

MATERIAL SUPPLY SCOPE FOR BOILER STRAIGHT TUBES

Supply of various seamless, IBR, straight, cold drawn tubes for Boiler as per the details given below-

ITEM 10: ECONOMISER STRAIGHT TUBE, CS, D38.1X4.5 GR A1 (MATERIAL CODE-2000128640)

Supply of IBR straight seamless **cold drawn** tubes for Boiler Economiser coil.

Supply quantity- 5000 Meters.

Tube OD- 38.1 mm

Thickness- 4.5 mm

Material- SA210 Gr. A1

ITEM 20: RH STRAIGHT TUBE D 54.0X4.0MMSA213T22, BOILER (MATERIAL CODE- 2000052374)

Supply of IBR straight seamless **cold drawn** tubes for Re-Heater coil.

Supply quantity- 300 Meters.

Tube OD- 54.0 mm

Thickness- 4.0 mm

Material- SA213-T22

ITEM 30: TUBE, BOILER, OD 54X7.1, SA213 T11 (MATERIAL CODE- 2000225612)

Supply of IBR straight seamless **cold drawn** tubes for Re-Heater coil.

Supply quantity- 100 Meters.

Tube OD- 54.0 mm

Thickness- 7.1 mm

Material- SA213-T11

ITEM 40: RH STRAIGHT TUBE D 54.0X4.0MMSA213T91, BOILER (MATERIAL CODE- 2000052375)

Supply of IBR straight seamless **cold drawn** tubes for Re-Heater coil.

Supply quantity- 200 Meters.

Tube OD- 54.0 mm

Thickness- 4.0 mm

Material- SA213-T91

ITEM 50: TUBE, BOILER, OD 47.63X8.6, SA213 T22 (MATERIAL CODE- 2000225569)

Supply of IBR straight seamless **cold drawn** tubes for Platen Superheater Heater coil.

Supply quantity- 300 Meters.

Tube OD- 47.63 mm

Thickness- 8.6 mm

Material- SA213-T22

ITEM 60: PSH STRAIGHT TUBE D 47.63X5.6MMSA213T91, BOILER (MATERIAL CODE- 2000052362)

Supply of IBR straight seamless **cold drawn** tubes for Platen Superheater Heater coil.

Supply quantity- 200 Meters.

Tube OD- 47.63 mm

Thickness- 5.6 mm

Material- SA213-T91

DETAILED SPECIFICATIONS:

- 1) **High pressure IBR seamless tubes manufactured in cold drawn process only.**
- 2) Operating pressure # 158.6 Kg / CM Sq., Operating Temperature # 300 Deg. C.
- 3) Length of each tube must be 5.3 Meters to 5.5 Meters. Smaller length tubes will not be accepted.
- 4) 100% NDT (EDDY current test /UT) to be carried out. Tube wall thickness must be uniform throughout the length of the tube. Thickness reduction more than 10% will not be accepted.
- 5) **100% Hydro test at 237.9 Kg / Cm2 of all straight tubes and report to be submitted along with the materials.**
- 6) Ovality, thinning and surface finish need to be checked during first of trial operation. Then to be checked randomly during manufacturing and during each production lot.
- 7) Third party inspection along with NDT of the received materials will be carried out at site for materials specifications and surface cracking (inside or outside).
- 8) All the tubes should be coated with anticorrosive coating/paint and colour coding /marking on ends for ease of identification. Without proper colour coding and marking, material will not be accepted.
- 9) Chemical & physical properties of the tubes need to be provided. **Materials Test certificate and IBR certificate to be submitted along with the materials.**
 - Following tests to be carried out on bare tubes as applicable-
 - a) Bend test (ovality- Max. 5%, Thinning- Max. 5%, Surface condition etc.)
 - b) Flattening test
 - c) Crushing test
 - d) Flare test
 - f) Heat treatment as applicable
 - h) Hydraulic test
 - i) Chemical composition test
- 10) Both ends of the straight tubes must be covered with plastic end cap.
- 11) **Material delivery must be ensured by the end of 15th Sept'2024.**