

<b>DETAIL</b>	<b>INFORMATION</b>
Contact Person and Address	M.NALLATHAMBI SENIOR MANAGER / CCDP PURCHASE DEPARTMENT/R&D and CR UNIT – HPBP BHEL, TIRUCHY, INDIA PIN : 620 014
Email	mnthambi@bheltry.co.in
Telephone	0091-431-257 7558, 257 7152
Fax	0091-431-2520696, 2520193
Notification (Reference) No.	2821500015 – CR Dt. 06/07/2015
Tender Title	SUPPLY OF LABORATORY FEEDER FOR PULVERISED COAL
Tender Type	BUY – Two Part
Brief Description	Supply of Laboratory Feeder for Pulverised Coal as per the specification, qualifying criteria, commercial terms & conditions enclosed
Published in Newspaper	NO
Published On	--
Tender Value in Rs	--
EMD Value - Rs	NIL
Document Cost- Rs	NIL
Date of Issue of Notification -DD/MM/YY	
Date for Closure of Sale of Forms - DD/MM/YY	Not Applicable
<b>Completed Forms to be submitted by - DD/MM/YY</b>	<b>07/08/2015 : 14.00 Hrs IST</b>
<b>Date of Opening for Technical Bids - DD/MM/YY</b>	<b>07/08/2015 : 14.30 Hrs IST</b>

**Note:**

*If the due date of tender opening happens to be a holiday, the tenders will be opened on the next working day.*

*All clarification may be sought at least seven days prior to tender due date from the undersigned with due written request.*

*Corrigendum if any, with respect to this tender will be hosted only in the website <http://www.bhel.com> (or) <http://tenders.gov.in>. You are requested to visit the website regularly for updates.*

*The offer should reach this office on or before the due date & we are not responsible for any postal delay. Late tender will not be considered.*



429-002/A

**BHARAT HEAVY ELECTRICALS LIMITED**

( A Government of India Undertaking )  
 HIGH PRESSURE BOILER PLANT  
 PURCHASE DEPARTMENT - FOSSIL BOILERS  
 THIRUCHIRAPALLI - 620014  
 TAMILNADU (INDIA)

2577152

PHONE : ~~0577888~~  
 GRAMS : BHARATELEC  
 FAX NO: 2520696  
 E-mail: ssraj@bheltry.co.in  
 Web:

Page  
1/2

	<b>Enquiry No</b> 2821500015 - CR	<b>Enquiry Date</b> 06.07.2015	<b>Due Date for Quotation</b> 07.08.2015
<p>Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order.  <b>Bid should be submitted in two parts. 1.Techno-commercial bid (Part-I) and 2.Price bid(Part-II) in a separate sealed cover and both covers must be placed in a third cover and sealed. Our Enquiry No., Enq. date &amp; Enq. Due date must be written on all three covers.</b></p>			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	Laboratory Feeder for Pulverised Coal as per the enclosed specification	NO	1.000	1.00	01.12.15

**General Note:**

NOTE :

- 1) Offer will be invited in TWO PART BID only  
(Technical bid and Price bid - Two separate covers- "TECHNICAL BID" Cover and "PRICE BID" Cover).
- 2) If regretted make mention on the top of the reply cover as "REGRETTED".
- 3) LD Clause for delivery has to be confirmed without fail. Otherwise we would assume that you have accepted our LD Clause.
- 4) BHEL preferred payment term is "100% direct Payment after 45 days from the date of receipt and acceptance of the material". This payment term acceptance is essential for consideration of your offer. Offer with advance payment or proforma invoice will not be considered.
- 5) Transport and Delivery at BHEL - shall be Vendor's scope.
- 6) Tender details are also hosted in BHEL Web : [www.bhel.com](http://www.bhel.com).
- 7) No Revision of prices will be entertained after the tenders are opened.
- 8) Offer validity should be minimum 60 days from the date of opening, otherwise we are not in a position to consider your offer.
- 9) Kindly submit point wise compliance to our Terms & Condition. Otherwise it will be presumed that you are accepting BHEL's terms and conditions.
- 10) Guarantee certificate is required.

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,  
 For **BHARAT HEAVY ELECTRICALS LIMITED**

**S. SUBBURAJ**  
 Senior Manager  
 Purchase / R&D and CR  
 Bharat Heavy Electricals Limited  
 Trichirappalli - 620 014,

MANAGER / PURCHASE  
 (FOSSIL BOILERS)  
 Yours faithfully,



# BHARAT HEAVY ELECTRICALS LIMITED

( A Government of India Undertaking )  
HIGH PRESSURE BOILER PLANT  
PURCHASE DEPARTMENT - FOSSIL BOILERS  
THIRUCHIRAPALLI - 620014  
TAMILNADU (INDIA)

2577152

PHONE ~~2577152~~  
GRAMS : BHARATELEC  
FAX NO: 2520696  
E-mail: ssraj@bheltry.co.in  
Web:

Page  
2/2

2821500015 / 06.07.2015

23505

11) Technical specification enclosed. Copy of filled and signed technical specification confirmations to be submitted. Without this offer will not be considered.

12) Qualifying criteria format is enclosed. Copy of filled and signed Qualifying criteria format is to be submitted. Without this offer will not be considered.

**Enclosures:**

"LD clause has to be confirmed without fail."


**OFFER IS TO BE SENT TO THE  
FOLLOWING ADDRESS**

**AGM / CCDP & MM  
Purchase / R&D and CR  
CCDP, BHEL  
TIRUCHIRAPALLI - 620 014  
TAMIL NADU, INDIA**

The offers should reach us 30 minutes before the time of opening of tenders.  
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,  
For **BHARAT HEAVY ELECTRICALS LIMITED**

**S. SUBBURAJ**  
Senior Manager  
Purchase / R&D and CR

  
MANAGER / PURCHASE  
(FOSSIL BOILERS)  
Yours faithfully,

Technical Specifications For Laboratory Micro Feeder

---

**Annexure - I**

Ref : BHEL:CRC:TS: 01 Rev.1

Dt. : 20-06-2015

**Instructions:**

1. Supplier is requested to give specific confirmation for each point specified in **Table 1** WITH DETAILS of the item to be supplied and not to specify only 'YES/NO'.
2. **Any deviation from the specifications may be brought-out clearly by the supplier in the technical bid**
3. Bidders meeting the Qualifying criteria as per **Annexure – II** only are eligible to be considered for evaluation of their bid.

**Brief Description:**

The laboratory micro feeder is to be procured for continuous and reliable feeding of moderately flowing pulverized coal/lignite at a low feed rate (0.5 to 2 g/min) and specified accuracy ( $\pm 3\%$ ) into a furnace operating at high temperature. The micro feeder operates in ambient condition (RT: 30-45 °C, RH: 60-90%) and the environment is not hazardous. The feeder should be a closed system and feeder hopper closed with lid. The normal compressed air at the outlet of the feeder conveys the feed particles from the feeder outlet into the furnace inlet. There will be a positive pressure (about 50 to 100 mm H<sub>2</sub>O) at the outlet of the feeder. The vendor shall offer a suitable feeder meeting the specifications mentioned in the **Table 1** below.

**Scope of Work:**

- The Laboratory feeder system should consist of hopper with lid and internal agitator, metering device, variable speed drive, supporting stand, accessories and consumables for continuous and reliable feeding of coal/lignite at low feed rates specified. **Figure 1** shows the vendor's scope diagram for the supply of the laboratory micro feeder.
- Installation & Commissioning and Training at BHEL site.
- Other requirements as specified in **Table 1**.

**Technical Specifications For Laboratory Micro Feeder**

Technical Specifications:

**TABLE 1**

S.No	Description	BHEL's Specification/requirement	Supplier's offer (With complete details)	Deviation, if any
1.	Item	Laboratory micro feeder with hopper, internal agitator, metering device, variable speed drive and supporting stand.		
2.	Item application	To be designed for continuous and reliable feed rate for feeding pulverized fine particles into a furnace.		
3.	Feed measure	Gravimetric or Volumetric (screw or rotary)		
4.	Feed rate	Range of <b>0.5 to 2.0 g/min</b> by changing the speed of the metering device.		
5.	Feed flow accuracy	Up to $\pm 3\%$ (Average of 1 minute samples for 1 hr operation)		
6.	Feed flow control	Incremental control range should be at least in steps of 0.05 g/min from 0.5 g/min to 2 g/min flow range specified.		
7.	Type of feeding	Continuous		
8.	Type of Feed particles	Pulverized coal/lignite/ash/char		
9.	Feed Bulk density	0.5 to 1.0 g/cc		
10.	Nature of feed particles	Moderately flowing.		
11.	Feed size	Normal size range is $< 75 \mu\text{m}$ (70 - 90% by weight) Maximum size upto $200 \mu\text{m}$ diameter		
12.	Moisture in feed	5 to 10 %		

**Technical Specifications For Laboratory Micro Feeder**

S.No	Description	BHEL's Specification/requirement	Supplier's offer (With complete details)	Deviation, if any
13.	Hopper Capacity	4 - 5 liters volume		
14.	Hopper Fittings	With lid (air tight) & handle and with slowly rotating internal agitator to avoid solids arching inside hopper and to ensure continuous flow of particles from the hopper and feed chamber.		
15.	Material of construction	Stainless Steel		
16.	Available Power source	AC 230 V, 50 Hz, 1 Phase		
17.	Power consumption	Vendor to specify		
18.	Motor / Drive details	Vendor to specify		
19.	Interfacing with existing Data Acquisition System (16 Bits resolution, DIN Rail mounting terminal block) which accepts either 0-5 VDC or 4 – 20 mA input signal.	<ul style="list-style-type: none"> <li>– Preferred signal type either 0-5 VDC or 4 – 20 mA.</li> <li>– Vendor to provide the connector details for arranging the connector cable</li> <li>– To be simple and user friendly.</li> </ul>		
20.	Dimensions and weight of feeder system	To be specified by the supplier		
21.	Ambient Condition	<ul style="list-style-type: none"> <li>– Temperature: 25 to 45<sup>o</sup>C</li> <li>– Relative Humidity: 60-90 %</li> <li>– Dusty</li> </ul>		
22.	Features	<ul style="list-style-type: none"> <li>– Compact design</li> <li>– No erosion</li> <li>– Particles breakage during operation shall be minimum</li> <li>– Easy removable components</li> </ul>		



**Technical Specifications For Laboratory Micro Feeder**

S.No	Description	BHEL's Specification/requirement	Supplier's offer (With complete details)	Deviation, if any
		for cleaning or maintenance.		
23.	Safety / Quality	<ul style="list-style-type: none"> <li>– Vendor to confirm/certify</li> <li>– Provision for tripping of the drive due to any overload is preferable.</li> </ul>		
24.	Accessories / consumables required	All the accessories / consumables required for specified application and smooth operation are to be supplied by the vendor.		
25.	Spares / consumables required	List of all the spares / consumables required for trouble free operation for a period of 5 years are to be provided separately along with the offer by the supplier.		
26.	Inspection at vendor works	<p>a) BHEL's inspection is applicable. Physical inspection of the feeder and associated accessories may be carried out at vendor works.</p> <p>b) All the features, operation of feeder at specified feed rates and guaranteed parameters of the feeder and associated accessories are to be demonstrated by the vendor during inspection.</p>		
27.	Installation and commissioning	The feeder with all accessories is to be installed & commissioned at BHEL works by the supplier.		
28.	Manuals	Hard and soft copies of complete set of installation and O&M		



**Technical Specifications For Laboratory Micro Feeder**

S.No	Description	BHEL's Specification/requirement	Supplier's offer (With complete details)	Deviation, if any
		manuals in English language		
29.	Documents to be furnished to BHEL along with the offer.	<ol style="list-style-type: none"> <li>1) Scope of supply - 2 copies.</li> <li>2) Catalogs of models quoted - 2 copies.</li> <li>3) Lay out of the feeder with all dimensions clearly specified.</li> <li>4) List of accessories</li> <li>5) Mandatory spares with Unit price. (only the name of spare in the technical bid and its cost in the price bid)</li> <li>6) Application notes, hard copy of literature with photos and drawings explaining the technical features.</li> <li>7) Product Customer list</li> </ol>		
30.	Documents to be furnished to BHEL after placing purchase order	<ol style="list-style-type: none"> <li>1) Electrical wiring diagram indicating power supply requirement and cable specifications.</li> <li>2) Quality certificates, internal test reports and calibration reports</li> </ol>		
31.	Service after sales	Service support and spares for the model offered should be assured for a minimum of ten years.		
32.	Authorized Agents / Service Centre	Details on authorized Agents and Service Centre including the addresses to be provided.		

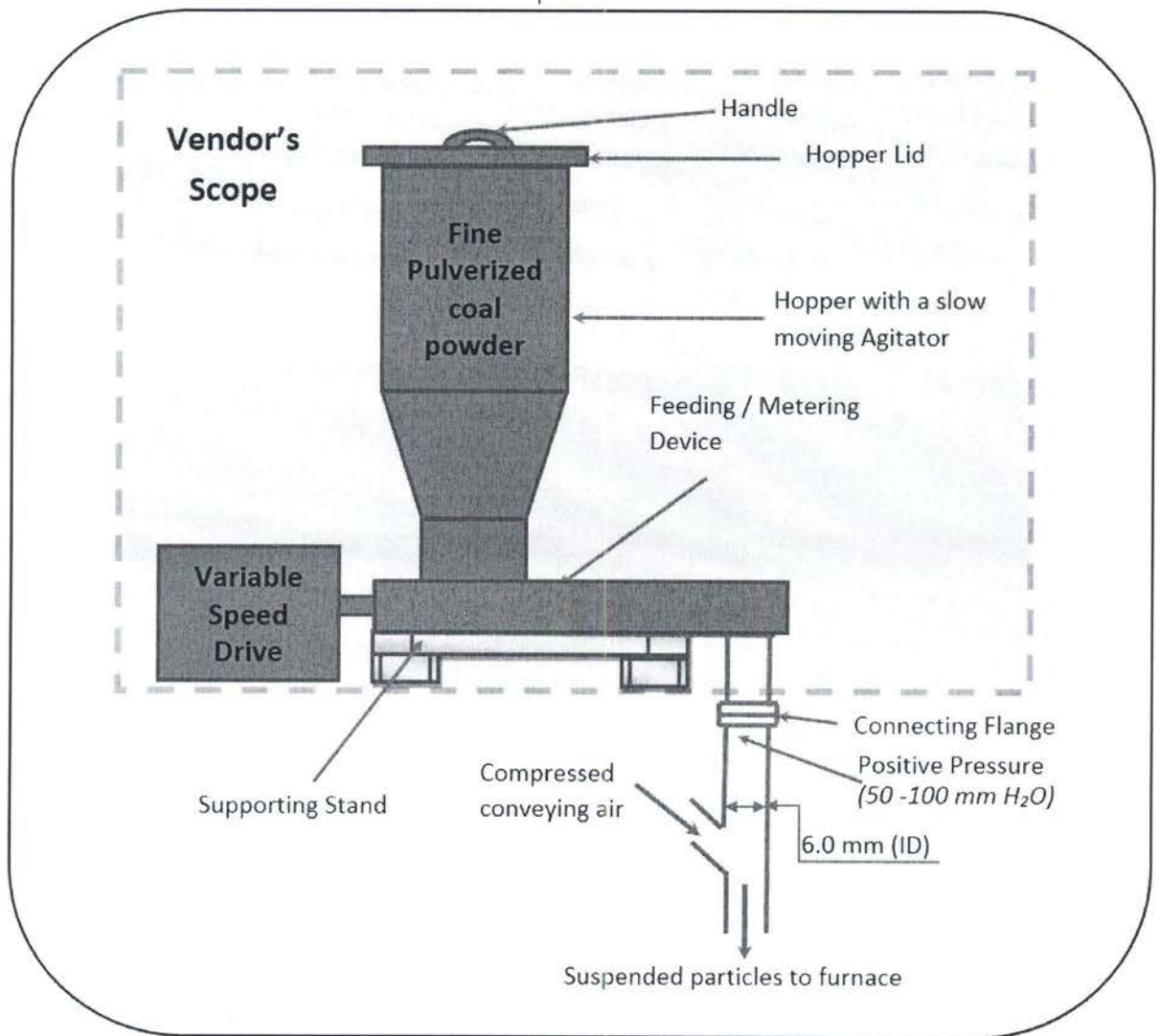


Technical Specifications For Laboratory Micro Feeder

S.No	Description	BHEL's Specification/requirement	Supplier's offer (With complete details)	Deviation, if any
33.	Onsite performance guarantee	The feeder and associated accessories are to be guaranteed for its performance for a <b>minimum period of 1 year from the date of performance acceptance</b> at BHEL's works.		
34.	Training on Operation & Maintenance at BHEL works.	Complete Training for BHEL Engineers to be given on Operation & Maintenance of the offered equipment at BHEL works.		

Technical Specifications For Laboratory Micro Feeder

Figure 1: Scope Diagram for the Supply of Micro Feeder



## QUALIFYING CRITERIA

### Annexure - II

Ref: BHEL:CRC:QC:01 Rev.1

Dt. 20.06.2015

The BIDDER / VENDOR have to necessarily provide the following details, for making an assessment of the firm's capability and competency in the technical bid.

BHEL will study both the Qualifying Criteria and Response for Technical Specifications. The Price bid will be opened only if both the Qualifying Criteria and Response for Technical Specifications are found acceptable otherwise the offer will be rejected.

The BIDDER 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. Bidders not meeting / filling the data sheet are liable for rejection.

S. No.	PARTICULARS	VENDOR's RESPONSE
1.0	The BIDDER / VENDOR shall have a minimum of <b>FIVE</b> Years of Continuous Experience in the Design, Manufacture & Supply of Laboratory " <b>MICRO FEEDER</b> ". The laboratory micro feeder should be a <b>STANDARD PRODUCT</b> in the manufacturer's range of products. Please indicate the actual experience and supply product catalogue.	
2.0	At least <b>THREE</b> LABORATORY " <b>FEEDER</b> " supplied, installed and commissioned till date in the range of 0.1 g/min to 2 g/min either in India or abroad. Please furnish the customer name, feeder range and year of supply.	
3.0	Service Back-Up from the PRINCIPAL Equipment Maker shall be guaranteed.	
4.0	The BIDDER / VENDOR shall assure a continuous support for SPARES, CONSUMABLES and SERVICE for TEN Years, from the date of commissioning of the equipment at BHEL Works.	

Supplier Name, Designation and address.	Signature & Official Seal



An ISO 9001 Company

**Bharat Heavy Electricals Limited**  
Purchase Dept /R&D and CR  
Tiruchirappalli-620014, Tamil Nadu, India

## **COMMERCIAL TERMS AND CONDITIONS FOR SUBMISSION OF OFFER**

### **1.0 QUOTATIONS**

Bidders shall submit the offer in **TWO INNER ENVELOPES** as indicated below which shall be sealed in one outer envelope.

**Envelope I** This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked "**Part I - Technical and commercial bid**", indicating Enquiry No., Due Date and Address & Reference of the Bidder.

**Envelope II** This sealed envelope should contain **price details**. This envelope should be clearly marked "**Part II - Price bid**", indicating Enquiry No., Due Date and Address & Reference of the Bidder.

Both the envelopes (Part I & II) shall be put in one cover, duly sealed, superscribing as Part I and Part II of Enquiry No., due date of opening and the address and reference of the Bidder.

The above offer should reach this office on or before the due date by 14.00 Hrs (IST). Late offers will not be considered. We suggest you to send the offer by SPEED POST.

Tender should not be addressed to any Individual's name but only by designation to:

**AGM / CCDP & MM**  
**Purchase Department / R&D and CR**  
**BHARAT HEAVY ELECTRICALS LIMITED**  
**TIRUCHIRAPALLI - 620 014**  
**TAMIL NADU, INDIA**

Tenders should be free from **CORRECTION AND ERASURES**, Corrections if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.

Offers should be in **ENGLISH** and accompanied by detailed technical literature, catalogue and details of process facility in **ENGLISH**.

## **Bharat Heavy Electricals Limited TIRUCHIRAPPALLI**

### **2.0 PART I (TECHNICAL & UNPRICED COMMERCIAL BID)**

#### **2.1 Technical**

This part shall include / indicate the following:

Offer should contain complete scope of supply with all technical details, specifications, delivery and other commercial terms and conditions.

#### **2.2 Commercial**

This part shall include / indicate the following:

- 2.2.1. Port of shipment / Station of despatch
- 2.2.2. Terms of payment
- 2.2.3. Taxes & duties applicable.
- 2.2.4. Delivery Schedule
- 2.2.5. Offer validity
- 2.2.6. Country of origin
- 2.2.7. A copy of "Un-Priced Part II" i.e., a copy of the Price Bid **without the price details** to be enclosed.  
(Incomplete offers shall be liable for rejection).

### **3.0 PART II (PRICE- BID)**

This part should contain the schedule of price particulars and to be co-related to the technical details provided in Part I. Wherever required / possible break up price details are to be furnished. (Bidders shall quote only fixed rate / price only and not subject to any escalation whatsoever during the period of bid validity and execution of purchase order. Any bid with adjustable or price variation clause shall be treated as "non responsive" and liable for rejection).

### **4.0 OPENING OF TENDERS**

The Part I - Technical & commercial bid alone would be opened on the Tender opening date at the pre-fixed time. In presence of responded tenderers / authorised representative, who may like to be present for tender opening.

The Part II - Price bid of Technically suitable Bidders alone would be opened. The Technically suitable Bidders would be informed about the tender opening date. Clarifications if any required by BHEL for Technical evaluation would be sought from Bidders before opening of Part II - price bid.

### **5.0 GENERAL**

5.1. Incomplete offers will not be considered.

5.2. **Terms of Delivery:** Bidders are required to quote their best delivery period. Delivery shall be counted from the date of Letter of Intent.

**5.3. Taxes and Duties :** All Taxes and Duties if any payable extra over and above the quoted price should be specifically indicated in the un-priced bid along with CST & TIN No etc., failing which the purchaser will not be liable for payment of such Taxes and Duties (the quoted rates shall be considered as "all inclusive").

**Note :** We are not eligible to issue C Form.

**5.4. Validity of Offer :** Offer shall be kept valid for acceptance for a period of 60 days (sixty days) from the date of opening of the price bid.

**5.5. Payment terms :** Payment term is 100% direct payment after 45 days from the date of receipt and acceptance of materials. (Any deviation in the above payment term will attract loading as mentioned below.

"Base rate of SBI (as applicable on the date of Techno-commercial bid opening) + 6% will be loaded for the period of relaxation sought by bidders.

Payment through Bank is not preferred. In case of Payment through Bank is opted by Supplier, BHEL prefers documents submission through bank with copy of LR and door delivery of Goods to Stores with Consignee copy attached. In this case Loading will be 3% on the offered value.

**5.6. Liquidated damages :** It is clearly understood among the parties to the contract the " **Time is the essence of the contract** ". Therefore, the delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional penalty as below

a. Liquidated damages shall be 0.5% of the total order value per week or part there of subject to a maximum of 10% of the total order value.

b. For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part there of subject to a maximum of 10% of the total order value.

c. Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).

**5.7. Risk purchase :** Alternatively the purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or despatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute therefor. The supplier shall be liable for any loss, which the Purchaser may sustain by reason of such risk purchases.

**5.8. Test certificates:** The Bidders shall clearly mention in their offer that Test Certificates as called for in the Technical Specification, in the required number of copies will be provided at no extra cost.

**5.9.** Evaluation of the offers shall be on the basis of "To-Door Cost at BHEL, Trichy (Net Cash outflow to BHEL). BHEL will consider the ranking after the loading is applied as referred above wherever deviations are observed.



**BHARAT HEAVY ELECTRICALS LIMITED**  
**TIRUCHIRAPALLI – 620014**

**PURCHASE / R&D and CR**

**ANNEXURE TO PURCHASE ENQUIRY**

1. PRICE : Ex-Works / Ex-Godown (or) F.O.R- DESTINATION
2. DISCOUNT : ..... % (or) Lumpsum amount Rs .....
3. PACKING & FORWARDING : ..... % (or) Lumpsum amount Rs .....
4. TAX : VAT.....% / CST ..... %  
(CST Without C FORM)
5. SURCHARE : .....%
6. DUTIES : .....%
7. FREIGHT & INSURANCE :
8. DELIVERY PLACE :
9. DELIVERY PERIOD :
10. LD / PENALTY FOR DELAY IN DELIVERY : @ 0.5% PER WEEK SUBJECT TO A MAXIMUM OF 10% IS APPLICABLE. ACCEPTED
11. OFFER VALIDTY :
12. PAYMENT TERM : 100% direct Payment after 45 Days from the date of Receipt and Acceptance of the Material.
13. GUARANTEE / TEST CERTIFICATE :

SIGNATURE OF SUPPLIER WITH SEAL

**NOTE :** Please do not Quote as EXTRA. Quote the rate in % or the amount as lumpsum. (Rates of applicable Taxes & Duties, whether inclusive or exclusive should also be mentioned).