



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

ENQUIRY

Phone: +91 431 257 7653

Fax :

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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

2631600079

06.10.2016

27.10.2016

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 offer is reaching physically our office before 14.00 hrs on the Date of tender opening.

Item	Description	Quantity
10	Flux Recovery Unit 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. Delivery required 2 Months from the date of purchase order.
2. Erection & Commissioning period required 1 Week from the date of intimation by BHEL to vendor for deputation of their Engineers for E&C.
3. Compliance Form No: TRY/IND/08 to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
4. 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

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

PART - A

QUALIFYING CRITERIA FOR FLUX RECOVERY UNIT

Section-I

The BIDDER/VENDOR has to compulsorily meet the following requirement to get qualified for submitting an offer for FLUX RECOVERY UNIT.

Sl.No	BHEL Specification	Vendor's Offer
1.0	QUALIFYING CRITERIA	
1.1	The BIDDER / VENDOR (OEM) shall have at least FIVE Years of Experience in the Design, Manufacture & Supply of "FLUX RECOVERY UNIT". Vendor to indicate the actual no. of years of experience in the field.	
1.2	Only those vendors (OEMs), who have manufactured ,supplied and commissioned at least ONE FLUX RECOVERY UNIT in the last FIVE years [as on date of this tender opening(first date)] should quote.	
1.3	Vendor has to submit at least one Performance Certificate from any of their customers, for satisfactory performance of the FLUX RECOVERY UNIT/s specified in Sl.No. 1.2 supplied to them and such the system is working satisfactorily for a minimum period of one year [as on date of this tender opening (first date)]. For obtaining the Performance certificate, a suggestive format is provided at the end of part-A.	
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 shall be rejected.	

Section-II

2.0	INFORMATION TO BE PROVIDED BY VENDOR	
2.1	Vendor shall provide contact details(phone no & email id) including the address of his Agents / Service Centres in India	
2.2	Year of launch of the model quoted against this enquiry	
2.3	Number of "FLUX RECOVERY UNITs" supplied and commissioned till date in the quoted capacity (to quote FLUX RECOVERY UNIT supplied during the last three years only)	
2.4	The BIDDER/VENDOR to furnish Reference List of Customers (max 10 customers) including Contact details(phone no & email id).	

SECTION III

The BIDDER to note:

S. No.	PARTICULARS	Vendor's Offer
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 by the BIDDER compulsorily with complete details.	
3.3	The Technical Offer shall be supported by Product Catalogue and Data Sheets in original and complete technical details / literature on the quoted models of FLUX RECOVERY UNIT.	
3.4	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.	

Suggestive Format of Performance Certificate:

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

PERFORMANCE CERTIFICATE

- | | | |
|---|---|---------------------------------|
| 1 | Supplier of the FLUX RECOVERY UNIT/ system | |
| 2 | Make & Model of the FLUX RECOVERY UNIT/ system | |
| 3 | Total Capacity of the FLUX RECOVERY UNIT/ system in Ton (Kg) | |
| 3 | Month & Year of Commissioning | |
| 4 | Application for which FLUX RECOVERY UNIT/ system is used | |
| 5 | Performance of the FLUX RECOVERY UNIT/ system
(Strike off whichever is not applicable) | Satisfactory / Not Satisfactory |
| 6 | After sales service
(Strike off whichever is not applicable) | Satisfactory / Not Satisfactory |
| 7 | Any Other remarks | |

Performance certificate issued date:

Signature & Seal of the Authority
Issuing the Performance Certificate

Contact details of issuing authority

Name & Designation:

Office No/ Mobile no:

Email ID:

Seikholien Haokip
Sr.Engineer/ATP

Flavius Palan R
SDGM/ATP

Obliraj.C
Sr.Engineer/M&S

Hari R
Dy.Engineer/Modn.
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PART-B

**TECHNICAL SPECIFICATION
OF
FLUX RECOVERY UNIT**

<u>Sl.No.</u>	PARTICULARS AND BHEL SPECIFICATION		BIDDER'S OFFER (With Technical Details)
1.0	Purpose	a. The system is meant for a typical application of recycling unfused welding flux during submerged arc welding operation, in the existing welding station. b. The sucking of surplus flux shall be either from weld grooves of width 20 mm to 40 mm or flat surfaces. c. Welding slag pieces of smaller sizes may also be sucked. d. The temperature of unfused flux is around 200°C.	
2.0	EQUIPMENT CONFIGURATION: The offered Flux recovery unit shall consist of the following: a. A multi-stage rotary turbine or regenerative blower coupled to an electric motor for high vacuum generation b. A vacuum chamber, provided with a fabric filter bag assembly to separate fine dust and a dust-collecting tank. c. The vacuum chamber shall be connected to a primary cyclone/baffle type separator through a flexible vacuum hose. The primary separator shall have a mesh for separating slag particles and a conical bottom (hopper) with a tapping facility to drain the collected flux. d. A pressure feeding system to carry the flux from the flux-chamber to the flux-hopper fitted near the welding-head and for sucking the flux, a flexible hose with recovery / collecting		

	nozzles (suitable for grooves and flat surface) shall be connected to the primary separator.			
	e. A flux heating chamber with suitable electrical heating elements with temperature gauge to maintain the temperature of recycled flux at a minimum of 200 deg C, while in operation. The heating system offered shall be explained in detail with principle of operation and fool proof electric heating mode. f. The flux feeding conduit and recovery hoses shall ensure no clogging of flux at any junctions, bends, nozzles, etc. g. Suitable accessories like crevice nozzle, extension pieces, handles, filters etc., shall be offered. h. The equipment shall be coated with heat resistant and anti-corrosive paint i. Under-carriage fitted with hard rubber lined wheels, 2-fixed wheels 2 castor wheels. j. 10 mtr. long sheathed 3-core input Power cable with safety wrapper.			
3.0	CONSTRUCTION FEATURES/TECHNICAL SPECIFICATIONS			
3.1	Electrical Power Input	415 V with fluctuation of $\pm 10\%$, 50 $\pm$ Hz, 3 Phase AC (3 wire system without neutral)	Vendor to confirm	
3.2	Electric Motor Power	5 H.P (minimum) with continuous (100 %) Duty Cycle	Vendor to specify	
3.2.1	Make of Electric Motor & Controls: Motors & other electrical components shall conform to IEC or Indian Standards. Motors shall be of SIEMENS/ABB / CROMPTON GREVES / KIRLOSKAR/ BHARAT BIJLEE or any other reputed make acceptable to BHEL. All switches and control elements shall be of Seimens / L&T / GEC / Alstom /telemecanique or any other reputed make acceptable to BHEL.		Vendor to confirm & specify	
3.2.2	Tropicalization : All electrical equipment shall be tropicalized.		Vendor to confirm	
3.2.3	All electrical control cabinets & panels shall be dust & vermin proof and shall have IP 54 protection		Vendor to confirm	
3.2.4	Vendor shall ensure the proper earthing for the EQUIPMENT and its peripherals.		Vendor to confirm	
3.3	Noise Level: There should not be any undue vibration and noise level should be less than 85dB with in a distance of 1M.		Vendor to confirm	
3.4	Compressed Air Pressure	4 to 5 kg/sq.cm. (Input)	Vendor to confirm	
3.5	Air Displacement	5.0 Cubic Mtrs./Min. (Minimum)	Vendor to specify	

3.6	Measure of Vacuum	2500 mm of H ₂ O (Minimum)	Vendor to specify	
3.7	Recovery/Feeding Hose	40mm ID, Synthetic Rubber or Metal Braided / Reinforced Hose to withstand 200 Deg. C.	Vendor to confirm	
3.8	Flux Handling Temperature	200Deg. C (Maximum)	Vendor to confirm	
3.9	Filter Area	12,500 sq.cms. (Minimum)	Vendor to specify	
3.10	Fine Dust Storage Capacity	25 Litres in Vacuum Unit (Minimum)	Vendor to specify	
3.11	Flux Storage Capacity	30 Ltrs. in Primary. Separator (Minimum)	Vendor to specify	
4.0	DOCUMENTATION:			
4.1	Three sets of operating & maintenance instructions manual in English Language with Assembly, Sub assembly drawings, Parts list, Test certificate of main motor and Catalogues, Manuals of all bought out items shall be supplied along with the machine. Also all above documents in one soft copy to be provided		Vendor to confirm	
5.0	SPARES:			
5.1	a. Itemized breakup of mechanical, electrical spares used on the machine for 2 years operation should be offered by vendor. b. Both electrical and mechanical spares such as rubber gaskets, filter fabric, suction hoses, V-belt, pulleys, heating elements etc. shall be offered. (Unit Price for each item of spare shall be offered)		Vendor to confirm	
6.0	GENERAL POINTS			
6.1	Equipment Model No.		Vendor to specify	
6.2	Total connected load (KVA):		Vendor to specify	
6.3	Floor area required (Length, Width, Height) for complete equipment & accessories		Vendor to specify	
6.4	Gross weight of complete equipment.		Vendor to specify	
6.5	Pre-Despatch Inspection	The equipment shall be offered for inspection & functional prove out test. This shall be witnessed by BHEL at supplier's works for performance evaluation prior to despatch.	Vendor to confirm	

		Final acceptance will be given by BHEL after successful Prove-OUT Test at BHEL works.		
6.6	Installation & Commissioning & Performance Prove-Out test at BHEL	Vendor should take full responsibility of Installation and commissioning at BHEL works. After the installation, the supplier has to run the equipment and demonstrate its performance at BHEL works.	Vendor to confirm	
6.7	Training	Training on Operation and Maintenance for BHEL Staff during Installation & Commissioning of the equipment to be provided by the vendor	Vendor to confirm	
6.8	Guarantee	Performance Guarantee for the entire equipment for a period of 12 months from the date of commissioning or 18 months from the date of despatch whichever is earlier shall be provided.	Vendor to confirm	
7.0	IMPORTANT NOTES:			
7.1	The supplier shall give point-by-point confirmation by elaborating the technical feature of the offered system, with reference to the above specification. Additional literature on principle of operation shall be given. Just mentioning 'YES' or "CONFIRMED" is not acceptable.			
7.2	Deviation statement (if any) shall be given along with the offer.			
7.3	The un-priced price bid indicating clearly the offered items shall be enclosed along with the technical offer.			
7.4	Offers incomplete with respect to the above are liable for rejection.			