



Yamato Stirrers and Shakers

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Magnetic Stirrer with Hot Plate



MG600H-115V MG600H-220V

Stirring rate (rpm)	300~1500 MG600H	Stirring capacity(ml)	100~2000 x 6 MG600H	Plate max. temp.	250°C MG600H
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6 Point Controllable Type (individual stirring heating)

MG600H-115V / MG600H-220V

- Rotation and heating can be adjusted individually
- Equipped with circuit protector
- Chemical resistant ceramic coating hot plate



■ Specifications

Model	MG600H-115V MG600H-220V
Plate material	Aluminum with ceramic coating
Plate dimensions	ø126mm x 6 pcs.
Stirring capacity	100~2000ml x 6 pcs.
Stirring rate	300~1500rpm
Hot plate	W230mm x 6 pcs. Individual temp. control (set by volume with OFF)
Cooling	--
Heater	230W x 6 pcs.
Temp. control	Triac input control type
Hot plate temp.	Max.250°C
Motor	AC shading motor
Power source (50/60Hz)	AC115V 13.5A AC220V 7A
External dimensions*	W606 x D420 x H122 mm
Weight	~14 kg
Accessory	Stirrer bar 30mm 6 pcs.

* Protrusions excluded

Magnetic Stirrer



MFD800 / MFD810

Max. Speed Range 50 ~ 1600 rpm

Strong magnetic stirrer for chemical synthesis experiments



Operation and functions

- Simple operation
- Variable and convenient rotation functions
- Corrosion and chemical resistant ceramic coating stirring plate
- Strong magnetic force allows continuous stirring even when flask is removed
- Stirrer detachment detection function
- Recommended to work together with oil bath BOG and BOS Series

Specifications

Model	MFD800	MFD810
Max. stirring capacity (H ₂ O)	20L	
Plate material	Aluminum die casting	
Plate dimensions	Ø135 diameter	
Speed range	50 to 1600 rpm (set in 10 rpm increments)	
Operating temperature range	4°C to 40°C (set in 1°C increments)	
Motor	DC brushless motor (31W)	
Magnet	Neodymium magnet	
Display	White LED digital display	
Exterior parts material	Aluminum die cast (ceramic coating)	
Rotation mode	Constant speed, step out detection, intermittent, auto reverse, slow-up	
Safety functions	Overcurrent fuse	
Standard load capacity	30 kg or less	
External dimensions WxDxH	165 × 275 × 90 mm	
Power supply (50/60 Hz)	115V 0.25A	230V 0.15A
Weight	2.8 kg	
Included accessories	1 heat plate, 1 protective cover, 2 screw caps, 1 power cord, 1 spare fuse (internal circuit, service outlet)	

MFD combination

MFD800 + BOG oil bath



MFD800 + BOG oil bath + LM200 flask mixer



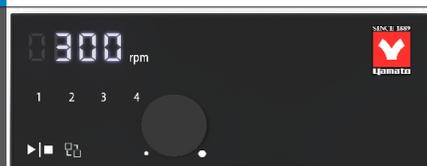
BOG Oil Bath



BOS Oil Bath



Control Panel



Rotation Mode Display

When mode number LED is off, unit rotates at a constant speed.

- No. 1: Step out detection
- No. 2: Intermittent
- No. 3: Auto reverse
- No. 4: Slow-up

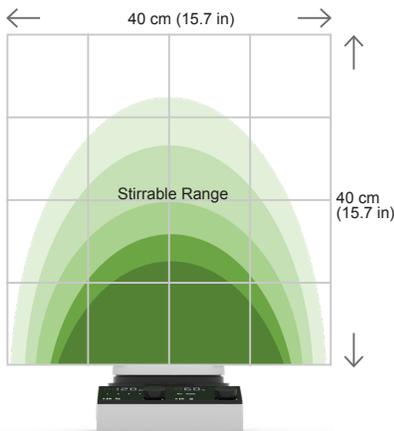
BOG/BOS Series Bath



These oil baths fit perfectly with MFD800/810 as plate can be inserted at the bottom of the oil bath preventing risk of moving or slipping due to vibration.

Magnetic Force

Strong magnetic force allows stirring to continue even when flask is removed from the stirring table.
Range that can be stirred varies depending on the shape of the stirrer and the viscosity of the sample, but the figure shows an image of the range that can be stirred when the load is small.



Optional items

Product code	Model	Description
281395	OA154	Protective cover
281381	OA143	Pole set
281384	OA146	Container fall prevention frame
281385	OA147	Stage for lab jacks
281587	OA183	Power cord (round terminal 2m)
281382	OA144	Aluminum block handle
281383	OA145	Dual-handed aluminum block handle

Magnetic Stirrer with Hot Plate



MFH800 / MFH810

Speed Range 50 ~1600 rpm

Temp. control range RT +25°C to 310°C

Strong magnetic stirrer with hot plate for chemical synthesis experiments

Operation and functions

- Simple and intuitive operation
- Variable and convenient rotation functions
- Corrosion and chemical resistant ceramic coating stirring plate
- Equipped with circuit protector
- Strong magnetic force allows continuous stirring even when flask is removed
- Stirrer detachment detection function
- Recommended to work together with oil bath BOG and BOS Series
- Multiple options for aluminum block systems for oil-less synthesis experiments



281568



281424



281421 / 281422



281430



281577

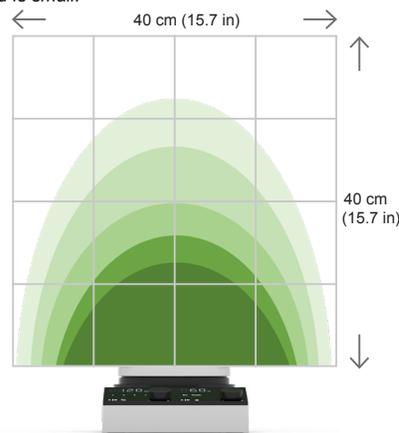
Specifications

Model	MFH800	MFH810
Max. stirring capacity (H ₂ O)	20L	
Plate material	Aluminum die casting (ceramic coating)	
Plate dimensions	Ø135 diameter	
Speed range	50 to 1600 rpm (set in 10 rpm increments)	
Temperature control range	RT +25°C to 310°C (set in 1°C increments)	
Temperature control accuracy	±1.5°C @ 100°C (internal temperature sensor) ±1.0°C @ 50°C (external temperature sensor)	
Motor	DC brushless motor (31W)	
Magnet	Neodymium magnet	
Display	White LED digital display	
Temperature control method	PID control	
Temperature sensor	PT100	
Heater	600W mica heater	
Exterior parts material	Aluminum die cast	
Rotation mode	Constant speed, step-out detection, intermittent, auto reverse, slow-up	
Safety functions	Overcurrent fuse, temperature upper limit error, overheating prevention (fixed temperature), high temperature warning	
Additional features	Service outlet, temperature high limit function, power failure recovery mode selection, calibration offset function	
Standard load capacity	30 kg or less	
Overcurrent fuse capacity	For internal circuit: 7A	For internal circuit: 5A
	For service outlet: 5A	
External dimensions WxDxH	165 × 275 × 90 mm	
Power supply (50/60 Hz)	115V 6A	220V 3A
Weight	3 kg	
Included accessories	1 heat plate, 1 protective cover, 2 screw caps, 1 power cord, 1 spare fuse (internal circuit, service outlet), 1 external temperature sensor	

Magnetic Force

Strong magnetic force allows stirring to continue even when flask is removed from the stirring table.

Range that can be stirred varies depending on the shape of the stirrer and the viscosity of the sample, but the figure shows an image of the range that can be stirred when the load is small.

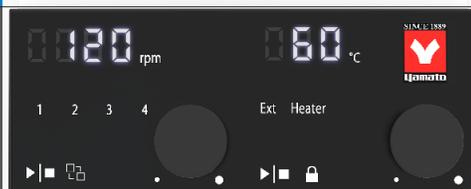


MFH800 with aluminum block samples

MFH800 + 281422



Control Panel



Rotation Mode Display

When mode number LED is off, unit rotates at a constant speed.

- No. 1: Step out detection
- No. 2: Intermittent
- No. 3: Auto reverse
- No. 4: Slow-up

Optional items

Product code	Model number	Description
281396	OA155	Protective cover
281394	OA153	External temperature sensor
281381	OA143	Pole set
281384	OA146	Container fall prevention frame
281385	OA147	Stage for lab jack
281587	OA183	Power cord (round terminal 2m)
281382	OA144	Aluminum block handle
281383	OA145	Dual-handed aluminum block handle



Part Number	Code	Description	Weight	Compatible Containers
281432	OA167	Aluminum block	1.7 kg	Eggplant flask 200 mL
281436	OA171	Aluminum block	1.6 kg	Eggplant flask 300 mL
281566	OA172	Aluminum block	1.8 kg	Eggplant flask 500 mL
281567	OA173	Aluminum block	2.4 kg	Eggplant flask 1000 mL
281568	OA174	Aluminum block	2.4 kg	Eggplant flask 2000 mL
281572	OA175	Aluminum block	1.7 kg	Round flask 200 mL
281573	OA176	Aluminum block	1.7 kg	Round flask 300 mL
281574	OA177	Aluminum block	1.7 kg	Round flask 500 mL
281575	OA178	Aluminum block	2.4 kg	Round flask 1000 mL
281576	OA179	Aluminum block	2.4 kg	Round flask 2000 mL
281423	OA158	Aluminum plate	1.6 kg	Vial bottle Φ 12 mm 40 frame
281424	OA159	Aluminum plate	1.4 kg	Vial bottle Φ 15 mm 38 frame
281425	OA160	Aluminum plate	1.3 kg	Vial bottle Φ 17 mm 38 frame
281426	OA161	Aluminum plate	1.3 kg	Vial bottle Φ 18 mm 34 frame
281427	OA162	Aluminum plate	1.2 kg	Vial bottle Φ 21 mm 30 frame
281428	OA163	Aluminum plate	1.7 kg	Vial bottle Φ 30 mm 12 frame
281429	OA164	Aluminum plate	1.4 kg	Vial bottle Φ 35 mm 12 frame
281421	OA156	Base holder	0.4 kg	Adapter block 1 dress up
281422	OA157	Base holder	0.6 kg	Adapter block 3 dress up
281434	OA169	Adapter block	0.6 kg	Eggplant flask 10 mL
281433	OA168	Adapter block	0.6 kg	Eggplant flask 20 mL
281430	OA165	Adapter block	0.6 kg	Eggplant flask 30 mL
281431	OA166	Adapter block	0.6 kg	Eggplant flask 50 mL
281435	OA170	Adapter block	0.5 kg	Eggplant flask 100 mL
281577	OA180	Adapter plate	0.6 kg	Vial bottle Φ 12 mm 8 frame
281578	OA181	Adapter plate	0.6 kg	Vial bottle Φ 16 mm 6 frame
281579	OA182	Adapter plate	0.5 kg	Vial bottle Φ 24 mm 4 frame



Aluminum block
281568



Aluminum plate
281424



Base holder
281421 / 281422

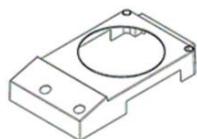


Adapter block
281430



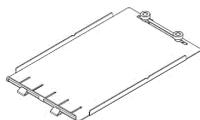
Adapter plate
281577

Part Number	Description	Code	Remarks
281395	Protective cover for MFD	OA154	Silicon protective cover protects the main unit from dirt and scattering of samples
281396	Protective cover for MFH	OA155	
281394	External temperature sensor	OA153	Sensor used when external temperature control is performed with MFH
281381	Pole set	OA143	Pole for fixing baths and mixers $\Phi 10 \times 480$ mm
281384	Container fall prevention frame	OA146	Variable frame to prevent containers such as beakers from falling when placed on the stirring table
281385	Stage for lab jack	OA147	Allows main unit to be placed on a lab jack
281587	Power cord (round terminal 2m)	OA183	Round terminal power cable
281382	Aluminum block handle	OA144	Handle to carry hot aluminum block with one hand
281383	Dual-handed aluminum block handle	OA145	Handles to carry hot aluminum blocks with both hands
231632	Muff	OLM44	$\Phi 5 \sim \Phi 13$ mm
231633	Muff	OLM46	$\Phi 6 \sim \Phi 17$ mm
231634	Muff	OLM48	$\Phi 9.5 \sim \Phi 29$ mm
231635	Double opening clamp	OLM50	Tightening adjustment range 3~55 mm, shaft $\Phi 10$ mm
231636	Double opening clamp	OLM52	Tightening adjustment range 3~80 mm, shaft $\Phi 20$ mm
222193	Glass tank for BOG100	OBO14	Mounted on MFH and used as an oil bath $\Phi 150$ mm 1.0L
222194	Glass tank for BOG200	OBO16	Mounted on MFH and used as an oil bath $\Phi 180$ mm 2.2L
281386	High magnetic agitator	OA148	Oval $\Phi 6 \times 15$
281390	High magnetic agitator	OA149	Octagon $\Phi 3 \times 13$
281391	High magnetic agitator	OA150	Octagon $\Phi 8 \times 13$
281392	High magnetic agitator	OA151	Octagon $\Phi 8 \times 38$
281393	Magnetic agitator	OA152	Micro $\Phi 2 \times 5$, set of 5
F-4028-02	Magnetic agitator	TB-20	$\Phi 7 \times 20$ 12 pcs.
F-4028-03	Magnetic agitator	TB-30	$\Phi 8 \times 30$ 12 pcs.
F-4028-04	Magnetic agitator	TB-40	$\Phi 8 \times 40$ 12 pcs.
F-4025-04	Magnetic agitator	A-43	$\Phi 13 \times 43$ 6 pcs.



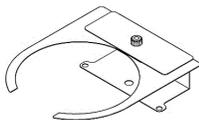
Protective cover (MFH)

281396



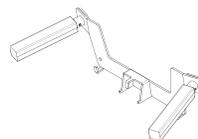
Stage for lab jack

281385



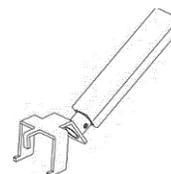
Container fall prevention frame

281384



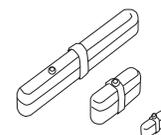
Dual-handed aluminum block handle

281383



Aluminum block handle

281382



High magnetic agitator

281390 / 281391 / 281392

Laboratory Stirrer



LT400/500 Series

Max. Speed Range 3,000rpm (400 model) 1,200rpm (500 model)

Operation Wide speed range
Wide torque range



LT400B

*Operational accessories purchased separately



LT series stirrers include LT400A and LT500A with higher torque, LT400B and LT500B with well-balanced speed and torque, and LT400C with high speed to support different applications.

- Highly sensitive feedback system keeps the set speed even with changing viscosity during stir
- Maintenance free DC brushless motor
- Digital speed indicator for accurate speed setting and confirmation
- Noise prevention measures for optimal work environment
- More safety-oriented design

Specifications

Model	LT400A	LT400B	LT400C	LT500A	LT500B
Viscosity of sample	High	Medium	Medium-low	High	Medium
Speed range	10~300rpm	15~600rpm	25~1,200rpm	15~600rpm	25~1,200rpm
Torque	0.9N·m (9.0kgf·cm)	0.5N·m (5.0kgf·cm)	0.3N·m (3.0kgf·cm)	1.0N·m (10.0kgf·cm)	0.6N·m (6.0kgf·cm)
Motor	DC brushless motor 30W				
Speed control	Feedback control				
Panel display	Digital speed display, Overload display ^{*1} , Torque indicator (20% gradation) ^{*2}				
Chuck	ø8mm drill chuck				
Safety device	Current limit circuit ^{*3} , Thermal protector ^{*4} , Drill chuck cover				
External dimensions	W146 x D154 x H165mm				
Power source	AC100V~AC125V 50/60Hz				
Power cord	Power supply cord with bipolar grounding type plug 2m				
Weight	2.4kg				
Included accessories	Clamp, Safety cover, Chuck handle				
Operational accessories*	Stirring shaft (stainless steel or glass), propellers (different types and sizes), stand and rod				

*1, When load exceeding the maximum torque is applied, tachometer display flashes.

*2, Torque indicator LED displays the loading status by 5 gradation.

*3, When load exceeding the maximum torque is applied, current limit circuit automatically controls the current to protect the motor.

*4, When temperature of the motor exceeds the upper limit temperature, thermal protector shuts off the current flowing to the motor and prevents it from burnout.

Digital Laboratory Stirrer

LR500A/B Series

Max. Speed Range 1,000rpm

Operation Low noise
Maintenance free

- DC brushless motor considered superior in safety as there are no brushes to cause sparks and no brush replacement required
- Direct-drive system reduces noise and require low maintenance
- Achieves high torque enabling stirring of high viscosity solution
- Digital tachometer for easy speed setting and

- confirmation
- Load on the stirring shaft can be monitored by LED2 display. An overload lamp turns on when exceeding the maximum load, stopping the motor automatically
- Revolution feedback control function can maintain the setting rate despite change of load (especially suitable for high viscosity samples)

Specifications

Model	LR500A	LR500B
Speed range ^{*1}	34~340rpm	100~1,000rpm
Max. torque	1.96N·m (20kgf·cm)	0.98N·m (10kgf·cm)
Display of speed / torque	Digital, 3-digit / Green LED, 2 Steps + Overload Display	
Motor (brushless DC)	70W	100W
Speed control	Speed Feedback Control	
Safety device	Stops when overloaded	
Stirring function / shaft dia.	Gearless Direct Drive Type / ø10mm	
Power source	AC100 -125V, 50/60Hz, 3A	AC100 -125V, 50/60Hz, 3.5A
Included accessories	Stirring shaft (ø10*500mm), 75mm 4-blade propeller, clamp	
Operational accessories*	Stand and rod	
Optional accessories	Propellers (different types and sizes), vacuum adapter, extra long stirring shaft (ø10*800mm), glass stirring shaft	

*1, No load



LR500A

*Operational accessories purchased separately

Adapter for depressurizing stirrer (for LT400/500)

Material	Fluoride resin & Nitrile rubber		
Stirrer shaft	ø8mm		
Vacuum level	6.7Pa (5×10 ⁻² Torr)		
Accessories	Oil Seal (Nitrile rubber) 2pcs.		
Joint type	T24/40	Product code	231380
	T29/42		231381



Additional stirrer support (for LT400/500)

Product code	231382
Size	Max. 3L beaker 2pcs.
Stirrer shaft	ø8mm
Stirrer shaft interval	135mm
Belt	O-ring (VitonP120)
Accessories	Hexagon wrench (2pcs.)
	Belt (1pc.)
	Chuck handle (1pc.)
	Clamp (1pc.) Puller (1pc.)



Adapter for depressurizing stirrer (for LR500)

Material	Fluoride resin & Nitrile rubber		
Stirrer shaft	ø10mm		
Vacuum level	6.7Pa (5×10 ⁻² Torr)		
Accessories	Oil Seal (Nitrile rubber) 2pcs. Stirring propeller for small mouth		
Joint type	T24/40	Product code	231097
	T29/42		231098



Additional stirrer support (for LR500)

Product code	231096
Size	Max. 3L beaker 2pcs.
Stirrer shaft	ø10mm
Stirrer shaft interval	135mm
Belt	O-ring (VitonP120)
Accessories	Hexagon wrench (2pcs.)
	Belt (1pc.)
	Chuck handle (1pc.)
	Clamp (1pc.) Puller (1pc.)



*Use with propeller less than 60mm

PTFE Stirring shaft and propeller



Product code	Product name	Model	Rod diameter	Length	Propeller	Material
F-4011-01	PTFE coated stirring shaft (with propeller)	LT400/500	ø8mm	450mm	Length 80mm	PTFE upper stainless
F-4012-04	PTFE coated stirring shaft (with propeller)	LT400/500	ø8mm	500mm	Length 100mm	PTFE internal iron core
F-4013-01	PTFE large stirring shaft	LT400/500	ø8mm	600mm	Width 16 x length 80mm	PTFE internal stainless bar
F-4013-02		LR500	ø10mm	800mm	Width 20 x length 120mm	PTFE internal stainless bar
F-4014-04	PTFE propeller type coated stirring shaft	LT400/500	ø8mm	450mm	Dia. ø52mm	PTFE upper stainless



Product code	Product name	Rod diameter	Length
F-4053-01	PTFE coated stirring shaft for LT400/500	ø8mm	350mm
F-4053-02		ø8mm	450mm
F-4053-03		ø8mm	500mm
F-4053-04		ø8mm	600mm

● F-4022 and F-4053 must be purchased together

Product code	Product name	Propeller diameter
F-4022-01	PTFE coated half-moon blade propeller	40×16mm×3t
F-4022-02		50×19mm×3t
F-4022-03		60×19mm×4t
F-4022-04		75×20mm×4t
F-4022-05		90×24mm×4t
F-4022-06		100×24mm×4t
F-4022-07		125×30mm×5t
F-4022-08		150×30mm×5t

Propellers



4-blade propeller

Standard
Material: Stainless steel SUS 304

Product code	Propeller diameter	Mounting screw
280078	75mm	M5
280079	60mm	M5
LR41AY0003	40mm	M5



Folding propeller

For narrow mouth bottle (up to I.D.18mm)
Material: Stainless steel SUS 304

Product code	Propeller diameter	Mounting screw
LR41AY0006	45mm	M5



2-blade glass propeller

Use for corrosive or strong acid samples
Material: Hard glass

Product code	Model	Propeller Ø	Shaft Diameter
231385	LT400/500	60mm	ø8



2 blade propeller

For wide mouth bottle. Use for high viscosity samples.

Product code	Propeller diameter	Mounting screw
LR41AY0009	100mm	M5
LR41AY0008	28mm	M5



Round plate turbine

Use for deep container for less air intake during stirring

Product code	Propeller diameter	Mounting screw
LR41AY0022	100mm	M5
LR41AY0010	60mm	M5



2 stage round plate turbine

Material: Stainless steel SUS 304

Product code	Model	Propeller Ø	Mounting screw
2310630101	LR500	60mm	ø10
231386	LT400/500	60mm	ø8

Stirring shaft

Product code	Model	Diameter	Material
231384	LT400/500	500mm ø8mm	SUS316
LR41AY0002	LR500	800mm ø10mm	SUS316



Fixing Support for Water Bath (for LT400/500, LR500)

Max. thickness of container's edge	Max. 35mm
Stirring shaft's changeable angle	Up to 60°
Product code	231032



Stand & Rod Set

Product code	Product name	Dimension
LR-41-124	Stand & rod set	~7kg
2310030209	Rod	Length 725mm E.D. 25mm
YSA000194	U-stand	Width 400mm Depth 420mm



Heating Magnetic Stirrer

MADE
IN
JP

MB800-115V

Stirring rate 70 ~ 1200 rpm

Stirring capacity 100 ml to 10L



Equipped with optimum heat prevention function for oil bath

- Chemical-proof, anodized aluminum finish top plate
- Employs a magnetic stirrer bar to agitate solutions
- High-powered electronic controlled AC motor which provides stable rotation
- Power supply to the outlet for oil bath can be cut off and stopped when the temperature of the bottom of the oil bath reaches the specified value
- Suitable for BO500 oil bath

Specifications

Model	MB800-115V
Top plate material	Aluminum
Top plate dimensions	W250×D270 mm
Stirring capacity	100 ~ 10000 ml
Stirring rate	70 ~ 1200 rpm
Temp. control	Triac input control type
Motor	AC motor, condenser motor
Overheat prevention function	70 to 200°C
Sensor	Thermistor type
Safety device	Overheat prevention device for oil bath, earth leakage breaker
Power source (50/60Hz)	AC115V 8.7A with external transformer
External dimensions*	W250 × D270 × H150 mm
Weight	~4.2kg
Included accessory	Magnetic stirrer bar 40mm 1pc.

* Protrusions excluded

Compact Shaker

MK161-115V MK161-220V



Shaking frequency 20 ~ 200 rpm

Shaking range 30 mm

Rotary, elliptical and reciprocate motion

- Compact, space saving design
- Changeable rotary, elliptical and reciprocate motion for mixing, extracting and stirring of samples
- Stable and high torque shaking power and speed with the DC brushless motor
- Shaking frequency and timer are dial setting and digital display
- Shake pause function, timer function and constant operation by one switch
- Selectable mixing, extracting and stirring patterns when used with different shaking stage and racks (optional item)
- Can be placed inside IN604W incubator for shaking incubation

Specifications

Model	MK161-115V MK161-220V
Shaking mode	Rotary, Elliptical and Reciprocate (manual operation)
Shaking range	Rotary:30mm Reciprocate: 30mm
Shaking frequency	20~200rpm
Frequency controller	Dial Setting, Digital Display
Timer	Dial Setting, Digital Display / Digital 0.1min. (6 sec.) to 99.9hr.
Shaking stage dimensions	Main Unit : W300 x D254mm, Stage : W290 x D250mm
External dimensions	W350 x D300 x H150mm
Weight	~15kg
Power source 50/60Hz	AC115V 0.5A AC220V 0.3A



Example of using mounting stage and erlenmeyer flask holder clamps (optional)



Incubator IN604W with optional slide shaker stage and MK161 shaker

*Glassware not included.

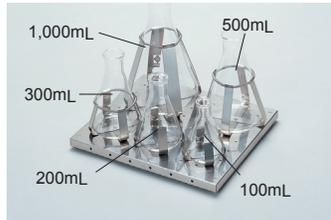
Operational accessories

Mounting stage



Capacity	Number of erlenmeyer flask clamp
100ml	10pcs
200ml	9pcs
300ml	5pcs
500ml	4pcs
1,000ml	2pcs
Product code	232061

Erlenmeyer flask holder clamp



Product code	Capacity	No. of clamps
232062	100ml	10 pcs.
232063	200ml	9 pcs.
232064	300ml	5 pcs.
232065	500ml	4 pcs.
232066	1,000ml	2 pcs.

*Mounting stage sold separately

Diagonal rack holder



Diagonal erlenmeyer flask holder		
Product code	Capacity	No. of unit
232067	100ml	3 pcs
232068	200ml	2 pcs
232069	300ml	2 pcs

*Mounting stage sold separately

Diagonal test tube holder		
Product code	Diameter	No. of unit
232080	ø12mm	50 pcs
232081	ø16.5	20 pcs
232082	ø18	20 pcs

*Mounting stage sold separately

Diagonal centrifugal tube holder



For spitz tube		
Product code	Size	No. of units
232070	15ml	12 pcs.

For 50ml centrifugal tube

Product code	Diameter
232083	ø29mm

*Mounting stage sold separately

Non-skid sheet



Product code	Dimension (W x D x H)
232084	290 x 250 x 30

*Mounting stage sold separately

Single spring shaking rack

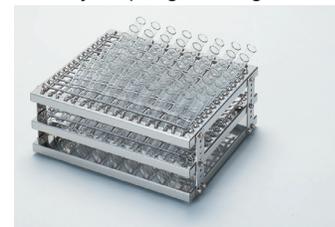


Dimension (W x D x H)	
290 x 250 x 66mm	
Number of test tube: ø16mm test tube x 64 (45°inclination)	
Number of erlenmeyer flask 50mlx20pcs, 100mlx10pcs, 200mlx9pcs, 300mlx5pcs, 500mlx4pcs, 1000mlx2pcs	
Product code	232050

*Mounting stage not necessary

This can be set directly to the main unit.

Two layer spring shaking rack



Dimension (W x D x H)	
290 x 250 x 110mm	
Number of test tube: ø16mm test tube x 64 (45°inclination)	
Number of erlenmeyer flask 50mlx20pcs, 100mlx10pcs, 200mlx9pcs, 300mlx5pcs, 500mlx4pcs, 1000mlx2pcs	
Product code	232056

*Mounting stage not necessary

This can be set directly to the main unit.

*Glassware not included.

Laboratory Shaker

MADE



Vertical / Horizontal / Rotary / Double-sided vertical shaking motion

SA300-115V SA300-220V / SA320-115V SA320-220V
SA400-115V SA400-220V

SA300/400 20~300rpm

SA320 20~210rpm

Shaking width 40mm



SA320 with test tube holder

Test tube and funnel holders sold separately

SA300 with separating funnel holder

Glassware not included



SA320 with separating funnel holder

Funnel holders sold separately

SA400 with separating funnel holder

Glassware not included

The SA300 achieves two dimensional shaking (horizontal and vertical), while the SA320 enables rotary shaking and SA400 is double-sided vertical shaking. All models are efficient in extraction, culture and mixture stirring of samples.

- Stable turns from low to high speed can be obtained
- Compact and equipped with a powerful shaking load
- Easy-to-use dial settings for shaking frequency and digital displays.
- Possible to switch between timer operation and continuous operation
- Various holders can be easily attached and removed and are extremely durable

SA300/320

- The main unit shakes vertically, but it can be laid on the side to shake horizontally

SA400

- 6 pieces of 1 liter liquid sample holder and 4 pieces of 2 liter liquid sample holder can shake simultaneously
- Double sided shaking possibility

Specifications

Model	SA300-115V SA300-220V	SA320-115V SA320-220V	SA400-115V SA400-220V
Shaking method	Horizontal / Vertical shaking		Double sided vertical shaking
Max. number of sample holder	100ml x 5, 200ml x 4,	300ml x 4, 500ml x 4, 1000ml x 3, 2000ml x 2	100ml x 10, 300ml x 8, 1000ml x 6, 200ml x 8, 500ml x 8, 2000ml x 4
Shaking speed: horizontal	20~300 rpm		None
Shaking speed: vertical	20~300 rpm		20~300 rpm
Speed setting display	Dial setting		Dial setting / Digital display
Timer	Dial setting 0~60 min. (minimum scale 5 min.). Continuous switching function		
Motor	DC motor 90W		
External dimensions	W460 x D460 x H423		W520 x D460 x H483
Weight	~40kg		~39kg
Power source (50/60Hz)	Single phase AC115V 2A Single phase AC220V 1A		
Included accessories	Fuse x 1, carbon brush x 1		

Horizontal Shaking



Rotary + Horizontal Shaking



Vertical Shaking



Rotary + Vertical Shaking



Operational Accessories

Centrifugal tube holder



For all models
Horizontal / vertical shaking

Dia. 16~35mm
Length 110~130mm
18 pcs.

Product code 232087

Test tube holder



For SA300/320
Horizontal shaking

Dia. 16.5~18mm
Length 160~190mm
18 pcs.

Product code 232086

Separating funnel holder



For all models
Vertical shaking

50ml
100~1000ml
2000ml

Product code 232089

Separating funnel holder



For all models
Vertical shaking

100~1000ml

Product code 232096

Mounting stage



For SA300/320
Horizontal shaking

Capacity	No. of pcs.
100ml	28
200ml	19
500ml	14
1L	9
Product code	232095

Erlenmeyer flask holder clamp



For SA300/320
Horizontal shaking

Product code	Capacity	No. of pcs.
232062	100ml	10
232063	200ml	9
232064	300ml	5
232065	500ml	4
232066	1L	2

Diagonal rack

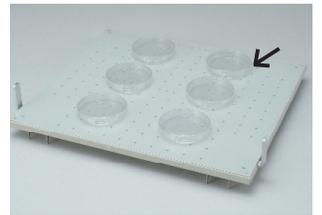


For SA300/320
Horizontal shaking

Diagonal erlenmeyer flask holder		
Product code	Capacity	
232067	100ml	
232068	200ml	
232069	300ml	
Diagonal test tube holder		
Product code	Size	No. of pcs
232080	ø12mm	50
232081	ø16.5mm	20
232082	ø18mm	20

Mounting stage sold separately

Non-skid sheet



For SA300/320
Horizontal shaking

Thickness 1mm
W450 x D396mm

Product code 232071

Mounting stage sold separately

Test tube rack holder



For SA300/320
Vertical horizontal shaking

Max. test tube rack
W238 x D121 x H105mm
2 lines

Product code 232088

Mounting stage sold separately

Erlenmeyer flask holder



For SA300/320
Horizontal shaking

Adjustable 100~1000ml

Product code 232097

Two layer spring shaking rack



For SA300/320
Horizontal shaking

320 pcs. of ø16 test tube
(Pitch 20mm)

Product code 232079