



Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

An ISO 9001
Company

ENQUIRY	Phone: +91 431 257 7653 Fax : +91 431 257 6826 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	2741500004	31.10.2015	21.11.2015

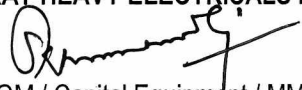
You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order.
Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.

Item	Description	Quantity
10	Hand Held Grinding cum Polishing Machine with Microscope for Metallography as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	1.00 No.

Important points to be taken care during submission of offer

1. Material shall be delivered to
Indigenous Vendors:
FOR, BHEL, Stores
Power Plant Piping Unit
Thirumayam, Pudukkottai Dist.
2. Delivery required 2 Months from the date of purchase order.
3. Erection & Commissioning period required 1 Week from the date of intimation by BHEL to vendor for deputation of their Engineers for E&C.
4. Compliance Form No: TMM/IND/08 to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
5. 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 above Enquiry reference.

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  DGM / Capital Equipment / MM
--	---

PART – A

QUALIFYING CRITERIA FOR THE SUPPLY OF HAND HELD GRINDING CUM POLISHING MACHINE WITH MICROSCOPE FOR METALLOGRAPHY

Section-I

The BIDDER/VENDOR has to compulsorily meet the following requirement to get qualified for submitting an offer for Hand held Grinding cum Polishing machine with microscope

Sl.No	BHEL Specification	Bidder's Offer
1.0	QUALIFYING CRITERIA	
1.1	The BIDDER / VENDOR (OEM) shall have a minimum of FIVE Years of Continuous Experience in the Design, Manufacture & Supply of "HANDHELD GRINDING CUM POLISHING MACHINE". Vendor to indicate the actual no. of years of experience in the field	
1.2	Only those vendors (OEMs), who have Manufactured and commissioned at least TWO numbers of Hand Held GRINDING CUM POLISHING MACHINE for metallography in the last FIVE years (as on date of opening of Tender) must quote. Vendor to provide the details of the customer to whom they have provided these equipment.	
1.3	Vendor has to submit at least one Performance Certificate from any of their customers, for satisfactory performance of the quoted model of Hand Held Grinding cum Polishing machine supplied to them and is presently working satisfactory for a minimum period of one year from the date of commissioning (as on original date of opening of tender). For obtaining the Performance certificate, a suggestive format is provided.	
1.4	BHEL reserves the right to verify the information provided by the vendor. In case the information provided by the vendor is found to be false/ incorrect the offer will be rejected.	

Section-II

2.0	INFORMATION TO BE PROVIDED BY VENDOR	
2.1	Year of launch of the model quoted against this enquiry	
2.2	Number of "Hand Held Grinding cum Polishing machine" supplied and commissioned till date in the quoted model.	
2.3	The BIDDER/VENDOR to furnish Reference List of Customers	
2.4	Contact details(phone no & email id) including the Address of Agents / Service Centres in India to be provided	

Suggestive Format of Performance Certificate:

The performance certificate should be produced **on Customer's Letter Head.**

PERFORMANCE CERTIFICATE

- 1 Supplier of the instrument
- 2 Make & Model of the instrument
- 3 Month & Year of Commissioning
- 4 a. Application for which instrument is used
b. Jobs done by using this instrument
- 5 Performance of the instrument Satisfactory / Not Satisfactory
(Strike off whichever is not applicable)
- 6 After sales service Satisfactory / Not Satisfactory
(Strike off whichever is not applicable)
- 7 Any Other remarks

Authority

Signature & Seal of the

Issuing the Performance Certificate

Contact details of issuing authority

Name & Designation:

Office No/ Mobile no:

Email ID:

PART – B

TECHNICAL SPECIFICATION FOR HANDHELD GRINDING CUM POLISHING MACHINE WITH MICROSCOPE FOR METALLOGRAPHY

S. No	PARTICULARS	BHEL SPECIFICATION	BIDDER'S OFFER
1.0	Area of Application	Handheld Grinding cum Polishing Machine is to prepare in-situ surface finish for making a metallographic replica of components / test coupons to conduct micro examination. Specimens for micro examination will be prepared from Critical Pressure Parts coming in High Pressure Boilers, Industrial Valve Components, Castings covering a wide range of materials like Carbon Steel, Low Alloy & High Alloy Steels, Quenched & Tempered Steels, Austenitic & martensitic Stainless Steels; Nickel & Titanium Alloys.	
2.0	Equipment features	Compact, Handheld and User friendly equipment for non-destructive mechanical fine grinding and polishing of materials on site	
3.0	Weight of the equipment	Should not be more than 8 kgs.	
4.0	Equipment Configuration	Handheld grinding cum polishing machine must consist of the following: <ul style="list-style-type: none"> • Control unit • Grinding and polishing unit 	
5.0	Control Unit	Control unit is required for controlling the power supply to the motor used for grinding cum polishing.	
5.1	Features of control unit	The following switches must be available in the control unit: <ul style="list-style-type: none"> • On/OFF switch • Motor RPM controlling knob • Digital display showing the RPM • Overload mechanism/fuse to trip off if overloaded along with a light indicator or alarm. Vendor to explain the overload protection mechanism 	
5.2	Power Supply to control unit	BHEL will provide 230 ± 10 % V, 50 Hz, Single Phase AC through a 3 wire system [Phase, Neutral & Protective Earthling]. Suitable power cable of around 1.5m length to be provided for connecting the power supply to the control unit.	
6.0	Grinding and polishing unit	Grinding and polishing unit is used for grinding/polishing of jobs driven by the control unit through a flexible cable	
6.1	Features of Grinding and polishing unit	The following features must be available: <ul style="list-style-type: none"> • Flexible and soft type electrical cable to connect the motor drive to the control unit. Around 3 m length preferred • Output RPM must have a minimum range of 1000 to 10000 rpm. • Motor must run smoothly without over heating problems during operation. Vendor to indicate the wattage of motor • Easy mechanism to attach and detach polishing/grinding attachments/handles 	
6.2	Attachments/ handles with equipment	Vendor must provide removable straight and also angular attachment- one no each along with equipment. Vendor to specify clearly the different attachments available	

S. No	PARTICULARS	BHEL SPECIFICATION	BIDDER'S OFFER
6.3	Consumables	The following consumables to be provided along with the equipment: a) Rubber discs for grinding/polishing consumables-4 Nos b) Flapper wheel Grit 80- 5 Nos c) Silicon carbide paper-Grit 80,120,240,400 and 600- 20 nos in each type d) Mono crystalline diamond paste- 1µm,3µm,6µm and 10µm- 10 g in each type e) Cooling and lubricating liquid. Alcohol based with Ethanediol-500 ml. f) Cloth for diamond polishing-25 nos	
6.4	Carry Bag	The entire equipment shall be well packed in a shoulder bag for easy carrying.	
7.0	Handheld optical Microscope	Handheld optical Microscope is required for on the spot examination of the job/samples at the site/shop floor after grinding and polishing the job by grinding cum polishing unit.	
7.1	Features of microscope	The microscope must have the following features: <ul style="list-style-type: none"> • Provided with 10X eye piece, 10X, 20X, and 40X objectives. • Graduated eye piece in mm for measurement. • Height adjusting mechanism to see the job up close/away 	
7.2	Battery unit for light intensity adjustment	Battery unit for the microscope is required for the light intensity adjustment in the microscope. Vendor to specify the battery type and quantity.	
7.3	Carry case	Simple carrying case for the microscope to be provided	
8.0	Spares	Vendor must offer One motor unit as a spare Also Vendor must list down all other important <ul style="list-style-type: none"> • Spares • Consumables required to be procured along with the equipment.	
9.0	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.	
10.0	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.	
11.0	Installation and Commissioning	The Equipment with all Accessories is to be installed & commissioned at BHEL works by the Service Engineer of the vendor	
12.0	Training on operation & Maintenance	Complete Training for BHEL persons to be given on operation & Maintenance of the OFFERED EQUIPMENT at BHEL works at the time of commissioning.	
13.0	Performance Guarantee	The Equipment & Accessories are to be guaranteed for its performance for a minimum period of 12 months from the date of commissioning at BHEL Works.	
14.0	Service support Requirement	Vendor shall ensure AMC service facilities in India after the guarantee period through trained service personnel in India	
15.0	Annual Maintenance Contract	The BIDDER has to indicate the price in a separate sealed cover for AMC for a period of 3 YEARS after the Guarantee period	