# SELECTION GUIDE

Incubators
Low Temperature Incubators
Incubated Shakers
Mini Incubators
Hybridization Oven

#### **Incubators**

Descri	iption	Operating Temp. Range (°C/°F)	Chamber Volume (L /cu ft)	Temperature Fluctuation at 37 ℃ [±℃/°F]		Page	
General	IB-05G	Amb. +5 to 70	60 / 2.1	0.1 / 0.18	0.6 / 1.08		
Models	IB-15G	/ Amb. +9 to 158	102 / 3.6	0.170.10	0.2 / 0.36	66	
Models	IB-25G	/ AITID. +3 to 130	151 / 5.3	0.2 / 0.36	0.6 / 1.08		
_	IB-01E	A 1 0 1 00	65 / 2.3	0.2 / 0.36	0.6 / 1.08		
Economy Models	IB-11E	Amb. +3 to 60 / Amb. +5.4 to 140	150 / 5.3	0.3 / 0.54	0.8 / 1.44	67	
wodels	IB-21E	/ AIIID. +3.4 to 140	205 / 7.2	0.1 / 0.18	1.1 / 1.98		
2 & 4- chamber	IB-02G-2C	Amb. +5 to 70	60 / 2.1 x 2 chambers	0.1 / 0.18	0.6 / 1.08	68	
Models	IB-02G-4C	/ Amb. +9 to158	60 / 2.1 x 4 chambers	0.170.18	0.0 / 1.06	00	

## **Low Temperature Incubators**

Descript	ion	Operating Temp. Range (℃/⁻F)	Chamber Volume (L /cu ft)	Fluctuation	Temperature Variation at 25 ℃[±℃/*F]	Page
Forced Convection	IL-11	0 to 60	150 / 5.3	0.1 / 0.18	0.5 / 0.9	70
Models	IL-21	/ +32 to 140	244 / 8.6	0.1 / 0.16	0.4 / 0.72	70
Air-jacketed	IL-11A	+4 to 60	162 / 5.7	0.2./0.26	0.5.7.0.0	72
Models	IL-21A	/ +39.2 to 140	254 / 9	0.2 / 0.36	0.5 / 0.9	12
Personal	ILP-02	+10°C to 40°C at ambient	14 / 0.5	0.1 / 0.18	0.5 / 0.9	73
Models	ILP-12	temperature of 25°C	48 / 1.7	0.1 / 0.10	0.4 / 0.72	73
2 & 4- chamber	IL-11-2C	"0 to 60	150 / 5.3 x 2 chambers	0.1 / 0.18	0.5 / 0.9	74
Models	IL-11-4C	/ + 32 to140"	150 / 5.3 x 4 chambers	0.1 / 0.18	0.5 / 0.9	/4

#### **Incubated Shakers**

Desc	ription	Operating Temp. Range (℃/*F)	Speed Range [RPM]	Maximum Amplitude Size (dia)	Page
	IST-3075	Amb. +5 to 80			
Benchtop	IST-4075	/ Amb. +9 to 176	10 to 500	19.1mm (0.75" dia)	76
Models	IST-3075R	Amb15 (Min. +15°C) to 80	10 10 500	19.111111 (0.75 dia)	70
	IST-4075R	/ Amb27 (Min. +27°C) to 176			
	ISF-7100	Amb. +5 to 80	30 to 500	25.4mm (1" dia)	
Floor Standing	ISF-7200	/ Amb. +9 to 176	30 to 300	50.8mm (2" dia)	78
Models	ISF-7100R	Amb15 (Min. +4°C) to 80	30 to 500	25.4mm (1" dia)	/0
	ISF-7200R	/ Amb27 (Min. +7.2°C) to 176	30 to 300	50.8mm (2" dia)	
	ISS-3075	Amb. +5 to 80			
Chamber	ISS-4075	/ Amb. +9 to 176	10 to 500	19 mm dia (0.75" dia)	80
Models	ISS-3075R	Amb20 (Min. +4°C) to 80	(Stackable Top: 10 to 250)*	19 11111 uià (0.75° dià)	00
	ISS-4075R	/ Amb36 (Min. +7.2°C) to 176			

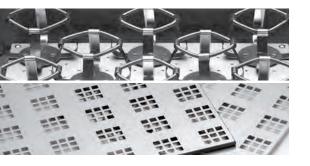
<sup>\*</sup> If two products are stacked up, the upper one's shaking speed range is from 10 to 250 rpm.

## Mini Incubator & Hybridization Oven

Descripti	on	Operating Temp. Range (℃/°F)	Chamber Volume (L /cu ft)	Temperature Fluctuation [±℃/°F]	Temperature Variation [±℃/°F]	Page
Mini Incubator	IM-10	Amb. +5 to 65 / Amb. +9 to 140	10 / 0.4	0.5 / 0.9 (at 37°C)	0.5 / 0.9 (at 37°C)	82
Hybridization Oven	HO - 10	Amb. +5 to 65 / Amb. +9 to 149	10 / 0.4	0.5 / 0.9 (at 50 °C with 9RPM)	0.5 / 0.9 (at 50°C with 9RPM)	83



## GENERAL APPLICATIONS



General Applications		Low Tempersonal Inc		Incubated S	kakers
	IB	IL	ILP	IST & ISS	ISF
Antibody Testing	•	•	•		
Bacterial Research	•		•		
Bacterial Suspensions				•	•
Chemical Storage	•	•			
Chick Embryo Studies	•		•		
Clinical Science	•	•	•		
Cultivating LowTemperature					
Microbes and Plant Cells		_			
Crystallization Studies	•	•			
Cultivating Thermophilic Bacteria	•				
Drying And Staining Procedures	•	•			
Denaturalizing Tests for Food	•	•			
EnvironmentalTechnology				•	_
(waste water and soil analysis)					, i
Enzyme Digestion Studies	•	•			
Extraction Procedures				•	•
Fermentation (Pharmacy and biotech -DNA and Enzymes)				•	•
General Mixing				•	•
Hematological Testing	•	•	•		
Histochemical Procedures	•	•			
Measuring COD/ BOD		•			
Medical Researches. (Diagnostic tests)				•	•
Microbiological Determinations	•	•	•		
Microorganism	•	•	•		
Molecular Biology				•	•
Organism Germs for Life Science	•	•	•		
Organism Pharmacy	•	•	•		
Paraffin Embedding	•	•			
Pharmaceutical Stability Testing		•			
Plasmid Purification				•	•
Protein Expression in Bacteria				•	•
Solubility				•	•
Staining and Destaining				•	•
Tissue Culturing	•	•	•		

<sup>\*</sup> Above listed applications are for general and storage purpose use.

## TECHNICAL BENEFITS

## Incubators & Low Temp. Incubators

- 1) Microprocessor PID control.
- 2) Temp. calibration and auto-tuning functions.
- 3) Digital timer with Delayed ON/OFF function.
- 4) Automatic run after power interruption.
- 5) Convenient preset function for 3 most commonly used temperature settings.
- 6) Self-diagnostic function identifying errors.
- 7) Bright LED displays as well as splashproof and easy-to-clean keypads.
- 8) Audible and visible open door alarms.
- 9) Protection against overheating and over-
- 10) High-quality 304 grade stainless steel chamber interior and dirt-repellent external surface with power coating.
- 11) Perfectly sealed door gasket minimizing heat loss and fully insulated chambers.

#### **Incubated Shakers**

- 1) Intuitive touch LCD controller with easy icons and logical menus.
- 2) Automatic run after power interruption.
- 3) Built-in RS-232 port and USB port for external control and data collection.
- 4) Audible/Visible alarm activated by shaking speed deviation.
- 5) Worry-free operation is guaranteed by automatic shaking speed adjustment in case of excessive workload.
- 6) Microprocessor PID control and autotuning.
- 7) Three point temperature calibration.
- 8) Wide speed range even with heavy workload.
- 9) Repetitive task can be easily performed as the platform stops where it starts.
- 10) Smooth start and smooth stop function prevents chemical spills from flasks or test tubes.

## Mini Incubator & Hybridization Oven

- 1) Over temperature limit protection and open door alert.
- 2) Microprocessor PID control.
- 3) Simple calibration function.
- 4) Ease-of-operation provided by a bright VFD, responsive touch buttons, and a jog dial.
- 5) Memory function of programmed protocols allowing relevant parameters (such as temperature, rocking speed, time, etc) of each protocol step to be stored. (HO-10 only)

## **Incubators** (General Models)

## Versatile air-jacketed natural convection incubators.

Specially designed for uniform temperature distribution and minimal sample contamination caused by external air intrusion.



#### **IB-05G**

**Included Accessories** 

- 2 Wire Shelves
- **Optional Accessories**
- Perforated Shelves
- see page 84
- Stacking Kits for Stackable Chambers

### Operating Features

- Temperature control: +5°C above ambient to 70°C.
- Microprocessor PID control.
- Simple calibration and auto-tuning functions.
- Digital timer with Delayed ON/OFF function
  : 1 min to 99 hr 59 min.
- High temperature limit setting and open door alarm.
- Convenient preset function for 3 most commonly used temperature settings.
- Intuitive control panel with bright LED display (0.1°C resolution) and touch-sensitive keypad.
- RS-232 interface.

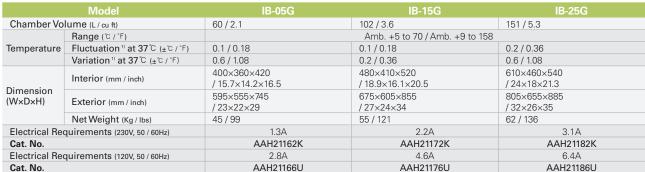
#### Constructional Features

- Fully insulated dual-wall door with magnetic rubber gasket.
- Vibration-free design ideal for yeast cultivation.
- Compact and lightweight construction with completely sealed gasket.
- Stackable up to 2 units using the optional stacking kit. (optional)
- Convenient sample monitoring without affecting chamber temperature via the inner tempered-glass door.
- Detachable shelves and round-cornered chamber interior allowing easy cleaning.
- Durable incoloy heating element with radiator fans for efficient heat dissipation.
- Built-in cable port to use other instruments inside the chamber.
   (dia 38mm/1.5°C, provided silicon or rubber cap)

### Specifications & Ordering Information







1) Technical data according to DIN 12880



## **Incubators** (Economy Models)

## Affordable yet exceptionally reliable incubators featuring film type heaters.

Thanks to the film type heaters attached to the inner chamber's external walls, IB-E series incubators are free from noise, vibration, and mechanical troubles.

### Operating Features

- Temperature control: +3°C above ambient to 60°C.
- Microprocessor PID control.
- Simple calibration and auto-tuning functions.
- Digital timer with delayed ON/OFF function: 1 min to 99 hr 59 min.
- High temperature limit setting and open door alarm.
- Convenient preset function for 3 most commonly used temperature settings.
- Intuitive control panel with bright LED display (0.1 ℃ resolution) and touch-sensitive keypad.

#### **Constructional Features**

- Vibration-free design ideal for yeast cultivation.
- Compact and lightweight design with completely sealed gasket.
- Stackable up to 2 units using the optional stacking kit. (optional)
- Convenient sample monitoring without affecting chamber temperature via the inner tempered-glass door.
- Detachable shelves and round-cornered chamber interior allowing easy cleaning.



#### **IB-01E**

Included Accessories • 2 Wire Shelves

- Optional Accessories Perforated Shelves
- see page 84
- Stacking Kits for Stackable Chambers



	Model	IB-01E	IB-11E	IB-21E			
Chamber Vo	lume (L / cu ft)	65 / 2.3	150 / 5.3	205 / 7.2			
	Range (°C / °F)		Amb. +3 to 60 / Amb. +5.4 to 140				
Temperature	Fluctuation 1) at 37 °C (± °C / °F)	0.2 / 0.36	0.3 / 0.54	0.1 / 0.18			
	Variation ¹) at 37 °C (± °C / °F)	0.6 / 1.08	0.8 / 1.44	1.1 / 1.98			
D: :	Interior (mm / inch)	423×355×445 / 16.7×14×17.5	500×515×585 / 19.7×20.3×23	632×515×630 / 24.9×20.3×24.8			
Dimension (W×D×H)	Exterior (mm / inch)	533×475×725 / 21×18.7×28.5	595×630×865 / 23.5×24.8×34	740×630×910 / 29.1×24.8×35.8			
	Net Weight (Kg / Ibs)	33 / 72.8	47 / 103.6	57 / 125.7			
Electrical Red	quirements (230V, 50 / 60Hz)	1.1A	2.2A	2.4A			
Cat. No.		AAH26015K	AAH26025K	AAH26035K			
Electrical Red	quirements (120V, 50 / 60Hz)	2.1A	4.2A	4.6A			
Cat. No. AAH26016U AAH26026U AA				AAH26036U			

<sup>1)</sup> Technical data according to DIN 12880

## **Incubators** (2 & 4-chamber Models)





IB-02G-4C

## **Incubators** (2 & 4-chamber Models)

## Suitable for conducting each different experiments in two or four chamber incubators.

Force convection incubating with great temperature variation. Efficient to use with the limited laboratory environment.

## Operating Features

- Temperature range: Amb. +5 °C to 70 °C
- Independent temperature and timer control of each chamber using microprocessor PID.
- Simple calibration and auto-tuning functions.
- Digital timer with Delayed ON/OFF function: ranging from 1 min to 99 hr 59 min.
- Three most commonly used temperature settings programmable.
- Intuitive control panel with bright LED display (0.1 ℃ resolution) and touch-sensitive keypad.
- High temperature limit setting and open door alert.

#### **Constructional Features**

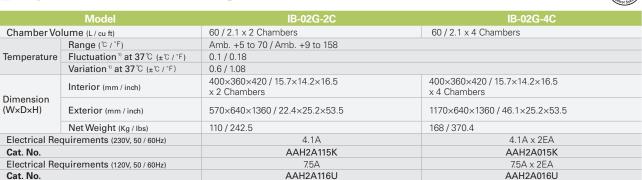
- Two or four independently controlled 60L chambers merged into a single unit for space saving.
- Forced air convection generated by a noiseless and powerful sirocco fan ensuring optimal air circulation, temperature
- Corrosion-resistant incoloy sheath heating element and stainless steel interior.
- Detachable shelves and rounded inner chamber corners allowing convenient cleaning.
- Built-in cable port to use other instruments inside the chamber.
- Built-in casters for easy transport and installation.



### IB-02G-2C

**Included Accessories Optional Accessories** see page 84

- Perforated Shelves



<sup>1)</sup> Technical data according to DIN 12880



## Low Temp. Incubators (Forced Convection Models)



#### Please visit JEIOTECH.com

For further information on Jeio Tech's Incubator products Information is readily available on our website.





IL-21 / IL-21A

## Low Temp. Incubators (Forced Convection Models)

Superb low temperature incubation performance using a noiseless HBP compressor cooling system which reduces water evaporation within the chambers.

### Operating Features

- Temperature control: 0°C to 60°C.
- Microprocessor PID control.
- Simple calibration and auto-tuning functions.
- Digital timer with Delayed ON/OFF function:
  1 min to 99 hr 59 min.
- High temperature limit setting and open door alarm.
- Convenient preset function for 3 most commonly used temperature settings.
- Up to 9 temperature steps and maximum 200 cycles of repetition programmable for each profile.
- Adjustable three-step fan speed with defrosting time and period control.
- Intuitive control panel with bright LED display (0.1°C resolution) and touch-sensitive keypad.
- RS-232 interface.
- \* Temperature change may occur during automatic defrost.

### Constructional Features

- Forced air convection using an optimal cross flow fan for chamber temperature uniformity.
- Large chamber volume: maximum 244L. (8.6 cu ft)
- Built-in electrical outlet with a safety cover inside the chamber
- Convenient sample monitoring without affecting chamber temperature via the inner tempered-glass door.
- Detachable shelves and round-cornered chamber interior allowing easy cleaning.



#### IL-21

Included Accessories

- 2 Wire Shelves for IL-11
- 3 Wire Shelves for IL-21

Optional Accessories
See page 84

Perforated Shelves





<sup>1)</sup> Technical data according to DIN 12880

## Low Temp. Incubators (Air-jacketed Models)

Operating Features

• Microprocessor PID control.

59 min.

perature settings.

period control.

RS-232 interface.

and touch-sensitive keypad.

• Temperature control: +4°C to 60°C.

• Simple calibration and auto-tuning functions.

petition programmable for each profile.

• Digital timer with Delayed ON/OFF function: 1 min to 99 hr

• Up to 9 temperature steps and maximum 200 cycles of re-

Adjustable three-step fan speed with defrosting time and

\* Temperature change may occur during automatic defrost.

• High temperature limit setting and open door alarm. • Convenient preset function for 3 most commonly used tem-

Specially designed for optimal temperature control as well as minimal sample contamination caused by external air intrusion.

Superb low temperature incubation performance thanks to the silent HBP compressor cooling system which also reduces water evaporation within the chamber.



#### IL-11A

- Included Accessories 2 Wire Shelves for IL-11A
  - 3 Wire Shelves for IL-21A

Optional Accessories • Perforated Shelves

see page 84

## Intuitive control panel with bright LED display (0.1°C resolution)

- **Constructional Features** 
  - Natural convection within the chamber induced by the heater and the fan located inside the air jacket.
  - Large chamber volume: maximum 244L. (8.6 cu ft)
  - Built-in electrical outlet with a safety cover inside the chamber.
  - Convenient sample monitoring without affecting chamber temperature via the inner tempered-glass door.
  - Detachable shelves and round-cornered chamber interior allowing easy cleaning.









	Model	IL-	11A	IL-3	21A		
Chamber Vo	lume (L / cu ft)	162 / 5.7		254 / 9			
Refrigerator	(Hp)	1 / 6 HBP		1 / 4 HBP			
	Range (°C / °F)	+4 to 60 / +39.2 to 140					
Temperature	Fluctuation 1) at 25 ℃ (± ℃ / °F)	0.2 / 0.36					
	Variation ¹) at 25 °C (± °C / °F)	0.5 / 0.9					
Dimension	Interior (mm / inch)	600×540×500 / 24×21.3×20		500×540×940 / 20×21.3×37			
Dimension (W×D×H)	Exterior (mm / inch)	770×772×1060 / 30×30×42		670×760×1680 / 26×30×66			
	Net Weight (Kg / Ibs)	108 / 238.1		145 / 319.7			
Electrical Red	quirements (230V)	60Hz, 6.9A 50Hz, 6.9A		60Hz, 8.4A	50Hz, 8.4A		
Cat. No.		AAH22061K AAH22062K		AAH22071K AAH22072K			
Electrical Red	Electrical Requirements (120V)		60Hz, 10.2A		60Hz, 12.3A		
Cat. No.		AAH2	2063U	AAH22073U			

<sup>1)</sup> Technical data according to DIN 12880



## Low Temp. Incubators (Personal Models)

## Compact, stackable, energy-efficient, and yet exceptionally reliable low temperature incubators using Peltier technology.

Contrary to conventional compressor-cooled incubators, Peltier Low Temperature Incubators generate little vibration, noise, and heat.

### Operating Features

- Temperature control:  $+10^{\circ}$  to  $40^{\circ}$  at ambient temperature of 25°C.
- Microprocessor PID control.
- Simple calibration and auto-tuning functions.
- Digital timer with Delayed ON/OFF function: 1 min to 99 hr 59 min.
- High temperature limit setting and open door alarm.
- Convenient preset function for 3 most commonly used temperature settings.
- Up to 9 temperature steps and maximum 200 cycles of repetition programmable for each profile.
- Adjustable 3-step fan speed with defrosting time and period control.
- Intuitive control panel with bright LED display (0.1°C resolution) and touch-sensitive keypad.
- RS-232 interface.

#### Constructional Features

- Convenient sample monitoring without affecting chamber temperature via the inner tempered-glass door.
- Environment-friendly insulation material (EPDM) used for safety and convenience. (compliant with ASTM-C534 specification)
- Space-saving design allowing even the smaller (14L) unit to hold two 1000mL Erlenmeyer flasks.

### ILP-02 stackable chambers

Included Accessories • 1 Wire Shelf for ILP-02

- 2 Wire Shelves for ILP-12

Optional Accessories • Perforated Shelves

see page 84





	Model	ILP	-02	ILP-12		
Chamber Vo	lume (L / cu ft)	14 / 0.5 48 / 1.7				
	Range (°C / °F)	10 to 40°C (50~104°F) at am	nbient temperature of 25℃			
Temperature	Fluctuation 1) at 25 ℃ (± ℃ / °F)	0.1 / 0.18				
	Variation ¹) at 25 °C (± °C / °F)	0.5 / 0.9		0.4 / 0.72		
D: :	Interior (mm / inch)	315×200×230 / 12.4×7.9×9.1		334×334×430 / 13.1×13.1×17		
Dimension (W×D×H)	Exterior (mm / inch)	430×495×400 / 17×19.4×15.7		430×665×620 / 17×26.2×24.4		
	Net Weight (Kg / Ibs)	27.5 / 60.6		49 / 108		
Electrical Red	quirements (230V)	60Hz, 1.8A 50Hz, 1.8A		60Hz, 3.5A	50Hz, 3.5A	
Cat. No.		AAH24031K AAH24032K AAH24041K			AAH24042K	
Electrical Red	quirements (120V)	60Hz, 3.4A		60Hz, 6.7A		
Cat. No.		AAH2	4033U	AAH2	4043U	

<sup>1)</sup> Technical data according to DIN 12880.

## Low Temp. Incubator (2 & 4-chamber Models)





IL-11-4C

## Low Temp. Incubator (2 & 4-chamber Models)

Featuring two or four incubation chambers in a single unit, this Low Temperature Incubator is designed to offer an ideal and cost-effective solution for laboratories with limited space and budget.

Superb low temperature incubation performance thanks to the silent HBP compressor cooling system which also reduces water evaporation within the chamber.

#### Operating Features

- Temperature range: 0 °C to 60 °C.
- Independent temperature and timer control of each chamber using microprocessor PID.
- Simple calibration and auto-tuning functions
- Digital timer with Delayed ON/OFF function: ranging from 1 min to 99 hr 59 min.
- Three most commonly used temperature settings program-
- Up to 9 temperature steps and maximum 200 cycles of repetition programmable for each profile.
- Adjustable 3 step fan speed with defrosting time and period
- Intuitive control panel with bright LED display (0.1°C resolution) and touch-sensitive keypad.
- Temperature change may occur during automatic defrost.



#### Constructional Features

- Tow or four independently controlled 150L chambers (Model IL-11) merged into a single unit for space saving.
- Convenient sample monitoring without affecting chamber temperature via the inner tempered-glass door.
- Detachable shelves and rounded inner chamber corners allowing convenient cleaning.
- Built-in casters for easy transport and installation.

#### IL-11-4C

Included Accessories **Optional Accessories** 

🔾 see page 84

- 2 wire shelves per chamber
- Perforated Shelves





	Model	IL-11-2C	IL-11-4C	
Chamber Vo		150 / 5.3 x 2 Chambers	150 / 5.3 x 4 Chambers	
Refrigerator	(Hp)	1/8 HBP x 2EA	1/8 HBP x 4EA	
	Range (°C / °F)	0 to 60 °C / +32 to 140° F		
Temperature	Fluctuation 1) at 25 ℃ (± ℃ / °F)	0.1 / 0.18		
	Variation ¹¹ at 25 °C (± °C / °F)	0.5 / 0.9		
D: .	Interior (mm / inch)	600x500x500 / 23.6x19.7x19.7 x 2 Chambers	600x500x500 / 23.6x19.7x19.7 x 4 Chambers	
Dimension (W×D×H)	Exterior (mm / inch)	760x760x1690 / 29.9x29.9x66.1	1500x760x1690 / 59.1x29.9x66.1	
	Net Weight (Kg / Ibs)	180 / 397	350 / 772	
Electrical Red	quirements (230V, 60Hz)	9A	9A x 2EA	
Cat. No.		AAH28111K	AAH28011K	
Electrical Red	quirements (230V, 50Hz)	9A	9A x 2EA	
Cat. No.		AAH28112K	AAH28012K	
Electrical Red	quirements (120V, 60Hz)	16.5A	16.5A x 2EA	
Cat. No.		AAH28113U	AAH28013U	

<sup>1)</sup> Technical data according to DIN 12880.

## **Incubated Shakers** (Benchtop Models)

## Digital incubating/refrigerating benchtop shakers

Transparent lid offers great visibility and gas spring supports ensure hand-down handling of the samples by allowing immediate and easy access to your samples.





Gas Spring Lid



### IST-3075 / IST-4075R

Optional Accessories

♦ see page 85-87

- Universal / Dedicated Platforms, Rubber Mats, Universal Attachments
- Flask Clamps, Funnel Clamps
- Test Tube Racks, Spring Wire Racks

#### **Control Display**



<sup>\*</sup> Above products design can be changed without prior notice.

## **Incubated Shakers** (Benchtop Models)

### Operating Features

#### General Control

- Intuitive touch screen LCD controller with easy icons and logical menus.
- Automatic run is available with non-volatile set point memory after power interruption.
- Built-in RS-232 port and USB port for external control and data collection.

#### Shaking Control

- Speed range: 10 to 500 rpm.
- Orbit diameter: 19mm.
- Timer range: 1 min. to 999 hr 59 min.
- Audible/Visible alarm activated by shaking speed deviation.
- Worry-free operation.
- Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shock.
- Shaker protection system against over-current, stalled platform check.

#### Temperature Control

- Temperature range:
   Amb. +5°C to 80 °C (for IST-3075 / 4075)
   Amb. -15°C (Min. +15) to 80°C (for IST-3075R / 4075R)
- Microprocessor PID control and auto-tuning.
- Three point temperature calibration.
- Mechanical over-temperature protection device.

### Constructional Features

- Wide speed range even with heavy workload.
- Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion.
- Repetitive task can be easily performed as the platform stops where it starts.
- Stopping the shaking platform always at the same position is highly beneficial for automated dosing or sampling process.
- Pleasant test environment by the smooth acceleration and deceleration control.
- Smooth start and smooth stop function prevents chemical spills from flasks or test tubes.
- Wide sample monitoring and convenient sample loading.
- Convenient sample monitoring without affecting inside environment thanks to the three side transparent acryl lid with bright LED lamps.
- Gas spring lid supports providing smooth motion, soft opening and closing.
- Air-tight silicone door seal to provide excellent temperature uniformity.
- Corrosion resistance stainless steel interior.
- Three step adjustable high-velocity fan ensuring uniform temperature distribution and rapid thermal recovery after door open.
- Environment-friendly CFC-free refrigerant. (for IST-3075R / 4075R)









	Model	IST-3	3075	IST-3	075R	IST-4	4075	IST-4	075R
	Min.Temp. (°C / °F)		Amb. +5 to 80 Amb15 (Min. +15) to 80 / Amb. +9 to 176 / Amb27 (Min. +27) to 176				o 80 to 176	Amb15 (Mir / Amb27 (N	
Town a quoti una	Fluctuation at 37°C in flask(±°C /°F)	0.1 / 0.18	0.1 / 0.18						
Temperature	Variation at 37℃ in flask (±℃ / °F)	0.5 / 0.90	0.5 / 0.90						
	Refrigerator (Hp)	-		1 / 8 HBP (22 1 / 6 HBP (10		-		1 / 8 HBP (22 1 / 6 HBP (10	
	MotionType	Orbital						.,,	
	Amplitude Size (mm / inch, dia.)	19.1 / 0.75							
Charlein a	Speed Range (RPM)	10 to 500							
Shaking System	Accuracy	±1% of set	speed (>100r	pm) / ±1 (<100rpm	1)				
System	Timer	1 min. to 9	99 hr 59 min						
	Max. Load (kg / lbs)	10 / 22.0 at 15 / 33.1 at				14 / 30.9 at 21 / 46.3 at			
	Volume (L / cu ft)	53 / 1.9	·			83 / 2.9			
	Platform (W×D) (mm / inch)	350×350 /	13.8×13.8			450×450 /	17.7×17.7		
Dimension	Internal (WxDxH) (mm / inch)	410×410×3	320 / 16.1×16	6.1×12.6		510×510×3	320 / 20.1×20	).1×12.6	
	Overall (WxDxH) (mm / inch)	440x785x5	10 / 17.3x30.9	9x20.1		540x 890 x	510 / 21.3x35	5x20.1	
	Net Weight (Kg / Ibs)	65 / 143.3 73 / 160.9			81 / 178.6		90 / 198.4		
Electrical Requ	irements (230V)	60Hz, 4A 50Hz, 4A 60Hz, 5.5A 50Hz, 5.5A		60Hz, 4A	50Hz, 4A	60Hz, 5.5A	50Hz, 5.5A		
Cat. No.		AAH23411K	AAH23422K	AAH23511K	AAH23522K	AAH23611K	AAH23622K	AAH23711K	AAH23722K
Electrical Requ	irements (120V)	60Hz, 7.5A 60Hz, 10.1A		10.1A	50/60Hz, 7.5A 60Hz, 10.1A		10.1A		
Cat. No.		AAH2	3465U	AAH23565U		AAH23665U		AAH23765U	

Permissible environmental conditions: temperature (15-40°C).

<sup>\*</sup> Above specifications can be changed without prior notice.

## **Incubated Shakers** (Floor Standing Models)

Large capacity up to five 6L flasks and heavy workload shaking with rapid heating and cooling performance.

Exclusive drive mechanism with ergonomic design delivers years of trouble-free service.





<sup>\*</sup> Above products design can be changed without prior notice.

#### **Control Display**



#### Com. Ports & Temp. Limiters





## **Incubated Shakers** (Floor Standing Models)

#### Operating Features

#### General Control

- Intuitive touch screen LCD controller with easy icons and logical menus.
- Automatic run is available with non-volatile set point memory after power interruption.
- Built-in RS-232 port and USB port for external control and data collection.

#### Shaking Control

- Speed range: 30 to 500 rpm.
- Orbit diameter:
- 25.4mm for ISF-7100/R
- 50.8mm for ISF-7200/R
- Timer range: 1 min. to 999 hr 59 min.
- Audible/Visible alarm activated by shaking speed deviation.
- Worry-free operation.
  - Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shock.
- Shaker protection system against over-current.

#### Temperature Control

- Temperature range:
   Amb. +5°C to 80 °C (for ISF-7100 / 7200)
   Amb. -15°C (Min. +4) to 80°C (for ISF-7100R / 7200R)
- Microprocessor PID control and auto-tuning.
- Three point temperature calibration.
- Triple independent temperature monitor system.
- Temperature deviation alarm (High/Low)
- Electronic temperature limiter (High/Low)
- Mechanical over-temperature limiter (High)
- \* Temp. change may occur during automatic defrost. (for ISF-7100R/7200R)

#### Constructional Features

- Wide speed range even with heavy workload.
- Ideal DD(Direct Drive) Brushless Motor and triple cam system support heavy load, quiet, maintenance free operation and deliver high torque at high speeds and smooth rotation.
- Repetitive task can be easily performed as the platform stops where it starts.
  - Stopping the shaking platform always at the same position is highly beneficial for automated dosing or sampling process.
- Pleasant test environment by the smooth acceleration and deceleration control.
- Smooth start and smooth stop function prevents chemical spills from flasks or test tubes.
- Easy sample monitoring and convenient sample loading.
- Clear observation of samples without affecting inner chamber's environment thanks to the transparent top viewing window with bright LED lamps.
- The lid is inclined gently towards the front for easy loading and unloading samples in the chamber.
- Gas spring lid supports providing smooth motion, soft opening and closing.
- Easy-access drain system with a quick disconnect valve offers great convenience to clean up of spills.
- Air-tight silicone door seal with lockable door for safe storage of samples.
- Corrosion resistance stainless steel interior.
- Three step adjustable high-velocity fan ensuring uniform temperature distribution and rapid thermal recovery after door open.
- Sturdy foot caster, beneficial for easy mobility during installation or relocation.
- Environment-friendly CFC-free refrigerant. (for ISF-7100R / 7200R)



	Model	ISF-7100	ISF-7	100R	ISF-7200	ISF-7	200R
	Range (°C / °F)	Amb. +5 to 80 / Amb. +9 to 176				Amb15 (Min / Amb27 (M	
Temperature	Fluctuation at 37℃ in flask(±℃ / °F)	0.1 / 0.18					
	Variation at 37°C in flask (±°C /°F)	0.5 / 0.90					
	Refrigerator (Hp)	-	1/6Hp		-	1/6Hp	
	MotionType	Orbital					
	Amplitude Size (mm / inch, dia.)	25.4 / 1			50.8 / 2		
	Speed Range (RPM)	30 to 500 30 to 300					
Shaking	Accuracy	±1% of set speed (>100rpm) / ±1 (<100rpm)					
System	Timer	1 min. to 999 hr 59 min.					
	Max. Load (kg / lbs)	15 / 33.1 at 500 rpm 28 / 61.7 at 400 rpm 45 / 99.2 at 300 rpm	١		23 / 50.7 at 300 rpm 35 / 77.2 at 250 rpm		
	Volume (L / cu ft)	270 / 9.5					
	Platform (W×D) (mm / inch)	755×520 / 29.7×20.	.5				
Dimension	Internal (WxDxH) (mm / inch)	894×634×480 / 35.2	2×25×18.9				
	Overall (WxDxH) (mm / inch)	1128×854×1035 / 44	4.4x33.6x40.8				
	Net Weight (Kg / Ibs)	277 / 610.7	287 / 632.7		277 / 610.7	287 / 632.7	
Electrical Req	uirements (230V)	50 / 60Hz, 5A	60Hz, 7.2A	50Hz, 7.2A	50 / 60Hz, 5A	60Hz, 7.2A	50Hz, 7.2A
Cat. No.		AAH23342K	AAH23542K	AAH23541K	AAH23442K	AAH23642K	AAH23641K
Electrical Req	uirements (120V)	60Hz, 9.5A	60Hz,	13.9A	60Hz, 9.5A 60Hz, 13.9A		13.9A
Cat. No.		AAH23375U	AAH23575U		AAH23475U	AAH23675U	

Permissible environmental conditions: temperature (15-40°C)

<sup>\*</sup> Above specifications can be changed without prior notice

## **Incubated Shakers (Chamber Models)**

Specially designed to be double-stacked on the floor or located on the lab benches for space saving.

Multi-purpose incubated shakers feature a wide range of temperature control and large chamber volume.



## ISS-4075R / ISS-3075

Included Accessories • 2 Wire Shelves Optional Accessories • Retractable Foot Caster see page 85-87

- Universal / Dedicated Platforms
- Rubber Mats, Universal Attachments
- \* Above products design can be changed without prior notice.



#### **Control Display**



## **Incubated Shakers (Chamber Models)**

## Operating Features

#### General Control

- Intuitive touch screen LCD controller with easy icons and logical menus.
- Automatic run is available with non-volatile set point memory after power interruption.
- Built-in RS-232 port and USB port for external control and data collection.

#### Shaking Control

- Speed range: 10 to 500 rpm. (10 to 250rpm for the top unit of a stack)
- Orbit diameter: 19.1mm.
- Timer range: 1 min. to 999 hr 59 min.
- Audible/Visible alarm activated by shaking speed deviation.
- Worry-free operation.
- Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shock.
- Shaker protection system against over-current, stalled platform check.

#### Temperature Control

Temperature range:

Amb. +5°C to 80 °C (for ISS-3075 / 4075)

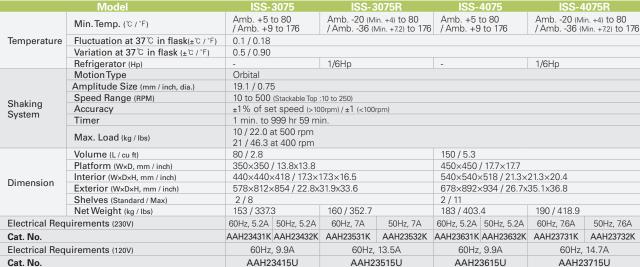
Amb. -20°C (Min. +4) to  $80^{\circ}$ C (for ISS-3075R / 4075R)

- Microprocessor PID control and auto-tuning.
- Three point temperature calibration.
- Triple independent temperature monitor system.
- Temperature deviation alarm (High/Low)
- Electronic temperature limiter (High/Low)
- Mechanical over-temperature limiter (High)
- \*\* Temp. change may occur during automatic defrost. (for ISS-3075R/4075R)

#### Constructional Features

- Chambers stackable, up to two levels.
- Wide speed range even with heavy workload.
- Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion.
- Repetitive task can be easily performed as the platform stops where it starts.
- Stopping the shaking platform always at the same position is highly beneficial for automated dosing or sampling process.
- Pleasant test environment by the smooth acceleration and deceleration control.
- Smooth start and smooth stop function prevents chemical spills from flasks or test tubes.
- Wide sample monitoring.
  - Clear observation of samples without affecting inner chamber's environment thanks to the transparent viewing window with bright LED lamps.
- Easy-access drain system with a quick disconnect valve offers great convenience to clean up of spills.
- Two adjustable-height shelves provided allow static incubation or refrigeration, which increase storage capacity.
- Air-tight silicone door seal to provide excellent temperature uniformity.
- Corrosion resistance stainless steel interior.
- Three step adjustable high-velocity fan ensuring uniform temperature distribution and rapid thermal recovery after door open.
- Retractable foot caster, beneficial for easy mobility during installation or relocation. (optional)
- Built-in electrical outlet with a safety cover inside the chamber.
- Environment-friendly CFC-free refrigerant. (for ISS-3075R / 4075R)





<sup>\*</sup> Permissible environmental conditions: temperature (15-40°C).

<sup>\*</sup> Above specifications can be changed without prior notice.

# **Incubators**Mini Incubator

Compact design for efficient lab space use.

Maximum 8 microplates can be inserted to inner chamber for ELISA.



### Operating Features

- $\bullet$  Temperature range: from ambient +5 to 65  $^{\circ}\!\!\mathrm{C}_{\cdot}$
- Door opening alarm
- Protection of the main body and the circuit board against overheating.
- Microprocessor PID feedback control of the heater and the fan ensuring temperature uniformity.
- Automatic temperature calibration.
- Ease-of-operation provided by a bright VFD (vacuum fluorescent display), responsive touch buttons, and a jog dial.

#### IM-10 with the included Wire Shelves

Included Accessories

- 2 Wire Shelves
- Optional Accessories
- Perforated Shelves

see page 84

### Constructional Features

- Compact design for space saving of laboratory of the chamber interior
- Wire shelves are provided for space saving of inner chamber. Maximum 4 wire shelves supporting 8 microplates is especially suitable for ELISA.
- Push buttons for easy opening of door.
- Transparent polycarbonate window providing a clear view of the chamber interior.

	Model	IM-10		
	Range (°C / °F)	Amb. +5 to 65 / Amb. +9 to 149		
Temperature	Fluctuation at 37°C (±°C / °F)	0.5 / 0.9		
	Variation at 37°C (±°C /°F)	0.5 / 0.9		
	Volume (L / cu ft)	10 / 0.4		
	Wire Shelf (W×D) (mm / inch)	247 × 247 / 9.7 × 9.7		
Dimension	Internal (W×D×H) (mm / inch)	278 x 262 x 160 / 11 x 10.4 x 6.3		
	External (WxDxH) (mm / inch)	400 x 410 x 264 / 15.7 x 16.1 x 10.4		
	Net Weight (Kg / Ibs)	12.8 / 28.2		
Electrical requ	irements (230V, 50/60Hz)	1.0A		
Cat. No.		AAH24315K		
Electrical requ	irements (120V, 50Hz)	2.1A		
Cat. No. AAH24316U				

<sup>1)</sup> Technical data according to DIN 12880

## **Hybridization Oven**

Equipped with a precise rocker, this unit is offering ideal reproducibility for various molecular biology applications such as nucleic acid hybridization, Western, immunoblotting, immunoprecipitation, etc.

### Shaking Features

- Rocking motion: Tilt 8.5°.
- Speed range: 5 to 50 rpm.

### Operating Features

- Temperature range: from ambient +5 to 65 ℃
- Audible and visual alarms are activated:
- When preset temperature limit is reached.
- When each step of any programmed mode is terminated.
- When low humidity level is detected by the sensor.
- When the door is open.
- Door opening and low humidity alarm.
- Over temperature limit protection.
- Microprocessor PID feedback control of the heater and the fan ensuring temperature uniformity.
- Automatic temperature calibration.
- Ease-of-operation provided by a bright VFD, responsive touch buttons, and a jog dial.
- Memory function of programmed protocols allowing relevant parameters (such as temperature, rocking speed, time, etc.) of each protocol step to be stored.
- Up to 10 protocols allowed for memory storage.
- Up to 10 steps allowed for each protocol.



## HO-10 with the included Water Tray

#### Constructional Features

- Compact design for efficient lab space utilization.
- Transparent polycarbonate window providing a clear view of the chamber interior.
- Built-in sliding shelf for quick and convenient insertion or removal of samples.
- Sticky pad on sliding shelf for preventing accidental movement or spills of samples during operation.
- Drying function for the hybridization and washed membranes or strips.

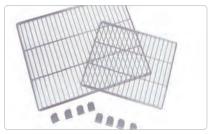
## Specifications & Ordering Information

	Model	HO-10
	Range (°C / °F)	Amb. +5 to 65 / Amb. +9 to 149
Temperature	Fluctuation at 50°, 9RPM (±° /°F)	0.5 / 0.9
	Variation at 50℃, 9RPM (±℃ / °F)	0.5 / 0.9
	MotionType	Rocking Motion
Shaking	Speed Range (RPM)	5 to 50
System	Tilt Angle	8.5°±1
	Max. Load (kg / lbs)	1/2.2
	Volume (L / cu ft)	10 / 0.4
	Sliding Shelf (WxD) (mm / inch)	256 x 198 / 10.1 x 7.8
Dimension	Internal (WxDxH) (mm / inch)	278 x 262 x 160 / 11 x 10.4 x 6.3
	External (WxDxH) (mm / inch)	400 x 410 x 264 / 15.7 x 16.1 x 10.4
	Net Weight (Kg / Ibs)	14 / 30.9
Electrical requ	irements (230V, 60Hz)	1.2A
Cat. No.		AAH1B011K
Electrical requ	irements (230V, 50 <sup>Hz</sup> )	2.4A
Cat. No.		AAH1B012K

1) Technical data according to DIN 12880.

## **Accessories & Options**

#### for Incubators







: Universal Platforms

### Wire Shelves

Stainless steel and electropolished shelves are readily removed without using tools for easy cleaning.

0.4 N		0 10 10 1		
Cat. No.	Included Maximum		W×L (mm / inch)	Suitable for
EDA8136	2	8	366×316 / 14.4×12.4	IB-05G
EDA8135	2	12	446×366 / 17.6×14.4	IB-15G
EDA8137	2	12	576×419 / 22.7×16.5	IB-25G
EDA8136	2	11	366×316 / 14.4×12.4	IB-01E
EDA8220	2	14	466×490 / 17.6×19.3	IB-11E
EDA8219	2	15	566×466 / 22.3×17.6	IB-21E
EDA8136	4	16	266. 216 / 14 4. 12 4	IB-02G-2C
EDA8130	8	32	366×316 / 14.4×12.4	IB-02G-4C
	2	12		IL-11 / 11A
EDA8219	4	24	566×466 / 22.3×17.6	IL-11-2C
	8	48		IL-11-4C
EDA8220	3	26	466×490 / 17.6×19.3	IL-21 / 21A
EDA8223	1	6	195×310 / 7.7×12.2	ILP-02
EDA8221	2	11	305×299 / 12×11.8	ILP-12
EDA8235	2	8	416×406 / 16.4×16.0	ISS-3075 / R
EDA8233	2	11	516×506 / 20.3×19.9	ISS-4075 / R
EDA8244	2	5	247×247 / 9.7×9.7	IM-10

#### Perforated Shelves

Stainless steel shelves are readily removed without using tools for easy cleaning.

C-4 N-		Control of Con	
Cat. No.	Maximum	W×L (mm / inch)	Suitable for
AAA12531	8	366×316 / 14.4×12.4	IB-05G
AAA12532	12	446×366 / 17.6×14.4	IB-15G
AAA12535	12	576×419 / 22.7×16.5	IB-25G
AAA12531	11	366×316 / 14.4×12.4	IB-01E
AAA22522	14	466×490 / 17.6×19.3	IB-11E
AAA22521	15	566×466 / 22.3×17.6	IB-21E
AAA12531	16	366×316 / 14.4×12.4	IB-02G-2C
AAA 1253 I	32	300×310 / 14.4×12.4	IB-02G-4C
	12		IL-11 / 11A
AAA22521	24	566×466 / 22.3×17.6	IL-11-2C
	48		IL-11-4C
AAA22522	26	466×490 / 17.6×19.3	IL-21 / 21A
AAA24501	6	195×310 / 7.7×12.2	ILP-02
AAA24502	11	305×299 / 12×11.8	ILP-12
AAA24511	5	247×247 / 9.7×9.7	IM-10

### Stacking Kits

Stackable up to 2 units using exclusive stacking kits for space saving. (for IB-G and IB-E Models only)

Cat. No.	Description	Suitable for
AAA21521	Stacking kits for stackable chambers	IB-05G
AAA21522	Stacking kits for stackable chambers	IB-15G
AAA21523	Stacking kits for stackable chambers	IB-25G
AAA26501	Stacking kits for stackable chambers	IB-01E
AAA26502	Stacking kits for stackable chambers	IB-11E
AAA26503	Stacking kits for stackable chambers	IB-21E

## **Accessories & Options**

#### for Incubated Shakers







: Plastic Clamps (Plastic)



: Funnel Clamps

#### Universal Platforms, Flask Clamps, and Funnel Clamps

Universal platforms provide flexibility for mixing assortments of test tubes and glassware of varying sizes on a single platform. Various clamps for Erlenmeyer flasks and separatory funnels are available.

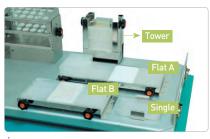
	Des	scription	IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
Universal platform	Cat.No.		AAA23501-V1	AAA23502-V1	AAA23505	AAA31501-V1	AAA31502-V1
		Erlenmeyer flask size	Max. mountable	e flask clamps			
	AAA23550	for 50 mL	28	45	88	36	55
	AAA23551	for 100 mL	24	36	54	28	44
	AAA23552	for 250 mL	13	18	35	13	24
	AAA23556	for 300 mL	13	18	35	13	24
Flask clamps	AAA23553	for 500 mL	9	13	24	10	16
ciamps	AAA23554	for 1L	4	7	15	5	8
	AAA23555	for 2L	2	5	11	4	5
	AAA23557	for 2.8L	1	2	6	2	4
	AAA23558	for 4L	-	-	6	-	2
	AAA23559	for 6L	-	-	5	-	2
		Erlenmeyer flask size	Max. mountable	e flask clamps			
	AAA30570	for 50 mL	22	30	72	28	39
	AAA30571	for 100 ~ 125 mL	16	25	54	16	29
Flask	AAA30572	for 200 mL	12	17	30	13	25
clamps	AAA30573	for 250 mL	9	17	30	12	20
(Plastic)	AAA30574	for 300 mL	9	17	30	12	16
	AAA30575	for 500 mL	8	9	24	9	12
	AAA30576	for 1L	4	8	12	5	9
	AAA30577	for 2L	2	4	6	4	5
		Seperating funnel size	Max. mountable	e funnel clamps			
	AAA23562	for 250 mL	4	6	18	4	6
Funnel	AAA23563	for 500 mL	2	3	11	2	3
clamps	AAA23564	for 1L	-	2	9	-	2
	AAA23565	for 2L	-	-	7	-	-

## **Accessories & Options**

#### for Incubated Shakers







: Microplate Holders



: Dedicated Platforms

#### Test Tube Racks

Easy to release and mount racks made of durable stainless steel with adjustable angle and tube height support. Test tube racks are used with an optional universal platform.

Description		IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R	
Universal platform	( at INO		AAA23501-V1	AAA23502-V1	AAA23505	AAA31501-V1	AAA31502-V1
		Test tube size	Mountable capa	acity of rack*			
	AAA23581	for 86 test tubes, Ø8mm / Ø0.3"			9	2	
	AAA23582	for 86 test tubes, Ø10mm / Ø0.4"					
	AAA23583	for 58 test tubes, Ø12mm / Ø0.5"					
Test tube	AAA23584	for 58 test tubes, Ø14mm / Ø0.6"					4
racks	AAA23585	for 32 test tubes, Ø17mm / Ø0.7	2	4			
	AAA23586	for 19 test tubes, Ø25mm / Ø1.0"					
	AAA23587	for 10 test tubes, Ø30mm / Ø1.2"					
	AAA23594	for 10 test tubes, Ø35mm / Ø1.4"					
	AAA23593	for 4 test tubes, Ø50mm / Ø1.9"					

<sup>\*</sup> No declination

### Microplate Holders

Available in three styles: tower type, flat type (small and large), and single type. Tower type holder is for 10 standard or deep well plates. Large flat holder is for 4 standard or deep well plates. Small flat holder is for 3 standard or deep well plates. Single type holder is for 1 standard or deep well plate. (standard well plates' height: 14.7mm)

Description		IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R		
Universal platform	Cat.No.		AAA23501-V1	AAA23502-V1	AAA23505	AAA31501-V1	AAA31502-V1	
		Microplate holder type	Max. mountable microplate holders					
	AAA23654	Single	7	12	25	8	15	
Microplate holders	AAA23651	Tower	5	7	22	6	10	
noiders	AAA23652	Flat A(large)	-	2	4	-	2	
	AAA23653	Flat B(small)	2	2	6	2	3	

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

#### **Dedicated Platforms**

When using a single flask size only, the dedicated platforms with pre-installed clamps provide maximum capacity. 250mL and 500mL clamps are standard but other sizes can be available.

Description		IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R	
	Cat.No.	Universal platform &250mL flask clamps	AAA23611	AAA23621	AAA23634	AAA31551	AAA31561
Dedicated platforms		No. of flask clamps	13	18	35	13	24
Dedicated platforms		Universal platform &500mL flask clamps	AAA23612	AAA23622	AAA23635	AAA31552	AAA31562
		No. of flask clamps	9	13	24	10	16

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

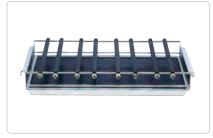
<sup>\*</sup> We can manufacture other size of test tube racks to meet your specific requirements. Contact us for details.

## **Accessories & Options**

#### for Incubated Shakers







: Spring Wire Racks

: Rubber Mats

: Universal Attachments

### Spring Wire Racks

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

	Description	IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
	Cat.No.	AAA23521-V1	AAA23522-V1	AAA23514	AAA31521-V1	AAA31522-V1
	Erlenmeyer flask size	Max. inserting fl	asks			
	for 50 mL	16	25	45	16	25
	for 100 mL	9	16	28	9	16
Spring wire racks	for 250 mL	4	9	18	4	9
	for 300 mL	4	9	18	4	9
	for 500 mL	4	5	15	4	5
	for 1L	2	4	10	2	4
	for 2L	1	2	6	1	2
	for 2.8L	1	2	4	1	2

#### Rubber Mats

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

Model	IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
Cat. No.	AAA23531	AAA23532	AAA23534	AAA31531	AAA31532

### Universal Attachments (Utility Carriers)

Several adjustable clamping bars for quickly securing a variety of glassware or tubes on non-skid rubber mats. Suitable for flatbottomed flasks of various sizes.

Model	IST-3075/R	IST-4075/R	ISF-7100/R ISF-7200/R	ISS-3075/R	ISS-4075/R
Cat. No.	AAA31511	AAA31512	AAA23505	AAA31511	AAA31512

#### Retractable Foot Caster

Lab Sticker

Cat. No.	Description (WxDxH) (mm / inch)	Suitable for
AAA23801	700x733x145 / 27.6x28.9x5.7	ISS-3075 / 3075R
AAA23802	800x813x225 / 31.5x32x8.9	ISS-4075 / 4075R

\* Above products design is subject to change.

## conventional flask clamps. For safe operation, gradual RPM increase is recommended.

An alternative method for securing vessels to a shaker platform. Ideal for containers such as bottles and dishes that cannot be held on the universal platform with

Cat. No.	Description (WxDxH) (mm / inch)
AAA30551 200:	×200×5 / 7.9×7.9×0.2



