



## General Features

- Carbolite high temperature furnaces are specifically designed for sintering of zirconia copings and frameworks.
- Maximum operating temperatures of 1400°C, 1500°C, 1600°C and 1700°C are available.
- Three furnace designs and chamber sizes accommodate varied load sizes.
- Sintering zirconia in these furnaces produces ideal product density, resulting in excellent material properties and strength.
- Uniform chamber temperature and precise temperature control assure process repeatability run after run.
- Long-life heating elements, chamber insulation and thermocouple provide for a very reliable furnace design.
- These Carbolite sintering furnaces are suitable for all grades of zirconia and firing temperatures.
- Choice of three different temperature controls.
- Temperature control instrumentation offers fully automated sintering programs.
- Superior temperature uniformity is obtained in BLD model by positioning heating elements on all sides of hexagon shaped chamber.



HTD 17/5/3216P1

CDF 16/3/3216P1



BLD 17/3/3508P1

Plasma Sprayed Protection Tube

- BLD model provides convenient loading of chamber through electrically actuated lift mechanism.
- Optional plasma sprayed alumina protection liner for BLD furnace completely isolates load from molybdenum disilicide heating elements and sidewall insulation.
- Advanced high temperature hot face insulation is combined with graded low thermal mass insulation to improve energy efficiency and heat-up rates.
- Open heating elements along each sidewall of box furnaces provide direct heat radiation to load.
- Vertical lift box furnace door design keeps the hot door insulation away from operator.
- Positive break safety switch isolates power to the heating elements when door is opened or hearth lowered.
- 1700°C furnaces are fitted as standard with 3216P1 programmer and a separate independent over-temperature protection controller.
- Lower outer case temperature provided through double shell construction.
- Chamber vent provides for process exhaust.

## 1400°C, 1500°C, 1600°C and 1700°C Zirconia Sintering Furnaces

Furnace Model	Max. Temp. (°C)	Internal Chamber Dimensions Inches (mm)			External Dimensions Inches (mm)			TC Type	Max. Power (kW)	Furnace Voltage	Shipping Weight (lb.)
		Height	Width	Depth	Height	Width	Depth				
CDF 14/1	1400	2.50 (60)	3.50 (90)	5.00 (125)	25.75 (655)	17.00 (435)	21.00 (535)	R	2.76	208/240	110
CDF 14/3	1400	4.75 (120)	4.75 (120)	8.00 (200)	25.75 (655)	17.00 (435)	24.00 (610)	R	4.50	208/240	124
CDF 15/1	1500	2.50 (60)	3.50 (90)	5.00 (125)	25.75 (655)	17.00 (435)	21.00 (535)	R	2.76	208/240	110
CDF 15/3	1500	4.75 (120)	4.75 (120)	8.00 (200)	25.75 (655)	17.00 (435)	24.00 (610)	R	4.50	208/240	124
◆ CDF 16/3	1600	4.75 (120)	4.75 (120)	8.00 (200)	25.75 (655)	17.00 (435)	24.00 (610)	R	4.50	208/240	124
HTD 17/5	1700	6.25 (158)	6.00 (150)	8.75 (225)	22.25 (565)	32.50 (830)	25.50 (650)	B	4.19	208/240	247
BLD 17/3	1700	6.00 (150) Dia.*	7.50 (190) High		38.50 (975)	21.00 (530)	29.50 (750)	B	5.00	208/240	397

◆ Stock Product. Note: CDF 16/3 is stocked with 3216P1 programmer.  
\* Optional chamber liner reduces chamber opening diameter to 5".  
Continuous operating temperature is 100° below maximum temperature.

Specify voltage at time of order. Furnaces operate on single phase voltage.  
Note: Model HTD 17/5 is provided with RS 232 digital communications.