

piping alloys. inc.

STAINLESS STEEL PIPE

Theoretical Bursting Pressures and Weights

Upper Figures – Pressures in Pounds
Lower Figures – Wall Thickness/Wt/Ft

Pipe Schedules

| Size Pipe | O.D. in inches | 5 | 10 | 40 | STD. | 80. | E.H. | 160 | DBLE. E.H. |
|-----------|----------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|-----------------------|
| 1/8 | .405 | 12,963 .035/.1383 | 48,000 .049/.1863 | 25,185 .068/.2447 | 25,185 .068/.2447 | 35,185 .095/.3145 | 35,188 .095/.3145 | | |
| 1/4 | .540 | 13,611 .049/.3270 | 18,056 .065/.3297 | 24,444 .086/.4248 | 24,444 .086/.4248 | 33,056 .119/.5351 | 33,056 .119/.5351 | | |
| 3/8 | .675 | 10,889 .049/.3276 | 14,444 .065/.4235 | 20,222 .091/.5676 | 20,222 .091/.5676 | 28,000 .126/.7386 | 28,000 .126/.7386 | | |
| 1/2 | .840 | 11,807 .065/.5380 | 14,821 .083/.6710 | 19,464 .109/.8510 | 19,464 .109/.8510 | 26,250 .147/.1.088 | 26,250 .147/.1.088 | 33,383 .187/.1.304 | 52,500 .294/.1.714 |
| 3/4 | 1.050 | 9,288 .065/.6838 | 11,857 .083/.8572 | 16,143 .113/.1.131 | 16,143 .113/.1.131 | 22,000 .154/.1.474 | 22,000 .154/.1.474 | 31,143 .218/.1.937 | 44,000 .308/.2.441 |
| 1 | 1.315 | 7,414 .065/.8678 | 12,433 .109/.1.404 | 15,171 .133/.1.679 | 15,171 .133/.1.679 | 20,418 .179/.2.172 | 20,418 .179/.2.172 | 28,517 .250/.2.844 | 40,837 .358/.3.669 |
| 1 1/4 | 1.660 | 5,873 .065/.1.107 | 9,849 .109/.1.806 | 12,661 .140/.2.273 | 12,661 .140/.2.273 | 17,259 .191/.2.997 | 17,259 .191/.2.997 | 22,590 .250/.3.765 | 34,518 .382/.5.214 |
| 1 1/2 | 1.900 | 5,132 .065/.1.274 | 8,505 .109/.2.085 | 11,447 .145/.2.718 | 11,447 .145/.2.718 | 15,789 .200/.3.631 | 15,789 .200/.3.631 | 22,184 .281/.4.855 | 31,579 .400/.6.408 |
| 2 | 2.375 | 4,105 .065/.1.604 | 6,884 .109/.2.638 | 9,726 .154/.3.653 | 9,726 .154/.3.653 | 13,768 .218/.5.022 | 13,768 .218/.5.022 | 21,863 .343/.7.444 | 27,537 .436/.9.029 |
| 2 1/2 | 2.875 | 4,330 .083/.2.475 | 6,261 .120/.3.531 | 10,591 .203/.5.793 | 10,591 .203/.5.793 | 14,400 .276/.7.661 | 14,400 .276/.7.661 | 19,585 .375/.10.01 | 28,800 .552/.13.89 |
| 3 | 3.5 | 3,557 .083/.3.029 | 5,143 .120/.4.332 | 9,257 .216/.7.576 | 9,257 .216/.7.576 | 12,857 .300/.10.25 | 12,857 .300/.10.25 | 18,771 .438/.14.32 | 25,714 .609/.18.58 |
| 3 1/2 | 4.0 | 3,112 .083/.3.472 | 4,500 .120/.4.973 | 8,475 .226/.9.109 | 8,475 .226/.9.109 | 11,825 .318/.12.50 | 11,825 .318/.12.50 | | 23,950 .636/.22.85 |
| 4 | 4.5 | 2,767 .083/.3.915 | 4,000 .120/.5.613 | 7,900 .237/.10.79 | 7,900 .237/.10.79 | 11,233 .337/.14.98 | 11,233 .337/.14.98 | 17,700 .531/.22.51 | 22,467 .674/.27.54 |
| 5 | 5.563 | 2,939 .109/.6.349 | 3,613 .134/.7.770 | 6,957 .258/.14.62 | 6,957 .258/.14.62 | 10,111 .375/.20.78 | 10,111 .375/.20.78 | 16,852 .625/.32.96 | 20,223 .75/.38.55 |
| 6 | 6.625 | 2,468 .109/.7.585 | 3,034 .134/.9.289 | 6,340 .280/.18.97 | 6,340 .280/.18.97 | 9,781 .432/.28.57 | 9,781 .432/.28.57 | 16,257 .718/.45.30 | 19,562 .864/.53.16 |
| 8 | 8.625 | 1,896 .1099/.914 | 2,574 .148/.13.40 | 5,600 .322/.28.55 | 5,600 .322/.28.55 | 8,896 .500/.43.39 | 8,896 .500/.43.39 | 15,756 .906/.74.69 | 15,217 .875/.72.42 |
| 10 | 10.75 | 1,870 .134/.15.19 | 2,302 .165/.18.70 | 5,083 .365/.40.48 | 5,083 .365/.40.48 | 8,274 .593/.64.33 | 6,977 .500/.54.74 | Working pressures for T304/L and T316/L A312 pipe between -20°F and 100°F. | |
| 12 | 12.75 | 1,841 .156/.20.93 | 2,118 .180/.24.16 | 4,776 .406/.53.52 | 4,412 .375/.49.56 | 8,082 .687/.88.51 | 5,882 .500/.65.42 | | |
| 14 | 14.0 | | 2,679 .250/.36.71 | 4,883 .438/.63.37 | 4,019 .375/.54.57 | 8,036 .750/.106.1 | 5,357 .500/.72.09 | The A.S.M.E. code suggests a safety factor of four. E.G. 1" SCH40 = 3783 P.S.I. | |
| 16 | 16.0 | | 2,344 .250/.42.05 | 4,688 .500/.82.77 | 3,516 .375/.62.58 | 7,903 .843/.136.5 | 4,688 .500/.82.77 | | |
| 18 | 18.0 | | 2,083 .250/.47.39 | 4,683 .562/.104.8 | 3,125 .375/.70.59 | 7,808 .937/.170.8 | 4,167 .500/.93.45 | For higher temperatures multiply working pressure by: 300°F 500°F 1000°F T304/L .828 .744 .665 T316/L .900 .853 .746 | |
| 20 | 20.0 | | 1,875 .250/.52.73 | 4,448 .583/.122.9 | 2,812 .375/.78.60 | 7,733 1.031/.208.9 | 3,750 .500/.104.1 | | |
| 24 | 24.0 | | 1,563 .250/.63.41 | 4,294 .687/.171.2 | 2,344 .375/.94.62 | 7,813 1.218/.296.4 | 3,125 .500/.125.5 | | |

Kansas Phone 913-677-3833 Toll Free 1-800-456-6635 Fax 913- 262-7552
Oklahoma Phone 405-946-9204 Toll Free 1-800-456-9204 Fax 405-947-0316
Arizona Phone 602-438-8800 Toll Free 1-800-659-4050 Fax 602-438-1999

www.pipingalloys.com