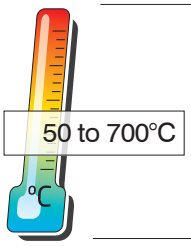



# Furnaces
# Medium Temperature

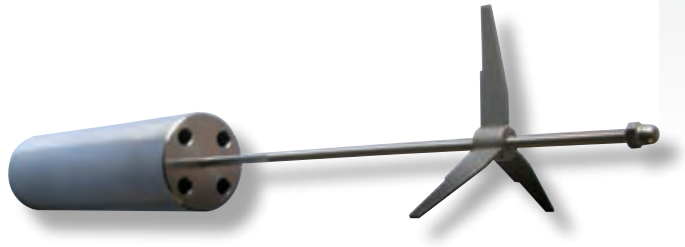
- Wide Operating Range
- Three Zone Control
- Long Plateau Length

The Medium Temperature Furnace is of three zone design. In addition to the main temperature controlled zone there are guard heaters at the top and bottom of the block. These zones are controlled by differential temperature sensors which enable the furnace to operate with just small temperature differences along the whole length of the heated metal block. This is important when freezing cells, since the assumption made is that cells freeze in concentric shells. This is true only if there is a small temperature gradient along the furnace.

The substantial furnace core is machined from aluminum bronze.

The recommended procedure for establishing a freeze plateau requires operator attention until the plateau is realized. Following that, the Furnace will maintain the plateau essentially automatically for a period of 10 to 20 hours, (longer if the heat flux from the Cell minimised).

*Fixed Points of: Indium 156.5985°C, Tin 231.928°C, Zinc 419.527°C, and Aluminium 660.323°C Active and Passive Safety Circuits, Equalizing Block for Comparison Calibration*



*Equalizing Block*

| | |
|---|---|
| Model | ITL-M-17703 |
| Temperature Range | 50°C to 700°C |
| Uncertainty | <1mk (with cells) |
| Control | 0.1°C Resolution |
| Communications | Included as standard |
| Power | 3kW, 108-130 or 208-240 VAC, 50/60Hz |
| Core Size | 54.7 x 420mm |
| Dimensions | Height 960mm<br>Width 600mm<br>Depth 560mm<br>Weight 115kg |

**Accessories**

| | |
|---|---|
| 420-02-18 | Aluminium Bronze Equalizing Block |
| 824-01-00 | Fan Assembly (to cool the thermometer handle) |
| 411-01-11B | Annealing Adaptor |

**How to order**

ITL-M-17703 Medium Temperature Furnace

Please specify voltage required