



# BHARAT HEAVY ELECTRICALS LIMITED

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

PHONE :2577645  
GRAMS : BHARATELEC  
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429-002/A


	<b>Enquiry No</b>	<b>Enquiry Date</b>	<b>Due Date for Quotation</b>
	2691400099 - 41	20.08.2014	18.09.2014
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	<p>Specification for Ni-Cr-W-Mo Alloy (UNS N06230) Seamless Tube</p> <p>1. Scope This specification covers Ni-Cr-W-Mo Alloy (UNS N06230) seamless tube conforming in general to ASME SB-167 with narrow down in chemical composition. This tube is intended for elevated temperature boiler application with design pressure of 335 kg/cm<sup>2</sup>. The tubes shall be supplied in cold worked, annealed, and pickled condition.</p> <p>2. Shape and Dimensions # The dimensions of the tubes shall be in the range as given below 60 -130 mm diameter x 8 - 15 mm thickness - 75 kgs</p> <p>3. Heat Treatment The tubes shall be supplied in the solution annealed condition. The solution annealing shall be performed at a temperature of 1140-1200°C and quenched in water or rapidly cooled by other means. The oxide surface shall be removed on both inside and outside surfaces by pickling. All the tests, i.e. chemical composition analysis, tension test and non-destructive examination shall be carried out after the solution annealing heat treatment.</p> <p>4. Chemical Composition (Product Analysis): Chemical composition should be as given below Nickel : Balance Iron : 3.0max Chromium : 20.0#24.0 Cobalt : 5.0max Molybdenum : 1.0#3.00 Tungsten : 13.0#15.0 Carbon : 0.05#0.15 Silicon : 0.25#0.75 Manganese : 0.30#1.00 Phosphorus : 0.030max Sulfur : 0.015max</p>	KG	75.000	75.00	20.10.14

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 be present for the tender opening. Late and delayed offers are liable to be rejected.

**D. CHANDRAMOHAN**  
Senior Manager / MM / RM  
Purchase / CP & SP  
BHEL, TIRUCHY - 620 014.

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

  
MANAGER / PURCHASE  
(FOSSIL BOILERS)  
Yours faithfully,



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Aluminum : 0.50max

Lanthanum : 0.005#0.050

Boron : 0.015max

5. Tensile Properties (Room temperature):

Yield Strength (0.2 % offset), min = 310 MPa

Tensile Strength, min = 760 MPa

% Elongation (L= 5.65?A), min = 40

Tension testing shall be conducted in accordance with test method ASTM E8/E8M.

6. Non Destructive Examination

6.1 Surface Examination

Tubes shall be visually examined and in case of doubt by Liquid

Penetrant Inspection. The product shall show clean surfaces without any undulations. They shall be free from scratches, blowholes, scales, cracks, scoring marks and hairline flaws.

6.2 Ultrasonic Examination

Each tube shall be ultrasonic examined for circumferential and axial scans in accordance with ASME SE-213.

Products with defects that produce indications in excess of the indications produced by the standard defects in the reference specimen are unacceptable. The depth of the notch shall not exceed 5% of the specified wall thickness.

11. Tolerances

As per ASTM B 829-04a

12. Test Reports

The original manufacturer's test certificates (in English) shall be provided as a proof of chemical composition, heat number etc. Each of the following tests shall be indicated in a report to be furnished by supplier.

# Chemical analysis

# Tensile test at room temperature

# Ultrasonic examination

# Surface examination

# Dimensional checks

12. Packing and Marking

The materials shall be marked or tag with the name of the material or UNS number, heat number etc. same as provided in the manufacturer certificate. The details of product marking are as per ASME SB-167.

Packing shall ensure safe delivery of tubes in good condition.


13. Pre-dispatch Inspection

The supplier shall submit the test certificate at the time of pre dispatch inspection. Prior to shipment of the materials, samples from the supplied materials will be subjected to

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chemical analysis, tension  
test and grain size measurement for verification.  
NICKEL ALLOY 230 SEAMLESS TUBE

## General Note:

PL. SUBMIT YOUR OFFER ON F.O.R - BHEL, TRICHY (TAMILNADU) BASIS AND IN TWO PART (TECHNO-COMMERCIAL BID AND PRICE BID) IN A SEPARATE COVER.

IF THE OFFER IS SUBMITTED IN SIGNLE PART AND THE SAME WILL BE LIABLE FOR REJECTION.

ANNEXURE-III ENCLOSED HEREWITH MUST BE FILLED, SIGNED AND SUBMITTED ALONG WITH YOUR OFFER.

THIS TENDER IS HOSTED IN BHEL WEBSITE VIDE NIT REF. \_\_\_\_\_ DT. \_\_\_\_\_ AND ANY CORRIGENDUM MAY PL BE VIEWED IN THE BHEL WEBSITE (HTTP://WWW.BHEL.COM)

FOR MSME VENDORS YR GUIDE LINES WILL BE FOLLOWED FOR THIS TENDER .

ENCLOSURE: ANNEXURE - III

## Enclosures:


"LD clause has to be confirmed without fail."

"Payment to vendors will be made only thro E-Payment mode"

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# COMMERCIAL TERMS& CONDITIONS

# ANNEXURE-III(m)

Bharat Heavy Electricals Limited, Tiruchirapalli – 620 014, Tamilnadu

MM: CP & SP

(Check List - to be filled and submitted along with Techno-Commercial Bid)

Sl. No.	BHEL Commercial Terms and Conditions for Indigenous Supplies	Vendor's Confirmation / Comments
1	Bid should be submitted in <b>Two Parts</b> . 1. Techno-commercial Bid (Part-I) and 2. Price Bid (Part-II) in a <b>separate sealed cover and both the 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>	
2	Technical confirmation to BHEL's Specification shall be furnished. If needed additional sheets shall be used.	
3	<b>Prices shall be quoted item wise only.</b>	
4	Delivery INCO TERMS- Price quoted <b>-FOR BHEL TRICHY, STORES or ex- WORKS Basis or, FOR WORKS (DESPATCHING STATION)</b> <b>In case of EX works / FOR WORKS basis, indicate the Despatching station.</b>  Prices shall be quoted on <b>"FIRM PRICE"</b> basis only.	
5	<b>Validity of offer</b> shall be for a minimum period of 120 days from the date of Tender opening	
6	<b>Delivery period</b> from the date of Letter of Intent / Purchase order	
7	Liquidated damages shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value. For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of the total order value. 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).	
8	<b>Payment term for supply portion:</b> Payment term is 100% direct payment after 45 days from the date of receipt and acceptance of materials. <b>Note:</b> Only Direct Payment after goods receipt & acceptance will be accepted .Above payment term acceptance is essential for consideration of your offer  <b>Any deviation in the above payment term will attract loading as mentioned below.</b> <b>"Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.</b>  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. Offers of indigenous Suppliers with payment terms as <b><u>LC/Advance Payment are liable for rejection.</u></b> <b>Important Note: BHEL will consider the ranking after the loading is applied as referred vide Sl. No. 7&amp; 8 above wherever deviations are observed.</b>	
9	<b>Following Risk Purchase clause</b> shall be applicable: 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 dispatch within the time stipulated or if the same were not available, the best and the nearest available substitute therefore. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.	
10	<b>Erection / commissioning: (if applicable only)</b> Erection / commissioning charges if any has been mentioned in the offer or else confirmation that Erection / commissioning shall be done at free of cost is available in the offer.	
11	The equipment shall be guaranteed as per tender condition from the date of receipt & acceptance./(commissioning (commissioning date ,if applicable as per tender condition)  Normally No deviation permitted and the <b><u>deviated offers are liable for rejection.</u></b>	

**COMMERCIAL TERMS& CONDITIONS**

**ANNEXURE-III(m)**

12	Equipment will be inspected at vendor’s works prior to dispatch if applicable. However final inspection and acceptance of equipment will be after installation at BHEL, Trichy, Tamilnadu.	
13	The vendor shall provide necessary drawings, Test Certificates and Operating Maintenance Manuals etc., as called for in the Technical Specification, in the required number of copies at no extra cost.	
14	Any warranty replacement during warranty period shall be supplied free of charge on FOR BHEL, Trichy, Tamilnadu basis.	
15	Performance Bank Guarantee, if applicable as per tender condition. Normally No deviation permitted and the <b><u>deviated offers are liable for rejection.</u></b>	
<b>OTHER DETAILS REQUIRED</b>		
16	% of Excise Duty with cess	
17	% of TAX (VAT) (TNGST with FORM-17)	
18	% of TAX (VAT) without form	
19	% of TAX (CST) (CST with C-FORM)	
20	% of TAX (CST) without form	
21	Packing & Forwarding Charges ( <b>in % only</b> )	
22	Freight& transit insurance charges, if any( <b>in % only</b> ) Freight charges from Dispatching station to BHEL, Tiruchirapalli (Note: If the delivery terms is Ex Works the materials has to be sent through BHEL approved carrier only ,in this case the freight will be borne by BHEL)	
23	Approximate Net weight of the total consignment	
24	Approximate Gross weight of the total consignment	
25	Approximate Dimensions of the Consignment	
26	Name of the contact person	
27	Land Line Number	
28	Fax Number	
29	Mobile Number	
30	E-mail ID	
31	PAN No.	
32	CST No.	TIN No.

- a) It is confirmed that all the terms and conditions stipulated in the Enquiry have been fully understood by us and all clarifications & details have been obtained.
- b) Applicable % of ED, Sales Tax -CST or VAT, Service Tax), Freight, Insurance and Installation and Commissioning Charges etc., are indicated in offer.

Full postal Address:

Signature & Office Seal of the vendor

**Note:-**

Your specific acceptances to our Payment terms, LD & Risk Purchase (RP) Clause are essential for consideration of your offer. Otherwise your offer is liable for rejection.  
No row shall be left blank. Please indicate NA, in case the item is “not applicable