



General Description

High Temperature Muffle Furnace designed for precise heat treatment, material testing, sintering, and high-temperature laboratory and industrial applications. The furnace is engineered for reliable performance at extreme temperatures with advanced temperature control, safety features, and robust construction.

Technical Specifications

Parameter	Specification
Maximum Temperature	1800 °C
Working Temperature	1750 °C
Temperature Accuracy	± 0.5% of Full Scale
Heating Rate	0.5 °C to 15 °C per minute
Heating Elements	Molybdenum Disilicide (MoSi ₂) heating elements, easily replaceable
Sensor Type	Pt / Pt-Rh, R-Type Sensor

Chamber & Insulation

- **Inner Chamber:** High-grade Ceramic Brick / Ceramic Board construction
- Heating elements mounted on side walls for uniform heat distribution
- **Insulation:** Ultra-high purity alumina, low thermal mass insulation

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.



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Construction & Body

- **Construction:** Triple-walled design with air insulation on the outer side for minimal skin temperature
- **Body:** Made of heavy-duty mild steel, duly powder coated for corrosion resistance
- **Door:** Parallel action hinged type door
 - Fully insulated with ceramic brick / board
 - Provided with a viewing cap

Power & Temperature Control**Power Control**

- SCR Unit (Phase Angle Thyristor)
- Current limiting and soft start facility
- Step-down air-cooled transformer

Temperature Control

- Microprocessor-based PID Programmable Temperature Controller
- Dual display showing Set Temperature and Actual Temperature
- Soft-touch keys for easy operation
- Thermocouple break protection
- Cold junction compensation
- CE marked to meet EMC regulations

Safety Features

- Semiconductor safety fuse for overload protection
- Thermocouple broken indication with automatic tripping
- Soft start and soft stop facility suitable for heating elements
- Automatic cut-off of power to heating elements when the door is opened
- Over-current and short-circuit protection
- High temperature alarm

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Control Panel

- Separate control panel
- Equipped with all necessary electrical accessories

Power Supply Requirements

- Power Supply: 220 / 230 Volts AC, Single Phase
- Current Requirement: Approx. 32 to 40 Amperes
- Power Consumption: Approx. 6 to 7 kW

Data Logging & Automation

- Integrated Data Logger to view Set and Achieved Temperature
- Bar graph trend display
- Data transfer through Pen Drive
- PLC-based 7" Touch Screen Temperature Control System with Data Logger
- User can fetch and store temperature recording data via Pen Drive

Inner Muffle Size

Width (W)	Height (H)	Depth (D)
150 mm	150 mm	300 mm
(6")	(6")	(12")

Standard Accessories Supplied

- Heat Resistance Gloves – 1 Pair
- Tong
- Safety Goggles

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