

SUBMITTAL DATA FOR ASTM A53 STANDARD ERW PIPE

Scope

This specification covers plain-end electric-resistance welded (ERW) Grade B steel pipe manufactured per ASTM A53, latest edition.

Method of Manufacture

The weld seam of ERW pipe shall be heat treated after welding to a minimum of 1600 °F so that no untempered martensite remains, or otherwise processed in such a manner that no untempered martensite remains. The hydrostatic test shall be applied, without leakage through the weld seam or the pipe body. Pipe shall be hydrostatically tested to the applicable pressure given in Table X2.2 of ASTM A53 for the indicated size.

Chemical Requirements Grade B Composition - Max %

Carbon	Manganese	Phosphorus	Sulfur	Copper	Nickel	Chromium	Molybdenum	Vanadium	Note: the total combination of the last 5 elements shall not exceed 1.00%
0.30	1.20	0.05	0.45	0.50	0.40	0.40	0.15	0.08	

Tensile Requirements ASTM A53 Grade B

Yield Strength, min 35,000. psi.	Tensile Strength, min 60,000. psi.	Elongation in 2 in. min. % Refer to Table X4.1
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Dimensions and Weights

Dimensions and weights shall be per ASTM A53 Table X2.2.

Weight Tolerance

Pipe weight per foot shall not vary more than 10% from its Specified Weight.

Outside Dimension Tolerances

Pipe diameter shall not vary more than 1.0% over nominal O.D. Measured at least 2" from the end of the pipe.

Wall Thickness Tolerance

Pipe wall thickness shall not be more than 12.5% under nominal wall thickness.

Lengths

Standard lengths shall be single or double random (21' or 42') with a tolerance of -0 / +2".

Non-Destructive Testing

The weld seam of each length of electric-resistance welded pipe NPS 2 [DN 50] or larger shall be tested with a nondestructive electric test in accordance with Practices E 213, E 273, E 309, or E 570. Imperfections in the weld seam that produce a signal greater than the acceptance limit signal given in Table 3 shall be considered a defect unless the pipe manufacturer can demonstrate that the imperfection does not reduce the effective wall thickness beyond 12.5 % of the specified wall thickness.

Flattening Test

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 O.D. No cracks shall occur along the inside or outside surface of the weld.

Frequency of Testing

One of each of the tests specified shall be made on test specimens taken from one length of pipe from each lot of each pipe size, a lot shall contain no more than one heat.

Product Marking

Product shall bear a continuous line stencil as follows:

MARUICHI LEAVITT ASTM A53 GR-B ASME SA53 E Size Gauge Heat Date Hydrostatic Test PSI Made in USA

End Finish

Plain End: Ends beveled to angle of 30°, +5°, -0°

This information is a summary of the provisions of ASTM Specification A53 and is correct as of the latest edition. The provisions of this submittal will be changed upon issuance of an update of the ASTM specification.