

**304 AND 316 STAINLESS STEEL ANNEALED WELDED TUBING
ASTM A-249 OR EQUIVALENT**

ALLOWABLE WORKING PRESSURE

ALLOWABLE STRESS = 15,900 PSI between -20° F and 100° F

WALL THICKNESS									
Tubing O.D	.028	.032	.035	.049	.065	.083	.095	.109	.120
1/8	5,835	8,475	10,748						
3/16	3,705	5,390	6,932	10,001					
1/4		3,911	5,009	7,314	9,938				
5/16		3,069	3,911	5,708	7,807				
3/8			3,212	4,643	6,392				
1/2			2,353	3,380	4,611	6,090			
5/8			1,860	2,655	3,609	4,722	5,501		
3/4			1,542	2,194	2,957	3,864	4,484	5,231	5,835
7/8			1,313	1,860	2,512	3,260	3,784	4,404	4,897
1			1,145	1,622	2,175	2,830	3,275	3,800	4,214

Factor of Safety = 4, considering tensile strength to be 75,000 PSI at room temperature, and a weld joint efficiency factor of approximately 0.85

CALCULATED BURST PRESSURE

TENSILE STRENGTH = 75,000

WALL THICKNESS									
Tubing O.D	.028	.032	.035	.049	.065	.083	.095	.109	.120
1/8	27,525	39,970	50,670						
3/16	17,490	25,440	32,700	47,170					
1/4		18,450	23,650	34,515	46,915				
5/16		14,475	18,600	26,895	36,855				
3/8			15,130	21,885	30,130				
1/2			11,125	15,955	21,765	28,710			
5/8			8,800	12,550	17,020	22,290	25,960		
3/4			7,275	10,345	13,965	18,210	21,145	24,675	27,525
7/8			6,195	8,800	11,850	15,400	17,835	20,755	23,110
1			5,400	7,650	10,285	13,335	15,420	17,910	19,915

Reference: ANSI B31.3, Table A-1 and Par. 304.1.2

ASME Pressure Vessels, Section VIII,

Table UHF-23, Par. UG-27 and Appendix 1, Par. 1-2