

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
- 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 variation
- Gas spring door and lid guard against sudden closures



Inside fo SI series

- Transparent acryl lid and inner lamp functions allow observation of flask contents
- Use CFC-free refrigerant (for SI- 300R, 600R)

Optional Accessories

see page 36-39

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

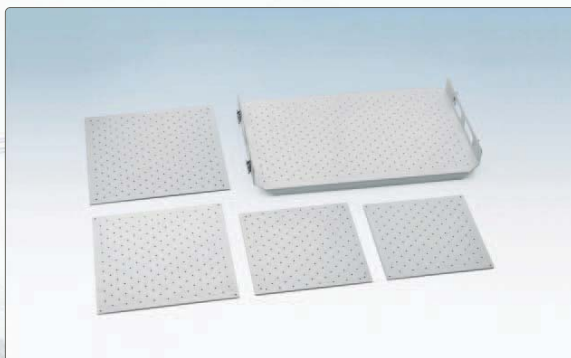
Specifications & Ordering Informations



| Model | | SI-300 | SI-300R | SI-600 | SI-600R |
|--------------------------------|---|--|--|------------------------------|--|
| Temperature | Range (°C/°F) | Amb. +5 to 60 (Amb. +9 to 140) for SI-300, 600 +15 to 60 (+59 to 140) for SI-300R, 600R | | | |
| | Fluctuation ¹⁾ at 25°C, 37°C (R type) (±°C/°F) | 0,3 / 0,54 | 0,6 / 1,08 | 0,1 / 0,18 | 0,2 / 0,36 |
| | Variation ¹⁾ at 37°C (±°C/°F) | 1,6 / 2,88 | 1,5 / 2,7 | 0,7 / 1,26 | 0,3 / 0,54 |
| | Refrigerator | - | 1 / 8 HBP (220V,230V) 1 / 6 HBP (100V,120V) | - | 1 / 8 HBP (220V,230V) 1 / 6 HBP (100V,120V) |
| 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 | | | |
| Dimensions | Recip stroke length (mm / inch) | 20, 30, 40 / 0,8, 1,2, 1,6 Available – Standard 30 / 1,2 | | | |
| | Volume (L / cu ft) | 53 / 1,9 | | 83 / 2,9 | |
| | Platform (W×L), (mm / inch) | 350×350 / 13,8×13,8 | | 450×450 / 17,7×17,7 | |
| | Internal (W×D×H) (mm / inch) | 410×410×320 / 16,1×16,1×12,6 | | 510×510×320 / 20,1×20,1×12,6 | |
| | Overall (W×D×H) (mm / inch) | 442×740×622 / 17,4×29,1×24,5 | | 542×850×622 / 21,4×33,5×24,5 | |
| Electrical Requirements (230V) | Net weight (Kg / lbs) | 74,0 / 163,0 | 85,0 / 187,0 | 91,0 / 200,0 | 102,0 / 225,0 |
| | | 50 / 60Hz, 4,0A | 60Hz, 5,5A | 50 / 60Hz, 4,0A | 60Hz, 5,5A |
| Cat. No. | | AAH23105K | AAH23111K | AAH23205K | AAH23211K |
| | Electrical Requirements (120V) | 50 / 60Hz, 7,5A | 60Hz, 10,1A | 50 / 60Hz, 7,5A | 60Hz, 10,1A |
| Cat. No. | | AAH23106U | AAH23113U | AAH23206U | AAH23213U |

1) Technical data, (according to DIN 12880)

Accessories & Options for Shakers



Universal Platforms



Flask Clamps



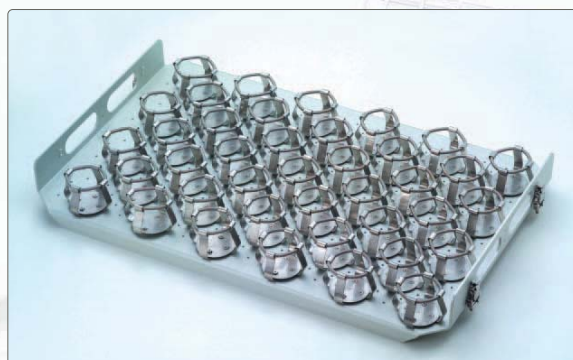
Funnel Clamps

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.

| Universal platform Cat. No. | | SK-300 | SK-600 | SK-71 | SI-300(R) | SI-600(R) | IS-971(R/F) |
|---------------------------------------|------------------------|----------|----------|----------|-----------|-----------|-------------|
| AAA31501 | | 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 |

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



Dedicated Platforms



Spring Wire Racks



Go to **JEIO TECH .com**

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

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

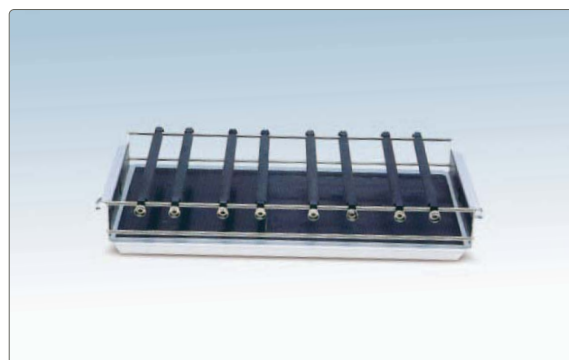
Ideal for holding a wide variety of tubes, flasks, and other glassware. All component are made of stainless steel.

| 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 |
| for 2.8L | 1 | 2 | 4 | 1 | 2 | 4 |

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) |
|----------|----------|----------|----------|-----------|-----------|--------------|
| Cat. No. | AAA31531 | AAA31532 | AAA31533 | AAA23531 | AAA23532 | AAA23533 |

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) |
|----------|----------|----------|----------|-----------|-----------|--------------|
| Cat. No. | AAA31511 | AAA31512 | AAA31513 | AAA23511 | AAA23512 | AAA31513 |

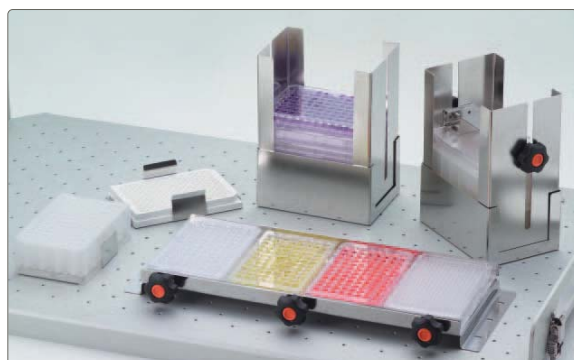
Test tube racks

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* | | | | | | |
|----------|-------------------|------------------------------|--------|-------|-----------|-----------|--------------|-----|
| | | SK-300 | SK-600 | SK-71 | SI-300(R) | SI-600(R) | IS-971(R/ F) | |
| 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"] | | | | | | |
| 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

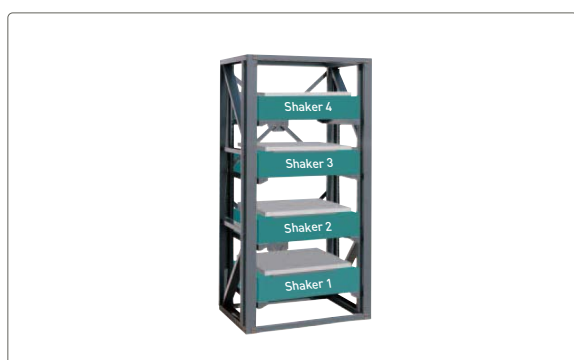
※ We can manufacture other size of test tube racks to meet your specific requirements, Contact us for details.



Microplate Holders



Sticky Pads



Stage Racks

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 |

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

Sticky pads

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.