

**TECHNICAL SPECIFICATIONS (DEEP FREEZER -80°C)**  
**FOR DEPTT. OF TRANSFUSION MEDICINE, RIMS**

Sl. No.	Technical Specifications	Qty
01.	<ul style="list-style-type: none"> <li>• Upright Freezer with capacity minimum 300 litres or more with Polyurethane foam insulation (130 mm thick)</li> <li>• System should have Programmable operating temperature from -50°C up to -86°C with 1°C increment at ambient temperature</li> <li>• Fully programmable microprocessor controlled with membrane keypad and eye level control panel</li> <li>• System should have 304L grade stainless steel interior and tough, powder coated exterior finish constructed on steel gauge of 18 g ZINTEC 1.2 mm thick</li> <li>• Power Supply: Single Phase 230V, 50Hz (with stabilizer)</li> <li>• Freezer with least power consumption will be preferred &lt; 11KWh/day &amp; noise level &lt;56Db</li> <li>• Freezer should have least pull down time from ambient to -85 degC&lt; 6Hrs</li> <li>• Freezer should have storage capacity of 320 bags of 250 ml plasma bags</li> <li>• Freezer should have 4 compartments with storage capacity of 80 bags per compartment</li> <li>• Freezer should have 3 adjustable stainless steel trays</li> <li>• Freezer should have minimum five insulated inner doors with 4 adjustable shelves</li> <li>• Deep Freezer should have provided with wheels for easy movement</li> <li>• Freezer should have heated air vent and front panel air filter</li> <li>• Heavy duty lockable castors and lockable outer doors and lids</li> <li>• Freezer must have battery back-up and 4 PIN security lock for unauthorized tempering</li> <li>• Freezer must have provision for RS 232 interface data logging port with on board SMART Plus diagnostic software</li> <li>• It should have Audible and visible alarms for temperature, power failure, system failure, battery low etc.</li> <li>• Freezer must have dual compressor with CFC-FREE, HCFC-FREE non flammable refrigerants</li> <li>• Freezer must have ISO 9001- safety requirements and IEC 61010 Electrical safety, CE &amp; UL certified</li> <li>• Freezer must have washable condenser filter indication which should keep fins free of dust to maintain peak cooling efficiency</li> <li>• System should be quoted along with suitable 5KVA servo voltage stabilizer, 2" Vertical racks, 2" cryoboxes with dividers</li> <li>• Freezer should have CO2 backup system as optional</li> <li>• All vendors are requested to attach original technical literature/catalogue in support of the mentioned specifications &amp; highlight the above features</li> <li>• The vendor should enclose user list of minimum 30 users of the same machine supplied to various reputed institutes/ research labs/ ICMR/ICAR/CSIR institutes throughout India in last 3 years</li> <li>• Freezer should have at least 5-year warranty in compressor</li> </ul>	01

*Pratima*  
14/11/19

*J.S.*  
16/11/19  
HOD

**Technical specification of (-) 80°C Ultra Low Freezer:**

Galvanized steel sheet body with epoxy paint and vacuumed polyurethane foam panels. outer double door with locking facility. Alarm for audible & visual fault acknowledgement, low & high temperature audio visual alarms, condenser fault alarm, remote contact alarm, open door alarm, clean filter Indicator and power failure alarm. Castor wheels & levelling adjustor should be provided for adjustment and installation.

**Capacity:** Approximately 650– 700L

**Refrigerant:** CFC &HCFC

**Cooling system:** Cascade cooling system

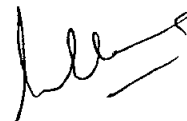
**Doors:** Triple silicon section seal. Fitted with decompression valve facility to lower air pressure inside the freezer for easy door opening.

**Inner Compartment:** Minimum 3 compartments with doors

**Temperature:** Range-55 to-80°C, Stability $\pm$ 1°C, uniformity $\pm$ 3°C

**Additional Accessories:** SS Racks and cardboard boxes

**Power Supply:** 210-240V/50-60 Hz

A handwritten signature in black ink, consisting of stylized cursive letters, located in the lower right quadrant of the page.