



CORPORATE PURCHASING SPECIFICATION

AA10457

Rev No.07

PREFACE SHEET

ELECTRIC FUSION WELDED CARBON STEEL PIPES FOR HIGH PRESSURE SERVICE AT MODERATE TEMPERATURES

FOR INTERNAL USE ONLY

REMOVE THIS PREFACE BEFORE ISSUE TO SUPPLIERS

Comparable Standards:

1. AMERICAN : ASME SA672, Gr.B 60, Class 22

Suggested / Probable Suppliers and Grades:

Refer Use plant vendors list

User Plants and Replaced Plant Specifications / References:

Revisions:

As per Clause No.39.7.3 A) of MOM of MRC –
FCF+HTM

APPROVED:

INTERPLANT MATERIAL RATIONALISATION
COMMITTEE – MRC(FCF+HTM)

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Dt:05-09-2014

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Year:

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RESTRICTED USE





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ELECTRIC FUSION WELDED CARBON STEEL PIPES FOR HIGH PRESSURE SERVICE AT MODERATE TEMPERATURES

ORDERING DESCRIPTION FOR ASME SA672, Gr.:B60 Class 22

1.0 GENERAL:

The pipes shall conform to the latest version for ASME SA 672, Gr.B 60, Class 22 and comply with the following additional requirements. This specification covers sizes of pipes greater than 400 mm NB.

2.0 APPLICATION:

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

3.0 The welds shall be made either manually or automatically by an electric process involving the deposition of filler metal.

4.0 DIMENSIONS AND TOLERANCES:

4.1 Sizes:

Pipe OD X Thickness shall be as specified on BHEL order. Unless otherwise specified, pipes shall be supplied in single random lengths of 5 to 7 meters.

5.0 CHEMICAL COMPOSITION:

Shall be as per ASME SA515, Gr.:60

6.0 HYDROSTATIC TEST:

Each length of pipe shall be subjected to hydrostatic test as per ASME SA530.

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

- a) For thickness up to 3.6 mm, inclusive, Eddy current test as per ASTM E309 or for thickness up to 12 mm, inclusive, Flux leakage test as per ASTM E 570.

or

- b) Ultrasonic test as per ASME SE213.

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

Revisions:

As per Clause No.39.7.3 A) of MOM of MRC – FCF+HTM

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7.0 NON-DESTRUCTIVE TESTS:

100% Radiographic examination shall be performed as per clause 9.0 of ASME SA 672.

8.0 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.

9.0 CERTIFICATION:

Products shall be inspected at works and the applicable IBR form must be countersigned by Inspecting Authority as indicated below:

9.1 For Well Known Pip Maker as recognized by IBR:

Certification in IBR Form III-D.

9.2 For Manufacturers who are not recognized as Well Known Pipe Maker by IBR:

Form III-A duly signed by IBR /Inspecting Authority.

10.0 PACKING AND MARKING:

As per BHEL Corporate Standard AA0490001

11.0 REJECTION AND REPLACEMENT:

If each length of pipe 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.

12.0 REFERRED STANDARD (Latest publications including amendments)

- | | | |
|---------------|--------------|---------------|
| 1) ASME SA530 | 2) ASTM E309 | 3) ASTM E570 |
| 4) ASME SE213 | 5) AA0490001 | 6) ASME SA515 |