

piping alloys. inc.

STAINLESS STEEL TUBING

Theoretical Bursting Pressures and Weights

Upper Figures – Pressures
Lower Figures – Weight/Foot

O.D. Inches	Wall Thickness																		
	.016	.020	.028	.035	.049	.065	.083	.095	.109	.120	.134	.156	.188	.250	.313	.375	.500	.750	
1/16	38,400 .008	48,000 .009																	
1/8	19,200 .019	24,000 .022	39,000 .029	42,000 .033	58,800 .040														
3/16	12,800 .029	15,998 .035	22,403 .047	29,498 .057	39,203 .073	51,863 .083													
1/4		12,000 .049	16,800 .066	21,000 .080	29,400 .105	39,000 .128	49,800 .148	57,000 .157											
5/16		9,600 .062	13,440 .085	16,800 .103	23,520 .138	31,200 .172	39,780 .203	45,750 .221											
3/8		8,003 .075	11,998 .103	14,003 .127	19,598 .170	26,003 .215	33,203 .258	38,003 .284	43,598 .309	48,000 .326									
7/16		6,857 .089	9,600 .123	12,000 .151	16,800 .204	22,285 .259	28,457 .315	32,571 .348	37,371 .383	41,143 .408									
1/2		6,000 .102	8,400 .141	10,500 .173	14,700 .236	19,500 .302	24,900 .369	28,500 .418	32,700 .455	36,000 .487									
9/16		5,333 .116	7,467 .160	9,333 .197	13,067 .269	17,333 .346	22,133 .426	25,333 .475	29,066 .529	32,000 .568									
5/8		4,800 .129	6,720 .178	8,400 .221	11,760 .301	15,600 .388	19,920 .480	22,888 .537	26,160 .600	28,800 .647	32,160 .703	37,440 .781	44,880 .877						
3/4		3,998 .155	5,603 .215	6,998 .267	9,803 .366	12,997 .475	16,598 .591	18,998 .664	21,803 .746	24,000 .807	26,800 .882	31,200 .990	37,403 1.128						
7/8		3,428 .183	4,800 .253	6,000 .314	8,400 .432	11,145 .562	14,228 .702	16,283 .791	18,683 .891	20,573 .968	22,971 1.061	26,745 1.198	32,055 1.379						
1		3,000 .209	4,200 .290	5,250 .360	7,350 .497	9,750 .649	12,450 .812	14,250 .918	16,350 1.037	18,000 1.128	20,100 1.239	23,400 1.406	28,050 1.630	37,500 2.003					
1 1/8		2,663 .236	3,735 .328	4,665 .407	6,533 .563	8,670 .736	11,070 .923	12,668 1.045	14,535 1.183	15,998 1.288	17,866 1.418	20,798 1.614	24,930 1.881	33,330 2.336					
1 1/4		2,400 .262	3,360 .365	4,200 .454	5,880 .628	7,800 .822	9,960 1.034	11,400 1.172	13,080 1.328	14,400 1.448	16,080 1.597	18,720 1.823	22,440 2.132	30,000 2.670					
1 3/8			3,053 .402	3,818 .501	5,348 .694	7,087 .909	9,053 1.145	10,365 1.299	11,888 1.473	13,088 1.608	14,618 1.776	17,018 2.031	20,400 2.383	27,270 3.004					
1 1/2			2,948 .440	3,503 .547	4,898 .759	6,503 .996	8,303 1.256	9,503 1.426	10,890 1.619	12,000 1.769	13,400 1.955	15,600 2.239	18,698 2.634	24,998 3.338					
1 5/8				3,230 .594	4,523 .825	6,000 1.083	7,662 1.367	8,769 1.552	10,062 1.765	11,077 1.929	12,369 2.134	14,400 2.447	17,354 2.885	23,077 3.671					
1 3/4				3,000 .641	4,200 .890	5,573 1.170	7,118 1.478	8,145 1.679	9,345 1.910	10,283 2.160	11,486 2.313	13,373 2.656	16,028 3.136	21,428 4.005					
2				2,625 .734	3,675 1.021	4,875 1.343	6,225 1.699	7,125 1.933	8,175 2.201	9,000 2.409	10,050 2.671	11,700 3.072	14,025 3.638	18,750 4.673	23,475 5.639	28,125 6.508	37,500 8.010		
2 1/4				2,333 .828	3,270 1.152	4,335 1.517	5,535 1.921	6,330 2.250	7,268 2.556	8,003 2.730	8,933 3.028	10,403 3.489	12,465 4.140	16,665 5.340	20,865 6.475	24,998 7.509	33,330 9.345		
2 1/2				2,100 .921	2,940 1.283	3,900 1.690	4,980 2.143	5,700 2.440	6,540 2.783	7,200 3.050	8,040 3.386	9,360 3.905	11,220 4.642	15,000 6.008	18,780 7.311	22,500 8.511	30,000 10.680		
2 3/4				1,913 1.015	2,670 1.413	3,548 1.864	4,530 2.364	5,183 2.699	5,948 3.177	6,548 3.495	7,309 3.744	8,513 4.322	10,200 5.144	13,636 6.675	17,070 8.147	20,453 9.512	27,270 12.015	40,913 16.020	
3				1,748 1.108	2,453 1.544	3,248 2.037	4,148 2.586	4,748 2.947	5,453 3.393	6,000 3.691	6,700 4.102	7,800 4.739	9,353 5.646	12,503 7.343	15,653 8.982	18,750 10.513	24,998 13.350	37,500 18.020	
3 1/4					3,000 2.211	4,388 3.201	5,033 3.634	5,535 3.975	6,185 4.459	6,700 5.155	7,200 6.148	8,633 8.010	11,535 9.818	14,445 11.514	17,310 14.685	23,078 20.025	34,613 20.025		
3 1/2					2,783 2.385	4,073 3.029	4,673 3.455	5,145 3.976	5,743 4.385	6,200 4.817	6,683 5.571	8,018 6.650	10,718 8.678	13,418 10.650	16,073 12.515	21,428 16.020	32,146 22.027		
3 3/4					2,603 2.558	3,323 3.248	3,803 3.708	4,358 4.235	4,800 4.650	5,360 5.175	6,240 5.988	7,478 7.152	9,998 9.345	12,518 11.490	15,000 13.520	20,003 17.355	30,000 24.030		
4					2,438 2.732	3,113 3.472	3,563 3.962	4,088 4.530	4,500 4.973	5,025 5.533	5,850 6.404	7,013 7.654	9,375 10.010	11,738 12.330	14,063 14.520	18,750 18.690	28,125 26.030		

Working pressures for T304/L and T316/L A269 tubing between -20°F and 100°F.

The A.S.M.E. code suggests a safety factor of four.
E.G. 1/4" O.D. x .035 = 5250 P.S.I.

For higher temperatures multiply working pressure by:

	300°F	500°F	1000°F
T304/L	.828	.744	.665
T316/L	.900	.853	.746

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

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