



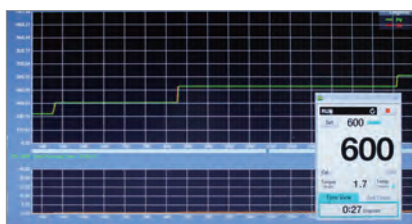
Overhead Stirrer

Possesses practical functions required in actual experiments, and has a beneficial and convenient configuration system

- > **Safe, spark-free motor**
Use of spark-free BLDC motor for safer experimental environment.
- > **Reliable control technology**
Real-time PID feedback control method maintains accurate rpm even when sample viscosity changes.
- > **Excellent structure for long-term continuous use**
Excellent durability of BLDC motor and structure allows for powerful and excellent heat dissipation.
- > **Patented best effort performance of superior level**
Automatic rpm control in case overload operation. Attempt to stir with set rpm according to viscosity change.
- > **Over-temperature and overload protection**
Built-in over-temperature and overload protection device with safety functions for continuous operation of the equipment.
- > **Free selection of rotation direction**
Rotation direction is selectable for various impeller uses. (except for MSA)
- > **Computer interface control**
Convenient remote control and data management through provided dedicated software. (except MSA)
Available to control remotely through an external controller and Bluetooth. (MSH)
- > **Comfortable use with smooth stirring start**
Progressively and smoothly reaches the set rpm, preventing accidents such as sample spill-out.



Convenient remote control and data management through dedicated software. (except MSA)



Dedicated software provided as standard.



Free selection of rotation direction. (except MSA)



Optimized model configuration and performance Lab Companion's Overhead Stirrer

> Model configuration for the appropriate choice

Four models provided for optimum selection according to torque, rpm, function, and display.

> Prestige touch model (MSH)

Color touch screen and control
Knob control via external controller. (option)

> High performance model (MSD)

Clear FND & control knob.
Control via PC using USB connection.

> Easy control model (MSA)

Clear FND and control knob.
Over temperature and overload protection functions included.

> Slim & compact design

Design that minimizes interference with other devices even in the case of a complex set of experiments.

> Pass-through shaft design

Impeller shaft structure can be passed through, making it easy to control the height of the impeller at the time of experiment configuration.

> Easy to use with intuitive operation

Simple and intuitive operation environment.
Useful function of displaying device information.

> Controller lock to prevent erroneous operation

Controller lock to prevent errors caused by unexpected pressing of buttons. (except for MSA)

※ Some of the above contents are limited to specific models.



Model configuration according to torque, rpm, function, and display part.



Structure allows for convenient adjustment of impeller height.



Separate external controller for remote control. (MSH)

Overhead Stirrer

Prestige touch type

Prestige touch model with highest performance and stability

Structural Functional Features

- Possible for user to select clockwise (CW) / counter clock wise. (CCW)
- Slim & compact design.
- Convenient adjustment of height with pass-through impeller shaft.
- Chuck with excellent corrosion resistance. (max. Ø10 mm)
- 2 models provided according to torque and rpm.

Use Convenience Features

- Best effort function to maintain maximum set rpm by monitoring sample viscosity changes in real time.
- Accurate stirring with PID feedback control.
- Count-down timer provided. (up to 99 hours and 59 minutes)
- Operating elapsed time display function.
- Machine operation and data management with USB connection.
- Complete with accessories such as impeller, stand, clamp, etc.

Outstanding Safety

- Safety ensured by BLDC motor that does not generate sparks.
- Excellent heat dissipation structure makes use for a long time without any trouble.
- Continual use in safe by over temperature and overload protection.
- Malfunction prevented by controller lock function.
- Prevents sample run-off by smooth stirring start and stop function.
- Motor protection by displaying motor temperature in three colors.



MSH-0512

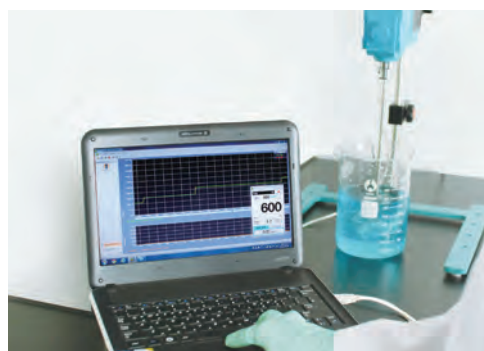
Easy and convenient color touch LCD controller

- Intuitive operation with touch LCD controller and control knobs.
- Displays set value, actual value, time, torque, and motor temperature.



PC control and data management with USB connection

- Useful for data management through PC control.
- Dedicated software and USB cable provided as standard.





Specialized External Controller

- When harmful fumes are generated through stirring, the reaction proceeds inside the fume hood and the device is safely controlled by external controller at outside.
- Checking control status in real time and controls start/stop or stirring speed changes.
- Color LCD display for intuitive and easy control.



Model	RMS
Exterior (W x D x H, mm / inch)	60 x 16 x 120 / 2.4 x 0.6 x 4.7
Wire length (mm / inch)	3000 / 118
Cat. No.	AAA37591

Specification

Model	MSH-0512	MSH-0520
Speed range (rpm)	50 to 1200	50 to 2000
Viscosity, max. (cP)¹⁾	30000 (~1200rpm) 50000 (~700rpm)	5000 (~2000rpm) 10000 (~1600rpm) 30000 (~600rpm) 50000 (~300rpm)
Stirring capacity (H₂O), max. (L / cu ft)	100 / 3.53 (~1200rpm)	60 / 2.12 (~2000rpm)
Rated torque (N-cm / inch)	41.6 / 16.38	20.8 / 8.19
Motor input / output (W)	71 / 48	71 / 48
Speed control	PID feedback control	PID feedback control
Material	Body	Powder coated aluminum
	Cover	Polypropylene
	Motor type	BLDC (Brushless Direct Current)
Dimension	Chuck range (Ø, mm / inch)	3~10 / 0.12~0.39
	Exterior (W x D x H, mm / inch)	80 x 185 x 235 / 3.15 x 7.28 x 9.25
	Net weight (kg / lbs)	3.1 / 6.83
Electrical requirements	AC 100 to 240V, 50/60Hz with power adapter, 5.0A	
Cat. No.	KR plug	AAH371415K
	US plug	AAH371415U

1) Tested with silicone oil at 26°C and 60% RH, and uses triple-bladed propeller impeller (Ø50).

Overhead Stirrer

High performance type



High performance model for faithful advanced features and safety

Structural Functional Features

- Possible for user to select clockwise (CW) / counter clock wise. (CCW)
- Slim & compact design.
- Convenient adjustment of height with pass-through impeller shaft.
- Chuck with excellent corrosion resistance. (max. Ø10 mm)

Use Convenience Features

- Best effort function to maintain maximum set rpm by monitoring sample viscosity changes in real time.
- Accurate stirring with PID feedback control.
- Operating elapsed time display function.
- Machine operation and data management with USB connection.
- Complete with accessories such as impeller, stand, clamp, etc.

Outstanding Safety

- Safety ensured by BLDC motor that does not generate sparks.
- Excellent heat dissipation structure makes use for a long time without any trouble.
- Continual use in safe by over temperature and overload protection.
- Malfunction prevented by controller lock function.
- Prevents sample run-off by smooth stirring start and stop function.



MSD-0420

Specification

Model		MSD-0420
Speed range (rpm)		80 to 2000
Viscosity, max. (cP) ¹⁾		5000 (~2000rpm) 10000 (~1200rpm) 30000 (~ 300rpm) 50000 (~ 200rpm)
Stirring capacity (H ₂ O), max. (L / cu ft)		20 / 0.71 (~2000rpm)
Rated torque (N-cm / inch)		19 / 7.48
Moter input / output (W)		70 / 40
Speed control		PID feedback control
Material	Body	Powder coated aluminum
	Cover	Polypropylene
	Motor type	BLDC (Brushless Direct Current)
Dimension	Chuck range (Ø, mm / inch)	3~10 / 0.12~0.39
	Exterior (W x D x H, mm / inch)	75 x 215 x 150 / 2.95 x 8.46 x 5.9
	Net weight (kg / lbs)	2.8 / 6.17
Electrical requirements (230V, 50/60Hz, A)		0.5
Cat. No.		AAH373225K
Electrical requirements (120V/60Hz, A)		0.5
Cat. No.		AAH373225U

1) Tested with silicone oil at 26°C and 60% RH, and uses triple-bladed propeller impeller (Ø50).

Accessories [Page 150](#) Impeller, Stand & Support, Clamp, Magnetic Drive, Stirring Seals

Overhead Stirrer

Easy control type



Easy control model optimized for simple use

Structural Functional Features

- Excellent durability BLDC motor and dedicated controller.
- Slim & compact design.
- Convenient adjustment of height with pass-through impeller shaft.
- Chuck with excellent corrosion resistance. (max. Ø10 mm)

Use Convenience Features

- Accurate stirring with PID feedback control.
- Easy operating for convenient use.
- Displays the set speed and the current speed at the same time.
- Pause buttons make it easier to observe experiments.
- Motor output detection and display.
- Complete with accessories such as impeller, stand, clamp, etc.

Outstanding Safety

- Safety ensured by BLDC motor that does not generate sparks.
- Excellent heat dissipation structure makes use for a long time without any trouble.
- Continual use in safe by over temperature and overload protection.
- Over temperature/overload warning notification displayed.
- Prevents sample run-off by smooth stirring start and stop function.



MSA-0420

Stirrer & Mixer

Specification

Model		MSA-0420
Speed range (rpm)		80 to 2000
Viscosity, max. (cP) ¹⁾		5000 (~2000rpm) 10000 (~1200rpm) 30000 (~ 300rpm) 50000 (~ 200rpm)
Stirring capacity (H ₂ O), max. (L / cu ft)		20 / 0.71 (~2000rpm)
Rated torque (N-cm)		19 / 7.48
Motor input / output (W)		70 / 40
Speed control		PID feedback control
Material	Body	Powder coated aluminum
	Cover	Polypropylene
	Motor type	BLDC (Brushless Direct Current)
Dimension	Chuck range (Ø, mm)	3~10 / 0.12~0.39
	Exterior (W x D x H, mm / inch)	75 x 215 x 150 / 2.95 x 8.46 x 5.9
	Net weight (kg / lbs)	2.8 / 6.17
Electrical requirements (230V, 50/60Hz, A)		0.5
Cat. No.		AAH373325K
Electrical requirements (120V/60Hz, A)		0.5
Cat. No.		AAH373325U

1) Tested with silicone oil at 26°C and 60% RH, and uses triple-bladed propeller impeller (Ø50).

Accessories Page 150 Impeller, Stand & Support, Clamp, Magnetic Drive, Stirring Seals

Accessories Impeller

Stainless steel impellers

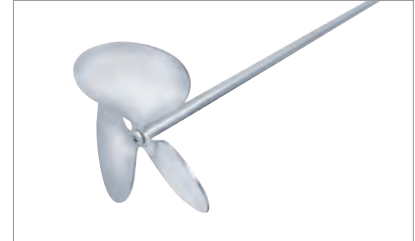
Propeller Impeller

- Suitable for high-speed stirring of low/medium viscosity solutions.
- Excellent mixing properties for homogeneous and suspended solids.
- It can be mounted on an overhead stirrer that rotates clockwise.

3-Bladed

(Unit: mm / inch)

Cat. No.	Blade Ø	Shaft Ø	Length
AAA37521	50 / 1.97	8 / 0.31	400 / 19.69
AAA37522	70 / 2.76	8 / 0.31	400 / 19.69
AAA37523	100 / 3.94	8 / 0.31	400 / 19.69



4-Bladed

(Unit: mm / inch)

Cat. No.	Blade Ø	Shaft Ø	Length
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

Anchor Impeller

- Suitable for low-speed stirring or reaction of medium/high viscosity solutions.
- Used for polymer reactions or dispersion of large amounts of liquid minerals, etc.
- Select and use an impeller having similar size with the diameter of vessels.

(Unit: mm / inch)

Cat. No.	Blade, W x H	Shaft Ø	Length
AAA37571	45 x 45 / 1.77 x 1.77	8 / 0.31	300 / 11.81
AAA37572	60 x 60 / 2.36 x 2.36	8 / 0.31	500 / 19.69



Paddle Impeller

- Suitable for high-speed stirring of low/medium viscosity solutions.
- Provides smooth flow during heat exchange.

(Unit: mm / inch)

Cat. No.	Blade, W x H	Shaft Ø	Length
AAA37581	70 x 70 / 2.76 x 2.76	8 / 0.31	500 / 19.69



Dissolver Impeller

- Suitable for high/medium-speed stirring of / low/medium (<500 mPas) viscosity solutions.

(Unit: mm / inch)

Cat. No.	Blade Ø	Shaft Ø	Length
BEA0570031	50 / 1.97	8 / 0.31	300 / 11.81
BEA0570032	70 / 2.76	8 / 0.31	300 / 11.81

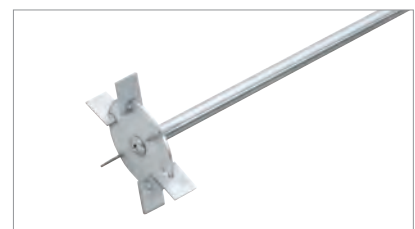


Turbine Impeller

- Suitable for high-speed stirring of medium/high viscosity solutions.

(Unit: mm / inch)

Cat. No.	Blade Ø	Shaft Ø	Length
AAA37561	57 / 2.24	8 / 0.31	500 / 19.69
AAA37562	90 / 3.54	8 / 0.31	500 / 19.69



Half-Moon Impeller

- Suitable for stirring medium viscosity solutions
- The blades are folded for use in narrow containers.
- The blades are spread by centrifugal force during stirring.

(Unit: mm / inch)

Cat. No.	Blade, W x H	Shaft Ø	Length
AAA37541	65 x 20 / 2.6 x 0.79	8 / 0.31	300 / 11.81
AAA37542	90 x 25 / 3.54 x 0.98	8 / 0.31	500 / 19.69

**Centrifugal Impeller**

- Suitable for high-speed stirring of low/medium viscosity solutions.
- The blades are folded for use in narrow containers.
- The blades are spread by centrifugal force during stirring.

(Unit: mm / inch)

Cat. No.	Blade, W x H	Shaft Ø	Length
AAA37551	90 x 15 / 3.54 x 0.59	8 / 0.31	500 / 19.69
AAA37552	150 x 15 / 5.9 x 0.59	8 / 0.31	500 / 19.69

**PTFE coated impellers****4-Bladed propeller**

(Unit: mm / inch)

Cat. No.	Blade Ø	Shaft Ø	Length
BEA0570081	50 / 1.97	8 / 0.31	500 / 19.69
BEA0570082	70 / 2.76	8 / 0.31	500 / 19.69



Propeller (4-bladed) / Turbine

Turbine

(Unit: mm / inch)

Cat. No.	Blade Ø	Shaft Ø	Length
BEA0570131	70 / 2.76	8 / 0.31	500 / 19.69



Half-moon / Centrifugal

Half-moon

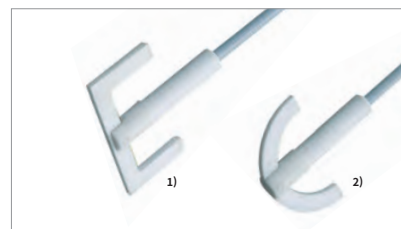
(Unit: mm / inch)

Cat. No.	Blade, W x H	Shaft Ø	Length
BEA0570091	60 x 18 / 2.36 x 0.71	8 / 0.31	500 / 19.69

Centrifugal

(Unit: mm / inch)

Cat. No.	Blade, W x H	Shaft Ø	Length
BEA0570101	76 x 17 / 2.99 x 0.67	8 / 0.31	500 / 19.69

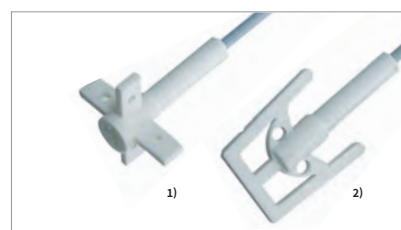


Anchor (Square / Round)

Anchor (Square¹⁾ / Round²)

(Unit: mm / inch)

Cat. No.	Blade, W x H	Shaft Ø	Length
BEA0570111 ¹⁾	80 x 50 / 3.15 x 1.97	8 / 0.31	500 / 19.69
BEA0570121 ²⁾	80 x 40 / 3.15 x 1.57	8 / 0.31	500 / 19.69



Paddle / Paddle A

Paddle (Paddle¹⁾ / Paddle A²)

(Unit: mm / inch)

Cat. No.	Blade Ø / W x H	Shaft Ø	Length
BEA0570141 ¹⁾	70 / 2.76	8 / 0.31	500 / 19.69
BEA0570151 ²⁾	78 x 80 / 3.07 x 3.15	8 / 0.31	500 / 19.69

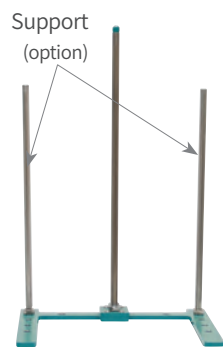
Accessories for Overhead Stirrer

Stand & Support



Easy-to-use Dial Stand

- Fine adjustment of position up, down, back and forth.
- Possible to lock after finishing fine adjustment using dials.
- The structure allows for no additional clamp holder to be used.



Basic Stand 1



Basic Stand 2



Basic Stand 3

Stand

Cat. No.	Description (W x D x H, mm / inch)
AAA37501	Dial stand (400 x 400 x 700 / 15.75 x 15.75 x 27.56)
AAA37502	Basic stand 1 (400 x 400 x 700 / 15.75 x 15.75 x 27.56)
AAA37503	Basic stand 2 (300 x 400 x 700 / 11.81 x 15.75 x 27.56)
AAA37504	Basic stand 3 (250 x 350 x 700 / 9.84 x 13.78 x 27.56)

Support

Cat. No.	Description (Ø x L, mm / inch)
AAA37505	Support Rod, M14 (Ø15 x 500mm / Ø0.59 x 19.68)
AAA37506	Support Rod, M14 (Ø18 x 500mm / Ø0.71 x 19.68)
AAA37507	Support Rod, M14 (Ø20 x 500mm / Ø0.79 x 19.68)

Clamp & Seal



Utility Clamp 3 Prong



Utility Clamp Plat



3 Prong Clamp



2 Prong Clamp



Fixing Clamp



Flexible Coupling



PTFE Stirring Seal

Cat. No.	Description
BEA1000001	Utility clamp 3 prong
BEA1000002	Utility clamp plat
BEA1000011	3 Prong clamp (80 mm grip)
BEA1000012	3 Prong clamp (60 mm grip)
BEA1000013	3 Prong clamp (20 mm grip)
BEA1000014	2 Prong clamp (60 mm grip)
BEA0570181	Fixing clamp
BEA0570191	Flexible coupling
BEA0570161	PTFE stirring seals (24/40) with 8mm hole
BEA0570162	PTFE stirring seals (29/42) with 8mm hole
BEA0570163	PTFE stirring seals (34/45) with 8mm hole

Clamp Holder Page 140



C-20



C-10

- Made of aluminum die casting for light weight but strong fixing.
- Knob structure that is comfortable to handle when locking / unlocking.
- The contact surface with the stand support is stable and does not slip.
- C-20 and C-10 models are suitable for the overhead stirrer.

Magnetic Drive



MD-T6



- Mixing reaction samples in case pressurized or depressurized in container, processing of resin solvents, decomposition and synthesis using enzymes, and uniform mixing of liquid raw materials.
- Experiments that require large stirring force while maintaining full sealing.
- Connected with overhead stirrer.

- The outer magnet and inner magnet are rare-earth element, which form a strong magnetic force to achieve high torque. (rotational force)
- Low vibration and high speed rotation even in a sealed state.
- Includes cooling line base for easy connection with external cooling device. (for experiments over 70°C)
- The connection point to the ground joint of glassware is easy to separate from glassware in a sealed state.

Specification

Model		MD-T6-24	MD-T6-29	MD-T6-35
Material	Body	STS316 / Cr-Plate	STS316 / Cr-Plate	STS316 / Cr-Plate
	Bushing & seal	PTFE & viton	PTFE & viton	PTFE & viton
Max. torque (kgf.cm)		6	6	6
Driving	Pressure	1 x 10 ⁻⁴ mmHg to 5kg/cm ²	1 x 10 ⁻⁴ mmHg to 5kg/cm ²	1 x 10 ⁻⁴ mmHg to 5kg/cm ²
	Temp. (with cooling)	Max. 300°C / 572°F	Max. 300°C / 572°F	Max. 300°C / 572°F
Shaft size (Ø x H, mm / inch)		8 x 209 / 0.31 x 8.23	8 x 209 / 0.31 x 8.23	8 x 209 / 0.31 x 8.23
Ground joint		24 / 40	29 / 42	34 / 45
Application		Glassware	Glassware	Glassware
Cat. No.		BEA511001	BEA511002	BEA511003