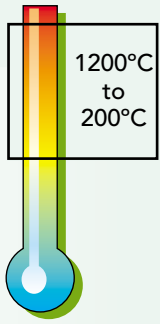


# 3 Zone High Temperature Furnace

Model 465



## Introduction

The 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 3 Zones create a control 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.

The cell holder is made of Alumina.

## For Comparison Calibration

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.

## Operation

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 (see Ancsin Metrologia).

In addition two slave controllers compensate for any temperature gradient along the furnace by eliminating any temperature difference that they sense.

Connections are provided for a water supply of 0.5 to 1 litre per minute to cool the top of the apparatus. Water supply and waste connections may be ordinary garden hose. Use without cooling is not recommended above 700°C.

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



Model No	465
Temperature Range	200°C to 1200°C
Accuracy	see page 15 for details
Control	0.1°C Resolution
Communications	Included as standard, see page 42 for details
Supply	110VAC, 3kw, 50/60Hz CTE (230VAC and 110VAC to 110VAC Isolating Transformers are available)
Dimensions	Height 960mm Width 600mm Depth 560mm
Weight	115kg

## Options

465-04-00	Cell holder assembly
465-02-06	Ceramic Equalizing Block
935-19-43	230/110v Transformer
935-19-48	110v/110v Transformer

## How to order

465 3 Zone Metrological Furnace