Hotplates & Stirrers

Ver. 2017 ~ 2018

Lab Companion
Best Products for Reliable Results

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Lab Companion

Best Products for Reliable Results

JEIO TECH was established in 1988 with the goal of delivering the best laboratory equipments for the reliable results. We always strive to develop high technology with ergonomic design for better products. We are eager to take on new challenges in developing a product the best suits you!

Our reliable instruments will offer you analytical solutions in the field of biology , chemistry, medicine, pharmacology and so forth. We are driven by innovation and our extensive product lines are at the cutting-edge globally in both scientific and industrial research instrument markets.

While continuously focusing on human resources and technology, development, we strive to make a significant difference in various research areas.
our top priority is to provide the world's best products and services through outstanding quality and customer satisfaction at affordable prices.

We hope you enjoy the discovery of JeioTech and it's products.

Best Products for Reliable Results

CE, UL, CSA, RoHS, GD (Good Design Award)
Jeio Tech (Lab Companion) obtained ISO 9001, ISO 13485
FDA establishment registered company. FDA listed products.

Lab Companion

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Overhead Stirrers(digital)
80 to 2000 rpm ··· MSD-0420

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Technical Benefit

Hotplates & Hotplate Stirrers

Lab Companion

Top Plate

Integrated design of the heater and the top plate provides exceptional heat transfer rate and quick heat up capability

Protection of the heating element from liquid spills or leakage

Two different shapes of top plate

Safety

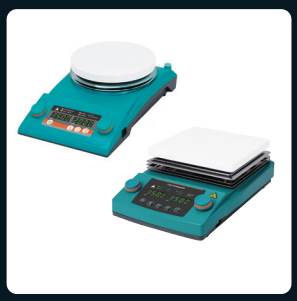
Hot top warning indicator and Various overheat prevention systems

User configurable temperature limit setting

Separate operation RUN/STOP button
(only for T, TS models)

Safety

Digital Display



LED displays with convenient control key pads
(T/TS series only)

Keypad lock button (only for T models)

Temperature probe
(only for TS models)

The advanced hotplate stirrer comes with a temperature probe

The provided probe detects the actual temperature of media in real time
(PT 100, Max. 250℃, SN-8-4 connector sensor)
(PT 100, Max. 350℃, SN-8-4 connector sensor-optional)

Simultaneous stirring
(only for MS-MH models)

Ideal for the multiple sample testing under the same condition
- Maximum 15 independently controlled stirring positions on one heated top plate

Technical Benefit

Magnetic Stirrers

Lab Companion

Safety

Standard non-slip plate covers (white & black) protect sliding of glassware (MS-B/T/G)

Built-in thermal shutdown and current limit protection (only for MS-B/T/G)

Gradual start-up to protect users against splashing of samples (only for MS-G)

Precise and Powerful Stirring

Microprocessor PID controls (only for MS-G/M/MH)

Equipped with a durable and silent BLDC motor

Multi Position Stirring

User-friendly operation and time setting modes allowing various ways of multi-position stirring to meet users' demands
(single point, multiple point, whole row, whole column, etc. / only for MS-M, MS-MH)

Digital Display

Convenient digital display and responsive touch screen buttons
(only for MS-G/M)

Technical Benefit

Overhead Stirrers

Lab Companion

Precise and Powerful Stirring

Microprocessor PID control

Powerful torque capable of handling
high viscosity tasks

External controller (only for MSH)

External controller for practical external control.

Real time external monitor and control
of the current operating condition without
opening the door of the enclosure

Digital Display (only for MSH)

Touch type LCD controller

Various essential information visible at once
- RPM, rotation direction
- Motor torque, motor temp.
- Run time

Sturdy Aluminum Body

Sturdy aluminum main body efficiently
absorbing and emitting the heat generated
by the motor

Bluetooth broadcastor (only for MSH)

Bluetooth broadcaster for remote control.
Monitor and control MSH through your mobile device
with Bluetooth Broadcaster. Anyone can control MSH by
android device. Also you can automatically receive safety
alarm to your mobile device.

Superior temperature control with various safety functions

Round type top plate (T-14R, T-17S)

Square type top plate (T-18Q)

Model		T-14S	T-14R	T-17S	T-17R	T-18Q
Heating	Temperature range (℃ / ℉)	Max. 350 / 662				
	Control	Feedback control with PID				
	Display	LED digital (0.1℃ resolution)				
	Heating power (W)	600		800		
Safety	Hot top indicator (℃ / ℉)	Warning lamp (50 / 122)				
	Over temp.	Top plate / Main body / PCB				
	Over current	Current limit protection				
Timer		2 type, 1min. to 99 hr. 59 min.				
Load, Max. (kg / lbs)		25 / 55.1				
Top plate	Shape	Round type				Square type
	Material	Ceramic coated aluminum				
	Dimension (Ø or WxD) (mm / inch)	140 / 5.5		170 / 6.7		180x180 / 7.08x7.08
Body	Shape	Straight body	Round handles	Straight body	Round handles	Straight body
	Material	Aluminum				
	Dimension (WxDxH) (mm / inch)	161x290x100 / 6.34x11.42x3.94	210x294x99 / 8.27x11.57x3.90	191x330x101 / 7.52x12.99x3.98	240x324x100 / 9.45x12.76x3.94	209x326x102 / 8.22x12.83x4.0
Net weight (kg / lbs)		2.2 / 4.9	2.4 / 5.3	2.9 / 6.4	3 / 6.6	3.8 / 8.37
Electrical requirements (230V, 50/60Hz)		3.0 A		4.0 A		
Cat. No.		**AAH35015K**	**AAH35115K**	**AAH35025K**	**AAH35125K**	**AAH35035K**
Electrical requirements (120V, 60Hz)		5.0 A		6.7 A		
Cat. No.		**AAH35013U**	**AAH35113U**	**AAH35023U**	**AAH35123U**	**AAH35033U**

※ Permissible environmental conditions: temperature (5 - 40℃) and relative humidity (up to 80%).
※ CSA except for T-18Q. ※ RoHS for T-14S.
※ FDA establishment registered company. FDA listed products.

High heat transfer rate of the tightly integrated structure of heater and ceramic-coated aluminum alloy top plate

Optimum heating level is adjustable depend on your application

Hot top warning indicator will blink whenever the top plate temp. is over 50℃ to prevent accidental injuries

Various overheat prevention system protecting motor, PCB, top plate

User configurable temperature limit setting for user's convenience and safety

Precise and fast heating by Microprocessor PID control

Auto-tuning and temperature calibration

Keypad lock button

Multi-functional temperature control modes

- Optimal Mode / Fast Mode / Slow Mode / User Mode / Point Mode
- Select the best suitable mode depending on the application

Two user-selectable timer activation modes

- User can set timer to starts immediately after the timer setting or only after reaching the set temp.

Separate operation RUN/STOP button to avoid unintentional heating

Non-slip heating bath with concavo-convex bottom prevents unintentional slips of the bath (optional-only for TS-S)

Accessories

For detailed information of accessories, please refer to the page 16-17.

Hotplate Stirrers

TS-14S/17S/18Q (max. 350℃, max. 2000 rpm)

Lab Companion

Digital heating and stirring control with high advanced features such as auto-tuning and various control modes

Round type top plate (TS-14S, TS-17S)

Square type top plate (TM-18Q)

Model		TS-14S	TS-17S	TS-18Q
Heating	Temperature range (℃ / ℉)	Max. 350 / 662		
	Control	Feedback control with PID		
	Display	LED digital (0.1℃ resolution)		
	Heating power (W)	600	800	800
Stirring	Speed range (rpm)	30 to 2,000		
	Capacity (L / cu ft, H_2O)	20 / 0.71		
	Magnetic bar, Max. (ØxL, mm / Inch)	8 x 40 / 0.31 x 1.57		
Safety	Hot top indicator (℃ / ℉)	Warning lamp (50 / 122)		
	Over temp.	Top plate / Main body / PCB		
	Over current	Current limit protection		
Motor		BLDC motor		
Timer		2 type, 1min. to 99 hr. 59 min.		
Load, Max (kg / lbs)		25 / 55.1		
Top plate	Shape	Round type		Square type
	Material	Ceramic coated aluminum		
	Dimension (Ø or WxD) (mm / inch)	140 / 5.51	170 / 6.69	180x180 / 7.08x7.08
Body	Shape	Straight body		
	Material	Aluminum		
	Dimension (WxDxH) (mm / inch)	161x290x100 / 6.34x11.42x3.94	191x330x101 / 7.52x12.99x3.98	209x326x102 / 8.22x12.83x4.0
Net weight (kg / lbs)		2.8 / 6.17	3.5 / 7.72	3.8 / 8.37
Electrical requirements (230V, 50/60Hz)		3.0 A	4.0 A	
Cat. No.		**AAH34415K**	**AAH34425K**	**AAH34435K**
Electrical requirements (120V, 60Hz)		5.0 A	6.7A	
Cat. No.		**AAH34413U**	**AAH34423U**	**AAH34433U**

※ Permissible environmental conditions: temperature (5-40℃) and relative humidity (up to 80%).
※ CSA except for TS-18Q. ※ RoHS except for TS-17S, 18Q.
※ FDA establishment registered company. FDA listed products.

High heat transfer rate of the tightly integrated structure of heater and ceramic-coated aluminum alloy top plate

Optimum heating level is adjustable depend on your application

Hot top warning indicator will blink whenever the top plate temp. is over 50℃ to prevent accidental injuries

Various overheat prevention system protecting motor, PCB, top plate

Fast and precise stirring speed control even at high temperature

Virtually no decoupling of stir bars with viscous media and high speed

Large stirring capacity up to 20 liter in case of water

Instant halt of the stirring operation

Non-slip heating bath with concavo-convex bottom prevents unintentional slips of the bath (optional-only for TS-S)

Constant stirring speed by intellegent feedback control

Temperature probe (PT100, Max. 250℃) is included. If you need higer temperature sensing, optional temperature probe (PT100, Max. 350℃) is available

Precise and fast heating by Microprocessor PID control

Auto-tuning and temperature calibration

User configurable temperature limit setting for user's convenience and safety

Multi-functional temperature control modes

- Optimal Mode / Fast Mode / Slow Mode / User Mode / Point Mode
- Select the best suitable mode depending on the application

Two user-selectable timer activation modes

- User can set timer to starts immediately after the timer setting or only after reaching the set temp.

Separate operation RUN/STOP button to avoid unintentional heating

STANDARD

- Temperature Probe (PT100, Max. 250℃)

Hotplate Stirrers

TM-14SB/14RB/17SB/17RB/18Q (max. 350℃, max. 2000 rpm)

Lab Companion

Easy to control with simple dial knobs for general lab heating and stirring applications

Round type top plate (TM-14RB, TM-17SB)

Square type top plate (TM-18Q)

CE, CSA C US, RoHS Compliant, Over Temp., HOT TOP

Model		TM-14SB	TM-14RB	TM-17SB	TM-17RB	TM-18Q
Heating	Temperature range (℃ / ℉)	Max. 350 / 662				
	Control	Scale				
	Heating power (W)	600		800		
Stirring	Speed range (rpm)	50 to 2,000				
	Capacity (L / cu ft, H_2O)	20 / 0.71				
	Magnetic bar, Max. (ØxL, mm / Inch)	8 x 40 / 0.31 x 1.57				
Safety	Hot top indicator (℃ / ℉)	Warning lamp (50 / 122)				
	Over temp.	Top plate / Main body / PCB				
	Over current	Current limit protection				
Motor		BLDC motor				
Load, Max. (kg / lbs)		25 / 55.12				
Top plate	Shape	Round type				Square type
	Material	Ceramic coated aluminum				
	Dimension (Ø or WxD) (mm / inch)	140 / 5.51		170 / 6.69		180x180 / 7.08x7.08
Body	Shape	Straight body	Round handles	Straight body	Round handles	Straight body
	Material	Aluminum				
	Dimension (WxDxH) (mm / inch)	161x290x100 / 6.34x11.42x3.94	210x294x99 / 8.27x11.57x3.9	191x330x101 / 7.52x12.99x3.98	240x324x100 / 9.45x12.76x3.94	209x326x102 / 8.22x12.83x4.0
Net weight (kg / lbs)		2.8 / 6.17	3 / 6.61	3.5 / 7.72	3.6 / 7.94	3.8 / 8.37
Electrical requirements (230V, 50/60Hz)		3.0 A		4.0 A		
Cat. No.		**AAH34215K**	**AAH34315K**	**AAH34225K**	**AAH34325K**	**AAH34235K**
Electrical requirements (120V, 60Hz)		5.0 A		6.7A		
Cat. No.		**AAH34213U**	**AAH34313U**	**AAH34223U**	**AAH34323U**	**AAH34233U**

※ Permissible environmental conditions: temperature (5-40℃) and relative humidity (up to 80%).
※ CSA except for TM-18Q. ※ RoHS for TM-14SB.
※ FDA establishment registered company. FDA listed products.

High heat transfer rate of the tightly integrated structure of heater and ceramic-coated aluminum alloy top plate

Optimum heating level is adjustable depend on your application

Hot top warning indicator will blink whenever the top plate temp. is over 50℃ to prevent accidental injuries

Various overheat prevention system protecting motor, PCB, top plate

Fast and precise stirring speed control even at high temperature

Virtually no decoupling of stir bars with viscous media and high speed

Large stirring capacity up to 20 liter in case of water

Instant halt of the stirring operation

Non-slip heating bath with concavo-convex bottom prevents unintentional slips of the bath (optional-only for TS-S)

Accessories

For detailed information of accessories, please refer to the page 16-17.

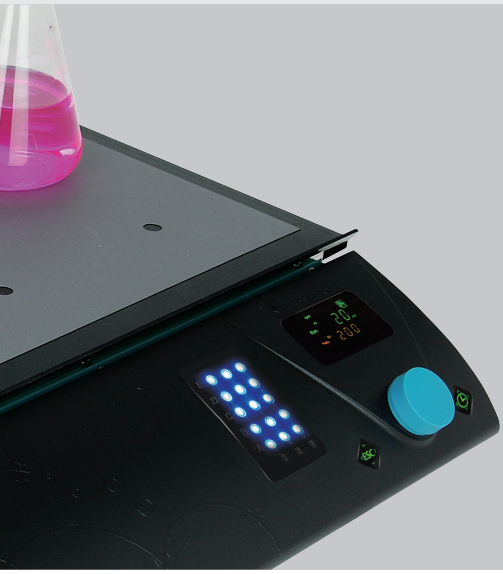
Hotplate Stirrers (multi-position)

Simultaneous stirring is available at max. 15 points with stable heating

Multi-position Hotplate Stirrers

Model		MS-33MH	MS-53MH
Heating	Temperature range (℃ / ℉)	Max. 120 / 248	
	Control	Scale	
	Heating power (W)	600	1000
Stirring	Speed range (rpm)	30 to 2,000	
	Control	Feedback control with PID	
	Stirring position	9	15
	Stirring point distance (WxD, mm / inch)	117x90 / 4.61x3.54	
	Timer	1min. to 99 hr. 59 min.	
	Motor	BLDC motor	
	Motor rating input / output (W) per each point	2.9/1.6	
	Magnetic bar, Max. (ØxL, mm / inch)	8x30 / 0.31x1.18	
Safety	Over temp.	Top plate	
	Over current	Current limit protection	
Load, Max (kg / lbs)		30 / 66.14	
Top plate	Material	Aluminum	
	Dimension (WxD) (mm / inch)	385x328 / 15.16x12.91	385x493 / 15.16x19.41
Body	Material	Powder coated steel	
	Dimension (WxDxH) (mm / inch)	395x450x104 / 15.55x17.72x4.09	395x614x104 / 15.55x24.17x4.09
Net weight (kg / lbs)		10 / 22.05	15 / 33.06
Electrical requirements (230V, 50/60Hz)		4.1 A	5.8 A
Cat. No.		**AAHK34015K**	**AAHK34025K**
Electrical requirements (120V, 60Hz)		8.0 A	11.2 A
Cat. No.		**AAHK34013U**	**AAHK34023U**

※ FDA establishment registered company. FDA listed products.



Ideal for the multiple sample testing under the same condition

• Maximum 15 independently controlled stirring positions

User-friendly operation and time setting modes allowing various ways of multi-position stirring to meet users' demands (single point, multiple point, whole row, whole column, etc.)

Bright and vivid LED position indicating lamps

Easy-to-read VFD and intuitive control panel

Fast and precise stirring operations are enabled by BLDC motor and extremely strong magnetic coupling power

Various stirring control modes are available

• All Mode / Column Mode / Row Mode / Point Mode

Built in thermal shutdown and current limit protection

Integrated design of the heater and the top plate provides exceptional heat transfer rate and quick heat up capability

High heat transfer aluminum top-plate.

Non-slip silicon plate mat is attached on the top plate to prevent unintended slips

Accessories

For detailed information of accessories, please refer to the page 16-17.

Magnetic Stirrers

MS-23M/32M/33M/51M/52M/53M (max. 2000 rpm)

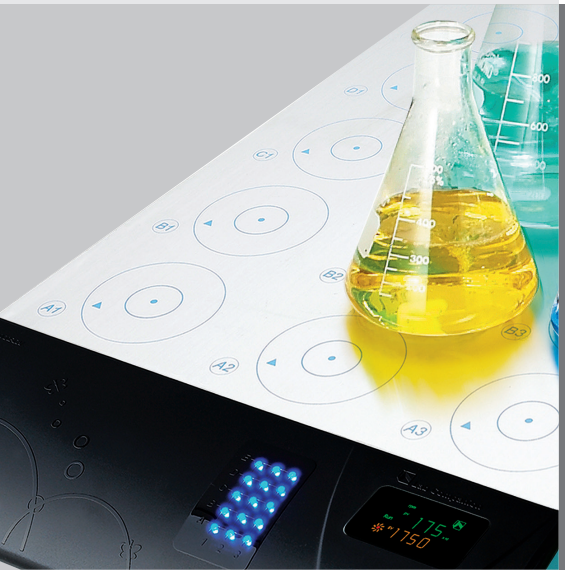
Magnetic Stirrers (multi-position)

Supported various number of multi position stirring to meet user's demands

Multi-position Magnetic Stirrers

Model			MS-23M	MS-32M	MS-33M	MS-51M	MS-52M	MS-53M
Technical data	Speed control		Feedback control with PID					
	Stirring	Position	6	6	9	5	10	15
		Speed range (rpm)	30 to 2,000					
	Stirring point distance (WxD) (mm / inch)		117×170 / 4.6×6.69	117×90 / 4.6×3.54	117×90 / 4.6×3.54	90 / 3.54	117×90 / 4.6×3.54	
	Timer		1 min. to 99 hr. 59 min.					
	Speed display		VFD					
	Motor rating input / output (W) per each point		2.9 / 1.6					
	Load, Max (kg / lbs)		30 / 66.14					
General data	Dimension (WxDxH) (mm / inch)		377×436×82 / 14.8×17.2×3.2	254×436×82 / 10×17.2×3.2	377×436×81 / 14.8×17.2×3.2	131×603×82 / 5.2×23.7×3.2	254×602×82 / 10×23.7×3.2	377×599×82 / 14.9×23.6×3.2
	Weight (kg / lbs)		6 / 13.23	5 / 11.02	7 / 15.43	4 / 8.82	8 / 17.64	11 / 24.25
	Electrical requirements		AC 100 ~ 240V, 50 / 60Hz					
	Power consumption (W)		45	45	54	45	85	135
	Protection class (DIN EN 60529)		IP 21					
Cat. No.	KR plug		**AAH332115K**	**AAH332215K**	**AAH332315K**	**AAH332415K**	**AAH332515K**	**AAH332615K**
	US plug		**AAH332115U**	**AAH332215U**	**AAH332315U**	**AAH332415U**	**AAH332515U**	**AAH332615U**

※ FDA establishment registered company. FDA listed products.



Ideal for the multiple sample testing under the same condition

- Maximum 15 independently controlled stirring positions

User-friendly operation and time setting modes allowing various ways of multi-position stirring to meet users' demands (single point, multiple point, whole row, whole column, etc.)

Bright and vivid LED position indicating lamps

Easy-to-read VFD and intuitive control panel

Fast and precise stirring operations are enabled by BLDC motor and extremely strong magnetic coupling power

Various stirring control modes are available

- All Mode / Column Mode / Row Mode / Point Mode

Built in thermal shutdown and current limit protection

Easy-to-read VFD and intuitive control panel

Chemical-resistant #304 grade stainless steel top-plate

Non-slip see-through silicon plate mat (optional)

Accessories

For detailed information of accessories, please refer to the page 16-17.

Magnetic Stirrers

MS-12B/12T/17B/17T/22B, MS-17G/22G (max. 2500 rpm, max. 2000 rpm)

Lab Companion

Magnetic Stirrers (scale&digital)

Powerful magnets and motors guarantee a high-speed and a good-management of the device

Scale Models (MS-B/T)

Digital Models (MS-G)

Model			MS-12B	MS-12T	MS-17B	MS-17T	MS-22B	MS-17G	MS-22G
Technical data	Speed control		Electronic speed control					Feedback control with PID	
	Stirring capacity (Liter, H_2O)		2		4		5	4	5
	Speed range (rpm)		150 to 2,500					30 to 2,000	
	Speed display		None					VFD	
	Motor rating input / output (W)		2.9 / 1.6					2.9 / 1.6	
	Magnetic bar, Max. (ØxL) (mm / inch)		8×30 / 0.31×1.18	8×30 / 0.31×1.18	8×40 / 0.31×1.57	8×30 / 0.31×1.18	10×50 / 0.39×1.97	8×40 / 0.31×1.57	10×50 / 0.39×1.97
	Load, max (kg / lbs)		15 / 33.07	10 / 22.05	20 / 44.09	20 / 44.09	25 / 55.12	20 / 44.09	25 / 55.12
Top plate	Material		Polypropylene with non-slip silicon cover						
	Dimension (Ø, mm / inch)		120 / 4.72	115 / 4.53	170 / 6.69	165 / 6.5	220 / 8.66	170 / 6.69	220 / 8.66
General data	Body shape		Round type	Triangle type	Round type	Triangle type	Round type	Round type	Round type
	Body material		Polypropylene						
	Dimension (WxDxH) (mm / inch)		130×133×65 / 5.1×5.2×2.56	181×176×64 / 7.1×6.9×2.5	180×186×65 / 7.1×7.3×2.6	246×243×64 / 9.7×9.6×2.5	230×235×65 / 9.1×9.3×2.6	210×280×72 / 8.3×11×2.8	260×355×72 / 10.2×14×2.8
	Net weight (kg / lbs)		0.6 / 1.32		0.9 / 1.98		1.1 / 2.43	1.35 / 2.98	1.75 / 3.86
	Electrical requirements		AC 100 ~ 240V, 50 / 60Hz with power adapter					AC 100 ~ 240V, 50 / 60Hz	
	Power consumption (W)		5		6			6	
	Protection class (DIN EN 60529)		IP42					IP42	
Cat. No.	Persian blue	KR plug	**AAH330115BK**	**AAH333115BK**	**AAH330215BK**	**AAH333215BK**	**AAH330315BK**	**AAH331215BK**	**AAH331315BK**
		US plug	**AAH330115BU**	**AAH33316BU**	**AAH330215BU**	**AAH33326BU**	**AAH330315BU**	**AAH331215BU**	**AAH331315BU**
	Orange	KR plug	**AAH330115YK**	**AAH333115RK**	**AAH330215YK**	**AAH333215RK**	**AAH330315YK**	**AAH331215YK**	**AAH331315YK**
		US plug	**AAH330115YU**	**AAH33316RU**	**AAH330215YU**	**AAH33326RU**	**AAH330315YU**	**AAH331215YU**	**AAH331315YU**

※RoHS except for MS-T. ※Good design / Program mark for MS-G.
※ FDA establishment registered company. FDA listed products.

Common Features

Best-in-the-class with broad speed range and suitable for high-speed rotation experimental environment

Ergonomic designed, lightweight, easy to operate, and low profile

Wide top plate

Two non-slip silicon plate covers (white & black) are provided

Non-slip strength rubber feet

Sparkless, silent and durable BLDC motor

Built-in thermal shutdown and current limit protection

Additional Features of MS-G

Bright and vivid VFD and responsive touch screen buttons

Gradual start-up to protect users against splashing of samples

M10 threaded hole to hold a support rod

STANDARD

• Plate covers(white & black), Magnetic stirring bar

Overhead Stirrers (analog)

Powerful stirring and simple operation with sustainable economic benefits

Analog Model

Model		MSA-0420
Speed control		PID feedback control
Speed range (rpm)		80 to 2,000
Chuck range (mm / inch, dia)		3 to 10 / 0.1 to 0.4
Stirring capacity, Max. (L, H_2O)		20
Viscosity, Max. (cP) [1]		5,000 (~2,000rpm) / 10,000 (~1,200rpm) / 30,000 (~300rpm) / 50,000 (~200rpm)
Torque, Max. (N·cm)		19
Motor rating input / output (W)		70 / 40
Material	Body / Cover / Motor	Powder coated aluminum / Polypropylene / BLDC
Dimension	Overall (WxDxH) (mm / inch)	75x215x150/ 2.9x8.5x5.9
	Net weight (Kg / lbs)	2.8 / 6.2
Protection class (DIN EN 60529)		IP30
Electrical requirements (230V 50/60Hz)		0.5A
Cat. No.		**AAH373325K**
Electrical requirements (120V 60Hz)		0.5A
Cat. No.		**AAH373325U**

1) Silicone oil with using 3-bladed propeller impeller(Ø50) under room temperature of 26°C, 60%RH, no load.
※ Permissible environmental conditions: temperature (5-40℃) and relative humidity (up to 80%).
※ Main body comes together with chuck handle and attaching rod.
※ Above specifications can be changed without prior notice.
※ FDA establishment registered company. FDA listed products.

Years of vibration-free and silent operation
• Equipped with a maintenance-free BLDC motor to generate smooth, quiet, and yet powerful stirring

Powerful torque capable of handling high viscosity tasks

Maintenance of constant motor speed by PID feedback control system even under conditions of changing viscosity

Prevention of accidental spills or splashes thanks to micro-processor controlled smooth start and stop functions

Designed for simple and quick operation

Well illuminated digital display panel with sensitive touch buttons
• Set/present rpm are visible together on one screen.

Compact and slim head design for diverse flexibility in configuring other test equipment and accessories. (optional)

Sturdy aluminum main body efficiently absorbing and emitting the heat generated by the motor

Safety features against overload and overheating for continuous operation

Accessories

For detailed information of accessories, please refer to the page 18-19.

Overhead Stirrers (digital)

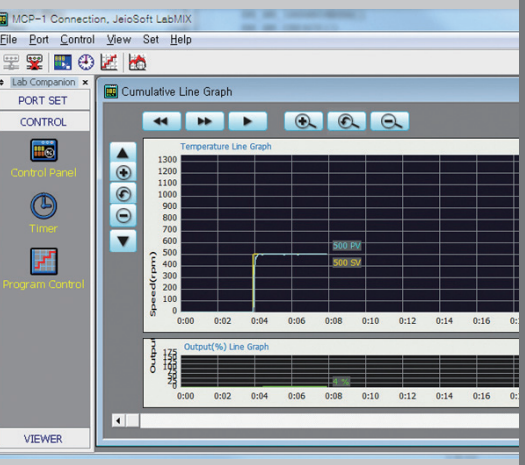
Ideal for digital controlled high performance stirring task

Digital Model

CE | Computer Interface | Best Effort Run | Over Temp.

Model		MSD-0420
Speed control		PID feedback control
Speed range (rpm)		80 to 2,000
Chuck range (mm / inch, dia)		3 to 10 / 0.1 to 0.4
Stirring capacity, Max. (L, H_2O)		20
Viscosity, Max. (cP) [1]		5,000 (~2,000rpm) / 10,000 (~1,200rpm) / 30,000 (~300rpm) / 50,000 (~200rpm)
Torque, Max. (N·cm)		19
Motor rating input / output (W)		70 / 40
Material	Body / Cover / Motor	Powder coated aluminum / Polypropylene / BLDC
Dimension	Overall (W×D×H) (mm / inch)	75x215x150 / 2.9x8.5x5.9
	Net weight (Kg / lbs)	2.8 / 6.2
Protection class (DIN EN 60529)		IP30
Electrical requirements (230V 50/60Hz)		0.5A
Cat. No.		**AAH373225K**
Electrical requirements (120V 60Hz)		0.5A
Cat. No.		**AAH373225U**

1) Silicone oil with using 3-bladed propeller impeller(Ø50) under room temperature of 26℃, 60%RH, no load.
※ Permissible environmental conditions: temperature (5-40℃) and relative humidity (up to 80%).
※ Main body comes together with chuck handle and attaching rod.
※ Above specifications can be changed without prior notice.



Years of vibration-free and silent operation
• Equipped with a maintenance-free BLDC motor to generate smooth, quiet, and yet powerful stirring

Powerful torque capable of handling high viscosity tasks

Maintenance of constant motor speed by PID feedback control system even under conditions of changing viscosity

Best effort function intelligently manages its stirring speed to keep stirring even workload is out of its capacity

Prevention of accidental spills or splashes thanks to micro-processor controlled smooth start and stop functions

Well illuminated digital display panel with sensitive touch buttons
• Set/present rpm, power ratio (%) and run time are visible together on one screen

Stirring directions are selectable depending on each impeller's shape

Built-in USB port for external control and data collection
• Lab Companion software and USB cable are provided

Compact and slim head design for diverse flexibility in configuring other test equipment and accessories (optional)

Sturdy aluminum main body efficiently absorbing and emitting the heat generated by the motor

Safety features against overload and overheating for continuous operation

Keypad lock function prevents accidental changes

Accessories

For detailed information of accessories, please refer to the page 18-19.

Overhead Stirrers

MSH-0512/0520 (max. 2000 rpm)

Lab Companion

Overhead Stirrers (advanced)

Ideally perform your professional stirring tasks requiring high functionality, safety, and longevity

REMOTE CONTROL
with your **MOBILE DEVICE**

JeioTech Network

Advanced Model

Monitor and control overhead stirrers more convenient!

JeiotechsoftM
(Jeio Tech mobile APP)

Bluetooth broadcaster (optional)

External controller (optional)

CE | JeioTech Bluetooth | External Controller | Computer Interface | Color Touch | Best Effort Run | Over Temp.

Model		MSH-0512	MSH-0520
Speed control		PID feedback control	
Speed range (rpm)		50 to 1,200	50 to 2,000
Chuck range (mm / inch, dia)		3 to 10 / 0.1 to 0.4	
Stirring capacity, Max. (L, H_2O)		100	60
Viscosity, Max. (cP) [1]		5,000 (~1,200rpm) / 10,000 (~1,200rpm) / 30,000 (~1,200rpm) / 50,000 (~700rpm)	5,000 (~2,000rpm) / 10,000 (~1,600rpm) / 30,000 (~600rpm) / 50,000 (~300rpm)
Torque, Max. (N·cm)		41.6	20.8
Motor rating input / output (W)		71 / 48	
Material	Body / Cover / Motor	Powder coated aluminum / Polypropylene / BLDC	
Dimension	Overall (W×D×H) (mm / inch)	80x185x235 / 3.1x7.3x9.3	
	Net weight (Kg / lbs)	3.1 / 6.8	
Protection class (DIN EN 60529)		IP30	
Electrical requirements		AC 100 to 240V, 50/60Hz with power adapter	
Power consumption (W)		1.5 A	1.5 A
Cat. No.	KR Plug	**AAH371415K**	**AAH371515K**
	US Plug	**AAH371415U**	**AAH371515U**

1) Silicone oil with using 3-bladed propeller impeller(Ø50) under room temperature of 26℃, 60%RH.
※ Permissible environmental conditions : temperature (5-40℃) and relative humidity (up to 80%).
※ Main body comes together with chuck handle and attaching rod.
※ Above specifications can be changed without prior notice.

Touch type LCD controller

Various essential information visible at once
- RPM, rotation direction
- Motor torque, motor temp.
- Run time

Years of vibration-free and silent operation
• Equipped with a maintenance-free BLDC motor to generate smooth, quiet, and yet powerful stirring

Powerful torque capable of handling high viscosity tasks

Maintenance of constant motor speed by PID feedback control system even under conditions of changing viscosity

Best effort function intelligently manages its stirring speed to keep stirring even workload is out of its capacity

Prevention of accidental spills or splashes thanks to micro-processor controlled smooth start and stop functions

Touch type LCD controller
• Various essential information are visible at once and intuitionally controlled

Remote control and monitor of lab equipment through mobile devices. (Android only)
• JeioTech network can be configurated by installing an included software(Jeiotechsoft). You can monitor your lab equipment through your mobile device regardless of place and time
• Bluetooth broadcaster(optional) enables remote control and monitor of your lab equipment thought your mobile device within Bluetooth-enabled area

Practical external controller
• Intuitive and easy control with color touch LCD
• It enables convenient and safe external control without opening the sash of the fume hood or safety cabinet

Compact and slim head design for diverse flexibility in configuring other test equipment and accessories (optional)

Sturdy aluminum main body efficiently absorbing and emitting the heat generated by the motor

Safety features against overload and overheating for continuous operation
• When it comes to heavy workload, it tries to activate best effort function But if it determines that performing the work is harmful for it, than it stops stirring
• Equipped with a mini fan inside to minimize overheating of the motor

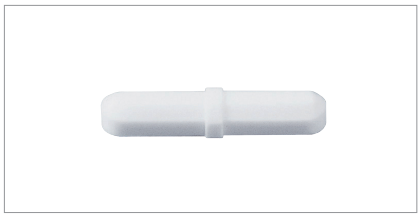
Separated adapter from the main body minimizes the risks of electrical hazards to the users

Screen lock function prevents accidental changes during operation

Accessories

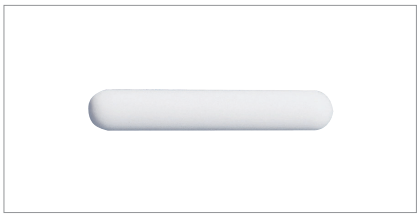
For detailed information of accessories, please refer to the page 18-19.

Magnetic stirring bars



Octahedral magnetic stirring bar

Cat. No.	Ø (mm / inch)	L (mm / inch)
BCW1513	8 / 0.31	13 / 0.51
BCW1515	8 / 0.31	15 / 0.59
BCW1522	8 / 0.31	22 / 0.86
BCW1525	8 / 0.31	25 / 0.98
BCW1528	8 / 0.31	28 / 0.10
BCW1538	8 / 0.31	38 / 1.49
BCW1541	8 / 0.31	41 / 1.61
BCW1551	8 / 0.31	51 / 2.00
BCW155110	10 / 0.39	51 / 2.00



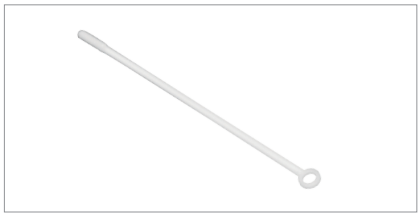
Cylindrical magnetic stirring bar

Cat. No.	Ø (mm / inch)	L (mm / inch)
BCW11138	8 / 0.31	13 / 0.51
BCW11156	6 / 0.23	15 / 0.59
BCW11208	8 / 0.31	20 / 0.78
BCW11258	8 / 0.31	25 / 0.98
BCW11308	8 / 0.31	30 / 1.18
BCW1140	8 / 0.31	40 / 1.57
BCW1150	8 / 0.31	50 / 1.96

Oval magnetic stirring bar

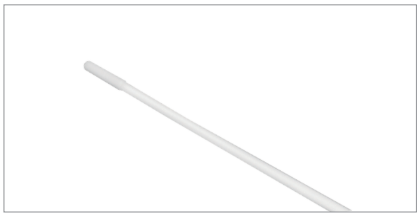
Cat. No.	Ø (mm / inch)	L (mm / inch)
BCW1610	5 / 0.19	10 / 0.39
BCW1615	6 / 0.23	15 / 0.59
BCW1620	10 / 0.39	20 / 0.78
BCW162510	10 / 0.39	25 / 0.98
BCW1630	16 / 0.63	30 / 1.18
BCW1635	16 / 0.63	35 / 1.38
BCW1640	20 / 0.78	40 / 1.57
BCW1650	20 / 0.78	50 / 1.96

Plastic retrievers



Plastic retriever (PP)

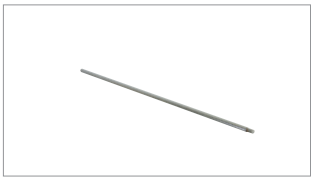
Cat. No.	Ø (mm / inch)	L (mm / inch)
BCW41300	10 / 0.39	300 / 11.81
BCW41350	10 / 0.39	350 / 13.77
BCW41450	10 / 0.39	450 / 17.71



Plastic retriever (PTFE)

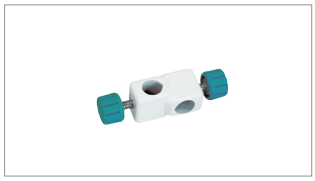
Cat. No.	Ø (mm / inch)	L (mm / inch)
BCW4150	10 / 0.39	150 / 5.90
BCW4250	10 / 0.39	250 / 9.84
BCW4350	10 / 0.39	350 / 13.77
BCW4450	10 / 0.39	450 / 17.71

Support rod / Clamp holders

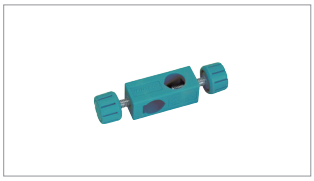


Support rod (M10)

Clamp holder (C-10)



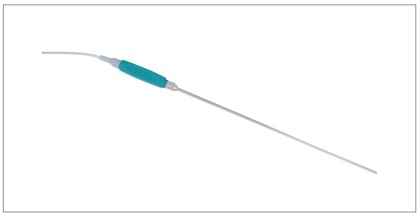
Clamp holder (C-7)



Clamp holder (C-5)

Cat. No.	Description
MTT0132	Support rod, M10 (Ø12x400mm / Ø0.47x15.75˝)
AAA37512	Clamp holder, C-10 (Al body, Ø17mm / Ø0.66˝)
AAA37513	Clamp holder, C-7 (Al body, Ø12mm / Ø0.47˝)
AAA37514	Clamp holder, C-5 (PP body, Ø12mm / Ø0.47˝)
BEA1000014	2 Prong clamp (60mm / 2.36˝ grip)

for Hotplates / Hotplate Stirrers



Temperature probe

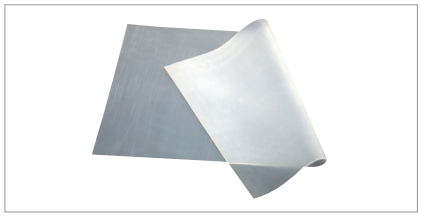
Heating bath

Transparent safety shield

Cat. No.	Description	Suitable for
AAA34501	Temperature Probe (PT 100, Max. 250℃, SN-8-4 connector sensor)	TS series
AAA34502	Temperature Probe (PT 100, Max. 350℃, SN-8-4 connector sensor)	
HPS0012	Heating Bath	T-14S/R, TM-14SB/RB, TS-14S
HPS0015	Heating Bath	T-17S/R, TM-17SB/RB, TS-14S
HPS0059	Transparent Safety Shield (PC)	T-14S/R, TM-14SB/RB, TS-14S
HPS0039	Transparent Safety Shield (PC)	T-17S/R, TM-17SB/RB, TS-17S
HPS0137	Sensor Holder (PP body, Hole 1: Ø11mm / Ø0.43˝, Hole 2: Ø10mm / Ø0.39˝, Hole 3: Ø4.2mm / Ø0.16˝)	TS series

for Magnetic Stirrers

Plate covers (black & white)



Silicone pad

Power divider (5 channels[1])

Cat. No.	Description	Suitable for
MTT0144	Plate cover (White color, Silicone Ø115mm / Ø4.53˝)	MS-12T
MTT0146	Plate cover (White color, Silicone Ø165mm / Ø6.49˝)	MS-17T
MTT0002	Plate cover (White color, Silicone Ø120mm / Ø4.72˝)	MS-12B
MTT0003	Plate cover (White color, Silicone Ø170mm / Ø6.69˝)	MS-17B/G
MTT0004	Plate cover (White color, Silicone Ø220mm / Ø8.66˝)	MS-22B/G
MTT0143	Plate cover (Black color, Silicone Ø115mm / Ø4.53˝)	MS-12T
MTT0145	Plate cover (Black color, Silicone Ø165mm / Ø6.49˝)	MS-17T
MTT0005	Plate cover (Black color, Silicone Ø120mm / Ø4.72˝)	MS-12B
MTT0006	Plate cover (Black color, Silicone Ø170mm / Ø6.69˝)	MS-17B/G
MTT0007	Plate cover (Black color, Silicone Ø220mm / Ø8.66˝)	MS-22B/G
MTS0015	Silicone pad (355x475x1mm / 13.98x18.70x0.04˝)	MS-53M
MTS0016	Silicone pad (235x475x1mm / 9.25x18.70x0.04˝)	MS-52M
MTS0017	Silicone pad (115x475x1mm / 4.53x18.70x0.04˝)	MS-51M
MTS0041	Silicone pad (235x310x1mm / 9.25x12.20x0.04˝)	MS-32M
MTS0042	Silicone pad (355x310x1mm / 13.98x12.20x0.04˝)	MS-23M/33M
MTT0001	Power adapter (100~240V, 50/60Hz)	MS-12B/T, MS-17B/T
AAH33501	Power divider (5 channels) [1] with M10 rod, adapter(100~240V, 50/60Hz), five DC plugs	

1) Power supply to max. five units at the same time.

Impellers

Propeller impellers

Standard grade stainless steel with Teflon shaft produces an-axial flow stir between the bot-tom and top levels of a sample with local shearing force. Used at medium or high speeds for mixing normal range level viscosity samples.

Turbine impellers

A radial flowing stir from the top and bottom levels of a sample with a powerful, high shearing turbulent force. Used ideally for the gassing of liquids and mixing medium to high range level viscosity samples.

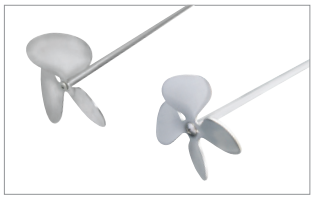
Half-moon impellers / Centrifugal impellers

Tiltable moon-shaped and blade shaft produces a normal axial flow percentage mixing of samples. Used with round bo-ttom shaped containers, medium mixing speed, and samples ranging from low to medium visco-sity levels.

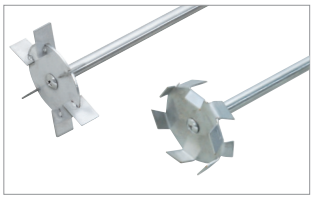
Anchor impellers / Paddle impellers

An anchored shaft that prod-uces a strong tangential flow with a high shearing percentage force on samples with medium to high viscosity level with speed setting in the low to medium range.

Stainless steel impellers

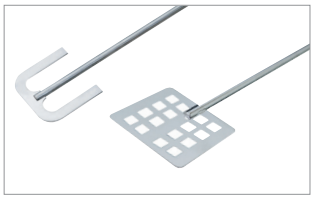


Propeller (3-bladed / 4-bladed)



Turbine / Dissolver

Half-moon / Centrifugal

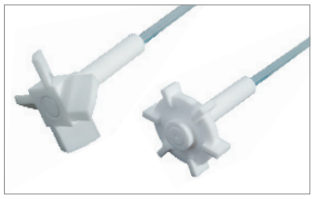


Anchor / Paddle

Cat. No.	Blade (WxH, mm / inch)	Shaft (Ø, mm / inch)	Length (mm / inch)
3-bladed propeller			
AAA37521	50 / 1.97	8 / 0.31	400 / 15.75
AAA37522	70 / 2.76	8 / 0.31	400 / 15.75
AAA37523	100 / 3.94	8 / 0.31	400 / 15.75
4-bladed propeller			
AAA37531	50 / 1.97	8 / 0.31	400 / 15.75
AAA37532	70 / 2.76	8 / 0.31	400 / 15.75
AAA37533	100 / 3.94	8 / 0.31	400 / 15.75
Turbine			
AAA37561	40 / 1.57	8 / 0.31	500 / 19.69
AAA37562	70 / 2.76	8 / 0.31	500 / 19.69
Dissolver			
BEA0570031	55 / 2.17	8 / 0.31	350 / 13.78
BEA0570032	75 / 2.95	8 / 0.31	350 / 13.78

Cat. No.	Blade (WxH, mm / inch)	Shaft (Ø, mm / inch)	Length (mm / inch)
Half-moon			
AAA37541	65x20 / 2.56x0.79	8 / 0.31	300 / 11.81
AAA37542	90x25 / 3.54x0.98	8 / 0.31	500 / 19.69
Centrifugal			
AAA37551	50x15 / 1.97x0.59	8 / 0.31	500 / 19.69
AAA37552	80x15 / 3.15x0.59	8 / 0.31	500 / 19.69
Anchor			
AAA37571	45x45 / 1.77x1.77	8 / 0.31	300 / 11.81
AAA37572	60x60 / 2.36x2.36	8 / 0.31	500 / 19.69
Paddle A			
AAA37581	70x70 / 2.76x2.76	8 / 0.31	500 / 19.69

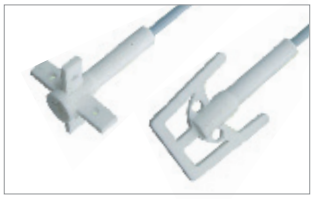
PTFE coated impellers



Propeller (4-bladed) / Turbine

Half-moon / Centrifugal

Anchor (Square / Round)



Paddle / Paddle A

Cat. No.	Blade (WxH, mm / inch)	Shaft (Ø, mm / inch)	Length (mm / inch)
4-bladed propeller			
BEA0570081	50 / 1.97	8 / 0.31	500 / 19.69
BEA0570082	70 / 2.76	8 / 0.31	500 / 19.69
Turbine			
BEA0570131	70 / 2.76	8 / 0.31	500 / 19.69
Half-moon			
BEA0570091	60x18 / 2.36x0.71	8 / 0.31	500 / 19.69
Centrifugal			
BEA0570101	76x17 / 2.99x0.67	8 / 0.31	500 / 19.69

Cat. No.	Blade (WxH, mm / inch)	Shaft (Ø, mm / inch)	Length (mm / inch)
Anchor (Square)			
BEA0570111	80x50 / 3.15x1.97	8 / 0.31	500 / 19.69
Anchor (Round)			
BEA0570121	80x40 / 3.15x1.57	8 / 0.31	500 / 19.69
Paddle			
BEA0570141	70 / 2.76	8 / 0.31	500 / 19.69
Paddle A			
BEA0570151	78x80 / 3.07x3.15	8 / 0.31	500 / 19.69

Monitor and control MSH more convenient!

Bluetooth broadcaster for remote control.

Monitor and control MSH through your mobile device with Bluetooth Broadcaster. Anyone can control MSH by android device. Also you can automatically receive safety alarm to your mobile device.

Cat. No.	Description
AAAQ1012	Bluetooth broadcaster (2.4GHz ISM band) (W×D×H, 140x54x18mm / 5.5x2.1x0.7˝)

External controller for practical external control.

Real time external monitor and control of the current operating condition without opening the door of the enclosure.

Cat. No.	Description
AAA37591	External controller (3m cable) (W×D×H, 60x16x120mm / 2.4x0.6x4.7˝)

Stands / Support rods

Dial stand / Basic stand 1
with two optional support rods

Basic stand 2
Basic stand 3

Cat. No.	Description
AAA37501	Dial stand (W×D×H, 400×400×700 / 15.75×15.75×27.56˝)
AAA37502	Basic stand 1 (W×D×H, 400×400×700 / 15.75×15.75×27.56˝)
AAA37503	Basic stand 2 (W×D×H, 300×400×700 / 11.81×15.75×27.56˝)
AAA37504	Basic stand 3 (W×D×H, 250×350×700 / 9.84×13.78×27.56˝)
MSS0051	Support Rod, M14 (Ø15x500mm / Ø0.59x19.68˝)
MSS0052	Support Rod, M14 (Ø18x500mm / Ø0.71x19.68˝)
MSS0053	Support Rod, M14 (Ø20x500mm / Ø0.79x19.68˝)

Clamps / Others

Utility clamp 3 prong

Utility clamp plat

3 prong clamp

2 prong clamp

Fixing clamp

Clamp holder (C-10)

Clamp holder (C-20)

Flexible coupling

PTFE stirring seals

Cat. No.	Description
BEA1000001	Utility clamp 3 prong
BEA1000002	Utility clamp plat
BEA1000011	3 prong clamp (80mm / 3.15˝grip)
BEA1000012	3 prong clamp (60mm / 2.36˝grip)
BEA1000013	3 prong clamp (20mm / 0.79˝grip)
BEA1000014	2 prong clamp (60mm / 2.36˝grip)
BEA0570181	Fixing clamp

Cat. No.	Description
AAA37512	Clamp holder, C-10 (Al body, Ø17mm / 0.67˝)
AAA37511	Clamp holder, C-20 (Al body, Ø27mm / 1.06˝)
BEA0570191	Flexible coupling
BEA0570161	PTFE stirring seals (24 / 40)
BEA0570162	PTFE stirring seals (29 / 42)
BEA0570163	PTFE stirring seals (34 / 45)

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