

Stainless Steel Tubing

Theoretical Burst Pressures and Weights

O.D. Inches	Wall Thickness (in.)																	
	.016	.020	.028	.035	.049	.065	.083	.095	.109	.120	.156	.188	.250	.313	.375	.500	.625	.750
1/16	38,400	48,000																
	0.008	0.009																
1/8	19,200	24,000	39,000	42,000	58,800													
	0.019	0.022	0.029	0.033	0.040													
3/16	12,800	15,998	22,403	29,498	39,203	51,863												
	0.029	0.035	0.047	0.057	0.073	0.083												
1/4	12,000	16,800	21,000	29,400	39,000		49,800	57,000										
	0.049	0.066	0.080	0.105	0.128		0.148	0.157										
5/16	9,600	13,440	16,800	23,520	31,200		39,780	45,750										
	0.062	0.085	0.103	0.138	0.172		0.203	0.221										
3/8	8,003	11,998	14,003	19,598	26,003		33,203	38,003	43,598	48,000								
	0.075	0.103	0.127	0.170	0.215		0.258	0.284	0.309	0.326								
7/16	6,857	9,600	12,000	16,800	22,285		28,457	32,571	37,371	41,143								
	0.089	0.123	0.151	0.204	0.259		0.315	0.348	0.383	0.408								
1/2	6,000	8,400	10,500	14,700	19,500		24,900	28,500	32,700	36,000								
	0.102	0.141	0.173	0.236	0.302		0.369	0.418	0.455	0.487								
9/16	5,333	7,467	9,333	13,067	17,333		22,133	25,333	29,066	32,000								
	0.116	0.160	0.197	0.269	0.346		0.426	0.475	0.529	0.568								
5/8	48,000	6,720	8,400	11,760	15,600		19,920	22,888	26,160	28,800	37,440	44,880						
	0.129	0.178	0.221	0.301	0.388		0.480	0.537	0.600	0.647	0.781	0.877						
3/4	3,998	5,603	6,998	9,803	12,997		16,598	18,998	21,803	24,000	31,200	37,403						
	0.155	0.215	0.267	0.366	0.475		0.591	0.664	0.746	0.807	0.990	1.128						
7/8	3,428	4,800	6,000	8,400	11,145		14,228	16,283	18,683	20,573	26,745	32,055						
	0.183	0.253	0.314	0.432	0.562		0.702	0.791	0.891	0.968	1.198	1.379						
1	3,000	4,200	5,250	7,350	9,750		12,450	14,250	16,350	18,000	23,400	28,050	37,500					
	0.209	0.290	0.360	0.497	0.649		0.812	0.918	1.037	1.128	1.406	1.630	2,003					
1 1/8	2,663	3,735	4,665	6,533	8,670		11,070	12,668	14,535	15,998	20,798	24,930	33,330					
	0.236	0.328	0.407	0.563	0.736		0.923	1.045	1.183	1.288	1.614	1.881	2,336					
1 1/4	2,400	3,360	4,200	5,880	7,800		9,960	11,400	13,080	14,400	18,720	22,440	3,000					
	0.262	0.365	0.454	0.628	0.822		1.034	1.172	1.328	1.502	1.823	2.132	2,670					
1 3/8		3,053	3,818	5,348	7,087		9,053	10,365	11,888	13,088	17,018	20,400	27,270					
		0.402	0.501	0.694	0.909		1.145	1.299	1.473	1.608	2.031	2.383	3,004					
1 1/2		2,948	3,503	4,898	6,503		8,303	9,503	10,890	12,000	15,600	18,698	24,998					
		0.440	0.547	0.759	0.996		1.256	1.426	1.619	1.769	2.239	2.634	3,338					
1 5/8			3,230	4,523	6,000		7,662	8,769	10,062	11,077	14,400	17,354	23,077					
			0.594	0.825	1.083		1.367	1.552	1.765	1.929	2.447	2.885	3,671					
1 3/4			3,000	4,200	5,573		7,118	8,145	9,345	10,283	13,373	16,028	21,428					
			0.641	0.890	1.170		1.478	1.679	1.910	2.160	2.656	3.136	4,005					
2			2,625	3,675	4,875		6,225	7,125	8,175	9,000	11,700	14,025	18,750	23,475	28,125	37,500		
			0.734	1.021	1.343		1.699	1.933	2.201	2.409	3.072	3.638	4,673	5,639	6,508	8,010		
2 1/4			2,333	3,270	4,335		5,535	6,330	7,268	8,003	10,403	12,465	16,665	20,865	24,998	33,330		
			0.828	1.152	1.517		1.921	2.250	2.556	2.730	3.489	4.140	5,340	6,475	7,509	9,345		
2 1/2			2,100	2,940	3,900		4,980	5,700	6,540	7,200	9,360	11,220	15,000	18,780	22,500	30,000	37,500	
			0.921	1.283	1.690		2.143	2.440	2.783	3.050	3.905	4.642	6,008	7,311	8,511	10,680	12,515	
2 3/4			1,913	2,670	3,548		4,530	5,183	5,948	6,548	8,513	10,200	13,636	17,070	20,453	27,270	34,088	40,913
			1.015	1.413	1.864		2,364	2,699	3,177	3,495	4,322	5,144	6,675	8,147	9,512	12,015	14,180	16,020
3			1,748	2,453	3,248		4,148	4,748	5,453	6,000	7,800	9,353	12,503	15,653	18,750	24,998	31,253	37,500
			1.108	1.544	2.037		2,586	2,947	3,393	3,691	4,739	5,646	7,343	8,982	10,513	13,350	15,853	18,020
3 1/4					3,000		3,833	4,388	5,033	5,535	7,200	8,633	11,535	14,445	17,310	23,078	28,845	34,613
					2.211		2,805	3,201	3,643	3,975	5,155	6,148	8,010	9,818	11,514	14,685	17,520	20,025
3 1/2					2,783		3,555	4,073	4,673	5,145	6,683	8,018	10,718	13,418	16,073	21,428	26,783	32,146
					2.385		3,029	3,455	3,976	4,385	5,571	6,650	8,678	10,650	12,515	16,020	19,191	22,027
3 3/4					2,603		3,323	3,803	4,358	4,800	6,240	7,478	9,998	12,518	15,000	20,003	24,998	30,000
					2.558		3,248	3,708	4,235	4,650	5,988	7,152	9,345	11,490	13,520	17,355	20,860	24,030
4					2,438		3,113	3,563	4,088	4,500	5,850	7,013	9,375	11,738	14,063	18,750	23,438	28,125
					2.732		3,472	3,962	4,530	4,973	6,404	7,654	10,010	12,330	14,520	18,690	22,530	26,030

Red Figures - Pressures (P.S.I.)
Black Figures - Weight/Foot

Working pressures for T304 and T316 A269 tubing between -20 and 100deg F. The ASME code suggests a safety factor of four.
 Eg. 1/4" O.D. x .035 = 5,250 PSI. For higher temperatures multiply working pressure by:

	300F	500F	1000F
T304	0.828	0.774	0.665
T316	0.900	0.853	0.746

Working Pressures

For Seamless Tubing

O.D. Inches	Wall Thickness (in.)															
	.010	.012	.014	.016	.020	.028	.035	.049	.065	.083	.095	.109	.120	.134	.156	.188
1/16	5,600	6,800	8,100	9,400	12,000											
1/8						8,500	10,900									
3/16						5,400	7,000	10,200								
1/4						4,000	5,100	7,500	10,200							
5/16						4,000	5,800	8,000								
3/8							3,300	4,800	6,500							
1/2							2,400	3,500	4,700	6,200						
5/8								2,900	4,000	5,200	6,000					
3/4								2,400	3,300	4,200	4,900	5,800				
7/8								2,000	2,800	3,600	4,200	4,800				
1									2,400	3,100	3,600	4,200	4,700			
1 1/4										2,400	2,800	3,300	3,600	4,100	4,900	
1 1/2											2,300	2,700	3,000	3,400	4,000	4,900
2												2,000	2,200	2,500	2,900	3,600