



# DEACON INDUSTRIAL SUPPLY COMPANY, INC.

## Pipe Specification API 5L

<b>Specification</b>	<b>API 5L NPS 1/8 -- 26</b>		
<b>Scope</b>	Covers WELDED and SEAMLESS pipe suitable for use in conveying gas, water, and oil in both the oil and natural gas industries.		
<b>Kinds of Steel Permitted For Pipe Material</b>	Open-hearth                      Basic-oxygen Electric-furnace		
<b>Hot-Dipped Galvanizing</b>	May be ordered galvanized.		
<b>Permissible Variations in Wall Thickness</b>		Grade A, B, A25	X42 through X80
	NPS 2 1/2 and smaller -- Seamless and welded, %	+20 -- 12.5	+15 -- 12.5
	NPS 3 -- Seamless and welded, %	+18 -- 12.5	+15 -- 12.5
	NPS 4 through 18 -- Seamless and welded, %	+15 -- 12.5	+15 -- 12.5
	NPS 20 and larger -- Welded, %	+17.5 -- 10.0	+19.5 -- 8.0
	NPS 20 and larger -- Seamless, %	+15.0 -- 12.5	+17.5 -- 10.0
<b>Chemical Requirements</b>	C max %    Mn max %    P max %    S max %		
	Seamless or ERW		
	Grade A	0.25    0.95    0.05    0.06	
	Grade B	0.30    1.20    0.05    0.06	
	Continuous-weld                      -                      -                      0.08    0.06		
<b>Tensile Requirements</b>	Lists minimum yield and tensile strength for all grades as well as a maximum tensile strength for X80. Maximum yield-to-tensile ratios outlined for cold-expanded pipe--may be waived when a fracture toughness requirement is specified.		
<b>Hydrostatic Testing</b>	Lists hydrostatic inspection test pressures for all sizes and grades covered by the specification. Test Pressures are held for not less than: Seamless (all sizes) -- 5 seconds Welded (NPS 18 and smaller) -- 5 seconds (NPS 20 and larger) -- 10 seconds		
<b>Permissible Variations in Weights per Foot</b>	For each length of Standard Weight, Regular Weight, Extra Strong, and Double Extra Strong -- Not more than plus 10% minus 3.5%.	For Special Plain End -- Not more than plus 10% minus 5%. For Carload Lots -- Not more than minus 1.75%.	
<b>Permissible Variations in Outside Diameter</b>	Outside Diameter at any point shall not vary from standard specified more than: -----		
		SIZES	Over                      Under
		NPS 1 1/2 and smaller	1/64"                      1/32"
		NPS 2 through 4	1%                      1% (Buttweld Only)
		NPS 2 through 18	.75%                      .75%
		NPS 20 through 26	
		Non-expanded	1%                      1%
<b>Mechanical Tests Specified</b>	<b>Tensile Test</b> Seamless and Buttwelded -- All Sizes -- Longitudinal Specimens Electric Weld -- NPS 6 and smaller -- Longitudinal NPS 8 and Larger -- Transverse	<b>Bending Test (Cold) -- 2" and smaller Buttweld.</b> <b>Degree of Bend                      Diameter of Mandrel</b> For all API Uses                      90                      12 x OD of pipe	
<b>Number of Tests Required</b>	<b>NPS</b>	<b>On One Length From Each Lot of</b>	<b>Flattening</b>
	<b>Tensile</b>		Non-Expanded Electric-Weld for single lengths crop ends from each length. For multiple lengths, crop ends from each length, plus 2 intermediate rings.
	5 and smaller	40 or less	
	6 through 12	200 or less	
	14 and larger	100 or less	
	2 and smaller (Buttweld)	25 tons or less	
	<b>Bending</b>	50 tons or less	
	1 1/2 and smaller (Buttweld)		
<b>Lengths</b>		<b>Shortest Length in Entire Shipment</b>	<b>Shortest Length in 95% of Entire Shipment</b>
	<b>Threaded &amp; Coupled Pipe</b>	<b>Minimum Average Length of Entire Shipment</b>	
	Single Random	16' 0"	18' 0"
	Double Random	22' 0"	35' 0"
<b>Required Markings on Each Length (On Tags attached to each Bundle in case of Bundled Pipe)</b>	Paint Stenciled or Die Stamped (by agreement). Manufacturer's name or mark. Spec 5L, size, weight per foot, grade, process of manufacture, type of steel, length (NPS 4 and larger only). Test pressure when higher than tabulated(NPS 2 and larger only). Heat treat symbols, as applicable -- HN, HS, HA or HQ.		
<b>General Information</b>	Supplementary Requirements available when specified. SR5--Charpy impact Testing--Welded Pipe 20" & larger--Grade X52 or higher. SR3 -- Color Identification.                      SR6 -- Drop Weight Tear Testing--Welded Pipe 20" & larger--Grade X52 or higher. SR4 -- Nondestructive Inspection of Seamless Pipe.                      SR8 -- Fracture Tough ness Testing of Line Pipe.		