



# Apparatus Mercury Triple Point

- Purpose Designed for Isotech Mercury Cell
- Outstanding Convenience and Safety
- Liquid free

The Isotech Model ITL-M-17725 apparatus is a self-contained, mechanically-refrigerated, system with a main well to house one mercury cell and two auxiliary wells for pre-chilling of thermometers. The cryostat temperature is adjustable from  $-36^{\circ}\text{C}$  to  $-42^{\circ}\text{C}$ . It makes the operation of mercury cells simple and safe.

The cryostat has several unique features providing outstanding convenience and safety. The refrigeration system has sufficient capacity to bring a cell to operating temperature in about one hour. At operating temperature, the cooling rate is about 1 Kelvin/minute and the heating rate is about 2 Kelvin/minute.

This permits rapid changes to be imposed on the temperature of the cell environment to avoid excessive demands on the (low) heat-of-fusion energy of the mercury within the cell.

In addition, all temperature control is accomplished through control of refrigerant flow, providing inherently fail-safe operation.

The cryostat provides convenient conditions for operating mercury fixed point cells both in heating and in cooling mode.

The apparatus has a long and successful history and has been relied on by many National Laboratories throughout the world for over 35 years.

The control system has been updated with the latest technology and now features a large colour display with crystal clear graphics. An Ethernet interface allows the bath temperature to be remotely monitored. Other features include a program option to allow switching between melt and freeze temperatures. A USB Interface allows programs to be copied or for apparatus heat up and cool down history to be exported.



Model	ITL-M-17725 Apparatus
Uncertainty	0.22mK (with cell)
Temperature Range	$-36^{\circ}\text{C}$ to $-42^{\circ}\text{C}$
Control	$0.01^{\circ}\text{C}$ Resolution
Interfaces	Ethernet and USB Host
Ambient Limits	$18^{\circ}\text{C}$ to $28^{\circ}\text{C}$
Plateau Duration	8-12 hour plateau
Power	750 Watts typical. 208-240Vac, 50/60Hz
Dimensions	Height - 960mm Width - 600mm Depth - 560mm Weight - 96kg

**How to order**  
ITL-M-17725 Mercury Triple Point Apparatus