

## PIPE SPECIFICATIONS

### Scope

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<b>A53</b> 1/8" - 26 STD, XS AND XXS ANSI B36.10	Covers BLACK and hot-dipped GALVANIZED WELDED and SEAMLESS nominal size and wall pipe suitable for welding and for coiling, bending, flanging, and other forming operations.
	Continuous weld pipe is not intended for flanging (using pipe wall to form flange).
Other sizes and dimensions maybe furnished	Seamless and electric-resistance weld pipe may be specified in grades A or B.

Order should specify when pipe is required for close coiling.

### Hydrostatic Testing

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Prescribes hydrostatic test pressures for continuous weld pipe and for seamless and electric resistance weld pipe. Provision is made for test pressures not to exceed 2500 psi for pipe 3 inch and under or 2800 psi for pipe over 3 inch.

Each length of pipe must be tested at the producing mill. Welded pipe 2 inch and larger is jarred near one end while under test pressure.

Refer to ASTM A53 Table X 2.2

### Permissible Variations in Weights Per Foot

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#### For XS and lighter wall thicknesses

Pipe shall not vary more than plus or minus 5 percent from weights shown in tables and included in ANSI B36.10.

#### For walls heavier than XS

Pipe shall not vary more than plus or minus 10 percent from weights shown in tables and included in ANSI B36.10.

Sizes 4 inch and smaller weighted in customary mill lifts. On larger sizes, weight tolerance is applicable to individual lengths.

**PIPE SPECIFICATIONS**

**Permissible Variations in OD**

<b>A53</b> 1/8" - 26" STD, XS and XXS ANSI B36.10  Other sizes and dimensions may be furnished	OUTSIDE DIAMETER at any point shall not vary more than:		
	<b>Nominal Pipe Size</b>	<b>Over</b>	<b>Under</b>
	1-1/2" and smaller	1/64"	1/64"
	2 and larger	1%	1%

**Permissible Variations in Wall Thickness**

Minimum wall thickness at any point shall not be more than 12.5 percent under nominal wall thickness specified.  
Specification contains a table of minimum wall thicknesses on inspection calculated as 0.875 x nominal wall.

**Chemical Requirements**

	Composition, max. percent			
	C	Mn	P	S
Types S and E				
Grade A	0.25	0.95	0.05	0.06
Grade B	0.30	1.20	0.05	0.06
Type F	—	—	0.06	0.045

**Tensile Requirements**

	Tensile Strength min, psi	Yield Point min, psi
Types S and E		
Grade A	48,000	30,000
Grade B	60,000	35,000
Type F	45,000	25,000

Table lists minimum elongation values calculated by the equation:  
 $e = 625,000 A_{0.2} / U_{0.9}$

## PIPE SPECIFICATIONS

### Mechanical Tests Specified

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**A53**

1/8" - 26

**TENSILE TEST**

Required on all sizes. Tests on welded pipe 8 inch and larger shall be from transverse specimen.

STD, XS AND XXS  
ANSI B36.10

**BEND TEST**

Required on sizes 2 inch and smaller, except XXS over 1-1/4 inch. Pipe shall stand cold bending through 90 degrees around a mandrel with a diameter twelve times the nominal diameter of the pipe without cracking. If for close coiling bend shall be 180 degrees around diameter eight times the nominal diameter of pipe.

Other sizes and  
dimensions may be  
furnished

**FLATTENING TEST**

Required on sizes over 2 inch in nominal diameter in wall thickness, XS and lighter