# HIGH TEMPERATURE FURNACES

High Temperature Chamber Series

High Temperature Tube Series

High Temperature Elevator Series

# Chamber Furnaces
## MoS Series

MOS 170/4

MoS series have been used as trusted professional chamber furnaces for many years in laboratories. Available with brick and fiber insulation elements, with a wide variety of options, these models can be optimally used for high temperature procedures.

Standard MoS series furnaces cover a range from 1600°C to 1800°C, all of which have front loading for easy operation and double skin construction to maintain a cooler outer case.

Important advantage of the model is that element change is very easy and economic. Furnaces starting from 1800°C use high quality Molybdenum Disilicide heating elements, providing a very long service life.

Galvanized coating covered epoxy painted structure, providing longer life time and aesthetics.

Typical applications for the product is almost all high temperature applications where high level of precision is required; high temperature sintering processes such as Ceramic, Dental and Material Research.

**System Features**

- ✓ Vertical counter balanced door
- ✓ Standard door safety switch
- ✓ Customized controller option
- ✓ High-quality fiber material
- ✓ High level temperature uniformity
- ✓ Bottom protection, alumina plates on the floor
- ✓ Standard brick design on the outer skirts of the door and the furnace opening providing protection from possible unwanted damages during loading and unloading.
- ✓ Table top and Self-Standing design
- ✓ High quality heating elements ensuring a long service life
- ✓ System operation with solid-state-relays
- ✓ Short heating times
- ✓ Electrical protection
- ✓ Working Temperatures of up to 1800 °C
- ✓ Dual skin housing for low external temperatures and high inner temperature stability
- ✓ Easy replacement of heating elements
- ✓ Intuitive controller user interface

**MoS Series, Table Top Model Information**

| Model | Maximum Temperature (°C) | Continuous Operating Temperature (°C) | Inner Dimensions HxWxD (cm) | Inner Volume (liters) | External Dimensions HxWxD (cm) | Approximate Power (kW) | Phase | Supply Voltage (V) |
|---|---|---|---|---|---|---|---|---|
| **MoS-B 150/1** | 1550 | 1500 | 12x12x9 | 1.3 | 71x51x47 | 1.5 | 1 | 220 |
| **MoS-B 150/2** | 1550 | 1500 | 14x12x15 | 2.5 | 77x51x51 | 3.3 | 1 | 220 |
| **MoS-B 160/1** | 1600 | 1550 | 12x12x9 | 1.3 | 71x51x47 | 1.5 | 1 | 220 |
| **MoS-B 160/2** | 1600 | 1550 | 14x12x15 | 2.5 | 77x51x51 | 3.3 | 1 | 220 |
| **MoS-B 160/4** | 1600 | 1550 | 14x14x20 | 3.9 | 66x82x52 | 4.4 | 1 | 400 |
| **MoS-B 160/8** | 1600 | 1550 | 18x18x25 | 8.1 | 70x92x52 | 7.2 | 3 | 400 |
| **MoS-B 170/2** | 1700 | 1650 | 14x12x15 | 2.5 | 77x51x51 | 3.3 | 1 | 220 |
| **MoS-B 170/4** | 1700 | 1650 | 14x14x20 | 3.9 | 66x82x52 | 4.4 | 1 | 400 |
| **MoS-B 170/8** | 1700 | 1650 | 18x18x25 | 8.1 | 70x92x52 | 7.2 | 3 | 400 |
| **MoS-B 180/2** | 1800 | 1750 | 14x12x15 | 2.5 | 77x51x51 | 3.3 | 1 | 220 |
| **MoS-B 180/4** | 1800 | 1750 | 14x14x20 | 3.9 | 66x82x52 | 4.4 | 1 | 400 |
| **MoS-B 180/8** | 1800 | 1750 | 18x18x25 | 8.1 | 70x92x52 | 7.2 | 3 | 400 |

**MoS Series, Self-standing System Information**

| Model | Maximum Temperature (°C) | Continuous Operating Temperature (°C) | Inner Dimensions HxWxD (cm) | Inner Volume (liters) | External Dimensions HxWxD (cm) | Approximate Power (kW) | Phase | Supply Voltage (V) |
|---|---|---|---|---|---|---|---|---|
| **MoS-F 160/8** | 1600 | 1550 | 18x18x25 | 8.1 | 145x58x61 | 7.2 | 3 | 400 |
| **MoS-F 160/12** | 1600 | 1550 | 24x20x25 | 12.0 | 145x62x61 | 9.0 | 3 | 400 |
| **MoS-F 160/16** | 1600 | 1550 | 24x22x30 | 15.8 | 145x62x61 | 11.3 | 3 | 400 |
| **MoS-F 170/8** | 1700 | 1650 | 18x18x25 | 8.1 | 70x92x52 | 7.2 | 3 | 400 |
| **MoS-F 170/12** | 1700 | 1650 | 24x20x25 | 12.0 | 145x62x61 | 9.0 | 3 | 400 |
| **MoS-F 170/16** | 1700 | 1650 | 24x22x30 | 15.8 | 145x62x61 | 11.3 | 3 | 400 |
| **MoS-F 180/8** | 1800 | 1750 | 18x18x25 | 8.1 | 70x92x52 | 7.2 | 3 | 400 |
| **MoS-F 180/12** | 1800 | 1750 | 24x20x25 | 12.0 | 145x62x61 | 9.0 | 3 | 400 |
| **MoS-F 180/16** | 1800 | 1750 | 24x22x30 | 15.8 | 145x62x61 | 11.3 | 3 | 400 |

*For system accessories please check the accessory page for furnaces.

**Optional Features**

- ✓ Over-temperature limiter for thermal protection
- ✓ Adjustable air intake opening in the furnace door
- ✓ Exhaust air opening in the of the furnace roof
- ✓ Option of sideways opening door
- ✓ Observation hole enabling the operator observe the load during the operation
- ✓ Data logger with the software
- ✓ RS422/485 communication
- ✓ Cooling Fan for faster cooling processes
- ✓ Jet Fan for faster exhaust of gases
- ✓ Movable bottom enabling the operator to remove the sample while the furnace is still hot
- ✓ Quartz element protection for heating elements
- ✓ Protective gas system and connection

# Tube Furnaces
## High Temperature PTF Series

PTF 18/50/400

High Temperature PTF series tube furnaces are tube furnaces that could be used when laboratory experimentation is performed horizontally or vertically.

Standard High Temperature PTF series furnaces cover a range from 1600°C to 1800°C, using vertically mounted Molybdenum Disiciliside heating elements for processes. Vertical mounted elements provide ease of replacement

The stable temperature environment, and the option to be able to modify the furnace for a vacuum make these furnaces suitable for many possible processes.

**System Features**

- ✓ Standard working tube of C610 and C799.
- ✓ Separate or integrated control system
- ✓ Customized controller option
- ✓ High-quality fiber material
- ✓ High level temperature uniformity
- ✓ Standard long working tube protruding from sides suitable for operation with flanges
- ✓ Electrical protection
- ✓ Galvanized coating covered epoxy paint structure
- ✓ High quality heating elements ensuring a long service life
- ✓ Intuitive controller user interface
- ✓ System operation with silicone controlled rectifiers

| Model | Maxiumum Temperature (°C) | Continuous Operating Temperature (°C) | Tube size (Dø x length) (mm) | Heated Zone (mm) | External Dimensions (cm) | Power (kW) | Phase |
|---|---|---|---|---|---|---|---|
| **PTF 17/38/200** | 1700°C | 1650 | 40x600 | 200 | 83x46x53 | 3.0 | 1 |
| **PTF 17/50/200** | 1700°C | 1650 | 50x600 | 200 | 83x46x53 | 3.0 | 1 |
| **PTF 17/75/200** | 1700°C | 1650 | 75x600 | 200 | 83x46x53 | 3.0 | 1 |
| **PTF 17/38/300** | 1700°C | 1650 | 40x700 | 300 | 83x56x53 | 4.0 | 3 |
| **PTF 17/50/300** | 1700°C | 1650 | 50x700 | 300 | 83x56x53 | 4.0 | 3 |
| **PTF 17/75/300** | 1700°C | 1650 | 75x700 | 300 | 83x56x53 | 4.0 | 3 |
| **PTF 17/38/400** | 1700°C | 1650 | 40x800 | 400 | 83x66x53 | 4.8 | 3 |
| **PTF 17/50/400** | 1700°C | 1650 | 50x800 | 400 | 83x66x53 | 4.8 | 3 |
| **PTF 17/75/400** | 1700°C | 1650 | 75x800 | 400 | 83x66x53 | 4.8 | 3 |

| Model | Maxiumum Temperature (°C) | Continuous Operating Temperature (°C) | Tube size (Dø x length) (mm) | Heated Zone (mm) | External Dimensions (cm) | Power (kW) | Phase |
|---|---|---|---|---|---|---|---|
| **PTF 18/38/200** | 1800°C | 1750 | 40x600 | 200 | 83x46x53 | 3.0 | 1 |
| **PTF 18/50/200** | 1800°C | 1750 | 50x600 | 200 | 83x46x53 | 3.0 | 1 |
| **PTF 18/75/200** | 1800°C | 1750 | 75x600 | 200 | 83x46x53 | 3.0 | 1 |
| **PTF 18/38/300** | 1800°C | 1750 | 40x700 | 300 | 83x56x53 | 4.0 | 3 |
| **PTF 18/50/300** | 1800°C | 1750 | 50x700 | 300 | 83x56x53 | 4.0 | 3 |
| **PTF 18/75/300** | 1800°C | 1750 | 75x700 | 300 | 83x56x53 | 4.0 | 3 |
| **PTF 18/38/400** | 1800°C | 1750 | 40x800 | 400 | 83x66x53 | 4.8 | 3 |
| **PTF 18/50/400** | 1800°C | 1750 | 50x800 | 400 | 83x66x53 | 4.8 | 3 |
| **PTF 18/75/400** | 1800°C | 1750 | 75x800 | 400 | 83x66x53 | 4.8 | 3 |

*For system accessories please check the accessory page for furnaces.

**Optional Features**

- ✓ Over-temperature limiter for thermal protection
- ✓ Display of inner tube temperature with an additional thermocouple
- ✓ Check valve at gas outlet
- ✓ Gas supply and blend systems for operation
- ✓ Alternative working tubes
- ✓ Gas and water cooled vacuum flanges
- ✓ Universal design for vertical and angular usage
- ✓ Data logger with the software
- ✓ RS422/485 communication

# Elevator Furnaces
## ELV Series

**ELV 180/8**

ELV series are designed for bottom loading operations and for quick charging and discharging procedures in laboratories.

Available with brick and fiber insulation elements, with a wide variety of options, ELV series is used for glaze fritting, glass melting and applications requiring quick removal of products from the furnace.

Standard ELV series furnaces cover a range from 1100°C to 1800°C, all of which have dual skin housing for low external temperatures and high inner temperature stability uniformity.

Multi-layers of products could be fitted into the furnace, enabling the experimentation of several samples at a time.

Gas feed-in with this series is a standard and various applications of gas controlled atmospheres is made possible.

This series equip a galvanized coating covered epoxy painted structure, providing a longer life time and aesthetics.

**System Features**

- ✓ Customized controller option
- ✓ High-quality fiber material
- ✓ Exceptional temperature uniformity
- ✓ Table top or self-standing design
- ✓ Hand fitted brick-on-brick seal
- ✓ High level temperature uniformity
- ✓ Short heating times
- ✓ High quality heating elements ensuring a long service life
- ✓ Electrical protection
- ✓ Precise, electric spindle drive with push button operation
- ✓ Working Temperatures of up to 1800 °C
- ✓ System operation with solid-state-relays
- ✓ Intuitive controller user interface

| Model | Maximum Temperature (°C) | Continuous Operating Temperature (°C) | Inner Volume (liters) | Inner Dimensions (HxWxD) cm | External Dimensions (HxWxD) cm | Power (kW) | Phase |
|---|---|---|---|---|---|---|---|
| **ELV 110/8** | 1100°C | 1050 | 7.5 | 20x18x21 | 122x63x81 | 2.0 | 1 |
| **ELV 140/8** | 1400°C | 1350 | 7.4 | 18x18x23 | 122x63x81 | 4.9 | 3 |
| **ELV 160/8** | 1600°C | 1550 | 8.0 | 20x20x20 | 190x62x77 | 5.2 | 3 |
| **ELV 170/8** | 1700°C | 1650 | 8.0 | 20x20x20 | 190x62x77 | 7.2 | 3 |
| **ELV 180/8** | 1800°C | 1750 | 8.0 | 20x20x20 | 190x62x77 | 7.8 | 3 |

*For system accessories please check the accessory page for furnaces.

**Optional Features**

- ✓ Over-temperature limiter for thermal protection
- ✓ Exhaust air opening in the of the furnace roof
- ✓ Adjustable air inlet through the floor
- ✓ Data logger with the software
- ✓ RS422/485 communication
- ✓ Protective Gas System and Connection

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