

# **ATMOSPHERE CONTROLLED TUBE FURNACES**

PTF Series

High Temperature Tube Series

Precision Series

Split Series

Rotary Series

Modular Series

# Tube Furnaces

## PTF Series

PTF 14/75/610



PTF series tube furnaces are tube furnaces that could be used when laboratory experimentation is performed horizontally, vertically, or at specific angles.

Configuration of the tilt angle, and the stable temperature environment make these furnaces suitable for many possible processes.

Standard PTF series furnaces cover a range from 1100°C to 1600°C, using wire and SiC heating elements for processes.

SiC heating rods installed parallel to the working tube ensuring perfect temperature uniformity and easy replacement

### System Features

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

Model	Maximum Temperature (°C)	Continuous Operating Temperature (°C)	Heated Zone (mm)	Stable Zone Length (mm)	External Dimensions (mm)	Tube size (Dø x length) (mm)	Tube Type	Weight (kg)	Power (kW)	Phase
PTF 12/20/250	1200	1150	250	80	495x350x345	20x500	C610	14	0.6	1
PTF 12/20/400	1200	1150	400	130	495x450x345	20x600	C610	18	0.7	1
PTF 12/38/250	1200	1150	250	80	495x350x345	40x250	C610	21	0.8	1
PTF 12/38/450	1200	1150	450	150	495x500x345	40x450	C610	22	1.0	1
PTF 12/38/600	1200	1150	600	200	495x650x345	40x800	C610	23	1.3	1
PTF 12/50/250	1200	1150	250	80	495x350x345	50x450	C610	23	1.0	1
PTF 12/50/450	1200	1150	450	150	495x500x345	50x650	C610	23	1.3	1
PTF 12/50/600	1200	1150	600	200	635x650x400	50x800	C610	29	1.4	1
PTF 12/75/600	1200	1150	600	200	635x650x400	75x800	C610	32	1.9	1
PTF 12/75/800	1200	1150	800	260	635x850x400	75x1000	C610	37	2.1	1
PTF 12/105/500	1200	1150	500	160	675x550x400	105x750	C610	31	2.3	1
PTF 12/105/750	1200	1150	750	250	675x800x400	105x1000	C610	36	3.1	1
PTF 12/105/900	1200	1150	900	300	675x950x400	105x1200	C610	41	3.1	1
PTF 14/20/180	1400	1350	180	60	520x600x350	26x600	C610	19	1.5	1
PTF 14/20/250	1400	1350	250	80	520x665x350	26x600	C610	22	1.8	1
PTF 14/38/180	1400	1350	180	60	675x600x400	40x750	C610	27	2.5	1
PTF 14/38/250	1400	1350	250	80	675x665x400	40x800	C610	28	3.0	1

Model	Maximum Temperature (°C)	Continuous Operating Temperature (°C)	Heated Zone (mm)	Stable Zone Length (mm)	External Dimensions (mm)	Tube size (Dø x length) (mm)	Tube Type	Weight (kg)	Power (kW)	Phase
PTF 14/50/180	1400	1350	180	60	675x600x400	50x750	C610	30	2.5	2
PTF 14/50/250	1400	1350	250	80	675x665x400	50x800	C610	38	3.0	2
PTF 14/50/450	1400	1350	450	150	745x850x400	50x1000	C610	40	4.0	2
PTF 14/50/610	1400	1350	610	200	745x1150x400	50x1300	C610	50	4.5	2
PTF 14/75/450	1400	1350	450	150	745x850x400	75x1000	C610	70	5.5	2
PTF 14/75/610	1400	1350	610	200	745x1150x400	75x1300	C610	82	6.5	2
PTF 14/105/450	1400	1350	450	150	785x850x400	100x1000	C610	90	7.0	2
PTF 14/105/610	1400	1350	610	200	785x1150x400	100x1300	C610	95	7.5	3
PTF 15/38/180	1500	1450	180	60	675x600x400	40x750	C799	31	2.3	1
PTF 15/50/180	1500	1450	180	60	675x600x400	50x750	C799	33	2.5	2
PTF 15/50/250	1500	1450	250	80	675x665x400	50x800	C799	46	3.0	2
PTF 15/50/450	1500	1450	450	150	745x850x400	50x1000	C799	48	4.0	2
PTF 15/50/610	1500	1450	610	200	745x1150x400	50x1300	C799	52	5.0	2
PTF 15/75/450	1500	1450	450	150	745x850x400	75x1000	C799	73	6.0	2
PTF 15/75/610	1500	1450	610	200	745x1150x400	75x1300	C799	85	7.0	2
PTF 16/38/250	1600	1550	250	80	675x350x400	40x800	C799	42	3.5	3
PTF 16/50/250	1600	1550	250	80	675x665x400	50x800	C799	46	4.0	2
PTF 16/50/450	1600	1550	450	150	745x850x400	50x1000	C799	48	5.5	2
PTF 16/50/610	1600	1550	610	200	745x1150x400	50x1300	C799	52	6.0	3
PTF 16/75/450	1600	1550	450	150	745x850x400	75x1000	C799	73	6.5	3
PTF 16/75/610	1600	1550	610	200	745x1150x400	75x1300	C799	85	7.5	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

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

## Tube Furnaces Precision Series



**PZF 12/50/700**

PZF series tube furnaces are multi-zone furnaces that could be used when laboratory experimentation is performed horizontally, vertically, or at specific angles.

Configuration of the tilt angle, and the stable temperature working lengths make these furnaces suitable for many possible processes.

With an easy to replace working tube as well as additional standard equipment options, these furnaces can be operated with multiple zones of different lengths.

### System Features

- ✓ Standard working tube of C610
- ✓ Separate or integrated control system
- ✓ Master and slave controller availability
- ✓ Customized controller option
- ✓ High-quality fiber material
- ✓ High level temperature uniformity
- ✓ Multi zone design
- ✓ System operation with solid-state-relays
- ✓ 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

Model	Maximum Temperature (°C)	Continuous Operating Temperature (°C)	Heated Zone (mm)	Stable Zone Length (mm)	External Dimensions (mm)	Tube size (Dø x length) (mm)	Tube Type	Power (kW)	Phase
<b>PZF 12/38/500</b>	1200	1150	500	330	635x650x400	40x800	C610	1.2	1
<b>PZF 12/50/500</b>	1200	1150	500	330	635x650x400	50x800	C610	1.5	1
<b>PZF 12/50/750</b>	1200	1150	750	500	635x800x400	50x900	C610	1.9	1
<b>PZF 12/75/750</b>	1200	1150	750	500	635x800x400	75x900	C610	2.8	1
<b>PZF 12/105/750</b>	1200	1150	750	500	675x800x400	105x1000	C610	3.4	1
<b>PZF 12/105/900</b>	1200	1150	900	600	675x950x400	105x1200	C610	3.5	1

\*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

# Split Furnaces

## ASP Series



**ASP11/100/500**

ASP series tube furnaces are split furnaces with the multi-zone optionality that could be used when laboratory experimentation is performed horizontally, or vertically.

Availability of opening up the furnaces enables operator to be able to use different tubes or reactors, or any other inline heating material with the furnace.

Configuration of the zone temperatures, and the stable temperature environments make these furnaces suitable for many possible processes.

With an easy to replace working tube as well as additional standard equipment options, these furnaces use can be operated with multiple zones of different lengths.

### System Features

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

Model	Maximum Temperature (°C)	Continuous Operating Temperature (°C)	Maximum Bore Diameter (mm)	Heated Length (mm)	Stable Zone Length (mm)	External Dimensions HxWxD (mm)	Power (kW)	Phase	Supply Voltage (V)
ASP 11/70/250	1100	1050	70	250	80	510x400x500	1.6	1	220
ASP 11/70/500	1100	1050	70	500	160	510x650x500	2.4	1	220
ASP 11/100/250	1100	1050	100	250	80	510x400x500	2.4	1	220
ASP 11/100/500	1100	1050	100	500	160	510x650x500	3.0	1	220
ASP 11/150/250	1100	1050	130	250	80	510x400x500	3.0	1	220
ASP 11/150/500	1100	1050	130	500	160	510x650x500	3.5	1	220
ASP 11/200/250	1100	1050	160	250	80	510x400x500	3.0	1	220
ASP 11/200/500	1100	1050	160	500	160	510x650x500	3.5	1	220
ASP 11/250/400	1100	1050	200	400	130	710x555x740	6.0	3	380/220
ASP 11/300/400	1100	1050	250	400	130	810x555x860	9.0	3	380/220

Model	Maximum Temperature (°C)	Continuous Operating Temperature (°C)	Maximum Bore Diameter (mm)	Heated Length (mm)	Stable Zone Length (mm)	External Dimensions HxWxD (mm)	Power (kW)	Phase	Supply Voltage (V)
<b>ASP 15/100/200</b>	1500	1450	45	200	65	1300x350x650	1.5	1	220
<b>ASP 15/100/400</b>	1500	1450	45	400	130	1300x550x650	2.5	1	220
<b>ASP 15/150/200</b>	1500	1450	95	200	65	1300x350x650	3.4	1	220
<b>ASP 15/150/400</b>	1500	1450	95	400	130	1300x550x650	5.0	3	400
<b>ASP 15/200/200</b>	1500	1450	145	200	65	1400x350x750	6.0	3	400
<b>ASP 15/200/400</b>	1500	1450	145	400	130	1400x550x750	7.0	3	400
<b>ASP 15/250/200</b>	1500	1450	195	200	65	1400x350x750	7.0	3	400
<b>ASP 15/250/400</b>	1500	1450	195	400	130	1400x550x750	9.0	3	400

\*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



# Rotary Furnaces

## RTF Series



**RTF 11/50**

RTF series rotary furnaces are split furnace with multi-zone options with a rotation and tilt angulation option.

Configuration of the tilt angle, multi zone availability and the stable temperature working lengths make these furnaces suitable for many possible processes.

With an easy to replace working tube as well as additional standard equipment options, these furnaces are usually used for continuous processing and batch operations. The sample could get transported uniformly from one end to the other of the working tube. The unit could be used for batch operation as well, by using the model as an ASP series furnace.

Availability of opening up the furnaces enables operator to be able to use different tubes or reactors, or any other inline heating material with the furnace.

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

### System Features

- ✓ Standard working tube of Quarts or C799
- ✓ Separate or integrated control system
- ✓ Master and Slave controller availability
- ✓ Customized controller option
- ✓ High-quality fiber material
- ✓ High level temperature uniformity
- ✓ Multi zone design
- ✓ Standard long working tube protruding from sides suitable for operation with flanges
- ✓ Electrical protection
- ✓ System operation with silicone controlled rectifiers
- ✓ High quality heating elements ensuring a long service life
- ✓ Intuitive controller user interface

Model	Maximum Temperature (°C)	Continuous Operating Temperature (°C)	Maximum Bore Diameter (mm)	Heated Length (mm)	Tube size (Dø x length) (mm)	Power (kW)	Phase	Tube Type
<b>RTF 11/50/500</b>	1100	1050	50	500	50x125	2.4	1	Quartz
<b>RTF 11/100/500</b>	1100	1050	100	500	100x1250	2.4	1	Quartz
<b>RTF 15/50/400</b>	1500	1050	50	400	50x1200	3.0	1	C799
<b>RTF 15/75/400</b>	1500	1050	75	400	75x1200	3.5	1	C799

\*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

# Modular Furnaces

## MTF Series



MTF 11/200/500

MTF series tube furnaces are tube furnaces with the multi-zone optionality that could be used when laboratory experimentation is performed horizontally.

Configuration of the zone temperatures, and the stable temperature environments make these furnaces suitable for many possible processes.

With an easy to replace working tube as well as additional standard equipment options, these furnaces use wire and MoSi<sub>2</sub> heating elements.

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

### System Features

- ✓ Standard working tube of C610
- ✓ Separate or integrated control system
- ✓ Master and Slave controller availability
- ✓ Customized controller option
- ✓ High-quality fiber material
- ✓ High level temperature uniformity
- ✓ Multi zone design
- ✓ System operation with silicone controlled rectifiers
- ✓ Standard long working tube protruding from sides suitable for operation with flanges
- ✓ Electrical protection
- ✓ Dual skin housing for low external temperatures and high stability
- ✓ High quality heating elements ensuring a long service life
- ✓ Intuitive controller user interface

Model	Maximum Temperature (°C)	Continuous Operating Temperature (°C)	Maximum Bore Diameter (mm)	Heated Length (mm)	Stable Zone Length (mm)	External Dimensions HxWxD (cm)	Power (kW)	Phase	Supply Voltage (V)
MTF 11/70/500	1100	1050	70	500	160	62x62x50	2.4	1	220
MTF 11/100/500	1100	1050	100	500	160	62x62x50	2.7	1	220
MTF 11/150/500	1100	1050	130	500	160	67x62x55	3.5	1	220
MTF 11/200/500	1100	1050	160	500	160	67x62x55	3.5	1	220
MTF 13/70/400	1300	1250	30	400	130	90x52x50	2.0	1	220
MTF 13/100/400	1300	1250	70	400	130	90x52x50	3.0	1	220
MTF 13/150/400	1300	1250	110	400	130	90x52x50	4.5	3	400
MTF 13/200/400	1300	1250	160	400	130	100x52x60	6.0	3	400

\*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

\*For your inquiries and questions please contact us  
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