



# Bharat Heavy Electricals Limited, Jhansi

Material Test Laboratory (MT Lab)

Tender Enquiry No: MTL/TW/21/06/006



## TENDER DOCUMENT

For Tender Enquiry No. : MTL/TW/21/06/006, Dt. 04.01.2022

For

**“Calibration of Reference Laboratory Standards used for calibration of dimensional instruments in Metrology lab of MTL, BHEL-Jhansi (Work Contract)”**

Contact Person:

Name: Anshuman Sharma

Designation: Dy. Manager (MM)

Email: anshuman.sharma@bhel.in

PH: 0510-2412784

Tender Due Date: 25.01.2022, at 13:15 Hrs

Tender Opening Date: 25.01.2022, at 14:00 Hrs

Rev .....	Short details of revision (In case of revision in tender document, otherwise NA)
Date: ....	

**MATERIAL TEST LABORATORY  
BHEL, PO: BHEL, Jhansi 284120 (UP)**



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### DETAILS OF TENDER DOCUMENT

Nature of work: **Calibration of Reference Laboratory Standards used for calibration of dimensional instruments in Metrology lab of MTL, BHEL-Jhansi (Work Contract)**

1. BHEL – JHANSI is in the process of finalizing the Works Contract for **"Calibration of Reference Laboratory Standards used for calibration of dimensional instruments in Metrology lab of MTL, BHEL-Jhansi (Work Contract)"**. The tender document has been detailed as follows:
  - a) Notice Inviting Tender (Annexure A)
  - b) Work Specifications, Scope of work & payment (Annexure B)
  - c) Qualifying Requirement (Annexure C)
  - d) Documents required (Annexure D)
  - e) Technical Bid Application (Annexure E)
  - f) Blank Price Bid format (Annexure F (a))
  - g) Price Bid format (Annexure G (b))
  - h) General Terms and Conditions (JHS 2055C R01)
  - i) Document referred in GTC (Annexure I- VIII)

The duly filled in Technical and Price / Rate bids (**Annexure E and F (a & b)**) along with the instructions to the tenders, Contractor's Obligations, General Terms and Conditions with the signature of the tender on all the pages and complete in all respects super scribed as **"Quotation for Tender No. MTL/TW/21/06/006 Dated 04.01.2022"** should reach us in a sealed cover on or before **25.01.2022 (13:15 hours)** through Registered / Speed post or the same may be dropped in the tender box available at the following address: (**refer GTC ii(c)**).

To  
Tender Box  
Security Control Room/Office  
Administrative Building  
Bharat Heavy Electricals Limited  
Jhansi-284120. UP

- Note: 1) Dropping of tender in the Tender Box within schedule time and date is the responsibility of the bidder.  
2) Technical bid and price bid should be submitted in separate sealed envelopes, in case the bids founds in one single envelope then the "bids" are liable to be rejected.  
3) Tender may be sent via e-mail to [tenderbox.jhs@bhel.in](mailto:tenderbox.jhs@bhel.in)



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### Tender Documents

TENDER ENQUIRY NO: MTL/TW/21/06/006

DATE: 04.01.2022

### CONTENTS

SN	Description	Annexure No.	Page No.	No. of Pages
01	Notice Inviting Tender	A	4-5	2
02	Work Specification, Scope of work and Payment	B	6-9	4
03	Qualifying Requirements	C	10	1
04	Documents Required	D	11	1
05	Performa for submitting Technical Bid	E	12	1
06	Blank price bid	F(a)	13-14	2
07	Price bid	F(b)	15-16	2
08	General Terms & conditions of enquiry (JHS 2055C R01)	Copy Enclosed	17-31	14
09	Annexure (I,II,III & IV) Forms	I,II,III & IV	32-35	4
10	Self-declaration on company's letter head	V	36	1
11	Contract Agreement	VI	37-39	3
12	Indemnity bond	VII	40	1
13	Checklist of documents	VIII	41	1
	TOTAL			37

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### ANNEXURE A

#### NOTICE FOR INVITING TENDER

S. No.	Particulars	Details
1	Brief Description of work	<b>Calibration of Reference Laboratory Standards used for calibration of dimensional instruments in Metrology lab of MTL, BHEL-Jhansi (Work Contract)</b>
2	Tender Evaluation Criteria	As per GTC point (iv)
3	Last date of receipt of the Tender	As per Page no. 1 of Tender Document
4	Date of opening of Techno – Commercial Bid.	As per Page no. 1 of Tender Document
5	Address for submitting the Tender	As per GTC point ii(c)
6	Earnest Money Deposit * (EMD)	<b>Rs. 3283/-</b> <b>(Rupees Three Thousands Two Hundreds Eighty Three)</b>
6(a)	The EMD may be accepted only in the following forms: (i) Electronic Fund Transfer credited in BHEL account (before tender opening) <i>BHEL account details: Bank Name: - SBI; A/c No. :- 10670828866 ; IFSC code:- SBIN0003807, A/c Holder Name:- BHARAT HEAVY ELECTRICALS LIMITED</i> (ii) Card swapping through POS machine at Cash section of BHEL Jhansi.)	
7(a)	In case of successful bidder, EMD will be converted and adjusted against the security deposit, if applicable.	
7(b)	<b>EMD will be forfeited in following cases.</b>	
(i)	After opening the tender, the bidder revokes his tender within the validity period or increases his quoted rate.	
(ii)	The bidder does not commence the work within the stipulated period as per LOI/ Contract. In case the LOI/contract is silent in this regard, then within 15 days after award of contract.	
(iii)	MSEs bidders may be exempted from submission EMD and tender cost, however, MSEs bidders must ensure declaration of UAM number Central Public Procurement Portal (CPPP), failing which such bidders will not be able to enjoy the benefit of exemption of EMD and tender cost.	
7(c)	EMD given by all unsuccessful tenderers shall be refunded normally within 15 days of acceptance of award of work by successful tenderer.	



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7(d)	EMD shall not carry any interest.	
8	Cost of Tender	NIL
9	MSME Clause	As per GTC point (iii)
10	Validity of Offer	120 Days
11	Security Deposit	As per General terms & conditions

**Note: \***

- The EMD shall be accepted only in the following forms:

Electronic Fund Transfer credited in BHEL account (before tender opening)

**BHEL account details: Bank Name: - SBI; A/c No. : - 10670828866; IFSCCode: - SBIN0003807 A/c Holder Name: - BHARAT HEAVY ELECTRICALS LIMITED**

- The contractors may physically visit the work place before quoting their rates. For relevant details please visit our website "www.bhel.com" & [www.eprocure.gov.in](http://www.eprocure.gov.in)
- EMD may be waived of for Central/ State PSUs/ Government deptts/ Autonomous/ Educational/ Research institutions however, bidders must ensure regarding declaration for producing documents regarding being Central/ State PSUs/ Government deptts/ Autonomous/ Educational/ Research institutions to avail the benefit of exemption of EMD.

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### ANNEXURE B

#### WORK SPECIFICATION / SCOPE OF WORK

**1.0 Name of Work:** Calibration of Reference Laboratory Standards used for calibration of dimensional instruments in Metrology lab of MTL, BHEL-Jhansi (Work Contract)

#### 2.0 WORK SPECIFICATION

Table 1:

SI No	Item Description			ID / SI. No.	Details of accuracy/ standards for calibration	Max Required CMC at K = 2	Remarks
	Description	Make	Range				
1	Angular Slip Gauge Set, (Total 15 pieces)	Tesa	0.05 Min to 90 Degree	SI. No.: 17334	Accuracy as per IS 6231 (for details of angle gauges in set please see the Table 1a)	20 arc seconds	All four angles of rectangular block are required to be calibrated (Refer Table 1a)
2	Long Slip Gauge, Grade '0'	Mitutoyo	125 mm	SI. No 894054, Code No.: SCM-334	Accuracy as per IS 2984	0.4 µm	Only for central height deviation
3	Long Slip gauge, Grade '0'	Mitutoyo	150 mm	SI No 900044, Code No.: SCM-335	Accuracy as per IS 2984	0.4 µm	Only for central height deviation
4	Vernier Caliper Checker, Model-515-551	Mitutoyo	0 - 600 mm	SI. No.: 010328	—	2.1 µm	At all points both for inside (from 20 to 600 mm) and outside (0 to 670 mm) measurement
5	Dial Calibration Tester, LC: 0.001 mm, Mechanical Micrometer Type	Mikrotech	0 to 25 mm	SI. No.: 240/84	—	1.1 µm	Minimum at 10 points
6	Inside Micrometer Checker, Model: 515-581	Mitutoyo	0 - 600 mm	SI. No.: 610324	—	3.00 µm	Calibration is to be done at all points in steps of 25 mm
7	Depth Micro-Checker, Code No: 515-571	Mitutoyo	0 - 300 mm	SI. No.: 300263	—	3.0 µm	Calibration is to be done at all points and also of central height block
8	Thread Measuring Wires Set (16 pairs - 32 nos. of wires)	Mitutoyo	0.17 mm to 6.35 mm	Code No.: SCM - 314	As per IS 6311	1.3 µm	
9	Cylinder Setting Master (Set	Mitutoyo	10 to 90 mm	Code No.: SCM - 323	As per IS 4349	1.3 µm	
10	Universal Length Measuring Machine, Model-828 N, LC=0.0005 mm (Null Indicator LC=0.001 mm (Drum)	Mahr Germany	<b>Machine Range:</b> 0 to 100 mm, <b>Range of Drum:</b> 0 to 10 mm having Resoluion 0.001 mm	SI. No.: 48490	—	1.30 µm	For onsite calibration*

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11	Floating Carriage Micrometer, LC: 0.002 mm (Null indicator LC: 0.001 mm). Model FCM - 2 Series 163	Mitutoyo	Total Range: 150 mm, Drum Range: 0 to 10 mm	Sl. No.: 901008	—	3.0 µm	For onsite calibration*
12	Master Cylinder	Supreme Gauges, Pune	150 (Ø) x 500 mm	Sl. No.: 1088	—	1.3 µm	For onsite calibration* / At your laboratory
13	Granite Surface Plate; Grade 0	Guindy Machine Tools	1000 mm X 1000 mm	073-001	As per IS 7327	1.3((L+W)/100) }½ Where L and B are in mm	For onsite calibration*
14	Cast Iron Surface Plate	Guindy Machine Tools	1000 mm X 1000 mm	072-004	As per IS 2285		For onsite calibration*
15	Cast Iron Surface Plate	Guindy Machine Tools	400 mm X 400 mm	072-002	As per IS 2285		For onsite calibration*
16	Cast Iron Surface Plate	Guindy Machine Tools	400 mm X 400 mm	072-001	As per IS 2285		For onsite calibration*

**Note 1:** For item sl. no 1 to 9, the instrument shall be send by BHEL Jhansi to the calibration laboratory & after calibration will be taken back by BHEL Jhansi.

**Note 2:** \* Item sl. no. 10, 11, 13, 14, 15, 16 will be for onsite calibration i.e. at BHEL Jhansi Works.

**Note 3:** Item sl. no. 12 calibration can be done onsite / at your laboratory.

Table 1a	
List of Angle Gauges in Angular Slip Gauge set	
S. N.	Nominal Angle
1	0.05 Min
2	0.1 Min
3	0.3 Min
4	0.5 Min
5	1 Min
6	3 Min
7	9 Min
8	27 Min
9	1 Degree
10	3 Degree
11	9 Degree
12	27 Degree
13	41 Degree
14	Rectangular Block
14 a	90 Degree
14 b	90 Degree
14 c	90 Degree
14 d	90 Degree
15	Straight Edge

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### Scope of Work and Payment

Sl. No.	Scope	Vendor to specify (Yes/No)
1	Calibration of dimensional instruments: As per table 1 of Annex B.	
2	Calibration is to be done on mutually agreed date and time schedule.	
3.1	Calibration is to be done as per specification attached (Refer table 1 of Annexure B) & in reference of Manufacturer's Specification. Should there be any comments or points which are technically not feasible; the same may please be brought out.	
3.2	Calibration agency shall have valid NABL or other equivalent accreditation as per ISO 17025 in concerned parameter and range. Agency to specify NABL accreditation certificate no.	
3.3	The scope of accreditation of calibration agency shall cover all the ranges of instrument/s for which the instrument is to be calibrated and for which the agency submits the offer.	
4	The calibration work will have to be completed within one month after submission of instrument to the Calibration Agency. Delay in execution of work may cause penalty of 0.5% of contract value per week up to maximum of 10%.	
5.1	The instruments sl. no. 1 to 9 of table 1 Annex B shall be calibrated at the works of External laboratory i.e. at your laboratory.	
5.2	The instruments sl. no. 10, 11, 13, 14, 15, 16 of table 1 Annex B shall be calibrated onsite i.e. at BHEL Jhansi Works.	
5.3	The instrument sl. no. 12 of table 1 Annex B shall be calibrated onsite i.e. at BHEL Jhansi Works / at your laboratory. Vendor to specify as per their NABL scope.	
6	The Standard Equipment/ Instruments used for calibration shall have capability (class/accuracy/stability) to maintain proper Test Uncertainty Ratio (TUR) during calibration and traceability to National/ International Standards.	
7	Calibration stickers bearing equipment details, calibration date, calibration status and next due date shall be put on the Instrument after calibration (periodicity of calibration will be given by BHEL at the time of submission of instrument for calibration).	
8	Detail calibration certificate of the instrument shall be prepared in line with ISO 17025 and should be submitted within 7 days from date of completion of calibration.	
9	The payment shall be made after completion of work and submission of Final Invoice/ Bill.	





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10	During Onsite calibration lodging / boarding facilities may be provided on chargeable basis for 2-3 persons for 1 week by BHEL depending upon the availability of accommodation in our guest house.	
11	Award of contract for calibration of items mentioned in Table I of Schedule B may be made on the <b>lowest bidder(s) on overall L1 basis</b> .	
12	BHEL, Jhansi shall not be liable for any compensation what so ever in the event of accident/injury to the persons employed by the contractor, however, First Aid facility shall be rendered free of cost.	
13	Offer shall be submitted separately in 2 sealed bids namely Technical Bid & Price Bid.	
14	Deviation, if any, shall be clearly brought out.	
15	The Party shall confirm all the above points failing which their offer may not be considered.	

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We hereby accepted above (signature & seal of bidder)



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ANNEXURE –C

Sl. No.	Description of Qualifying requirement	Vendor to specify (Yes/No)
1	Calibration agency shall have valid NABL accreditation as per ISO 17025 in concerned parameter and range (Refer table 1 of Annexure B). Calibration agency shall have to submit the valid certificate of accreditation.	
2	The scope of accreditation of calibration agency shall cover all the ranges of instrument/s (Refer table 1 of Annexure B) for which the instrument is to be calibrated and for which the agency submits the offer. Calibration agency shall have to submit the NABL scope of accreditation.	



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### ANNEXURE –D

#### ESSENTIAL DOCUMENTS

1. The bidder should have PAN/TAN number.
2. The bidder should have VAT/TIN No. if material is supplied/consumed.
3. Undertaking duly signed, with seal and stamp of the Bidder, on their letter head as per annexure V.
4. Documentary proof in support of above eligibility criteria along with EMD (if applicable) shall be submitted along with Techno Commercial Bid.
5. **Blank Price Bid as per Annexure – F(a).**



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### ANNEXURE E

#### PROFORMA FOR SUBMITTING TECHNICAL BID

1	Name of the firm <b>(Essential)</b>	
2	Address and Contact Numbers <b>(Essential)</b>	
3	Name of the Proprietor <b>(Essential)</b>	
4	Registration Number of the Firm <b>(Essential)</b>	
	Copy of the Certificate	Enclosed / Not Enclosed
5	NABL accreditation certificate Number of the Firm/Laboratory <b>(Essential)</b>	
	Copy of the Certificate	Enclosed / Not Enclosed
6	Labour License Number <b>(Desirable)</b>	
	Copy of the License	Enclosed / Not Enclosed
7	PF Code Number <b>(Desirable)</b>	
	Copy of PF registration	Enclosed / Not Enclosed
8	ESI Code Number <b>(Desirable)</b>	
	Copy of ESI registration	Enclosed / Not Enclosed
9	PAN/TAN Number <b>(Essential)</b>	
10	GST Number (PAN Based) <b>(Essential)</b>	
11	Validity of offer	120 days from the date opening of technical bid
12	Blank Price bid format <b>(Essential)</b>	Enclosed / Not Enclosed
12	Valid E-Mail Id <b>(Essential)</b>	

We will fulfill all the obligations of the contractor and abide by the Terms & Conditions mentioned in the enquiry.