

## STAINLESS STEEL TUBING

### Theoretical Bursting Pressures and Weights

**Upper Figures – Pressures**  
**Lower Figures – Weight/Foot**

O.D.	Wall Thickness																		
Inches	.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	3,833 2.805	4,388 3.201	5,033 3.634	5,535 3.975	6,185 4.459	7,200 5.155	8,633 6.148	11,535 8.010	14,445 9.818	17,310 11.514	23,078 14.685	34,613 20.025		
3 1/2					2,783 2.385	3,555 3.029	4,073 3.455	4,673 3.976	5,145 4.385	5,743 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

## STAINLESS STEEL PIPE

### Theoretical Bursting Pressures and Weights

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

Size Pipe	O.D	5	10	10s	40	STD.	80	E.H.	160	DBLE E.H.
1/8"	0.405"	12,963 .035/.1383	48,000 .049/.1863	48,000 .049/.1383	25,185 .068/.2447	25,185 .068/.2447	35,185 .095/.3145	35,186 .095/.3145		
1/4"	0.54"	13,611 .049/.3270	18,056 .065/.3297	18,056 .065/.3297	24,444 .086/.4248	24,444 .088/.4248	33,056 .119/.5351	33,056 .119/.5351		
3/8"	0.675"	10,889 .049/.3276	14,444 .065/.4235	14,444 .065/.4235	20,222 .091/.5676	20,222 .091/.5676	28,000 .126/.7388	28,000 .126/.7388		
1/2"	0.84"	11,607 .065/.5380	14,821 .083/.6710	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"	1.05"	9,286 .065/.6838	11,857 .083/.8572	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	12,433 .109/.8678	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 .358/3.659
1 1/4"	1.66"	5,873 .065/1.107	9,849 .109/1.806	9,849 .109/1.806	12,651 .140/2.273	12,651 .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"	1.9"	5,132 .065/1.274	8,505 .109/2.085	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 .281/4.859	31,579 .400/6.408
2"	2.375"	4,105 .065/1.604	6,884 .109/2.638	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	21,663 .343/7.444	27,537 .436/9.029
2 1/2"	2.875"	4,330 .083/2.475	6,261 .120/3.531	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	19,565 .375/10.01	28,800 .552/13.69
3"	3.5"	3,557 .083/3.029	5,143 .120/4.332	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 .600/18.58
3 1/2"	4"	3,112 .083/3.472	4,500 .120/4.973	4,500 .120/4.973	8,475 .226/9.109	8,475 .226/9.109	11,925 .318/12.50	11,925 .318/12.50		23,850 .636/22.85
4"	4.5"	2,767 .083/3.915	4,000 .120/5.613	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	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	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	2,574 .148/13.40	5,600 .322/28.55	5,600 .322/28.55	8,696 .500/43.39	8,696 .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	2,302 .165/18.70	5,093 .365/40.48	5,093 .365/40.48	8,274 .593/64.33	6,977 .500/54.74		
12"	12.75"	1,941 .156/20.93	2,118 .180/24.16	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"		2,679 .250/36.71	2,025 .188/35.76	4,693 .438/63.37	4,018 .375/54.57	8,036 .750/106.1	5,357 .500/72.09		
16"	16"		2,344 .250/42.05	1,775 .188/32.05	4,688 .500/82.77	3,516 .375/62.58	7,903 .843/136.5	4,688 .500/82.77		
18"	18"		2,083 .250/47.39	1,575 .188/35.76	4,683 .562/104.8	3,125 .375/70.59	7,808 .937/170.8	4,167 .500/93.45		
20"	20"		1,875 .250/52.73	1,625 .218/46.05	4,448 .593/122.9	2,812 .375/78.60	7,733 .1.031/208.9	3,750 .500/104.1		
24"	24"		1,563 .250/63.41	1,563 .250/63.41	4,294 .687/171.2	2,344 .375/94.62	7,613 .1.218/296.4	3,125 .500/125.5		

Working pressures for T304/L and T316/L A312 pipe between -20°F and 100°F.

The A.S.M.E. code suggests safety factor of four. E.G. 1" SCH40 = 3793 PSI.

For higher temperatures multiply working pressure by:

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