

magnetic stirring heating mantle for drug development

Magnetic stirring heating mantle is a kind of laboratory heating equipment integrating heating and stirring functions, widely used in physics, chemistry, biology and other scientific research experiments for uniform heating and stirring of liquid samples.

Magnetic Stirring Heating Mantle

The magnetic stirring heating mantle combines a digital temperature control system with magnetic stirring technology for precise sample heating and uniform mixing, enhancing experimental efficiency and data accuracy.

Key Features

1. **Intelligent Temperature Control:** PID technology with digital display delivers high-precision control, adjustable from 70°C to 380°C for a wide range of experiments.
2. **One-Piece Molding Structure:** High-strength cold-rolled steel plate shell with anti-corrosion coating offers durability, wear resistance, and an attractive appearance.



3. **High-Quality Heating Element:** Winding nickel-chromium alloy wire provides rapid warming, high efficiency, and long service life.
4. **Adjustable Stirring System:** Magnetic drive supports stepless speed from 0–1600rpm, ensuring smooth, low-noise mixing for liquids of different viscosities.
5. **Continuous Operation:** Designed for long-term continuous use, ensuring reliable and stable experimental conditions.

Technical Advantages

1. **Uniform Heating:** Even heat radiation with stirring prevents local overheating and preserves sample activity.
2. **Efficient Magnetic Stirring:** Non-contact drive reduces mechanical wear and avoids container interference typical of traditional stirrers.
3. **Convenient & Safe Operation:** Intuitive panel; some models feature overheat protection and timer functions for enhanced safety.
4. **Versatile Compatibility:** Suitable for flasks, beakers, and other round-bottom containers—flexible for multiple experiment types.

Working Principle

The heating mantle uses a winding nickel-chromium alloy wire to generate heat, conducting energy efficiently to the container. Magnetic stirring creates a rotating magnetic field, driving a stir bar for vortex movement and uniform mixing. Temperature and speed are fully adjustable via the control panel, ensuring precise control throughout the experiment.

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Model	MS25	MS50	MS100
Volume	250ml	500ml	1000ml
Working method	continuously		
Temperature range	70°C to 380°C		
Magnetic stirring	yes		
Speed range	0 to 1600rpm		
Motor power	10W		
Heating element	nickel-chromium alloy wire, OCr27A17Mo2		

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Model	MS25	MS50	MS100
Temperature setting method	Button		
Temperature display	Digital		
Rated power	0.15kw	0.25kw	0.35kw
External dimensions	diameter 196x176mm		diameter 262x231mm
Power supply	220Vac, 50Hz, 0.7A	220Vac, 50Hz, 1.1A	220Vac, 50Hz, 1.6A
Weight	2Kg	2Kg	4Kg