

Department of Biotechnology, University of Kerala, Kariavattom,  
Thiruvananthapuram, Kerala, India - 695581

TENDER -Pl.A1/Bio-tech/17

Dated 17.02.2017

**E-Tender Notice**

Department of Biotechnology, University of Kerala, Kariavattom, invites open tender through e-Procurement (two cover system) from the Original Equipment Manufacturers or their Authorised Dealers for the supply, installation and commissioning of Freeze Dry System/ Lyophilizer.

Last date and time for submission of tender online	06.03.2017 at 5.30 P.M
Last date and time for submission of tender offline	06.03.2017 at 5.30 P.M
Date and time of opening of tender	10.03.2017 at 11.00 A.M
Hard copies of the sealed tenders to be submitted to the office of	The Registrar, University of Kerala, Senate House campus, Palayam Trivandrum- 695 034, Kerala Tel: +91-471-2305631, 2386202 (O)  e-mail: regrku@gmail.com
For technical details contact	Dr. A. Jayakumaran Nair, Professor and Head, Department of Biotechnology, University of Kerala.  Phone No. 9447059164  E-mail: jekksnair@gmail.com

For further details logon to [www.etenders.kerala.gov.in](http://www.etenders.kerala.gov.in)

## TECHNICAL SPECIFICATIONS of Freeze Dry System / Lyophilizer

- Bench top Freeze Dry System,  $-84^{\circ}\text{C}$  or below ( $103^{\circ}\text{C}$ ) with SS interior, 220V
- With sophisticated process monitoring, and spatially efficient design. System should remove minimum of 3.5 L of water in 24 hours.
- Vacuum and temperature should be displayed with LCD. Cumulative component service intervals should be displayed to enable proper maintenance.
- Ice Capacity - 4 Kg , Ice condenser capacity 6.5 L/24 hr , Ice condenser temperature  $84^{\circ}\text{C}$  /  $103^{\circ}\text{C}$  ,
- Power (Hz) 60, Power (VAC) 220, Ice condenser and ice condenser chamber with drain valve for defrosted water,
- Sublimation rate - 3.5 L/day,
- Two drying modes: automatic and manual, Automatic Purge System, to protect samples by preventing counter-flow of oil, Defrosting system ,
- Compressor delayed start function to minimize any damage to the compressor, LCD Monitoring system to monitor vacuum pressure, ice condenser temp. and sample temp., Vacuum Backfilling System by inserting sterile nitrogen gas for preventing contamination of the sample,
- Vacuum pump with suction capacity of 60L/min, Ultimate pressure  $6.7 \times 10^{-2}$  Torr, suitable for freeze dryer, Vacuum Chemical Hybrid Pump, Suitable for all types of solvents. Incl. exhaust filter
- Vacuum hose including standard flange connections diameter 25mm for external connection of the vacuum pump, Clear drying chamber with valves.
- Stainless steel sample tray- diameter 180mm, Oil-mist filter, Heated drying chamber with valves, suitable for P controller, Acrylic drying chamber, the cover diameter 260mm, with anti-detonating coating, 6 heated shelves diameter 230mm, 12 connections for individually controllable rubber valves for connecting 12 flasks, Standard two samples temperature sensors and one sensor for heating control, Round bottom flasks 50ml and 100 ml capacity, suitable for Freeze drying samples.

### **General Conditions:**

1. The tender shall be submitted in the two bid viz. Technical Bid and Financial Bid. Only those qualified in technical bid will be eligible for participating in financial bid. A

presentation regarding the technical specification and item to be supplied shall be done before the technical evaluation committee if requested.

2. The bidder should be a manufacturer or their dealer specifically authorized by the manufacturer to quote on their behalf for this tender as per Manufacturer Authorization From and Indian agents of foreign principals, if any, who must have designed, manufactured, tested and supplied the equipment(s) similar to the type specified in the “Technical Specification”. Such equipment must be of the most recent series/models incorporating the latest improvements in design. The models should be in successful operation for at least one year as on date of Bid Opening.
3. **Compliance Statement:** Along with the technical details provide a tabular column indicating whether the equipment quoted by you meets the specifications by indicating 'YES' or 'NO'. If 'YES', support the claim by providing original brochures. **Venders should provide clear brochures/data sheets about the equipment and it's working. Also include adequate proof for the claim regarding the performance.**
4. **Reference:** Names of Institutes with contact person and telephone/ email where similar equipment supplied by you in India [Preferably South India] shall be mentioned in the bid.
5. Incomplete & conditional tenders and tenders received after the due date will be summarily rejected without assigning any reasons thereof.
6. The price should be inclusive of all taxes, duties, transportation, insurance, installation etc. Nothing extra will be paid in addition to the quoted rate. Any amount in Indian rupees for installation, commission, labour, spares, service etc shall be entered in item 2 of BoQ.

7. Payment Terms: 90% payment shall be made through irrevocable LC on presentation of complete and clear shipping documents and balance 10% of the amount shall be released after the receipt, installation commissioning and acceptance of the equipment.
8. Validity of tender: Tender submitted shall remain valid at least for 120 days from the date of opening the tender. Validity beyond 120 days, from the date of opening of the tender shall be by mutual consent.
9. Every tenderer should submit an Earnest Money Deposit (EMD) of Rs.25,000/- or equivalent Bank Guarantee valid upto the installation of the equipment.
10. Every tenderer should submit Tender fee of Rs. 2,500/-
11. Delivery and installation: Proposed delivery schedule should be mentioned clearly. Delivery and installation and training (one week) should be made at the Department of Biotechnology, University of Kerala, Kariavattom campus, Trivandrum without extra cost. University of Kerala will provide customs duty exemption certificates if required.
12. Service facility: Supplier should mention their details of service setup and manpower in Thiruvananthapuram who are responsible for after sales support.
13. The model number, make, and a printed literature of the product shall submit positively.
14. In case of any dispute, the decision of the University authority shall be final and binding on the bidders.
15. The undersigned reserves the right to reject any or all of the tenders received without assigning any reason thereof.
16. If any component is found to be defective during the warranty period, the vendor has to replace the defective item immediately at their own cost.

### Documents to be Uploaded

- 1 Signed Compliance Matrix
- 2 Detailed Technical Brochure
- 3 Under taking of support for next 10 Years
- 4 BoQ
- 5 DD/Hard copy of Bank Guarantee if opted

**The Registrar,**

**University of Kerala,**

**Senate House campus, Palayam , Trivandrum- 695 034, Kerala.**