

**TENDER DOCUMENT
FOR
BRINELL HARDNESS TESTER AND VICKER'S HARDNESS TESTER**

TENDER REFERENCE	PUR/395/CRTDH/07/2018-19
CONTACT DETAILS	Director [Attention: Stores & Purchase Officer] CSIR-Central Mechanical Engineering Research Institute Mahatma Gandhi Avenue, Durgapur-713209, West Bengal e-mail : pur@cmeri.res.in

CRITICAL DATE SHEET	DATE	TIME
Bid Published Date	22 November 2018	3.00 pm
Bid Document Download / Sale Start Date	22 November 2018	3.00 pm
Bid Submission Start Date	22 November 2018	3.30 pm
Bid Submission End date	12 December 2018	3.00 pm
Last Date and Time for Submission of original DD against Tender fee & EMD [if applicable] / Hard Copy of Bid Form duly signed by Bidder	12 December 2018	3.00 pm
Bid opening date	13 December 2018	3.30 pm

THIS TENDER DOCUMENT CONSISTS OF THE FOLLOWING SECTIONS:

SECTION-1	NOTICE INVITING TENDER
SECTION-2	TERMS AND CONDITIONS
SECTION-3	SCHEDULE OF REQUIREMENTS
SECTION-4	TECHNICAL SPECIFICATIONS
SECTION-5	FORMS
	Bidder's Information Form
	Bid Form
	Manufacturer's Authorisation Form
	Price Schedule Form

This Tender Document is to be read as a whole. Details as appearing in all Sections in this Tender Document are intended to be correlative, complementary, and mutually explanatory.

SECTION -1

NOTICE INVITING TENDER

1. Director, CSIR-Central Mechanical Engineering Research Institute, Mahatma Gandhi Avenue, Durgapur 713209, West Bengal, invites e-tenders from eligible Manufacturers / Suppliers / Authorised Dealers for the following item/ items:

Sl. No.	Tender Ref.	Description of Goods and Services	Quantity	Single/ Double Bid	Bid Security/ EMD
1	PUR/395/CRTDH/07/2018-19	Brinell Hardness Tester	01	Single	NIL
2		Vicker's Hardness Tester	01		

2. E-Bids are invited through the electronic tendering process and the Tender Document can be downloaded from the e-Tender portal of Government of India, <https://etenders.gov.in>. Please note that the submission of e-Bids will be only through the e-Tender portal <https://etenders.gov.in>. Bids will not be accepted in any other form. Further it may be noted that Bids which are duly submitted on e-Tender portal shall only be considered and Bids just saved without submission will not be available to the Evaluation Committee of CSIR-CMERI.
3. Any Bidder willing to take part in the process of e-tendering will have to get registered in the Central Public Procurement [CPP] portal, NIC, Government of India, by logging on to the portal <https://etenders.gov.in>. Bidders are requested to go through “**Bidder Manual Kit**”, “**System Settings**” & “**FAQ**” links available on the login page of the e-Tender portal for guidelines, procedures & system requirements. In case of any technical difficulty, Bidders may contact the help desk numbers & email ids mentioned at the e-tender portal. Every Bidder will be required to obtain a Class-III Digital Signature [DSC] for submission of Bids.
4. Tender fee and EMD [**if applicable**] will be required to be paid offline by Demand Draft drawn in favour of **Director, CSIR-CMERI** payable at **Durgapur**. Alternatively, EMD can also be furnished in the shape of a Bank Guarantee issued by any Nationalised/Scheduled Bank of India. **Original Tender Fee and EMD** to be sent to Director [Attn : Stores & Purchase Officer], CSIR-Central Mechanical Engineering Research Institute, Mahatma Gandhi Avenue, Durgapur – 713 209, West Bengal, before the date and time mentioned in CRITICAL DATE SHEET. Bids of those tenderers whose EMD and Tender Fee are not received within the deadline for receipt of Bids will be summarily rejected. Any postal delay in this respect will not be entertained.
5. Hard Copy of **BID FORM** duly signed by Bidder must reach **CSIR-CMERI** before the date and time mentioned in the **CRITICAL DATE SHEET**.

STORES AND PURCHASE OFFICER

SECTION - 2

TERMS AND CONDITIONS

In these Terms and Conditions, the following words and expressions shall have the meaning as have been respectively assigned to them:

Bidder shall mean the entity submitting an e-Bid in response to this Tender Document.

CSIR-CMERI / Purchaser / Institute shall mean CSIR-Central Mechanical Engineering Research Institute, [a constituent unit of the Council of Scientific & Industrial Research] having its office at MG Avenue, Durgapur – 713 209 [West Bengal], India.

Vendor/Supplier shall mean the entity whose bid has been accepted by the Purchaser and a formal Purchase Order has been placed on them.

1. SUBMISSION OF BIDS

- 1.1. The e-Bid shall be digitally signed by the Bidder at the e-tendering portal by person / persons duly authorized to bind the Bidder to the contract. Written Power –of – attorney [if required under the Bidding Process] should accompany the Bid. The person or persons signing the e-bid shall also physically sign each document of the Bid, except for printed literature. The e-Bid submitted shall be in readable form and encrypted as per e-tendering portal requirements. Standard Printed terms and conditions of the Bidder other than the NIT conditions shall not be considered.
- 1.2. The e-Bid shall be submitted in a single cover and shall consist of the following Documents:

Sl. No.	Document Required	Document type
1	Scanned Bid Form duly filled-in and signed by Bidder	.pdf
2	Scanned Quotation duly signed by Bidder with complete technical details, past supplies etc. and Prices quoted in the prescribed PRICE SCHEDULE FORM	.pdf
All the above scanned documents must be e-signed prior to being uploaded and saved in the system		

- 1.3. The bidders shall digitally sign and encrypt their bid and upload the bid on –line at the e-Tendering portal.
- 1.4. If the envelope is not digitally signed & encrypted the Purchaser shall not accept such open Bids for evaluation purpose and shall be treated as non-responsive and rejected.
- 1.5. Purchaser shall receive the bids online through CPP e-portal only. The e-Tender portal shall automatically stop accepting bids at the scheduled date and time specified in the Tender Document. Partially submitted bids shall be treated as invalid and shall not be processed. Bidders are advised to upload and submit their bids timely in view of the electronic process so as to avoid list minute issues.

This Tender Document is to be read as a whole. Details as appearing in all Sections in this Tender Document are intended to be correlative, complementary, and mutually explanatory.

- 1.6. Purchaser may, at its discretion extend the deadline for submission of the e-Bids by amending the Tender Documents in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.
- 1.7. Bidders must note that the e-tender portal shall not permit uploading of bids after the scheduled time of submission.
- 1.8. The bidder may correct or modify his digitally signed bid after submission prior to the deadline for submission of bids, through provisions of e-tendering portal.

2. PRICES

- 2.1.** In case an MS-EXEL BOQ file is provided, Bidders are requested to note that they should necessarily submit their financial bids in the MS-EXEL format provided and no other format is acceptable. Bidders are required to download the BOQ file, open it and complete the unprotected cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected. It may be noted that only duly submitted bids shall be evaluated and bids just saved but not submitted shall not be part of the evaluation process. **In case MS-EXEL BOQ file is not provided, Bidders should quote their Prices in the prescribed Price Schedule Form and upload the .pdf file on the e-tendering portal.** All applicable taxes should be clearly shown in the Price Schedule Form.
- 2.2. Prices for supply from within India shall be offered with the following break-up:

Basic Price /Ex Works	
Packing & Forwarding	
GST at applicable rate	
Freight , Insurance and any other charges incidental to delivery of Goods at CSIR-CMERI, Mahatma Gandhi Avenue, Durgapur-713209,West Bengal	
Charges for Installation, Commissioning and Training if applicable	
Charges for Warranty Support if any	

Prices for supply from outside India shall be offered with the following break -up:

Ex Works Price [inclusive of packing]	
Inland Freight and Insurance till Airport of Despatch	
Freight And Insurance for transportation of the Goods from Port of Despatch to Port of Destination	
Charges for Installation, Commissioning and Training if applicable	
Charges for warranty support if any	
<i>Note: Delivery Terms such as FOB, FCA, EXW, CIP, CIF etc. shall be governed by the rules prescribed in the latest edition of INCOTERMS issued by the International Chamber of Commerce, Paris.</i>	

- 2.3. In the event of any errors or ambiguity in Unit Rates itself, the Price Bid of the Vendor shall be rejected.

- 2.4. CSIR-CMERI shall not consider any changes on any account after the submission of Bid and hence the prices offered shall remain firm during the validity of the Bid and shall not be subject to variation on any account.
- 2.5. The bidder shall quote as per Price Schedule Format given in this Tender Document. However, in case an MS-EXEL BOQ file is provided, the Prices should be quoted only in the BOQ file to be downloaded from the e-tendering portal.
- 2.6. **Prices of additional / optional items not appearing in the BOQ, if any, shall be quoted in a separate PDF file, duly signed by Bidder's authorised person/persons**
- 2.7. Customs Duty for Goods imported for Scientific Purpose, is paid by this Institute at a concessional rate vide Govt. of India Notification no. 51/96-Customs dated 22/07/1996.
- 2.8. CSIR-CMERI is registered with the Department of Scientific & Industrial Research, Govt. of India for availing concessional GST under provisions of Govt. Notification Nos. 47/2017-Integrated Tax (Rate) dated 14/11/2017, 45/2017-Central Tax (Rate) dated 14.11.2017, North. No. 45/2017- Union Territory Tax (Rate) dated 14.11.2017, as amended from time to time.
- 2.9. CSIR-CMERI is not empowered to issue any Sales Tax Concessional Certificates [FORM C / FORM D]; thus Bidders shall ensure that the normal rate of Sales Tax is quoted wherever applicable.
- 2.10. CSIR-CMERI shall not issue any exemption certificates (CDEC etc.) for materials/commodities that go into production of the quoted item/equipment.
- 2.11. Reference to any brand/make/model in the Tender Document is only indicative in nature. Bidder is free to quote any other product provided such product meets the desired specification/requirement.

3. PAYMENT

- 3.1. Payment shall be made within 30 days of delivery and acceptance of all the ordered goods or completion of installation and commissioning of the goods as the case may be, to the complete satisfaction of the User Division of CSIR-CMERI and completion of other contractual obligations.

4. DELIVERY

- 4.1. Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by CSIR-CMERI in the Purchase Order. If, at any time during performance of the Contract / Purchase Order, the Supplier encounters conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify CSIR-CMERI in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, CSIR-CMERI shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Purchase Order / Contract.
- 4.2. A delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause as detailed below, unless an extension of time is agreed upon without the application of penalty clause.

5. LIQUIDATED DAMAGES

- 5.1. If the Supplier fails to deliver the ordered material (s) within the delivery schedule as agreed upon, a sum equivalent to 1 (one) per cent of the delivered price of the delayed goods or unperformed services or Purchase Order value for each week of delay or part thereof until actual delivery or performance, will be deducted from the order value as liquidated damages, subject to a maximum deduction of 10 (ten) per cent of the order value. And, on attainment of maximum, termination of the contract may be considered by CSIR-CMERI.

6. RISK PURCHASE

- 6.1. If the supplier fails to deliver the ordered material(s) within the maximum delivery period specified in the purchase order, CSIR-CMERI may procure such item(s) and in such a manner as deemed appropriate, goods or services similar to those undelivered and the supplier will be liable to the institute for any excess costs for such similar goods or services.

7. INDIAN AGENT

- 7.1. In case an Indian agent is directly submitting a bid on behalf of its Principals, a copy of the Authorisation Certificate issued by the Principals in favour of the Indian agent should be furnished along with a certified copy of the Agency Agreement between the foreign Principal and India agent. Both these certificates should be up-to-date and valid.
- 7.2. Foreign Bidders to disclose the name and address of agent and representative in India and Indian Bidder to disclose their foreign Principal or associate.
- 7.3. Agency Commission, if any, payable to the Indian agent will be released within 60 (sixty) days of completion of installation and commissioning of the equipment to the entire satisfaction of the buyer. For determining the value of agency commission, exchange rate of foreign currency prevailing on the date of negotiation of documents, will be taken into consideration.
- 7.4. In a tender either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
- 7.5. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.

8. INSTALLATION, COMMISSIONING AND TRAINING

- 8.1. The ordered goods are required to be installed within 15 days of receipt of goods at this Institute. Installation should be carried out only by expert engineers of Supplier / Manufacturer. During the course of installation, necessary training on operation and maintenance of the goods shall be imparted to Institutes, Scientist / Engineers/Technicians.

9. WARRANTY

- 9.1. Comprehensive on-site warranty for a period of one year must be provided to be effective from the date of completion of installation and commissioning and final acceptance of the items / equipment at the user's laboratory / Institute.

10. COUNTRY OF ORIGIN

- 10.1. Tenderer should mention the country of origin and the country from which goods will be finally shipped, for these particulars are essential for arranging insurance etc. Certificate of Origin issued by the Local Chamber of Commerce shall be required to be submitted in case such a requirement is stipulated in the Purchase Order.

11. VALIDITY OF BIDS

- 11.1. The offer should be valid for at least 90 days from the date of opening of e-Bids/e-Quotation.

12. LIST OF PURCHASERS

- 12.1. Please indicate names and addresses of organizations to whom you have supplied identical or similar type of equipment during the last 3 years along with the details of such supplies and prices eventually or finally paid.

13. EVALUATION OF BIDS

- 13.1. All the e-bids / e-tenders/ e-quotations received will first be scrutinized to see whether the bids / tenders meet the basic requirements as incorporated in the Tender Document. The bids/tenders, which do not meet the basic requirements, are to be treated as unresponsive and ignored. The following are some of the important points, for which a tender may be declared as unresponsive and to be ignored, during the initial scrutiny:
- a) The Bidder is not eligible.
 - b) The Bid validity is shorter than the required period.
 - c) The Bidder has quoted for goods manufactured by a different firm without the required authority letter from the proposed manufacturer.
 - d) The goods quoted are sub-standard, not meeting the required specification etc.
 - e) Against the requirement (incorporated in the Tender Document), the bidder / tenderer has not quoted for the entire requirement as specified.
 - f) The Bidder / Tenderer has not agreed to some essential condition(s) incorporated in the Tender Document.
 - h) The Bidder has not submitted the unconditional acceptance of CSIR-CMERI's Tender terms and conditions in the format prescribed in the BID FORM.
 - i) In case a bid is submitted directly by an Indian agent, a certified copy of the agency agreement between agent and Principal has not been submitted.
 - j) Bidder does not meet the Qualification Criteria, if any stipulated in the Tender Document.
- 13.2. Prior to the detailed evaluation, CSIR-CMERI will determine the substantial responsiveness of each bid to the Tender Document. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the bidding documents without any deviations, reservations or omissions.
- 13.3. During the course of evaluation, CSIR-CMERI may, at its discretion ask the bidder for clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted.

- 13.4. The bids which are found to be substantially responsive to the terms of this Tender Document shall be evaluated on the basis of final landing cost.
- 13.4.1 For goods manufactured in India.
- (i) The Price of the goods quoted ex-works including, all taxes already paid.
 - (ii) GST at applicable rates, which will be payable on the goods if the contract is awarded.
 - (iii) Charges for inland transportation, insurance and other local services required for delivering the goods at the desired destination.
 - (iv) The installation, commissioning and training charges including incidental services, if any.
- 13.4.2 For goods manufactured abroad
- (i) The price of the goods, quoted on Ex-Works (duly packed); FCA (named place of delivery abroad), FOB
 - (ii) (named port of shipment), as specified in the bidding document.
 - (ii) The charges for insurance and transportation of the goods to the port / place of destination.
 - (iii) The agency commission etc., if any.
 - (iv) The installation, commissioning and training charges including incidental services, if any.
- 13.5. The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF / CIP basis respectively. However, the CIF / CIP prices quoted by any foreign bidder shall be loaded further as under.
- (i) Towards customs duty and other statutory levies – as per applicable rates.
 - (ii) Towards custom clearance, inland transportation etc. – 2% of the CIF / CIP value.
- 13.6. **The Purchase Order / Contract shall be awarded to the lowest evaluated responsive (L-1) bidder. L-1.**
- 13.7. In case optional items are specified in the tendered specifications, the Purchaser reserves the right to buy or not to buy the optional items. In case the option is exercised to buy the optional items after Bid opening, then the cost of optional items would be included to ascertain the Lowest Evaluated Responsive Bid. In case, the option is exercised not to buy the optional items, then the cost of the optional items would not be included in ascertaining the Lowest Evaluated Responsive Bid.
- 13.8. **NOTE: Bidders not quoting the optional items entail the risk of their offer being summarily ignored in the event of the Purchaser deciding to buy the optional items after Bid opening.**
- 13.9. The quotations are liable to be rejected if any of the above conditions are not complied with. Conditional Bids / shall not be accepted.

14. SETTLEMENT OF DISPUTES AND ARBITRATION

- 14.1. The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Purchase Order / Contract. If, after twenty-one (21) days, the parties have failed to resolve their dispute or

difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

- 14.2. Disputes or differences shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director General, Council of Scientific & Industrial Research and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
- 14.3. In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of Clause 14.2. above. But if this is not acceptable to the Supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Laws).
- 14.4. The venue of the arbitration shall be the place from where the purchase order or contract is issued.
- 14.5. Notwithstanding any reference to arbitration herein,
 - (a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
 - (b) the Purchaser shall pay the Supplier any monies due the Supplier.

15. APPLICABLE LAW

- 15.1. The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to a court of competent jurisdiction in Durgapur, West Bengal, India.

16. OTHERS

- 16.1. Wherever deemed necessary, Bidder shall be at liberty to question the Bidding Document, Bidding process and rejection of its Bid.
- 16.2. In case where OEM has submitted the bid, the bids of its agent/dealer will not be considered.
- 16.3. A Bidder quoting on behalf of an OEM shall not quote on behalf of another OEM for the same item in the same tender. In such cases, both bids will be rejected.
- 16.4. Any discrepancy(ies) observed in the Price Schedule Forms / Price Bids will be settled in the following manner:
 - i) If, in the price structure quoted for the required goods, there is discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly;
 - ii) If there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected; and
 - iii) If there is a discrepancy between words and figures, the amount in words shall prevail;

Such discrepancy (ies) in an offer shall be conveyed to the concerned Bidder asking him to respond by a target date and if the Bidder does not agree to the observation of CSIR-CMERI, the e-bid shall be rejected

SECTION – 3

SCHEDULE OF REQUIREMENT

Sl. No.	Tender Ref.	Description of Goods and Services	Quantity
1	PUR/395/CRTDH/07/2018-19	Brinell Hardness Tester	01 No.
2		Vicker's Hardness Tester	01 No.

Delivery & Installation site / Final Destination	CSIR - Central Mechanical Engineering Research Institute Mahatma Gandhi Avenue, Durgapur 713209 West Bengal
Period of Delivery shall count from	DATE OF AWARD OF CONTRACT / ISSUE OF PURCHASE ORDER
Delivery Period [Goods to be delivered in one lot at final destination – CSIR-CMERI, Durgapur]	60 days
Time frame required for conducting installation, commissioning of the Goods etc. after arrival of the Goods at Final destination	15 days

SECTION – 4

TECHNICAL SPECIFICATIONS AND OTHER REQUIREMENTS

DETAIL SPECIFICATION FOR BRINELL HARDNESS TESTER – 01 No.

Sl no.	Key Features	Description
1.	Basic Requirement	<p>a. Brinell Hardness Tester shall be used for determining the hardness of metallic materials (range in hardness from annealed copper to surface hardened Die components).</p> <p>b. The system should be Rigid, highly accurate, rugged & easy to maintain.</p> <p>c. The hardness tester shall be of sufficient rigidity such that there is no rocking or lateral movement of the indenter or the specimen while the load is being applied or removed.</p> <p>d. Arrangement for rigid clamping of the specimens during hardness testing to be supplied.</p> <p>e. It should be digital Macro hardness tester with inbuilt tab screen /computer display unit.</p> <p>f. Should have a descent look.</p>
2.	Measuring tables	<p>The maximum specimen height less than 300 mm (min) & Testing table dia. 200 mm (min).</p> <p>Other testing tables for irregular geometry job complied to the m/c,V anvil, lamps, fuses etc.</p>
3.	Precision and test standard	<p>The m/c shall be of the high precision type having a closed loop design &</p> <p>Strictly conform to ASTM E-10 , ASTM E-18 and IS: 2281, BS: 10003-2.</p>
4.	Indenter	<p>Only Certified Tungsten carbide balls of 2.5, 5 & 10 mm .. 02 nos. each with holder extension for each.</p>
5.	Testing Load	<p>The Selection of test forces shall be user selectable (250-3000 Kgf. at step of 250 Kgf.)</p> <p>Additional loads/ scales, if available should be detailed.</p>
6.	Standard Test Block	<p>At least 02 nos. Certified Standard test block within machine range.</p>
7.	Magnification	<p>The hardness tester shall be equipped with selectable objectives of at least 10x</p> <p>& 20x. The eyepiece shall have a magnification of 10x min. leading to a total magnification of 100X & 200 X min. Additional objectives, if available should be quoted.</p>

8.	Measuring Scale	<p>a. The impression measuring device shall be so constructed that the diagonals of the impression can be measured within ± 0.001 mm with swivelling type Certified object micrometer.</p> <p>b. Details of the accuracy & uncertainty of the equipment offered over the total load range/scale of the m/c is to be given.</p>
7.	Resolution	The resolution of the optical system shall be at least $0.1 \mu\text{m}$ at 200X.
9.	Dwell Time	The loading duration shall be user selectable between 5-90 secs. (Min.)
10.	Display	<p>a. The impression diameter should be displayed directly on a screen inbuilt with hardness tester for measuring the Hardness.</p> <p>b. The equipment should have an in-built system of conversion of the Equivalent values to other scales e.g. Brinell , Rockwell etc.</p>
11.	Statistical results	<p>a. On line indentation setting and focusing on screen Monitor for Advanced image processing to precise calculation of hardness numbers with various options to cover all ranges of specimen</p> <p>b. Option for data/storage and reports generation . Statistical Evaluation: Software for calculating standard deviation, mode, medium, histogram etc.</p> <p>capable of supporting the system software and also interfacing with the controller hardware and having output, HDMI and other type port for printer output, pdf format.</p>
12.	Loading cycle	The total testing cycle i.e. loading, dwell, unloading shall be semi-automatic /manual and shall be operator friendly.
13.	Power supply	220 V \pm 10%, 50 Hz \pm 3% single/three phase.
14.	Statistical results	<p>a. On line indentation setting and focusing on screen Monitor for Advanced image processing to</p> <p>b. precise calculation of hardness numbers with various options to cover all ranges of specimen</p> <p>c. Option for data/storage and reports generation.</p> <p>d. Statistical Evaluation: Software for calculating standard deviation, mode, medium, histogram etc.</p>
15.	Service support	<p>a. Warranty should be for at least one year after installation.</p> <p>b. One set of operation and maintenance manuals.</p> <p>c. The bidder should commit to provide maintenance service and—supply necessary spares for the machine for at least 5 years after successful installation and commissioning.</p>
16.	Quotation of Multiple Models	The supplier may quote for more than one model of hardness Tester, if desired.

17.	Supporting documents	All the points given above should be individually addressed and all supporting documents provided at the first instance to avoid repeated queries
18.	Commissioning	The supplier shall erect & commission the Hardness Tester in our laboratory, demonstrate the performance and accuracy of the main equipment and all its accessories to ensure compliance with Complete specifications & parameters quoted by them / as per P.O.
19.	Credentials	<p>Only those vendors /OEM who have supplied and commissioned at least five Brinell hardness tester in the last 5 years in India.</p> <p>CMERI reserves the right to verify the information submitted by the vendor.</p> <p>In case the information is found to be false or incorrect the offer may be rejected.</p>

DETAIL SPECIFICATION FOR VICKER'S HARDNESS TESTER – 01 NO.

Sl no.	Key Features	Description
1.	Basic Requirement	<p>a. A bench-top industrial-standard tester for accurate measurements of the hardness of metallic materials (range in hardness from annealed copper to surface hardened Die components).</p> <p>b. The system should be Rigid, highly accurate, repeatable results & easy to maintain.</p> <p>c. The hardness tester shall be of sufficient rigidity such that there is no rocking or lateral movement of the indenter or the specimen while the load is being applied or removed.</p> <p>d. Arrangement for rigid clamping of the specimens during hardness testing to be supplied.</p> <p>e. It should be digital Macro hardness tester with inbuilt tab screen /computer display unit.</p> <p>f. Should have a descent look.</p> <p>(Unique nose-mounted indenter, allows 360 degree access So, it will be preferable).</p>
2.	Measuring tables	<p>a. The specimen height 200 mm (min) & Testing table dia. 50 mm (min). Other testing tables for irregular geometry job complied to the m/c,V anvil, lamps, fuses etc.</p> <p>b. Depth of throat 135 mm (min)</p>
3.	Precision and test standard	<p>Direct & accurate measurement of Vickers Hardness number using “state of the art image processing technology.</p> <p>The m/c shall be of the high precision type having a closed loop design &</p> <p>Strictly conform to ISO 6507, ASTM E92 and ASTM E384. IS 1754-2002.</p>
4.	Indenter	Only Certified diamond indenter
5.	Testing Load	<p>1, 5,10,20,30,50 kgf.</p> <p>Additional loads/ scales, if available should be detailed.</p>
6.	Standard Test Block	At least 02 nos. Certified Standard test block.
7.	Magnification	The hardness tester shall be equipped with selectable objectives of at least 1x

		& 2x. The eyepiece shall have a magnification of 10x min. leading to a total magnification of 10X & 20X min. Additional objectives, if available should be quoted.
8.	Measuring Scale	<p>a. The impression measuring device for Vicker's shall be so constructed that the diameter of the impression can be measured within ± 0.001 mm with swiveling type Certified object micrometer.</p> <p>b. Details of the accuracy & uncertainty of the equipment offered over the total load range/scale of the m/c is to be given.</p> <p>c. Diagonal Mensuring range mm 0.05 to 0.4</p>
7.	Resolution	The resolution of the optical system shall be at least 0.1 μ m at 200X.
9.	Dwell Time	The loading duration shall be user selectable between 5-50 secs.
10.	Display	<p>c. The impression diameter should be displayed directly on a screen inbuilt with hardness tester for measuring the Hardness.</p> <p>d. The equipment should have an in-built system of conversion of the Equivalent values to other scales e.g. Vickers, , Rockwell etc.</p>
11.	Statistical results	<p>c. On line indentation setting and focusing on screen Monitor for Advanced image processing to precise calculation of hardness numbers with various options to cover all ranges of specimen</p> <p>d. Option for data/storage and reports generation. Statistical Evaluation: Software for calculating Standard deviation, mode, medium, histogram etc.</p> <p>e. capable of supporting the system software and also interfacing with the controller hardware and having output, HDMI and other type port for printer output, pdf format etc.</p>
12.	Loading cycle	The total testing cycle i.e. loading, dwell, unloading shall be semi-automatic /manual and shall be operator friendly.
13.	Power supply	220 V \pm 10%, 50 Hz \pm 3% single phase
14.	Statistical results	<p>On line indentation setting and focusing on screen Monitor for Advanced image processing to precise calculation of hardness numbers with various options to cover all ranges of specimen</p> <p>Option for data/storage and reports generation.</p>

		Statistical Evaluation: Software for calculating standard deviation, mode, medium, histogram etc.
15.	Quotation of Multiple Models	The supplier may quote for more than one model of hardness Tester, if desired.
16.	Supporting documents	All the points given above should be individually addressed and all supporting documents provided at the first instance to avoid repeated queries
17.	Commissioning	The supplier shall erect & commission the Hardness Tester in our laboratory, demonstrate the performance and accuracy of the main equipment and all its accessories to ensure compliance with Complete specifications & parameters quoted by them / as per P.O.
18.	Credentials	Only those vendors /OEM who have supplied and commissioned at least five Brinell hardness testers in the last 5 years in India. CMERI reserves the right to verify the information submitted by the vendor. In case the information is found to be false or incorrect the offer may be rejected.

N.B. : For a computer display model : Image analysis software with necessary data acquisition system and a common computer for both the machines to be included in the quotation .

SECTION – 5

FORMS

1	Bidder's Information Form
2	Bid Form
3	Manufacturer's Authorisation Form
4	Price Schedule Form

BIDDER'S INFORMATION FORM

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted. This should be done of the letter head of the firm]

Date: [insert date (as day, month and year) of Bid Submission] Tender No.: [insert number from Tender Document]

Page 1 of _____ pages

1. Bidder's Legal Name [insert Bidder's legal name]
2. In case of JV, legal name of each party: [insert legal name of each party in JV]
3. Bidder's actual or intended Country of Registration: [insert actual or intended Country of Registration]
4. Bidder's Year of Registration: [insert Bidder's year of registration]
5. Bidder's Legal Address in Country of Registration: [insert Bidder's legal address in country of registration]
6. Bidder's Authorized Representative Information Name: [insert Authorized Representative's name] Address: [insert Authorized Representative's Address] Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers] Email Address: [insert Authorized Representative's email address]
7. Attached are copies of original documents of: [check the box(es) of the attached original documents] Articles of Incorporation or Registration of firm named in 1, above.

Signature of Bidder _____ Name _____

Business Address

BID FORM

(to be submitted on the official Letterhead of the Bidder)

Tender Reference _____

The Director,
CSIR-Central Mechanical Engineering Research Institute
Mahatma Gandhi Avenue, Durgapur – 713 209, West Bengal

Sir,

Having examined the Tender Document, the receipt of which is hereby duly acknowledged. I/We agree to furnish required supplies/services in conformity with the terms and conditions and other requirements detailed in the said Tender Document at the prices given in the Price Bid on receipt of order for the same.

I/We agree to hold this offer open until _____ and to supply, [install and commission the equipment, wherever applicable] and complete the whole of the work and hand over to the Purchaser within the period of _____ weeks, from the date of receipt of intimation from you regarding acceptance of our e-Bid/receipt of your Purchase Order.

I/We agree to submit the Bank Guarantee [wherever applicable] as specified in the form prescribed by your goodself for the due performance of the contract, if our e-Bid is accepted.

I/we understand that you are not bound to accept the lowest or any bid you may receipt

Signature of Bidder
With office stamp
Name & Address

Telephone No.:

Fax No.:

E-mail ID:

Name & Designation of the Contract Person:

MANUFACTURER'S AUTHORISATION FORM

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.]

Date: [insert date (as day, month and year) of Bid Submission] Tender No.: [insert number from NIT]

To: [insert complete name and address of Purchaser]

WHEREAS , We [insert complete name of Manufacturer], who are official Manufacturers of [insert type of Goods manufactured], having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 9 of the Terms and Conditions stipulated in the Tender Document, with respect to the Goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]
Name: [insert complete name(s) of authorized representative(s) of the Manufacturer]
Title: [insert title]

Duly authorized to sign this Authorization on behalf of: [insert complete name of Bidder]
Dated on _____ day of _____, _____ [insert date of signing]

PRICE SCHEDULE FORMS

PRICE SCHEDULE FOR GOODS BEING OFFERED FROM ABROAD

Name of the Bidder _____ TENDER No. _____

Sl. No.	Item Description	Item Code/Make	Quantity	Unit Price [mention currency]	Total Amount [mention currency]
Ex-Works Price [duly packed and cleared for export]					
Less : Indian Agent's Commission , if any					
Net Ex-Works Price [duly packed and cleared for export]					
Add : Inland Freight and other charges					
Net FCA/FOB Price					
Add : International Freight and Cargo Insurance					
CIF/CIP Kolkata Price					

Note:

Total Bid price in foreign currency (in figures) _____

Total Bid price in foreign currency (in words) _____

- (a) Indian agent's name & address _____.
- (b) Installation, commissioning & training charges and other charges, if any _____ .
- (c) Cost of Spares, if requested by Purchaser _____ .
- (d) The Indian agent's commission shall be paid in Indian Rupees only based on the Exchange Rate prevailing on the date of negotiation of documents.
- (e) ***The cost of optional items if any shall be indicated separately.***

Note : Any other charges/taxes etc. should be clearly indicated by Bidder, failing which no requests shall be entertained for incorporating such charges/taxes after opening of bids

Signature of Bidder

Name

Business Address

PRICE SCHEDULE FOR GOODS BEING OFFERED FROM INDIA

Name of the Bidder _____ Tender No. _____

Sl. No.	Item Description	Item Code/Make	Quantity	Unit Price [INR]	Total Amount [INR]
Total Value of Goods					
Add : Packing and Forwarding					
Net Ex-Works Price					
Add : GST					
Add : Transportation and Insurance costs					
Net Price till CSIR-CMERI, Durgapur [f.o.r. CSIR-CMERI Durgapur]					

Total Bid price in Indian currency (in figures) _____

Total Bid price in Indian currency (in words) _____

- (a) The Cost of Spares, if requested by Purchaser -----
- (b) Installation, commissioning & training charges and other charges, if any _____
- (c) **Cost of Optional Items if any shall be indicated separately**

Note : Any other charges/taxes etc. should be clearly indicated by Bidder, failing which no requests shall be entertained for incorporating such charges/taxes after opening of bids

Signature of Bidder

Name

Business Address