

INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR

Ground Floor, Block "A", Vishwakarma Government Engineering College Campus
Visat-Gandhinagar Highway, Chandkheda, Ahmedabad-382424. Tel/Fax No. +91 79 2397 2583

Date: 5th May, 2012

Tender No.: IITGN/CHE/EQP/2012-13/0011
Last date: 3rd July, 2012 on/before 05:00 PM

SUB: Invitation of sealed tender for Supply of Research Grade Dynamic Rotational & Oscillatory Rheometer as per specifications shown in the Annexure - I.

Dear Sir,

Indian Institute of Technology Gandhinagar invites sealed tender for **Supply of Research Grade Dynamic Rotational & Oscillatory Rheometer as per specifications shown in the Annexure - I** on the following terms & conditions:

1. If the supplier/firm is manufacturer/authorized dealer/sole distributor of any item, the Certificate to this effect should be attached.
2. The tender documents are to be in two parts as **Technical Offer and as Financial offer:**
 - a.) The Technical offer should include the detailed specifications of main equipment/item and its accessories. All items should be numbered as numbered for each instrument in the **Annexure-I**.
 - b.) The financial offer should include the cost of main equipment/item and its accessories numbered as in (a). If there is any separate cost for installation etc. that should be quoted separately. The total cost should be quoted in words as well as figures (typed or printed). Amendment should be avoided. Amendments, if any, should be duly initialed, failing which the offers are liable to be rejected.
 - c.) The two parts of the offer should be placed in separate sealed envelopes clearly marked "**Technical Offer**" & "**Financial Offer**". These two envelopes along with envelope for EMD and Tender Fee marked "**Tender Fee & EMD**" (total three envelopes) must be enclosed in one bigger envelope duly sealed and super scribed with tender number, name of the instrument/item and tender due date must be forwarded to the undersigned so as to reach him on or before the due date.

Incomplete tenders, amendments and additions to tender after opening or late tenders are liable to be ignored and rejected.

3. Fax and Email quotation are not acceptable.

4. Quotations should be valid for 120 days from the tender due date. The quotation should clearly indicate the period of delivery, warranty terms etc. A minimum of one year warranty is required from the date of commissioning.

5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. The Suppliers should submit copies of suitable documents in support of their reputation, credentials and past performance.

6. The quotations should be given for the items in the same order as in the tender document.

7. Imported supplies should be delivered by air and quoted for CIP Ahmedabad.

8. The quantity shown against each item is approximate and may vary as per demand of the Institute at the time of placing order.

9. In case of payment through Letter of Credit (LC), ninety percent of the payment will be released after completion of the supply. The balance 10% of the payment will be released after satisfactory installation of the equipment.

10. IIT Gandhinagar is exempt from payment of Excise Duty and is eligible for concessional rate of Custom Duty. Necessary certificate will be issued on demand. IIT Gandhinagar will make necessary arrangements for the clearance of imported goods at the Airport. Hence, the price should not include these charges.

11. In the event of any dispute or difference(s) between the vendee IIT Gandhinagar and the vendor(s) arising out of non-supply of material or supplies not found according to the specifications or any other cause whatsoever relating to the supply or purchase order before or after the supply has been executed, shall be referred to the concerned authority of IIT Gandhinagar who may decide the matter himself or may appoint arbitrator(s) under the arbitration and conciliation Act 1996. The decision of the arbitrator shall be final and binding on both the parties.

12. The place of arbitration and the language to be used in arbitral proceedings shall be decided by the arbitrator.

13. All disputes shall be subject to Gandhinagar Jurisdiction only.

14. I.I.T. Gandhinagar has the right to accept the whole or any parts of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

15. The Tender/Bid will be open on **11.07.2012** at **03:00 PM**.

- a.) The suppliers or their authorized representative may also be present during the opening of the Technical offer, if they desire so, at their own expenses.
- b) Only those financial offers will be opened whose technical offers are found suitable by the expert committee appointed for the concerned instrument..

- c) No separate information shall be given to individual bidders. In incomparable situation, the committee may negotiate price with the qualified bidder quoting the lowest price before awarding the offer.

16. In case the supplier requires any elucidation regarding the tender documents, they are requested to contact to the Assistant Registrar (M.M.) through e-mail, purchase@iitgn.ac.in on or before **4:00 PM, 03.07.2012**.

17. A demand draft of **Rs. 1000/- (Rupees One Thousand Only)** towards non-refundable tender fee and a demand draft of **Rs. 96,400/- (Rupees Ninety Six Thousand Four Hundred Only)** at the rate of 2% of the tender value towards refundable EMD from a Nationalized bank in favour of "IIT Gandhinagar" payable at Ahmedabad placed in a separate envelope marked "**Tender Fee & EMD**" should accompany tender bid documents. Both the demand drafts should be valid for 180 days. Without the Tender Fee and EMD the bid will not be considered.

The EMD of the successful bidder will be returned to them without any interest after completing the successful installation. The earnest money of unsuccessful bidders will be returned to them without any interest within fifteen working days after awarding the offer.

18. All tender documents should have to be forwarded through speed post or registered post, courier to the following address so as to reach the following address on/before **05:00PM, 03.07.2012**.

Assistant Registrar (M.M.)

Indian Institute of Technology Gandhinagar,
Vishwakarma Government Engineering College Campus,
Ground Floor, Block " A " ,
Visat-Gandhinagar Highway, Chandkheda
Ahmedabad 382424
Tele/ Fax No. +91 79 2397 2583

Other Terms & Conditions:

1. Pre – Qualification Criteria:

- a. Bidders should be the manufacturer / authorized dealer. Letter of Authorization from Manufacturer on the same and specific to the tender should be enclosed.
- b. An undertaking from the original Manufacturer is required stating that they would facilitate the bidder on a regular basis with technology/product updates and extend support for the warranty as well.

2. Performance Guarantee Bond:

- a. Performance Guarantee Bond is mandatory.
- b. Successful supplier/ firm should submit performance guarantee as prescribed and to be received in the office of Assistant Registrar, Materials Management Division before the date of commencement of supply or 30 days from the date of acceptance to tender, whichever is earlier. The performance guarantee bond to be furnished in the form of Bank Guarantee as per given proforma of the tender documents, for an amount covering 10% of the value of quantity of material on landed cost basis.
- c. The Performance Guarantee Should be established in favour of “ IIT Gandhinagar” through any Nationalized Bank Situated at Ahmedabad/Gandhinagar with a clause to enforce the same on their local branch at Ahmedabad.
- d. Validity of the performance guarantee bond shall be for a period of five years from the date of issue of installation & commissioning.

3. Delivery: The Equipment should be delivered and installed within the period as specified in the purchase order and be ready for use within one week of delivery unless otherwise prescribed.

4. Penalty: If the suppliers fails to deliver and place any or all the Equipment or perform the service by the specified date, penalty at the rate of 1% per week of the total order value subject to the maximum of 10% of total order value will be deducted.

5. Training: Suppliers need to provide adequate training at IIT Gandhinagar to the nominated person of IIT Gandhinagar at their cost. IIT Gandhinagar will not bear any training or living expenditure in this regard.

6. Installation & Warranty Declaration: Suppliers must give the comprehensive onsite warranty as required from the date of successful installation of Equipment against any manufacturing defects. In the installation report the model number of instrument and all spares parts numbers should be in the line of purchase order. And suppliers must be written in the warranty declaration that “everything to be supplied by us hereunder shall be free from all defects and faults in material, workmanship and shall be of the highest quality and material of the type ordered, shall be in full conformity with the specification and shall be complete enough to carry out the experiments, as specified in the tender document.”

Any deviation in the material and the specifications from the accepted terms may liable to be rejected and the suppliers need to supply all the goods in the specified form to the satisfaction / specifications specified in the Purchase order and demonstrate at the their own cost.

Sd/-
Assistant Registrar (M.M)

PARTICULARS TO BE FILLED BY THE SUPPLIER

1. Name of the Supplier:

2. Complete Address of the Supplier:

3. Availability for demonstration of instruments at IIT Gandhinagar: Yes / No [Please ✓]

4. Cost of the Tender enclosed: Yes/No [Please ✓] If yes,

a.) Name of the Bank _____

b.) Amount () _____

c.) Demand Draft No. _____

5. Earnest Money Deposit enclosed: Yes / No [Please ✓] if Yes,

a.) Name of the Bank _____

b.) Amount () _____

c.) Demand Draft No. _____

d.) Last Validity date of the enclosed DD _____

6. Communication details of the concerned contact person to whom all references shall be made regarding this tender enquiry. [NOTE: Any changes after submission of Tender documents kindly update IIT Gandhinagar]

a.) Full Name :

b.) Complete Postal Address:

c.) Telephone No.:

d.) Fax No.:

e.) Mobile No.:

f.) E-mail:

g.) Website Address:

PARTICULARS FOR PERFORMANCE GUARANTEE BOND

(To be typed on Non-judicial stamp paper of the value of Indian Rupees of Two Hundred) (TO BE ESTABLISHED THROUGH ANY OF THE NATIONALISED BANKS (WHETHER SITUATED AT AHMEDABAD OR OUTSTATION) WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT AHMEDABAD. BONDS ISSUED BY CO-OPERATIVE BANKS ARE NOT ACCEPTED.)

To,

The Asst. Registrar,
Indian Institute of Technology,
VGEC Campus, Ahmedabad – 382424

LETTER OF GUARANTEE

WHEREAS Indian Institute of Technology Gandhinagar (Buyer) have invited Tenders vide Tender No..... Dt. for purchase of AND WHEREAS the said tender document requires the supplier/firm (seller) whose tender is accepted for the supply of instrument / machinery, etc. in response thereto shall establish an irrevocable Performance Guarantee Bond in favour of **“Indian Institute of Technology Gandhinagar”** in the form of Bank Guarantee for

Rs [10% (ten percent) of the purchase value] which will be valid for five years from the date of installation & commissioning, the said Performance Guarantee Bond is to be submitted within 30 (Thirty) days from the date of Acceptance of the tender.

NOW THIS BANK HEREBY GUARANTEES that in the event of the said supplier/firm (seller) failing to abide by any of the conditions referred to in tender document / purchase order / performance of the instrument / machinery, etc. this Bank shall pay to Indian Institute of Technology Gandhinagar on demand and without protest or demur Rs (Rupees.....).

This Bank further agrees that the decision of Indian Institute of Technology Gandhinagar (Buyer) as to whether the said supplier/firm (Seller) has committed a breach of any of the conditions referred in tender document / purchase order shall be final and binding.

We, (name of the Bank & branch) hereby further agree that the Guarantee herein contained shall not be affected by any change in the constitution of the supplier/firm (Seller) and/ or Indian Institute of Technology Gandhinagar (Buyer).

Notwithstanding anything contained herein:

a. Our liability under this Bank Guarantee shall not exceed Rs.

(Indian Rupees only).

b. This Bank Guarantee shall be valid up to(date) and

c. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if IIT Gandhinagar serve upon us a written claim or demand on or before(date).

This Bank further agrees that the claims if any, against this Bank Guarantee shall be enforceable at our branch office at situated at

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(Address of local branch).

Yours truly,

Signature and seal of the guarantor:

Name of the Bank:

Complete Postal Address:

Date:

Annexure-I

➤ **Name of the Equipment/Item:**

Research Grade Dynamic Rotational & Oscillatory Rheometer

➤ **Technical Specifications**

Rotational stress/strain controlled research grade rheometer to carry out rheological studies on soft materials such as suspensions emulsions, pastes, polymeric solutions and polymeric melts.

The rheometer should have following specifications:

Description	Required Quantity	Specification
Mode	01 No.	Controlled Stress/Strain with sample adaptive Shear-rate controller, Oscillation with real time position control, Elongational (vertical movement of the top plate)
Bearing Type	01 No.	Air
Motor Type	01 No.	Synchronous EC motor (or Brushless DC motor) drive for precision dynamics
Torque Range (Rotation)	01 No.	Min: 10 nNm, Max: 200 mNm, resolution: 0.1 nNm
Torque Range (Oscillation)	01 No.	Min: 2 nNm, Max: 200 mNm, resolution: 0.1 nNm
Angular Velocity	01 No.	Min: 10^{-9} rad/s, Max: 314 rad/s, resolution: 10 nrad/s
Angular Frequency	01 No.	Min: 10^{-7} rad/s; Max: 628 rad/s
Angular deflection	01 No.	Min: 0.1 μ rad
Normal Force Range	01 No.	Min: 0.005 N, Max: 50 N, resolution: 0.5 mN
Peltier plate	01 No.	For Parallel plate, Cone and plate and Coaxial Cylinders geometries -40 °C to 200 °C
Measuring geometry with <u>smooth</u> surface	01 No. each	<ul style="list-style-type: none"> • Stainless steel, 20 mm plate or equivalent • Stainless Steel, 40 mm Plate or equivalent • Stainless Steel, 40 mm, 1 deg Cone or equivalent • Stainless Steel, 60 mm, 0.5 deg Cone or equivalent
Evaporation blocker system	01 No.	Suitable types
Tool recognition system	01 No.	Automatic tool recognition system
Air dryer/Filter	01 No.	Suitable capacity

Software	01 No.	Software for both Data Acquisition and complete Rheological Analysis
Calibration Standards	----	Minimum 3 sets
Warranty	----	Warranty of 1 year + 1 year period of free service
Annual maintenance	----	Comprehensive annual maintenance for at least 4 years beyond warranty period. The service personnel should respond within 24 hrs and be on campus in 48 hrs for repairs.
Training	----	Free of charge training of students in equipment maintenance by the certified company engineers during the warranty period.
Online UPS	01 No.	Appropriate UPS that gives around 15 min backup for rheometer and PC (but not the compressor)
Computer and Printer	01 No. each	<p>Desktop PC with the following specifications:</p> <ul style="list-style-type: none"> • Intel 2nd Generation Core i7 (2 GHz processor or better) • Windows 7 Home or better. • Minimum 8 GB RAM, DDR3 SDRAM, expandable up to 32GB • 1 TB SATA 3.0 (7200 RPM, minimum 16MB cache) • DVD R/W drive • Intel HD Graphics (integrated) • Integrated High Definition audio with Realtek ALC261 codec or equivalent. • USB keyboard membrane type • USB 2 Button Scroll Optical Mouse • Ethernet, High speed 2.0 USB (6 ports) and all other standard ports in compliance with Rheometer and accessories. • LCD monitor 21 inch or equivalent. • Laser printer B/W: <p>Print speed minimum 15 ppm Hi speed USB 2.0 port</p>
Rheometer shall include following accessories or equivalent:		
Attachments		Technical Specifications
Interfacial Rheology Cell for measurements of interfacial films at gas/liquid and liquid/liquid interfaces	01 No.	<p>Equipped with:</p> <ul style="list-style-type: none"> • Measuring system: Bicone 65 mm, 2 x 5°, De Nuoy ring • Peltier temperature control: 5 °C to 70 °C • Accompanying software for data acquisition and analysis.

Electro rheology cell for rheological measurements simultaneous to an applied electric field	01 No.	Equipped with: <ul style="list-style-type: none">• Measuring systems: parallel plate and concentric cylinder with various diameters• Maximum voltage: DC, 12.5 kV• Peltier temperature control: -40 °C to 200 °C for parallel plate, -30 °C to 200 °C for concentric cylinder
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