



200 to 1200°C

# Furnaces

## 3 Zone High Temperature

- Widest Operating Range
- Three Zone Control
- Long Plateau Length

This more recent addition to our long-established range of metrology furnaces offers an alternative for those who prefer 3-Zone furnaces to Heat-Pipe technology. The three zones create a controlled volume of constant temperature within the furnace in which High-Temperature Fixed Points such as Aluminum, Silver and Copper can be frozen and melted. Because High-Temperature thermometers can be easily contaminated by metallic vapors, great care has been taken to eliminate the use of metals throughout the calibration volume. The cell holder is made of alumina.

A ceramic equalizing block is available comprising a closed ended tube, alumina tubes to house the sensors being compared, and alumina powder to act as an equalizing media.

The sensor for the main controller is a mineral insulated type N thermocouple which has been found to be more stable than the type R thermocouple. In addition two slave controllers compensate for any temperature gradient along the furnace by eliminating any temperature difference that they sense.

There is a cooling coil in the lid with connections to circulate tap water to keep the furnace lid cool protecting the SPRT and reducing heat load into the lab. A flow of 0.5 to 1 litre per minute is required at temperatures above 700°C

This 3-Zone Furnace can be used for the realizations of Tin, Zinc, Aluminum, Silver, Gold and Copper points, or with an optional equalizing block used for annealing or comparison calibration.



*Long plateaus from Fixed Point Cells  
Self-Tuning controller optimizes each Fixed Points performance  
3 zones controlled to compensate for end loss to give a perfect profile*

Model	465
Temperature Range	200°C to 1200°C
Uncertainty	<1 to 2mk (with cells)
Control	0.1°C Resolution
Furnace Depth	500mm
Diameter	100mm
Communications	Included as standard
Power	110VAC 50/60Hz 3kw or 230VAC 50/60Hz 3kw with internal transformer option

Dimensions	Height 960mm Width 600mm Depth 560mm Weight 115kg
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- Accessories**
- 465-04-00 Cell holder assembly
  - 465-02-06 Ceramic Equalizing Block

**How to order**  
465 3 Zone Metrological Furnace