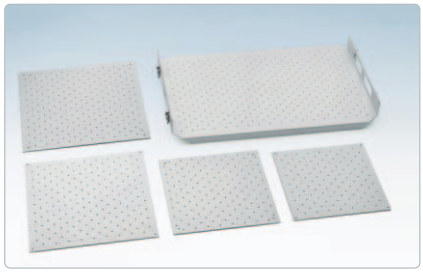
* Funnel capacities (per each side)

Capacity	Round type funnel	Slim type funnel
under 500ml	3-5	5
500ml	3	3
1L	-	3

Specifications & Ordering Informations

Model		RS-1	
Shaking system	Motion type	Vertical reciprocating	
	Frequency (RPM)	50 to 300	
	Timer	60 min or continuous operation	
	Vertical stroke length (mm / inch)	40 / 1.6	
Dimensions	Overall (W×D×H) (mm / inch)	445×730×505 / 17.5×28.7×19.9	
	Max. load per each side (kg / lbs)	3.0 / 6.6	
	Net weight (Kg / lbs)	24.0 / 52.9	
Electrical Requirements (230V)		50Hz, 0.4A	60Hz, 0.4A
Cat. No.		AAH32012K	AAH32015K

Accessories & Options for Shakers



Universal Platforms

Flask Clamps

Funnel Clamps

Universal platforms & Flask clamps, Funnel clamps

The universal platforms provide flexibility for mixing different size test tubes and glassware on a single platform. Available various sizes of clamps for Erlenmeyer flasks and Separating funnels.

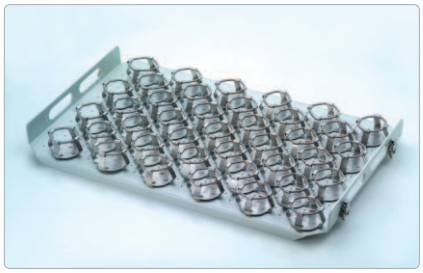
Description		SK-300	SK-600	SK-71	SI-300(R)	SI-600(R)	IS-971(R/F)
Universal platform Cat. No.		AAA31501	AAA31502	AAA31503	AAA23501	AAA23502	AAA23503
Max. mountable flask clamps *							
Cat. No.	Erlenmeyer flask size						
AAA23550	for 50mL	36	55	99	28	45	99
AAA23551	for 100mL	28	44	74	24	36	74
AAA23552	for 250ml	13	24	39	13	18	39
AAA23556	for 300mL	13	24	39	13	18	39
AAA23553	for 500ml	10	16	25	9	13	25
AAA23554	for 1L	5	8	14	4	7	14
AAA23555	for 2L	4	5	9	2	5	9
AAA23557	for 2.8L	2	4	6	1	2	6
AAA23558	for 4L	1	2	4	-	-	4
AAA23559	for 6L	1	2	4	-	-	4
Max. mountable funnel clamps *							
Cat. No.	Separating funnel size						
AAA23562	for 250mL	4	6	11	4	6	11
AAA23563	for 500ml	3	4	9	2	3	9
AAA23564	for 1L	2	3	5	-	2	5
AAA23565	for 2L	1	2	4	-	-	4

Description		SKC-6000 Series		SKC-7000 Series	
Universal platform Cat. No.		AAA30501	AAA30503	AAA30502	AAA30504
Dual universal platform Cat. No.		-	-	AAA30541[1]	AAA30542[1]
Universal platform size (mm / inch)		580×520 / 22.8×20.5	660×520 / 26.0× 20.5	755×520 / 29.7×20.5	885×520 / 34.8×20.5
Max. mountable flask clamps *					
Cat. No.	Erlenmeyer flask size				
AAA23550	for 50mL	84	96	108 (under 108)	126 (under 126)
AAA23551	for 100mL	54	66	72 (under 72)	84 (under 84)
AAA23552	for 250ml	33	39	42 (under 42)	51(under 51)
AAA23556	for 300mL	28	32	36	40
AAA23553	for 500ml	20	24	27	30
AAA23554	for 1L	14	16	18	20
AAA23555	for 2L	8	11	12	13
AAA23557	for 2.8L	6	7	9	11
AAA23558	for 4L	4	6	8	9
AAA23559	for 6L	3	4	6	7
Max. mountable funnel clamps *					
Cat. No.	Separating funnel size				
AAA23562	for 250mL	14	16	18	20
AAA23563	for 500ml	9	10	11	14
AAA23564	for 1L	7	8	9	12
AAA23565	for 2L	5	6	7	8

* Flask clamps and funnel clamps for universal platform are sold separately.

1) Universal platform attachments are mounted on the dual universal platform, Under the dual universal platform are mounted only 50ml, 100ml 200ml - Refer to the above chart.
(Distance between platforms is 175mm)

Accessories & Options for Shakers



Dedicated Platforms

Spring Wire Racks

Dedicated platforms

If using a single flask size only, the dedicated platforms provide maximum capacity, and come with clamps installed.
Provided standard clamp size are 250mL and 500mL, but possibly provide the other size of clamps also.

Cat. No.	Description
AAA31551	An universal platform for SK-300 with 250mL flask clamps 13ea
AAA31552	An universal platform for SK-300 with 500mL flask clamps 10ea
AAA31561	An universal platform for SK-600 with 250mL flask clamps 24ea
AAA31562	An universal platform for SK-600 with 500mL flask clamps 16ea
AAA23631	An universal platform for SK-71 with 250mL flask clamps 39ea
AAA23632	An universal platform for SK-71 with 500mL flask clamps 25ea
AAA23611	An universal platform for SI-300 series with 250mL flask clamps 13ea
AAA23612	An universal platform for SI-300 series with 500mL flask clamps 9ea
AAA23621	An universal platform for SI-600 series with 250mL flask clamps 18ea
AAA23622	An universal platform for SI-600 series with 500mL flask clamps 13ea
AAA23631	An universal platform for IS-971 series with 250mL flask clamps 39ea
AAA23632	An universal platform for IS-971 series with 500mL flask clamps 25ea

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

Spring wire racks

Ideal for holding a wide variety of tubes, flasks, and other glassware. All component are made of stainless steel.

Description	SK-300	SK-600	SK-71	SI-300(R)	SI-600(R)	IS-971(R/F)
Spring wire racks Cat. No.	AAA31521	AAA31522	AAA31523	AAA23521	AAA23522	AAA23523
Max. inserting flask clamps Erlenmeyer flask size						
for 50mL	16	25	40	16	25	40
for 100mL	9	16	28	9	16	28
for 250ml	4	9	15	4	9	15
for 300mL	4	9	15	4	9	15
for 500ml	4	5	10	4	5	10
for 1L	2	4	8	2	4	8
for 2L	1	2	4	1	2	4
for 2.8L	1	2	4	1	2	4

Description	SKC-6000 Series		SKC-7000 Series	
Spring wire racks Cat. No.	AAA30521	AAA30522	AAA30523	AAA30524
Max. inserting flask clamps Erlenmeyer flask size				
for 50mL	30	35	45	50
for 100mL	20	24	28	32
for 250ml	12	15	18	21
for 300mL	12	15	18	21
for 500ml	9	12	15	18
for 1L	6	8	10	12
for 2L	4	5	6	7
for 2.8L	3	3	4	5

Half-Spring wire racks

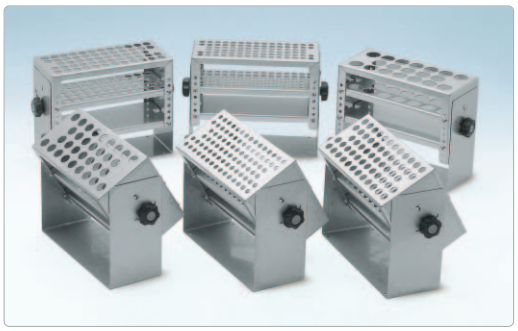
Description	SKC-7000 Series	
Half-Spring wire racks Cat. No.	AAA30525	AAA30526
Half-Spring wire rack size (mm / inch)	353×520 / 13.9×20.5	438×520 / 17.2×20.5
Universal platform size (mm / inch)	755×520 / 29.7×20.5	885×520 / 34.8×20.5

*Half-Spring wire racks offers with Universal platform.

Accessories & Options for Shakers

Rubber Mats

Universal attachments (Utility carriers)



Test Tube Racks

Rubber mats

The non-skid rubber mats are designed for low-speed applications, allow for quick addition or removal of flasks, plates or tubes.

Models	SK-300	SK-600	SK-71	SI-300(R)	SI-600(R)	IS-971(R / F)	SKC-6000 Series		SKC-7000 Series	
Cat. No.	AAA31531	AAA31532	AAA23533	AAA23531	AAA23532	AAA23533	AAA30531	AAA30532	AAA30533	AAA30534

Universal attachments (Utility carriers)

Several adjustable clamping bars to quickly secure a variety of glassware or tubes on non-skid rubber mat. Suitable for different sizes of flat bottomed flasks.

Models	SK-300	SK-600	SK-71	SI-300(R)	SI-600(R)	IS-971(R / F)	SKC-6000 Series		SKC-7000 Series	
Cat. No.	AAA31511	AAA31512	AAA31513	AAA31511	AAA23512	AAA31513	AAA30511	AAA30512	AAA30513	AAA30514

Test tube racks

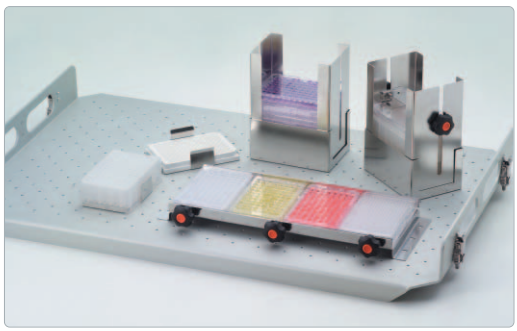
Highly durable stainless steel racks with adjustable angle and tube height support. Simply release and mount racks. Requires an universal platform which are sold separately.

Cat. No.	Description		Mountable capacity of racks*								
AAA23581	for 86 test tubes	8mm dia. (0.3″)									
AAA23582	for 86 test tubes	10mm dia. (0.4″)									
AAA23583	for 58 test tubes	12mm dia. (0.5″)	SK-300	SK-600	SK-71	SI-300(R)	SI-600(R)	IS-971(R/ F)	SKC-6000 Series		SKC-7000 Series	
AAA23584	for 58 test tubes	14mm dia. (0.6″)	2EA	4EA	6EA	2EA	4EA	6EA	8EA	9EA	9EA	12EA
AAA23585	for 32 test tubes	16mm dia. (0.7″)										
AAA23586	for 19 test tubes	25mm dia. (1.0″)										
AAA23594	for 10 test tubes	35mm dia. (1.4″)										

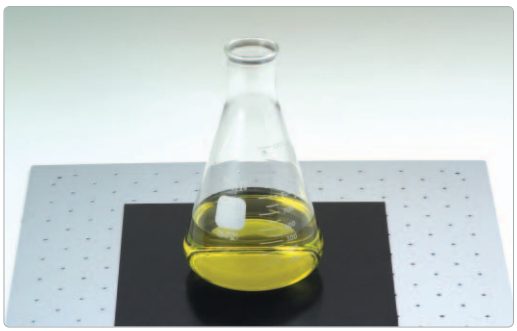
* No declination

※ We can manufacture other size of test tube racks to meet your specific requirements. Contact us for details.

Accessories & Options for Shakers



Microplate Holders



Lab Sticker

Stage Racks (only SK series)

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Further information on Temperature Chamber products is readily available on our website.

Microplate holders

Available in three styles. A Tower type holder, two Flat types (small and large) and a Single type. The large flat holders will hold 4 standard or deep well plates. The small flat holders will hold 3 standard or deep well plates. The single holders will hold only 1 standard or deep well plate.

Microplate holders		Tower type	Flat-A type (large)	Flat-B type (small)	Single type
Cat. No.		AAA23651	AAA23652	AAA23653	AAA23654
Max. mountable holders					
SK-300		6	-	2	8
SK-600		10	2	3	15
SK-71		16	3	5	25
SI-300(R)		5	-	2	7
SI-600(R)		7	2	2	12
IS-971(R / F)		16	3	5	25
SKC-6000 Series	AAA30501	16	3	4	20
	AAA30503	19	4	5	23
SKC-7000 Series	AAA30502	22	5	6	25
	AAA30504	25	6	7	28

* Microplate holders need to be mounted on an universal platform which is sold separately.

Lab Sticker

Alternative to flask clamps for securing vessels to a shaker platform. Ideal for containers such as bottles and dishes that cannot be held with conventional flask clamps. Lab sticker can be re-generated to like new condition by washing with mild detergent and water. It cannot be used in water baths. For safe operation, suggest increasing the RPM gradually.

Description	Lab Sticker
Lab Sticker Cat. No.	AAA30551
Size (mm / inch, W×D×H)	200 × 200 × 5 / 7.9 × 7.9 × 0.2

* Lab Sticker need to be mounted on an universal platform which is sold separately.