



# Apparatus Mercury Triple Point

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

The Isotech Model ITL -M-17725 Cryostat is a self-contained, mechanically-refrigerated, system with a main well to house one cell and two auxiliary wells for pre-chilling of thermometers. The cryostat temperature is steplessly adjustable from  $-36^{\circ}\text{C}$  to  $-42^{\circ}\text{C}$  with scale-divisions of  $0.1^{\circ}\text{C}$  (interpolation possible) and 24 hour stability better than  $\pm 0.05^{\circ}\text{C}$  measured by an SPRT in the well of a Mercury Cell inside the Cryostat.

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 a void 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. Indicators provided for the cryostat are "POWER ON" and "COOLING".

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



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

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