

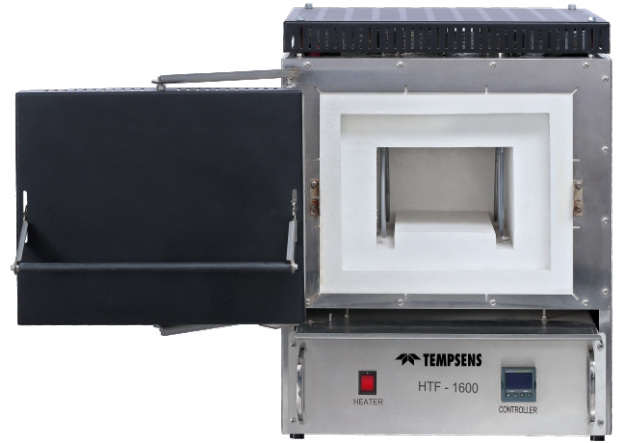
High temperature furnaces are another type of laboratory furnace that capable of reaching higher temperatures between 1400°C up to 1800°C. A high temp furnace typically consists of heating elements located on both sides of the heating chamber to ensure good thermal uniformity. Process applications for a high temperature furnace include sintering of high temperature materials, glass melting, and high temperature testing of ceramics, fusion and firing processes, and powder metallurgy processes.

The high-temperature furnaces HTF have proven reliability over many years in the lab and in the production of technical ceramics. Whether for bioceramics, for sintering CIM components or for other processes up to a maximum temperature of 1800 °C, these furnaces afford the optimal solution for the sintering process.

High-temperature furnaces are insulated with fiber material. Furnaces with fiber insulation achieve significantly shorter heating up times because of the low thermal mass.

These furnaces can also be tailored to specific processes by means of a wide range of additional equipment. The addition of a debinding package, for example, allows the use of these models as combi furnaces for debinding and sintering in one process. Thermal or catalytic exhaust cleaning equipment rounds-off the system.

Tempsens is ISO and CE certified Laboratory & Industrial furnace manufacturers and suppliers. Tempsens provide range general purpose High Temperature Furnace in three temperature ranges i.e. 1400°C, 1600°C & 1800°C



Standard Features

- 1400°C max. Operating temperature.
- From 4 liters capacity.
- Advance refractory interior, used in combination with energy efficient low thermal mass insulation.
- Side way sliding door keeps heated surface away from the users.
- Door limit switch for making heating system off while door in open condition.
- 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.
- Power control through Solid state relay or Thyristor unit provides low noise operation.
- Thermocouple with NABL Certificate.

Technical Specification

S.No.	Description	Value
1	Max temp (°C)	1400/1600/1800 deg c
2	Max operating temp (°C)	1400/1600/1800 deg c
3	Heating Element	Silicon Carbide/ MoSi2
4	Temperature Controller	Microprocessor based PID controller
5	External Chamber Construction	MS Powder Coated / 304 Grade Stainless Steel (Optional)
6	Internal Chamber Construction	Vacuum formed ultra high purity alumina low thermal mass insulation with pre sintered fiber insulation board for maximum energy saving design
7	Temperature Controller	Microprocessor based PID controller
8	Temperature Accuracy	+/- 1 Deg C

Model	Maximum Temperature(°C)	Heat Continuous Operating Temp(°C)	Dimension Internal H x W x D (mm)	Volume (Liters)	Max Power (kW)	Thermocouple Type	Weight (kg)	Heating Element
HTF 1400	1400	1400	150 x 170 x 270	6.9	4	R	70	Silicon carbide
HTF 1600	1600	1600	150x 170 x 270	6.9	4	B	70	MoSi2
HTF 1600 G	1600	1600	200 x 175 x 340	12	5	B	100	MoSi2 (with Vacuum)
HTF 1800	1800	1800	110 x 150 x 240	4	4	B	70	MoSi2
HTF 1800 G	1800	1800	180 x 150 x 330	9	5	B	100	MoSi2 (with Vacuum)

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 / I Squared R brand
- ✓ Dual Shell housing for low skin temperature

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

Optional Accessories

- ✓ Gloves
- ✓ Heating Element
- ✓ Tongs

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