



2000°C Benchtop Vacuum Furnace

For small sample testing at high temperature

Thermic Edge offer a range of semi-automatic laboratory vacuum furnaces including the Benchtop range for smaller sample testing in a clean, dust free environment allowing testing in either vacuum or inert atmosphere. Our fully interlocked system provides full safety for its users whilst also being simple to operate and maintain.

Options

- 2000°C Graphite Crucible Sample Heating
- 2000°C Graphite Wafer Sample Heating
- 1400°C SiC³ Coated Graphite for use in Oxygen.

Features

- Ramp Rate $\approx 100^\circ\text{C}/\text{min}$
- Base Pressure $<5 \times 10^{-2} \text{mBar}$
- Crucible & Wafer Sample Heating
- Fully Water Cooled Chamber
- Semi-Automatic PLC Control
- Interactive Touch Screen Display
- Safety Interlocked System
- Temperature Data Logging
- Single Gas Input directly into Hot Zone



Extras

Turbo Pump for Ultimate Vac. 5×10^{-5}
Additional Process gas control
Pyrometer with auto change over
Laptop for multi-step programmable thermal process control.

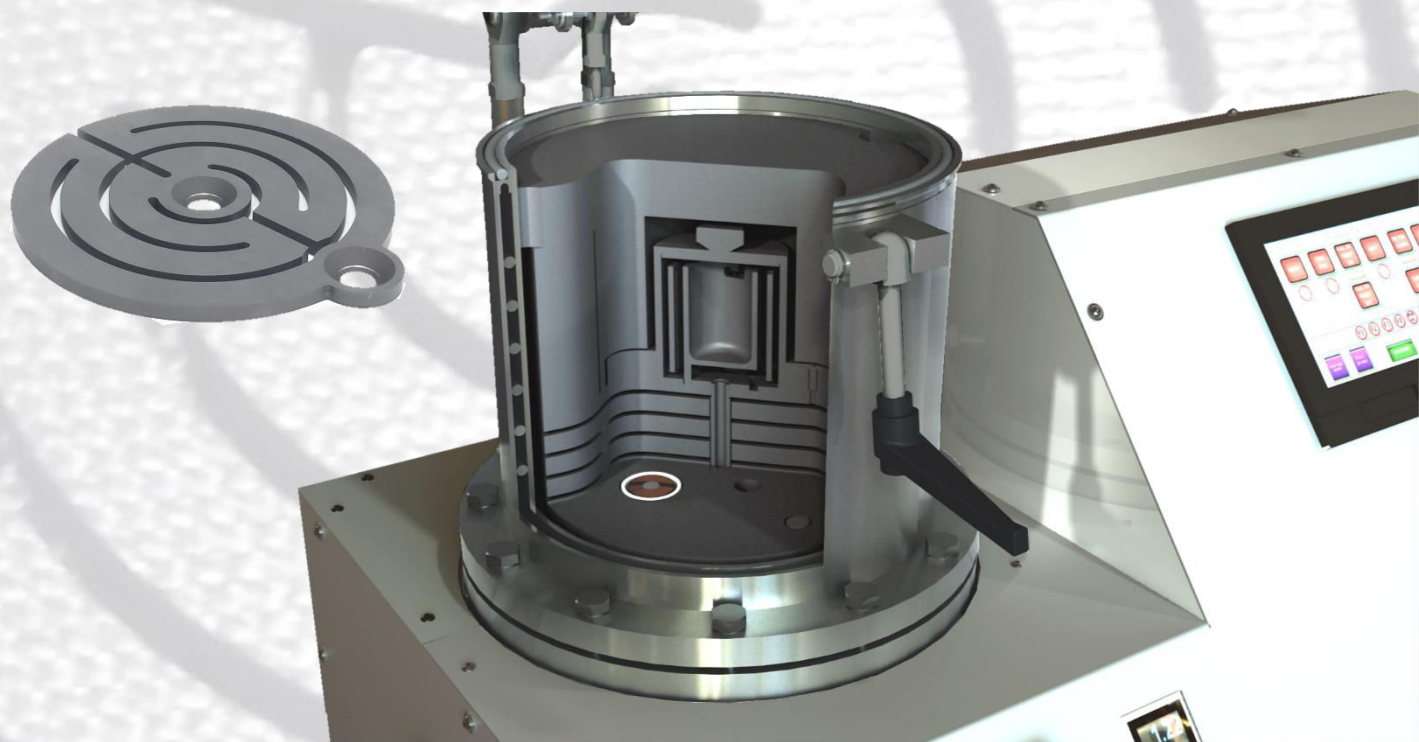
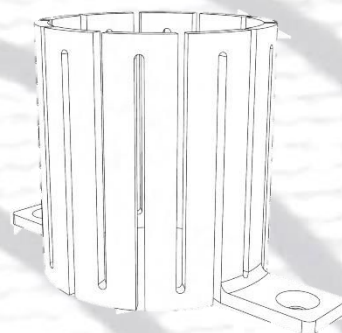


Hot Zone Options

For sample annealing we offer small crucible enclosed in a cylindrical graphite element. This type of element creates high uniformity and excellent performance for fast ramping. Crucibles sizes are as follows: Ø20x30mm, Ø30x40mm & Ø40x50mm.

This can be changed to a flat element for wafer heating with graphite or Tungsten hot zones also available for Hydrogen environments with customisable substrate holders. Wafer sizes are as follows: Ø1", Ø2" & Ø3".

Alternatively the chamber can be used for CVD & PECVD with customizable hot zones and gas control options. With the use of our gas select box allowing multiple gas inputs to be permanently set up with one single input into the furnace all controlled via the HMI touch screen display.



Requirements

Power: 220v, 13A Single phase

Water Cooling: Constant water supply & return 3/8" ID hose, flow rate 6 l/min @ 4bar

Process Gas: 1/4"/6mm flexible hose

Vent gas: 1/4"/6mm Flexible Hose

Pump Exhaust: KF25 Adapter