



## Mechanical Properties and Specifications - Pipe

### A252 Piling Pipe

*Mechanical Properties:*

		Grade 1	Grade 2	Grade 3
Tensile Strength, min	Psi	50,000	60,000	66,000
	Mpa	345	414	455
	kg/mm <sup>2</sup>	35.2	42.2	46.4
Yield Strength, min	Psi	30,000	35,000	45,000
	Mpa	205	240	310
	kg/mm <sup>2</sup>	21.1	24.6	31.6
Elongation, min	%	30	25	24
Gauge Length	in	2 / (48t + 15)	2 / (40t + 12.50)	2 / (32t + 1.00)

### Grade J55 pipe

- (1) Pier Shaft: API 5CT Grade J55 pipe Seamless Tubing  
(API- American Petroleum Institute)

*Mechanical Specifications:*

Yield Strength		Tensile Strength
min Psi (MPa)	max Psi (MPa)	Psi (MPa)
55000 (379)	80000 (552)	75000 (517)

*Tolerances:*

	Outside Diameter	Wall Thickness
API 5CT	+/- 1%	+20 / -0%

- (2) Wall Thickness: 2-7/8" diameter (0.217"w.t.) or 3-1/2" diameter (0.254"w.t.)  
(3) Torque: The maximum torques is 8,000 FT.LBS. for 2-7/8" Pipe and 11,000 FT.LBS. for 3-1/2" Pipe.

### Grade A36 Carbon structural steel

*Mechanical Specifications:* ASTM Grade A36 / A36M

Plates, Shapes, and Bars:	
Tensile strength, ksi (MPa)	58 – 80 (400 – 550)
Yield point, min, ksi (MPa)	36 (250)
Plates and Bars:	
Elongation in 8 in. (200 mm), min, %	20
Elongation in 2 in. (50 mm), min, %	23