

Specification for Standard Sizes for Domestic ASTM A53 Type E Grade B Steel Pipe

Scope

Covers Electric Resistance Welded Grade B Pipe with nominal wall thickness as shown in Table X2.2 and Table X2.3. Pipe is suitable for welding and suitable for forming operations involving coiling, bending, and flanging.

Produced to the latest revision of ASTM A53A/A53M ASME B36.10M. Pipe is UL listed and FM approved.

Hydrostatic & Nondestructive Testing

Hydrostatic inspection test pressures for plain-end pipe are listed in Table X 2.2 of the A53/A53M specification. Test pressures shall be maintained for a minimum of five seconds.

Nondestructive testing of the weld seam is performed on all sizes of pipe.

Product Marking

Each length of pipe shall be legibly marked by stencil to show name or brand of manufacturer, the kind of pipe, that is, ERW Grade A or B, the Heat Number, wall thickness or schedule, and length.

All bundles will have tags indicating footage per bundle, run number, and dimensions.

End Finish

Plain End: NPS 2 and larger, STD and XS weights: ends beveled to angle of 30°, +5°, -0° with a root face of 1/16"± 1/32

Frequency of Tests

Tensile tests are required for 1 length of pipe from each lot (not to exceed 500 lengths per size).

Permissible Variations in Wall Thickness

The minimum wall thickness at any point shall not be more than 12.5% under the nominal wall thickness specified.

Permissible Variations in Outside Diameter

Pipe NPS 2 and larger shall not vary more than +1% from the standard specified.

Permissible Variations in Weight per Foot

The weight of pipe shall not vary by more than +/- 10% from the standard specified.

Flattening Test

As a test for ductility of the weld for pipe 2 1/2" NPS and larger position the weld at 0° and alternately at 90° to the direction of force and flatten until the OD is 2/3 of the original outside diameter. No cracks shall occur along the inside or outside surface of the weld.

NPS	SCH	OD (inch)	Wall Thickness	LB/FT
4"	SCH40	4.5	0.237	10.8
6"	SCH40	6.625	0.28	18.99
8"	SCH40	8.625	0.322	28.58
10"	SCH40	10.75	0.365	40.52
12"	STD	12.75	0.375	49.61

Chemical Composition A53 Grade B	
Element	Max %
C	0.3
Mn	1.2
P	0.05
S	0.045
Cu	0.4
Ni	0.4
Cr	0.4
Mo	0.15
V	0.08

Mechanical Properties A53 Grade B	
	Min
Yield Strength	35ksi
Tensile Strength	60ksi
Elongation	Per ASTM A53

