# Stackable up to three units for maximum utilization of lab spaces.

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





# Advantages of Stackable Model

- Large shaking capacity chamber allows user to freely organize different size of samples.
- 198L chamber can accommodate six of 4L flasks and also thirty nine of 250ml flasks. You can make the capacity triple, if you stack three units
- · Maximize your space with our triple stackable incubated shaker.
- Highly recommended for users who want to maximize limited space. Have three units in your lab while taking up minimal space.
   In addition, high rpm is still guaranteed even when you stack up 3 units.
- Lift up opening door and slide out platform enables easy sample handling.
- Door is opened upward and stayed open for hands-free handling. Slide type universal platform let you access to all samples, even ones placed at the back.
- Optional stand is available and highly recommended for comfort use. Setting your incubated shaker at your height let you feel totally relaxed when you use it anytime. (optional)

## ISS-7100R / ISS-7200

with optional accessories

Standard accessories

Stacking kits, Retractable foot caster

Optional accessories see page 95-97

- · Universal platforms, Flask clamps, Universal attachments
- · Stands, Gateway

#### Control display



#### Lift up opening door



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























#### **Performance**

- · Temperature range.
- Ambient +10°C to 80°C for ISS-7100 / 7200.
- Ambient -20°C (Min. 4) to 80°C for ISS-7100R / 7200R.
- Competitive high shaking speed up to 400 rpm. (Stackable up to 250rpm)
- from 30 to 400 rpm (stackable : 30 to 250) for ISS-7100(R)
- from 30 to 300 rpm (stackable : 30 to 200) for ISS-7200(R)
- · Orbital shaking motion in various diameters.
- 25.4mm for ISS-7100(R)
- -50.8 mm for ISS-7200(R)
- · Microprocessor PID control.
- Three point temperature calibration / Automatic tuning.
- · 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.
- · Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity.
- Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shock.
- · Pleasant test environment by the smooth acceleration and deceleration control.
- Smooth start and smooth stop function prevents chemical spills from flasks or test tubes.
- · High-velocity fan ensures uniform temperature distribution and rapid thermal recovery after door open.
- · Air-tight silicone door seal to provide excellent temperature uniformity.

#### Convenience

- Intuitive touch screen LCD controller with easy icons and logical menus.
- Easy-set digital timer for shaking operation. (1 min. to 999 hr. 59 min.)
- · Wide sample monitoring.
- Clear observation of samples without affecting inner chamber's environment thanks to the transparent viewing window with bright LED lamps.
- 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.
- Built-in electrical outlet with a safety cover inside the chamber.
- · Corrosion resistance stainless steel interior.
- Easy-access drain system with a quick disconnect valve offers great convenience to clean up of spills.
- Built-in RS-232 port and USB port for external control and data collection.
- The unit comes with retractable foot caster, beneficial for easy mobility during installation or relocation.

# Safety

- · Automatic run after power interruption.
- Temperature and shaking speed deviation alarm.
- · Over-current protection.
- Triple independent temperature monitor system.
- Temperature deviation alarm (High/Low)
- Electronic temperature limiter (High/Low)
- Mechanical over-temperature limiter (High)
- $\bullet$  Environment-friendly CFC-free refrigerant. (for ISS-7100R / 7200R)

	Model	ISS-	7100	ISS-7	100R	ISS-	7200	ISS-7	200R	
	Range (°c / °F)	Amb. +10 to / Amb. +18 to		Amb20 (Min / Amb36 (Mi		Amb. +10 to / Amb. +18 to		Amb20 (Min. / Amb36 (Mi		
Temperature	Fluctuation at 37℃ in flask (±℃ / ℉)	0.1 / 0.18								
	Variation at 37°C in flask (±°C / °F)	0.5 / 0.90	5/0.90							
	Refrigerator (Hp)	-		1/6Hp		-		1/6Hp		
	Motion type	Orbital								
	Amplitude size (mm / inch, dia.)	25.4 / 1				50.8 / 2				
Chaliana	Speed range (rpm)	30 to 400 (stackable <sup>2)</sup> : 30 to 250)				30 to 300 (stackable <sup>2)</sup> : 30 to 200)				
Shaking system	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	20 / 44.1 at 400 rpm 15 / 33.1 at 250 rpm (stacked) 20 / 33.1 at 200 rpm (stacked)				20 / 44.1 at 300 rpm 15 / 33.1 at 200 rpm (stacked) 20 / 44.1 at 150 rpm (stacked)			
	Volume (L / cu ft)	198 / 7.0								
	Platform (W×D, mm / inch)	755x520 / 2	9.7x20.5							
Dimension	Interior (W×D×H, mm / inch)	809×624×3	93 / 31.9×24.0	6×15.5						
	Exterior <sup>1)</sup> (W×D×H, mm / inch)	1310x996×7	755 / 51.6x39.	2x29.7						
Net weight (kg / lbs)		365 / 804.7		375 / 826.7		365 / 804.7		375 / 826.7		
Electrical requirements (230V)		60Hz, 3.7A	50Hz, 3.7A	60Hz, 5.6A	50Hz, 5.6A	60Hz, 3.7A	50Hz, 3.7A	60Hz, 5.6A	50Hz, 5.6A	
Cat. No.		AAH238131K	AAH238132K	AAH238231K	AAH238232K	AAH239131K	AAH239132K	AAH239231K	AAH239232K	
Electrical requ	uirements (120V)	60H:	z, 7.1A	60H	z,10A 60Hz, 7.1A		60Hz,10A			
Cat. No.		AAH23		AAH23		AAH23		AAH23		

<sup>\*</sup>Temp. change may occur during automatic defrost. (for ISS-7100R/7200R) \* FDA establishment registered company. FDA listed products.

<sup>1)</sup> Main body dimension with retractable foot caster.

<sup>2)</sup> Stacked with stand or products.

#### for Incubated Shakers









Flask clamps

Plastic clamps (plastic)

Funnel clamps

Dedicated platforms

## Universal platforms / Flask clamps / 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.

Dae	cription	Model	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
		Platform size	350×350mm / 13.8x13.8inch	450×450mm / 17.7×17.7inch	755×520mm / 29.7×20.5inch	755×520mm / 29.7×20.5inch	350×350mm / 13.8x13.8inch	450×450mm / 17.7×17.7inch
Universal platf	orm		AAA23501-V3	AAA23502-V3	AAA23503-V3	AAA23503-V4	AAA23501-V3	AAA23502-V3
	Erlenmeyer flask s	size	Max. mountab	le flask clamps				
	for 50 ml	AAA23550	36	49	88	88	36	49
	for 100 ml	AAA23551	24	39	68	68	24	39
	for 250 ml	AAA23552	14	20	39	39	14	24
Flask	for 300 ml	AAA23556	14	20	39	39	14	24
clamps	for 500 ml	AAA23553	9	16	28	28	9	16
(Stainless steel)	for 1L	AAA23554	6	9	18	18	6	9
	for 2L	AAA23555	4	5	11	11	4	6
	for 2.8L	AAA23557	2	4	8	8	2	5
	for 4L	AAA23558	-	-	6	6	-	4
	for 6L	AAA23559	-	-	5	-	-	2
	Erlenmeyer flask s	size	Max. mountab	le flask clamps				
	for 50 ml	AAA30570	36	49	88	88	36	49
	for 100 ~ 125 ml	AAA30571	19	29	48	48	19	29
Flask	for 200 ml	AAA30572	13	21	35	33	13	21
clamps	for 250 ml	AAA30573	13	19	35	33	13	19
(plastic)	for 300 ml	AAA30574	12	19	35	33	12	19
	for 500 ml	AAA30575	9	12	24	24	9	12
	for 1L	AAA30576	4	9	12	12	5	9
	for 2L	AAA30577	2	4	8	8	4	5
	separatory funnel	size	Max. mountab	le funnel clamps				
	for 250 ml	AAA23562	4	6	15	15	4	6
Funnel clamps	for 500 ml	AAA23563	2	4	10	10	3	4
CiaiTips	for 1L	AAA23564	-	3	7	7	-	3
	for 2L	AAA23565	-	-	5	5	-	-

 $<sup>\</sup>ensuremath{\mathbb{X}}$  Above accessories need to be mounted on a 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.

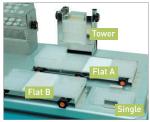
Description	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Universal platform &250mL flask clamps	AAA23611-V1	AAA23623-V1	AAA23634	AAA23637	AAA23611-V1	AAA23621-V1
No. of flask clamps	14	20	39	39	14	20
Universal platform &500mL flask clamps	AAA23612-V1	AAA23622-V1	AAA23635	AAA23636	AAA23612-V1	AAA23622-V1
No. of flask clamps	9	16	28	28	9	16

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

# **Accessories & Options**

#### for Incubated Shakers









Test tube racks

Microplate holders (universal platform is optional)

Rubber mats

Universal attachments

### **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-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Universal platform		AAA23501-V3	AAA23502-V3	AAA23053-V3	AAA23503-V4	AAA31501-V3	AAA23502-V3
Test tube size		Mountable cap	acity of rack*				
for 86 test tubes, Ø8mm / Ø0.3"	AAA23581						
for 86 test tubes, Ø10mm / Ø0.4"	AAA23582						
for 58 test tubes, Ø12mm / Ø0.5"	AAA23583						
for 58 test tubes, Ø14mm / Ø0.6"	AAA23584						
for 32 test tubes, Ø17mm / Ø0.7	AAA23585	2	4	7	7	2	4
for 19 test tubes, Ø25mm / Ø1.0"	AAA23586						
for 10 test tubes, Ø30mm / Ø1.2"	AAA23587						
for 10 test tubes, Ø35mm / Ø1.4"	AAA23594						
for 4 test tubes, ø50mm / ø1.9"	AAA23593						

<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 plates (standard well plates' height: 14.7mm)

Description		IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Universal platform		AAA23501-V3	AAA23502-V3	AAA23053-V3	AAA23503-V4	AAA31501-V3	AAA23502-V3
Microplate holder type		Max. mountab	le microplate hole	ders			
Single	AAA23654	8	15	25	25	8	15
Tower	AAA23651	5	8	21	21	6	10
Flat A(large)	AAA23652	-	2	4	4	-	2
Flat B(small)	AAA23653	2	2	6	6	2	3

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

## **Rubber mats**

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

Description	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Cat. No.	AAA23531	AAA23532	AAA23534	AAA23535	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 flat-bottomed flasks of various sizes.

Description	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Cat. No.	AAA23511-V1	AAA23512-V1	AAA23505	AAA23513	AAA23511-V1	AAA23512-V1



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









Spring wire racks Lab sticker (two tier rack with flexible crossed spring) (universal platform is optional)

Stand (stand 1 / stand 2)

Retractable foot caster

## 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-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Cat.No.	AAA23521-V1	AAA23522-V2	AAA23514	AAA23526	AAA31521-V1	AAA31522-V1
Erlenmeyer flask size	Max. inserting flask	(S				
for 50 mL	16	25	45	45	16	25
for 100 mL	9	16	28	28	9	16
for 250 mL	4	9	18	18	4	9
for 300 mL	4	9	18	18	4	9
for 500 mL	4	5	15	15	4	5
for 1L	2	4	10	10	2	4
for 2L	1	2	6	6	1	2
for 2.8L	1	2	4	4	1	2

## Lab sticker

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

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

# Stacking kits

Units are stackable using exclusive stacking kits for space saving.

Cat. No.	Description	Suitable for
AAA23573	Stacking kits for stackable chambers	ISS-7100(R), ISS-7200(R)
AAA23811	Stacking kits for stackable chambers	ISS-3075(R)
AAA23812	Stacking kits for stackable chambers	ISS-4075(R)

## **Stands**

Perfectly designed to let users feel totally relaxed by leveling the height.

Cat. No.	Suitable for	
AAA23571	Stand 1 with Stacking kits (600mm / 23.6" height for stacking 1 unit)	ISS-7100(R),
AAA23572	Stand 2 with Stacking kits (300mm / 11.8" height for stacking 2 units)	ISS-7200(R)

## Retractable foot caster

Highly beneficial for easy mobility during installation or relocation.

Cat. No.	Description	Suitable for
AAA23801	Retractable foot caster (700x733x145mm / 27.6x28.9x5.7")	ISS-3075(R)
AAA23802	Retractable foot caster (800x813x225mm / 31.5x32x8.9")	ISS-4075(R)

## **Gateway**

Establish Jeio Tech Network by Gateway. No computer use is required at all. Remote monitoring of operating status through a mobile device (Android only) is simply available when you place a Gateway in your laboratory. Maximum 4 units can be connected to Gateway by RS-232 cable.

Cat. No.	Description	Suitable for
AAAQ1011	Gateway (2.4GHz, 100~240V, 50/60Hz)	IL3 models IST, ISF, ISS models





Gateway

Remote control through a mobile device (Android only)