

# NATIONAL COIR RESEARCH & MANAGEMENT INSTITUTE

## RETENDER NOTICE

No. NCRMI/R&D/LAB/ LYO/15

11.05.15

Sealed technical & financial bids are invited from competent /firm/suppliers/manufactures /authorized dealers for the supply and successful commissioning of Lyophilizer. Tender form and detailed specification can be downloaded from the website [www.ncrmi.org](http://www.ncrmi.org). The last date of submission of tender shall be 26.05.2015, 2.00pm. For more details contact phone: 0471-2730788.

The specification for the instrument is as follows,

### **Lyophilizer (Freeze Drier)**

- Lyophilizer (Freeze Drier) with -105 °C or better for drying of critical sample.
- Sample pre-freezing facility (As per the procedure for lyophilization of microorganisms including bacteria, fungi, actinomycetes etc)
- Ice Condenser capacity of 4 to 5 Ltrs. with Condensing performance of min. 2.5 Kg -4 Kg/24hrs
- CFC Free compressor.
- Condenser Temperature of -105 °C or better
- Condenser & Cooling Coil should be of corrosion resistant Stainless Steel (316)
- Cooling Coil built external - for utilization of entire Condenser surface area for better trapping of vapour.
- Sample Pre-freezing facility, including Pre-freezing Rack assembly & SS Shelves & SS Trays
- Microproc. Controlled system with delayed start provision and Alarm facility, incl. display of Operation.
- Status – viz Digital display of Condenser temperature. Vacuum, Time logged etc.

- Safety Alarm for various stages of Condenser cooling for effective freeze drying.
- Vacuum regulation Valve provision for accelerating freeze drying process .
- Facility for Sample temperature dryness check during drying stage.
- Vacuum Valve between Ice Condenser and Vacuum Pump for safety, to facilitate pre-run of Vacuum Pump, prior to start of freeze drying.
- Chamber, with min. 3 Stainless Steel Shelves & 3 Stainless Steel Trays of 250mm diameter or more for Vial Stoppering.
- Base Plates for connection of Chamber & Flask Manifold separately.
- Sealing / Stoppering Device for Vials, under vacuum -Acrylic chamber /cylinder.
- Transparent drying chamber with three shelves and vial stoppering device for sealing vials
- Mechanical Crimper for sealing of Aluminium Caps.
- 8 Port Stainless Steel Freeze drying Manifold with 8 Quick Seal 3 way Valves for drying critical sample in RB Flasks Wide Mouth Flasks, Glass Ampoules etc.
  
- Wide Mouth Flasks of 150 ml & 300 ml - 2 each and Round Bottom Flasks of 250 ml & 500 ml – 2 each with Suitable Adaptors for all the Flasks should be supplied.
- Stainless Steel Ampoule Manifold of min. 15 ports of 4 – 6 mm diameter.
- To include:
  - 1) Necessary Vacuum tubing connection for Ampoules.
  - 2) Flame Torch for Sealing of Glass Ampoules.
  
- High Vacuum Oil Pump should be of high quality, 2 Stage Rotary Oil sealed with min. capacity of 200 LPM and above together with Connection Nozzle Kits & High Vacuum Hose Pipe.
- Suitable stabilizers
- ISO certified.

**Director  
NCRMI**