

Smelting Furnace - SCF

General Information

The smelting furnace range (SCF) of top loading crucible furnaces is available in 3 sizes with a maximum operating temperature of 1400 °C. They are specifically designed for the smelting of precious metals.

Each smelting furnace is robustly constructed from heavy gauge hollow steel section and zinc coated sheet steel panels. Silicon carbide heating elements surround the chamber sides and are protected by silicon carbide tiles. The hearth is constructed from refractory bricks and silicon carbide tiles. The SCF 1 has a single chamber, all other smelting furnace models have twin chambers with separate lids.



Carbolite also offers a range of cupellation/fire assay furnaces.

Standard features

- Specifically designed for the smelting of precious metals
- The horizontal, parallel opening lids open with the hot face away from the user
- Each lid is vented by a 50 mm diameter chimney
- Silicon carbide heating elements protected by silicon carbide tiles
- The hearths of the SCF 4 and SCF 8 models include cast alumina supports to securely hold the appropriate number of crucibles
- The hearths of the SCF 24 and SCF 48 models are the same size but without crucible supports
- A 24 hour, 7 day timer

Options (specify these at time of order)

- A range of sophisticated digital controllers, multi-segment programmers and data loggers is available. These can be fitted with RS232, RS485 or Ethernet communications

Technical Specifications

SCF 1

Max temp (°C)	1400
Max continuous operating temp (°C)	1350
Charge capacity	--
Dimensions: External H x W x D (mm)	850 x 905 x 905
Dimensions: Chamber H x W x D (mm)	440 x 285 x 285
Dimensions: Control module H x W x D (mm)	630 x 600 x 490
Thermocouple type	R
Max power (W)	15000

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SCF 4

Max temp (°C)	1400
Max continuous operating temp (°C)	1350
Charge capacity	4 crucibles 120 x 180 (OD x H mm)
Dimensions: External H x W x D (mm)	990 x 1230 x 1040
Dimensions: Chamber H x W x D (mm)	200 x 245 x 500
Dimensions: Control module H x W x D (mm)	630 x 600 x 490
Thermocouple type	R
Max power (W)	15000

SCF 8

Max temp (°C)	1400
Max continuous operating temp (°C)	1350
Charge capacity	8 crucibles 120 x 180 (OD x H mm)
Dimensions: External H x W x D (mm)	1025 x 1350 x 1300
Dimensions: Chamber H x W x D (mm)	200 x 245 x 760
Dimensions: Control module H x W x D (mm)	630 x 600 x 490
Thermocouple type	R
Max power (W)	24000

SCF 24

Max temp (°C)	1400
Max continuous operating temp (°C)	1350
Charge capacity	24 crucibles 79 x 97 (OD x H mm)
Dimensions: External H x W x D (mm)	990 x 1230 x 1040
Dimensions: Chamber H x W x D (mm)	200 x 245 x 500
Dimensions: Control module H x W x D (mm)	630 x 600 x 490
Thermocouple type	R
Max power (W)	15000

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SCF 48

Max temp (°C)	1400
Max continuous operating temp (°C)	1350
Charge capacity	48 crucibles 79 x 97 (OD x H mm)
Dimensions: External H x W x D (mm)	1025 x 1350 x 1300
Dimensions: Chamber H x W x D (mm)	200 x 245 x 500
Dimensions: Control module H x W x D (mm)	630 x 600 x 490
Thermocouple type	R
Max power (W)	24000