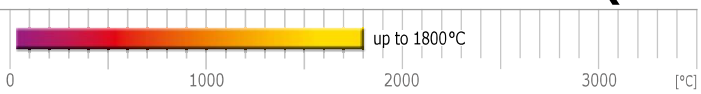


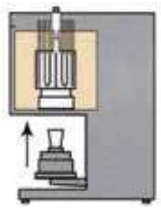
BLF – High Temperature Bottom Loading Furnaces

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.

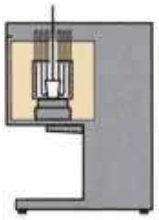
This furnace provides the following advantages: easy loading of samples and uniform heating achieved by locating elements in all six side walls of the chamber.

Standard features

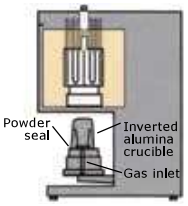
- 1600 °C, 1700 °C & 1800 °C maximum operating temperature
- Programmable 3216P1 controller
- 3 to 21 litre capacities
- Ideal for: sintering high performance ceramics, melting glass under high temperature or working with modified atmospheres
- Rapid heating & cooling cycles can be achieved through raising & 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
- Over-temperature 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



Furnace open



Furnace closed



Optional inverted crucible

BLF 17/3 with optional CC-T1 touchscreen programmer

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.

Options (specify these at time of order)

- 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 106 – 111)
- 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

Technical data

CGH Model	Max. temp. [°C]	Heat-up time [mins]	Dimensions: Usable chamber H x Diameter [mm]	Dimensions: External H x W x D [mm]	Volume [litres]	Max. power [W]	Thermocouple type	Weight [kg]
BLF 16/3	1600	80	190 x 150	1025 x 750 x 530 (Bench-top)	3	6000	R	155
BLF 17/3	1700	80	190 x 150	975 x 750 x 530 (Bench-top)	3	4125	B	155
BLF 17/8	1700	80	250 x 200	1950 x 1360 x 880 (Floor-standing)	8	8130	B	424
BLF 17/21	1700	180	300 x 300	1850 x 1250 x 900 (Floor-standing)	21	12000	B	600
BLF 18/3	1800	112	190 x 150	975 x 750 x 530 (Bench-top)	3	4775	Pt20%Rh/Pt40%Rh	155
BLF 18/8	1800	110	250 x 200	1950 x 1360 x 880 (Floor-standing)	8	7010	Pt20%Rh/Pt40%Rh	424
BLF 18/21	1800	220	300 x 300	1850 x 1250 x 900 (Floor-standing)	21	12000	Pt20%Rh/Pt40%Rh	600

Please note:
- Maximum continuous operating temperature is 100 °C below maximum temperature
- Heat up time is measured to 100 °C below max, 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.