

MAGNETIC STIRRERS, OVERHEAD STIRRER



Intelli-Stirrer MSH-300i
Magnetic Stirrer with hot plate



MMS-3000
High speed magnetic stirrer



MM-1000
Overhead Stirrer Multi Mixer

MS-3000 and MMS-3000, Magnetic Stirrers

DESCRIPTION

MS-3000 and **MMS-3000** are compact magnetic stirrers with stainless steel working surface. Units provide stirring of liquids with the rotation speed of magnetic element up to 3,000 rpm. Up to date, it is the highest value of the maximal speed for magnetic stirrers of global producers.

Strong magnets hold the driven magnetic element firmly in the magnetic clutch. Stirring is performed without undesirable heating and noise.

Enclosures of stirrer **MS-3000** are made of strong steel and painted with powder enamel, which is chemically resistant to acids and alkali.

The stirrers are supplied with a cylinder-shaped magnetic stirring bar (6 × 25 mm) encapsulated in PTFE for universal use.

MMS-3000 is equipped with a detachable stand for supporting various sensor elements (temperature, pH and others) inside the stirred liquid.

Magnetic stirrer is an ideal laboratory instrument for PH-metering, extraction and dialysing with small quantities of substances.

Operation temperature range +4°C to +40°C (from cold rooms to incubators) at maximal relative humidity 80%.

Basic Plus
Product Class



MS-3000

Basic Plus
Product Class



MS-3000

MMS-3000
with a stand

SPEED DIAL

MS-3000 and MMS-3000, Magnetic Stirrers

	MS-3000	MMS-3000
Speed control range	0–3,000 rpm	
Stirring volume up to (H ₂ O)	5 L	20 L
Working surface material	Stainless steel	
SR-1, attachable stand size	—	Ø 8 × 320 mm
Max. length of magnetic stirring element (bar)	50 mm	70 mm
Stirring liquid viscosity	up to 1,170 mPa·s	
Maximum continuous operation time	24 h	
Operation in closed laboratory rooms	at ambient temperature from +4°C to +40°C	
Working plate size	110 × 110 mm	Ø 160 mm
Overall dimensions (W×D×H)	120 × 150 × 65 mm	185 × 230 × 75 mm
Weight	0.8 kg	1.5 kg
Input current/power consumption	12 V, 220 mA / 2.6 W	12 V, 250 mA / 3 W
External power supply	Input AC 100–240 V, 50/60 Hz; Output DC 12 V	

MMS-3000



MMS-3000



ORDERING INFORMATION:

MS-3000 white**MS-3000** blue (on request)**MMS-3000**

Optional accessories for MMS-3000:

HTP-1, Holder for temperature probe (see page 85)Cat. number 

BS-010301-AAF

BS-010301-ABF

BS-010305-AAF

BS-010309-FK

MSH-300 and Intelli-Stirrer MSH-300i, Magnetic Stirrers with hot plate

DESCRIPTION

MSH-300 and **Intelli-Stirrer MSH-300i** are magnetic stirrers of the new generation. Enclosures of stirrers are made of metal painted with powder enamel chemically resistant to acids and alkali. The stirrers are equipped with a detachable stand for supporting various sensor elements (temperature, pH and others) inside the stirred liquid.

The stirrers are supplied with a cylinder-shaped magnetic stirring bar (6×25 mm) for universal use covered with Teflon.

Units are equipped with overheat protection providing an automatic switch-off of the device when overheating for the set temperature difference occurs.

Magnetic stirrers with heating can be used for laboratory operations such as organic synthesis, extraction, analysis of oil products, pH-measurements, dialysis, soil suspending, preparing buffer solutions, etc.

Additional protection disables the heating if the temperature of the plate exceeds the set temperature for 30°C.

Operation temperature range +4°C to +40°C (from cold rooms to incubators) at maximal relative humidity 80%.



Product video is available on the website

DESCRIPTION

Intelli-Stirrer MSH-300i is a digital version of magnetic stirrer with heating; it is designed for laboratories with higher requirements. It offers digital setting and control of temperature and rotation speed.

A powerful magnet allows mixing solutions with glycerine viscosity level. Maximum volume of stirred liquid (water) is 20 litres.

An external probe provides direct control of the stirred liquids temperature.

External temperature probe:

Probe type	thermocouple
Connection	type K

The cable is covered with Teflon, mechanically strong, elastic and chemically stable against oils, acids, aggressive reagents and liquids

Cable length	1 m
Operation temperature range	-50°C to +250°C

Basic Plus Product Class



Premium Product Class



MSH-300 and Intelli-Stirrer MSH-300i, Magnetic Stirrers with hot plate

	MSH-300	Intelli-Stirrer MSH-300i
Speed control range	250–1,250 rpm	100–1,250 rpm (10 rpm increment)
Max. stirring volume (H ₂ O)	15 L	20 L
Plate temperature regulation range	+30°C ... +330°C	+30°C ... +330°C (1°C increment)
Temperature control range with external probe	—	20 °C ... +150°C
Display	—	LCD
Temperature uniformity on the plate	±3°C	
Working plate heating time till 330°C	15 min	11 min
Diameter of working plate	160 mm	
Plate material	Aluminium alloy	
SR-1, attachable stand size	Ø 8 × 320 mm	
Length of magnetic stirring element	10–50 mm	20–70 mm
Max. stirring liquid viscosity	up to 1,170 mPa·s	
Maximum continuous operation time	24 h	168 h
Fault indication	Outputs sound signal and turns off the heating	Outputs an error code on display, turns off the heating
Overall dimensions (W×D×H)	190 × 270 × 100 mm	
Weight	2.9 kg	3.2 kg
Nominal operating voltage	230 V; 50/60 Hz or 120 V; 50/60 Hz	
Power consumption (Stirring)	8.5 W	
Power consumption (Heating)	550 W	

Connecting external probe to the Intelli-Stirrer MSH-300i



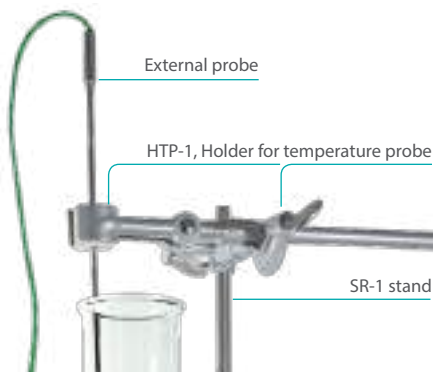
Plate heat up time for **MSH-300**:

from 25°C — **15 min** — to 330°C

Plate heat up time for Intelli-Stirrer **MSH-300i**:

from 25°C — **11 min** — to 330°C

External sensor installation:



ORDERING INFORMATION:

Cat. number 

MSH-300 with stand BS-010302-OAA

Intelli-Stirrer MSH-300i with stand BS-010309-AAA

Optional accessories:

External temperature probe BS-010309-BK

HTP-1, holder for temperature probe BS-010309-FK

MM-1000, Overhead Stirrer Multi Mixer

DESCRIPTION

Overhead Stirrer Multi Mixer **MM-1000** is designed for stirring liquids up to 20 litres. Quiet and reliable mixer can provide stable continuous mixing up to seven days. It can realise three types of motion:

- 1 Rotational
- 2 Reciprocal
- 3 Vibration.

MM-1000 performs separate (mono-) (1; 2; 3), consecutive binary cycles (c) (1-2) × c; (1-3) × c and (2-3) × c and complex tri-cycles (1-2-3) × c.

Speed, angle and time of stirrer rotation are under micro-processor control.

Multi Mixer can be used for stirring solutions up to the “medium viscosity” range (from 1,000 to 10,000 mPa·s). It is an ideal instrument for biotechnology, organic synthesis, analytical laboratories.

The innovative combination of three motion types provides a high level of homogeneity due to consecutive combination of laminar and turbulent flows that cause substances to dissolve faster.

Electrically safe and energy efficient — powered by 12 V external power supply.

Specifications of movement types:

1 Rotation:

Speed regulation range 40–1,000 rpm

Time 0–250 s

2 Reciprocal motion:

Turning angle 0°–360° (increment 30°)

Time 0–250 s

3 Vibro motion:

Turning angle 0°–5° (increment 1°)

Timer 0–5 s

Timer sound signal yes

Stirring volume up to (H₂O) 20 L

Digital time setting 1 min–96 h/non-stop
(increment 1 min)

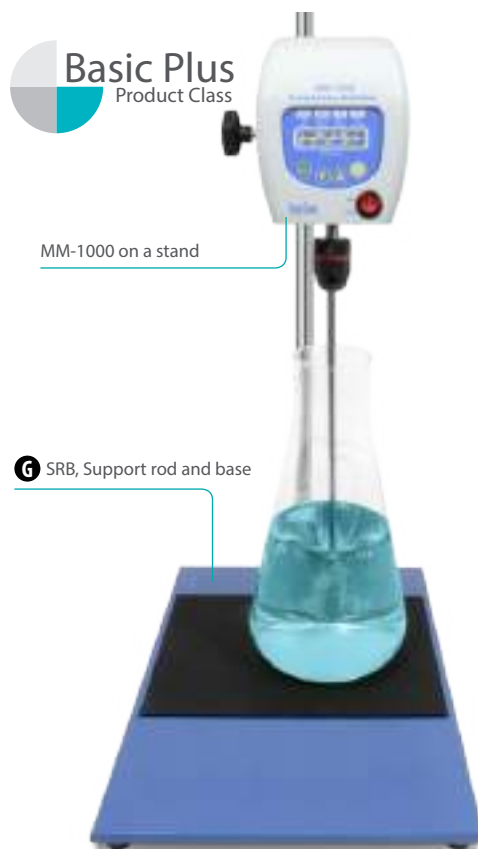
Overall dimensions (W×D×H) 140 × 135 × 250 mm

Weight 2.4 kg

Input current/power consumption 12 V, 700 mA / 8.4 W

External power supply Input AC 100–240 V 50/60 Hz,
Output DC 12 V

SPECIFICATIONS



Basic Plus
Product Class

MM-1000 on a stand

SRB, Support rod and base



Multi mixing



Accessories for MM-1000

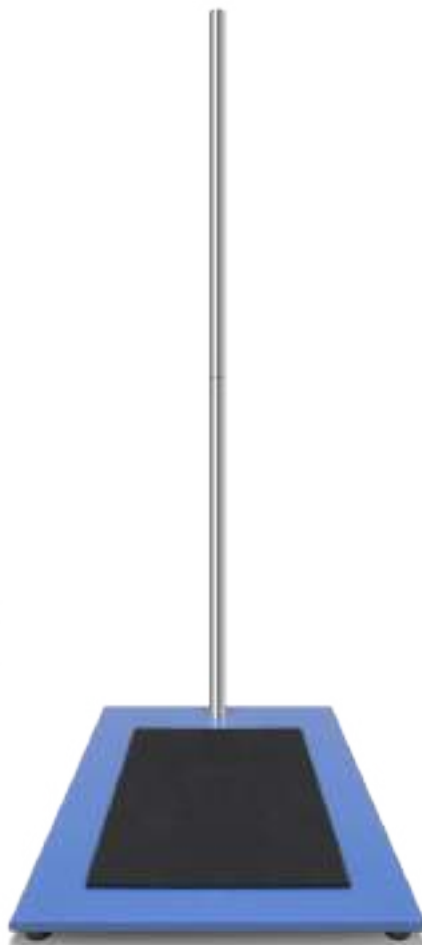
ORDERING INFORMATION:

Cat. number 

MM-1000 without stirrers

BS-010306-AAH

Optional accessories:	Type	Dimensions	Cat. number
A MP-1	Paddle stirrer	378 × (70 × 70) × 8 mm	BS-010306-AK
B MP-2	Propeller stirrer	2 folding blades (326 × 55 × 8 mm)	BS-010306-BK
C MP-3	Propeller stirrer	3 folding blades (325 × 50 × 8 mm)	BS-010306-CK
D MA-1	Anchor stirrer	332 × 90 × 8 mm	BS-010306-DK
E MC-1	Centrifugal stirrer	358 × 60 (110) × 8 mm	BS-010306-EK
F Double clamp	—	For device mounting	VELA00001301
G SRB, Support rod and base	—	For device mounting, 285 × 375 × 840 mm	BS-010306-KK

A MP-1**B** MP-2**C** MP-3**G** SRB, Support rod and base**D** MA-1**E** MC-1**F** Double clamp