

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

Project Code: DRC/SERB/SMSE/PS/023/16-17

**Dr. M. N. Dastur School of Materials Science and Engineering
Indian Institute of Engineering Science and Technology,
Shibpur, Howrah-711 103**

Ref.: Tender Advt. SMS 1233, published in the "Bartmaan", dated 02.02.2017

Notice Inviting Quotations

Sealed quotations are invited for the supply of a (1) Table top refrigerated centrifuge, (2) a Laminar flow cabinet and (3) a Vacuum drying oven with rotary vacuum pump as per the technical specification provided in section II. The relevant bidding document can be downloaded from the website. The document can be also obtained from the Dr. M.N. Dastur School of Materials Science and Engineering (contact: Dr. Prosenjit Saha) between 11.00 a.m. and 3.00 p.m. on all working days for ten working days from the date of publication. The sealed quotations should be submitted at the office of the M.N. Dastur School within 10 working days from the date of publication of the notice till 5.00 P.M. The quotation should include the delivery charges (in INR) of the item to MNDSMSE, Indian Institute of Engineering Science & Technology, Shibpur.

Dean (R & D)

(A. Code DRC-T078/16-17)

This is downloadable

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



BIDDING DOCUMENT

(Project Code: DRC/SERB/SMSE/PS/023/16-17)

Under

Government of India Project

(DRC/SERB/SMSE/PS/023/16-17)

Dr. M. N. Dastur School of Materials Science and Engineering

January, 2017

SECTION I: TERMS & CONDITIONS AND IMPORTANT INSTRUCTIONS FOR BIDDERS

1. Bidders are invited to submit sealed quotation as per the technical specifications for tendered item to Dr. Prosenjit Saha, Assistant Professor, Dr. M.N. Dastur School of Materials Science and Engineering, on or before **ten working days from the date of publication** between **10.30 a.m. to 5.00 p.m.** except Saturday, Sunday and other public holidays.
2. The tender should reach the office address (mentioned below) **within 10 working days from the day of publication**. Quotations received later will not be entertained under any circumstances.
3. The tender will be opened on the **next working day of due date at 02.00 p.m.** and the place of opening of bid is Director's Office of Dr. M. N. Dastur School of Materials Science and Engineering, Indian Institute of Engineering Science and Technology (IEST), Shibpur, Howrah-711103.
4. Bidders are to submit the quotations in Sealed Cover to the School of Materials Science and Engineering at the following address:

**Dr. PROSENJIT SAHA
ASSISTANT PROFESSOR
(DST INSPIRE FACULTY FELLOW)
Dr. M.N.DASTUR SCHOOL OF MATERIALS SCIENCE AND
ENGINEERING
INDIAN INSTITUTE OF ENGINEERING SCIENCE AND
TECHNOLOGY (IEST)-SHIBPUR
P.O-BOTANIC GARDEN, HOWRAH-711 103, WB, INDIA**

5. TECHNO-COMMERCIAL BID - giving Detailed Specifications, International Standards (BIS/INTERNATIONAL), Catalogues, List of users & Technical Details / Operating Parameters, Pre-Installation Requirements, payment terms, warranty, etc. along with PRICE BID for- (a) Tendered item. (b) Essential Accessories & Spares.

Enquiry Number must be mentioned on cover

6. Bid requirements

- a) Rate to be quoted in INR per unit basis for each item and should be inclusive of all charges, taxes, and other payables, if any.
- b) Bidders are required to submit, along with the quotations, Original Manufacturer's catalogue mentioning Brand and Model No. (if applicable) with dimensions.
- c) The bidder must attach the at least **03** Purchase Order copy for Supply & Installation of above equipments during the last **02** financial years in Central Government/Central Autonomous Body/Central PSU/State Government or Autonomous/Reputed Private Research Centres (in Nos. and Value). Please attach a list of clients.
- d) The supply of above equipments will be at the school of Dr. M.N.DASTUR SCHOOL OF MATERIALS SCIENCE AND ENGINEERING, INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY (IEST)-SHIBPUR and supply means "Supply, Installation, Commissioning and satisfactory demonstration of the whole equipments". If any charges extra are payable for Installation and Commissioning, the same should be specified in the commercial offer.
- e) The bids submitted by the vendors should be valid for a minimum period of **120 days** from the date of the opening of tender and the prices should be valid till execution of purchase agreement.
- f) All the items to be supplied should be new, of good quality and standard and as per the technical specifications mentioned in technical bid document.
- g) Discount: Any conditional discount will lead to the rejection of your tender.
- h) The vendor will provide operational manuals, documents for peripherals, set of diagnostics to test all the sub-systems etc. along with the systems.
- i) Interlineations, corrections, erasure and / or over writings shall be valid only if signed by the persons or persons signing the bid.
- j) Bidders are required to submit self-attested photocopies of valid Trade-License, Professional tax, VAT-Registration, PAN Card and latest IT-Return Certificates.

k) For the proprietary items, the bidders/manufacturers should submit proper proprietary certificate.

l) Tender Documents/Terms & Conditions in Original duly signed by the Proprietor / Partner/ Director of the Company as a token of acceptance of Terms & Conditions of Tender should be submitted with the tender.

m) Envelope containing bids must bear, on the cover itself, name and full address of the bidder, advertisement number and date.

n) 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. The tenders submitted by telex/telegrams/fax/email will not be considered. No further correspondence will be entertained on this matter

o) Installation, Warranty & Support

Bidder shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty and thereafter. The items covered by the schedule of requirement shall carry minimum **three years comprehensive warranty** from the date of acceptance of the equipments by IEST-Shibpur. In case the tendered provide warranty less than 03 years then he has to give justification for lesser period of warranty. Without justification his tender is liable to be rejected. Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours. The comprehensive warranty includes onsite warranty with parts.

The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary. This includes cost, insurance, freight, custom duty, octroi, local taxes if any should be borne by the beneficiary or his agent. A clear confirmation should be given for this item.

The bidder shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 10 years from the date of supply of equipment on payment on approved price list basis.

The equipment must be supported by a Service Centre manned by the principal vendor's technical support engineers. The support through this Centre must be available 24 hours in a day, seven days a week and 365 days a year. Also it should be possible to contract the Principal's vendor support Centre on a toll free number/web/mail.

The vendor will have to arrange for all the testing equipment & tools required for installation, testing & maintenance etc.

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

8. Delivery All goods to be supplied and/or installed under this contract must be delivered to and installed at the Institute on working days (except Saturday, Sunday and holiday) between 11 a.m. and 4 p.m. The tenderer will be responsible for any breakage, damage or defect in the materials detected subsequently. The supply and installation of the above equipments shall be made by the vendor within **5 weeks** from the date of issue of the purchase order failing which appropriate action will be taken as per university rules.

9. If the supply is not completed within the stipulated period as indicated in the Work Order, a Liquidated Damage @ ½ per cent per week will be imposed subject to maximum of 5% of the value of work order.

10. Bills in triplicate should be presented for payment within **45** days of Supply /Completion of work. **No Advance Payment can be made.** All bills are to be accompanied by Order copies and Challan Receipt. The Order Number is to be noted on both the Challan and the Bill.

11. Customs Duty & Excise Duty

- The University will not issue any C or D form availing of concessional Sales Tax/VAT.
- The University will issue Customs Duty Exemption Certificate for foreign purchase or Excise Duty Exemption Certificate, if required.

12. Indian Institute of Engineering Science and Technology (IEST), Shibpur, Howrah reserves the right to accept / reject all or any of the tenders without assigning any reason whatsoever. Indian Institute of Engineering Science and Technology would not be under any obligation to give any clarifications to those vendors whose tenders have been rejected. The decision of Director, IEST Shibpur is final and binding in case of any dispute arising out of this contract between both the parties. IEST will not provide any accommodation/transportation for the engineers/ representatives for attending installation, commissioning and demonstration work. It is the absolute responsibility of the Principal Supplier/Indian Agent to make their own arrangements.

We accept the above terms and conditions.

Dated:

Signature of Bidders/Suppliers

With date & Seal

SECTION II: TECHNICAL SPECIFICATIONS

ITEM (1): High Speed Table Top Cooling Centrifuge with Led Display

Item Specifications: (Table top Refrigerated centrifuge)

- Centrifuge can attain Max speed of up to 20,000 rpm with Brushless maintenance with frequency drive
- Lowest temperature range should be of -8°C
- Machine should turn OFF automatically after certain hours of non-use to reduce energy consumption & extend compressor life.
- Inverter fault detection system with auto shut down option
- CFC free refrigeration system
- Automatic motorized lid locking system when lid is almost closed
- Should be enable with digital countdown timer from 0-99 min & can be use on continuous run
- Equipped with automatic Rotor Identification technique
- Should have motor overload protection system
- Equipped with emergency lid lock release system
- Imbalance detection with centrifugation cut off system
- Gas Hinge to prevent door falling
- Automatic door opening system
- Last set parameters recall facility
- Temperature display in °C

Accessories:

- **Complete with Polypropylene Tubes (Capacity 8 x 50 ml)**
- **Servo controlled Voltage Stabilizer**

ITEM (2): Laminar Flow Cabinet

Item Specifications: (Laminar Flow Cabinet)

- Horizontal type
- Structure should be made with thick plyboard and covered with sunmica. Sides of the work bench should be covered with transparent acrylic sheet.
- Front door should be of collapsible type and made up with acrylic sheet
- Work-bench should be made of thick ply-board covered with stainless steel sheet.
- HEPA Filter should be provided vertically on the back of work bench horizontally. Blowers, motor and pre-filter should be fitted in the lower portion of the cabinet.
- Should have LCD display to show measured parameters like stage velocity, total using time, UV/FL lamp on/off etc.
- Properly balanced blowers to be fitted on ¼ H.P.
- Electric motor to be provided to supply sufficient air to HEPA filter. The main filter should be able to block > 99.99% of particles between size 0.1-0.3 micron
- Pre-filters required for providing of pre filtered air to the blowers. (up to 5 micron))
- It should have Fluorescent lamp with sufficient illumination.
- It should have UV-lamp/germicidal lamp covering the entire working area.
- Ensure noiseless operation and anti-vibration construction provides efficient working environment.
- Filter replacement warning signal.
- Should be FDA or CE or BIS approved product.
- Static pressure manometer needs to be fitted to the unit.
- The system should work under standard Indian power outlet (240V)
- **WORKING SIZE** :Option 1- 3' x 2' x 2'

Option 2- 4' x 2' x 2' (for option 2 specification of the pre filter, HEPA filter, UV germicidal light etc. will be altered in accordance with the model)

ITEM (3): Vacuum Drying Oven with rotary vacuum pump

Item Specifications: (Vacuum Drying Oven)

- Digital temperature indicator cum controller with Digital Display
- Maximum attainable temperature 250°C
- Accuracy $\pm 1^\circ\text{C}$ or better within the working temperature region
- Inner chamber should be made of stainless steel
- Required no. of trays-2
- Door of vacuum oven should have a glass window
- Vacuum tight seal should be made up by heat resistant neoprene rubber gasket
- Glass wool insulation is required surrounding the inner chamber
- Outside of the oven should have two precision shut off valves-one for vacuum pump connection and the other for introduction of dry air into the chamber during the drying operation
- Should have a stopcock arrangement for bleeding off the vacuum before opening of the door. The stopcock may also be employed to introduce inert gasses in the chamber.
- **Inner chamber dimension 12'' x 8'' x 10''**

Rotary high vacuum pump- Two stage, Oil Sealed, Direct driven type

- Air displacement capacity-100 litres per minute
- Motor 0.25 HP
- Oil Charge 700 ml