Digital Stirring Heating Mantle - PID Magnetic Heating Mantle - 50 ml to 20 L - RT+20 to 250°C

Model **MSHMSD-1SWISS, MSHMSD-2SWISS, MSHMSD-5SWISS, MSHMSD-10SWISS, MSHMSD-20SWISS, MSHMSD-40SWISS, MSHMSD-60SWISS, MSHMSD-100SWISS, MSHMSD-200SWISS, MSHMSD-400SWISS** | Brand **Master Science**





The Master Science Digital Stirring Heating Mantle heats round-bottom flasks from 50 ml up to 20 litres while stirring them magnetically. A PID controller with a single display works with a PT100 probe, held on an adjustable sensor rack with stainless steel rods, to control the liquid temperature directly.

KEY HIGHLIGHTS

- Direct liquid control
- Wide capacity range
- Heating plus stirring
- Cooler shell

AT A GLANCE

RT+20 to 250°C TEMPERATURE CONTROL RANGE	**0 to 1600 rpm, stepless** STIRRING SPEED

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Overview

Heating is by surface conduction from nichrome wire, with a control range of RT+20°C to 250°C and a maximum surface temperature of 450°C. Stirring is stepless from 0 to 1600 rpm and runs together with heating, and thick aluminium silicate insulation keeps the outer shell of the Master Science Digital Stirring Heating Mantle cooler.

Uncontrolled mantles can overheat samples. The Master Science Digital Stirring Heating Mantle helps with:

Overview

- Nichrome wire surface heating, 450°C max.
- Magnetic stirring 0 to 1600 rpm
- PTFE stir bar

Key Benefits

Direct liquid control
PT100 probe on an adjustable rack controls the sample temperature.

Wide capacity range
Ten sizes from 50 ml to 20 litres.

Heating plus stirring
Magnetic stirring up to 1600 rpm runs with heating.

Cooler shell
Aluminium silicate insulation reduces outer temperature.

For several flasks at once, see our multi-position stirring heating mantle.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSHMSD-1SWISS, MSHMSD-2SWISS, MSHMSD-5SWISS, MSHMSD-10SWISS, MSHMSD-20SWISS, MSHMSD-40SWISS, MSHMSD-60SWISS, MSHMSD-100SWISS, MSHMSD-200SWISS, MSHMSD-400SWISS
SKU	MSHMSD-1SWISS, MSHMSD-2SWISS, MSHMSD-5SWISS, MSHMSD-10SWISS, MSHMSD-20SWISS, MSHMSD-40SWISS, MSHMSD-60SWISS, MSHMSD-100SWISS, MSHMSD-200SWISS, MSHMSD-400SWISS
Brand	Master Science
Models	MSHMSD-1SWISS (50 ml), MSHMSD-2SWISS (100 ml), MSHMSD-5SWISS (250 ml), MSHMSD-10SWISS (500 ml), MSHMSD-20SWISS (1000 ml), MSHMSD-40SWISS (2000 ml), MSHMSD-60SWISS (3000 ml), MSHMSD-100SWISS (5000 ml), MSHMSD-200SWISS (10000 ml), MSHMSD-400SWISS (20000 ml)
SKU	MSHMSD-1SWISS, MSHMSD-2SWISS, MSHMSD-5SWISS, MSHMSD-10SWISS, MSHMSD-20SWISS, MSHMSD-40SWISS, MSHMSD-60SWISS, MSHMSD-100SWISS, MSHMSD-200SWISS, MSHMSD-400SWISS
Heating Mode	Surface heat conduction
General	Max. Surface Temperature: 450°C
Temperature Control Range	**RT+20 to 250°C**
Controller	PID, single display, PT100 sensor
Stirring Speed	0 to 1600 rpm, stepless
Heating Element	Nichrome wire
Stir Bar	PTFE
Insulation	Aluminium silicate
Operation	Continuous

POWER

Motor Power	0.01 kW
Heating Power	0.08 / 0.1 / 0.15 / 0.25 / 0.35 / 0.45 / 0.6 / 0.8 / 1.2 / 2.5 kW
Voltage	100-120 V or 200-240 V (larger models 200-240 V)

DIMENSIONS & WEIGHT

Exterior Size	From Ø220 × 165 mm to Ø470 × 340 mm depending on capacity

PROBLEMS THE MASTER SCIENCE DIGITAL STIRRING HEATING MANTLE SOLVES	
Overheating the liquid	PID control with a PT100 probe regulates sample temperature.
Hot spots without stirring	Built-in magnetic stirring keeps the contents moving.
Different flask sizes	Ten models from 50 ml to 20 L.
Hot outer shell	Thick insulation keeps the housing cooler.

Applications

The Master Science Digital Stirring Heating Mantle is used for: Reflux and distillation in round-bottom flasks Organic synthesis with stirring Solvent extraction Large-volume heating up to 20 L Chemistry teaching and research labs

Control

- PID single-screen controller
- PT100 sensor with adjustable rack and stainless rods
- RT+20 to 250°C

Construction

- Aluminium silicate insulation layer
- Continuous operation
- Ten capacities from 50 ml to 20 L

Standard Accessories Included

- Heating mantle main unit
- PT100 sensor with rack and stainless rods
- PTFE stir bar