



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT / CAPITAL EQUIPMENT

ENQUIRY

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	Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
	2620800100	21.10.2008	25.11.2008

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

Item	Description	Quantity	Delivery (Item required at BHEL on)
10	Pulsed Saw System as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	1 No.	28.02.2009

BHEL commercial terms & conditions with Price Bid and Bank Guarantee formats 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 “2620800100”.

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

Sr.Manager / MM / Capital Equipment

PART A**QUALIFYING CRITERIA FOR THE SUPPLY OF
PULSED SUBMERGED ARC WELDING MACHINE****SECTION – I**

The BIDDER / VENDOR has to compulsorily meet the following requirements to get Qualified for submitting an offer for **Pulsed Submerged Arc Welding machine**.

S. No.	REQUIREMENTS	Vendor's RESPONSE
1	The BIDDER shall have a minimum of THREE Years of Continuous Experience in the field of Design, manufacture and supply of similar machines.	
2	Only those vendors, who have supplied, and commissioned at least one such machine for similar applications in the past five years (on the date of opening of Tender) and such machine is presently working satisfactorily for more than one year after commissioning (on the date of opening of Tender), should quote. However, if such machine (s) has/ had been supplied to BHEL, then such machine should be presently working satisfactorily for more than six months after its commissioning and acceptance (on the date of opening of Tender).	
2.1	The vendor should submit the following information where similar machines have been supplied, for qualification of their offer.	
2.2	Name and postal address of the customer / company where similar machine is installed.	
2.3	Name and designation of the contact person of the customer.	
2.4	Phone, FAX no. and email address of the contact person of the customer.	
2.5	Month and Year of commissioning	
2.6	Application for which the machine is supplied.	
2.7	One Performance certificate from the customers regarding satisfactory performance of machine supplied to them. The certificate should be current and on the letterhead of the Customer. It should contain information regarding model / Size of machine, year of commissioning and performance of M/c.	
3.0	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	

SECTION – II

The **BIDDER** is expected to give complete details against each clause in the table given below, with additional sheets those may be attached (giving clear reference number) to furnish and cover the requisite details / documents.

S. No	PARTICULARS	VENDOR's RESPONSE
4	Profile of the Company bringing-out the years of Experience of the BIDDER in the field of design, manufacture, integration and supply of Pulsed Submerged Arc Welding machine.	
5	Number of Pulsed Submerged Arc Welding machines supplied, installed and commissioned till date for similar applications (with details on machine type / model, configuration, customer and quantity)	
6	YEAR of supply of latest Pulsed Submerged Arc Welding machine for welding applications and the Technical Specifications of the Machine supplied [Details to be furnished]	
7	Details on the Firm's Registration and the FINANCIAL STRENGTH of the COMPANY (Balance Sheet for the last 3 years) shall be submitted with the TECHNICAL OFFER	
8	Details on International Standards / Design Process Codes followed in Design and Manufacture of the Equipment.	
9	Details on SERVICE-AFTER-SALES Set-Up in India including the Addresses of Agents / Service Centers in India. Competency & Experience of the Local Service Agency are to be provided	
10	Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment	

SECTION – III

The BIDDER has to comply with the following, for accepting the Technical Offer for Scrutiny by the Purchaser:

S. No.	REQUIREMENTS	VENDOR's RESPONSE
11	The BIDDER / VENDOR shall submit the offer in TWO PARTS-Technical [with PART A & PART B] & Commercial and Price Bid.	
12	The Technical Offer shall be supported by Product Catalogues and description.	
13	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 mere 'CONFIRMED' or 'COMPLIES' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement [without any supporting technical write-ups, photos and datasheets] may lead to disqualification of the Technical Offer.	
14	The BIDDER / VENDOR shall assure a continuous support for the supply of SPARES and SERVICE for TEN Years, from the date of commissioning of equipment at BHEL Works.	
15	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, attachments, auxiliary parts, spares, consumables, etc. with the main and basic equipment, to meet the technical specification requirements.	
16	Soft copy if any, giving the salient features of the proposed machine with all sub-systems and auxiliaries, and /or showing live-demo of an existing and working machine of similar configuration and capacity may be provided.	
17	BIDDER has to indicate the Country of Origin for the supply of equipment.	
18	The reference List of Customers shall be accompanied with (Phone Number and E-Mail ID) of the CONTACT PERSON for cross reference by BHEL	
19	In case of preliminary qualification of the offer, on technical grounds, the BIDDER may be called for a detailed technical discussion on the original technical offer at BHEL Works, with a sufficient notice period.	

PART-B
TECHNICAL SPECIFICATIONS OF
PULSED SUBMERGED ARC WELDING

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S.No.	PARTICULARS	BHEL SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
1.0	Purpose: The pulsed submerged arc welding system is a research facility to be used for welding different types of steels and components.		
2.0	Scope of Supply	<u>Basic system</u> 1) Welding power source-2 No 2) Welding head- 2 No (To feed wires up to 5 mm diameter) 3) Twin arc assembly – 2 No 4) Controller for power source & welding head – 2 No 5) Flux hopper assembly 1 No 6) Necessary control interface cables 2 Set	
2.1.	Welding power source	Current range : 100 to 1000A Duty cycle : 100% Welding voltage : 20 to 45 volts Frequency adjustment: 10 – 100 Hz Input Power Supply : 415 ±10% V, 50 Hz, 3-phase AC. Design Feature: Inverter with separate AC and DC modules With RS232/ Ethernet/ device net connector for digital communication Digital Wave form control: Arc current, voltage or power to be controlled. Variable balance control- Setting of wave balance (that is the ratio between positive and negative waveforms) range: -25% to +25% Different parts of the waveform and wire feed speed may be modulated at varying rates to accomplish a constant average condition. (Constant voltage, constant current etc.) Insulation class H Protection IP23 Model no and weight of the power source to be specified.	

2.2	Welding head	Comprising of 1. Wire feeder with feed rollers 2. Torch with contact tips and wire guides 3. Wire straightening devices 4. Two separate wire reels and mountings with necessary drawing giving mounting details of welding head, wire reels and control box. 5. Manual alignment system to align torch	
2.3	Twin arc assembly	For feeding 2.4 mm diameter wire	
2.4	Control panel	The control panel shall have the following Controls / Display: a. Digital meters for reading welding current, voltage. b. Provision for control of welding parameters, wire feed rate and Voltage. c. Provision for remote monitoring and control d. Interfacing cables for controls 15 meters length.	
2.5	Flux hopper	Automatic Flux hopper for flux feeding (5kg capacity .min).	
3.0	Service data	Electrical: Three phase 415+/-10%volts, 50Hz Compressor air line pressure: 5.0 bar	
4.0	Acceptance	Pre dispatch inspection at supplier works for performance evaluation by user	
4.1	Installation & commissioning	Installation and commissioning to be carried out at WRI, BHEL, Tiruchi by the supplier	
4.2	Documentation		
4.2.1	Operation manual	Detailed operating instructions	
4.2.2	Maintenance and troubleshooting manual	a. Electrical Wiring Drawings – Power & Control Circuits b. Complete Printed Circuit Board Schematics indicating check points (Test Points) for Electronic Controls	
4.3	PERFORMANCE GUARANTEE	The Performance of the Total Equipment shall be guaranteed	

		for a minimum period of twelve months from the date of commissioning at BHEL Works.	
4.4	Training	Training on machine operation and maintenance for WRI personnel at the supplier's works.	
5.0	GENERAL POINTS		
5.1	Make and Model of the machine to be mentioned. Detailed catalogs of the machine to be sent with the offer.	Vendor to specify	
5.2	Complete description of all systems & sub-systems shall form part of the technical bid		
5.3	A schematic diagram showing the layout of the machine & associated systems with salient dimensions shall be submitted along with the offer.		
5.4	Standards for Design, Manufacture and testing of the machine shall be in accordance with internationally accepted standards.		
5.5	Total weight of the Machine & Sub-Systems. Weight of the heaviest part of the machine		
5.6	Total connected load KVA		
5.7	Painting of machine and Electrical panel	RAL6011 Apple green (Polyurethane paint)	
5.8	Floor area required (Length x width x height) for complete machine and accessories		

Note : Supplier should indicate the price for each item separately