

Seamless Carbon Steel Boiler Tubes for High Pressure Service

Standard & Material

ASTM A192/A192M ASME SA192

It covers minimum-wall-thickness, seamless carbon steel boiler and superheater tubes for high pressure service. The tubing sizes and thicknesses usually furnished to ASTM A192/A192M ASME SA192 are 1/2 inch to 7 inch [12.7 to 177.8 mm] outside diameter and 0.085 inch to 1.000 inch [2.2 to 25.4 mm], inclusive, in minimum wall thickness. Tubing having other dimensions can be furnished, provided such tubes comply with all other requirements of ASTM A192/A192M ASME SA192.

Chemistry Composition

C, % 0.06-0.18

Si, % 0.25 max

Mn, % 0.27-0.63

P, % 0.035 max

S, % 0.035 max

Mechanical Properties

Tensile Strength, MPa 325 min

Yield Strength, MPa 180 min

Elongation, % 35 min

Hardness, HB 137 max (WT \geq 5.1mm)

Hardness, HRB 77 max (WT < 5.1mm)



Wall Thickness: min wall thickness or average wall thickness

Developed Length: max 30 meters each length, +10mm/-0mm

Manufacture: the tubes made by the seamless process in either hot-finished or cold-finished as specified.

Heat Treatment: hot-finished tubes need not be heat treated. Cold finished tubes are heat treated after the final cold-finishing at a temperature of 650°C or higher.

Inspection & Test: chemistry composition analysis, tensile test, flattening test, flaring test, hardness test, NDT, surface inspection and dimension check.

Further Process: U bending tubes, fin tubes