



**KAKATIYA UNIVERSITY, WARANGAL URBAN-506009,(T.S),INDIA.**

**DEPARTMENT OF CHEMISTRY**

No.: 313/chem./ku

Dated. 25.03.2019

**Tender for Rota Evaporator, Diaphragm Pump and Chiller**

**Closing Date: 15<sup>th</sup>, April 2019**

Kindly forward your offer at the lowest rates for supply of the following equipment as per the terms & conditions stated below so as to reach the undersigned in a sealed cover on or before 15<sup>th</sup> April 2019, 5.00 PM. Please provide necessary information and supporting documents as suggested in terms and conditions along with the quotations.

The detailed specification for equipment is given below. Please enclose a checklist stating whether your equipment meets each of the listed specifications. The quotation must mandatorily comply with all the specifications.

**1. TENDER SPECIFICATIONS:**

- I. Rota Evaporator (1 No.)**
- II. Diaphragm Vacuum Pump (2 No.)**
- III. Re-Circulation Chiller (1 No.)**

**I. Technical Specification for Rota Evaporator**

Vertical Double Coil Condenser with:

Evaporating Flask – 1Ltr: 1 No.,

Receiving Flask – 1Ltr: 1 No.

**Specifications:**

- Height adjustment: 155mm with Manual Lift.
- Condenser: Vertical
- Rotation speed RPM: 20-300

- One (single) piece Vapour Tube
- Integrated Combi-Clip (Clamp) for Evaporation Flask
- Suitable for 50 ml to 5000 ml Evaporation Flask
- Rotation speed setting : LED display
- Rotation speed drive: induction motor with electronic speed control
- Motor Power: 60 W
- Heating capacity :1300 W
- Total Power: 1360 W
- Temperature range heating bath: 20-210<sup>0</sup>C
- Temperature accuracy bath : 1<sup>0</sup>C
- Over protection bath : cut off at 5<sup>0</sup>C over set temperature via separate Pt100
- Bath temperature setting: Digital LED display
- Heating bath temperature control: electronic /digital display
- Secondary over temperature cut off : 250<sup>0</sup>C
- Material heating bath : Ceramic Coated
- Volume heating bath (L): 4.5L Dia 255mm
- Sealing Ring: PTFE PTFE Charging pipe connected with Stop-Cock.
- Power supply: 230V AC, 50Hz.

## II. Technical Specification for Diaphragm Vacuum Pump

Chemical-resistant, 2 stage PTFE diaphragm for use in the laboratory flow rate of 2.0 m<sup>3</sup>/h and an ultimate vacuum of 7 to 9 mbar.

### Specifications:

- Ultimate vacuum – 7 to 9 mbar
- Power Input – 180 watts
- Max back pressure – 1 bar
- Max pumping speed – 2.0 m<sup>3</sup>/h
- Inlet Connection – 10mm
- Outlet Connection – 10mm
- Noise level – 45 Dba
- Supply voltage: 230 VAC, 50 HZ.

## III. Technical Specification for Re- Circulation Chiller

- Working temperature range -15<sup>0</sup>C to +20<sup>0</sup>C,
- Temperature Stability ± 1<sup>0</sup>C,
- Cooling capacity: 500w @ 0<sup>0</sup>C
- Pump pressure max 0.7 bar,

- Pump flow max 18 L/min.
- Bath Volume: 4.5 L
- External Body & Bath: Stainless Steel
- Supply voltage: 230 VAC, 50 HZ.

**2. Mandatory Requirements : Warranty & Service**

- Suppliers have to include Comprehensive Warranty cost (including Spares & Service) in their main offer only

**3. Other Requirements:**

The supplier must provide Installation Maintenance, Training, Technical Support and Troubleshooting problems. Quotations from the authorized dealer/suppliers in sealed envelope should reach the below mentioned address on or before 15/04/2019.

**Dr. G. Brahmeshwari, Principal Investigator, Department of Chemistry, Kakatiya University, Warangal, Telangana State, INDIA-506009.**

**4. Terms and conditions:**

1. Purchase and payment will be made stringently by following University's purchase policies and procedures.
2. Material should be delivered at Department of Chemistry with no additional charges
3. Terms and conditions should be clearly mentioned in quotation for delivery and payment.
4. Include PAN No. and TIN No. in quotation.
5. Dealers / suppliers are requested to consider the maximum discount by considering the educational institute.
6. All quotations whether foreign or indigenous in origin, the offer must be valid for a minimum period of 90 days. Please provide all technical information and brochures of the equipment and its accessories requested. Country of origin: Tenders should have the country of origin and the country from which goods will be shipped finally.
7. If the quotation is not from original manufacturer then the name and address of the manufacturer must be mentioned on each item.
8. A warranty on the equipment and its parts for a period of 1-2 years from the time of installation is a requirement.

9. Break up of GST, service tax, custom, insurance, freight and other charges if any should be clearly indicated in the quotation.
10. In case of proprietary items, a certificate ensuring the same must be enclosed.
11. Time required for delivery and installation should be mentioned in quotation.
12. Discrepancy if any in any of the terms and conditions and/or in case of delay in delivery beyond the time mentioned in quotation Principle investigator reserves rights to cancel the order. Principle investigator reserves rights to reject/accept wholly or partly without conveying any reason.
13. Kakatiya University is a State University and is exempted from sales tax/excise duty/customs duty as per the rules of Government of India. DSIR certificate, and other relevant documents will be provided.
14. All necessary accessories and spare parts should be provided for one complete functional unit along with operational and service manuals.
16. Quotation sent after 15/04/2019 will not be considered. Quotation must be on a paper identifying the firm with telephone numbers etc. They should be in ink or type written and should be free from corrections and erases.