



General Note: **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
 FAX NO: 2520719
 E-mail :
 Web :

429-002/A

OFFICE COPY

Collective No.	Enquiry Date	Due Date For Quotation
2691400048	06.05.2014	28.05.2014
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-Co-Mo Alloy (UNS N06617) Seamless Tube</p> <p>1. Scope This specification covers Ni-Cr-Co-Mo Alloy (UNS N06617) 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/cm2. 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 # 50 -90 mm diameter x 10 mm thickness - 50 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 strictly as given below Nickel - balance. Chromium- 21.0-23.0 Cobalt-11.0-13.0 Molybdenum #8.0-10.0 Aluminum-0.8-1.3 Carbon -0.05-0.08 Iron-1.5 max Manganese -0.3 max Silicon -0.3 max Sulfur -.0.008 max</p>	KG	50.000	50.00	30.06.14

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

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

MANAGER / PURCHASE
 (FOSSIL BOILERS)



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Titanium #0.3-0.5

Copper-0.05 max

Nitrogen -0.05 max

Boron -0.005 max.

Nb and V for record

5. Tensile Properties (Room temperature):

Yield Strength (0.2 % offset), min = 240 MPa

Tensile Strength, min = 665 MPa

% Elongation (L= 5.65?A), min = 35

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

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materials, samples from
the supplied materials will be subjected to
chemical analysis, tension
test and grain size measurement for verification.
Nickel Alloy 617 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)

ENCLOSURE: ANNEXURE - III

MSME VENDOR GIDE LINES WILL BE FOLLWDED FOR THIS TENDER

Enclosures:

"LD clause has to be confirmed without fail."
"Payment to vendors will be made only thro E-Payment mode."

PR Links

Material.	PR.No	PR.Item.	Quantity	Acc. Assign	Customer Number
	105272591	00010	50.000	/000000	

list of suppliers

RFQ-5200002203
SAFFRON SPECIAL METALS PVT LTD.
202, RAJGIRI A WING,
13 TH KHETWADI BACK ROAD,
GRANT ROAD EAST,
MUMBAI.
PIN- 400004

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