

Muffle Furnace is box type heat treatment equipment used to change physical properties of samples at very high temperature. These laboratory furnaces are widely used in scientific experiments in physics lab, rice laboratories, steel and paint industries, biotech companies and small industrial production etc. Their major applications include general laboratory testing, annealing, ash determination, coal analysis, leaves carbonization and lime calcinations etc. The other applications include: Ignition tests, Heat treating steel parts and Gears, Coal sampling, Organic and inorganic ashing, Chemical analysis, soils & aggregates cement Testing, Glass blowing lab, Plastic tensile strength test, Gravimetric analysis, Heat treating Gears, Quench testing, Research facilities in chemistry, Annealing loss determination, Development of coatings and ceramics, Rice laboratory, Stoneware samples firing etc.

Tempsens is ISO and CE certified Laboratory & Industrial furnace manufacturers and suppliers. Our company makes these Furnaces in various temperature ranges and chamber sizes. Each unit is made with rugged construction and equipped with easy to use controller system and safety devices. Standard models of our muffle furnaces come with maximum temperature range 1200°C, 1400°C, 1600°C and 1800°C.

Tempsens provide range of general purpose muffle furnace in four sizes, each available with max operating temperature 500°C to 1200°C.



Standard Features

- Maximum operating temperature. 500°C to 1200°C
- Silicon Carbide Muffle for Energy Efficient and better uniformity.
- Side way sliding door keeps heated surface away from the users.
- Door limit switch for making heating system off while door in open condition.
- Energy Efficient with reduce heat loss by using advanced insulation refractory.
- Over-temperature limiter with adjustable cutout temperature for thermal protection class 2 in accordance with EN 60519-2 as temperature limiter to protect the furnace and load
- Equipped with thermocouple break protection that help preventing thermocouple failure run away.
- Exhaust air outlet at rear wall of the furnace.
- Solid state relay provide low noise operation.
- Thermocouple with NABL Certificate.

Technical Specification

S.No.	Description	Value
1	Max temp (°C)	1200 deg c
2	Working Temperature	1200 deg c
3	Heating Element	Kanthal A1
4	Muffle	Silicon Carbide
5	Temperature Controller	Microprocessor based PID controller
6	External Chamber Construction	Powder Coating / 304 Grade Stainless Steel (Optional)
7	Internal Chamber Construction	Ceramic Board & Grooved Refractory Chamber as per Temp. Requirement
8	Temperature Accuracy	+/- 1 Deg C

Model	Maximum Temperature (°C)	Operating Temp (°C)	Dimension Internal HxWxD (mm)	Dimension External HxWxD (mm)	Volume (Liters)	Max Power (kw)	Thermo couple Type	Weight (kg)	Heating Element
MF 112	1200	1200	100x100x100	225x290x340	1.5	2	N	20	Kanthal A1
MF 312	1200	1200	95x175x300	350x550x550	5	2.8	N	38	Kanthal A1
MF 412	1200	1200	150x175x320	400x550x550	7.9	3.2	N	40	Kanthal A1
MF 512	1200	1200	230x200x400	580x700x690	18.5	8	N	80	Kanthal A1

Optional Features

- ✓ Provision for gas/vacuum purging application (Ar, N₂, O₂, CO₂ etc.)
- ✓ Available in standard or as per customer size requirement
- ✓ Programmable PID Controller with RS-232/RS-485/Ethernet & Data Logging Software
- ✓ Observation hole on the door

Muffle Furnace Accessories

- ✓ Gloves
- ✓ Heating Element
- ✓ Tongs

Other Features

- ✓ Simple Installation
- ✓ Hassle free operation
- ✓ Automatic Temperature Control
- ✓ Easy Maintenance
- ✓ Spare part available at stock
- ✓ Rugged construction for long run
- ✓ Heating element from KANTHAL brand
- ✓ Dual Shell housing for low skin temperature.

Tempsens Instruments (I) Pvt. Ltd.

A-190 Road No.-5, M.I.A., Madri, Udaipur - 313 003 (Raj) INDIA

Ph.: +91-294-3052900, Fax.: +91-294-3052950,

E-mail: info@tempsens.com