Static or Bogie Chamber Furnace - SBCF

General Information

The robust construction of the SBCF large chamber furnace makes it ideal for applications such as the heat treatment of steels and alloys, ceramics sintering and aerospace heat treatment.

The SBCF chamber furnace is an industrial scale furnace based on a modular design principle which can be adapted to various applications. The furnace chamber is cubic in shape and is available in three sizes.

The furnace has a side hinged door and a fixed hearth. As an option the hearth can fitted to a bogie so it can be pulled out of the furnace on a track system. This hearth design technique also allows the furnace to be easily adapted to a vertical lift arrangement to provide an elevator hearth, in which case the door would become a fixed side of the chamber.

Under hearth heating and free radiating coiled wire elements on four sides. This design provides the option of single and 3-zone temperature control and for applications demanding the best uniformity possible, such as AMS 2750E (this can be combined with an optional air circulation fan).

The construction uses low thermal mass insulation materials to maximise running efficiency whilst using robust refractory materials where physical strength is required such as the loading area of the hearth. Silicon carbide (SiC) tiles are fitted on the hearth to provide a hard wearing surface.

Standard features

- 1100 °C maximum operating temperature
- Single zone models fitted with programmable 3508P1
- 3-zone models fitted with 1 x programmable 3508P1 and 2 x 3216CC slaves
- Retransmission of setpoint on 3-zone models
- Over-temperature protection
- Furnace can meet the requirements of AMS2750E
- Under hearth heating and free radiating coiled wire elements on four sides
- Excellent temperature uniformity and control
- Robust construction ensures safe outer case temperature
- Double skin construction ensures safe outer case temperature
- Hard wearing silicon carbide tiled hearth

Options (specify these at time of order)

- Temperature interlocked door
- Bogie hearth
- Vertical air circulation fan
- Available with various instrumentation and data acquisition options

Technical Specifications

Static or Bogie Chamber Furnace - SBCF

SBCF-1/11/500	
Max temp (°C)	1100
Number of heated zones	Single zone
Dimensions: External H x W x D (mm) with fan	2353 x 1710 x 1354
Dimensions: External H x W x D (mm) without fan	2130 x 1710 x 1354
Volume (litres)	512
Chamber size (mm)	800 x 800 x 800
Uniform volume (mm)	600 x 600 x 600
Temp uniformity (°C)	±10
Max power (W)	54000

SBCF-1/11/1700	
Max temp (°C)	1100
Number of heated zones	Single zone
Dimensions: External H x W x D (mm) with fan	2753 x 2110 x 1754
Dimensions: External H x W x D (mm) without fan	2530 x 2110 x 1754
Volume (litres)	1728
Chamber size (mm)	1200 x 1200 x 1200
Uniform volume (mm)	1000 x 1000 x 1000
Temp uniformity (°C)	±10
Max power (W)	96000

SBCF-1/11/3300	
Max temp (°C)	1100
Number of heated zones	Single zone
Dimensions: External H x W x D (mm) with fan	3053 x 2410 x 2054
Dimensions: External H x W x D (mm) without fan	2830 x 2410 x 2054
Volume (litres)	3375
Chamber size (mm)	1500 x 1500 x 1500
Uniform volume (mm)	1300 x 1300 x 1300
Temp uniformity (°C)	±10
Max power (W)	144000

Static or Bogie Chamber Furnace - SBCF

SBCF-3/11/500	
Max temp (°C)	1100
Number of heated zones	Three zone
Dimensions: External H x W x D (mm) with fan	2353 x 1710 x 1354
Dimensions: External H x W x D (mm) without fan	2130 x 1710 x 1354
Volume (litres)	512
Chamber size (mm)	800 x 800 x 800
Uniform volume (mm)	600 x 600 x 600
Temp uniformity (°C)	±5
Max power (W)	54000

SBCF-3/11/1700	
Max temp (°C)	1100
Number of heated zones	Three zone
Dimensions: External H x W x D (mm) with fan	2753 x 2110 x 1754
Dimensions: External H x W x D (mm) without fan	2530 x 2110 x 1754
Volume (litres)	1728
Chamber size (mm)	1200 x 1200 x 1200
Uniform volume (mm)	1000 x 1000 x 1000
Temp uniformity (°C)	±5
Max power (W)	96000

SBCF-3/11/3300	
Max temp (°C)	1100
Number of heated zones	Three zone
Dimensions: External H x W x D (mm) with fan	3053 x 2410 x 2054
Dimensions: External H x W x D (mm) without fan	2830 x 2410 x 2054
Volume (litres)	3375
Chamber size (mm)	1500 x 1500 x 1500
Uniform volume (mm)	1300 x 1300 x 1300
Temp uniformity (°C)	±5
Max power (W)	144000

Please note:
- Maximum continuous operating temperature is 100 °C below maximum temperature