



An ISO 9001  
Company

## Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

<b>ENQUIRY</b>	Phone: +91 431 257 79 38 Fax : +91 431 252 00 31 Email : <a href="mailto:tvenkat@bheltry.co.in">tvenkat@bheltry.co.in</a> Web : <a href="http://www.bhel.com">www.bhel.com</a>
<b>NOTICE INVITING TENDER</b>	

<b>TWO PART BID</b>	<b>Enquiry Number:</b>	<b>Enquiry Date:</b>	<b>Due date for submission of quotation:</b>
Tender to be submitted in two Parts	<b>2631300079</b>	<b>15.07.2013</b>	<b>16.08.2013</b>

You are requested to quote the Enquiry number date and due date in all your correspondence. 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	Magnetic Particle Inspection Unit – 2000A Power Source as per the technical specification & commercial conditions applicable (to be downloaded from web site <a href="http://www.bhel.com">www.bhel.com</a> or <a href="http://tenders.gov.in">http://tenders.gov.in</a> )	<b>4.00 Nos</b>

### Important points to be taken care during submission of offer

1. Delivery required 2 months from the date of purchase order.
2. Checklist No: **TRY/IND/08** to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
3. 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 (refer **MM / CE / GENL / 001**) 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 "2631300079".

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 <b>BHARAT HEAVY ELECTRICALS LIMITED</b>  Sr. Manager / Capital Equipment / MM
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**NON DESTRUCTIVE TESTING /QUALITY**

The BIDDER / VENDOR has to necessarily provide the following details, for making an assessment.

**SPECIFICATION FOR AC/HWDC PORTABLE MAGNETIC PARTICLE TESTING EQUIPMENT WITH DEMAGNETSATION FACILITY**

<b>S. No.</b>	<b>PARTICULARS</b>	<b>BHEL SPECIFICATIONS</b>	<b>Bidder's OFFER [With Complete Technical Details]</b>
1.0	Application	For Magnetic particle examination of butt, nozzle, fillet welds using prods. Maximum prod spacing used for examination will be 200mm ( 8")and also to use for demagnetization requirements.	
2.0	Input supply:	415 V/50Hz 2 lines of 3 phase with ground, 30 Amps with Neon pilot lamp	
3.0	Maximum output	<b>2000</b> Amperes at the end of 2 x 10 meter cable	
4.0	HWDC out put	Supplier to specify for 50% duty cycle and 2x5 meter cable	
5.0	Max. ON & OFF time	Adjustable to atleast 0-60 secs ( Timer Control)	
6.0	Cable size	Shall be atleast 90sqmm and not to be more than 120 sq mm and shall be of Copper conductor, with insulation	
7.0	Current control	Step less , Solid state SCR control using Thyristors	
8.0	Ammeter	AC and HWDC Ammeters	
9.0	Trigger control at prod side	24 V or less	
10.0	Weight of equipment	Light weight around 50 Kg	
11.0	Facility for Demagnetization	Control to be provided	
		<b>Supplier to specify the following for their model</b>	
12.0	KVA rating	Supplier to specify	
	class of insulation- <b>H class</b> only	Supplier to conform	
	outlet for inspection lamp(24 V)	Supplier to conform	
	Automatic over load protection	Supplier to conform	
	Air circulation	Supplier to conform	
	Over heat protection	Supplier to conform	
	Dimensions of equipment	Supplier to specify	
	Circuit diagrams to evaluate the offers.	Supplier to specify	
	<b>External Hardwares</b>		

S. No.	PARTICULARS	BHEL SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
13.0	Unit ON/ OFF switch :	current control, Timer control switch, Trigger switch on prods ,Remote cable connector on unit side .prod assembly connectors on unit side ,connectors on prod side, cable lugs which are frequently handled and used shall be sturdy and supplier shall assure these parts are not flimsy and are reliable ,trouble free for shop floor conditions.	
	Internal Hardware	All electrical /electronic components shall be of high quality and are reliable ,trouble free for shop floor conditions.	
		<b>Scope of supply</b>	
S.No	Standard Accessories	<b>Qty(With Unit)</b>	
1	Portable Magnetic particle unit conforming to our specifications and required equipment performance	<b>4 Nos.</b>	
2	Flexible Input power supply cable-20Meter long with multi strand copper conductor.	<b>4Nos.</b>	
3	Magnetizing Copper Cables 2 x 10 meter long with cable lugs on unit side and connectors on prod side	<b>4 Pairs</b>	
4	Individual contact copper prods with standard length	<b>4Pairs</b>	
5	Trigger switch in one prod with 20 meters remote cable:	<b>4 Nos.</b>	
6	Standard Tool Kit with adjustable spanner, file, Screw driver, Tester, etc	<b>4 Sets</b>	
7	Suitable portable Transport trolley to accommodate and move the unit with cables. The trolley should have four wheels of revolving type and rubberized wheels of min 200 mm dia. <b>(Sketch of trolley to be enclosed)</b> . Suitable hooking arrangement to be provided for lifting the complete unit with trolley	<b>4 Nos.</b>	
8	System performance test plate with EDN notch in wooden carrying case with Dimensional Report	<b>4 Nos.</b>	
9	Gauss meter Range (0-20) with calibration Certificate.	<b>4 Nos.</b>	

S. No.	PARTICULARS	BHEL SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
10	Digital Lux Meter(to measure Upto 2000 Lux) with calibration Certificate.	1 No.	
11	Digital Black light meter (in Micro Watts) with calibration certificate from accredited lab.	2 Nos.	
12	Ultraviolet inspection black light with built in cooling fan with integral filter (minimum output of 1500Micro watts) with calibration certificate.	4 Nos.	
13	ASTM Pie gauge Field indicator: As per E 1444 -05 with Dimensional Report	4 Nos.	
14	ANSI Ketos steel tool Ring with Copper conductor of diameter 25mm and length 300mm or 400mm (As per E 1444 -05 ) with Dimensional Report.	1 Nos.	
15	Rubber Blower medium size (Puffer bulb to apply Dry method powders on the job	15 Nos.	
	<b>SPARES</b>		
16	Prod handles assembly ( <b>without trigger switch</b> ) connected with copper rod.	8Sets	
17	Prod handles assembly ( <b>with trigger switch</b> ) connected with copper rod along with 10 meter long trigger cable.	8Sets	
18	Magnetizing copper cables of length 2x10 meters with connectors on both ends	4 Pairs	
19	Ammeter AC	8Nos.	
20	Ammeter DC	8 Nos.	
21	Current control PCB	4 Nos.	
22	Diodes	8 Nos.	
23	Power control PCB	4 Nos.	
24	Thyristor	4 Nos.	
25	Shunt for DC Ammeter	2 No.	
26	Ultraviolet inspection black light Bulbs.	8 Nos.	
27	ASTM Centrifuge tube 100ml stand	2 Nos.	
28	Pre-dispatch inspection & free of cost training at Suppliers works.	Supplier to specify	

S. No.	PARTICULARS	BHEL SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
29	Commissioning of the equipment to be done by the vendor at BHEL.	Supplier to specify	
30	Performance prove out at BHEL	Supplier to specify	
31	Operation and Maintenance manual including Complete electrical circuit diagram with Bill of Material giving specification & make of components used.Trouble shooting information. Preventive Maintenance check lists.PCB Circuit diagram. Complete specification of the equipment.	3 Sets of Hard copies and 1 set of soft copy in CD or Pen drive for each unit	
32	<b>Documentation</b> Calibration for equipment & spare Ammeters	Applicable to specification.  ASTM E709 with calibration certificate from local National Lab	
	Test report for internal circuit check	verification	
	Test report for internal short circuit check	verification	
	Dimensional report for Magnetic particle field indicator	ASTM E 1444	
	Dimensional report for system performance test plate	verification	
	Warranty	Minimum 12 months from the date of commissioning or 18 months from the date of supply whichever is earlier.	
	Annual Maintenance Contract(AMC)	Supplier to quote for AMC at BHEL Trichy works	