



Available Variants

Muffle Furnace – 900°C

Digital Models

Muffle Furnace – 9" × 4" × 4" – 900°C – Digital

Muffle Furnace – 10" × 5" × 5" – 900°C – Digital

Muffle Furnace – 12" × 6" × 6" – 900°C – Digital

Muffle Furnace – 12" × 8" × 8" – 900°C – Digital

Muffle Furnace – 18" × 9" × 9" – 900°C – Digital

GMP Models

Muffle Furnace – 9" × 4" × 4" – 900°C – GMP

Muffle Furnace – 10" × 5" × 5" – 900°C – GMP

Muffle Furnace – 12" × 6" × 6" – 900°C – GMP

Refractory Furnace – 1200°C

Digital Models

Refractory Furnace – 9" × 4" × 4" – 1200°C – Digital

Refractory Furnace – 10" × 5" × 5" – 1200°C – Digital

Refractory Furnace – 12" × 6" × 6" – 1200°C – Digital

Refractory Furnace – 18" × 9" × 9" – 1200°C – Digital

GMP Models

Refractory Furnace – 9" × 4" × 4" – 1200°C – GMP

Refractory Furnace – 10" × 5" × 5" – 1200°C – GMP

Refractory Furnace – 12" × 6" × 6" – 1200°C – GMP

Refractory Furnace – 12" × 8" × 8" – 1200°C – GMP

Refractory Furnace – 18" × 9" × 9" – 1200°C – GMP

Corporate Office:

A-1301, BVR Ek, Opp. Hotel Inder Residency,
Near Gujarat College, Ellisbridge,
Ahmedabad-380 006.
Phone : (079) 6621 1234
Website : www.eieinstruments.com

Calibration Laboratory:

Survey No. 1098, Nr. Mahakali Temple,
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Tal-Daskroi, Ahmedabad-382 433.
Phone: (079)-3520 8300
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GST TIN No. : 24AABCE4018L1ZU
I.T. PAN No. : AABCE 4018L
IEC No. : 0813026598 Dt. 04/03/2014
CIN No. : U29199GJ2004PTC045078
TAN No. : AHME00572F



Product Description

The Muffle Furnace and Refractory Furnace are precision-engineered horizontal front-loading laboratory furnaces designed for high-temperature heating, calcination, annealing, sintering, ashing, heat treatment, and material testing applications. The furnaces incorporate lightweight ceramic fiber wool insulation, significantly reducing heat loss while providing faster heat-up, excellent temperature uniformity, and improved energy efficiency. Available in Digital and GMP models with Mild Steel Powder Coated or Stainless Steel (SS304) construction, these furnaces are suitable for research laboratories, educational institutions, pharmaceuticals, metallurgy, ceramics, cement, glass, chemical industries, and quality control laboratories.

Salient Features

Horizontal front-loading design.

Compact and space-saving construction.

High-efficiency ceramic fiber wool insulation.

Approximately 75% lighter than conventional brick-insulated furnaces.

Up to 30% reduction in overall furnace size.

Rapid heat-up with minimal heat loss.

Excellent temperature uniformity.

Heavy-duty insulated door.

Digital PID temperature control.

Easy replacement of heating elements.

CE-compliant electrical wiring.

Suitable for continuous laboratory operation.

Technical Specifications

Parameter	Specification
Furnace Type	Muffle Furnace / Refractory Furnace

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Parameter	Specification
Construction	Mild Steel Powder Coated or SS304 Stainless Steel (Model Dependent)
Design	Horizontal Front Loading
Insulation	Ceramic Fiber Wool
Heating Element	KANTHAL A-1 Heating Coil
Heating Arrangement	Coil embedded in refractory / element ribs
Working Temperature	850°C (Muffle) / 1150°C (Refractory)
Maximum Temperature	900°C (Muffle) / 1200°C (Refractory)
Temperature Controller	Dual Display Microprocessor-based Auto-Tune Digital PID Controller
Temperature Sensor	K-Type Thermocouple
Temperature Accuracy	±5°C
Temperature Resolution	1°C
Circuit Wiring	As per CE Norms
Chamber Size	Model Dependent
Chamber Volume	Model Dependent
Power Consumption	2.0 kW to 9.0 kW depending on model
Overall Dimensions	Model Dependent
Weight	Model Dependent
Power Supply	220–230 V AC Single Phase or 440 V AC Three Phase (Model Dependent)
Standard Supply	2.5 m Power Cord & Power Plug

Vent Port

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A built-in vent port is provided for safe removal of fumes and noxious gases during operation. The vent is designed for connection to an extension pipe and is suitable for volatile matter analysis.

Calibration Port

A calibration port with removable cover is provided on request for inserting a temperature sensor during equipment calibration.

Safety Features

Thermocouple break protection.

Automatic heater shutdown in case of sensor failure.

Protection against thermal runaway.

Heavy-duty insulated door.

CE-compliant electrical wiring.

Standard Accessories

Compensating Cable

Indicator Lamps

2.5 m Power Cord

Indian Standard Power Plug

Instruction Manual

Optional Accessories

Digital Timer

Hour Meter

Over Temperature Protection with Audio Alarm

Data Logger with Multi-point Recorder & Software

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Safety Door Switch

Programmable PID Profile Controller (16 Programs × 16 Segments)

On-site Validation Services

Calibration Certificate (GMP Models)

IQ/OQ/PQ Documentation (GMP Models)

Magnetic Door Lock (Selected Models)

PC Software

Optional Consumables

Silica Crucible with Lid

Quartz Crucible with Lid

Platinum Crucible with Lid

Crucible Tongs

High-Temperature Protective Gloves

Electronic Weighing Balance (0.1 mg / 1 mg sensitivity)

Applications

Ash Content Determination

Heat Treatment

Annealing

Calcination

Sintering

Ceramic Testing

Metallurgical Testing

Glass Testing

Cement Testing

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Refractory Material Testing
Coal & Coke Analysis
Material Research
Quality Control Laboratories
Universities & Research Institutes
Pharmaceutical Laboratories

Notes

Heating elements are warranted for **1000 working hours or 12 months**, whichever is earlier from the date of usage.

Chamber size, chamber volume, construction material, power rating, dimensions, weight, power supply, and operating temperature vary depending on the selected model.

GMP models are supplied with Calibration Certificate and IQ/OQ/PQ documentation.

Optional accessories and consumables are available at additional cost.

Specifications are subject to change without prior notice as part of continuous product improvement.

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