



250 to 1200°C

# Furnaces

## 3 Zone High Temperature

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

Whilst heatpipe furnaces offer the ideal environment to melt and freeze ITS-90 Fixed Points the temperature range is limited by fluid that flows inside the pipe. Three zone furnaces can offer wider operating ranges and still meet the requirements for "Optimal Realization of the Defining Points of the ITS-90..." CCT/2000-13. In place of a heatpipe the Model 465 3 Zone High Temperature Furnace uses top and bottom guard heaters to minimise temperature gradients.

This more recent addition to our long-established range of metrology furnaces offers an alternative for those who prefer three zone furnaces to heatpipe technology and need high temperature operation. The three zones create a controlled volume of constant temperature within the furnace in which High Temperature Fixed Points such as Aluminium, Silver and Copper can be frozen and melted. Because High Temperature thermometers can be easily contaminated by metallic vapours, great care has been taken to eliminate the use of metals throughout the calibration volume.

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.

This 3 Zone Furnace can be used for the realizations of Zinc, Aluminium, 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*

### New Features

From our own ongoing experience and customer feedback we have updated the Isotech Furnace Range to deliver the same proven performance and advanced features but with a number of convenience upgrades to make your life easier.

The controllers have now been relocated to the top for easier operation, we now include an SPRT Stand and Cable Ties to keep your standards safe and Accessory Pods to keep the furnace tops free from clutter. Our furnaces are programmable to automatically melt and freeze cells and feature both USB and Ethernet interfaces with bright crystal clear displays.



#### Specification

Model	465
Temperature Range	250°C to 1200°C
Uncertainty	< 1 to 2 mK (with cells)
Control	0.1°C Resolution, Gain Scheduling Action and Power Feedback
Interfaces	Ethernet and USB Host
Core Size	100mm x 500mm
Dimensions	Height - 960mm Width - 600mm Depth - 690mm
Weight	115kg
Power	3kW, 108-130 or 208-240Vac, 50/60Hz
<b>Accessories</b>	465-04-00 Cell holder assembly 465-02-06 ceramic equalising block Four pockets 10mm ID
<b>How to order</b>	465 Please specify voltage required