



ASTM A53 TYPE E GRADE B PIPE – Large Diameter

SCOPE

Covers black and hot-dipped galvanized electric-resistance welded Grade B pipe. Pipe is intended for mechanical and pressure applications and is acceptable for ordinary uses in steam, water, gas and air lines. Pipe is suitable for welding, threading, grooving and bending. Produced to latest revision of ASTM A53/A53M, Federal Specification WW-P404 and ASME B36.10M.

MANUFACTURE

The weld seam shall be heat treated after welding to a minimum of 1400 °F or be otherwise processed in such manner that no untempered martensite remains.

HOT-DIP GALVANIZED

The average weight of zinc coating shall be not less than 1.8 oz. per sq. ft. of surface (inside and outside).

When galvanized pipe is bent or otherwise fabricated to a degree which causes zinc coating to stretch or compress beyond the limit of elasticity, some flaking of the coating may occur.

HYDROSTATIC AND NONDESTRUCTIVE ELECTRIC TESTING

Hydrostatic inspection test pressures for plain-end pipe are listed in Table X2.2 of the A53/A53M specification. Test pressures shall be maintained for a minimum of 5 seconds.

Nondestructive Electric testing of the weld seam is required on each length of ERW pipe NPS 2 and larger.

CHEMICAL REQUIREMENTS

Composition, max. %

<u>Carbon</u>	<u>Manganese</u>	<u>Phosphorus</u>	<u>Sulfur</u>	
.30	1.20	.05	.045	
<u>*Copper</u>	<u>*Nickel</u>	<u>*Chromium</u>	<u>*Molybdenum</u>	<u>*Vanadium</u>
.40	.40	.40	.15	.08

*The combination of these five elements shall not exceed 1.00%.

TENSILE REQUIREMENTS

Tensile Strength, min.	60 000 psi
Yield Strength, min.	35 000 psi.
Elongation in 2"	Refer to A53 Table X4.1

FLATTENING TEST - NPS 2-1/2 and Greater

As a test for quality of the weld for pipe 2 1/2" NPS and larger, position the weld at 0° and alternately at 90° from 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.

END FINISH

Plain End:

NPS 2 and larger: STD and Sch 40 weights: ends beveled to angle of 30°, +5°, -0° with a root face of 1/16" +/- 1/32".

Threaded: To ANSI Standard B 1.20.1

Couplings: To ASTM Standard A865.

DIMENSIONS and WEIGHTS

Nominal Size	O.D. Inches	Nominal Wall	Weight Lb./Ft.
8"	8.625	0.322	28.58
10"	10.750	0.365	40.52
12"	12.750	0.375	49.61
14"	14.000	0.375	54.62
16"	16.000	0.375	62.64
18"	18.000	0.375	70.65

PERMISSIBLE VARIATIONS IN WALL THICKNESS

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

PERMISSIBLE VARIATIONS IN WEIGHT PER FOOT

Pipe shall not vary more than +/- 10% from the standard specified.

PRODUCT MARKING

Each length of pipe 8 NPS and larger is stenciled to show the manufacturer, specification (ASTM A53), grade of pipe (Grade B), the kind of pipe (ERW for Electric-Resistance Welded), the size, schedule or wall, and length.

All information contained herein is accurate as known at the time of publication. Wheatland reserves the right to change product specifications without notice and without incurring obligations.