

*Below, Model  
BF51643C Box  
Furnace, 1500°C,  
with side swing door*



*Above, Model BF51433PBC Box Furnace, 1500°C,  
with vertical lift door, shown with multiple segment  
integrated digital programmable controller.*

## Applications

- Ashing
- Fusion
- Ignitions
- Alloying
- Sintering

# 1500°C Box Furnaces, Multi-Purpose, Integral Control

## Features

- Double-wall construction with Moldatherm® insulation for rapid heat-up and cool-down, energy efficiency and cooler exterior surface temperatures
- Silicon carbide heating elements for long-life, safety and reliable service with maximum energy savings
- Safety door switch interrupts power to heating elements when door is opened; protects elements and minimizes exposure to operator
- Moldatherm hearthplate supports load and protects interior from spillage and mishandling
- Type "R" Thermocouple is integrated into chamber backwall

## Digital Single Program, Multiple Segment Programmable Controller

- Microprocessor-based PID control, single program with multiple segments for ramp (up and down) and dwell (timed hold) temperature control. See page 35 for more information
- Adjustable high limit overtemperature protection. Simultaneous LED display of actual temperature vs. setpoint in either °C or °F

## Digital Multiple Program, Multiple Segment Programmable Controller

- Microprocessor-based PID control, multiple programs and segments for ramp (up and down) and dwell (timed hold) temperature control. See page 35 for more information
- Adjustable high limit overtemperature protection
- Simultaneous digital LED display of actual temperature vs. setpoint in either °C or °F

## Option B Overtemperature Control (OTC)

- Adjustable digital overtemperature control, protects furnace and load in the event of primary control circuit failure available on selected models with "B" suffix designation; see chart
- Overrides main controller and shuts off power to furnace if high limit is reached
- Manual re-set required for safety
- Operates via magnetic contacts through signal from independent thermocouple

## Optional RS485 Digital Communications Port

- RS485 Digital communications port available as an option. Allows controller to be connected to a PC for remote monitoring and control of the furnace. Up to 30 units can be connected to one PC. Please see page 35 for ordering information and additional options

## 1500°C Box Furnaces

### Vertical Lift Door, Temperature Range 500°C to 1500°C

Furnace Model No.	Integrated Digital Control	Electrical Volts, Hz, 1Ø	Watts	Door	Interior Dimensions H x F-B x W in" (mm)	Exterior Dimensions H x F-B x W in" (mm)	Ship Weight lbs (kg)
BF51433C	Multi Seg/1 Prog	208/240V, 50/60 Hz	6400	Vertical Lift	5" (127) x 12" (304.8) x 6" (152.4)	26" (660.4) x 29" (736.6) x 25" (635)	320 (145)
BF51433BC	Multi Seg/1 Prog/OTC	208/240V, 50/60 Hz	6400	Vertical Lift	5" (127) x 12" (304.8) x 6" (152.4)	26" (660.4) x 29" (736.6) x 25" (635)	320 (145)
BF51433PC	Multi Seg/Multi Prog	208/240V, 50/60 Hz	6400	Vertical Lift	5" (127) x 12" (304.8) x 6" (152.4)	26" (660.4) x 29" (736.6) x 25" (635)	320 (145)
BF51433PBC	Multi Seg/Multi Prog/OTC	208/240V, 50/60 Hz	6400	Vertical Lift	5" (127) x 12" (304.8) x 6" (152.4)	26" (660.4) x 29" (736.6) x 25" (635)	320 (145)

### Side Swing Door, Temperature Range 500°C to 1500°C

BF51643C	Multi Seg/Multi Prog	208/240V, 50/60 Hz	14800	Side Swing	9" (228.6) x 15.5" (393.7) x 11" (279.4)	31" (787.4) x 30" (762) x 28" (711.2)	320 (145)
BF51643BC	Multi Seg/Multi Prog/OTC	208/240V, 50/60 Hz	14800	Side Swing	9" (228.6) x 15.5" (393.7) x 11" (279.4)	31" (787.4) x 30" (762) x 28" (711.2)	320 (145)

**Note:** Required power cord and hardwiring are not included.