

TENDER  
FOR  
EQUIPMENTS OF SOLID MECHANICS LABORATORY  
SCHOOL OF ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY MANDI



Tender No.: IITMANDI/SE/TEN/2011-12/SOM/1

Tender date: October 7, 2011

Last Date of submission: October 31, 2011

Indian Institute of Technology Mandi  
Mandi – 175001 (H.P)

[Tel: 01905-237920](tel:01905-237920)

Email: [vsc@iitmandi.ac.in](mailto:vsc@iitmandi.ac.in), [rajeev@iitmandi.ac.in](mailto:rajeev@iitmandi.ac.in)

Indian Institute of Technology (IIT) Mandi, Mandi invites tender for supply, erection, installation and commissioning, testing, demonstration and training of Solid Mechanics Laboratory Equipments, as per specifications given in the Schedule attached to the Tender form annexed hereto. All offers should be made in English and should be written in both figures and words. Tender forms can be downloaded from the website (<http://iitmandi.ac.in/administration/tenderseoi.html>) of the Institute.

The bidders are requested to read the tender document carefully and ensure compliance with all specifications/instructions herein. Non-compliance with specifications/instructions in this document may disqualify the bidders from the tender exercise.

IIT Mandi reserves the right to select certain item(s) (in single or multiple units) and reject the others or all mentioned in the Schedule and to reject any quotation wholly or partly without assigning any reason.

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

### **Terms and Conditions:**

1. The technical and financial bids should be quoted separately and put in different sealed envelopes marked “**Technical bid**” or “**Financial bid**” as applicable. These separate bids envelopes be put in an outer envelope which should also be sealed.
2. The technical and financial bids should be submitted in duplicate. The financial bid should include the cost of main machine/item and its accessories. If there is any separate cost for installation etc. that should be quoted separately.
3. Each individual sealed envelope as well as the outer envelope should be marked with the following reference on the top left hand corner: “**IITMANDI/SE/TEN/2011-12/SOM/1/Item No./ NAME OF MACHINE**”.
4. The printed literature and catalogue/brochure giving full technical details along with compliance statement for the tender specifications of machine should be included with the technical bid to verify the specifications quoted in the tender. The bidders should submit copies of suitable documents in support of their reputation, credentials and past performance.
5. The rates should be quoted in figures (typed or printed) and cutting should be avoided. The final amount should be in figures as well as in words. If there are cuttings, they should be duly initialed, failing which the bids are liable to be rejected.

6. The technical and financial bids should be addressed to “The Dean (Academic), Indian Institute of Technology Mandi, Mandi-175001 (H.P)”.

7. All tender documents have to be sent through courier, speed post or registered post only. The postal address is:

**The Dean (Academics)**  
**Indian Institute of Technology Mandi (IIT Mandi)**  
**Academic Block (Vallabh Degree College Campus)**  
**Mandi – 175001 (H.P)**

8. Any bids received after **4.00 p.m. on October 31, 2011** shall not be considered.

9. While sending rates, the firm shall give an undertaking to the effect that the terms/conditions mentioned in the enquiry letter/Tender Notice against which the rates are being given are acceptable to the firm. In case the firms do not give this undertaking, their rates will not be considered.

10. The quotations should be given for the items in the same order as in the enquiry letter.

11. If the supplier/firm is manufacturer/authorized dealer/sole distributor of any item, the certificate to this effect should be attached.

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

13. In the event of any dispute or difference(s) between the vendee Institute (IIT Mandi) and the vendor(s) arising out of non-supply of material or supplies not found according to 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 Director, IIT Mandi”, Mandi 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.

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

15. All disputes shall be subject to Mandi Jurisdiction only.

16. All tenders in which any of the prescribed conditions is not fulfilled or any condition is put forth by the tenderer shall be summarily rejected.

The Technical bid will be opened on **November 01, 2011 at 10.30 A.M** in the Conference Room of the Academic Block. The bidders or their authorized representative may also be present during the opening of the Technical Bid, if they desire so, at their own expenses.

Price bids of only those bidders will be opened whose technical bids are found suitable by the committee appointed for the purpose. Date and time of opening of price bids will be decided after technical bids have been evaluated by the committee. Information in this regard will be posted on Institute's web site / Notice board. No separate information shall be given to individual bidders. In exceptional situation, an authorized committee may negotiate price with the qualified bidder quoting the lowest price before awarding the contract

1. **Clarifications:**

In case the bidder requires any clarification regarding the tender documents, they are advised to send their queries through email (Dr. Vishal Singh Chauhan email: vsc@iitmandi.ac.in or Dr. Rajeev Kumar, email: rajeev@iitmandi.ac.in) by **October 27, 2011**.

2. **Tender Cost:**

A Demand draft of Rs.1,000/-(Rupees One Thousand only) per each machine/item towards non-refundable tender fee drawn in favour of "The Registrar, IIT Mandi" payable at Mandi should accompany the Technical bid document.

3. **Earnest Money Deposit (EMD):**

If the cost of the machine/item is more than Rs. 5 lakhs, a refundable amount @ 2% of the quoted price as earnest money deposit (EMD) in the shape of DD drawn in favour of "The Registrar, IIT Mandi" payable at Mandi should accompany the Financial bid documents.

Without EMD the bid will not be considered.

4. **Pre – Qualification Criteria:**

a. Bidders should be the manufacturer / authorized dealer. Letter of Authorization from original equipment manufacturer (OEM) on the same and specific to the tender should be enclosed.

b. An undertaking from the OEM 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.

5. **Prices:**

a.a) The Prices quoted should be inclusive of all taxes or duties, packing, forwarding, freight, insurance, delivery and commissioning etc. at destination site (IIT Mandi, Mandi). IIT Mandi is on the course of registering with DSIR, Govt. of India and may be exempted from Custom / Excise Duty. Exemption Certificate to this effect may be issued by IIT Mandi-Himachal Pradesh. **Hence, prices should be quoted separately inclusive and exclusive of Customs/Excise Duty.** The rates shall be firm and final. Nothing extra shall be paid on any account.

a.b) In case of imported machine(s)/item(s), the agency commission, if any, payable in Indian rupees should be mentioned separately. For imported equipment, the Letter of Credit will be opened for the amount excluding agency commission in Indian Rupees. The firm should clearly mention the address of foreign bank in the financial bid.

6. **Validity:**

The bid should be valid for acceptance up to a period of 180 Days. The Bidders should be ready to extend the validity, if required.

7. **Delivery:**

The Machine should be delivered and installed within the period as specified in the purchase order and be ready for use within 12 weeks of the issue of purchase order unless otherwise prescribed. If the bidder 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.

8. **Training:**

Bidders need to provide adequate training to the nominated person of IIT Mandi at their cost. IIT Mandi will not bear any training expenditure.

9. **Warranty Declaration:**

Bidders must give the comprehensive onsite warranty for a minimum of 3 years as required from the date of successful installation of Machine against any manufacturing

defects and also give 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 bidders need to supply all the goods in the specified form to the satisfaction / specifications specified in the order / contract and demonstrate at the their own cost.

If the cost of the machine exceeds Rs 25 lakhs, A performance bank guarantee as 10% of the cost of the machine for the duration of the warranty period will be taken from successful bidder.

Since IIT Mandi is presently operating in the transit campus, in the case the machine/equipment is bulky as well as costly, the supplier has to take the responsibility to shift the machine to new campus when laboratory needs to be shifted to the new campus.

#### 10. **Technical Support:**

Details about the technical support of the machine after the warranty period have to be mentioned.

#### 11. **Terms of Payment:**

Payment will generally be made only after delivery and satisfactory installation, testing, commissioning etc. This must be specified in the tender/quotation.

- In case of imported supplies, payment (excluding Indian agency commission, if any) will be made through Letter of Credit.

#### 12. **Tender expenses and documents:**

All costs incurred by the bidder in the preparation of the tender shall be at the entire expense of the bidder.

#### 13. **Tender Evaluation Criteria:**

The technical bids will be opened on **November 01, 2011** at 10:30 AM. After evaluation of the technical bid, the financial bid for only those offers which have qualified in the evaluation of technical bid will be opened.

14. **Return of EMD:**

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

15. **Manual and documentation:**

All the manuals necessary for operating and servicing the equipment (including details of electronic circuits) will have to be provided along with the instrument.

Registrar (IIT Mandi)

## **BID PARTICULARS**

1. Name of the Supplier :

2. Address of the Supplier :

3. Availability of demonstration of machine: Yes / No

4. Tender cost enclosed: : Yes/No if yes

D.D. No. \_\_\_\_\_ Bank \_\_\_\_\_ Amount \_\_\_\_\_

5. EMD enclosed : Yes / No if Yes

D.D. No. \_\_\_\_\_ Bank \_\_\_\_\_

6. Name and address of the Officer/contact person to whom all references shall be made regarding this tender enquiry.

Name :

Address :

Telephone No. :

Fax No. :

Mobile No :

e-Mail :

Web :

**Annexure – I**

**Indian Institute of Technology Mandi**

**School of Engineering**

**Solid Mechanics Laboratory**

Tender No: IITMANDI/SE/TEN/2011-12/SOM/1

| <b>Item. No.</b> | <b>Name of the Machine</b>     | <b>Specifications</b>  | <b>Quantity</b> |
|------------------|--------------------------------|--|-----------------|
| <b>1</b>         | <b>Torsion Testing Machine</b> | <ul style="list-style-type: none"><li><input type="checkbox"/> Max. Torque Capacity 1000 Nm</li><li><input type="checkbox"/> Torque Ranges 0-1000 Nm</li><li><input type="checkbox"/> No. of Divisions on Dial 500 Nos.</li><li><input type="checkbox"/> Torsion Test Speed 0.1-0.5 RPM (adjustable)</li><li><input type="checkbox"/> Clearance Between Grips 0-600 mm</li><li><input type="checkbox"/> Grips for Round Specimen Diameter 0-30 mm</li><li><input type="checkbox"/> Grips for Flat Thick 5-15 mm</li><li><input type="checkbox"/> Specimen Width variable upto 50 mm</li><li><input type="checkbox"/> Manual loading Arrangement available</li><li><input type="checkbox"/> Graph of the test available</li></ul> | <b>1</b>        |
| <b>2</b>         | <b>Fatigue Testing Machine</b> | <ul style="list-style-type: none"><li><input type="checkbox"/> Maximum bending moment 400 Kg.cm</li><li><input type="checkbox"/> Bending moment adjustable 0-400 Kg.cm</li><li><input type="checkbox"/> Testing dia. of specimen upto 10 mm</li><li><input type="checkbox"/> Accuracy of applied bending moment <math>\hat{A}\pm 1\%</math></li></ul>  | <b>1</b>        |

|          |                               |  |          |
|----------|-------------------------------|--|----------|
|          |                               | <ul style="list-style-type: none"> <li><input type="checkbox"/> Digital counter 10 digit</li> </ul>  |          |
| <b>3</b> | <b>Impact Testing Machine</b> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Digital &amp; Mechanical type (Two in one)</li> <li><input type="checkbox"/> Max. Permissible loss by friction &amp; windage 0.5 % of Impact Energy</li> <li><input type="checkbox"/> Min. Scale Graduations 2 J for mechanical, 0.5 J for digital</li> <li><input type="checkbox"/> Pendulum Impact energy 300-400 J for Charpy Test, 170-200 for Izod Test.</li> <li><input type="checkbox"/> Strike Velocity of pendulum 5.3 m/s for Charpy Test, 3.8 for Izod Test</li> </ul>  | <b>1</b> |
| <b>4</b> | <b>Tensometer</b>             | <ul style="list-style-type: none"> <li><input type="checkbox"/> Mechanical frame capacity 20 KN (2000 kg)</li> <li><input type="checkbox"/> Load Measurement 20 KN max. with interchangeable Load Cell</li> <li><input type="checkbox"/> Load cell available 0.2 KN, 2 KN, 5 KN, 10 KN, 20 KN</li> <li><input type="checkbox"/> Least count 0.05% of Load Cell</li> <li><input type="checkbox"/> Load accuracy 1%</li> <li><input type="checkbox"/> Test Facilities <ul style="list-style-type: none"> <li>1. Peak test</li> <li>2. Break test</li> <li>3. Preset load</li> <li>4. Preset length</li> <li>5. Graph analysis through software for various test result.</li> </ul> </li> <li><input type="checkbox"/> Graph of the test available</li> </ul> | <b>1</b> |

|          |                                 |  |          |
|----------|---------------------------------|--|----------|
|          |                                 | <ul style="list-style-type: none"> <li><input type="checkbox"/> Auto detection for origin as well as end of the test</li> </ul>  |          |
| <b>5</b> | <b>Rockwell Hardness Tester</b> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Specifications for HR</li> <li><input type="checkbox"/> Test Load of 3 AND 10KG PRE LOAD, 15,30,45,60,100,150kgf main load</li> <li><input type="checkbox"/> Minor load auto-brake system</li> <li><input type="checkbox"/> Resolution : 0.1HR(adjustable)</li> <li><input type="checkbox"/> Minor Dwell Time 0.1 to 50.0</li> <li><input type="checkbox"/> Major Dwell Time 1.0 to 50.0</li> <li><input type="checkbox"/> USB and RS232 data ports FOR easy data transfer to MS® Excel® or other applications</li> <li><input type="checkbox"/> Repeatability GR&amp;R &lt; 10%<br/>(Repeatability of machine to be shown on standard specimen)</li> <li><input type="checkbox"/> Provision of Number of Tests, Mean, Standard Deviation, Maximum, Minimum Range, CP, CPk, Individual test hardness numbers</li> <li><input type="checkbox"/> Compliance standards : ASTM E18, ASTM D785, ASTM B294, JIS Z2245, GB/T 230</li> <li><input type="checkbox"/> Power Supply- 100 – 240V AC 60/50 Hz</li> <li><input type="checkbox"/> Additional indenter and standard test block.</li> </ul> | <b>1</b> |

|          |                                 |  |          |
|----------|---------------------------------|--|----------|
|          |                                 | <ul style="list-style-type: none"> <li><input type="checkbox"/> Indenter and test block should be certified by any one of these (ASTM, DKD, UKAS, NABL)</li> </ul>   |          |
| <b>6</b> | <b>Surface Roughness Tester</b> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Surface parameters to be measured Ra, Rz, Rt, Rmax, Rk, Rpk, Rvk, Mr1, Mr2, Rq, Rp, R3z, Rpc, Sm conforming to DIN, ISO and JIS</li> <li><input type="checkbox"/> Measuring range 1: +20/ -20 <math>\mu\text{m}</math> or +20/ -60 <math>\mu\text{m}</math></li> <li><input type="checkbox"/> Measuring range 2: +40/ -40 <math>\mu\text{m}</math> or +40/ -120 <math>\mu\text{m}</math></li> <li><input type="checkbox"/> Tolerance control for all parameters</li> <li><input type="checkbox"/> Data storage facility</li> <li><input type="checkbox"/> Display for results of measurement</li> <li><input type="checkbox"/> Support for equipment</li> <li><input type="checkbox"/> No calibration required</li> <li><input type="checkbox"/> V24 / RS232 – Interface with Data Cable</li> <li><input type="checkbox"/> Extra hard coated Geometry standard with certificate</li> </ul> | <b>1</b> |

Note: Technical bid should contain Compliance statement for the tender specifications of Machine. Compliance statements of individual machine are given in Annexure-II

**Annexure-II**

**INDIAN INSTITUTE OF TECHNOLOGY MANDI  
SCHOOL OF ENGINEERING**

**Compliance statement for the tender specifications of Torsion Testing Machine**

**Ref. No.:** IITMANDI/SE/TEN/2011-12/SOM/1/ITEM No.1/Torsion Testing Machine

**Name of the bidder and  
address:**-----  
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1. Is the bidder original machine manufacturer (OEM)/authorized dealer?
2. If authorised dealer, certificate to this effect from OEM, attached or not?
3. Is validity of the bid is 180 days or not

| <b>Sr. No.</b> | <b>Desired Specifications</b>   | <b>Bidder Specifications</b> | <b>Remark</b> |
|----------------|---|------------------------------|---------------|
| 1              | <ul style="list-style-type: none"><li><input type="checkbox"/> Max. Torque Capacity 1000 Nm</li><li><input type="checkbox"/> Torque Ranges 0-1000 Nm</li><li><input type="checkbox"/> No. of Divisions on Dial 500 Nos.</li><li><input type="checkbox"/> Torsion Test Speed 0.1-0.5 RPM (adjustable)</li><li><input type="checkbox"/> Clearance Between Grips 0-600 mm</li><li><input type="checkbox"/> Grips for Round Specimen Diameter 0-30 mm</li><li><input type="checkbox"/> Grips for Flat Thick 5-15 mm</li><li><input type="checkbox"/> Specimen Width variable upto 50 mm</li><li><input type="checkbox"/> Manual loading Arrangement available</li></ul> |                              |               |

|  |  |  |  |
|--|--|--|--|
|  | <input type="checkbox"/> Graph of the test available |  |  |
|--|--|--|--|

**Instructions**

1. You have to fill in all columns and ensure that you furnish all the required information accurately and unambiguously.
2. If our specification contains any values, you have to provide your values against the column in the same unit as we have specified.
3. Deviation in values, materials etc. from our specification may be explained in the remarks column

**INDIAN INSTITUTE OF TECHNOLOGY MANDI  
SCHOOL OF ENGINEERING**

**Compliance statement for the tender specifications of Fatigue Testing Machine**

**Ref. No.:** IITMANDI/SE/TEN/2011-12/SOM/1/ITEM No.2/Fatigue Testing Machine

**Name of the bidder and  
address:**-----  
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1. Is the bidder original machine manufacturer (OEM)/authorized dealer?
2. If authorised dealer, certificate to this effect from OEM, attached or not?
3. Is validity of the bid is 180 days or not

| <b>Sr. No.</b> | <b>Desired Specifications</b>   | <b>Bidder Specifications</b> | <b>Remark</b> |
|----------------|---|------------------------------|---------------|
| 1              | <ul style="list-style-type: none"><li><input type="checkbox"/> Maximum bending moment 400 Kg.cm</li><li><input type="checkbox"/> Bending moment adjustable 0-400 Kg.cm</li><li><input type="checkbox"/> Testing dia. of specimen upto 10 mm</li><li><input type="checkbox"/> Accuracy of applied bending moment <math>\hat{A}\pm 1\%</math></li><li><input type="checkbox"/> Digital counter 10 digit</li></ul> |                              |               |

**Instructions**

1. You have to fill in all columns and ensure that you furnish all the required information accurately and unambiguously.
2. If our specification contains any values, you have to provide your values against the column in the same unit as we have specified.
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**INDIAN INSTITUTE OF TECHNOLOGY MANDI  
SCHOOL OF ENGINEERING**

**Compliance statement for the tender specifications of Impact Testing Machine**

**Ref. No.:** IITMANDI/SE/TEN/2011-12/SOM/1/ITEM No.3/Impact Testing Machine

**Name of the bidder and  
address:**-----  
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1. Is the bidder original machine manufacturer (OEM)/authorized dealer?
2. If authorised dealer, certificate to this effect from OEM, attached or not?
3. Is validity of the bid is 180 days or not

| <b>Sr. No.</b> | <b>Desired Specifications</b>   | <b>Bidder Specifications</b> | <b>Remark</b> |
|----------------|---|------------------------------|---------------|
| 1              | <ul style="list-style-type: none"><li><input type="checkbox"/> Digital &amp; Mechanical type (Two in one)</li><li><input type="checkbox"/> Max. Permissible loss by friction &amp; windage 0.5 % of Impact Energy</li><li><input type="checkbox"/> Min. Scale Graduations 2 J for mechanical, 0.5 J for digital</li><li><input type="checkbox"/> Pendulum Impact energy 300-400 J for Charpy Test, 170-200 for Izod Test.</li><li><input type="checkbox"/> Strike Velocity of pendulum 5.3 m/s for Charpy Test, 3.8 for Izod Test</li></ul> |                              |               |

**Instructions**

1. You have to fill in all columns and ensure that you furnish all the required information accurately and unambiguously.
2. If our specification contains any values, you have to provide your values against the column in the same unit as we have specified.
3. Deviation in values, materials etc. from our specification may be explained in the remarks column

**INDIAN INSTITUTE OF TECHNOLOGY MANDI  
SCHOOL OF ENGINEERING**

**Compliance statement for the tender specifications of Tensometer**

**Ref. No.:** IITMANDI/SE/TEN/2011-12/SOM/1/ITEM No.4/Tensometer

**Name of the bidder and  
address:**-----  
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1. Is the bidder original machine manufacturer (OEM)/authorized dealer?
2. If authorised dealer, certificate to this effect from OEM, attached or not?
3. Is validity of the bid is 180 days or not

| <b>Sr. No.</b> | <b>Desired Specifications</b>  | <b>Bidder Specifications</b> | <b>Remark</b> |
|----------------|--|------------------------------|---------------|
| 1              | <ul style="list-style-type: none"><li><input type="checkbox"/> Mechanical frame capacity 20 KN (2000 kg)</li><li><input type="checkbox"/> Load Measurement 20 KN max. with interchangeable Load Cell</li><li><input type="checkbox"/> Load cell available 0.2 KN,2 KN,5 KN,10 KN,20 KN</li><li><input type="checkbox"/> Least count 0.05% of Load Cell</li><li><input type="checkbox"/> Load accuracy 1%</li><li><input type="checkbox"/> Test Facilities<ol style="list-style-type: none"><li>1. Peak test</li><li>2. Break test</li><li>3. Preset load</li><li>4. Preset length</li><li>5. Graph analysis through software for various test result.</li></ol></li><li><input type="checkbox"/> Graph of the test available</li><li><input type="checkbox"/> Auto detection for origin as well as end of the test</li></ul> |                              |               |

**Instructions**

1. You have to fill in all columns and ensure that you furnish all the required information accurately and unambiguously.
2. If our specification contains any values, you have to provide your values against the column in the same unit as we have specified.
3. Deviation in values, materials etc. from our specification may be explained in the remarks column

**INDIAN INSTITUTE OF TECHNOLOGY MANDI  
SCHOOL OF ENGINEERING**

**Compliance statement for the tender specifications of Rockwell Hardness Tester**

**Ref. No.:** IITMANDI/SE/TEN/2011-12/SOM/1/ITEM No.5/Rockwell Hardness Tester

**Name of the bidder and  
address:**-----  
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1. Is the bidder original machine manufacturer (OEM)/authorized dealer?
2. If authorised dealer, certificate to this effect from OEM, attached or not?
3. Is validity of the bid is 180 days or not

| <b>Sr. No.</b> | <b>Desired Specifications</b>  | <b>Bidder Specifications</b> | <b>Remark</b> |
|----------------|--|------------------------------|---------------|
| 1              | <ul style="list-style-type: none"><li><input type="checkbox"/> Specifications for HR</li><li><input type="checkbox"/> Test Load of 3 AND 10KG PRE LOAD, 15,30,45,60,100,150kgf main load</li><li><input type="checkbox"/> Minor load auto-brake system</li><li><input type="checkbox"/> Resolution 0.1HR(adjustable)</li><li><input type="checkbox"/> Minor Dwell Time 0.1 to 50.0</li><li><input type="checkbox"/> Major Dwell Time 1.0 to 50.0</li><li><input type="checkbox"/> USB and RS232 data ports FOR easy data transfer to MS® Excel® or other applications</li><li><input type="checkbox"/> Repeatability GR&amp;R &lt; 10% (They will show repeatability of machine on standard specimen)</li><li><input type="checkbox"/> Provision of Number of Tests, Mean, Standard Deviation, Maximum, Minimum Range, CP, CPk, Individual</li></ul> |                              |               |

|  |  |  |  |
|--|--|--|--|
|  | <p>test hardness numbers</p> <ul style="list-style-type: none"> <li>□ Compliance standards : ASTM E18, ASTM D785, ASTM B294, JIS Z2245, GB/T 230</li> <li>□ Power Supply- 100 – 240V AC 60/50 Hz</li> <li>□ Additional indenter and standard test block.</li> <li>□ Indenter and test block should be certified by any one of these (ASTM, DKD, UKAS, NABL)</li> </ul> |  |  |
|--|--|--|--|

**Instructions**

1. You have to fill in all columns and ensure that you furnish all the required information accurately and unambiguously.
2. If our specification contains any values, you have to provide your values against the column in the same unit as we have specified.
3. Deviation in values, materials etc. from our specification may be explained in the remarks column

**INDIAN INSTITUTE OF TECHNOLOGY MANDI  
SCHOOL OF ENGINEERING**

**Compliance statement for the tender specifications of Surface Roughness Tester**

**Ref. No.:** IITMANDI/SE/TEN/2011-12/SOM/1/ITEM No.6/Surface Roughness Tester

**Name of the bidder and  
address:**-----  
-----  
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1. Is the bidder original machine manufacturer (OEM)/authorized dealer?
2. If authorised dealer, certificate to this effect from OEM, attached or not?
3. Is validity of the bid is 180 days or not

| Sr. No. | Desired Specifications  | Bidder Specifications | Remark |
|---------|---|-----------------------|--------|
| 1       | <ul style="list-style-type: none"> <li><input type="checkbox"/> Surface parameters to be measure: Ra, Rz, Rt, Rmax, Rk, Rpk, Rvk, Mr1, Mr2, Rq, Rp, R3z, Rpc, Sm conforming to any of DIN, ISO and JIS</li> <li><input type="checkbox"/> Measuring range 1: +20/ -20 µm or +20/ -60 µm</li> <li><input type="checkbox"/> Measuring range 2: +40/ -40 µm or +40/ -120 µm</li> <li><input type="checkbox"/> Tolerance control for all parameters</li> <li><input type="checkbox"/> Data storage facility</li> <li><input type="checkbox"/> Display for results of measurement</li> <li><input type="checkbox"/> Support for the equipment</li> <li><input type="checkbox"/> No calibration required,</li> <li><input type="checkbox"/> V24 / RS232 – Interface with Data cable</li> </ul> |                       |        |

|  |   |  |  |
|--|---|--|--|
|  | <input type="checkbox"/> Extra hard coated Geometry standard with certificate |  |  |
|--|---|--|--|

**Instructions**

1. You have to fill in all columns and ensure that you furnish all the required information accurately and unambiguously.
2. If our specification contains any values, you have to provide your values against the column in the same unit as we have specified.
3. Deviation in values, materials etc. from our specification may be explained in the remarks column