



50 to 500°C

Furnaces

Low Temperature

- Affordable Single Zone Furnace
- Simple Operation
- For Indium, Tin and Zinc Cells

The Isotech Low Temperature Fixed Point Furnace is designed specifically to realize and maintain the freeze plateaux of Isotech Indium, Tin and Zinc Fixed Point Cells, for calibration of thermometers on the International Temperature Scale of 1990.

The Low Temperature Furnace is a single zone furnace. The recommended procedure for establishing a freeze plateau requires operator attention until the plateau is realized. Following that, the Model 17701 Furnace will maintain the plateau, essentially automatically, for a period of 10 to 12 hours.

The furnace core, into which the freeze-point cell is inserted, is of aluminium alloy, which provides a very low thermal gradient along the core length. The main furnace heater is of the parallel-tube design as used at NIST. A pre-warming tube is provided.

Two entirely independent over-temperature safety devices are included. A dedicated (on-off) over temperature control circuit provides active safety. A fusible link in the main power circuit provides passive safety.

The Low Temperature Furnace is completely self-contained, castor mounted and requires no external supplies (except power).



*Fixed Points of:
Indium 156.5985°C, Tin 231.928°C, and
Zinc 419.527°C, 6 to 12 Hours Plateau Annealing
Adaptor, Active and Passive Safety Circuits*

Enhanced Furnace Design

Developed with user feedback and hands-on experience, the Isotech Furnace Range combines trusted performance with a range of practical features designed to improve usability.

Controllers are positioned at the top for easier access, an SPRT Stand is included for secure thermometer support, and Cable Tides and Accessory Pods help maintain a tidy, efficient workspace. The furnaces are programmable to automate the melting and freezing of cells and offer both USB and Ethernet connectivity, all with bright, crystal-clear displays.



Specification

Model	ITL-M-17701
Temperature Range	50°C to 500°C
Uncertainty	< 1mK (with cells)
Control	0.1°C Resolution, Gain Scheduling Action and Power Feedback
Interfaces	Ethernet and USB Host
Core Size	54.7mm x 420mm
Dimensions	Height - 960mm Width - 600mm Depth - 690mm
Weight	115kg
Power	1.5kW, 108-130 or 208-240Vac, 50/60Hz
Accessories	411-01-11 Annealing Adaptor 824-01-00 Fan Assembly
How to order	ITL-M-17701 Please specify voltage required