Bottom loading furnaces are designed for uniform thermal distribution inside the chamber, easy loading and unloading of 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 perfectly suited for sintering translucent zirconia. The motor-driven lifting table significantly simplifies the charging of the high-temperature furnace. The all-around heating of the cylindrical furnace chamber ensures a very even temperature uniformity.

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 gapwise 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.

Tempsens is ISO and CE certified Laboratory & Industrial furnace manufacturers and suppliers. Tempsens provide range general purpose High Temperature Bottom Loading Furnace in three temperature ranges i.e. 1200°C, 1500°C & 1800°C

### Technical Specification

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Max temp (°C)</td>
<td>1200/1400/1600/1800 deg c</td>
</tr>
<tr>
<td>2</td>
<td>Max operating temp (°C)</td>
<td>1200/1400/1600/1800 deg c</td>
</tr>
<tr>
<td>3</td>
<td>Heating Element</td>
<td>Kanthal A1/Silicon Carbide/MoSi2</td>
</tr>
<tr>
<td>4</td>
<td>Temperature Controller</td>
<td>Microprocessor based PID controller</td>
</tr>
<tr>
<td>5</td>
<td>External Chamber Construction</td>
<td>MS Powder Coated / 304 Grade Stainless Steel (Optional)</td>
</tr>
<tr>
<td>6</td>
<td>Internal Chamber Construction</td>
<td>Vacuum formed ultra high purity alumina low thermal mass insulation with pre sintered fiber insulation board for maximum energy saving design</td>
</tr>
<tr>
<td>7</td>
<td>Bottom lifting arrangement</td>
<td>Bottom lifting plate fitted with DC motor ensure smooth lifting &amp; lowering.</td>
</tr>
<tr>
<td>8</td>
<td>Temperature Accuracy</td>
<td>+/- 1 Deg C</td>
</tr>
</tbody>
</table>
## Standard features

- 1800°C maximum operating temperature.
- Bottom lifting arrangement: Bottom lifting plate fitted with DC Motor ensure smooth lifting & lowering
- Advance refractory interior, used in combination with energy efficient low thermal mass insulation.
- Door Lifting limit switch for making heating system off while in open condition.
- 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.
- Equipped with thermocouple break protection that help preventing thermocouple failure run away.
- Exhaust air outlet at rear wall of the furnace.
- Power control through Solid state relay or Thyristor unit provides low noise operation.
- Thermocouple with NABL Certificate.

## Optional Features

- Simple Installation
- Hassle free operation
- Automatic Temperature Control
- Easy Maintenance
- Spare part available at stock
- Rugged construction for long run
- Heating element from KANTHAL/I Squared R brand
- Dual Shell housing for low skin temperature.

## Optional Accessories

- Gloves
- Heating Element
- Tongs

## Optional Features

- Provision for gas/vacuum purging application (Ar, N2, O2, CO2 etc.)
- Available in standard or as per customer size requirement
- Programmable PID Controller with RS-232/RS-485/Ethernet & Data Logging Software.

## Model Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Maximum Temperature(°C)</th>
<th>Internal Dimension*(HXWXD) (mm)</th>
<th>External Dimension(HXWXD) (mm)</th>
<th>Controlling Thermocouple</th>
<th>Heating Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLF - 1200</td>
<td>1200</td>
<td>120X120X 120</td>
<td>1010X 600X595</td>
<td>N</td>
<td>Kanthal A1</td>
</tr>
<tr>
<td>BLF - 1500</td>
<td>1500</td>
<td>*Customized chamber size available on request</td>
<td>1010X 600X595</td>
<td>R</td>
<td>MoSi2</td>
</tr>
<tr>
<td>BLF - 1800</td>
<td>1800</td>
<td></td>
<td>1010X 600X595</td>
<td>B</td>
<td>MoSi2</td>
</tr>
</tbody>
</table>

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