

# Box Furnace / Muffle Furnace



**Compact Design:** Space-saving dimensions ranging from 150 x 150 x 150 mm to 300 x 300 x 300 mm, offering versatility to accommodate various sample sizes and quantities.

**High-Quality Construction:** Double-wall construction with MS body and angle structure ensures durability and stability, while the powder coat painting enhances aesthetics and corrosion resistance.

**Efficient Heat Retention:** Stainless steel door with sophisticated insulation system minimizes heat loss, equipped with a chain mechanism for smooth and reliable operation.

**Front-Loading Convenience:** Horizontal front-loading design facilitates easy loading and unloading of samples, optimizing workflow efficiency.

**High-Performance Heating Elements:** Employs APM Kanthal heating elements, providing reliable heating performance up to 1200°C for continuous operation. Designed to accommodate different heating element materials such as silicon carbide for 1400°C and Super Kanthal from 1600°C.

**Precise Temperature Control:** TAIE microprocessor-based PID- 18\*8=144 Segments offers precise temperature regulation with an accuracy of  $\pm 1^{\circ}\text{C}$ , ensuring optimal process control.

**Rapid Heating/Cooling:** Capable of achieving heating/cooling rates from 1 to 10°C per minute, enabling quick ramp-up and cooldown times for efficient processing.

**User-Friendly Interface:** Intuitive control switches for mains and output, along with digital temperature display and ammeters, provide easy operation and monitoring.

**Reliable Temperature Sensing:** 'K' type thermocouples (Chromel/Alumel) ensure accurate temperature measurement, essential for consistent results.

**Safe Operation:** Equipped with input and output fuses for added safety, ensuring protection against electrical faults.

**Adaptable Power Requirements:** Single-phase operation at 230V AC with a maximum power requirement of 4 kW, offering flexibility in power supply arrangements.

**Customizable Heating:** Allows for precise control of the heating process through phase angle-controlled thyristors imported from SEMIKRON, Italy, ensuring stable and efficient power management.

**Wide Temperature Range:** Capable of operating at a maximum temperature of 1800°C, ideal for a variety of heat treatment and material testing applications.

**Versatile Applications:** Suitable for a range of industrial and laboratory applications, including annealing, sintering, and material research, offering reliable performance and consistent results.

Model	Max Temperature	Inner Dimensions (mm)	Volume (In liters)	Outer Dimension	Max Power	Phase	Weight
BF 3/12	1200 C	150*150*150	3.375 L	550*550*800	4 Kw	1 phase	100
BF 5/12	1200 C	150*150*200	4.5 L	550*550*800	4 Kw	1 phase	100
BF 8/12	1200 C	200*200*200	8 L	550*550*800	4 Kw	3 phase	120
BF 12/12	1200 C	200*200*300	12 L	600*600*900	4 Kw	3 phase	120
BF 27/12	1200 C	300*300*300	27 L	700*700*900	4 Kw	3 phase	150
BF 3/14	1400 C	150*150*150	3.375 L	550*550*800	4 Kw	1 phase	100
BF 6/14	1400 C	150*150*200	4.5 L	550*550*800	4 Kw	1 phase	100
BF 8/14	1400 C	200*200*200	8 L	550*550*800	4 Kw	3 phase	120
BF 12/14	1400 C	200*200*300	12 L	600*600*900	6 Kw	3 phase	120
BF 27/14	1400 C	300*300*300	27 L	700*700*900	8 Kw	3 phase	150
BF 3/16	1600 C	150*150*150	3.375 L	550*550*800	4 Kw	2 phase	150
BF 5/16	1600 C	150*150*200	4.5 L	550*550*800	4 Kw	2 phase	150
BF 8/16	1600 C	200*200*200	8 L	550*550*800	4 Kw	3 phase	175
BF 12/16	1600 C	200*200*300	12 L	600*600*900	6 Kw	3 phase	200
BF 27/16	1600 C	300*300*300	27 L	700*700*900	8 Kw	3 phase	200
BF 3/17	1700 C	150*150*150	3.375 L	550*550*800	4 Kw	2 phase	150
BF 5/17	1700 C	150*150*200	4.5 L	550*550*800	4 Kw	2 phase	150
BF 8/17	1700 C	200*200*200	8 L	550*550*800	4 Kw	3 phase	175
BF 12/17	1700 C	200*200*300	12 L	600*600*900	6 Kw	3 phase	200
BF 27/17	1700 C	300*300*300	27 L	700*700*900	8 Kw	3 phase	200