



KERALA UNIVERSITY OF FISHERIES & OCEAN STUDIES
കേരള വിഷൻീസ്-സമുദ്രപഠന സർവ്വകലാശാല

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No.GA 7/513/2026(i)

Panangad, Dated: /

01/2026

e- TENDER NOTICE

E- tenders are invited for the supply and Installation of “**Freeze Dryer / Lyophilizer Table top for Deep Ocean Mission Project**” with specification as per attached documents.

The Tender should be submitted as e- tender in the e- procurement portal of Kerala Government with detailed specification, Tender fee of Rs.1240/- and EMD of Rs.5250/-, by means of e- Payment. More details will be available in the Office of Dr. Anu Gopinath, Professor and Head of Dept. of Aquatic Environment Management, KUFOS, on all working days with the permission of undersigned. As per DSIR registration, necessary exemption can be availed for customs & excise duties for the purchase. The University is eligible for relaxation in GST as per Notification No.45/2017 Central Tax (Rate) dated 14.11.17 & Notification No.47/2017 Integrated Tax (Rate) dated 14.11.17. Our GST Regn. No. is: 32AAAGK0031Q1ZL.

All the terms and conditions applicable to University/Government quotations/Tenders are applicable to this Tender also. Right to accept the Tender in full or in part or to reject without assigning any reason is reserved to the undersigned.

REGISTRAR

To: Firms

Copy to: Dr. Anu Gopinath, Professor and Head of Dept. of Aquatic Environment Management, KUFOS

KUFOS HQRS, Panangad, Ernakulam

http://www.kufos.ac.in/
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Technical Specification for Freeze Dryer /LyophilizerTable top

- Freeze dryer should be use full for Table top operation
- Condenser temperature should be -50°C
- Tray dimension should be 200mm dia x 4 layers and provision to upgradable to 8 port manifolds
- Should have SECOP compressor, the refrigeration process is rapid and the condenser temperature is low
- Should have color LCD touch display which can display drying curve , vacuum , condenser trap , run time , ambient temperature
- The control system automatically stores data, and data can be viewed in form of curves



- Condenser, trays, drying shelf and pre freezing shelf are made of Stainless steel 304 anti-corrosion and easy to clean
- Shelf should be height adjustable tray
- Should have transparent acrylic drying chamber is safe and easy observation
- Should have Condenser has pre-freezing function
- Should be supplied with Low noise compressor, good efficiency, long service life
- Drying Chamber with organic glass is safe and visible
- Should have inbuilt USB port to output freeze drying data
- Freeze drying area should be 0.12m²
- Condenser Capacity should be 5kg or better
- Vacuum degree : < 10 Pa
- Bulk Capacity should be able to use 1.2L, 10mm thickness
- Dimension should not be more than (L X W X H mm) : 460 X 625 X (370 + 465)
- Rotary vane Vacuum pump should be included along with the Unit
- Pumping speed should be minimum of 2 L/S
- Pump ultimate pressure should be 6*10⁻² ps
- Motor Speed should be minimum of 1400 r/min
- Vacuum Pump motor power should not be more than 0.40kw
- Vacuum pump oil capacity should be minimum of 1L (2/3 of sight glass)
- Pump weight should not be more than 25kg
- The vacuum pump is connected with host by international standard KF quick joint
- Should have Optional Nitrogen valve & Communication interface for up gradation
- Power supply: AC 220V±10%, 50/60Hz.
- All necessary accessories and auxiliaries required for complete and proper functioning of the Freeze Dryer system shall be supplied along with the main Freeze Dryer unit, at no extra cost. (-25 °C Vertical Freezer 400 Ltr & Stabilizer for freeze dryer)
- The freeze dryer shall be supplied with an vertical freezer capable of maintaining -25 °C for sample storage, to eliminate operational time delays and ensure uninterrupted processing with the following specifications :

- Gross Volume: Minimum 400 Liters or more
- Operating Temperature Range should be -25°C to 0°C
- Temperature Accuracy should be ±3°C or better
- Temperature Uniformity should be ±5°C or better
- Display Resolution should be 1°C or better
- Controller should be Microprocessor-based PID Controller
- Temperature Sensor should be PT-100
- Display should LCD type Display
- PC Interface should have RS-485
- Refrigerant should be R-404A or equivalent eco-friendly refrigerant
- Inner Chamber Material (MOC) should be Stainless Steel SS 304



- Outer Body Material (MOC) should be Powder Coated CRCA Sheet
- Insulation Thickness should be Minimum 80 mm Polyurethane Foam (PUF)
- Door Insulation should be Minimum 80 mm Polyurethane Foam (PUF)
- Number of Doors should be Single Door type
- Tray Type should be Grid Type
- Tray Material should be SS 304
- Number of Trays should be Minimum 3 Nos., expandable up to 5 Nos.
- Should have High Temperature Alarm ,Low Temperature Alarm and Door Open Alarm
- Power Supply: $230\text{ V} \pm 10\%$, 50 Hz, Single Phase
- Current Rating: 16 Amps

Warranty minimum 1 year should be provided for Freeze dryer , Freezer and Stabilizer

- **Pre-Qualification Criteria:**

- Purchase order copy and minimum of 3 past performance certificate should be provided for freeze dryer
- Similar type of equipment should have installation in IIT , ICAR , NIC , Universities proof of documents should be provided
- Supplier should have local service engineer
- Bidders should be the manufacturer/authorized dealer. Letter of Authorization from on the same should be enclosed.
- An undertaking from is required stating that they would facilitate the bidder on a regular basis with technology/product updates & extend support for the warranty as well.
- Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specification, contradiction between bidder specification and supporting documents etc. may lead to rejection of the bid.
- Equipment offered must be a model from the current serial production range of the manufacturer. Customized or One-off Manufactured Model will not be accepted. Offer should be supported with printed catalogue or depiction on company website.
- The firm should have a single-source Local Service Support Facility , for prompt after-sales service support. Supplier should mention the details of service setup and manpower who are responsible for after sales support. Response time should be within 24 hrs.
- Please mention full technical specification in compliance data sheet. All details should be mentioned in detail, and yes/complied/Ok type of statements are not acceptable. Submit appropriate documentary proof as per our technical specification.

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