



CORPORATE PURCHASING SPECIFICATION

AA 104 46

Rev. No. 07

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CARBON STEEL SEAMLESS TUBES FOR HIGH TEMPERATURE SERVICE

ORDERING DESCRIPTION FOR ASME SA 210, Gr.: A 1

1.0 GENERAL

The tubes shall conform to the latest version for ASME SA 210, Gr: A1, and comply with the following additional requirements.

2.0 APPLICATION

For high temperature service at stress levels and temperatures allowed by ASME Boiler & Pressure Vessel Code, Section I & Indian Boiler Regulations.

3.0 MANUFACTURE:

Cold drawn seamless.

4.0 HYDROSTATIC TEST / NDT

"Each length of tube shall be subjected to Hydrostatic test as per ASME SA 450.

As an alternative to the Hydrostatic test, each length of tube shall be subjected to NDT as given below:

- a) For thickness upto 3.6mm, inclusive, Eddy current test as per ASME SE 309 or for thickness upto 12mm, inclusive, Flux leakage test as per ASME SE 570.

or

- b) Ultrasonic test as per ASME SE 213.

Norms of acceptance shall be as specified in the respective standards mentioned above.

5.0 CHEMICAL COMPOSITION:

Carbon = 0.25%, maximum.

6.0 INSPECTION AT SUPPLIER'S WORKS

BHEL's representative shall have free access at all times to all parts of the manufacture's works, until the work on the contract of BHEL is being performed. The manufacturer shall offer BHEL's representative all reasonable facilities, without charge, to satisfy the latter that the material is being furnished in accordance with the specification.

Revisions :

Cl:2 9.6.7 of MOM of MRC-FCF+HTM

APPROVED :

INTERPLANT MATERIAL RATIONALISATION
COMMITTEE-MRC (FCF+HTM)

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**7.0 REPAIR**

7.1 Fusion welding is prohibited.

7.2 When done by mechanical means, the wall thickness is to be met with and the surfaces to be smoothly dressed up from any sharp edges.

8.0 CERTIFICATION

Test certificate shall be provided as per IBR FORM-III E issued by WELL KNOWN TUBE MAKER who is recognised by Central Boiler Board. Copy of certification of recognition as Well Known tube Maker in FORM XVI - F shall also be enclosed along with the test certificate.

9.0 PACKING AND MARKING

As per BHEL Corporate Standard AA 049 00 01.

10.0 REJECTION AND REPLACEMENT

If each length of tube does not comply with the requirements of this specification during receipt inspection at BHEL or if any defect is found during further processing of pipes BHEL reserves the right to reject the whole consignment and the supplier shall replace the material free of cost. The rejected material shall be taken back by the supplier after fulfilling the commercial terms and conditions.