

**Office of the Dean Research and Development
Indian Institute of Engineering Science & Technology (IEST), Shibpur,
Howrah-711 103**

Project Code: DRC/DAE-BRNS /CHEM/AKM/013/16-17

**Department of Chemistry
Indian Institute of Engineering Science and Technology, Shibpur
Howrah-711 103**

**Ref.: Tender Advt. No. CH 1214, published in "The Statesman" and "Bartmaan",
dated 16.09.2016.**

Notice Inviting Quotations

Sealed quotations are invited for the supply of (1) ***ADVANCED High Vacuum Rotary Evaporator System with Pump*** (Buchi make) (2) ***Low Temperature Immersion Cooler cum Recirculating Chiller*** as per the following technical specifications. The relevant bidding document can be downloaded from the Institute Website. The document can also be obtained from the Department of Chemistry (contact: Dr. Ajit Kumar Mahapatra) between 10.30 a.m. and 2.00 p.m. on all working days **on or before 28.09.2016.**

Dean (R & D)

(A. Code DRC-T050/16-17)

This is downloadable

INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY, SHIBPUR



BIDDING DOCUMENT

Ref.: Tender Advt. No. CH 1214, published in “The Statesman” and “Bartmaan”,
dated 16.09.2016. Ref.: Tender Advt. No....., published in “.....”, dated

Project Code: DRC/DAE-BRNS /CHEM/AKM/013/16-17

For Supply of

(1) *ADVANCED High Vacuum Rotary Evaporator System with Pump.* (2) *Low Temperature Immersion Cooler cum Recirculating Chiller*

Under

DAE-BRNS R&D Project
BARC-Govt. of India
Department of Chemistry

SECTION I: TERMS & CONDITIONS AND IMPORTANT INSTRUCTIONS FOR BIDDERS

1. Bidders are invited to submit quotations for technical specifications as per requirement and their price details in separate sealed envelope after accepting the terms and conditions. All the sealed envelopes should be placed in a common sealed envelope, superscripted with the **Ref. Advertisement No. and date along with the bidders name and address and send to the Department of Chemistry in the following address:**

Dr. Ajit Kumar Mahapatra
Professor
Department of Chemistry
Indian Institute of Engineering Science and Technology, Shibpur
Howrah-711103, India
Contact No: 9434508013

2. Bidders have to deposit **2% EMD** of the quoted value **in favour of Registrar, IEST, Shibpur**. The EMD should be enclosed with the Technical Bid. Vendors are requested not to quote any alternative offers in a single quotation. Alternative offer if any, may be submitted as a separate quotation along with **2% EMD**.
3. Technical Bid should include the technical details and specifications as per requirement, International Standards (BIS/INTERNATIONAL), Catalogues, List of users & / Operating Parameters, Pre-Installation Requirements and the Warranty period.
4. The Price Bid should be inclusive of all taxes, duties and levies. Inclusion of Tax/Levy at a later stage will not be accepted. Freight and Insurance charges and Payment terms should be clearly mentioned. Price has to be mentioned in Indian Rupees and/or in foreign currency if required. Essential Accessories & Spares are to be indicated. Discount offered, if any, and conditions thereof must be clearly stated in the bid itself. Interlineations, corrections, erasures and/or over writings shall be valid only if initialled by the persons or persons signing the bid.
5. Quotations are to be submitted **on or before last date of submission, ie., 28th September, 2016** between **10.30 a.m. to 3.00 p.m.** except Saturday, Sunday and other public holidays. After the deadline of submission quotations will not be entertained under any circumstances.
6. Date and time of the Bid will be opened, on **30th September 2016 at 12.00 Noon**, in the Office of the Department of Chemistry, Indian Institute of Engineering Science and Technology, Shibpur, Howrah-711103.
7. Technical Bid will be considered first. Items qualifying in the Technical Bid will be considered for the Price Bid.
8. **Customs Duty & Excise Duty**
 - The University will not issue any C or D form availing of concessional Sales Tax/VAT.

- The Institute will issue Customs Duty Exemption Certificate or Excise Duty Exemption Certificate for foreign purchase, if required.

9. Warranty

- Warranty/guarantee for all the items of equipment/furniture supplied shall be on ‘all comprehensive’ basis (i.e., including repairs, replacements, maintenance, etc.).
- Minimum applicable period of all comprehensive warranty for all items of equipment shall usually be **3 (three) years** from the date of acceptance by the Institute, unless mentioned otherwise.
- Repairs/ replacements/ maintenance services shall normally be carried out at site, within a reasonable time, on requisition/intimation from the purchaser. In case the equipment needs to be transported to workshops, all arrangements must be made and all expenses must be borne by the supplier.

10. Submission of Bids

- Bidder shall submit quotations in **sealed envelope only, using his/their own stationery.**
- **The bidder must mention the make, model and full detail specifications of the items quoted.**

Mere copying of the specifications mentioned by the purchaser or mentioning words like “complying”/”compliant” is not sufficient.

- Envelope containing bids must bear, on the cover itself, name and full address of the bidder. Advertisement number and date & time of bid opening shall also be super-scribed on the cover.
- **For bids submitted by post or courier, it is bidder’s responsibility that bids reach the purchaser’s office before the scheduled time of closure of submission of bids.**

11. Validity Period of Quotation

Quotation shall remain **valid for a period not less than 60 days** after the deadline date specified for submission.

12. Evaluation of Quotations

- The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e.,
 - (a) are properly signed**
 - (b) conform to the terms and conditions, and technical specifications; and**
- Evaluation of bids shall be made **item wise separately.** For this purpose, all sub-items and accessories, if any, of an item will be taken together and considered as one item.

13. Award of contract

- In the assessment/judgment and sole discretion of the Institute, the Purchaser will award the contract to the bidder,
 - (a) whose quotation has been determined to be technically and commercially acceptable, and**
 - (b) who has the technical and financial capability to execute the contracts**

- The bidder must have all the necessary license/certificates/tax clearance certificates from concerned authorities for carrying normal manufacturing or trading business/ execution of similar projects and shall be liable to furnish them on demand by the Institute or by the authorities concerned. **These certificates need not be attached with bids but shall be produced on demand.**
- Prior to expiration of the quotation-validity-period, the award of contract/contracts by the Purchaser will be notified to the bidder/bidders, whose offer/ offers has/have been accepted. The terms of the accepted offer/offers shall be incorporated in the purchase order.

14. Delivery

The materials are to be supplied in the Department of Chemistry, IESTS between 11.00 a.m. and 4.00 p.m. The Bidders/Suppliers will be responsible for any breakage, damage or defect in the equipment detected subsequently. The supply and installation of the equipment should be completed within a period not exceeding 03 months from the placement of the formal work order or opening of the LC, failing which appropriate action will be taken as per Institute Rules. If the supply is not completed within the stipulated period as indicated in the Work Order, a Liquidated Damage @ 0.5% per week will be imposed, subject to maximum of 5% of the value of the work order.

15. Bills and Payments

- Bills and Challans in triplicate should be presented for payment within 15 days of supply /commissioning of work. No advance is paid for execution of the order except in the case of direct supply by foreign vendors. The Order No. is to be noted on both Challan and Bill. All bills are to be accompanied by order copies and Challan receipt.
- Payment will be made on submission of Proper Bills, Challans etc, by A/C Payee Cheque or L/C and no cash payment will be made under any circumstances.
- All payments are subjected to statutory deductions as and when applicable.

16. Preference will be given to reputed indigenous manufacturers having proven track record with service and maintenance capability in Kolkata/ India.

17. Indian Institute of Engineering Science and Technology, Shibpur (Formerly, Bengal Engineering and Science University, Shibpur), Howrah reserves the right to accept / reject all or any of the tenders without assigning any reason whatsoever.

We accept the above terms and conditions.

Dated:

Signature of Bidders/Suppliers
With date & Seal

SECTION-II: ITEM LIST WITH TECHNICAL SPECIFICATIONS

Sl. No.	Item Name	Technical Specifications
1	<p>ADVANCED HIGH VACUUM ROTARY EVAPORATOR SYSTEM WITH PUMP</p> <p>(Buchi make Rotary Evaporator)</p>	<p>Rotation Speed: 20- 280 rpm.</p> <p>Heating bath range: 95°C or more. The bath has BOTH SET AND ACTUAL digital temperature display simultaneously as a standard feature.</p> <p>Over temperature protections which ensure auto power cut off when actual temp exceeds set temp or by rapid increase of temperature.</p> <p>Two integrated handles facilitate carry, re-filling and emptying the heating bath.</p> <p>System equipped with an action jack lift for manual lifting of the evaporating flask.</p> <p>Two integrated handles facilitate carry, re-filling and emptying the heating bath.</p> <p>System equipped with an action jack lift for manual lifting of the evaporating flask.</p> <p>Lift extension allows use of bump traps & glass extenders up to 100 mm.</p> <p>Multifunctional Combi-clip for easy fixing and removal of vapour duct and evaporation flask.</p> <p>Cooling surface area should ~0.150 metre Square or more which ensures strong cooling capacity & good sample recovery.</p> <p>The bath volume is ~4ltr.</p> <p>Evaporation flask from 50ml- 4000ml can be used on the same joint adapter without additional connections.</p> <p>Sealing system made of glass / STANDARD KD 22 PTFE which is resistant to chemicals for longer life.</p> <p>Single sealing system for all glass assemblies.</p> <p>All glass components are stress relieved and made of Borosilicate 3.3 glass.</p> <p>Modularity: Any time up gradation from basic model to professional model. This technology ensures hassle free running rather than</p>

		<p>integrated control systems</p> <p>Buchi make Rotary Evaporator</p> <p>VACUUM CONTROLLER:</p> <ul style="list-style-type: none"> • Easy operation with large graphic display screen • Speed control for vacuum pump. • Measuring range 1400 - 0 mbar. • Control range 1100 - 1 mbar. • Integrated aeration valve and precision pressure sensor. • Timer function for process termination after pre-specified time . <p>SPECIFICATION FOR VACUUM PUMP:</p> <ul style="list-style-type: none"> • Single stroke Speed control vacuum pump. • Vacuum flow rate - 1.5 m³/h • Ultimate vacuum - <10mbar • Number of stages - 2 • Glass+ PEEK (Teflon type material) heads • Longer operating life due to a thicker PTFE membrane. • Sophisticated soundproofing with enclosed housing which minimizes noise and vibrations • Sound level - 40-52 db • Brushless DC motor. • Compact Design with integrated carrying Handle • Optimally designed for Buchi Rotavapour. <p>SPECIFICATION FOR CHILLER:</p> <ul style="list-style-type: none"> • The Recirculating Chiller - 230V 50/60Hz is optimally suited for use with one BUCHI Rotavapour • It allows an efficient distillation independent of tap water. • With a display of set and actual temperature, with connection to a control unit, • Mobile on wheels and a space-saving design. • Temperature range: -5 to 25°C • Working range: +10 to 25°C • Coolant: R134a • Cooling capacity: 500W at 15°C • <i>Dimensions: 28x40x50 cm</i> • <i>Weight: 30-40 kg.</i>
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2	<p>LOW TEMPERATURE IMMERSION COOLER CUM RECIRCULATING CHILLER</p>	<p>Working Temperature Range: -90°C to +40°C</p> <p>Temperature stability: ± 2°C or better</p> <p>Temperature control: Should be Microprocessor PID</p> <p>Temp. Control Sensor: DIN (1/3A) Pt100</p> <p>Temperature setting: Via touch screen</p> <p>Temperature Indication: Digital LCD</p> <p>Cooling Capacity: 300 W at + 20°C 200 W at – 20°C 150 W at – 40°C 100 W at – 60°C</p> <p>Refrigeration system: Should be Dual stage, Air cooled</p> <p>Cooling Coil: Flexible, 100 x 16 mm dia</p> <p>Power supply: The unit should be working at 230 V / 50 Hz</p> <p>Note:</p> <ol style="list-style-type: none"> 1. The Immersion cooler should be provided with adequate ventilation in order to ensure comfortable working of the compressors and other components of refrigeration during long working hours for specific reactions. 2. The unit is to be supplied along with suitable Vacuum Jacketed, insulated vessel of at least 2 L capacity to carry out reactions.
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