Indian Institute of Technology Delhi  
Chemical Engineering Department  
Hauz Khas, New Delhi-110016 (India)

NOTICE FOR INVITING QUOTATION  
Date: 05-01-2012

Due date: 20-01-2012

NIQ Ref. No.: IITD/BCHE/Store/M100808/2011-2012

General description: Rotary vacuum evaporator (2NOS)

ITEM DETAILS WITH TECHNICAL SPECIFICATIONS:

1. SEQUENTIAL AND SIMULTANEOUS EVAPORATION SYSTEM

2. SPECIFICATIONS FOR ROTAVAPOR
   - 1 liter Evaporating Flask and Receiving Flask should be provided in standard scope of supply.
   - Rotation speed up to 250 rpm or better with microprocessor control.
   - Shielded thermostatic bath.
   - Digital bath temperature display of both set and actual temperature simultaneously with an accuracy of ± 2 deg C upto 175 deg C.
   - Wireless Communication between water bath and the Rotavapor for transferring the bath temperature to the vacuum controller.
   - Automatic over heat cut-off protection.
   - Wireless contacts on the heating bath both for power supply and communication for better safety.
   - Vertical Glass Assembly.
   - All display parameters like water bath temperature, vacuum etc. should have a separate electronics and not on single control panel.
   - All glass components should be made of Borosilicate of min 3.3 glass.
   - All connections (for vacuum, water circulation etc.) should be at the lower part of the condenser.
   - The vacuum line should open at least 2/3 rd height of the condenser assembly.
   - Provisions for automatic lifting of the flask in case of power failure.
   - There should be provision for preventing the chimney effect.

3. SPECIFICATIONS FOR VACUUM CONTROLLER
   - Modular (not integrated) vacuum controller with control knob and large graphic display screen.
• Integrated solvent database (min 25) solvents for convenient setting of distillation conditions.
• Speed control for vacuum pump.
  o Measuring range: 1400-0 mbar.
  o Control range: 1100-1 mbar.
• Integrated aeration valve and precision pressure sensor.
• Timer function for process termination after pre-specified time
• USB interface for data transfer to PC for storage, evaluation and optimization.
• All controls for the Rotavapor e.g., lifting/lowering of the evaporating flask, Rotation start/stop should be controlled via the vacuum controller/ simple separate panel.

4. SPECIFICATIONS FOR VACUUM PUMP

• Single stroke Speed control vacuum pump with a flow rate of min 1.5 m³/h.
• Ultimate vacuum – less than 10 mbar.
• 2 stage diaphragm made of PTFE.
• Visual inspection of diaphragms for checking solvent build up and contamination.
• Soundproofing with enclosed housing to minimize noise and vibrations.

** The system should have provision for attachment of a Parallel Evaporation System such that the parallel Evaporation system can be operated through the Rotavapor condenser assembly, vacuum pump and Chiller.

The equipment should be provided with all necessary accessories and spare parts for a fully functional unit. List of consumables and spare parts along with operation and service manuals should be provided along with the instrument

Note: 1. Please specify the technical details in above given order.

TERMS and CONDITIONS:

1. The quotation, in sealed envelope marked as “Ref: IITD/BCHE/Store/M100808/2011-2012 for Rotary vacuum evaporator” should reach the following address before 5 pm on 20-01-2012.

Dr. Sreedevi U., Room No. 209, Block I, Department of Chemical Engineering, IIT Delhi, Hauz Khas, New Delhi-110 016.

2. The prices quoted must include CIF New Delhi Airport charges.

3. Technical and financial bids should be enclosed in separate sealed envelopes and clearly marked.

4. Institute reserves the right to accept/ reject all/ any quotation without assigning any reason thereof.

5. List of users in India could be provided.

6. The delivery period should be clearly indicated in the quotation.

7. Submitted quotations should clearly mention the validity period, preferably for a minimum of 3 months.
8. Incomplete and conditional submitted tenders would be summarily rejected.

9. **The mode of payment should be clearly indicated. For your kind information, IIT will not provide the advance payment. But IIT have following Payment modes.**
   1. After receiving the material or successful installation, through RTGS to the vendors accounts directly.
   2. LC
   3. Wire transfer against the shipment of material.

10. In case the quotation is being submitted by an authorized agent of the principal manufacturing company, the AUTHORISED SALES AGENCYSHIP certificate from the PRINCIPALS should be furnished along with the quotation. Quotations without this authorization certificate will be rejected.

11. The quotation should include comprehensive warranty for at least 1 year and service for how long.

12. Special discount/rebate wherever admissible keeping in view that items are being procured for educational purpose in respect of Public Institution of national importance may please be indicated.

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Dr. Sreedevi U.
Associate Professor
Dept. of Chemical Engineering