



HIGH TEMPERATURE BOTTOM LOADING FURNACE - BLF

BLF bottom loading furnaces use an electrically operated elevator hearth, which as it rises into the furnace chamber, lifts the load into the heated zone.

This furnace provides the following advantages: easy loading of samples and uniform heating achieved by locating elements in all six side walls of the chamber.

The 1600 °C is ideal for sintering of zirconia dental crowns and frameworks. The silicon carbide heating elements will not cause discolouration of the zirconia.



[Click to view video](#)

Product Video: Customised High Temperature Bottom Loading
Furnace - BLF

STANDARD FEATURES

- | 1600°C, 1700°C & 1800°C maximum operating temperature
- | 3 to 21 litre capacities
- | Programmable EPC3016P1 controller
- | Ideal for: sintering high performance ceramics, melting glass under high temperature or working with modified atmospheres
- | Rapid heating & cooling cycles can be achieved through raising & lowering the hearth
- | Electrically operated elevator hearth protects operator from the chamber's radiant heat
- | Hearth cage with safety interlock
- | Excellent temperature uniformity as a result of the hexagonal chamber
- | Overtemperature protection to protect load or furnace during unattended operation
- | 1600 °C model heated by silicon carbide elements
- | 1700 °C & 1800 °C models heated by molybdenum disilicide elements

OPTIONS (*SPECIFY THESE AT TIME OF ORDER*)

- | A range of sophisticated digital controllers, multisegment programmers and data loggers with digital communication options is available - more information about controllers
- | Compatible crucibles
- | Modified hearth for the introduction of gases into an inverted crucible (not gas tight)
- | Radiation shutter
- | Customised options including: adaptation to introduce thermocouple or stirrer through the chamber roof and rotating hearth
- | Plasma sprayed alumina protection tube to protect heating elements from sample contamination

HIGH TEMPERATURE BOTTOM LOADING FURNACE - BLF

EXAMPLES



BLF 17/3 with CC-T1 controller



BLF 18/8 with inverted crucible, gas flowmeter and radiation shutter options

TECHNICAL DETAILS (MODELS)

	BLF 16/3	BLF 17/3	BLF 17/8
Max temp (°C)	1600	1700	1700
Heat-up time (mins)	80	80	80
Dimensions: Internal H x Diameter (mm)	190 x 150	190 x 150	250 x 200
Dimensions: External H x W x D (mm)	1025 x 750 x 530	975 x 750 x 530	1950 x 1360 x 800
Configuration	Bench-top	Bench-top	Floor-standing
Volume (litres)	3	3	8
Max power (W)	6000	4125	8130
Thermocouple type	R	B	B
Weight (kg)	155	155	424

	BLF 17/21	BLF 18/3	BLF 18/8
Max temp (°C)	1700	1800	1800
Heat-up time (mins)	180	112	110
Dimensions: Internal H x Diameter (mm)	300 x 300	190 x 150	250 x 200
Dimensions: External H x W x D (mm)	1850 x 1250 x 900	975 x 750 x 530	1950 x 1360 x 800
Configuration	Floor-standing	Bench-top	Floor-standing
Volume (litres)	21	3	8
Max power (W)	12000	4775	7010
Thermocouple type	Pt20%Rh/Pt40%Rh	2	Pt20%Rh/Pt40%Rh
Weight (kg)	600	155	424

Please note

- Maximum continuous operating temperature is 100°C below maximum temperature
- Heat up rate is measured to 100°C below maximum, using an empty hearth
- For 1700 °C and 1800 °C models, a chemical reaction between the heating elements and zirconia may discolour the zirconia. Processing advice or alternative elements are available; please enquire.

www.carbolite.com/blf