

Technical Specification for -80° C Laboratory Deep Freezer

Temperature Range	-40° C to -80°C
Capacity	170 Litre
Inner Size	900 (H) x 380 (W) x 500 (D) mm
Inner Chamber	Made of Stainless Steel SS-304, 22 SWG
Outer Chamber	Made of Powder Coated CRCA sheet, 18 SWG
Powder Coating thickness	80 Microns after 7 tank process of phosphating
Insulation	150 mm thick Polyurethane Foam (PUF) insulation
Shelves / Trays	3 Nos. of stainless steel shelves made of SS-304 (22 SWG) and 4 compartments
Sub-doors	Made of Stainless Steel
Hot Line	Anti-moisture entry using hot line at the mouth of the cabinet
Compressors	Hermetically sealed compressors
Refrigerants	High Stage: R-404A & Low Stage: Suva 95 from Dupont, USA
Heat Exchanger	Brazed Plate Heat Exchanger
Condenser	Air-cooled condensers with grooved Aluminium fins for effective heat transfer.
Copper coils	99.97% pure copper coils
Condenser Fan	Continuous rated from ebm, Germany or equivalent standard.
Controller	Microprocessor based temperature controller with digital display
Sensor	Fast response Pt-100 RTD sensor
Alarm	Audio-visual alarm for deviation from set conditions
Safety	1. Safety controller for interlock between high and low stage. 2. MCB's for over load protection.
Required Essential Accessories :	
Cryo Racks(for 5 ml vials)	2 Nos
Cryo Racks(for 2 ml vials)	1 Nos
Cryo Trays (90 slot/5ml vials)	6 Nos.

Cryo Trays(100 slot/ 2 ml vials)	9 Nos.
Cryo Gloves	Mid-arm Cryo Gloves for safety in accessing cold temperature.
Warranty Period	TWO YEARS full comprehensive warranty from date of installation
Operation and Service manual	Operation and Service Manual must be provided
Other criteria :	
Quality standards	Must be manufactured to international quality standards.
List of Installations	Must provide the list of installations in Chennai/ Tamilnadu/ South India.