



**Wolflabs**

# Wolf Laboratories Limited

[www.wolflabs.co.uk](http://www.wolflabs.co.uk)

Tel: 01759 301142

Fax:01759 301143

[sales@wolflabs.co.uk](mailto:sales@wolflabs.co.uk)



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Best Products for Reliable Results

## Jeio Tech Co., Ltd



### Manufacturer

Our highly integrated engineering team has focused on special areas including electrical, mechanical, thermodynamics and refrigeration technology for 20 years. The world-best quality and customer satisfaction are **Lab Companion's** top priority.

## CLS (Custom Logical Safe) Control System



A maximized safety control system with adjustable warning and safety functions. Much safer operation with independent safety device and circuit when electric and electronic system troubles are occurred even during the operation. (patented)

## Safety functions

- 1) Self-protecting cut-off function:**
  - For over temperature, automated cut the power supply for heating element and controller orderly before the unit shuts down
  - 2 separated over-current fuses for user safety
- 2) Time setting function for automated run/ off:**
  - Integrated time setting: Delayed ON/ OFF (from 1 min to 99 hr 59 min)
  - Operating settable function: After a power interruption, select automated run or manual run
- 3) Acceleration/ deceleration circuit:**
  - For stable operating and always stops at a same position for user convenience
  - Prevents sudden starts/ stop and to minimize spillage from flasks and tubes
- 3) Door-open warning alarm (only for incubated shakers):**
  - Heating element, fan and platform automatically stop and optical signal alarm when door opening to minimize heat loss and protect operator
  - The door is opened, after 5 min refrigerator is automated cut-off with intermittent tone

## Ideal construction for Incubated Shaker & Shaker models

- 1) Dual shaking action - orbital or reciprocating motion selectable
- 2) Brushless DC motor applications for smooth and uniform shaking
- 3) Dirt-repellent powder coating external surface and optimized sample monitoring with door-opened models

## Optimum control performance

- 1) Professional control electronics and program control:**
  - Microprocessor PID temperature control with calibration and auto-tuning function
  - Self-diagnostic function identifies any errors and advises correction procedures
  - Frequently use 3 different temperatures memorable for convenient use
  - Selectable measuring temperature in °C or °F
- 2) Applicable control display considering MMI (Man Machine Interface) network system:**
  - Very similar key arrangement throughout all products
  - Splash-proof/ easy-to-clean keypads and clear LED displays
  - Shaker and lamp mechanism have their own on/off buttons for independent incubating use (only for incubated shakers)

## Control software

'Lab Tracer' software and cable (2m/ 6.6ft) for RS-232 communication interface are provided free of charge!

- Display of temperature values and effective heating/ cooling capacity on PC
- Programming and recording of time parameter and individual temperature profile



Lab Tracer - Software Solutions

# Incubated Shakers

## General applications

### Incubated Shakers & Shakers

- Molecular biology
- Plant and animal cells culture
- Fermentation (pharmacy and biotech - DNA and Enzymes)
- Hybridization studies
- Environmental technology (waste water and soil analysis)
- Medical researches
- Special chemical production
- Genetic research and drug discovery protocols
- Microbiology (food and public health labs)

### Separatory Funnel Shakers

- Solvent extraction for water quality analysis
- Inorganic solvent extraction
- Soil compound extraction

### Hotplate Stirrers/ Hotplates/ Magnetic Stirrers

- Cells culture
- Microbiology
- Biochemistry applications
- Micronization stirring
- Gentle agitation to vigorous churning

## Selection criteria

Shaking and Temperature systems	Catalog pages:	6-7	8-9	10	11-13	14	15
Incubated & Refrigerated shakers - Benchtop type		●					
Incubated & Refrigerated shakers - Floor type			●				
Shakers - Open-air type				●			
Accessories for shakers					●		
Separatory funnel shakers						●	
Hotplate stirrers/ Hotplates/ Magnetic stirrers							●

Working temperature ranges	6-7	8-9	10	11-13	14	15
Amb. +5 to 60°C (Amb. +9 to 140°F)	●	●				
+15 to 60°C (+59 to 140°F)	●					
+4 to 60°C (+40 to 140°F)		●				
Up to +400°C (+752°F)						●

RS-232 communication interface available	6-7	8-9	10	11-13	14	15
"Lab Tracer" software	●	●				

Incubated Shakers & Shakers



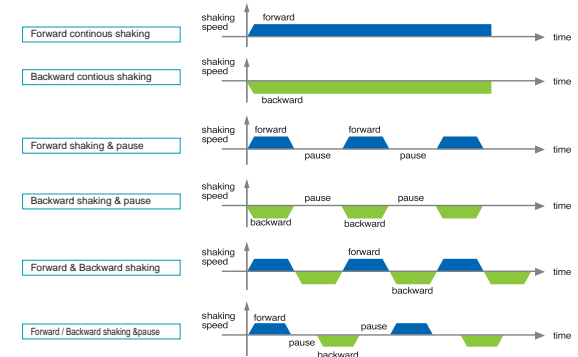
➤ Dual-action Shaking System

All **Lab Companion** shaker models 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

**Lab Companion's** 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

**Lab Companion** 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.

Go to [JEIOTECH.com](http://JEIOTECH.com)  
Further information on Incubated Shaker & Shaker products is readily available on our website.

※ Continuing research and improvement may result in specification change for all products at any time.

# Incubated & Refrigerated Shakers

Benchtop type

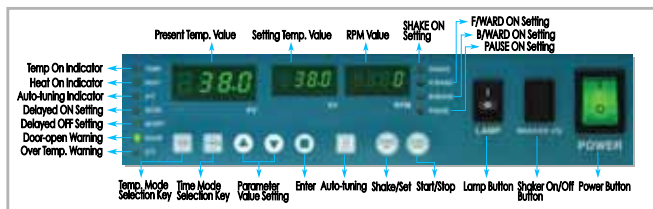
# Incubated & Refrigerated Shakers

Benchtop type



SI-600R

SI-600R Control Display



## Digital incubating/ refrigerating benchtop shakers

Combines a benchtop incubator/ refrigerator with dual-action in *orbital and reciprocating* shakers. Fulfills a variety of molecular biology, general incubation, and cell culture applications.

### Shaking 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.)

### Operating features

- 5°C above room temperature to 60°C for SI-300, 600
- 15°C to 60°C for SI-300R, 600R
- Uniformity ± 1.0°C at 38°C (based on various conditions)
- Microprocess PID control/ Auto-tuning/ Calibration
- Digital timer: 1 min to 99 hr 59 min, delayed ON/ OFF
- Over-temperature limiter/ Door opening alarm
- Digital LED display for temperature (0.1°C resolution), speed, and shaking motions
- 3 different temperature values memorable
- 9 steps of temperature profiles programmable and repeat up to 200 cycles
- Adjustable fan speed within 3 steps
- RS-232 interface available

### Constructional features

- Brushless DC motor for long maintenance-free operation
- High-velocity fan ensures rapid thermal recovery and excellent uniformity



Inside of SI series

- Air spring door and lid guard against sudden closures
- Transparent acrylic lid and inner lamp functions allow observation of flask contents
- Use CFC-free refrigerant (SI-300R/ 600R)

### Optional Accessories

see page 11-13

- Universal/ Dedicated platforms, Rubber mats, Universal attachments
- Flask clamps, Funnel clamps
- Test tube racks, Spring wire racks
- Microplate holders (three styles)
- Sticky pads

## Specifications & Ordering Informations

		SI-300	SI-300R	SI-600	SI-600R
Temperature	Range	Amb. +5°C to 60°C (Amb. +9°F to 140°F) for SI-300, 600 +15°C to 60°C (+59°F to 140°F) for SI-300R, 600R			
	Accuracy	±0.1°C at 38°C (±0.18°F at 100°F) at room temp. +25°C (+77°F)			
	Uniformity	±1.0°C at 38°C (±1.8°F at 100°F) at room temp. +25°C (+77°F)			
	Refrigerator	-	1/8 HBP	-	1/8 HBP
	Frequency	10 to 300 rpm			
Shaking system	Motion type	Orbital or Reciprocating motion selectable			
	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 dia.)	20, 30, 40mm dia. (0.8, 1.2, 1.6" dia.) Available/ Standard - 30mm dia. (1.2" dia.)			
	Recip stroke length (mm)	20, 30, 40mm (0.8, 1.2, 1.6") Available/ Standard - 30mm (1.2")			
Dimensions	Platform (W×L)	330×330mm (13.0×13.0")		410×410mm (16.1×16.1")	
	Internal (W×D×H)/ Volume	410×410×320mm/ 53L (16.1×16.1×12.6"/ 1.9cu ft)		510×510×320mm/ 83L (20.1×20.1×12.6"/ 2.9cu ft)	
	Overall (W×D×H)	440×740×622mm (17.3×29.1×24.5")		540×850×622mm (21.3×33.5×24.5")	
Electrical Requirements [230V]	Net weight	74.0kg (163.0lb)	85.0kg (187.0lb)	91.0kg (200.0lb)	102.0kg (225.0lb)
	Cat. No.	AAH23105K	AAH23111K   AAH23112K	AAH23205K	AAH23211K   AAH23212K
Electrical Requirements [120V]	Net weight	74.0kg (163.0lb)	85.0kg (187.0lb)	91.0kg (200.0lb)	102.0kg (225.0lb)
	Cat. No.	AAH23106U	AAH23113U	AAH23206U	AAH23213U

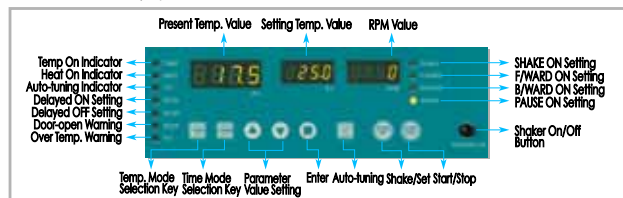
※ Permissible Environmental Condition: Temperature 5~40°C(41~104°F), Maximum relative humidity 80%





IS-971R

IS-971R Control Display



Large and heavy capacity shaking with rapid heating/cooling performance

Advanced shaking for heavy workload and flask up to maximum 4 × 6L!  
Exclusive drive mechanism delivers years of dependable service.

### Shaking features

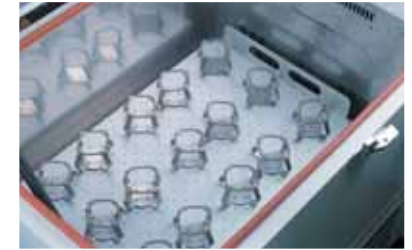
- Select between orbital or reciprocating action
- Speed range: 10 to 300 rpm
- Programmable shaking motion
  - Run time: 10 sec to 999 hr 59 min 59 sec
  - Forward & Backward, Pause: 10 sec to 59 min 50 sec
- Maximum orbit size: 70mm dia. (2.8" dia.)

### Operating features

- 5°C above room temperature to 60°C for IS-971
- 4°C to 60°C for IS-971R, 971RF
- Uniformity ±1.0°C at 38°C (based on various conditions)
- Microprocess PID control/ Auto-tuning/ Calibration
- Digital timer: 1 min to 99 hr 59 min, delayed ON/ OFF
- Over-temperature limiter/ Door opening alarm
- Digital LED display for temperature (0.1°C resolution), speed, and shaking motions
- 3 different temperature values memorable
- 9 steps of temperature profiles programmable and repeat up to 200 cycles
- Adjustable fan speed within 3 steps and defrosting time/period control
- RS-232 interface available

### Constructional features

- Brushless DC motor for long maintenance-free operation
- High-velocity fan ensures rapid thermal recovery and excellent uniformity
- Viewing window in top-opening provides clear chamber visibility, minimizing the need to open
- Illumination lamp for Plant cells cultivation (only for IS-971RF)



Inside of IS series

- Air spring door and lid guard against sudden closures
- Casters easily transport the unit
- Door can be secured with a key and locked
- Use CFC-free refrigerant (IS-971R/ 971RF)

### Max. rpm upon various stroke sizes and load

Load	Stroke	30mm (1.2")	50mm (2.0")	70mm (2.8")
0kg (0lb)		300	300	300
12.0kg (26.5lb)		280	230	180
18.0kg (39.7lb)		230	210	160
25.0kg (55.1lb)		190	180	140
Min. control limit		10	10	10
Max. load to reach 300rpm		9.0kg (19.8lb)	7.5kg (16.5lb)	5.5kg (12.1lb)

### Optional Accessories

- Universal/ Dedicated platforms, Rubber mats, Universal attachments
- Flask clamps, Funnel clamps
- Test tube racks, Spring wire racks
- Microplate holders (three styles)
- Sticky pads

## Specifications & Ordering Informations



	Model	IS-971	IS-971R	IS-971RF
Temperature	Range	Amb, +5°C to 60°C (Amb, +9°F to 140°F) for IS-971 +4°C to 60°C (+40°F to 140°F) for IS-971R, 971RF		
	Accuracy	±0.1°C at 38°C (±0.18°F at 100°F)		
	Uniformity	±1.0°C at 38°C (±1.8°F at 100°F)		
Shaking system	Refrigerator	-	1/3 LBP (AC 120V)	1/3 LBP (AC 120V)
		-	1/6 HBP (AC 230V)	1/4 HBP (AC 230V)
	Motion type	Orbital or Reciprocating motion selectable		
Dimensions	Frequency	10 to 300 rpm		
	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 dia.)	30, 40, 50, 60, 70mm dia. (1.2, 1.6, 2.0, 2.4, 2.8" dia.) Available/ Standard - 30mm dia. (1.2" dia.)		
	Recip stroke length (mm)	30, 40, 50, 60, 70mm (1.2, 1.6, 2.0, 2.4, 2.8" Available/ Standard - 30mm (1.2")		
	Platform (W×L)	755×481mm (29.7×18.9")		
Electrical Requirements (230V)	Internal (W×D×H)/ Volume	895×634×429mm/ 250L (35.2×25.0×16.9"/ 8.8cu ft)		
	Overall (W×D×H)	1250×798×1050mm (49.2×31.4×41.3")		
	Net weight	180.0kg (396.8lb)	195.0kg (429.9lb)	210.0kg (462.9lb)
Cat. No.	50/60Hz, 5.2A	AAH23306K	AAH23321K	AAH23351K
	60Hz, 7.3A	AAH23306K	AAH23322K	AAH23352K
Electrical Requirements (120V)	50Hz, 7.3A	AAH23336U	AAH23346U	AAH23356U
	60Hz, 11.2A	AAH23336U	AAH23346U	AAH23356U
Cat. No.	60Hz, 13.8A	AAH23336U	AAH23346U	AAH23356U
	60Hz, 15.3A	AAH23336U	AAH23346U	AAH23356U

\* Permissible Environmental Condition: Temperature 5~40°C(41~104°F), Maximum relative humidity 80%

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.

► **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, time remaining, and shaking motions



SK-300

► **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 test purposes

**Optional Accessories**

see page 11-13

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

**Specifications & Ordering Informations**



Model	SK-300	SK-600	SK-71
Motion type	Orbital or Reciprocating motion selectable		
Frequency	10 to 300 rpm		
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 dia.)	20, 30, 40mm dia. (0.8, 1.2, 1.6" dia.) Available/ Standard - 30mm dia. (1.2" dia.)		30, 40, 50, 60, 70mm dia. (1.2, 1.6, 2.0, 2.4, 2.8" dia.) Available/ Standard - 30mm dia. (1.2" dia.)
Recip stroke length (mm)	20, 30, 40mm (0.8, 1.2, 1.6") Available/ Standard - 30mm (1.2")		30, 40, 50, 60, 70mm (1.2, 1.6, 2.0, 2.4, 2.8") Available/ Standard - 30mm (1.2")
Platform (W×L)	350×350mm (13.8×13.8")	450×450mm (17.7×17.7")	755×481mm (29.7×18.9")
Overall (W×D×H)	410×490×160mm (16.1×19.3×6.3")	510×595×160mm (20.1×23.4×6.3")	820×610×170mm (32.3×24.0×6.7")
Net weight	24.0kg (52.9lb)	29.0kg (63.9lb)	50.0kg (110.2lb)
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

\* Permissible Environmental Condition: Temperature 5~40°C(41~104°F), Maximum relative humidity 80%

**Accessories & Options**



Universal Platforms



Flask Clamps



Funnel Clamps



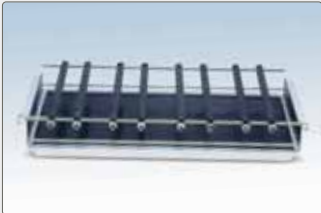
Dedicated Platforms



Spring Wire Racks



Rubber Mats



Universal Attachments



Test Tube Racks



Microplate Holders



Sticky Pads



Stage Racks

## 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.

Universal platform Cat. No.		SK-300	SK-600	SK-71	SI-300(R)	SI-600(R)	IS-971(R/F)
Max. mountable flask clamps *		AAA31501	AAA31502	AAA31503	AAA23501	AAA23502	AAA23503
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						
AAA23542	for 250mL	4	6	11	4	6	11
AAA23543	for 500mL	3	4	9	2	3	9
AAA23544	for 1L	2	3	5	-	2	5
AAA23545	for 2L	1	2	4	-	-	4

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

## 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 on
AAA31552	An universal platform for SK-300 with 500mL flask clamps 10ea on
AAA31561	An universal platform for SK-600 with 250mL flask clamps 24ea on
AAA31562	An universal platform for SK-600 with 500mL flask clamps 16ea on
AAA23631	An universal platform for SK-71 with 250mL flask clamps 39ea on
AAA23632	An universal platform for SK-71 with 500mL flask clamps 25ea on
AAA23611	An universal platform for SI-300 series with 250mL flask clamps 13ea on
AAA23612	An universal platform for SI-300 series with 500mL flask clamps 9ea on
AAA23621	An universal platform for SI-600 series with 250mL flask clamps 18ea on
AAA23622	An universal platform for SI-600 series with 500mL flask clamps 13ea on
AAA23631	An universal platform for IS-971 series with 250mL flask clamps 39ea on
AAA23632	An universal platform for IS-971 series with 500mL flask clamps 25ea on

\* 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.

Spring wire racks Cat. No.	SK-300	SK-600	SK-71	SI-300(R)	SI-600(R)	IS-971(R/F)
Max. inserting flask clamps	AAA31521	AAA31522	AAA31523	AAA23501	AAA23502	AAA23503
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

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)
Cat. No.	AAA31531	AAA31532	AAA31533	AAA23531	AAA23532	AAA23533

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)
Cat. No.	AAA31511	AAA31512	AAA31513	AAA23511	AAA23512	AAA31513

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"]	SK-300	SK-600	SK-71	SI-300(R)	SI-600(R)	IS-971(R/F)
AAA23582	for 86 test tubes 10mm dia. [0.4"]						
AAA23583	for 58 test tubes 12mm dia. [0.5"]						
AAA23584	for 58 test tubes 14mm dia. [0.6"]						
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"]	2EA	4EA	6EA	2EA	4EA	6EA

\* No declination

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

Available in three styles. A Tower type holder, two Flat types (small and large) and a Single type. The tower holders will hold 3 standard plates or 9 deep well plates. 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

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

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. Refer to the below maximum RPM for each flask sizes. Sticky pad 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.

Sticky pad sizes	250X250mm [9.8X9.8"]	350X350mm [13.8X13.8"]
Sticky pads Cat. No.	AAA23641	AAA23642
Erlenmeyer flask size	Max. RPM	Max. RPM
for 50mL	300	300
for 100mL	300	300
for 250mL	300	300
for 300mL	300	300
for 500mL	240	300
for 1L	240	300
for 2L	230	230
for 2.8L	210	210
for 4L	180	190
for 6L	-	200

\* Sticky pads need to be used on an universal platform which is sold separately.

※ Above the results are tested with a 30mm dia. (1.2" dia) orbital stroke size on an electrical condition of 220V/ 60Hz.

※ In addition to providing standard accessories, we will manufacture customized accessories to meet your specific requirements. Contact us for details.

**Go to JEIO TECH .com**

Further information on Incubated Shaker & Shaker products is readily available on our website.

※ Continuing research and improvement may result in specification change for all products at any time.

## Universal attachments

## Test tube racks

## Microplate holders

## Sticky pads

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 labs.

### Operating features

- Vertical reciprocating action
- Speed range: 50 to 300 rpm
- Time range: up to 60 min/ continuous 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

### \* Funnel capacities (per each side)

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

### Included Accessories

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

## Specifications & Ordering Informations

Model		RS-1
Shaking system	Motion type	Vertical reciprocating
	Frequency	50 to 300 rpm
	Timer	60 min or continuous operation
	Vertical stroke length	40mm (1.6")
Dimensions	Overall (W×D×H)	445×730×505mm (17.5×28.7×19.9")
	Max. load per each side	3.0kg (6.6lb)
	Net weight	53.0kg (116.8lb)
Electrical Requirements (230V)		50/60Hz, 0.4A
Cat. No.		AAH32015K

\* Permissible Environmental Condition: Temperature 5~40°C(41~104°F), Maximum relative humidity 80%

A variety of sizes, ceramic coated Hotplates & Stirrers series!

Designed for routine lab heating and sample drying, these low-profile hotplates provide high temperature and simple operating with space-saving economy.

### Features

- Low-profile, small footprint for convenient use in hoods and on bench tops
- Easy-grip control knob with graduated marking for simple settings
- Ceramic coated heating surface resistant to most chemicals
- Coated with pure white plate for easy to observe in glassware
- Smooth start up and speed up ensures that uniform mixing speed without detachment



Magnetic Stirrers

Hotplates

## Specifications & Ordering Informations

### Hotplate Stirrers

Model	HP-3000S	HP-3000	HP-3000L			
Temperature range	Up to +380°C (+716°F)	Up to +400°C (+752°F)	Up to +350°C (+662°F)			
Frequency	100 to 1500 rpm	100 to 1500 rpm	100 to 1200 rpm			
Dimensions	Plate (W×L)	119×119mm (4.7×4.7")	178×178mm (7.0×7.0")	300×300mm (11.8×11.8")		
	Overall (W×D×H)	150×160×120mm (5.9×6.3×4.7")	200×230×120mm (7.9×9.1×4.7")	318×335×125mm (12.5×13.2×4.9")		
	Net weight	2.5kg (5.5lb)	3.2kg (7.0lb)	7.0kg (15.4lb)		
Electrical Requirements (50/60Hz)	230V, 2.7A	120V, 5.3A	230V, 2.7A	120V, 5.3A	230V, 2.7A	120V, 5.3A
Cat. No.	BDH571165K	BDH571166U	BDH571065K	BDH571066U	BDH571265K	BDH571266U

### Hotplates

Model	HP-1000S	HP-1000	HP-1000L			
Temperature range	Up to +380°C (+716°F)	Up to +400°C (+752°F)	Up to +350°C (+662°F)			
Dimensions	Plate (W×L)	119×119mm (4.7×4.7")	178×178mm (7.0×7.0")	300×300mm (11.8×11.8")		
	Overall (W×D×H)	150×160×120mm (5.9×6.3×4.7")	200×230×120mm (7.9×9.1×4.7")	318×335×125mm (12.5×13.2×4.9")		
	Net weight	1.6kg (3.5lb)	2.4kg (5.3lb)	6.3kg (13.9lb)		
Electrical Requirements (50/60Hz)	230V, 2.6A	120V, 5.0A	230V, 2.6A	120V, 5.0A	230V, 2.6A	120V, 5.0A
Cat. No.	BDH571145K	BDH571146U	BDH571045K	BDH571046U	BDH571245K	BDH571246U

### Magnetic Stirrers

Model	HP-2000S	HP-2000	HP-2000L			
Frequency	100 to 1500 rpm	100 to 1500 rpm	100 to 1200 rpm			
Dimensions	Plate (W×L)	119×119mm (4.7×4.7")	178×178mm (7.0×7.0")	300×300mm (11.8×11.8")		
	Overall (W×D×H)	150×160×120mm (5.9×6.3×4.7")	200×230×120mm (7.9×9.1×4.7")	318×335×125mm (12.5×13.2×4.9")		
	Net weight	2.3kg (5.1lb)	3.0kg (6.6lb)	6.9kg (15.2lb)		
Electrical Requirements (50/60Hz)	230V, 0.1A	120V, 0.3A	230V, 0.1A	120V, 0.3A	230V, 0.1A	120V, 0.3A
Cat. No.	BDH571155K	BDH571156U	BDH571055K	BDH571056U	BDH571255K	BDH571256U

\* Permissible Environmental Condition: Temperature 5°C~40°C, Maximum relative humidity 80%