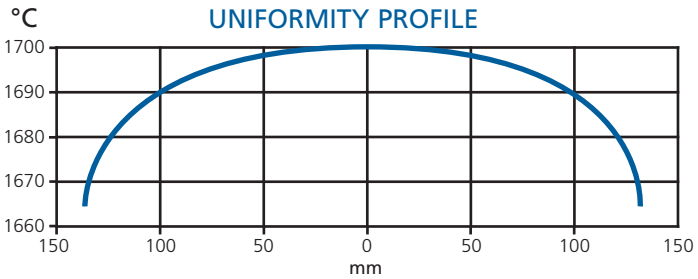
CTF 17/75/300/3216P1



CTF 17/75/300 ±5°C over 205mm
±2°C over 150mm
±1°C over 75mm

General Features

- Maximum operating temperatures of 1700°C and 1800°C.
- Use with process tubes up to 3.5" OD.
- Available in heated lengths of 12" and 24" single zone.
- The 24" heated length is also available in a 3 zone design.
- Three zone tube furnaces provide a longer uniform temperature zone through elevation of end zone temperatures to compensate for normal end losses.
- All Carbolite 1700°C and 1800°C tube furnaces are fitted with a 3216P1 programmable temperature control and a separate independent over-temperature protection control.
- Long-life free radiating molybdenum disilicide heating elements provide excellent radial and linear uniformity.
- Advanced high temperature graded insulation assembly provides improved energy efficiency and heat-up rates.
- Furnace controls are built into the furnace cabinetry, providing convenient observation and access to all power and temperature controls.
- Low outer case temperature provided through double shell construction.
- Mesh tube guards at ends of furnace prevent accidental contact with hot tube.
- Insulating end vestibules improve chamber uniformity.
- Molybdenum disilicide element resistance does not change with usage, providing no restriction on placement of a new element in circuit with older elements.
- Three zone furnaces incorporate three separate temperature controls to allow variation of setpoint temperature in each zone.
- Serviceability is aided by the furnace's mechanical and electrical design.
- See furnace options on pages 43-46.

1700° & 1800° Horizontal Single and Three Zone Tube Furnaces

Furnace Model	Max. Temp. (°C)	Maximum O.D. Tube ✓ Inches (mm)	Heated Length Inches (mm)	No of Zones	TC Type	Max. Power	Furnace Voltage (kW)	External Dimensions Inches (mm) Height	Length	Depth	Shipping Weight (lb.)
CTF 17/300	1700	3.50 (90)	12.00 (300)	1	B	6.0	208/240	34.50 (878)	28.50 (720)	25.00 (630)	454
CTF 17/600	1700	3.50 (90)	23.75 (600)	1	B	9.0	208/240	34.50 (878)	40.25 (1020)	25.00 (630)	565
CTF 18/300	1800	3.50 (90)	12.00 (300)	1	Pt 20% Rh/Pt 40% Rh	6.0	208/240	37.25 (943)	28.50 (720)	25.00 (630)	454
CTF 18/600	1800	3.50 (90)	23.75 (600)	1	Pt 20% Rh/Pt 40% Rh	10.0	208/240	37.25 (943)	40.25 (1020)	25.00 (630)	565
TZF 17/600	1700	3.50 (90)	23.75 (600)	3	B	9.0	208/240*	34.50 (878)	40.25 (1020)	25.00 (630)	732
TZF 18/600**	1800	3.50 (90)	23.75 (600)	3	Pt 20% Rh/Pt 40% Rh	10.0	208/240*	37.25 (943)	40.25 (1020)	25.00 (630)	732

✓ Specify tube OD at time of order. Specify voltage at time of order. *3 Phase electrical design.
** Retransmission of setpoint provided as standard. (See page 45)
Continuous operation at or near maximum temperature may impact element, thermocouple and insulation life.

VST 17/75/250

General Features

- Maximum operating temperature of 1700ºC.
- Split-hinge design provided with vertical support stand.
- Overall heated length of 10".
- Designed to accept process tubes up to 3.5" OD (90 mm).
- Six long-life molybdenum disilicide heating elements are suspended vertically around the tube to ensure excellent radial and linear uniformity.
- Carbolite VST hinged tube furnace is designed for bench mounting, and is interconnected to a separate control cabinet with 6 ft. cable.
- Provided with 3216P1 programmable temperature control and a separate independent over-temperature protection control.
- Advanced high temperature graded insulation assembly provides improved energy efficiency and heat-up rates.
- Low outer case temperature provided through double shell construction.
- Insulating end vestibules reduce heat losses and improve chamber uniformity.
- Positive break furnace safety switch isolates power to the heating elements when furnace is opened.

PVT 18/75/350/3508P1

General Features

- Maximum operating temperature of 1800ºC.
- Available in heated lengths of 8" and 13.75".
- Each PVT furnace is designed to accept a different diameter process tube. Models available for 2", 3", 4" & 5" diameter tubes.
- Long-life free radiating lanthanum chromite heating elements are suspended vertically around the tube, providing excellent radial and linear uniformity.
- Carbolite PVT tube furnaces are provided with a floor standing vertical support stand, and are interconnected to a separate control cabinet with 6 ft. cable.
- Provided with 3216P1 programmable temperature control and a separate independent over-temperature protection control.
- Advanced high temperature graded insulation assembly provides improved energy efficiency.
- Insulating end vestibules reduce heat losses and improve chamber uniformity.
- Low outer case temperature provided through double shell construction.
- Lanthanum chromite heating elements give off a small amount of chromium vapor, which the work tube shields all but the most sensitive work pieces from contamination or pink coloration.

1700°C & 1800°C Vertical Tube Furnaces

Furnace Model	Max. Temp. (°C)	Maximum OD Tube ✓ Inches (mm)	Heated Length Inches (mm)	TC Type	Max. Power (kW)	Furnace Voltage	External Dimensions Inches (mm) Height	Length	Depth	Shipping Weight (lb.)
VST 17/250	1700	3.50 (90)	10.00 (250)	B	4.5	208/240	34.00 (865)	23.75 (600	27.75 (705)	665
PVT 18/50/200	1800	2.25 (57)	8.00 (200)	Pt 20% Rh/Pt 40% Rh	6.0	208/240	See Below	27.50 (700)	32.00 (810)	420
PVT 18/75/350	1800	3.25 (83)	13.75 (350)	Pt 20% Rh/Pt 40% Rh	8.0	208/240 *	See Below	27.50 (700)	32.00 (810)	660
PVT 18/100/350	1800	4.25 (108)	13.75 (350)	Pt 20% Rh/Pt 40% Rh	8.0	208/240 *	See Below	27.50 (700)	32.00 (810)	660
PVT 18/125/350	1800	5.25 (133)	13.75 (350)	Pt 20% Rh/Pt 40% Rh	12.0	208/240 *	See Below	27.50 (700)	32.00 (810)	660

✓ Specify tube OD at time of order. Specify voltage at time of order. * 3 Phase electrical design.
Customer must specify desired PVT furnace height when ordering. (Contact Carbolite)
Continuous operation at or near maximum temperature may impact element, thermocouple and insulation life.