DEACON INDUSTRIAL SUPPLY COMPANY, INC.

Pipe Specification A106

Specification	**A106** NPS 1/8 -- 48 ANSI Schedules to 160
Scope	Covers SEAMLESS carbon steel nominal wall pipe for high-temperature service, suitable for bending, flanging and similar forming operations. NPS 1 1/2 and under may be either hot finished or cold drawn. NPS 2 and larger shall be hot finished unless otherwise specified.
Kinds of Steel Permitted For For Pipe Material	Killed Steel Open-hearth Electric-furnace Basic-oxygen
Hot-Dipped Galvanizing	Not covered in specification.
Permissible Variations in Wall Thickness	The minimum wall thickness at any point shall not be more than 12.5% under the nominal wall thickness specified.
Chemical Requirements	Grade A / Grade B / Grade C Carbon max. %..... 0.25 / 0.30 / 0.35 Manganese %..... 0.27 to 0.93 / 0.29 to 1.06 / 0.29 to 1.06 Phosporous, max. %..... 0.025 / 0.025 / 0.025 Sulfur, max. %..... 0.025 / 0.025 / 0.025 Silicon, min. %..... 0.10 / 0.10 / 0.10
Tensile Requirements	**Seamless** Grade A / Grade B / Grade C Tensile Strength, min., psi..... 48,000 / 60,000 / 70,000 Yield Strength, min., psi..... 30,000 / 35,000 / 40,000
Hydrostatic Testing	Inspection test pressures produce a stress in the pipe wall equal to 60% or specified minimum yield strength (SMYS) at room temperature. Maximum Pressures are not to exceed 2500 psi for NPS 3 and under and 2800 psi for the larger sizes. Pressure is maintained for not less than 5 seconds.
Permissible Variations in Weights per Foot	Weight of any length shall not vary more than 10% over and 3.5% under that specified. NOTE -- NPS 4 and smaller -- weighed in lots. Larger sizes -- by length
Permissible Variations in Outside Diameter	**Outside Diameter** at any point shall not vary from standard specified more than-- NPS / Over / Under 1 1/2 and smaller / 1/64" / 1/32" 2 -- 4 / 1/32" / 1/32" 5 -- 8 / 1/16" / 1/32" 10 -- 18 / 3/32" / 1/32" 20 -- 26 / 1/8" / 1/32"
Mechanical Tests Specified	**Tensile Test** -- NPS 8 and larger -- either transverse or longitudinal acceptable Smaller than NPS 8 -- weighed in lots. Larger sizes -- by length. **Flattening Test** -- NPS 2 and larger. **Bending Test(Cold)** -- NPS 2 and under. Degree of Bend / Diameter of Mandrel For Normal A106 uses: 90 / 12 x nom. dia. of pipe For Close Coiling: 180 / 8 x nom. dia. of pipe
Number of Tests Required	NPS / On One Length From Each Lot of **Tensile**: 5 and smaller: 400 or less 6 and larger: 200 or less **Bonding**: 2 and smaller: 400 or less **Flattening**: 2 through 5: 400 or less 6 and over: 200 or less
Lengths	Lengths required shall be specified on order. No "jointers" permitted unless otherwise specified. If no definite lengths required, following practice applies: **Single Random** -- 16' - 22'. 5% may be 12' - 16' **Double Random** -- Minimum length 22', Minimum average 35'. 5% may be 16' - 22'.
Required Markings on Each Length (On Tags attached to each Bundie in case of Bundled Pipe)	Rolled Stamped or Stenciled (Mfgrs. option) Manufacturer's name or brand. / Length of pipe. A106 A, A106 B, A106 C. / ANSI schedule number. Hydrostatic test pressure and/or NDE. / Weight per foot (NPS 4 and larger) or NH if neither is specified. / Additional "S" if tested supplementary requirements.
General Information	* Unless otherwise specified, pipe furnished with plain ends. * Purchaser may specify NDE * Surface finish standards are outlined in specification. in lieu of hydrostatic test or neither