



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 7653
Fax :
Email : skaruna@bheltry.co.in
Web : www.bhel.com

TWO PART BID

Tender to be submitted in two Parts

Enquiry
Number:

2631600062

Enquiry
Date:

02.09.2016

Due date for submission
of quotation:

30.09.2016

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 tender should be submitted online on or before the due date by 14.00 Hrs (IST). Tenders received after 14.00 Hrs (IST) will not be considered for evaluation.

Item	Description	Quantity	(Indigenous Vendors) Matl. will be Delivered to
10	Portable Air Plasma Cutting Machine as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in or https://bheleps.buyjunction.in)	1.00 No.	FOR, BHEL, Stores, High Pressure Boiler Plant, Tiruchirappalli - 620014

Important points to be taken care during submission of offer

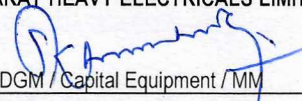
1. Material shall be delivered to: Indigenous Vendors: As stated above.
Foreign Vendors: CFR Chennai Seaport / Airport
2. Delivery required 3 months from the date of purchase order.
3. Erection & Commissioning period required 2 Weeks from the date of intimation by BHEL to vendor for deputation of their Engineers for E&C.
4. Compliance Form No: TRY/IMP/04 & TRY/IND/04A 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 / EPROC / GENL / 001) including bank guarantee formats and list of consortium banks, commercial terms check-list can be downloaded from <https://bheleps.buyjunction.in> or 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 be submitted online at our above indicated web portal before 14:00 hours on the due date

Tenders will be opened online at 14:30 hours on the due date.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED


DGM / Capital Equipment / MM

S. KARUNANIDHY
Dy. General Manager
Capital Equipment / MM
BHEL, Tiruchirappalli - 620 014.

PORTABLE AIR PLASMA CUTTING MACHINE, Qty. – 1 no.

Part A

S. NO	BHEL REQUIREMENT	VENDOR's OFFER
1.0	Qualifying criteria: The BIDDER has to compulsorily meet the Qualifying criteria to get qualified otherwise the technical offer will not be considered.	
1.1	The BIDDER / VENDOR (OEM) shall have a minimum of FIVE Years of Continuous Experience in the Design, Manufacture & Supply of "AIR PLASMA CUTTING MACHINE". Vendor may indicate the actual no. of years of experience in the field	
1.2	Only those vendors, who have supplied and commissioned at least 2 numbers of PORTABLE TYPE AIR PLASMA CUTTING MACHINE in the past THREE years (as on the initial date of opening of Tender) should quote. Vendor to attach the proof of Purchase order along with the offer.	
1.3	Vendor has to submit at least one performance certificate for satisfactory performance of Portable Air Plasma Cutting Machine quoted against this tender for a minimum period of one year from the date of commissioning (as on the initial date of tender opening) from any of their customers. For obtaining the Performance certificate, a suggestive format is provided in Annexure.	
1.4	Details on SERVICE-AFTER-SALES set-up in India, Contact details (Name, Phone number, email ID) including the Address of Agents / Service Centres in India to be provided.	
1.5	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 shall be rejected.	
2.0	Bidder to provide the following information:	
2.1	Year of launch of the model quoted against this tender	
2.2	Number of Portable Air Plasma cutting machines supplied till date.	
2.3	The BIDDER / VENDOR to furnish Reference List of Customers, with complete address, details of contact person, where Portable Air Plasma Cutting Machine has been supplied till date.	
2.4	Specify details of Portable Air Plasma cutting machine supplied to other units of BHEL, if any (Year of commissioning with details etc.)	
2.5	Details on Standards followed in Design and Testing of Portable Air plasma cutting machines.	
2.6	Details of Quality System followed (Furnish the salient aspects of the Quality Assurance System followed)	

S. NO	BHEL REQUIREMENT	VENDOR's OFFER
2.7	BIDDER has to indicate the Country of Origin for the supply of equipment.	
2.8	Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment.	
3.0	Vendor to note the following:	
3.1	The BIDDER shall submit the offer in Two Parts – 1. Technical [with PART A & PART B] & 2. Commercial and Price Bid.	
3.2	The VENDOR's RESPONSE against each clause in PART A & B of the offer should be filled compulsorily with complete details.	
3.3	The BIDDER shall assure a continuous support for Spares and Service for Ten Years, from the date of commissioning of the equipment at BHEL Works.	
3.4	The Technical Offer shall be supported by Product Catalogue and Data Sheets and complete technical details / literature on the quoted model.	

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

Suggestive Format of Performance Certificate:

(On Customer's letter head)
PERFORMANCE CERTIFICATE

- 1 Supplier / Make of Portable Air plasma cutting m/c :
- 2 Model of Portable Air plasma cutting m/c :
- 3 Month & Year of Commissioning :
- 4 Performance of the machine : Satisfactory / Not Satisfactory
(Strike off whichever is not applicable)
- 5 After sales service : Satisfactory / Not Satisfactory
(Strike off whichever is not applicable)
- 6 Any Other remarks :

Date:

Signature & Seal of the Authority
Issuing the Performance
Certificate

PORTABLE AIR PLASMA CUTTING MACHINE, Qty. – 1 no.

Part B – Technical Specification

S. No.	BHEL SPECIFICATION		BIDDER'S OFFER
1.0	Application		
1.1	The air plasma cutting equipment is meant for manual cutting operations in a large heavy pressure vessel fabrication shop. The equipment shall be compact in design and portable.		
1.2	Job specification: Material: Carbon Steel, Low Alloy Steel and Stainless Steel Thickness: up to 30 mm.		
2.0	Specification		
2.1	Type of equipment: Thyristor / IGBT / MOSFET based plasma cutting machine to meet job requirement.	Vendor to specify	
2.2	Makes: Make of the Thyristor / IGBT / MOSFET used in the equipment shall be of reputed make acceptable to BHEL.	Vendor to specify	
2.3	The equipment shall be capable of cutting the job specified in Clause no. 1.2	Vendor to confirm	
2.4	Max cutting capacity of the equipment in mm	Vendor to specify	
2.5	Cutting speed at maximum cutting capacity in mm/min	Vendor to specify	
2.6	Severance cutting capacity of the equipment in mm	Vendor to specify	
2.7	Cutting speed at severance cutting capacity in mm/min	Vendor to specify	
2.8	Output Voltage	Vendor to specify	
2.9	Output Polarity: Direct Current Electrode Negative	Vendor to confirm	
2.10	Output current 100 Amps Nominal	Vendor to specify	
2.11	Current @ 100% Duty cycle	Vendor to specify	
2.12	Duty cycle @ 100 A	Vendor to specify	
2.13	OCV Should be greater than 200 Volts	Vendor to specify	

S. No.	BHEL SPECIFICATION		BIDDER's OFFER
2.14	Output Current control Range: 40 to 100 Amps	Vendor to confirm	
2.15	Plasma Gas Flow rate & Pressure details	Vendor to specify	
2.16	Arc initiation: The machine should be free from high frequency arc start as it can cause interference with nearby PLC/ electronic components.	Vendor to confirm and specify the arc initiation technology.	
2.17	Pilot Arc Control mode: Pilot Arc Mode Switch (Expanded Metal Mode for maintaining uninterrupted arc without re-triggering the gun while cutting grates & other perforated metals).	Vendor to provide details	
2.18	Make & model of power source	Vendor to specify	
2.19	The equipment should be mounted on a transport trolley with wheels movable easily to anywhere in the shop floor.	Vendor to Confirm	
2.20	Power Source Cooling: Forced Air type	Vendor to confirm	
2.21	Air filter unit. Proper enclosure for filter units to be provided.	Vendor to confirm	
2.22	Input air available in shop floor at a pressure of 4.5 - 6 bar	Vendor to note	
2.23	Terminals: Quick fix connector type terminals for connecting torch and earth cables to the power source	Vendor to confirm	
2.24	Insulation class: Class H	Vendor to confirm	
2.25	Total connected load in kVA	Vendor to specify	
2.26	Input Power Cable: 5 metre long electric cable with protective sheathing (for 3 phase with potential earth) to be provided with the power source. Built in storage space for cables along the power source would be preferable.	Vendor to confirm	
2.27	Total weight of the equipment	Vendor to specify	
3.0	Control & features of the equipment		
3.1	Continuous cutting current adjustment / preselection (Output control)	Vendor to Confirm	

S. No.	BHEL SPECIFICATION		BIDDER's OFFER
3.2	Air pressure adjustment knob	Vendor to Confirm	
3.3	Power ON /OFF indicator	Vendor to Confirm	
3.4	Provision for safety sensor circuit to turn off power system when air pressure is low.	Vendor to Confirm	
3.5	Other Preferred safety features like pre flow sequence which provides warning to operator before arc initiates, Provision for Safety sensor which will not start arc unless the nozzle is before the job.	Vendor to specify	
4.0	Plasma Cutting Torch		
4.1	Hand held Cutting Torch with cables of around 8 m length	Vendor to Confirm	
4.2	Cooling mode: Air cooled	Vendor to Confirm	
4.3	Earthing cable with clamp with cables of around 8 m length	Vendor to Confirm	
4.4	Make and Model of the torch	Vendor to specify	
4.5	Rating of the torch: 100 A @ 60% duty cycle or above	Vendor to confirm and give details	
4.6	Post flow gas cooling facility for the torch	Vendor to specify	
4.7	Hose pipe of minimum 10 meters with end couplings	Vendor to Confirm	
5.0	Electrical & Ambient conditions:		
5.1	Input Power supply: 415 V $\pm$ 10%, 50 Hz, 3 Phase supply (4 wire system without neutral, 4 th wire for earthing). Power Supply will be provided at one point by BHEL.	Vendor to Confirm	
5.2	Temperature up to 50°C; Humidity up to 90% but both upper limits do not occur simultaneously.	Vendor to note	
5.3	Cables / wiring and other electrical components shall meet relevant BIS or equivalent standards and shall be of reputed make	Vendor to specify	

S. No.	BHEL SPECIFICATION		BIDDER's OFFER
5.4	Tropicalisation: All electrical / electronic parts shall be tropicalized	Vendor Confirm	
5.5	Ingress Protection: IP23 or above	Vendor to specify	
6.0	Spares, Consumables & Tools:		
6.1	Vendor shall quote for spares for both power source & torch (electrical and electronic) used on the equipment for 2 years of trouble free operation. The list to include the following in addition to recommended spares (Unit price of each item of spare should be offered) • Control Transformers & Contactors. • Electronic devices / PCBs • Torch Head • Connectors • External Nozzles • Contact Cutting Nozzles • Air Diffusers • Nozzles/Tips • Electrodes • Air filters	Vendor to Confirm	
6.2	Hand tool kit (to open the power source during maintenance).	Vendor to Confirm	
7.0	Documentation : Two sets of following documents (Hard copies) in English language should be supplied along with the equipment		
7.1	Operation and Maintenance manual of the equipment with troubleshooting and maintenance aspects of the equipment and shall contain drawings of assemblies/ sub-assemblies/parts including Electrical / Electronic circuit diagrams & wiring diagrams.	Vendor to Confirm	

S. No.	BHEL SPECIFICATION		BIDDER'S OFFER
7.2	Exploded sketch of the power source and torch showing the parts of the torch, identifying each component with part numbers to be provided.	Vendor to Confirm	
7.3	Complete Master List of parts and spares used in the machine (with identifications, make, model, rating)	Vendor to Confirm	
7.4	Soft copy – 1 no. of the above manuals and documentation should be supplied in pen drive or CD.		
8.0	Pre Despatch Inspection: The equipment shall be offered for inspection by BHEL at Vendor's works prior to dispatch	Vendor to Confirm	
9.0	Commissioning & Prove out of the equipment at BHEL works shall be the responsibility of supplier's Service Engineer	Vendor to Confirm	
10.0	Demonstration of all the features of the equipment, control system & accessories during commissioning.	Vendor to Confirm	
11.0	Prove out shall be carried out in a job specified in clause 1.2 (Stainless steel plate of 30 mm thickness)	Vendor to Confirm	
12.0	Training to BHEL staff on operation of equipment, Electrical & Electronic maintenance of equipment & other accessories by the supplier's engineers at BHEL works	Vendor to Confirm	
13.0	Performance Guarantee: Performance of the equipment shall be guaranteed for a minimum period of 12 months from the date of commissioning or 18 months from despatch whichever is earlier.	Vendor to Confirm	