

Minimum Internal Burst and External Collapse Pressures

		Alloy							
		316L		825		625		2205	
Nominal Outside Diameter (in.)	Nominal Wall Thickness (in.)	Minimum Burst Pressure (psi)	Minimum Collapse Pressure (psi)	Minimum Burst Pressure (psi)	Minimum Collapse Pressure (psi)	Minimum Burst Pressure (psi)	Minimum Collapse Pressure (psi)	Minimum Burst Pressure (psi)	Minimum Collapse Pressure (psi)
0.125	0.020	19,688	6,042	23,906	8,459	33,750	14,502	30,938	19,336
0.125	0.028	27,563	7,906	33,469	11,068	47,250	18,974	43,313	25,298
0.125	0.035	34,453	9,277	41,836	12,987	59,063	22,264	54,141	29,685
0.250	0.020	9,960	3,304	12,095	4,626	17,075	7,930	15,652	10,185
0.250	0.028	13,945	4,484	16,933	6,278	23,905	10,762	21,913	14,349
0.250	0.035	17,431	5,450	21,166	7,630	29,881	13,081	27,391	17,441
0.250	0.049	24,403	7,196	29,632	10,075	41,834	17,271	38,348	23,028
0.250	0.065	32,372	8,888	39,308	12,443	55,494	21,331	50,870	28,442
0.375	0.020	6,667	2,199	8,095	2,754	11,429	3,835	10,476	4,405
0.375	0.028	9,333	3,111	11,333	4,356	16,000	7,270	14,667	9,084
0.375	0.035	11,667	3,819	14,167	5,347	20,000	9,167	18,333	12,222
0.375	0.049	16,333	5,153	19,833	7,214	28,000	12,367	25,667	16,489
0.375	0.065	21,667	6,541	26,310	9,157	37,143	15,697	34,048	20,930
0.500	0.020	5,010	1,336	6,083	1,545	8,588	2,017	7,873	2,246
0.500	0.028	7,014	2,379	8,517	3,009	12,024	4,282	11,022	5,015
0.500	0.035	8,767	2,935	10,646	4,109	15,030	6,541	13,777	8,091
0.500	0.049	12,274	3,999	14,905	5,599	21,042	9,598	19,288	12,798
0.500	0.065	16,282	5,139	19,771	7,194	27,913	12,333	25,586	16,444
0.625	0.028	5,600	1,926	6,800	1,984	9,600	2,534	8,800	2,940
0.625	0.035	7,000	2,382	8,500	3,016	12,000	4,293	11,000	5,029
0.625	0.049	9,800	3,265	11,900	4,570	16,800	7,835	15,400	9,958
0.625	0.065	13,000	4,224	15,786	5,913	22,286	10,137	20,429	13,516

Notes Regarding Burst and Collapse Pressure

Minimum internal burst pressure and external collapse pressure calculations were based upon:

- Minimum ultimate tensile strength, UTS_{min} and 0.2% offset yield strength, YS_{min} (See Table)
- Maximum outside diameter, OD_{max} (See Table)
- Minimum wall thickness, t_{min} (See Table)

Minimum burst pressure = $(2 \times t_{min} \times UTS_{min}) / OD_{max}$
 assumes no axial or other loading except internal pressure

Collapse pressure based on API 5C3
 assumes no ovality, internal pressure or other loading except external pressure

Minimum Mechanical Properties

	Alloy			
Property	316L	825	625	2205
Minimum Ultimate Tensile Strength, UTS_{min} (psi)	70,000	85,000	120,000	110,000
Minimum 0.2% Offset Yield Strength, YS_{min} (psi)	25,000	35,000	60,000	80,000

Permissible Variation in Tubing Dimensions

Nominal Outside Diameter (in.)	Outside Diameter, OD (\pm in.)	Wall Thickness, t (\pm %)
Less than 0.625	0.003	10%
Greater than or equal 0.625	0.005	10%

