

# Box Type Vacuum Furnace



**Robust Shell Construction:** Engineered with a double-wall MS body and MS angle structure, the furnace boasts dimensions will be according to Customer Requirement offering ample space for thermal processing tasks.

**Advanced Door Design:** Featuring a stainless steel door with proper insulation and a chain mechanism for smooth operation, the furnace minimizes heat loss, ensuring efficient thermal processing.

**Integrated Control Panel:** The control panel is conveniently integrated into the furnace, providing easy access to temperature and process controls for seamless operation.

**Efficient Insulation:** High alumina bricks and mechanically pressed blend ceramic fiber insulation ensure superior heat retention and uniform thermal distribution throughout the chamber.

**Vacuum Chamber:** Equipped with a vacuum chamber measuring 210 mm (L) x 210 mm (B) x 150 mm (H), constructed with special alloy material to withstand vacuum conditions.

**Precise Vacuum Control:** Achieve vacuum levels as low as 10-1 mbar at room temperature with the included vacuum attachment, ensuring optimal processing conditions for sensitive materials.

**Controlled Atmosphere Fittings:** Stainless steel (SS310) fittings with water cooling arrangement and Whiton 'o' rings enable precise control over the atmosphere within the chamber, ideal for purging multiple gases.

**Advanced Heating System:** Utilizing APM grade Kanthal heating elements, the furnace operates on single-phase power (230V/AC), delivering up to 4 kW of power for temperatures up to 500°C.

**Temperature Control:** Equipped with a TAIE microprocessor-based PID programmer- 18\*8=144 Segments and digital temperature controller, coupled with 'K' type thermocouples for precise temperature control with an accuracy of  $\pm 1^{\circ}\text{C}$ .

**Integrated Safety Features:** The furnace includes input and output fuses, ensuring safe and reliable operation during thermal processing.

**Vacuum Pump:** A Thosniwal vacuum pump with a capacity of 120 liters and vacuum levels of 10-1 mbar, monitored via an analog gauge, ensures efficient vacuum operation.

Model	Max Temperature	Inner Dimensions (mm)	Volume (in liters)	Outer Dimension	Max Power	Phase	Weight
BVF 3/10	1000 C	150*150*150	3.375 L	600*600*1400	4 Kw	2 phase	50
BVF 5/10	1000 C	150*150*250	5.625 L	600*600*1400	4 Kw	2 phase	50
BVF 3/12	1200 C	150*150*150	3.375 L	600*600*1400	4 Kw	2 phase	50
BVF 5/12	1200 C	150*150*250	5.625 L	600*600*1400	4 Kw	2 phase	50
<b>Graphite Furnace</b>							
GF 1/16	1600 C	100*100*100	1 L	800 *800 *1500	8 Kw	3 phase	200
GF 3/16	1600 C	150*150*250	3.375 L	800 *800 *1500	8 Kw	3 phase	200
GF 5/16	1600 C	150*150*250	5.625 L	800 *800 *1500	8 Kw	3 phase	200
GF 1/18	1800 C	100*100*100	1 L	800 *800 *1500	8 Kw	3 phase	200
GF 3/18	1800 C	150*150*250	3.375 L	800 *800 *1500	8 Kw	3 phase	200
GF 5/18	1800 C	150*150*250	5.625 L	800 *800 *1500	8 Kw	3 phase	200
GF- 1/20	2000 C	100*100*100	1 L	800 *800 *1500	8 Kw	3 phase	200
GF- 3/20	2000 C	150*150*250	3.375 L	800 *800 *1500	8 Kw	3 phase	200
GF- 5/20	2000 C	100*100*100	5.625 L	800 *800 *1500	8 Kw	3 phase	200