



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT/ MATERIALS MANAGEMENT

ENQUIRY	Phone: +91 431 257 7653 Fax : +91 431 252 0031 Email : skaruna@bheltry.co.in Web : www.bhel.com
NOTICE INVITING TENDER	

TWO PART BID	Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
Tender to be submitted in two parts	2631600009	20.05.2016	15.06.2016
<p>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.</p> <p>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.</p>			

Item	Description	Quantity	Delivery
10	Portable Brinell 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.	17.10.16

Important points to be taken care during submission of offer

1. Compliance Form to be duly filled and enclosed along with your offer, failing which the offer will not be considered for evaluation.
2. All updates, amendments, corrigenda, etc., (if any), for each tender will be posted only on the above websites from time to time, as and when required, until each tender is opened. There will be no publication of such updates, amendments, corrigenda, etc., through newspapers or any other media.

BHEL's General guidelines / instructions including bank guarantee formats and list of consortium banks, commercial compliance form 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 "2631600009".

<p>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</p>	<p>Yours faithfully, For BHARAT HEAVY ELECTRICALS LIMITED</p> <p><i>Kbsingh</i></p> <p>KUMAR GAUTAM SINGH Senior Engineer MM / Capital Equipment BHEL, TRICHY - 620 014.</p>
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Sl.No	<u>Qualifying Criteria</u>	Bidders response
SECTION-I		
1	BIDDER to provide the Profile of their Company	
2	The Bidder (OEM) shall have a minimum of three Years of Continuous Experience in the field of Design, Manufacture and Supply of portable hardness Tester .	
3	Details on SERVICE-AFTER-SALES Set-Up in India including the Addresses of Agents / Service Centres in India.	
4	Only those bidders (OEMs) should quote, who have supplied and commissioned at least two number of indentation type portable hardness Tester and such equipment should presently be working satisfactorily for more than two year after commissioning	
5	The Bidder should submit following information where the portable hardness Testers have been supplied:	
5.1	Name and postal address of the customers or companies where the quoted model of equipment is available.	
5.2	Name and designation of the contact person of the customers.	
5.3	Phone, FAX no and email address of the contact person of the customers.	
5.4	Month and Year of commissioning of the equipment.	
5.5	Along with the Technical offer, the Bidder should submit <u>one Performance certificates from the customers for the satisfactory performance of the equipment supplied as per clause 4 above</u>	
6	Offers of only those Bidders who meet the above Qualifying Criteria will be considered for further evaluation.	
7	BHEL reserves the right to verify the information provided by Bidder. In case the information provided by Bidder is found to be false/ incorrect, the offer shall be summarily rejected.	
SECTION II		
1	The BIDDER shall submit the offer in TWO PARTS-Technical Techno - Commercial and Price Bid.	
2	The offer shall contain a comparative statement of Technical Specifications given by BHEL and the offered details submitted by the Bidder, against each clause.	
	Merely stating 'CONFIRMED' or 'COMPLIES' or 'YES' or 'NO-DEVIATION' or similar words wherever 'Bidder to Specify' details in the technical comparative statement may lead to disqualification of the Technical Offer.	
3	The Technical Offer shall be supported by product Catalogues & Data Sheets and also technical details of Bought-Out-Items with copies of Product Catalogue to the extent possible.	
4	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 of the inclusion of all the accessories, tooling's, attachments, auxiliary parts, spares, consumables, etc. with the main and basic equipment, to meet the technical specification requirements.	

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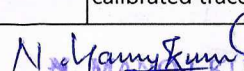
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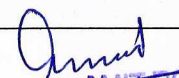
Technical specification for Portable Brinell Hardness testing equipment		Bidders response	
Clause no.	Specification/Description		
1	Purpose: To carry out Brinell hardness testing with portable system on different components of different materials, sizes and shapes at shop floor as per ASTM E110/ISO 6506		
	<i>Application includes the following:</i>		
	Plates of thickness	Size: upto 200 mm	Comply/Not comply
	Heavy thick-walled pipes	Size: OD 88.9 to 1000 mm and thickness 12.7 mm to 150 mm	Comply/Not comply
	Castings, Forgings and heat treated plates and pipes		Comply/Not comply
2	Scope of Supply:		
	1. Portable Hardness tester as per the specifications	1 no.	Comply/Not comply
	2. Essential accessories as described in clause 4	1 set	Comply/Not comply
	3. Essential spares for two years trouble free Operation & Maintenance	1 set	Comply/Not comply
	4. Documents as specified in clause 21	3 sets	Comply/Not comply
3	Portable Hardness Tester specification - Indentation system		
3.1	The Portable Hardness Tester shall be able to carry out Tests in accordance to ASTM E110, ISO 6506 and ASTM E10	Comply/Not comply	
3.2	Loading System:	To be specified	
3.3	Max. weight of the portable indentation system: 15kg	Comply/Not comply	
3.4	Test load range: 500kgf to 3000kgf	Comply/Not comply	
3.5	Additional test force:	To be specified	

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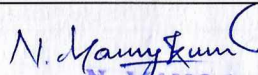
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3.6	Sample test height to be measured: 200 mm (minimum) required excluding sample support anvil	Comply/Not comply
3.7	Depth of throat: 100mm(min.)	Comply/Not comply
3.8	Dwell time:	To be specified
3.9	Testing range: 100 - 400 HBW	Comply/Not comply
4	Essential accessories	
	Brinell Microscope and stage micrometer	
	Brinell test blocks	
	Brinell Tungsten carbide balls with suitable indenter holder/adaptor	
	Suitable anvils and chains to accommodate components as described in Clause 1	
	Calibration kit, if any to calibrate brinell microscope or anything else whichever deemed essential to ascertain accuracy and precision of the equipment	
4.1	Brinell measuring microscope	
4.1.1	Shall have 20X magnification. If supplied at other magnification, suitable charts for hardness measurement to be supplied	Comply/Not comply
4.1.2	Shall have measuring graticule. Range to be specified	To be specified
4.1.3	Measuring graticule resolution: 0.1mm or better	Comply/Not comply
4.1.4	Microscope with micrometer is preferred	Comply/Not comply
4.1.5	Illumination system: To be specified for brinell microscope	To be specified
4.1.6	To be supplied with suitable measuring and conversion charts.	Comply/Not comply
5.1	Stage micrometer	
5.1.1	Stage micrometer is required for the calibration of Brinell microscope. It shall have better graticule resolution than Brinell microscope and must be calibrated traceable to National/International accreditation	Comply/Not comply


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5.1.2	Measuring range and resolution:		To be specified
5.2	Indenters- must be supplied with certificates traceable to national/ International accreditation		
	Brinell indenter with indenter holder and tungsten carbide balls		
5.2.1	Brinell WC ball with holder/adapter - Ø5mm	1 no.	Comply/Not comply
5.2.2	Brinell WC ball with holder/adapter - Ø10mm	5 no.	Comply/Not comply
5.3	Test blocks- must be supplied with certificates traceable to national/ International accreditation		
5.3.1	Brinell test block-10 mm/3000kgf (Range: 100-200 HBW)	1 no.	Comply/Not comply
5.3.2	Brinell test block-10 mm/3000kgf (Range: 200-300 HBW)	5 no.	Comply/Not comply
5.3.3	Brinell test block-5 mm/1500kgf (Range: 200-300 HBW)	1 no.	Comply/Not comply
5.4	Anvil/Base support/Chains		
5.4.1	Anvil: Flat support to hold components of thickness upto 200 mm plates - 1 no.		Comply/Not comply
5.4.2	V-anvils to support cylindrical components upto Ø50mm - 1 no.		Comply/Not comply
5.4.3	For larger diameter components like pipes, chains of suitable length to be provided to accommodate components upto Ø1000mm		Comply/Not comply
5.5	Calibration kit		
5.5.1	Whether separate calibration kit other than above is required for daily/weekly/monthly verification of portable test machine?		Yes/No
5.5.2	If yes, then details of calibration kit to be provided along with their specification.		To be specified
6	Essential Accessories: Bidder to attach un-priced list (priced list with Unit Rate shall be attached in the commercial offer) of various essential accessories to be procured with the equipment to enhance the operating efficiency and features of the offered equipment, over and above those mentioned in the specifications. Details of the accessories to be specified.		Comply/Not comply
	Bidder to attach un-priced list(priced list with Unit rate shall be attached in the commercial offer) of various essential accessories		
	Essential Spares for 2 years trouble free operation:		


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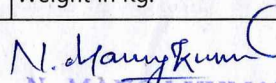

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7	Essential spares includes oil seals, nuts etc. to avoid hydraulic leakage of machine while testing. Apart from these if any other spares deemed essential for satisfactory performance of machine shall also be quoted.	Comply/Not comply
	Bidder to attach un-priced list (priced list with Unit Rate shall be attached in the commercial offer) of various essential spares to be procured with the equipment for two years of trouble free Operations and Maintenance. Ordering No. And Details / Specifications of the spares to be mentioned.	Comply/Not comply
8	Optional Accessories: Bidder to attach un-priced list (priced list with Unit Rate shall be attached in the commercial offer) of various Optional accessories like other indenters, test blocks, special anvils and fixtures etc. to be procured with the equipment to enhance the operating efficiency and features of the offered equipment, over and above those mentioned in the specifications. Details of the accessories to be specified.	Comply/Not comply
9	All types of spares for the equipment and its accessories should be available for minimum ten years , after supply of the equipment. If any spares or controls are likely to become obsolete within this period, the Bidder should inform BHEL and provide details of its suppliers to enable BHEL to procure them in advance	Comply/Not comply
10	Calibration: Along with the original calibration certificates, complete details of calibration procedures & instructions, applicable standards, periodicity, acceptance criteria, methodology for corrections etc. Shall be provided.	Comply/Not comply
11	Special requirement: The equipment, shall be free of the problem of oil leak of the hydraulic system and gear jamming of the jacking system.	Comply/Not comply
12	Installation & Commissioning, Performance Prove-out & training at BHEL: The equipment, its accessories, etc. Shall be installed and commissioned at BHEL works by the service engineer of the supplier.	Comply/Not comply
13	The service engineer has to calibrate the equipment and its accessories by direct and indirect methods as per ASTM E110/IS 6506/ASTM E10 and to carryout performance prove-out as per BHEL specifications.	Comply/Not comply
14	The Service Engineer has to impart training to a minimum of 3 BHEL Engineers on the Operation, calibration, maintenance of the equipment and accessories.	Comply/Not comply
16	Performance Guarantee: The equipment and its 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. All manufacturing defect items within this guarantee period must be supplied at free of cost should there be a breakdown	Comply/Not comply
17	Service Support requirement: Bidder shall ensure continuous AMC service support facilities in India after the guarantee period for a minimum period of 5 years, through trained Service personnel in India.	Comply/Not comply

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18	AMC (Annual Maintenance Contract): The bidder has to quote for AMC for a period of four years after the expiry of original warranty period of one year. The AMC cost shall be inclusive of Spares and consumables.	Comply/Not comply
19	AMC Response time: The bidder has to furnish / indicate the response time for the service engineer to be at BHEL works from the time of reporting the breakdown through e-mail or tele-fax.	Comply/Not comply
20	AMC Service Calls: The Bidder has to furnish details on periodicity of service calls for preventive maintenance (number of calls and intervals) and Break-down maintenance required for this machine	Comply/Not comply
21	Documents should be submitted along with offer:	
	Apart from the details / documents mentioned above in various clauses, following documents in English language are to be submitted along with this technical offer, for technical evaluation. 3 set of hardcopies and one soft copy in CD to be submitted	
22	Catalogues of the Equipment & Accessories	TO be enclosed
23	Details of bought out items with their specifications / catalogues	To be specified
24	O&M manuals containing mechanical assemblies and sub-assemblies, troubleshooting charts, instructions etc. Bill of materials etc.	TO be enclosed
25	Details of the Equipment offered:	
25.1	Make:	To be specified
25.2	Country of Origin	To be specified
25.3	Model:	To be specified
25.4	Dimensions:	To be specified
25.5	Weight in Kg:	To be specified


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25.6	Operating temperature:	To be specified
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