

Laboratory Muffle Furnace – Max Temperature: 1100°C



The following data describe the MSBWF11?07NSWISS laboratory muffle furnace. This benchtop unit is designed for ashing, sintering, heat treatment, and material testing applications requiring precise thermal control up to 1100°C. All values are measured under the manufacturer's standard test conditions.

Technical Specifications* Model number: MSBWF11?07NSWISS

- **Chamber volume: 7 liters**
- **Maximum temperature: 1100°C**
- **Continuous operating temperature: 1000°C**
- **Power consumption: 4.0 kW**
- **Power supply: 220V, 50/60Hz, single phase**
- **Control system: Microcomputer PID controller**
- **Programmability: 63 total steps (7 periods, 9 steps per period)**
- **Heating element type: High?quality electric furnace wire**
- **Insulation material: Alumina ceramic fiber**
- **Safety protection: Over?current, over?voltage, and overheat sensors**
- **Safety interlock: Automatic power?off door switch**
- **Chamber dimensions: Not specified on product page – contact supplier for details**

- External dimensions: Not specified on product page – contact supplier for details
- Weight: Not specified on product page – contact supplier for details
- Applications: Ashing, sintering, heat treatment, annealing, material testing, ceramic processing, metallurgical research

Key benefits for thermal processing laboratories

The specifications above translate into measurable improvements for high-temperature applications. Each point below connects a feature to a practical outcome.

Programmable 63-step controller for complex heating profiles – The microcomputer PID controller supports 63 programmable steps arranged in 7 periods with 9 steps per period. A materials researcher designing a multi-stage sintering profile programs heating ramp, soak, cooling, and hold segments without manual intervention. Automation reduces technician time and eliminates operator errors.

Alumina ceramic fiber insulation for thermal efficiency – The high-grade insulation material keeps the exterior housing cool while maintaining the internal chamber at the target temperature. A laboratory operating the furnace at 1000°C for eight hours experiences lower energy costs and safer surface temperatures. The exterior remains touch-safe, reducing burn risks.

Exceptional temperature uniformity – The combination of high-quality heating elements and ceramic fiber insulation ensures stable internal temperatures across the chamber. A researcher performing ashing of multiple samples achieves consistent results across all positions. Uneven annealing or sample contamination is effectively eliminated.

Comprehensive safety protection – Over-current, over-voltage, and overheat sensors protect both the user and the equipment. The automatic power-off door switch triggers when the door is opened. A busy laboratory with multiple operators benefits from these safety features. The system is built to protect both the user and the integrity of the experiment.

Power failure memory for uninterrupted experiments – If a power failure occurs, the controller remembers the settings. A researcher running a 12-hour heat treatment cycle does not lose the sample when power returns. The interrupted heating cycle resumes from the stored parameters, ensuring sample integrity.

Integrated chimney for cleaner processing – The unit includes a built-in chimney to enhance combustion efficiency. A laboratory performing ashing of organic or mineral samples benefits from optimised airflow and exhaust. Cleaner processing reduces sample contamination and improves ashing accuracy.