

Universal Tube Furnaces

72

TZF – High Temperature 3-Zone Tube Furnaces

The TZF 3-zone high temperature tube furnaces are available at 1500 °C, 1600 °C, 1700 °C and 1800 °C
The heated length is divided into 3 zones.

An extended uniform zone in the mid-section of the work tube is achieved with the use of end zone controllers which track the centre zone temperature and compensate for the loss of heat from the tube ends.

Standard features

- 1500 °C and 1600 °C models have silicon carbide heating elements
- 1700 °C and 1800 °C models have molybdenum disilicide heating elements
- Accepts work tubes with maximum outer diameters up to 90 mm
- Heated lengths of 600 or 610 mm depending on the model
- End zone control is via back to back thermocouples (TZF 15)
- End zone control is via retransmission of set point (TZF 16, TZF 17 and TZF 18)
- Carbolite 301 PID controller with single ramp to setpoint & process timer (TZF 15 & TZF 16)
- Programmable 3216P1 controller (TZF 17 and TZF 18)
- Over-temperature protection (TZF 17 & TZF 18)



TZF 15/610

Options (specify these at time of order)

- A range of additional work tubes is available in a variety of materials
- Over-temperature protection (recommended to protect valuable contents & for unattended operation) (TZF 15 & TZF 16)
- Control module with 2 metre conduit to furnace
- Insulation plugs & radiation shields to prevent heat loss & improve uniformity
- Modified atmosphere and vacuum assemblies are available (see page 95)
- A range of sophisticated digital controllers, multi-segment programmers and data loggers is available. These can be fitted with RS232, RS485 or Ethernet communications (see pages 88-91)
- 'Retransmission of Setpoint' control configuration to facilitate programmed cooling (TZF 15)

Technical data

Model	Max temp (°C)	Heat-up time (mins)	Dimensions: Max outer diameter accessory tube (mm)	Dimensions: Heated length (mm)	Tube length for use in air (mm)	Tube length for use with modified atmosphere (mm)	Dimensions: External H x W x D (mm)	Max power (W)	Holding power (W)	Thermocouple type	Weight (kg)	Power supply		
												Volt	Phase	Ampere per phase
TZF 15/610	1500	75	90	610	1200	1500	650 x 1080 x 430	8000	4000	R	70	200-240	single phase	60
												380-415	3 phase + N	22
												220-240	3 phase delta	38
TZF 16/610	1600	–	90	610	1200	1500	650 x 1080 x 430	9150	4500	R	74	220-240	single phase	62
												380-415	3 phase + N	25
												220-240	3 phase delta	40
TZF 17/600	1700	150	90	600	1200	1500	880 x 1020 x 630	6800	3800	B	280	220-240	single phase	46
												208	single phase	48
												380-415	3 phase + N	28
												220-240	3 phase delta	34
TZF 18/600	1800	150	90	600	1200	1500	945 x 1020 x 630	5700	–	Pt20%Rh/ Pt40%Rh	280	220-240	single phase	40
												380-415	3 phase + N	24
												220-240	3 phase delta	28
												208	3 phase delta	30



Please note:

- Maximum continuous operating temperature is 100 °C below maximum temperature
- Uniform length measured with insulation plugs fitted.



WolfLabs

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

www.wolflabs.co.uk

Tel : 01759 301142

Fax : 01759 301143

sales@wolflabs.co.uk

Please contact us if this literature doesn't answer all your questions.