

Shoulder Pipes

Plain Pipe Requirements: ERW Pipe (As 1074/ API 5L B PSL)

Nominal Pipe Diameter	Nominal Wall Thickness	Nominal Weight	Galvanise Weight	Test Pressure	Max. Safe Working Pressure	Max. Recommended Field test Pressure	Pieces Per bundle
114.3	2.0	5.7	390	7056	3781	5998	7
165.1	2.5	10.3	390	6093	3265	5179	7
165.1	2.8	11.5	390	6835	3663	5810	7
219.1	3.5	18.9	390	6432	3447	5468	7
219.1	4.0	21.5	390	7367	3947	6262	7

Shoulder Ring Requirements: Material Grade ASTM A53 Grade B/ASTM A 106 Gr. B/ AS 1074

Pipe Diameter (mm)	Nominal Ring Thickness (mm)	Specified Shoulder Outside dia.(mm)	Specified Ring Length (mm)	Maximum out of Square (mm)
114.3	4.0+/-0.15	122.0+/-0.8	17.5+/-0.4	0.1
165.1	4.8+/-0.15	174.5+/-0.8	17.5+/-0.4	0.1
219.1	6.5/-0.15	232.0+/-0.8	20.5+/-0.4	0.1

1. Tolerance

- a) Thickness : The minimum wall thickness at any point shall be no less than 90% of Nominal wall thickness.
- b) Diameter : The tolerance on the nominal outside diameter of the pipes shall be the greater of +/-1% of the diameter and +/-0.5 mm.
- c) Weight : The weight of the pipe shall not more than $\pm 5\%$ of the specified weight.

2. End Squareness

- : Each pipe shall be cut with squareness not exceeding 0.5mm.

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3. Straightness : Pipes Shall not deviate from a straight line by more than the length divided by 500 at the centre of pipe lenght.

4. Weld Bead : The external Weld bead shall be trimmed to an essentially flush condition. The maximum height of the internal weld bead shall not exceed 1.5mm

Chemical Composition (%max) : S - 0.045%, P - 0.050% & CE - 0.40%

Mechanical (min) : Yield Strength-245 N/mm², Tensile Strength-340 N/mm², Elongation-15%

Flattening Test : Applicable to tubes greater than nominal sizes of 60 mm OD & weld located 0/90 degree from line of the direction of force.

For Weld : Flatten up to 75% of Original tube OD. No cracks in the weld.

For Material : Flatten up to 60% of Original tube OD. No cracks in the metal other than weld.

Leak Tightnes Test

a) : Online NDT(Eddy Current)

b) : Hydro testing at pressure as per above Table and holding time Min. 5 Second.

Leak Tightnes Test : Average coating thickness 390 Gm/mm² or 55 Micron Minimum. Free from bare Spot, Black spot, rough, overcoating, Peel off or anyother surface defect.

Marking : Stenciling as per the stanadrd & customer requirement.

Packing : Hexagonal Type