

Stirrers & Vortex mixer



Magnetic stirrer (Scale)



Magnetic stirrer (Digital)



Vortex mixer



Magnetic stirrer (Multi position)



Overhead stirrer (MSM, MSP)

- ++ Exceptional powerful stirring and mixing capacity.
- ++ Progressive indication systems.
- ++ High reliability and low maintenance.

Vortex Mixer

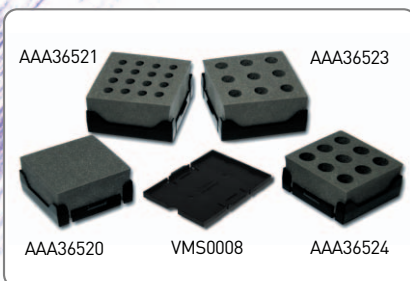
Intelligent 3 style operating modes allow user to select Touch, Continuous, High-continuous selective functions.

Constructional Features

- ++ Well- balanced design and Optimize safety functions.
- ++ Low profile design and rubber feet for excellent stable operation which minimize the vibration and movement.
- ++ Touch sensitive switch offers real-time mixing.
- ++ Variable speed control knob and mixing condition by LED lamp.
- ++ The non-spark BLDC motor offers preventive operations, quick and, free-maintains.
- ++ Built in safety device from overload and over current.
- ++ Chemical resistant PP (Poly propylene) molded exterior.
- ++ A wide range of accessories available.(VMS0011 as standard offer)



Optional Accessories



| Cat. No. | Description |
|----------|--|
| VMS0008 | Micro plate Tray |
| VMS0011 | Rubber Platform |
| AAA36520 | Tube Holder with Insert Retainer |
| AAA36521 | Tube Holder with Insert Retainer (Ø10mm) |
| AAA36522 | Tube Holder with Insert Retainer (Ø12mm) |
| AAA36523 | Tube Holder with Insert Retainer (Ø15mm) |
| AAA36524 | Tube Holder with Insert Retainer (Ø20mm) |
| AAA36525 | Tube Holder with Insert Retainer (Ø25mm) |

Specifications

| Model | | VM-96B |
|----------------|---|---|
| Technical Data | Motion | Orbital |
| | Speed range (rpm) | 0 - 3,000 |
| | Display | Analog |
| | Control | Scale |
| | Orbit (mm / inch, Ø) | 4 / 0.16 |
| | Operating mode | Touch, Continuous, High-continuous |
| | Motor rating input / output (W) | 12W / 6W |
| | Motor | BLDC motor |
| General Data | Max. load (kg / lbs) - incl. attachment | 0.5 / 1.1 |
| | Material | Polypropylene |
| | | Silicone rubber |
| | Dimension (mm / inch, W × D × H) | 154 × 210 × 83 / 6.06 × 8.27 × 3.27 |
| | Net weight (kg / lbs) | 3.5/7.72 |
| | Electrical requirements | AC 100V ~ 240V, 50 / 60Hz |
| | Safety Device | Self-resetting / Current limit protection |
| Cat. No. | | AAH360115 |

※ Permissible environment condition : Temperature +5℃ ~ 40℃, Relative humidity up to 80%
 ※ Protection class according to DIN EN 60529 : Waterproof, Dust production index based on the test level.
 ※ Above spec can be changed without prior notice.

Overhead Stirrer (MSM and MSP types)

Designed for optimum usability, strongest efficiency in the same class, and advanced safety system for protecting the user and environment.

Constructional Features

- ++ Compact and slim head design.
- ++ Powerful torque and high viscosity used.
- ++ Aluminum main body is sturdy and emits the heat efficiently generated by motor.
- ++ Enhanced bright digital display panel with sensitive touch button.
- ++ Convenient emergency stop.
- ++ Recognizable overload and thermal protection for safety operating ; sequence-Visible sign, Audible sign, and System stop.
- ++ Speed adjustment with dial knob.
- ++ High-speed vibration-free with silent operation.
- ++ Various accessories available.

Additional MSP Type Features

- ++ Smooth start, automatic speed-down functions which prevents from spills and splashing are controlled by microprocessor.
- ++ The PID controller provides feedback to motor to maintain constant speed under conditions of changing viscosity.
- ++ Selectable display modes upon user's option; Rpm, Ratio%, Motor temp., and Run time.



(MSP types)



(Optional Stands)

Specifications

| Model | | MSM-1 | MSM-2 | MSM-3 | MSP-1 | MSP-2 | MSP-3 |
|----------------|---|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Technical Data | Speed control | Analog | | | PID feedback control | | |
| | Speed range (rpm) | 50 ~ 1,400 | 50 ~ 1,200 | 50 ~ 900 | 50 ~ 1,400 | 50 ~ 1,200 | 50 ~ 900 |
| | Display | Digital | | | | | |
| | Viscosity, max. (cP) | 30,000 | 50,000 | 70,000 | 30,000 | 50,000 | 70,000 |
| | Stirring capacity, max. (L, H ₂ O) | 20 | 30 | 50 | 20 | 30 | 50 |
| | Torque, max. (N · cm) | 15 | 27 | 53 | 15 | 27 | 53 |
| | Power max. (W / A) | 15 / 1.2 | 20.4 / 1.7 | 31.2 / 2.6 | 15 / 1.2 | 20.4 / 1.7 | 31.2 / 2.6 |
| General Data | Material | Aluminum + PP + PC | | | | | |
| | Dimensions (mm / inch, W × D × H) | 65 × 135 × 190 / 2.56 × 5.31 × 7.48 | 70 × 150 × 200 / 2.76 × 5.91 × 7.87 | 70 × 150 × 215 / 2.76 × 5.91 × 8.46 | 65 × 135 × 190 / 2.56 × 5.31 × 7.48 | 70 × 150 × 200 / 2.76 × 5.91 × 7.87 | 70 × 150 × 215 / 2.76 × 5.91 × 8.46 |
| | Net weight (Kg / lbs) | 2 / 4.41 | 2.5 / 5.51 | 3 / 6.61 | 2 / 4.41 | 2.5 / 5.51 | 3 / 6.61 |
| | Electrical requirements | AC 100 ~ 240V, 50 / 60Hz | | | | | |
| | Safety device | Thermal protection, Current protection, Emergency stop, Automatic speed-down(MSP) | | | | | |
| | Shaft dia, max (mm / Inch) | 3 ~ 10 / 0.12 ~ 0.39 | | | | | |
| | Protection class (DIN EN 60529) | IP10 | | | | | |
| Cat. No. | | AAH370115 | AAH370215 | AAH370315 | AAH371115 | AAH371215 | AAH371315 |

* Permissible environment condition : Temperature +5℃ ~ 40℃, Relative humidity up to 80%

* Protection class according to DIN EN 60529 : Waterproof, Dust production index based on the test level.

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Accessories for Overhead Stirrer

Impeller

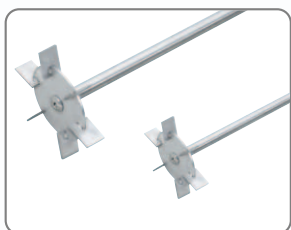
Propeller Impeller

- Standard stainless steel and Teflon shaft. It produces an axial flow in the container between bottom and top with local shearing forces. Used at medium to high speed and mixing of normal level viscosity range.



Radial Flow Impeller

- It generates a primarily radial flow to be mixed from top and from bottom with a powerful turbulence and high shearing. Used at ideal for the gassing of liquids, and medium to high level viscosity.



Blade and Half-Moon Impeller

- Tiltable moon-shaped and blade shaft. It produces a normal axial flow percentage in the vessel. Used at useful round bottom shape container, mixing with middle speed and low to medium level viscosity.



Anchor Impeller

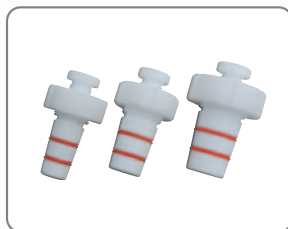
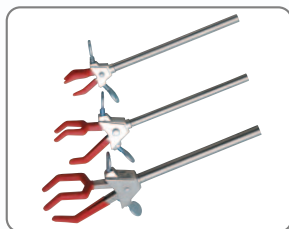
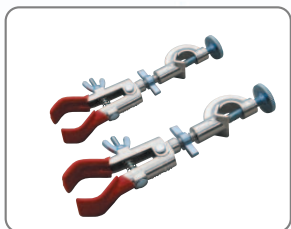
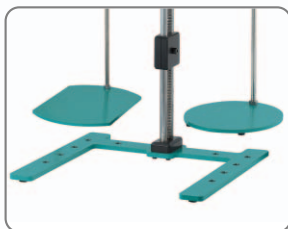
- An anchor shaft produces a Strong, tangential flow and high shear percentage in the vessel. Also, this Impeller is designed for high and medium level viscosity with middle and low speed.



| Cat. No. | Description |
|------------|---|
| AAA37521 | Propeller (50mm 3-Bladed, 8mm Shaft, 400mm Length) |
| AAA37522 | Propeller (70mm 3-Bladed, 8mm Shaft, 400mm Length) |
| AAA37523 | Propeller (100mm 3-Bladed, 8mm Shaft, 400mm Length) |
| AAA37531 | Propeller (50mm 4-Bladed, 8mm Shaft, 400mm Length) |
| AAA37532 | Propeller (70mm 4-Bladed, 8mm Shaft, 400mm Length) |
| AAA37533 | Propeller (100mm 4-Bladed, 8mm Shaft, 400mm Length) |
| AAA37541 | Half-Moon (60/19mm , 8mm Shaft, 300mm Length) |
| AAA37542 | Half-Moon (100/23mm , 8mm Shaft, 500mm Length) |
| BEA0570031 | Dissolver (55mm, 8mm Shaft, 350mm Length) |
| BEA0570032 | Dissolver (75mm, 8mm Shaft, 350mm Length) |
| AAA37551 | Centrifugal (50/14mm, 8mm Shaft, 500mm Length) |
| AAA37552 | Centrifugal (70/14mm, 8mm Shaft, 500mm Length) |
| AAA37561 | Turbine (40mm, 8mm Shaft, 500mm Length) |

| Cat. No. | Description |
|------------|---|
| AAA37562 | Turbine (70mm, 8mm Shaft, 500mm Length) |
| AAA37571 | Anchor (46 x 46mm, 8mm Shaft, 300mm Length) |
| AAA37572 | Anchor (70 x 70mm, 8mm Shaft, 500mm Length) |
| AAA37581 | Paddle A (78 x 80mm, 8mm Shaft, 500mm Length) |
| BEA0570081 | PTFE Propeller (50mm 4-Bladed, 8mm Shaft, 500mm Length) |
| BEA0570082 | PTFE Propeller (70mm 4-Bladed, 8mm Shaft, 500mm Length) |
| BEA0570091 | PTFE Half-Moon (60 / 18mm , 8mm Shaft, 500mm Length) |
| BEA0570101 | PTFE Centrifugal (76 / 17mm, 8mm Shaft, 500mm Length) |
| BEA0570111 | PTFE Anchor (80 x 50 x 5mm, 8mm Shaft, 500mm Length) |
| BEA0570121 | PTFE Anchor (80 x 40mm, 8mm Shaft, 500mm Length) |
| BEA0570131 | PTFE Turbine (70mm, 8mm Shaft, 500mm Length) |
| BEA0570141 | PTFE Paddle (70mm, 8mm Shaft, 500mm Length) |
| BEA0570151 | PTFE Paddle A (78 x 80mm, 8mm Shaft, 500mm Length) |

Stands, Seals, Holders, etc



| Cat. No. | Description |
|------------|--|
| AAA37501 | DS-01 Dial Stand (W X D X H, 400 X 400 X 700) |
| AAA37502 | BS-01 Basic Stand (W X D X H, 400 X 400 X 700) |
| AAA37503 | BS-02 Basic Stand (W X D X H, 300 X 400 X 700) |
| AAA37504 | BS-03 Basic Stand (W X D X H, 250 X 350 X 700) |
| MSS0051 | SU-15 15ø support, 500mm, M14 Nut |
| MSS0052 | SU-18 18ø support, 500mm, M14 Nut |
| MSS0053 | SU-20 20ø support, 500mm, M14 Nut |
| BEA0570161 | PTFE Stirring seals (24 / 40) |
| BEA0570162 | PTFE Stirring seals (29 / 42) |
| BEA0570163 | PTFE Stirring seals (34 / 45) |

| Cat. No. | Description |
|------------|---------------------------|
| BEA0570171 | Clamp Holder |
| BEA1000001 | Utility Clamp 3 Prong |
| BEA1000002 | Utility Clamp Plat (2P) |
| BEA1000011 | 3 Prong Clamp (80mm grip) |
| BEA1000012 | 3 Prong Clamp (60mm grip) |
| BEA1000013 | 3 Prong Clamp (20mm grip) |
| BEA1000014 | 2 Prong Clamp (60mm grip) |
| BEA0570181 | Fixing Clamp |
| BEA0570191 | Flexible Coupling |

Magnetic Stirrer without heating (MS-B, G types)

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

Constructional Features

- ++ Ergonomic design, lightweight, simple to use and efficient low profile structure.
- ++ 120mm (MS-12B), 170mm, and 220mm / Wide top plate provided.
- ++ The white & black Non-slip silicon plate covers (MS-B, G types) and the adhesive strength of rubber-foot stop the sample sliding.
- ++ It reduces noise and improves durability by using the BLDC motor.
- ++ Best-in-the class the powerful RPM and wide speed range with unparalleled reliability.
- ++ Built in thermal shutdown and current limit protection device.



Additional MS-G Type Features

- ++ Microprocessor PID controls.
- ++ Convenient program and timer modes
- ++ Adopted bright VFD display, and capacitive touch sensor button.
- ++ Gradual start-up prevents user and products
- ++ Supported M12 rod holder for attachment to the magnetic stirrer.

Multi-position Type Features

- ++ User's friendly operating and time setting modes allows user to select one of them; Row, Column, Individual and Simultaneous motion.
- ++ Adopted Easy-to-read digital VFD control monitor and LED operating lamps.
- ++ Non-slip silicon plate. (optional)
- ++ Uncompromising safety devices.
- ++ Supported various number of multi position stirring to meet user demands.
- ++ #304 Stainless steel top-plate has excellent chemical resistance.



Magnetic Stirrer

Specifications MS-B, G types (Scale, Digital)

| Model | | MS-12B | MS-17B | MS-22B | MS-17G | MS-22G |
|----------------|---|--|-------------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|
| Technical data | Speed control | Electronic speed control | | | Feedback control with PID | |
| | Stirring Capacity (Liter, H ₂ O) | 2 | 4 | 5 | 4 | 5 |
| | Speed range (rpm) | 150 ~ 2,500 | | | 30 ~ 2,000 | |
| | Speed display | None | | | VFD | |
| | Motor rating input / output (W) | 2.9 / 1.6 | | | | |
| | Magnetic bar (Ø x L, mm / Inch), Max. | 8 × 30 / 0.31 × 1.18 | 8 × 40 / 0.31 × 1.57 | 10 × 50 / 0.39 × 1.97 | 8 × 40 / 0.31 × 1.57 | 10 × 50 / 0.39 × 1.97 |
| Top plate | Load, Max (kg / lbs) | 15 / 33.07 | 20 / 44.09 | 25 / 55.12 | 20 / 44.09 | 25 / 55.12 |
| | Material | Poly propylene with non-slip silicon cover | | | | |
| | Dimension (mm / inch, Ø) | 120 / 4.72 | 170 / 6.69 | 220 / 8.66 | 170 / 6.69 | 220 / 8.66 |
| General data | Body material | Poly propylene | | | | |
| | Dimension (mm / inch, W × D × H) | 130 × 130 × 65 / 5.12 × 5.12 × 2.56 | 185 × 185 × 65 / 7.28 × 7.28 × 2.56 | 230 × 230 × 65 / 9.06 × 9.06 × 2.56 | 210 × 280 × 72 / 8.27 × 11.02 × 2.82 | 260 × 360 × 72 / 10.24 × 14.17 × 2.82 |
| | 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 (only MS-12B, 17B with power adapter) | | | | |
| | Power consumption (W) | 5 | 6 | | | |
| Cat. No. | Protection class (DIN EN 60529) | IP42 | | | | |
| | Persian blue | AAH330115B | AAH330215B | AAH330315B | AAH331215B | AAH331515B |
| | Yellow | AAH330115Y | AAH330215Y | AAH330315Y | AAH331215Y | AAH331515Y |
| | Pink | AAH330115P | AAH330215P | AAH330315P | AAH331215P | AAH331515P |
| | Gray blue | AAH330115G | AAH330215G | AAH330315G | AAH331215G | AAH331515G |

Specifications MS-M types (Multi position)

| Model | | | MS-51M | MS-52M | MS-53M |
|----------------|--|-------------------|---|---|--|
| Technical data | Speed control | | Feedback control with PID | | |
| | Stirring | Positions | 5 | 10 | 15 |
| | | Speed range (rpm) | 30 ~ 2,000 | | |
| | Stirring point distance (mm / inch, W x D) | | 90 / 3.54 | 117 × 90 / 4.6 × 3.54 | |
| | Timer | | 1 min. to 99 hours 59 min. | | |
| | Speed display | | VFD | | |
| | Motor rating input / output (W) | | 2.9 / 1.6 | | |
| | Load, Max (kg / lbs) | | 30 / 66.14 | | |
| General data | Dimension (mm / inch, W × D × H) | | 130 × 591 × 75 / 5.12 × 23.27 × 2.95 | 251 × 591 × 75 / 9.88 × 23.27 × 2.95 | 378 × 591 × 75 / 14.89 × 23.27 × 2.95 |
| | Weight (kg / lbs) | | 4 / 8.82 | 8 / 17.64 | 11 / 24.25 |
| | Electrical requirements | | AC 100 ~ 240V, 50 / 60Hz | | |
| | Power consumption (W) | | 45 | 85 | 135 |
| | Protection class (DIN EN 60529) | | IP 42 | | |
| Cat. No. | | | AAH332415 | AAH332515 | AAH332615 |

Accessories for Magnetic Stirrer MS-B,G and MS-M types

| Cat. No. | Description | mm |
|----------|--|-----------------------|
| MTT0001 | Power adapter for MS-12B & MS-17B | 100 ~ 240V, 50 / 60Hz |
| MTT0002 | Plate Cover (White, Silicone) for MS-12B | Ø120 |
| MTT0003 | Plate Cover (White, Silicone) for MS-17B | Ø170 |
| MTT0004 | Plate Cover (White, Silicone) for MS-22B | Ø220 |
| MTT0005 | Plate Cover (Black, Silicone) for MS-12B | Ø120 |
| MTT0006 | Plate Cover (Black, Silicone) for MS-17B | Ø170 |
| MTT0007 | Plate Cover (Black, Silicone) for MS-22B | Ø220 |
| MTS0015 | Silicone Plate for MS-53M | 355 × 310 |
| MTS0016 | Silicone Plate for MS-52M | 235 × 310 |
| MTS0017 | Silicone Plate for MS-51M | 115 × 475 |
| MTT0008 | Magnetic stirring bar (Octagon type) | 12.7 × 8 |
| MTT0009 | Magnetic stirring bar (Octagon type) | 16.0 × 8 |
| MTT0010 | Magnetic stirring bar (Octagon type) | 22.0 × 8 |
| MTT0011 | Magnetic stirring bar (Octagon type) | 25.4 × 8 |
| MTT0012 | Magnetic stirring bar (Octagon type) | 28.6 × 8 |
| MTT0013 | Magnetic stirring bar (Octagon type) | 38.0 × 8 |

| Cat. No. | Description | mm |
|----------|---|------------|
| MTT0014 | Magnetic stirring bar (Octagon type) | 50.8 × 9.5 |
| MTT0015 | Magnetic stirring bar (Polygon type) | 15 × 5 |
| MTT0016 | Magnetic stirring bar (Polygon type) | 20 × 5 |
| MTT0017 | Magnetic stirring bar (Polygon type) | 25 × 5 |
| MTT0018 | Magnetic stirring bar (Polygon type) | 30 × 5 |
| MTT0019 | Magnetic stirring bar (Polygon type) | 40 × 5 |
| MTT0020 | Magnetic stirring bar (Polygon type) | 50 × 5 |
| MTT0021 | Magnetic stirring bar (Egg type, 50ml Round flask) | 16.0 |
| MTT0022 | Magnetic stirring bar (Egg type, 10, 25, 50, 100ml Round flask) | 19.0 |
| MTT0023 | Magnetic stirring bar (Egg type, 100, 200ml Round flask) | 25.4 |
| MTT0024 | Magnetic stirring bar (Egg type, 300, 500ml Round flask) | 31.8 |
| MTT0025 | Magnetic stirring bar (Egg type, 500, 1000ml Round flask) | 41.28 |
| MTT0026 | Plastic Retrievers (PE) | 300 |
| MTT0027 | Plastic Retrievers (PE) | 500 |
| MTT0028 | Plastic Retrievers (Yellow, Teflon) | 510 |
| MTT0029 | Plastic Retrievers (Blue, Teflon) | 510 |

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