

J.I.C. Hydraulic Pressure Tubing SAE J524 and J525



Recommended Wall Thicknesses of Tubing for Various Pressures and Types of Service

SEAMLESS and WELDED for working pressures of

Tube O.D.	Fitting Size	500 psi.	1000 psi.	1500 psi.	2000 psi.	2500 psi.	3000 psi.	4000 psi.	5000 psi.
"A" SERVICE – SAFETY FACTOR: 4									
1/8"	2	.032	.032	.032	.032	.032	.032	.032	.032
3/16"	3	.032	.032	.032	.032	.032	.032	.032	.032
1/4"	4	.035	.035	.035	.035	.035	.035	.035	.049
5/16"	5	.035	.035	.035	.035	.035	.035	.049	.049
3/8"	6	.035	.035	.035	.035	.035	.035	.049	.058
1/2"	8	.035	.035	.035	.035	.049	.049	.065	.083
5/8"	10	.049	.049	.049	.049	.049	.065	.083	.110
3/4"	12	.049	.049	.049	.049	.065	.065	.095	.130
7/8"	14	.049	.049	.049	.065	.065	.095	—	—
1"	16	.049	.049	.049	.065	.110	.110	.130	.165
1 1/4"	20	.083	.083	.083	.083	.120	.120	—	—
1 1/2"	24	.095	.095	.095	.095	.130	.130	—	—
"B" SERVICE – SAFETY FACTOR: 6									
1/8"	2	.032	.032	.032	.032	.032	.032	.032	.032
3/16"	3	.032	.032	.032	.032	.032	.032	.035	—
1/4"	4	.035	.035	.035	.035	.035	.035	.049	.065
5/16"	5	.035	.035	.035	.035	.035	.049	.058	—
3/8"	6	.035	.035	.035	.035	.049	.058	.072	.095
1/2"	8	.035	.035	.035	.049	.072	.072	.095	.130
5/8"	10	.049	.049	.049	.065	.083	.083	.130	.165
3/4"	12	.049	.049	.065	.095	.095	.110	.148	.180
7/8"	14	.049	.049	.065	.095	—	—	—	—
1"	16	.049	.049	.065	.110	.120	.148	.203	.250
1 1/4"	20	.083	.083	.083	.120	—	—	—	—
1 1/2"	24	.095	.095	.130	.130	—	—	—	—
"C" SERVICE – SAFETY FACTOR: 8									
1/8"	2	.032	.032	.032	.032	.032	.032	.032	—
3/16"	3	.032	.032	.032	.032	.032	—	—	—
1/4"	4	.035	.035	.035	.035	.049	.049	.065	.083
5/16"	5	.035	.035	.035	.049	.049	—	—	—
3/8"	6	.035	.035	.035	.049	.058	.072	.095	.130
1/2"	8	.035	.035	.049	.072	.083	.095	.130	—
5/8"	10	.049	.049	.065	.083	.110	.120	.165	—
3/4"	12	.049	.049	.065	.095	.120	.130	—	—
7/8"	14	.049	.065	.095	—	—	—	—	—
1"	16	.049	.065	.110	.130	.165	.203	—	—
1 1/4"	20	.083	.083	.120	—	—	—	—	—
1 1/2"	24	.095	.095	.130	—	—	—	—	—

Commercial Alloy Tubing



COLD DRAWN — HOT FINISHED ANNEALED — HEAT TREATED

CODES: HF—Hot Finished Seamless All others are Cold Drawn Seamless

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
1"	.095	.834	8129	4130
	.156	.687	1.406	4130
	.250	.500	2.003	4130
	.313	.374	2.297	4130
	.375	.250	2.503	4130
1 1/8"	.188	.750	1.881	4130
	.250	.625	2.336	4130
	.313	.500	2.714	4140
1 1/4"	.095	1.060	1.172	4340
	.188	.875	2.132	4130
	.250	.750	2.670	4130
1 3/8"	.083	1.209	1.145	4130
	.120	1.135	1.608	4130
	.188	1.000	2.383	4130
1.496"	.125	1.246	1.830	4640
1 1/2"	.120	1.260	1.769	4130
	.188	1.125	2.634	4130
	.250	1.000	3.338	4130
	.250	1.000	3.338	4130HF
	.250	1.000	3.338	4140
1 9/16"	.250	1.062	3.506	4130
1 5/8"	.188	1.250	2.885	4130
	.250	1.125	3.671	4130
	.313	1.000	4.386	4130
	.500	.625	6.008	4130
1.746"	.125	1.496	2.164	4640
1 3/4"	.094	1.563	1.662	4130
	.188	1.375	3.136	4130
	.250	1.250	4.005	4130
	.250	1.250	4.005	4130
	.375	1.000	5.507	4130
	.438	.875	6.137	4140
1 7/8"	.188	1.500	3.387	4130
	.250	1.375	4.339	4130
	.250		4.339	4140
	.313	1.250	5.222	4130
	.375	1.125	6.008	4130

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
2"	.188	1.625	3.638	4130
	.250	1.500	4.673	4130
	.250	1.500	4.673	4140
	.313	1.375	5.639	4130
	.313	1.375	5.639	4140
	.375	1.250	6.508	4130
	.500	1.000	8.010	4130
	.500	1.000	8.010	4140
2 1/8"	.188	1.750	3.889	4130
	.219	1.687	4.458	4130
	.250	1.625	5.006	4130
	.281	1.563	5.534	4130
	.313	1.500	6.057	4130
2 1/4"	.120	2.010	2.730	4130
	.188	1.875	4.140	4130
	.250	1.750	5.340	4130
	.250	1.750	5.340	4140HF
	.313	1.625	6.475	4130
	.375	1.500	7.509	4140HF
	.500	1.250	9.345	4140
2 3/8"	.120	2.135	2.890	4130
	.120	2.135	2.890	4140
	.188	2.000	4.391	4130
	.219	1.937	5.043	4130
	.219	1.937	5.043	4140
	.250	1.875	5.674	4130
	.313	1.750	6.893	4130
	.313	1.750	6.893	4140
	.375	1.625	8.010	4130
	.438	1.500	9.061	4140
	.438	1.500	9.061	4140HF
	.500	1.375	10.01	4130
	.625	1.125	11.68	4140
	.688	1.000	12.40	4140
	.719	.937	12.72	4140
2 1/2"	.125	2.250	3.171	4130
	.188	2.125	4.642	4130
	.219	2.062	5.335	4130
	.250	2.000	6.008	4130
	.250	2.000	6.008	4140
	.281	1.938	6.659	4130
	.313	1.875	7.311	4140
	.375	1.750	8.511	4130
	.375	1.750	8.511	4140HF
	.438	1.625	9.646	4130
	.500	1.500	10.68	4130
	.500	1.500	10.68	4140
	.563	1.375	11.65	4340
	.750	1.000	14.02	4130