INSTRUMENTATION TUBING INDEX

THEORETICAL BURSTING PRESSURES AND WEIGHTS

The information below are typical or average values and are not guarantee of maximum or minimum values.

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	37,5000 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 tubng between -20°F and 100°F.

The ASME 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