

Borosil MHPS 550P

Borosil MHPS 550P Magnetic Stirrer with Heating Plate User Manual

Model: MHPS 550P

1. SAFETY INSTRUCTIONS

Read all instructions carefully before operating the Borosil MHPS 550P Magnetic Stirrer with Heating Plate. Failure to follow safety guidelines may result in injury or damage to the equipment.

- Always operate the unit on a stable, level surface.
- Ensure proper ventilation to prevent heat buildup.
- Do not touch the ceramic plate when hot. Use appropriate personal protective equipment (PPE) such as heat-resistant gloves.
- Avoid spilling liquids onto the control panel or electrical components.
- Disconnect the power supply before cleaning or maintenance.
- Use only compatible stirring bars and vessels.
- Do not exceed the maximum liquid capacity of 20 liters.
- The maximum plate temperature is 550°C; the maximum liquid temperature is 280°C. Monitor temperatures carefully.
- Keep the device away from flammable materials.

2. PRODUCT OVERVIEW

The Borosil MHPS 550P is a high-performance magnetic stirrer with an integrated heating plate, designed for laboratory and industrial applications requiring precise temperature and stirring control. It features a durable ceramic top plate and digital display for accurate settings.

2.1 Key Features

- Glass Top of Nano Crystalline Ceramic Material for excellent resistance to thermal shock and corrosive liquids.
- Maximum Plate Temperature: 550°C; Maximum Liquid Temperature: 280°C.
- Adjustable Stirring Speed: 200-2200 rpm.

- High Capacity: Up to 20 liters of water.
- Integrated Timer: 1-999 minutes & infinite mode.
- Digital Display: Shows set and actual temperature, RPM, and time.
- Includes PT 1000 Probe and Stand for external temperature control.
- Protection Class: IP 21.

2.2 Components

The package includes the main stirring unit, a PT 1000 temperature probe, and a support stand.



Figure 1: Borosil MHPS 550P Magnetic Stirrer with Heating Plate. This image shows the complete unit, including the ceramic top plate, control panel, and the included support stand and PT1000 temperature probe.

3. SETUP

1. **Unpacking:** Carefully remove the stirrer and all accessories from the packaging. Inspect for any signs of damage.
2. **Placement:** Place the unit on a stable, heat-resistant, and level workbench in a well-ventilated area. Ensure sufficient clearance around the unit for air circulation.
3. **Power Connection:** Connect the power cord to the stirrer and then to a grounded electrical outlet. Verify that the power supply matches the unit's requirements.
4. **Probe Installation (Optional):** If external temperature control is desired, insert the PT 1000 temperature probe into the designated port on the unit. Secure the probe using the provided stand, ensuring its tip is immersed in the liquid to be heated/stirred without touching the bottom or sides of the vessel.
5. **Vessel Placement:** Place the stirring vessel (e.g., beaker, flask) centrally on the ceramic heating plate.
6. **Stirring Bar:** Carefully drop a suitable magnetic stirring bar into the vessel containing the liquid.

4. OPERATING INSTRUCTIONS

4.1 Power On/Off

- To power on, press the main power switch located on the unit. The digital display will illuminate.
- To power off, press the main power switch again.

4.2 Setting Stirring Speed

1. Use the "Speed" control knob or buttons (refer to specific model interface) to adjust the desired RPM.
2. The set RPM will be displayed, and the actual RPM will be shown as the stirring begins.
3. The stirring speed can be set between 200-2200 rpm.

4.3 Setting Heating Temperature

1. Use the "Temp" control knob or buttons to set the desired heating temperature.
2. The unit can control temperature via the ceramic plate or the external PT 1000 probe. Select the appropriate mode (internal/external) if available.
3. The set temperature and actual temperature will be displayed.
4. The maximum plate temperature is 550°C, and the maximum liquid temperature (with probe) is 280°C.

4.4 Using the Timer

1. Press the "Timer" button or use the dedicated controls to set the desired operating duration.
2. The timer can be set from 1 to 999 minutes. An "infinite" mode is also available for continuous operation.
3. Once the set time elapses, the stirring and/or heating function will automatically stop.

4.5 Starting and Stopping Operation

- After setting the desired parameters (speed, temperature, timer), press the "Start" button to begin operation.
- To stop operation at any time, press the "Stop" button.

5. MAINTENANCE AND CLEANING

Regular maintenance ensures the longevity and optimal performance of your Borosil MHPS 550P.

- **Cleaning:** Always disconnect the unit from the power supply before cleaning. Wipe the ceramic plate and exterior surfaces with a soft, damp cloth. For stubborn stains, use a mild detergent. Do not use abrasive cleaners or solvents.
- **Spills:** In case of spills, immediately clean the unit to prevent corrosion or damage to internal components.
- **Inspection:** Periodically inspect the power cord for any signs of damage. Check the ceramic plate for cracks or chips.
- **Storage:** When not in use for extended periods, store the stirrer in a clean, dry environment.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Unit does not power on.	No power supply; power cord damaged; main switch off.	Check power connection and outlet; inspect power cord; ensure main switch is on.
Stirring bar does not spin or spins erratically.	Vessel not centered; stirring bar too large/small; liquid too viscous; stirring bar not magnetic.	Center the vessel; use appropriate stirring bar size; reduce liquid viscosity if possible; replace stirring bar.
Heating not reaching set temperature.	External probe not immersed; heating element fault; ambient temperature too low; vessel too large.	Ensure probe is correctly placed; contact service if element fault suspected; use appropriate vessel size.
Overheating warning.	Insufficient ventilation; internal fault.	Ensure proper ventilation; power off and allow to cool; if persistent, contact support.

If the problem persists after attempting these solutions, please contact Borosil customer support.

7. SPECIFICATIONS

Model	MHPS 550P
Brand	Borosil
Top Plate Material	Nano Crystalline Ceramic Glass
Plate Size	180x180mm
Stirring Capacity (Water)	Up to 20 Liters
Stirring Speed Range	200-2200 rpm
Max. Plate Temperature	550°C
Max. Liquid Temperature (with PT1000)	280°C
Timer Range	1-999 min & infinite
Temperature Probe	PT 1000 (included)
Protection Class	IP 21
Digital Display	Set & Actual Temp/RPM/Time
Frequency	50 Hz

8. WARRANTY AND SUPPORT

Borosil products are manufactured to high-quality standards. For information regarding warranty coverage, technical support, or service, please refer to the warranty card included with your product or visit the official Borosil website. You can also contact Borosil customer service through their official channels for assistance with your MHPS 550P Magnetic Stirrer with Heating Plate. For more information, visit the [Borosil Store](#).

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question