



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT/ MATERIALS MANAGEMENT

ENQUIRY

NOTICE INVITING TENDER

Phone: +91 431 257 7771
Fax : +91 431 252 0719
Email : rpmuthu@bheltry.co.in
Web : www.bhel.com

TWO PART BID

Tender to be submitted in two parts.

Enquiry
Number:

2631100021

Enquiry
Date:

25.08.2011

Due date for submission
of quotation:

25.09.2011

You are requested to quote the Enquiry number, date and due date in all your correspondences. This is only a request for quotation and not an order.

Please note that under any circumstances both **delayed offer** and **late offers** will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.

Item	Description	Quantity
10	DIGITAL MICRO / LOW HARDNESS TESTER as per the technical specification, BHEL commercial terms & conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	1 No.

Important points to be taken care during submission of offer

1. Checklist to be duly filled and enclosed along with your offer, failing which the offer will not be considered for evaluation.

BHEL's General guidelines / instructions including bank guarantee formats and list of consortium banks, commercial terms check-list can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units) Bharat Heavy Electricals Limited page) under Enquiry reference "2631100021".

Tenders should reach us before 14:00 hours on the due date
Tenders will be opened at 14:30 hours on the due date
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

Dy.Manager / MM / Capital Equipment

**BHARAT HEAVY ELECTRICALS LIMITED**

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ENQUIRY
(INDIGENOUS)(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)PHONE : 2577771
GRAMS : BHARATELEC
FAX NO: 2520719
E-mail :
Web :

429-002/A

Collective No.	Enquiry Date	Due Date For Quotation
2631100021	25.08.2011	27.09.2011
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order		

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	Digital Micro/Low Load Hardness Tester (Specification Enclosed) Digital Micro/Low Load Hardness Tester	NO	1.000	1.00	16.02.12

General Note:**COMMERCIAL TERMS AND CONDITIONS**

Bhel commercial terms & conditions with Price Bid and Bank Guarantee formats along with technical specifications can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units>Bharat Heavy Electricals limited page) under Enquiry reference "2631100021".

1., QUOTATIONS

The Bidders shall submit the offer in TWO INNER ENVELOPES as indicated below which shall be sealed in one outer envelope.

Envelope I This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked "Part I - Technical and commercial bid", indicating Enquiry No., Due Date and Address & Reference of the Bidder.

Envelope II This sealed envelope should contain price details. This envelope should be clearly marked "Part II - Price bid", indicating Enquiry No., Due Date and Address & Reference of the Bidder.

Both the envelopes (Part I & II) shall be put in one cover, duly sealed, superscribing as Part I and Part II of Enquiry No., due date of opening and the address and reference of the Bidder.

The above offer should reach this office on or before the due date by 14.00 Hrs (IST).Late offers will not be considered.

2. POINT TO POINT CONFIRMATION TO BHEL'S SPECIFICATION AND COMMERCIAL TERMS AND CONDITIONS SHOULD BE PROVIDED IN THE ENCLOSED SHEET.

The offers should reach us 30 minutes before the time of opening of tenders.
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening.Late and delayed offers are liable to be rejected.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED**R. PACHAMUTHU**
Dy. ManagerDy. MANAGER / PURCHASE
(FOSSIL BOILERS)MM / Capital Equipment
BHEL, TRICHY - 620 014.



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

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2631100021 / 25.08.2011

13202

3. DETAILED CATALOGUE AND DRAWINGS SHOULD BE SENT ALONG WITH YOUR TECHNICAL OFFER.

Enclosures:

"LD clause has to be confirmed without fail."

"Payment to vendors will be made only thro E-Payment mode."

The offers should reach us 30 minutes before the time of opening of tenders.
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

R. PACHAMUTHU
Dy. Manager
MM / Capital Equipment
BHEL, TRICHY - 620 014.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

nuo
DY. MANAGER / PURCHASE
(FOSSIL BOILERS)
Yours faithfully,

PART A

QUALIFYING CRITERIA FOR THE SUPPLY OF DIGITAL MICRO/LOW LOAD HARDNESS TESTER

SECTION – I

The BIDDER / VENDOR have to necessarily provide the following details, for making an assessment of the firm's capability and competency:

[The BIDDER is expected to give complete details against each clause in the table given below and wherever necessary an additional sheet may be attached (giving clear reference number) to cover the required details]

S. No.	PARTICULARS	VENDOR'S RESPONSE
1.0	Number of Years of Experience of the BIDDER/ VENDOR in the field of design, manufacture and supply of ' <i>Digital Micro/Low Load Hardness Tester</i> '	
2.0	Number of <i>Digital Micro/Low Load Hardness Tester</i> -supplied, installed and commissioned till date, in the following category (in India and other countries)	
3.0	YEAR of LAUNCH of the Model quoted against this ENQUIRY	
4.0	Is there any other model launched after the quoted Model? Otherwise, indicate the likely year in which the next model is likely to be launched	
5.0	Number of <i>Digital Micro/Low Load Hardness Tester</i> –supplied, installed and commissioned till date in the QUOTED MODEL	
6.0	Number of <i>Digital Micro/Low Load Hardness Tester</i> – supplied, installed and commissioned till date for the following category of CUSTOMERS (within INDIA): a) Government Organizations b) Private Sector Companies [Large Scale Industries]	
7.0	Number of <i>Digital Micro/Low Load Hardness Tester</i> – supplied, installed & commissioned till date in the following Category (around the globe): a) Universities b) R&D Labs c) Reputed Heavy Engineering Works/Manufacturing Firms	

S. No.	PARTICULARS	VENDOR's RESPONSE
8.0	Details of Design Set-Up and Technology Back-Up assured for the Principal Equipment Maker	
9.0	Details on International Standards followed in Design of the Equipment (including Analysis Methodology and Calibration of Equipment)	
10.0	Comprehensive Details on Performance Testing - of the Equipment quoted, to be ensured in presence of BHEL Executives, before dispatch	
11.0	Details of Quality System followed (Kindly furnish the salient aspects of the QA system followed)	
12.0	Details on SERVICE-AFTER-SALES Set-Up in India including the addresses of Agents / Service Centre's in India and Asia	
13.0	Any Additional Data to supplement the manufacturing capability of the BIDDER	

SECTION – II

The BIDDER / VENDOR have to compulsorily meet the following requirements to get qualified for submitting an offer for the Digital Micro/Low Load Hardness Tester.

S. No.	REQUIREMENTS	VENDOR's COMMENTS
14.0	The BIDDER / VENDOR shall have a minimum of FIVE Years of Continuous Experience in the Design, Manufacture & Supply of <i>Digital Micro/Low Load Hardness Tester</i> . Indicate the actual experience.	
15.0	The BIDDER / VENDOR shall have supplied at least one number <i>Digital Micro/Low Load Hardness Tester</i> in the last ten years in India. Indicate the number of equipments sold in India	
16.0	The BIDDER / VENDOR shall have supplied at least one number of <i>Digital Micro/Low Load Hardness Tester</i> (of the MODEL quoted) within the last five years. Kindly confirm and indicate the number of equipments (quoted model) sold around the world.	
17.0	Reference List of Customers and Performance Certificate from CUSTOMERS (minimum 2 Customers) with full contact details of CONTACT PERSON.	

SECTION – III

The BIDDER / VENDOR has to comply with the following, for accepting the Technical Offer for scrutiny by the Purchaser :

S.No.	REQUIREMENTS	VENDOR's COMPLIANCE
18.0	The BIDDER / VENDOR shall submit the offer in TWO PARTS - Technical [with PART A & PART B] & Commercial and Price Bid.	
19.0	The Offer shall contain a comparative statement of Technical Specifications given by BHEL and the Offer Details submitted by the Bidder, against each clause. A just 'CONFIRMED' or 'COMPLIES' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement may lead to disqualification of the Technical Offer.	
20.0	The BIDDER / VENDOR shall assure a continuous support for SPARES and SERVICE for TEN Years, from the date of commissioning of the equipment at BHEL Works.	
21.0	The Technical Offer shall be supported by Product Catalogue and Data Sheets in ORIGINAL and complete technical details of 'Bought-Out-Items' with copies of Product Catalogue and Selection Criteria	
22.0	The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation	
23.0	The reference List of Customers shall be accompanied with the details (Phone Number /E-Mail ID) of the CONTACT PERSON for cross reference by BHEL	

TECHNICAL SPECIFICATIONS FOR DIGITAL MICRO/LOW LOAD HARDNESS TESTER - PART B

S. No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
1.0	Area of Application	Digital Micro/Low Load Hardness Tester is meant for Hardness measurements on specimens prepared from Welding consumable, test coupons, Procedure & Performance Qualification Test coupons. To determine the case depth of case hardened samples and hardness of hard chrome plated components pertaining to Valves and High Pressure Boilers components. Also to measure the hardness of Spiral Fin Welded tubes, site failed and shop processing components. It covers wide range of materials from Plain Carbon Steel, Low Alloy steels, Quenched & Tempered Steels & High Alloy Steels (SS), Nickel, Copper and Titanium alloys.	
2.0	Principle of Operation	Application of uni-axial force through diamond indenter (Vickers) on the material to be tested, removal of test load, measuring the diagonal of the indentation made on the material and computing the hardness of the material through colour touch screen operation using software.	
3.0	Design Base	The table top equipment shall meet all the requirements specified under ASTM E384 and E92 (latest). Calibration of the equipment along with accessories is meant for testing as per ASTM E384 and E92.	

4.0	Equipment Configuration	The minimum desired features are enlisted below	
4.1	Basic Equipment	Micro/low load Vickers hardness tester test unit with autofocus , automatic loading and unloading test unit – Strong and tough body with base plate	
4.2	Test Load	10 g to 10 kg (10, 25, 50, 100, 200,300,500 g and 1, 2, 3, 5, 10 kg)	
4.3	Load application	Using calibrated dead load and load cell technology- loads are to applied through a closed loop system (Control unit-load cell-DC Motor-electronic measurement-control unit) to avoid over / under loading.	
4.4	Vickers Indentor	Square based pyramidal shaped diamond indentor with face angle of 136°	
4.5	Turret	Manually pivoted three fold turret (minimum), one for the Vickers (Ø 6 mm) indentor and the other two for 20X and 40X objectives	
4.6	Camera	High resolution ½ inch CMOS camera with 52x40 mm field of view for accurate capture of indentation image and diagonal measurement.	
4.7	Illumination	Automatic LED illumination adjustment system based on the specimen surface finish and no manual adjustment.	

5.0	X-Y Stage and Test Head		
5.1	XY Stage	Manual movement type using digital micrometers of resolution (least count) 0.001 mm. for both X and Y axes.	
5.2	Size & Movement	SIZE: 130x130 mm minimum Movement/Stroke: 25x25 mm minimum	
5.3	Sample Holder	To hold samples of uneven size	
5.4	Test Head	Vertically movable motorized test head to a minimum of 250 mm vertical movement	
6.0	Touch Screen		
6.1	Minimum features	Integrated PC with 8 inch minimum colour touch screen size for operation of the hardness tester and hardness measurements.	
7.0	Software		
7.1	Hardness & CHD measurement	Calibrated and preloaded Simple user friendly Workflow compact software for hardness measurements on materials (Refer SI.No.1) including case depth measurement in case hardened materials.	
8.0	Operating Voltage & Temperature	230V \pm 10%, Single phase 50 Hz & 20 to 40°C	
9.0	Inspection	The Equipment & Spares shall be offered for Inspection by BHEL Engineers at the Supplier's Works of the Supplier, prior to dispatch.	

10.0	Installation Commissioning	and	The Digital Micro/Low load hardness tester with all Accessories is to be installed & commissioned at BHEL Works, FREE OF COST, by the Service Engineer of the SUPPLIER.	
11.0	Performance Prove-Out at BHEL		The Supplier's Service Engineer has to calibrate the Equipment as per ASTM E384 and E92 latest (calibration of the equipment along with accessories) .	
12.0	Documentation in ENGLISH Language		3 Copies of the Operation & Maintenance Manuals containing Electric Schematics, Circuit Diagrams, PCB Drawings, Trouble Shooting Charts, Mechanical Sub-Assemblies, Rating of Bought-Out Items, etc. shall be supplied, at the time of inspection by BHEL Engineers. In addition, one SOFT COPY in CD to be supplied.	
13.0	Performance Guarantee		The Equipment & Accessories (including Bought-Out Items) are to be guaranteed for its performance for a minimum period of one year from the date of performance acceptance at BHEL Works.	
14.0	Training on Operation & Maintenance		Complete Training for Lab staff is to be given on Operation & Maintenance of the OFFERED EQUIPMENT at BHEL on free of cost, after the successful commissioning of the Equipment & Accessories.	
15.0	Service Requirements.	Support	Vendor shall ensure AMC service facilities in India after the guarantee period, through trained service personnel in India	

16.0	Annual Maintenance Contract - AMC	The BIDDER has to QUOTE for AMC under two patterns given below, for a period of THREE YEARS after the expiry of ORIGINAL WARRANTY period.	
16.1	AMC – CASE I	Technical Service for Preventive Maintenance, Trouble Shooting and Re- Commissioning of the Equipment excluding the Cost of SPARES and Consumables [BHEL will make available the required Spares & Consumables on demand]	
16.2	AMC – CASE II	Technical Service for Preventive Maintenance, Trouble Shooting and Re- Commissioning of the Equipment INCLUDING the Cost of SPARES and Consumables [BHEL will not be responsible for the timely availability of Spares & Consumables]	
16.3	AMC - RESPONSE	The bidder has to furnish / indicate the response time for the service engineer to be at BHEL works, from the time of reporting breakdown through e-mail or TELEFAX.	
16.4	AMC – Service Calls	The BIDDER has to furnish details on service calls for preventive maintenance (number of calls and intervals) and break-down maintenance	

GENERAL TERMS AND CONDITIONS OF RA

- Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications, BHEL may resort to “REVERSE AUCTION PROCEDURE” i.e., ON LINE BIDDING ON INTERNET.
- For the proposed RA, technically and commercially acceptable bidders only shall be eligible to participate.
- In case of RA, BHEL will engage the services of a service provider for conduct of the RA who will provide all necessary training and assistance to the bidders before commencement of on line bidding on internet.
- Business rules governing the RA will be communicated to the bidders through service provider for compliance.
- Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of RA. Without the compliance, the vendor will not be eligible to participate in the event.
- BHEL will provide a sample calculation sheet (in EXCEL format) which would help the bidders to arrive at “Net Cash outflow to BHEL” considering various price / cost elements like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) etc. for each of the bidders to enable them to arrive at “Net Cash outflow to BHEL” which is the amount the bidder would be bidding during the RA.
- RA will be conducted on scheduled date & time and at the end of event, the lowest bidder value will be known on the network.
- The lowest bidder has to Fax the duly signed “Price Break-up” in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.
- Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct further business with BHEL, as per the prevailing procedure.
- BHEL reserves the right to negotiate if need be, with the “L1” vendor of the Reverse Auction