



An ISO 9001
Company

Bharat Heavy Electricals Limited
(High Pressure Boiler Plant)
Tiruchirappalli – 620014, TAMIL NADU, INDIA
CAPITAL PURCHASE / MATERIALS MANAGEMENT / MANUFACTURING

ENQUIRY	Phone: +91 431 257 79 38 Fax : +91 431 252 07 19 Email : tvenkat@bheltry.co.in Web : www.bhel.com
----------------	---

	Enquiry Number: 2620700022	Enquiry Date: 23.06.2007	Due date for submission of quotation: 27.08.2007
Your 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			

Item	Description	Quantity	Delivery Schedule
10	Drop Weight Tester as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com)	1 No.	20.01.2008
Note: Confirmation of acceptance for BHEL commercial terms & conditions and Price Bid formats have been posted in BHEL Corporate web site www.bhel.com under Enquiry reference “2620700022”. Your offer should be based on all the above documents.			
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 Manager / Capital Purchase / MM / Manufacturing	

PART A

QUALIFYING CRITERIA FOR THE SUPPLY OF *DROP WEIGHT TESTER*

SECTION – I QUALIFYING CONDITION

The BIDDER / VENDOR has to compulsorily meet the following requirements to get qualified for submitting an offer for the impact tester.

S. No.	REQUIREMENTS	Vendor's COMMENTS
1.0	The BIDDER / VENDOR shall have a minimum of FIVE Years of Continuous Experience in the Design, Manufacture & Supply of Drop Weight Testers. Indicate the actual experience.	
2.0	The BIDDER / VENDOR shall have supplied at least one number of Drop Weight Testers (of the MODEL quoted) within the last ten years. Kindly confirm and indicate the number of equipments (quoted model) sold around the world.	
3.0	Performance Certificate from at least two customers for satisfactory performance of supplied equipment (one for the model quoted and one for any model of Drop Weight Tester)	

SECTION – II

The BIDDER / VENDOR is requested to provide the following information:

S. No.	PARTICULARS	VENDOR's RESPONSE
4.0	Number of Years of Experience of the BIDDER/ VENDOR in the field of design, manufacture and supply of 'DROP WEIGHT TESTER'	
5.0	Number of drop Weight Tester supplied, installed and commissioned till date, (in India and other Countries)	
6.0	YEAR of LAUNCH of the Model quoted against this ENQUIRY	
7.0	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	
8.0	Number of Drop Weight Testers	

	supplied, installed and commissioned till date in the QUOTED MODEL	
9.0	Number of Drop Weight Testers supplied, installed and commissioned till date for the following category of CUSTOMERS (within INDIA): a) Government Organizations b) Private Sector Companies [Large Scale Industries]	
10.0	Number of Drop Weight Testers 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	
11.0	Details on International Standards followed in Design of the Equipment (including Analysis Methodology and Calibration of Equipment)	
12.0	Details of Quality System followed (Kindly furnish the salient aspects of the QA system followed)	
13.0	Details on SERVICE-AFTER-SALES Set-Up in India including the addresses of Agents / Service Centres in India and Asia	
14.0	Any Additional Data to supplement the manufacturing capability of the BIDDER	

SECTION – III

The BIDDER / VENDOR to note the following:

S.No.	REQUIREMENTS	VENDOR's COMPLIANCE
15.0	The BIDDER / VENDOR shall submit the offer in TWO PARTS - Technical [with PART A & PART B] & Commercial and Price Bid.	
16.0	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.	

17.0	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.	
18.0	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	
19.0	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	

PART B

TECHNICAL SPECIFICATION FOR DROP WEIGHT TESTER

S. No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
1.0	Area of Application	Drop Weight Tester is meant for the determination of the nil ductility transition (NDT) temperature of Critical Pressure Parts coming in High Pressure Boilers, Industrial Valve Components, Castings, Welding Qualification Test Plates covering a wide range of materials from Plain Carbon Steel, Low Alloy & High Alloy Steels, Quenched & Tempered Steels, Martensitic Stainless Steels.	
2.0	Principle of Operation	Subjecting the specimen to a single (gravity drop) impact load at a sequence of selected temperatures to determine the maximum temperature at which the specimen breaks	
3.0	Design Base	The equipment shall meet all the requirements specified under ASTM E208 (latest) for Conducting Drop-Weight Test to Determine Nil-Ductility Transition Temperature with P2 specimens.	
4.0	Equipment Configuration	The minimum desired features are enlisted below:	
4.1	Type of Specimen	P-2 as per ASTM E-208	
4.2	Anvil Size & Hardness of the anvil	As per ASTM E 208 for P2 Specimen Type.	
4.3	Indicative/ Measuring System of height	DIGITAL – in cm. Measuring system to position / measure the drop weight height accurately.	

S. No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
4.4	Pendulum	Weight shall be provided with suitable device, which engage the rails and ensure free drop in single vertical plane. The striking tup of the weight shall be a steel cylindrical surface with a radius of 25.4 mm and a minimum hardness of 50 HRC throughout the section. The weight shall be as per ASTM E 208. Suitable automated facility for raising the weight to the required height to be provided.	
4.5	Safety	<ul style="list-style-type: none"> a. Safety enclosure to stop the broken / tested specimen b. Emergency safety stopper c. Suitable interlocks for safe operation 	
5.0	Drop-Weight Energy level (Adjustable)	350 - 550 Joules (Required Testing Range) As per E208, required energy levels are 350J, 400J, 450J and 550J for the different materials. The height-weight combinations provided should be capable of ensuring the above four levels of energy.	
6.0	Weight releasing mechanism	<ul style="list-style-type: none"> a. Weight releasing mechanism shall be provided – Releasing the weight quickly ensuring its free fall. b. Audible alarm to signal the start of the test 	
7.0	Accessories	BIDDER to list down (with UNIT RATE) the various 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.	
8.0	Spares for Main Equipment & Accessories	<p>BIDDER has to list down the SPARES striking weight, Anvils, motor & other essential Spares coming under the Category of Mechanical, Electrical & Electronic Spares for the Main Equipment as well for the essential and optional desirable Accessories.</p> <p>BIDDER to QUOTE with UNIT RATE for all the listed SPARES, to be procured with the equipment.</p>	

S. No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
9.0	Power	Single Phase 230 ± 10% 50 Hz.	
10.0	Installation and Commissioning	The Equipment with all Accessories is to be installed & commissioned at BHEL Works, FREE OF COST, by the Service Engineer of the SUPPLIER. (Machine Foundation – Civil Work & Materials are under BHEL Scope. Foundation Details & Anchoring Materials are to be given by the SUPPLIER)	
11.0	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, along with the equipment. In addition, one SOFT COPY in CD to be supplied.	
12.0	Performance Guarantee	The Equipment & Accessories (including Bought-Out Items) are to be guaranteed for its performance for a minimum period of two years from the date of performance acceptance at BHEL Works.	
13.0	Training on Operation & Maintenance	Complete Training has to be provided at BHEL Works, after the successful commissioning of the Equipment & Accessories.	