



Bharat Heavy Electricals Limited
Boiler Auxiliaries Plant
Ranipet - 632406, Tamilnadu (INDIA)

Spec No.: BHEL/MTD&TE/UTG/19-20, Rev.1

Enquiry No.

Date:

Specification cum Compliance Certificate for Ultrasonic Thickness Measuring Gauge

Notes:-

1. The 'MAKE/ ORDER CODE Offered', 'OFFERED QTY' Columns and where applicable the 'Deviations' & 'Remarks' Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous or unsustainable information against any of the clauses of the specifications / requirements shall be treated as non-compliance.
2. The offer and all documents enclosed with offer should be in English language only.

Name & Address of the Supplier:

Tele. No. :

Fax No. :

E-mail :

Scope: Supply, Installation & Commissioning of 2 Nos. of Ultrasonic Thickness Measuring Gauge complying with the following specification.

SL. NO.	DESCRIPTION: BHEL REQUIREMENT	BIDDER'S RESPONSE
1.0	PRE-QUALIFICATION CRITERIA :	
1.1	Only those bidders who have supplied atleast 1 No. of Ultrasonic Thickness Measuring Gauge in India of similar OR higher capacity OR offered model in last 5 Years (as on the initial date of opening of tender) are eligible to quote. (Reference PO/ Proof must be submitted alongwith technical bid)	
1.2	Bidder should submit at least One Performance Certificate from any of their customer (especially from Heavy Engineering / Fabrication, Public/ Private sector companies) for satisfactory performance of the "MODEL QUOTED" against this tender OR a model with higher rating for a minimum period of one year from the date of commissioning (as on the initial date of opening of tender). For obtaining performance certificate, a suggestive format is enclosed as Annexure-A	
1.3	Authorization certificate: Only the original equipment manufacturer OR their authorized Agents / Distributors / Dealers are eligible to quote. Along with the offer, valid authorization certificate from the original equipment manufacturer should be submitted if the offer is submitted by an Agent / Distributor / Dealer.	
2.0	INFORMATION TO BE PROVIDED BY THE 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 "Ultrasonic Thickness Measuring Gauge" supplied and commissioned till date (as on the initial date of opening of tender) in the QUOTED MODEL.	
2.4	Along with technical offer, bidder has to furnish some customer reference list including PO details, Qty, Make/Model, Year of Supply & Commissioning and Contact details to whom such equipment has been supplied.	
2.5	The technical offer shall be supported by Product Catalogue on the quoted model of the item/ equipment.	
3.0	TECHNICAL DETAILS:	
3.1	Purpose:	Thickness measuring gauge is used to measure metal wall thickness of flat and curved jobs like Tubes, Pipes, Flat Plates, Hemispheres, etc.
3.2	Job Details	<u>Material:</u> Titanium Alloy (Ti-6Al-4V) <u>Surface Type:</u> Painted/ Non Painted as well as rough surface and polished surface.
3.3	Quantity of UT Measuring Gauge:	2 Nos.
3.4	Make & Model No. :	Bidder to specify.
3.5	Instrument Type	Handheld Type
3.6	Measuring Thickness Range	0.8 mm to 50 mm
3.7	Accuracy	+/- 0.01 mm or better

3.8	Resolution	0.01 mm	
3.9	Units of Display	Interchangeable mm/inch	
3.10	Measurement Techniques	Equipment should be capable of measuring metal thickness ignoring its coating thickness by the offered probe. Vendor to confirm and to provide the details of the technology used.	
3.11	Scanning modes to be provided	- A Scan Mode (Wave Form) - B Scan Mode	
3.12	Operating Temperature	0 deg C to 50 deg C	
3.13	Protection Class	IP 65 or better	
3.14	Display	LED or LCD. Backlight for use in poor lighting condition. Vendor to provide details.	
3.15	Keypad	Keypad provided must be water proof, resistance to oil, grease, dust, etc.	
3.16	Interface	Communication from the equipment to PC to be provided via USB with required cables and software.	
3.17	Calibration	Automatic or vendor to specify and demonstrate mode of calibration at the time of commissioning.	
3.18	Data Storage	Internal + External SD card Memory Storage Vendor to provide details.	
3.19	Data logger	Must store at least 5000 thickness readings.	
3.20	Interface	USB / Ethernet	
3.21	Accessories	Rechargeable Batteries with Battery Charger (operating at single phase 230 V AC) Vendor to provide details.	
		Removable protective casing to the thickness gauge and carry case for whole unit.	
		Data cable for connecting it to the PC alongwith necessary software. Connection type can be USB/RS232	
		Couplant	
		Other accessories recommended by the vendor.	
3.22	Calibration Block	Vendor has to provide a suitable range of stepped calibration block with calibration certificate for each instrument. Vendor to provide details.	
3.23	Test Certificate	The total assembly of the equipment shall be tested for its performance by the supplier at supplier's work prior to dispatch of the equipment and test certificate shall be given clearly indicating the SI.No. of the equipment.	
3.24	Probes Features	a) All probes shall be provided with integral cable capable of measuring specified job thickness range. b) Connection of cable to main unit & connector pin should be robust.	
3.25	Probes with integral cable	Bidder to provide probes with integral cables as per below range. a) 0.8 mm to 2.0 mm - Qty. 4 Nos. b) 2.0 mm to 50 mm - Qty. 4 Nos.	
3.26	List of essential spares	Vendor to provide the list of recommended spares if any.	
3.27	Total Weight of the instrument		
4.0	INSTALLATION & COMMISSIONING		
4.1	Installation & Commissioning of all supplied Instrument/ Equipments to be included in bidder's scope of supply. Installation, Commissioning and Performance prove out of the offered equipment at BHEL works to be done by the supplier's representative. Transport, Boarding & Lodging charges shall be taken care by the vendor.		
4.2	The supplier's Service Engineer shall give training in the Operation and Maintenance of the Instrument to BHEL Staff, during commissioning of the supplied equipment.		
4.3	Schedule, duration, terms & conditions for Installation and Commissioning shall be submitted with the offer.		
4.4	Installation & Commissioning Charges shall be quote separately by vendor along with offer.		

4.5	O&M Manuals: 3 Sets (Hard Copy) and Soft Copy of Operation & Maintenance manual shall be supplied along with the material.	
5.0	BHEL reserves the right to accept or reject the BIDDER / VENDOR (OEM) offer based on the assessment of their technical capability. BHEL reserves the right to verify the information provided by the Vendor for the referred machine at their referred customer's works. It shall be the responsibility of the vendor to facilitate the visit of BHEL's team at their referred customer works. The Travel, Board & Lodging expenses for BHEL Personnel shall be borne by BHEL. In case the information provided by vendor is found to be false/incorrect, the offer shall be rejected.	

SUGGESTIVE FORMAT OF PERFORMANCE CERTIFICATE

The Performance certificate should be certified by the customer on Customer's Letter Head. and submitted along with the TECHNICAL OFFER positively.

(On Customer's letter head)

PERFORMANCE CERTIFICATE

1. Name of the Instrument supplier (OEM):
2. Make & Model of the Instrument :
3. Month & Year of Commissioning :
4. Quantity :
5. Instrument Details
 - a) Type :
 - b) Measuring Range :
6. Application :
7. Performance of the Instrument : Very Good/ Satisfactory / Not Satisfactory
(Strike off whichever is not applicable)
8. After sales service : Satisfactory / Not Satisfactory
(Strike off whichever is not applicable)
9. Any Other remarks :

Date:

Signature & Seal of the Authority
Issuing the Performance Certificate