

Cupellation Furnace - CF

General Information

The CF cupellation furnaces are designed for the cupellation, or fire assay test, of precious metals, which is a standard test method used to determine their purity.

The furnaces meet the Hallmarking requirements specified by the Convention on the Control and Marking of Articles of Precious Metals (known also as "Precious Metals Convention", "Hallmarking Convention" or "Vienna Convention").

The test method produces hazardous vapours. When used within a suitable fume management system, the cupellation furnaces are designed to handle the vapours without exposing the operator to these hazards. The design of the cupellation furnace range ensures protection from the corrosive environment which would damage a conventional furnace.

Carbolite Gero also offers a range of smelting/melting furnaces.



Standard features

- 1200°C maximum operating temperature
- Designed for testing using the cupellation method to ISO11426:1999 the standard test method used by the UK Assay Office, a reference quantitative assay method by the International Hallmark Convention
- The airflow, controlled by an adjustable valve, is preheated before entering the work chamber
- Silicon carbide elements mounted above and below the chamber provide even heating of cupels, have good resistance to thermal shock & offer extended working life at high temperatures
- Silicon carbide lined roof and hearth protect the heating elements and resist the corrosive fumes emitted during the cupellation process
- Fumes are extracted through an insulated exhaust duct, with a removable container to collect condensed lead
- Up & away counterbalanced vertically opening door fitted with observation hole
- Element over-temperature protection controller
- Fitted with 7 day, 24 hour time-switch

Technical Specifications

Cupellation Furnace - CF

CF 15B

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|---|---|
| Max temp (°C) | 1200 |
| Maximum continuous operating temp (°C) | 1200 |
| Dimensions: Internal H x W x D (mm) | 125 x 215 x 270 |
| Dimensions: External H x W x D (mm) | 1030 x 920 x 870 (bench-mounted) + 225 x 600 x 380 (separate control module) |
| Dimensions: External with door open H x W x D (mm) | 800 x 920 x 1130 |
| Charge capacity of no. 8 cupels | 15 |
| Charge capacity of no. 6 cupels | 24 |
| Max power (W) | 9000 |
| Thermocouple type | R |

CF 24B

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|---|-----------------------------------|
| Max temp (°C) | 1200 |
| Maximum continuous operating temp (°C) | 1200 |
| Dimensions: Internal H x W x D (mm) | 200 x 250 x 340 |
| Dimensions: External H x W x D (mm) | 2055 x 925 x 985 (floor-standing) |
| Dimensions: External with door open H x W x D (mm) | 1918 x 925 x 1155 |
| Charge capacity of no. 8 cupels | 24 |
| Charge capacity of no. 6 cupels | 32 |
| Max power (W) | 13000 |
| Thermocouple type | R |

CF 60B

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|---|-------------------------------------|
| Max temp (°C) | 1200 |
| Maximum continuous operating temp (°C) | 1200 |
| Dimensions: Internal H x W x D (mm) | 250 x 400 x 600 |
| Dimensions: External H x W x D (mm) | 2260 x 1190 x 1240 (floor-standing) |
| Dimensions: External with door open H x W x D (mm) | 2000 x 1190 x 1580 |

Cupellation Furnace - CF

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|---------------------------------|-------|
| Charge capacity of no. 8 cupels | 60 |
| Charge capacity of no. 6 cupels | 90 |
| Max power (W) | 31000 |
| Thermocouple type | R |