

Laboratory Furnaces

STANDARD FEATURES

- Maximum Operating Temperature : 1200°C/1400°C/1600°C/1800°C
- High accurate test results under uniform temperatures
- Display : 7 segment LED display
- Accuracy : $\pm 1^{\circ}\text{C}$
- Bottom lifting arrangement: Bottom lifting plate fitted with DC motor based actuator to ensure smooth lifting and lowering operation.
- Advanced Refractory interior, used in combination with energy efficient low thermal mass insulation.
- Over temperature limiter with adjustable cutout temperature for thermal protection class 2 in accordance with EN 60519-2 as temperature limiter to protect the furnace and load
- Thermocouple breaks protection that helps preventing thermocouple failure run away
- Power control through Solid state relay or Thyristor unit that provides low noise operation.
- Outstanding temperature uniformity inside chamber
- Easy maintenance and operation
- NABL certified thermocouple

BOTTOM LOADING FURNACE



Bottom loading furnaces are designed for uniform thermal distribution inside the chamber, easy loading and unloading of the sample with help of lifting arrangement. Bottom loading furnaces are ideal to achieve a variety of heating-cooling cycles without sacrificing temperature uniformity or product quality. These furnaces are well suited for calcining, firing and sintering oxide ceramic parts (i.e., alumina, zirconia), technical ceramics, co-fired substrate materials, capacitors, filters, thermistors, ferrites.

The high-temperature bottom loading furnaces are additionally equipped with a drying as well as a forced cooling function. For residual drying, the oven remains open gap wise during heating up to a defined temperature and thus ensures reliable removal of moisture. For accelerated cooling, the furnace is automatically opened step by step under program control

TECHNICAL SPECIFICATION

CONSTRUCTION

- Powder coated 2 mm Mild Steel cabinet / 304 Grade Stainless Steel (Optional).
- Vacuum formed ultra-high purity alumina low thermal mass insulation with pre sintered fiber insulation board for maximum energy saving design.
- Bottom lifting plate fitted with DC motor based actuator to ensure smooth lifting and lowering operation.
- Double shell case with cooling fan to keep electric components safe.

HEATING ELEMENTS

- Element type –KANTHAL A1 / Molybdenum Disilicide (MoSi2) / Silicon Carbide (SiC).
- Element brand – KANTHAL / I SQUARED R .
- Thyristorized power control.
- Power supply to element is via multi tapped double wound transformer.

TEMPERATURE CONTROL

- Electronic/ Automatic Control.
- Temperature sensing through N / R / B type sensor.
- NABL certified thermocouple.
- Equipped with thermocouples break protection that help prevent thermocouple failure run away

OPTIONAL FEATURES

- Programmable PID controller with RS-232/ RS-485/ Ethernet & Data Logging software.
- Provision for vacuum/ gas purging application (Ar, N2, H2, O2, CO2, etc.).
- Available in standard sizes and as per customer requirements

MODEL	OPERATING TEMP(°C)	INSIDE DIMENSIONS (WxDxH) (mm)	EXTERNAL DIMENSIONS (WxDxH)(mm)	kW	HEATING ELEMENT	CONTROLLING THERMOCOUPLE
BLF - 1200	1200	120x120x120 (Customizable)	650x825x1300	2.8	KANTHAL A1	N
BLF - 1500	1500		650x825x1300	3	Molybdenum Disilicide	R
BLF - 1800	1800		650x825x1300	3	Molybdenum Disilicide	B

ACCESSORIES

- Hand Gloves.
- Heating Element.
- Crucible.
- Tongs.