



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 7653/7775

Fax : +91 431 252 0031

Email : skaruna@bheltry.co.in

spsy@bheltry.co.in

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Web : www.bhel.com

TWO PART BID	Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
Tender to be submitted in two parts	2631700035	20.09.2017	20.10.2017

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.

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	Qty.
10	"Vibration Monitor" as per the technical specification, BHEL commercial terms & conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in , and https://eprocure.gov.in)	1 No.

Important points to be taken care during submission of offer:

1. Delivery terms shall be FOR BHEL Stores, Trichy-620014.
2. 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.
3. Delivery required 1 month from the date purchase order.
4. Erection and commissioning shall be done at BHEL, Trichy by the supplier.
5. Erection & Commissioning period required 1 Week from the date of intimation by BHEL to vendor for deputation of their Engineers for E&C.
6. EMD: Not Applicable.
7. 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/GENL001), commercial Terms check list (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>, and <https://eprocure.gov.in> (public sector units) Bharat Heavy Electricals Limited page) under Enquiry reference "2631700035".

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

S. PARTHASARATHY
MANAGER
CAPITAL EQUIPMENT / MM
BHEL, TRICHY-620014.

VIBRATION MONITORING EQUIPMENT

PART A

SECTION 1: Qualifying Criteria - The BIDDER has to compulsorily meet the following requirements to get qualified for considering the technical offer:

S. No.	REQUIREMENTS	VENDOR's RESPONSE
1.1	The Bidder/Vendor shall have a minimum 5 Years of Experience in the Design, Manufacture & Supply of "Vibration monitoring equipment". Bidder/Vendor shall Indicate the actual number of years of experience in the field.	
1.2	Only those vendors, should quote, who have supplied and commissioned in the last five years (as on the original date of opening of Tender) at least ONE no. of the offered model of the Vibration monitor. Purchase reference and invoice of the same to be enclosed for documentary proof. The name and contact details of the customer to be furnished to whom the above model of the vibration monitor was supplied.	
1.3	BHEL reserves the right to verify the information provided by vendor. In case the information provided is found to be false/incorrect, the offer shall be rejected.	

SECTION 2: The Bidder / Vendor is requested to provide the following information:

S. No.	REQUIREMENTS	VENDOR's RESPONSE
2.1	The BIDDER/VENDOR to furnish Reference List of Customers, with full address, details of contact person, where Vibration monitor has been supplied in the past (Maximum 10 references only).	
2.2	Details of Vibration monitor supplied to other BHEL units or other companies if any. (PO no., Year of commissioning, capacity)	
2.3	Details on Service after Sales setup in India including the Address of Agents / Service Centres in India.	

SECTION 3: The Bidder / Vendor to note the following:

S. No.	REQUIREMENTS	VENDOR's RESPONSE
3.1	The bidder / vendor shall submit the offer in two parts: 1. Technical Offer (with Part A & Part B) 2. Commercial offer & Price Bid.	
3.2	The Technical Offer submitted by the bidder shall contain complete details against all clauses of Part A & Part B of BHEL Tender specification. Technical offer submitted with incomplete details or information shall be disqualified.	
3.3	The Technical Offer shall be supported by product Catalogues & Data Sheets and also technical details of Bought Out Items.	
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.	

PART-B**TECHNICAL SPECIFICATION FOR VIBRATION MONITORING EQUIPMENT– Qty: 01 No**

Sl. No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [With Complete Technical Details]
01	Purpose	Vibration measurement of rotating equipment for condition monitoring of Machine tool equipment. (Vibration Pen/ meter)	
02	Model no. of the vibration monitoring equipment.	Vendor to specify. Vendor to attach the technical catalogue of the offered model along with the offer for technical evaluation.	
03	Parameters to measure	1. Velocity, enveloped acceleration and temperature should be measured and displayed simultaneously. 2. Overall "velocity" vibration reading that measures vibration signals from the machine and should automatically compare them to pre-programmed International Organization for Standardization (ISO) guidelines. An "Alert" or "Danger" alarm should be displayed on the screen when measurements exceed those guidelines. 3. Enveloped acceleration should be measured and compared to established bearing vibration guidelines to verify conformity or indicate potential bearing damage	
04	Digital display	The Digital display should show the following measurements/ information simultaneously: 1. Enveloped acceleration 2. Velocity 3. Alarm display (Alert or Danger) 4. ISO Group 5. Temperature 6. Measurement status 7. Enveloped acceleration class 8. Battery indicator	
05	Vibration pickup	Integrated piezoelectric acceleration must be available for vibration pick up. Also provision must be available in the equipment for supporting an external 100mV/g constant current accelerator for further requirements.	
06	Temperature sensor	Internal infrared temperature sensor	
07	Velocity measurements:	1. Range: 0.7 to 65 mm/s (RMS), 0.04 to 3.60 in/s (equivalent Peak), should meet ISO 10816 2. Frequency: 10 to 1000 Hz, should meet ISO 2954	

08	Enveloped acceleration measurements:	1. Range: 0.2 to 50 gE 2. Frequency: 500 to 10000 Hz	
09	Temperature measurements:	1. Range: 25 deg C to +200 deg C 2. Infrared temperature accuracy: $\pm 5^{\circ}\text{C}$ 3. Sensor distance- Vendor to specify	
10	Enclosure	IP54	
11	Weight of the instrument	Vendor to give details. Should not exceed 300gms	
12	Dimensions of the instrument	Vendor to give details	
13	Rechargeable type battery	Vendor to confirm	
14	Battery life when fully charged	Vendor to give details. Minimum 8 hrs battery backup to be provided	
15	Charger specification	Suitable to Input- $230 \pm \text{V AC}$ & $50 \pm 3\text{Hz}$	
16	Optional Accessory	The vendor shall quote the price separately for the following accessories as an optional item: 1. 100 mV/g accelerometer with 1.5 m integral cable and magnet	
17	Commissioning:	The supplier shall depute their competent personnel for installation and training the BHEL personnel in operating the equipment and to give a demo of operation. Vendor to confirm	
18	GUARANTEE:	Equipment has to be guaranteed for its performance, for a minimum of 12 months from the date of commissioning. Or 18 months from the date of supply whichever is earlier. Vendor to confirm.	
19	Manuals and documentation: User manual- Hard copy 1 nos. and also soft copy in CD should be supplied along with the vibration monitor.		