



BHARAT HEAVY ELECTRICALS LIMITED
Heavy Power Equipment Plant, Ramachandrapuram,
Hyderabad - 502 032. INDIA.
Purchase Dept. : 040 - 23182514
E-mail: sreenunaik@bhelhyd.co.in

Date :
Due Date :
Supplier Qtn. No.:
Date :

**TENDER DOCUMENTS TO BE FILLED BY THE SUPPLIER FOR SUPPLY OF TROLLEY MOUNTED SUBMERGED ARC
WELDING MACHINE-01 NO**

ADDRESS OF THE SUPPLIER :
TELEPHONE NOS.:
E-MAIL ADDRESS :

1. Vendor shall submit complete information against each clause of the specification given below point by point.
2. The Vendor should fill the "Offered" Column in compliance to specified requirements and also "Deviations" column, where there is deviation from the requirement. Duly filled specification cum compliance certificate should be submitted along with the bid. Inadequate, incomplete, ambiguous or unsustainable
3. The offer and all the documents enclosed with bid should be in English language only.

Sl. NO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED BY	OFFERED	DEVIATIONS	REMARKS
1.0	PREQUALIFICATION REQUIREMENT : a) The suppliers shall give a list of atleast two PO copies or customers list with contact numbers/email id's to whom similar Submerged Arc weld machines are supplied,preferably Govt./ public Sector b)The vendor shall be OEM or authorised distributor and the supporting documents need to be submitted	To be submitted			
2	Purpose: (Operations/Jobs involved): Welding L-seams and circ-seams of shells for heat exchangers	Vendor to note			
3	SA welding station shall consist of a) SAW Head (Carriage Mounted) b) Carriage or Track c) Power source 1200A (@ 60% DUTY CYCLE) d) flux feeding system e) Wire Feeding unit f) Control system for all the above and welding process controller.	Vendor to Confirm and furnish details			
4.0	Carriage Specification (for holding welding head)				

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4.1	Carriage to hold welding head	Confirm ;			
4.1.a	Track width	to be specified			
4.1.b	Travel speed	to be specified			
4.2	AC Motor for welding head movement on track & Specify its make and rating	vendor to Specify & Confirm			
4.3	Track Length : 4000mm	Vendor to note & Confirm			
4.3.a	Welding speed : 100 - 800 mm/ min , Speed accuracy +/- 5mm/min	Vendor to note & Confirm			
4.4	Drive mechanism for cross slide/biaxial guide system movement mechanism	vendor to specify			
5.0	SUBMERGED ARC WELDING HEAD				
5.1	Weld joint type: Butt joint / fillet	Confirm			
5.2	Wire dimension : 3 - 4.8 mm wire (to be noted)	Confirm			
5.3	Cross slides/bi axial guide system with 80 x 80 mm traverse (Y&Z) that secures the positioning of the head within +/- 1.5mm deviation.	Vendor to note & Confirm			
5.4	Wire feeder: motor & drive with built in gear box.	specify make			
5.5	Welding current: DC Max 900 Amp, at 100% duty cycle	Confirm			
5.6	Wire spool holder to be provided	Confirm			
5.7	Weight of wire spool (20-25 Kg)	Vendor to note & Confirm			
5.8	Weight of welding head	Specify			
5.9	Welding head to withstand temperature of welded vessel: 350 ° C (preheat at joint)	Confirm			

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6.0	Clearance for carrying internal welding : Longitudinal, Min internal diameter 1600 mm Circumferential, Min internal diameter 1600 mm	Vendor to note & Confirm			
6.1	The welding head shall be equipped with 90-degree swivelling plate for head swing when changing from circumferential to longitudinal welding.	Confirm			
6.2	Provision for spot light to be there	Confirm			
6.3	Type of voltmeter and ammeter provided on control panel	Specify			
7.0	POWER SOURCE : 1200 DC POWER SOURCE	confirm			
7.1	Necessary welding cable and earthing cable 10 meters EACH along with heavy duty earth clamp to be supplied along with the equipment.	Confirm			
7.2	1200Amps DC ; 3-phase conventional Diode controlled power source suitable for Sub Arc welding upto 5.0mm Dia wire	confirm			
7.3	Output current : 1200 A at 60% duty cycle	confirm			
7.4	Output Voltage range	specify			
7.5	OCV	specify			
7.6	Open Circuit Power in W (No Load power)	specify			
8.0	WELDING CONTROLLER should have the following:				
8.1	Emergency stop	confirm			
8.2	Retract wire	confirm			
8.3	Travel	confirm			
8.4	Forward & Backward	confirm			
8.5	wire Advancing	confirm			
8.6	Stop welding	confirm			
9.0	FLUX FEEDING SYSTEM	confirm			
9.1	5 Kg flux hopper	confirm			
9.2	Indicator for minimum flux level to be provided.	confirm			
9.3	Location of Flux tank on welding head	specify			
9.4	Flux feeding hose of suitable length	confirm			
9.5	Flux feeding hose shall withstand flux temperature of 250 ° C	Confirm			

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M. S. Senthosh

SL.NO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED BY	OFFERED	DEVIATIONS	REMARKS
9.6	Max temperature of flux that can be held in tank & hose	Specify			
10.0	ELECTRICAL :				
10.1	Power supply 415V \pm 10%, 50HZ \pm 3%, 3 Phase AC (3 wire system with out neutral) Power Supply Voltage will be provided by BHEL.	Vendor to note & Confirm			
10.2	Tropicalization: All electrical / electronic equipment shall be tropicalized	Confirm			
10.3	All Motors shall conform to IEC / Indian Standards	Confirm			
11	The Equipment should have all the necessary accessories for normal working condition and it should be installed with all the necessary safety requirements also. It should be part of main equipment cost.	Vendor to note & Confirm			
12	All the bought out items (if any) shall be reputed make only	Vendor to note & Confirm			
13	Name plate shall contain the details such as S.No, Input power and input voltage etc.,	Vendor to note & Confirm			
14	Installation, Commissioning and prove out of the equipment at BHEL R.C.Puram works is suppliers responsibility.	Vendor to note & Confirm			
15	A detailed Catalog of the equipment has to be submitted along with the offer	Vendor to submit			
16	03 sets of O & M manuals including all circuit diagrams has to be submitted along with equipment	Vendor to note & Confirm			
17	The Equipment shall be guaranteed for the satisfactory performance for a period of One Year from the date of commissioning.	Vendor to note & Confirm			
18	Callibration certificates & procedure for callibration after use, details shall be submitted along with equipment	Vendor to submit			
19	Delivery Period.	Specify			


B.RAMAKRISHNA

AGM/TD


S S PRAKASH

AGM/TECH(HE&FAB)


GANGARAM SAYANNA

Sr DGM/ Electronics


G HARI KRISHNA

Sr.ENGINEER/WE


M SANTOSH REDDY

Sr ENGINEER/M&S