

**CENTRE FOR RURAL DEVELOPMENT AND TECHNOLOGY
INDIAN INSTITUTE OF TECHNOLOGY-DELHI
HAUZ KHAS, NEW DELHI-110 016**

Dated: 24.12.2014

Notice Inviting Quotations

Sealed quotations in separate envelope of technical and commercial bid kept in one sealed outer envelope, are invited for **Lyophilizer (Freeze dryer)** as per specifications given below. Your sealed quotation should reach **within 15 days** from the date of advertisement to, **Dr. Anushree Malik, Room no: 271, Centre for Rural Development and Technology, Indian Institute of Technology, Delhi (IIT Delhi), Hauz Khas, New Delhi-110016**. Your quotation must be super-scribed "**Lyophilizer (Freeze dryer)**".

TECHNICAL SPECIFICATIONS
LYOPHILIZER (FREEZE DRYER)

1. Microprocessor temperature controlled freeze dryer with condenser capacity **2.5- 3.0 litre of water in 24 hours.**
2. Manifold should have **6-8 port for holding flask.**
3. CFC-free refrigeration system capable of cooling collector to **-80°C-85°C.**
4. Should have branded **Compressor with ISI mark.**
5. Should be **Upright floor model** for easy translocation
6. Should have Microprocessor based **Digital LED temperature display of ice trap.**
7. Temperature and vacuum monitoring should be through Microprocessor based **digital temp & Analogue vacuum indicator.**
8. **Auto De-frosting** through refrigeration cycle.
9. **Auto Vacuum Control** through digital vacuum indicator.
10. Automatic Control system / safety valve should be built with auto start for vacuum pump at -55 °C condenser temp. (Vacuum pump and condenser interlock for better life of vac. Pump).
11. Vacuum Pump specifications: Direct drives 100 LPM (double stage) rotary vane pump along with all accessories. Pump should be with anti-suck back device, ultimate vacuum 10 micron without load and 20-30 microns on load during freeze drying.
12. There should be special attachment of Pre Freezer. **Inbuilt Pre-freezer with capacity of 1.5-2 litres.** This has one set of flask revolving system (at constant speed) mounted on the top of freezing bath. The flask can be attached to clamp for automatic circular motion with material within the freezing bath of temp. -35 to -40c
13. Accessories to be supplied Manual stopping device with 24 nos. sample for sealing the dried sample in vial under original vacuum via u cut special rubber stopper.
14. Other Accessories: **3 KVA voltage** Stabilizer with all necessary accessories like two no. B29 Flask, 2 No. Rubber adapter for open mouth bottle, 2 No. open mouth bottle,
15. Should have prior installations/users in NCR with three –four reference letters of customer for satisfactory working of Freeze Dryer. Manufacturer should have Service centre with Stock availability of spare in NCR Delhi to attend customer need and good support.
16. **Warranty should be at least 2 yrs comprehensive.**

Terms & Conditions:

1. The quotations must have validity of at least four months.
2. Sealed quotations should be in separate envelopes of technical and commercial bid kept in one sealed outer envelope.
3. Please quote prices of imported items at FOB (Freight on Board) IIT Delhi inclusive of all taxes, freight and delivery charges.
4. The products will be used for educational purposes. Any applicable academic institution discounts should be offered and stated.
5. Detailed Brochures should accompany the offer.
6. If the bidder is an authorized dealer then the authorized Indian dealership certificate from the principles should be enclosed.
7. Two year comprehensive warranty.
8. Payment will be through irrevocable letter of Credit.
9. In case the items are proprietary products of the company, a proprietary item certificate stating the same must be provided.
10. Institute reserves the right to accept or reject any or all the quotations without assigning reasons thereof.
11. Details of User List with phone number and email ID should be provided.