



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 7740 / 7653

Email : skaruna@bheltry.co.in,

ajay@bheltry.co.in, prince@bheltry.co.in

Web : www.bhel.com

TWO PART BID	Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
Tender to be submitted in two Parts	2601700034	29.06.2017	24.07.2017

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	(Indigenous Vendors) Matl. Will be delivered to
10	Welding Filler Wire Layer Winding machine as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	01 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 (by Indigenous vendors): as stated above.
2. By Foreign vendors: CFR Chennai Seaport / Airport
3. Delivery period required is 6 months from the date of P.O.
4. Commissioning and performance prove out shall be done at BHEL Trichy by the supplier
5. Time period required for commissioning and performance prove out shall be 3 weeks from the date of intimation by BHEL
6. EMD for this tender Rs. 60,000/-
7. Compliance Form No: TRY/IMP/02 & TRY/IND/02A to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
8. 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- EMD), compliance form and technical specification 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.

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**

Devasi

PRINCE DEVASI

Sr Engineer / Capital Equipment / MM

TECHNICAL SPECIFICATIONS FOR WELDING FILLER WIRE LAYER WINDING MACHINE

PART- A

SECTION – I : QUALIFYING CRITERIA

The BIDDER/OEM (Original Equipment Manufacturer) is expected to give complete details against each clause in the table given below and wherever necessary an additional sheet may be attached (giving clear reference number) to cover the required details, asked for .

S.No.	PARTICULARS	BIDDER's RESPONSE
1	Number of Years of Experience, the BIDDER/OEM has in the field of design, manufacture and supply of 'WELDING WIRE LAYER WINDING MACHINE ' for Welding Industries	
2	YEAR of LAUNCH of the MODEL quoted against this BHEL TENDER / ENQUIRY	
3	BIDDER to indicate the Country of Origin for the supply of the offered 'Welding Wire Layer Winding Machine' .	
4	Number of 'Welding Wire Layer Winding Machines' supplied to WELDING WIRE MANUFACTURING / HEAVY FABRICATION INDUSTRIES, till date and the technical details on such systems , to ascertain the competency.	
5	Details on International Standards followed in Design, Manufacture and Testing of the subject model Welding Wire Layer Winding Machine' {if any}	

SECTION – II

The BIDDER / OEM has to compulsorily meet the following requirements to get qualified for submitting an offer for the 'Welding Wire Layer Winding Machine' :

S.No.	PARTICULARS	BIDDER's RESPONSE
6	The BIDDER / OEM shall have a minimum of FIVE Years of Continuous Experience in the Design, Manufacturing and Supplying of 'Welding Wire Layer Winding Machine'	
7	Number of "Welding Wire Layer Winding Machine" supplied, till date in the QUOTED MODEL to various customers – To furnish the list of those customers with contact details for reference.	
8	BIDDER / OEM has to provide Performance Certificate with full contact details of CONTACT PERSON, who are the End Users of the QUOTED MODEL of 'Welding Wire Layer Winding Machine' – (in the suggestive format as given in the ANNEXURE-A on Page No.3).	
9	Details on SERVICE-AFTER-SALES Set-Up in India including the Address of Agents / Service Centres, for providing technical assistance / spares supply.	

SECTION – III

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

S.No.	PARTICULARS	VENDOR's COMPLIANCE
10	The BIDDER / OEM shall submit the offer in TWO PARTS - Technical [with PART A & PART B] & Commercial Terms and Price Bid.	
11	The Offer shall contain a comparative statement of Technical Specifications given by BHEL and the Offer Details submitted by the BIDDER / OEM, against each clause. A just 'CONFIRMED' or 'COMPLIES' or 'YES' or 'NO-DEVIATION' or similar words in the technical offer may lead to disqualification of the Technical Offer	
12	The BIDDER / OEM shall assure a continuous support for SPARES and SERVICE for TEN Years, from the date of commissioning of the equipment at BHEL Works. This will be an undertaking by the OEM at the time of release of Purchase Order on the successful bidder.	
13	The Technical Offer shall be supported by Product Catalogue and Data Sheets in ORIGINAL and complete technical details / literature on the QUOTED MODEL of "Welding Wire Layer Winding Machines"	
14	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 for the scope of supply – with UNIT RATE.	
15	The expected delivery period (including the time for Pre-Dispatch Inspection clearance by BHEL) for the "Welding Wire Layer Winding Machines" is not more than 16 weeks from the date of issue of BHEL Purchase Order.	

Enclosure : ANNEXURE – A (Performance Certificate)

ANNEXURE-A**PERFORMANCE CERTIFICATE**

The Performance of the subject model of WELDING FILLER WIRE LAYER WINDING MACHINE should be certified by the customer of the OEM/BIDDER on Customer's Letter Head, in the following pattern/format and submitted along with the TECHNICAL OFFER positively.

- 1.0 Name of the Machine Supplier (OEM) :
- 2.0 MODEL/MAKE, Serial No. Wire Layer Winding Machine :
- 3.0 Month & Year of Commissioning of the Equipment :
- 4.0 Details on the Application of the Wire Winder :
-
- 5.0 Performance of the Wire Winder stated above : Very Good /
Satisfactory /
Not Good
- 6.0 Availability of the Wire Winder stated above : Good / Poor
- 7.0 Service After Sales support given by the OEM /
Indian Representative, including spares supply : Satisfactory /
Not Satisfactory
- 8.0 Special Remarks / Recommendations :

Date:

Signature & Seal of the Authority
Issuing the Performance Certificate

PART B**TECHNICAL SPECIFICATIONS FOR
'WELDING FILLER WIRE LAYER WINDING MACHINE'**

S. No	PARTICULARS AND SPECIFICATIONS	VENDOR'S OFFER
1.0	PURPOSE & APPLICATION The Welding Filler Wire Layer Winding Machine is for re-winding of welding wires of High Nickel and Chromium Alloys (viz., INCONEL 617 M, Alloy 617, INCONEL 740 H) Stainless Steel, High Alloy Steel and Carbon Steel from 15 kg spool to different sizes of plastic spools with lower weights and sizes.	
2.0	MACHINE CONFIGURATION	
2.1	The machine shall consist of line supplier with pay-off unit, dancer unit for speed synchronization, layer winding spooler and electrical control panel with digital controls.	
2.2	Sub – Systems : To include the following and the BIDDER to specify other associated components / accessories required for an efficient working of the offered equipment, without any hassles	
2.3	a) The wire spool winding machine has to use the 630 mm payoff bobbin and shall be suitable for use with standards diameter spools of 100, 200, 270, and 300 mm. To match any other diameters which are of International Standards adopted by reputed welding machine manufacturers globally. BIDDER has to indicate those sizes also in the offer. b) The wire spool winding machine has to be capable to produce spools of sizes to have weight of 1kg, 2kg, 5kg, 12 kg and 15 kg . c) The wire spool winding machine has to be capable to wind the filler wire of diameter 0.8, 1.0 , 1.2 and 1.6 mm. d) The wire spooling machine shall compulsorily include a traverse unit to the payoff of the reverse operation. [As our main requirement it to rewind the Inconel wire from 15 kg spool to other 5kg, 2kg and 1kg spools.] e) The BIDDER has to ensure supply of two numbers of 630 mm pay-off bobbin along with the equipment. f) The vendor has to also supply the all sizes of plastic spool - 50 numbers each as per attached ANNEXURE – 1 enclosed.	

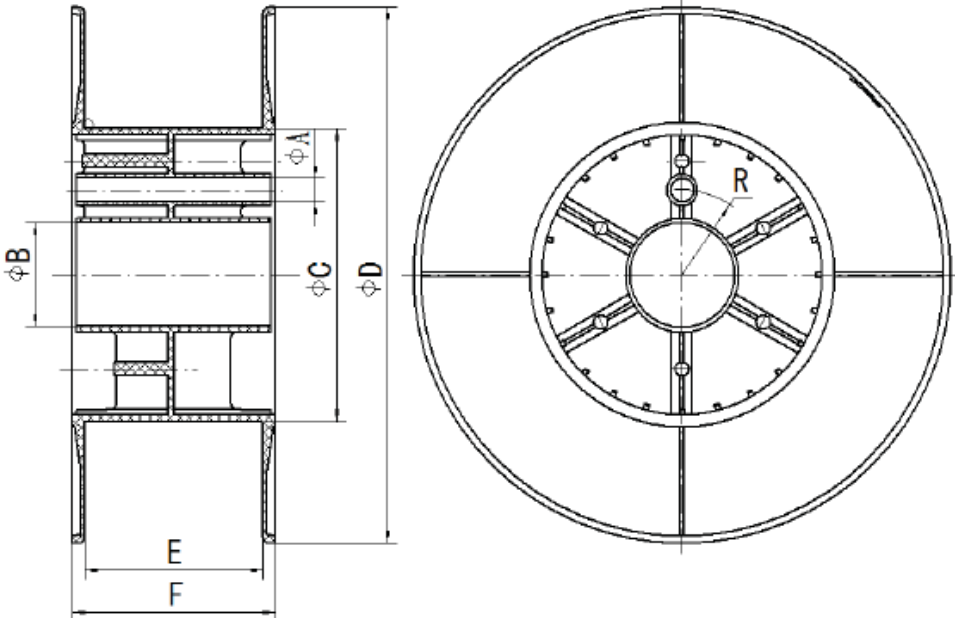
S. No	PARTICULARS AND SPECIFICATIONS		VENDOR'S OFFER
3.0	TECHNICAL SPECIFICATIONS		
3.1	Welding Wire sizes to be handled in the machine	0.8, 1.0, 1.2 and 1.6 mm	
3.2	Welding wire materials	Inconel 617, Inconel 625, Aluminium, Stainless Steel, Alloy Steel and Carbon Steel	
3.3	Spooling line speed	Around 0 – 20 M/second	
3.4	Rating of driving motor of spooling machine	6 kW or above (AC)	
3.5	Rating of the pay-off machine with bobbin	15 kW or above (AC)	
3.6	Pay- off Bobbin Size	630 mm	Bidder to quote other sizes
3.7	Pay off bobbin weight	Around 400 kg	
3.8	Wire Straightener for Inconel, Stainless steel and Carbon steel filler wire.		Bidder to provide details
3.9	Protective device between winding machine and the dancer		
3.10	Stepping motor for transvers wires		
3.11	Suitability of offered spooling machine for what sizes of plastic spools.		
3.12	The loading and unloading of spool mechanisms	Manual OR Mechanized Bidder to provide details	
3.13	The loading and unloading of bobbin mechanisms	Mechanized system is preferred. Bidder to provide details	
3.14	Winding rollers to suit all the required sizes of wire diameter	0.8, 1.0, 1.2and 1.6 mm diameters	
3.15	Type of roller	Vendor to specify	
3.16	Material of roller	Vendor to specify	
3.17	The braking of spool by Pneumatic cylinder	Vendor to specify, Bidder to provide details	
3.18	The braking of the pay-off machine is by pneumatic cylinder	Vendor to specify. Bidder to provide details	
3.19	Control panel should be out of the machine with PLC	Vendor to specify. Bidder to provide details – include make of PLC.	

S. No	PARTICULARS AND SPECIFICATIONS		VENDOR'S OFFER
3.0	TECHNICAL SPECIFICATIONS (contd...)		
3.20	Automatic Alarm for material shortage	Bidder to provide details	
3.21	Machine to have facility for Automatic weighing	Bidder to provide details	
3.23	Machine to have facility for Automatic layer spooling	Bidder to provide details	
3.23	Machine to have facility for Automatic stopping	Bidder to provide details	
4.0	ELECTRICAL POWER INPUT & COMPRESSED AIR		
4.1	An electric power input through a $415 \pm 10\%$ V, 50 ± 2 Hz, 3 phase AC Supply – 4 wire system (4 th wire for earthing) will be provided at one point by BHEL. (Bidder's choice to plan for Voltage Stabilizer)		
4.2	The compressed air supplied will have a pressure of 4.0 to 5.0 Bar (with unlimited volume) will be provided. BIDDER has to plan Oil Filter and Moisture Remover Unit for the compressed air.		
5.0	SPARES, CONSUMABLES AND ACCESSORIES		
5.1	Spares, Consumables and Accessories required for two years trouble free operation of the total system shall be offered.. Unit wise cost of all the items must be provided with offer.		
6.0	DOCUMENTATION		
	The following documents in English language should be supplied along with the machine :- Hard Copies : 3 sets :- In CD form : 1 Set 1. Operating & Programming manual of the machine 2. Maintenance manuals with all assembly drawings, sub-assemblies with parts list 3. Electrical Drawing/power & control circuits. 4. Maintenance & Interface manuals for machine control system 5. PLC / complete printed circuit board schematic indication check points for electronic controls. 6. Complete list of alarm log, error code, error messages and remedies and on line fault diagnostic to be provided by the vendors, 7. Trouble shooting chart for main and all sub-system 8. Preventive maintenance check list for Electrical and mechanical system. 9. Complete list of spares for machine, along with item part no/ specification/type /model and make and adders of the sub-vendor.		

S. No	PARTICULARS AND SPECIFICATIONS		VENDOR'S OFFER
7.0	EQUIPMENT INSPECTION & ACCEPTANCE "AT VENDORS WORKS		
7.1	The equipment and Accessories, before dispatch the system, the complete pre-dispatch inspection will be carried out by the BHEL executive at the manufacturer's site which included carrying out all the functional test, testing on samples& acceptance criteria		
7.2	The testing trials shall be carried out on materials as recommended by BHEL using all the goniometers proposed to be supplied.		
7.3	All the materials and consumable needed for the trials shall be arranged by the vendors only		
8.0	MACHINE ERECTION AND COMMISSIONING AT BHEL WORKS		
8.1	The manufacturer shall be responsible for the installation of the machine at BHEL/Trichy.		
8.2	All handling tools and mechanical / electrical help required for the installation and commissioning shall be provided by the BHEL.		
8.3	The required material and consumable for carry out prove out trials at BHEL/Trichy will be provided by the BHEL		
8.4	After successfully commissioning of the system prove out trials to be carried out considering actual application (specially material, diameter & spool sizes)		
8.5	The supplier shall impart training to BHEL's staff / operator and maintenance crew in operation and maintenance during commissioning of the equipment at BHEL works, for FIVE working days. It includes Safety, Operational of the equipment PLC based System & Trouble – Shooting, all special features of the equipment, electrical/mechanical/ electronics system etc.		
8.6	The manufacturer shall be responsible for providing the technical assistance for the machine during commissioning & training through its expert only		
9.0	EQUIPMENT GUARANTEE		
9.1	Performance Guarantee to be given for 12 months from the date of commissioning or 18 months from the date of dispatch whichever is earlier (for any failure of any parts, sub-systems, components or equipment as a whole)		
10.0	GENERAL POINTS		
10.1	Machine Model Number and other related details	Vendor to provide	
10.2	Total connected Load (in kVA)	Vendor to specify	

S. No	PARTICULARS AND SPECIFICATIONS		VENDOR'S OFFER
10.0	GENERAL POINTS		
10.3	Total weight of the machine & Accessories	Vendor to specify	
10.4	General Arrangement drawings	Vendors to provide	
10.5	Calibration certificates for all machines, meters and equipment to be provided by the vendor	Vendor to provide	
10.6	All electronic controls for integrated controller / drives that need stabilized supply shall be provided with suitable voltage stabilizer	Vendor to specify	
10.7	Sea worthy & rigid packing for all items of complete machine, control system, all accessories and other supplied items to avoid any damage / loss in transit. When machined is dispatch in container, all small loose items shall be suitably packed in boxes	Vendor to confirm	

ANNEXURE - 1

Plastic spool dimension (mm)								
Plastic Spool								
Type	A	B	C	D	E	F	R	
SD300 (15kg)	11	52	212	300	90	103	44.5	
SD200k (5kg-A)		52	105	200	45	55		
SD100/40k (1kg)		16.5	38	100	38.5	45		
SD270 (12kg)		52	148	270	90	103		
5kg-B		52	140	225	89	102		