

**TENDER NOTICE**  
**DEPARTMENT OF CHEMISTRY**  
**GOVERNMENT SCIENCE COLLEGE CHATRAPUR, GANJAM 761020**

Circular No.: 02 /MRIP(24EM/CH/25)/2025

Date: 17/11/2025

Sealed quotations are invited from reputed companies/suppliers for the procurement of different equipment for the MRIP (24EM/CH/25) research grant 2024-25 for the Department of Chemistry. The quotations must reach the undersigned by 4.00 P.M. on 05<sup>th</sup> December 2025. Tenders, comprising separate envelopes of technical and financial bids, should be kept in one sealed outer envelope and submitted to the undersigned as per the specifications provided.

Dr Laxmi Narayan Sahoo  
Principal Investigator, MRIP  
Department of Chemistry,  
Government Science College Chatrapur  
Ganjam, Odisha 761020

**Terms and Conditions**

1. The technical and financial bids must be kept in separate sealed envelopes inside one sealed envelope.
2. The vendor should either be the original manufacturer or an authorised distributor/dealer.
3. The vendor should have proven ability for the supply of the listed equipment to reputed organisations, including government departments. Copies of the purchase order and supply order should be included as proof.
4. The bidder should have sufficient service back-up at Chatrapur/Berhampur in related works, and documentary proof of the same may be submitted.
5. The vendor should have at least five years of experience and focus on related business, and documentary proof of the same must be submitted.
6. The vendor should have sound financial standing. An audited balance sheet of the last three financial years certified by a Chartered Accountant should be provided as proof of it.
7. The firm must submit an Undertaking on its letterhead stating that they have not been blacklisted by any State Government/Central Government/PSU Department in India.
8. Original printed brochures and original specification sheets (from equipment manuals) directly obtained from the manufacturer must be enclosed along with supporting data.
9. The brochures must indicate all the parts mentioned in the technical bids.
10. Only those quotations will be considered valid that submit a quote for the entire four components: **(1) Rotary evaporator (vertical model), (2) Diaphragm vacuum pump, (3) digital vacuum controller, and (4) Low temperature water circulator.**
11. Each product must have a minimum of **two years'** warranty.

  
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12. The Principal Investigator reserves the right to accept or reject any or all the quotations without assigning reasons thereof.

13. The manufacturing firm must have ISO 9001: 2008 certification and CE certification or better.

14. The hard copies of printed original catalogues must be submitted along with the quotation.

**FINANCIAL BID MUST CONTAIN THE FOLLOWING:**

- The final Prices must include all taxes, delivery and installation.
- Guarantee or warranty conditions must be clearly specified.
- Validity of quotation must be at least 120 days from the date of submission.
- Mode of payment must be specified.
- Cost of installation & training should all be included in the above quoted prices.
- Final payment will be made after installation, demo by the service personnel appointed by the supplier.

**TECHNICAL SPECIFICATIONS**

**A. Rotary evaporator (Vertical model)**

- Lift Type: Manual
- Condenser Type: Vertical
- Cooling Surface Area: 1500 cm<sup>2</sup>
- Rotation Speed (RPM): 20-320
- Vapour Tube: Single piece with Sleeve for Easy Removal
- Integrated Combi-Clip: Yes
- Suitable flask size (ml): 50-5000 ml
- Rotation speed setting: LED Display
- Motor Power (W): 60
- Heating Capacity (W): 1300
- Temperature Range (°C): 20 – 210
- Temperature Accuracy (°C): 1
- Overheat Protection: Safety cut off over +5 (°C)
- Temperature Setting: Digital LED
- Temperature Control: Electronic PID Control
- Secondary Protection: Cut off 250°C
- Material Heating Bath: Ceramic Coated
- Volume Heating bath (L): 4.5L - Dia 255 mm, Suitable 50- 5000ml
- Bath Position: Flexible to extend, to suit flask size
- Sealing ring: Graphite-filled PTFE
- Forward & Reverse Motion (Clockwise & Anti Clockwise) of Evaporation Flask
- Timer: 0 to 99 minutes
- Power Supply: 230 V AC, 50Hz
- Sample Flask: 1L, Pear Style
- Receiving flask: 1L, round style with ball joint.

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### **B. VACUUM PUMP:**

- Two-stage oil-free diaphragm vacuum pump made from chemically resistant material.
- Number of heads/stages: 2/2
- Max. Pumping speed at 50 Hz: min. 2 m<sup>3</sup>/h or 1.2 cfm
- Ultimate vacuum (abs.): min. 9 mbar/ 7 torr
- Ultimate vac. (abs.) with gas ballast: min. 14 mbar/11 torr
- Ambient temperature range (operation): 10-40 °C
- Max. Back pressure (EX) (abs.): min. 1.1 bar
- Inlet connection (IN): 10 mm
- Outlet connection (EX): 10 mm
- Rated motor power: min. 0.18 kW
- Rated speed at 50/60 Hz: min. 1440 min<sup>-1</sup>
- Noise level at 50 Hz, typ.: max. 45 dBA

### **C. DIGITAL VACUUM CONTROLLER**

- Measurement Range: 0 to 1000 mbar
- Measurement Accuracy: +/- 1 mbar
- Vacuum Connection: 10 mm
- Ambient temp. range (operation) +10 °C to +40 °C
- Max. permissible temp. of gaseous media: + 80 °C
- Supply: 230 V AC, 50 Hz.

### **D. LOW TEMPERATURE WATER CIRCULATOR**

- Working temperature range: -20°C to ambient
- Precise temperature control of  $\pm 0.1^{\circ}\text{C}$
- Flow: at least 12 L/min
- Pump pressure: 0.7 bar
- Cooling capacity up to 500 watts @0°C
- Bath capacity: at least 4.5 L
- Fluid level indicator.
- Low flow shut off and high/low temperature alarms.
- Digital display

### **E. DEEP FREEZER**

- Convertible Freezer: switch between freezer and cooler modes
- Double Door Deep Freezer: With 320 litres of storage capacity
- Efficient Cooling: Static cooling technology ensures consistent temperatures. -18°C when freezing and 0° to 7°C when cooling.
- Durable Construction: sturdy castor wheels at the bottom for easy mobility
- At least 1-year comprehensive warranty with 3 Years Compressor warranty.



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L. A. Saha

## **F. NITROGEN GAS CYLINDER WITH REGULATOR (10 and 47 L CAPACITY)**

## **G. MAGNETIC STIRRER (1 MLH AND 2 MLH)**

- Speed range: between 100–1500 RPM
- Stirring volume: stirring up to 2 litres
- Heating temperature range: UPTO 340 °C
- Heating capacity: The maximum amount of liquid that can be heated, often listed in watts (e.g., 500W).
- Ceramic/Stainless hot plate model
- Easy to read backlit LCD for display of set and actual temperature
- Monitoring of set and actual temperature and speed
- Constant speed even with the change of load/voltage
- High accuracy of temperature control with embedded dual sensors

## **H. SONICATOR**

- Digital Ultrasonic Cleaner - 2.5L OR ABOVE
- Degas Function, Blue LED display.
- Quality of handle upgraded for easy grip.
- Heating Temp. - RT. +5 ~ 80°C.
- Extra Power switch ON/OFF on the back side for Safety, Memory -Last test.

## **I. OVERHEAD STIRRER**

- Power In/Out watt: 100/90
- Gears: 2
- Speed Range RPM: 10 - 1000
- Change of Direction: Yes
- Rotation Speed Indicator: Digital
- Speed Control: Electronic
- Max. Torque: 300 Ncm
- Overload Protection: Yes / Cut off
- Motor Protection: Temperature Monitor Software
- Duty Cycle: Continuous
- Electrical Supply: 230V AC / 50 Hz

## **J. Distillation Apparatus**

- Output Power : 750W
- Power Input: 220VAC 50Hz 110VAC 60Hz
- Distilled Water/per: 1 L/H minimum

**Note:** All parts must conform to the Supply Voltage (V/Hz) of 230/50.

  
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