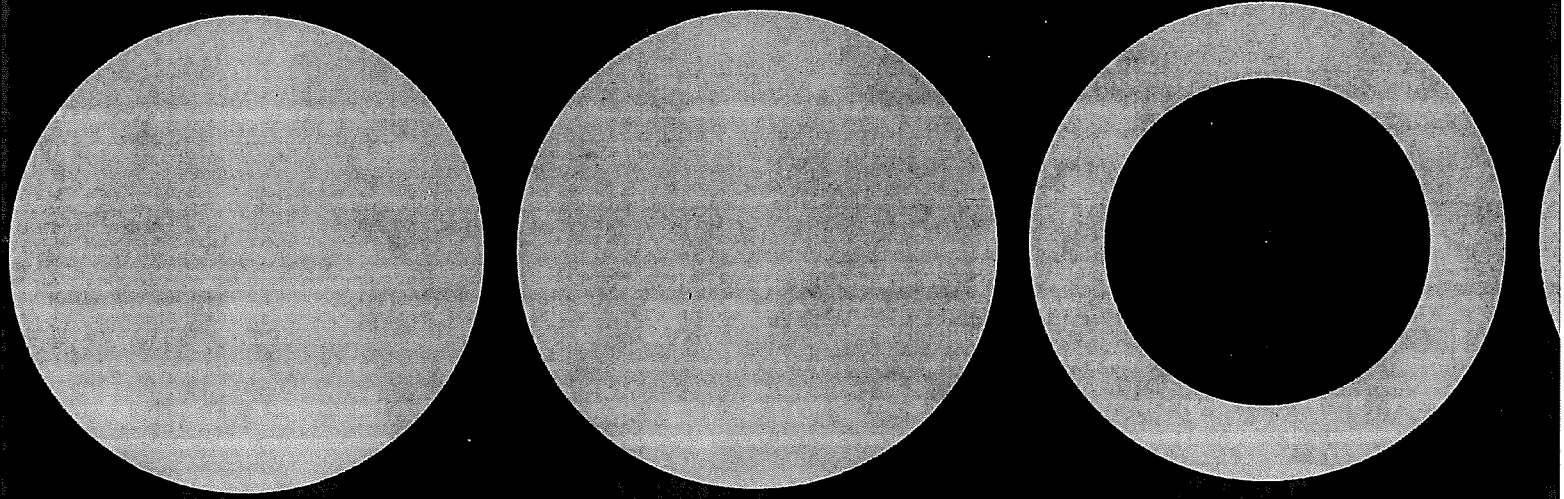
STAINLESS STEEL PIPE

We have the selection to fill your specifications – stainless steel is our specialty. Whether you need a foot of pipe or twenty miles, we can supply it in the dimensions and alloys you require. All at excellent prices and with the special service you've come to expect from Specialty Steels.

For day to day requirements, or for major projects, turn to our national network of stainless steel experts.



SPECIFICATIONS COVERING STAINLESS STEEL PIPE AND TUBE

Spec. Number	Title	Scope
A213	Seamless Ferritic & Austenitic Stainless Steel Boiler & Super Heater Tubes & Austenitic Heat Exchanger Tubes	Pressure tubes made from ferritic & austenitic stainless steel (types 304, 304H, 304L, 304N, 304LN, 309, 310, 316, 316H, 316L, 316N, 316LN, 317, 317L, 321, 321H, 347, 347H, 348, 348N, XM10, XM11, XM15, XM19, XM29).
A249	Welded Austenitic Stainless Steel Boiler, Superheater, Heat Exchanger, and Condenser Tubes.	Pressure tubes, made from austenitic stainless steels. (Types 304, 304H, 304L, 305, 309, 310, 316, 316H, 316L, 317, 321, 321H, 347, 347H, 348, 348H, and XM 15, XM 19, XM 29).
A269	Seamless and Welded Austenitic Stainless Steel Tubing for General Service.	9 grades of austenitic stainless steel tubing for general corrosion-resisting and high temperature service. (Types 304, 304L, 316, 316L, 317, 321, 347, 348 and XM-15).
A270	Seamless and Welded Austenitic Stainless Steel Sanitary Tubing.	Austenitic stainless steel tubing intended for use in the dairy and food industry in sizes up to and including 4 in. in outside diameter.

Spec. Number	Title	Scope
A312	Seamless and Welded Austenitic Stainless Steel Pipe.	Austenitic stainless steel pipe intended for high temperature and general corrosive service. Fifteen grades are covered. (Types 304, 304H, 304L, 309, 310, 316, 316H, 316L, 317, 321, 321H, 347, 347H, 348, 348H and XM-15).
A358	Electric-Fusion-Welded Austenitic Chromium-Nickel Alloy Steel Pipe for High-Temperature Service.	For corrosion and high temperature service, normally not less than 8 in. nominal diameter. Types 304, 316, 309, 319, 321, 347, 348.
A450	General Requirements that apply for A213, A249, A269 & A270	
A530	General Requirements that apply for A312 & A358	

Five Classes of A358 are covered as follows:
Class 1 – Pipes shall be double welded employing filler metal in all passes and shall be completely radiographed.
Class 2 – Pipes shall be double welded employing filler metal in all passes. Radiography is not required.
Class 3 – Pipes shall be single welded employing filler metal in all passes and shall be completely radiographed.
Class 4 – Same as Class 3 except that the weld pass exposed to the inside pipe surface may be made without the addition of filler metal.
Class 5 – Pipe shall be double welded employing filler metal in all passes and shall be spot radiographed.

PIPE DIMENSIONS AND WEIGHTS

Nominal Pipe Size Inches	O.D. In.	Schedule	I.P.S.	Wall In.	I.D. In.	Wt/Ft Pounds
1/8	.405	10S		.049	.307	.1863
		40S Std.	40	.068	.269	.2447
		80S Ex.Hvy.	80	.095	.215	.3145
1/4	.540	10S		.065	.410	.3297
		40S Std.	40	.088	.364	.4248
		80S Ex. Hvy.	80	.199	.302	.5351
3/8	.675	10S		.065	.545	.4235
		40S Std.	40	.091	.493	.5676
		80S Ex. Hvy.	80	.126	.423	.7388
1/2	.840	5S		.065	.710	.5383
		10S		.083	.674	.6710
		40S Std.	40	.109	.622	.8510
		80S Ex. Hvy.	80	.147	.546	1.088
			160	.187	.466	1.304
		XX Hvy.		.294	.252	1.714
3/4	1.050	5S		.065	.920	.6838
		10S		.083	.884	.8572
		40S Std.	40	.113	.824	1.131
		80S Ex. Hvy.	80	.154	.742	1.474
			160	.218	.614	1.937
		XX Hvy.		.308	.434	2.441
1	1.315	5S		.065	1.185	.8678
		10S		.109	1.097	1.404
		40S Std.	40	.133	1.049	1.679
		80S Ex. Hvy.	80	.179	.957	2.172
			160	.250	.815	2.844
		XX Hvy.		.358	.599	3.659
1-1/4	1.660	5S		.065	1.530	1.107
		10S		.109	1.442	1.806
		40S Std.	40	.140	1.380	2.273
		80S Ex. Hvy.	80	.191	1.278	2.997
			160	.250	1.160	3.765
		XX Hvy.		.382	.896	5.214

Nominal Pipe Size Inches	O.D. In.	Schedule	I.P.S.	Wall In.	I.D. In.	Wt/Ft Pounds
1-1/2	1.900	5S		.065	1.770	1.274
		10S		.109	1.682	2.085
		40S Std.	40	.145	1.610	2.718
		80S Ex. Hvy.	80	.200	1.500	3.631
	1.900		160	.281	1.338	4.859
		XX Hvy.		.400	1.100	6.408
2	2.375	5S		.065	2.245	1.604
		10S		.109	2.157	2.638
		40S Std.	40	.154	2.067	3.653
		80S Ex. Hvy.	80	.218	1.939	5.022
			160	.343	1.689	7.444
		XX Hvy.		.436	1.503	9.029
2-1/2	2.875	5S		.083	2.709	2.475
		10S		.120	2.635	3.531
		40S Std.	40	.203	2.469	5.793
		80S Ex. Hvy.	80	.276	2.323	7.661
			160	.375	2.125	10.01
		XX Hvy.		.552	1.771	13.69
3	3.500	5S		.083	3.334	3.029
		10S		.120	3.260	4.332
		40S Std.	40	.216	3.068	7.576
		80S Ex. Hvy.	80	.300	2.900	10.25
			160	.438	2.624	14.32
		XX Hvy.		.600	2.300	18.58
3-1/2	4.000	5S	5	.083	3.834	3.472
		10S	10	.120	3.760	4.973
		40S Std.	40	.226	3.548	9.109
		80S Ex. Hvy.	80	.318	3.364	12.50
		XX Hvy.		.636	2.728	22.85
4	4.500	5S		.083	4.334	3.915
		10S		.120	4.260	5.613
		40S Std.	40	.237	4.026	10.79
		80S Ex. Hvy.	80	.337	3.826	14.98
			120	.438	3.624	19.00
			160	.531	3.438	22.51
		XX Hvy.		.674	3.152	27.54

Nominal Pipe Size Inches	O.D. In.	Schedule	I.P.S.	Wall In.	I.D. In.	Wt/Ft Pounds
4 1/2	5.00	40 Std.		.247	4.506	12.53
		80 Ex. Hvy.		.355	4.290	17.61
		XX Hvy.		.710	3.580	32.43
5	5.563	5S		.109	5.345	6.349
		10S		.134	5.295	7.770
	5.563	40S Std.	40	.258	5.047	14.62
		80S Ex. Hvy.	80	.375	4.813	20.78
			120	.500	4.563	27.04
			160	.625	4.313	32.96
		XX Hvy.		.750	4.063	38.55
6	6.625	5S		.109	6.407	7.585
		10S		.134	6.357	9.289
		40S Std.	40	.280	6.065	18.97
		80S Ex. Hvy.	80	.432	5.761	28.57
			120	.562	5.491	36.39
			160	.718	5.189	45.30
		XX Hvy.		.864	4.897	53.16
8	8.625	5S		.109	8.407	9.914
		10S		.148	8.329	13.40
			20	.250	8.125	22.36
			30	.277	8.071	24.70
		40S Std.	40	.322	7.981	28.55
			60	.406	7.813	35.64
		80S Ex. Hvy.	80	.500	7.625	43.39
			100	.593	7.439	50.87
			120	.718	7.189	60.63
			140	.812	7.001	67.76
		XX Hvy.		.875	6.875	72.42
			160	.906	6.813	74.69

PIPE DIMENSIONS AND WEIGHTS

Nominal Pipe Size Inches	O.D. In.	Schedule	I.P.S.	Wall In.	I.D. In.	Wt/Ft Pounds
10	10.750	5S		.134	10.482	15.19
		10S		.165	10.420	18.70
			20	.250	10.250	28.04
			30	.307	10.136	34.24
		40S Std.	40	.365	10.020	40.48
		80S Ex. Hvy.	60	.500	9.750	54.74
			80	.593	9.564	64.33
			100	.781	9.314	76.93
			120	.843	9.064	89.20
			140	1.000	8.750	104.1
			160	1.125	8.500	115.7
12	12.750	5S		.165	12.420	22.18
		10S		.180	12.390	24.20
			20	.250	12.250	33.38
			30	.330	12.090	43.77
		40S Std.		.375	12.000	49.56
			40	.406	11.938	53.53
		80S Ex. Hvy.		.500	11.750	65.42
			60	.562	11.626	73.16
			80	.687	11.376	88.51
			100	.843	11.064	107.2
			120	1.000	10.750	125.5
			140	1.125	10.500	139.7
			160	1.312	10.126	160.3
14	14.000		10s	.188	13.624	27.99
			10	.250	13.500	36.71

Nominal Pipe Size Inches	O.D. In.	Schedule	I.P.S.	Wall In.	I.D. In.	Wt/Ft Pounds
14	14.000		20	.312	13.376	45.68
		Std.	30	.375	13.250	54.57
			40	.438	13.124	63.37
		Ex. Hvy.		.500	13.000	72.09
			60	.593	12.814	84.91
			80	.750	12.500	106.1
			100	.937	12.126	130.7
			120	1.093	11.814	150.7
			140	1.250	11.500	160.2
			160	1.406	11.188	189.1
16	16.000		10s	.188	15.624	32.05
			10	.250	15.500	42.05
			20	.312	15.376	52.36
		Std.	30	.375	15.250	62.58
		Ex. Hvy.	40	.500	15.000	82.77
			60	.656	14.688	107.5
			80	.843	14.314	136.5
			100	1.031	13.938	164.8
			120	1.218	13.564	192.3
			140	1.438	13.124	223.5
			160	1.593	12.814	245.1
18	18.000		10s	.188	17.624	36.10
			10	.250	17.500	47.39
			20	.312	17.376	59.03
		Std.		.375	17.250	70.59
			30	.438	17.124	82.06
		Ex. Hvy.		.500	17.000	93.45
			40	.562	16.876	104.8
			60	.750	16.500	138.2
			80	.937	16.126	170.8
			100	1.156	15.688	208.0
			120	1.375	15.250	244.1
			140	1.562	14.876	274.2
			160	1.781	14.438	308.5

PIPE DIMENSIONS AND WEIGHTS

Nominal Pipe Size Inches	O.D. In.	Schedule	I.P.S.	Wall In.	I.D. In.	Wt/Ft Pounds
20	20.000		10s	.218	19.564	46.49
			10	.250	19.500	52.73
		Std.	20	.375	19.250	78.60
		Ex. Hvy.	30	.500	19.000	104.1
			40	.593	18.814	122.9
			60	.812	18.376	166.4
			80	1.031	17.938	208.9
			100	1.281	17.438	256.1
			120	1.500	17.000	296.4
			140	1.750	16.500	341.1
			160	1.968	16.064	379.0
24	24.000		10s	.250	23.500	63.41
			10	.250	23.500	63.41
		Std.	20	.375	23.250	94.62
		Ex. Hvy.		.500	23.000	125.5
			30	.562	22.876	140.8
			40	.687	22.626	171.2
			60	.968	22.064	238.1
			80	1.218	21.564	296.4
			100	1.531	20.938	367.4
			120	1.812	20.376	429.4
			140	2.062	19.876	483.1
			160	2.343	19.314	541.9
26	26.000		10	.312	25.376	85.73
		Std.		.375	25.250	102.63
		X Hvy.	20	.500	25.000	136.17
28	28.000		10	.312	27.376	92.41
		Std.		.375	27.250	110.64
			20	.500	27.000	146.85
			30	.625	26.750	182.73
30	30.000		10	.312	29.376	98.93
		Std.		.375	29.250	118.65
		Ex. Hvy.	20	.500	29.000	157.53
			30	.625	28.750	196.08

Nominal Pipe Size Inches	O.D. In.	Schedule	I.P.S.	Wall In.	I.D. In.	Wt/Ft Pounds
32	32.000		10	.312	31.376	105.76
		Std.		.375	31.250	126.66
			20	.500	31.000	168.21
			30	.625	30.750	209.43
			40	.688	30.624	229.92
34	34.000		10	.312	33.376	112.43
		Std.		.375	33.250	134.67
			20	.500	33.000	178.89
			30	.625	32.750	222.78
			40	.688	32.624	244.60
36	36.000		10	.312	35.375	118.92
		Std.		.375	35.250	142.7
		Ex. Hvy.		.500	35.000	189.6
42	42.000	Std.		.375	41.250	166.71
		Ex. Hvy.	20	.500	41.000	221.61
			30	.625	40.750	276.17
			40	.750	40.500	330.41
48	48.000	Std.		.375	47.250	190.74
		X Hvy.		.500	47.000	253.65

AUSTENITIC STAINLESS STEEL TUBING DIMENSIONS & WEIGHTS

Dia. In.	Wall Thickness, Inches																													
	.008	.010	.012	.014	.016	.018	.020	.022	.025	.028	.030	.032	.035	.042	.049	.062	.065	.072	.078	.083	.090	.095	.109	.120	.125	.134	.140	.148	.154	.165	.187
1/8	.010	.012	.015	.017	.019	.021	.023	.024	.027	.029	.031	.032	.034	.038	.040																
1/4		.026	.031	.036	.040	.045	.050	.054	.061	.067	.068	.071	.081	.094	.106																
3/8		.039	.047	.054	.062	.069	.077	.084	.094	.105	.112	.118	.128	.151	.172	.209	.217	.235	.250	.261	.276	.287									
1/2		.053	.063	.073	.083	.094	.103	.113	.128	.142	.152	.161	.175	.207	.238	.293	.305	.332	.355	.373	.398	.415	.459	.492							
5/8		.066	.079	.092	.105	.118	.130	.143	.162	.180	.192	.205	.223	.264	.304	.376	.392	.429	.460	.485	.519	.543	.606	.653							
3/4					.127	.142	.157	.173	.195	.218	.233	.248	.270	.321	.370	.460	.480	.526	.565	.597	.640	.671	.753	.815							
7/8						.166	.184	.202	.229	.256	.273	.291	.317	.377	.436	.543	.568	.623	.670	.709	.762	.799	.900	.977							
1							.211	.232	.263	.293	.314	.334	.364	.434	.502	.627	.655	.720	.775	.820	.883	.927	1.047	1.138	1.179	1.251					
1-1/4							.265	.291	.330	.369	.395	.420	.458	.547	.634	.794	.830	.914	.985	1.044	1.125	1.183	1.341	1.462	1.516	1.612					
1-3/8							.292	.321	.364	.407	.441	.463	.506	.604	.700	.878	.918	1.011	1.090	1.156	1.247	1.311	1.488	1.623	1.684	1.793					
1-1/2													.553	.660	.766	.961	1.006	1.108	1.196	1.268	1.367	1.439	1.634	1.785	1.853	1.973	2.052	2.157			
1-5/8													.600	.717	.832	1.045	1.093	1.205	1.301	1.380	1.489	1.567	1.781	1.947	2.021	2.154	2.241	2.356			
1-3/4														.773	.899	1.128	1.181	1.302	1.406	1.492	1.610	1.695	1.928	2.109	2.190	2.334	2.430	2.556			
2														.887	1.031	1.295	1.356	1.496	1.616	1.715	1.853	1.951	2.222	2.432	2.502	2.695	2.810	2.955			
2-1/4														1.000	1.163	1.462	1.531	1.690	1.826	1.939	2.096	2.207	2.516	2.755	2.864	3.057	3.184	3.354			
2-3/8														1.056	1.229	1.546	1.619	1.787	1.931	2.051	2.217	2.335	2.663	2.917	3.033	3.237	3.373	3.553	3.687	3.431	4.411
2-1/2															1.295	1.629	1.706	1.885	2.036	2.163	2.338	2.463	2.809	3.079	3.200	3.418	3.562	3.752	3.895	4.153	4.663
2-5/8															1.361	1.713	1.794	1.982	2.142	2.274	2.459	2.591	2.956	3.240	3.369	3.598	3.750	3.952	4.102	4.376	4.915
2-3/4																	1.881	2.079	2.247	2.386	2.581	2.719	3.103	3.402	3.537	3.779	3.939	4.151	4.310	4.598	5.167
2-7/8																	1.969	2.176	2.352	2.498	2.702	2.847	3.250	3.564	3.706	3.959	4.128	4.351	4.517	4.820	5.419
3																	2.057	2.273	2.457	2.610	2.823	2.975	3.397	3.726	3.874	4.140	4.316	4.550	4.725	5.043	5.671
3-1/4																	2.232	2.467	2.667	2.834	3.066	3.231	3.691	4.049	4.211	4.501	4.694	4.949	5.150	5.487	6.175
3-1/2																	2.407	2.661	2.877	3.057	3.308	3.487	3.984	4.372	4.548	4.862	5.071	5.348	5.555	5.932	6.679
3-3/4																	2.582	2.855	3.088	3.281	3.551	3.743	4.278	4.696	4.885	5.223	5.448	5.747	5.970	6.377	7.183
4																	2.757	3.049	3.298	3.505	3.793	3.999	4.572	5.019	5.222	5.585	5.825	6.146	6.385	6.821	7.686
4-1/4																	2.797	3.243	3.508	3.728	4.036	4.255	4.866	5.342	5.558	5.946	6.203	6.545	6.800	7.265	8.190
4-1/2																	3.108	3.437	3.718	3.952	4.278	4.511	5.160	5.666	5.895	6.307	6.580	6.943	7.015	7.711	8.694
5-9/16																							6.409	7.041	7.328	7.842	8.184	8.639	8.890	9.601	10.837
6-5/8																							7.656	8.415	8.759	9.376	9.787	10.334	10.742	11.490	12.978
8-5/8																							10.006	11.002	11.454	12.265	12.806	13.525	14.063	15.048	17.010
10-3/4																										15.335	16.013	16.915	17.590	18.827	21.294
14																														24.608	27.845
16																														28.166	31.877
18																														30.840	35.908
20																															39.940
22																															43.972
24																															48.004

AUSTENITIC STAINLESS STEEL TUBING DIMENSIONS & WEIGHTS

Dia. In.	Wall Thickness, Inches																								
	.200	.208	.218	.238	.250	.265	.280	.300	.313	.350	.375	.437	.450	.500	.562	.625	.750	.815	.875	1.000	1.125	1.375	1.500	1.750	2.000
2-3/8	4.689	4.859	5.069																						
2-1/2	4.959	5.139	5.363																						
2-5/8	5.228	5.419	5.657																						
2-3/4	5.498	5.700	5.950																						
2-7/8	5.767	5.980	6.244																						
3	6.037	6.260	6.538																						
3-1/4	6.576	6.823	7.125																						
3-1/2	7.115	7.381	7.713																						
3-3/4	7.654	7.942	8.300																						
4	8.193	8.503	8.888	9.652	10.106																				
4-1/4	8.732	9.063	9.475	10.293	10.780																				
4-1/2	9.271	9.624	10.063	13.662	11.454																				
5-9/16	11.563	12.007	12.561	16.386	14.318	15.135																			
6-5/8	13.852	14.388	15.057	21.518	17.180	18.169	19.152																		
8-5/8	18.164	18.873	19.757	26.970	22.570	23.882	25.188	26.923	28.046	31.221	31.127	38.572	39.657	43.794	48.848										
10-3/4	22.744	23.638	24.751	35.308	28.298	29.952	31.601	33.795	35.216	39.239	41.941	48.583	49.965	55.248	61.722	67.543	80.850								
14	29.752	30.925	32.388	40.440	37.056	39.237	41.412	44.306	46.182	51.501	55.079	63.893	65.731	72.765	81.442	90.114	107.126	115.839	123.703	140.140	156.139				
16	34.065	35.409	37.088	45.570	42.446	44.950	47.449	50.774	52.930	59.047	63.164	73.315	75.433	83.545	93.529	103.589	123.296	133.411	142.667	161.700	180.397				
18	38.376	39.894	41.788	50.702	47.835	50.663	56.504	57.204	59.678	66.593	71.249	82.737	85.135	94.325	105.645	117.062	139.462	150.979	161.532	183.260	204.649				
20	42.689	44.378	46.488	55.832	53.226	56.377	59.523	63.710	66.427	74.139	79.334	92.158	94.837	105.105	117.762	130.539	155.636	168.554	180.397	204.820	228.907	276.069	299.145	344.286	388.080
22	47.001	48.863	51.188	60.965	58.616	62.010	65.559	70.710	73.175	81.685	87.419	101.580	104.539	115.885	129.879	144.014	171.802	186.125	199.262	226.380	253.125	305.714	331.485	382.016	431.200
24	51.313	53.347	55.889		64.006	67.804	71.596	76.646	79.923	89.231	95.504	111.002	114.741	126.665	141.996	157.489	187.976	203.696	218.127	247.940	277.417	335.359	363.825	419.746	474.320
26					69.396	73.516	77.633	83.114	86.670	96.775	103.586	120.424	123.943	137.445	154.113	170.964	204.146	221.268	236.992	269.500	301.672	365.004	396.165	457.476	517.440
28					74.786	79.230	83.670	89.582	93.420	104.323	111.674	129.845	133.645	148.225	166.229	184.439	220.316	238.839	255.856	291.060	325.926	394.649	428.505	495.206	560.560
30					80.176	84.944	89.707	96.050	100.168	111.869	119.759	139.267	143.347	159.005	178.346	197.914	236.486	256.410	274.721	312.620	350.181	424.294	460.845	532.936	603.680
36					96.346	62.084	107.847	115.454	120.413	134.507	144.014	167.532	172.453	191.345	214.696	238.339	284.996	309.125	331.316	377.300					
40					107.126	113.511	119.891	128.390	133.909	149.599	160.184	186.376	191.857	212.905	238.929	265.289	317.336	344.267	369.046	420.420					
48					128.686	136.365	144.038	154.262	160.903	179.783	192.524	224.062	230.665	256.025	287.396	319.189	382.016	414.553	444.506	506.660					
54					144.856	153.504	162.148	173.666	181.058	202.421	216.779	252.327	259.771	288.150	323.716	359.614	430.526	467.267	510.534	571.340					
60					161.026	170.645	180.259	193.070	201.392	225.059	241.034	280.593	288.877	320.705	360.097	400.039	479.036	519.982	557.697	636.020					

STAINLESS STEEL PIPE
THEORETICAL BURSTING PRESSURES & WEIGHTS

Size Pipe	O.D. In.	Pipe Schedules							
		5	10	Std.	40	E.H.	80	160	Dble. E.H.
		12963	18148	25185	25185	35185	35185		
1/8	.405	.035/.1383	.049/.1863	.068/.2447	.068/.2447	.095/.3145	.095/.3145		
		13611	18056	24444	24444	33056	33056		
1/4	.540	.049/.2570	.065/.3297	.088/.4248	.088/.4248	.119/.5351	.119/.5351		
		10889	14444	20222	20222	28000	28000		
3/8	.675	.049/.3276	.65/.4235	.091/.5676	.091/.5676	.126/.7388	.126/.7388		
		11607	14821	19464	19464	26250	26250	33393	52500
1/2	.840	.065/.5380	.083/.6710	.109/.8510	.109/.8510	.147/1.088	.147/1.088	.187/1.304	.294/1.714
		9286	11857	16143	16143	22000	22000	31143	44000
3/4	1.050	.065/.6838	.083/.8572	.113/1.131	.113/1.131	.154/1.474	.154/1.474	.218/1.937	.308/2.441
		7414	12433	15171	15171	20418	20418	28517	40837
1	1.315	.065/.8678	.109/1.404	.133/1.679	.133/1.679	.179/2.172	.179/2.172	.250/2.844	.358/3.659
		5873	9849	12651	12651	17259	17259	22590	34518
1-1/4	1.660	.065/1.107	.109/1.806	.140/2.273	.140/2.273	.191/2.997	.191/2.997	.250/3.765	.382/5.214
		5132	8605	11447	11447	15789	15789	22184	31579
1-1/2	1.900	.065/1.274	.109/2.085	.145/2.718	.145/2.718	.200/3.631	.200/3.631	.281/4.859	.400/6.408
		4105	6884	9726	9726	13768	13768	21663	27537
2	2.375	.065/1.604	.109/2.638	.154/3.653	.154/3.653	.218/5.022	.218/5.022	.343/7.444	.436/9.029
		4330	6261	10591	10591	14400	14400	19565	28800
2-1/2	2.875	.083/2.475	.120/3.531	.203/5.793	.203/5.793	.276/7.661	.276/.661	.375/10.01	.552/13.69
		3557	5143	9257	9257	12857	12857	18771	25714
3	3.5	.083/3.029	.120/4.332	.216/7.576	.216/7.576	.300/10.25	.300/10.25	.438/14.32	.600/18.58
		3112	4500	8475	8475	11925	11925		23850
3-1/2	4.0	.083/3.472	.120/4.973	.226/9.109	.226/9.109	.318/12.50	.318/12.50		.636/22.85
		2767	4000	7900	7900	11233	11233	17700	22467
4	4.5	.083/3.915	.120/5.613	.237/10.79	.237/10.79	.337/14.98	.337/14.98	.531/22.51	.674/27.54
		2939	3613	6957	6957	10111	10111	16852	20223
5	5.563	.109/6.349	.134/7.770	.258/14.62	.258/14.62	.375/20.78	.375/20.78	.625/32.96	.750/38.55
		2468	3034	6340	6340	9781	9781	16257	19562
6	6.625	.109/7.585	.134/9.289	.280/18.97	.280/18.97	.432/28.57	.432/28.57	.718/45.30	.864/53.16

STAINLESS STEEL PIPE
THEORETICAL BURSTING PRESSURES & WEIGHTS

SizeE Pipe	O.D. In.	Pipe Schedules 5	10	STD.	40	E.H.	80	Dble. E.H.	160
		1896	2574	5600	5600	8696	8696	15217	15756
8	8.625	.109/9.914	.148/13.40	.322/28.55	.322/28.55	.500/43.39	.500/43.39	.875/72.42	.906/74.69
		1870	2302	5093	5093	6977	8274		
10	10.75	.134/15.19	.165/18.70	.365/40.48	.365/40.48	.500/54.74	.593/64.33		
		1941	2118	4412	4776	5882	8082		
12	12.75	.165/22.18	.180/24.16	.375/49.56	.406/53.52	.500/65.42	.687/88.51		
			2679	4018	4693	5357	8036		
14	14.0		.250/36.71	.375/54.57	.438/63.37	.500/72.09	.750/106.1		
			2344	3516	4688	4688	7903		
16	16.0		.250/42.05	.375/62.58	.500/82.77	.500/82.77	.843/136.5		
			2083	3125	4683	4167	7808		
18	18.0		.250/47.39	.375/70.59	.562/104.8	.500/93.45	.937/170.8		
			1875	2812	4448	3750	7733		
20	20.0		.250/52.73	.375/78.60	.593/122.9	.500/104.1	1.031/208.9		
			1563	2344	4294	3125	7613		
24	24.0		.250/63.41	.375/94.62	.687/171.2	.500/125.5	1.218/296.4		

Working pressures for T304 and T316-A312 pipe between –20°F and 100°F

The A.S.M.E. code suggests a safety factor of four.
e.g. 1" Sch40 = 3793 PSI

For higher temperatures multiply pressure by:

	300°F	500°F	1000°F
T304	.828	.774	.665
T316	.900	.853	.746

Upper Figures – Pressures in Pounds

Lower Figures – Wall Thickness/WT/FT

The information presented above are typical or average values and are not a guarantee of maximum or minimum values.

STAINLESS STEEL TUBING
THEORETICAL INTERNAL BURSTING PRESSURES

O.D. In.	.020 25	.022 24	.025 23	.028 22	.032 21	.035 20	.042 19	.049 18	.058 17	.065 16	.072 15	.083 14	.095 13	.109 12	.120 11	.134 10	.148 9	.165 8
1/8	24,000	26,400	30,000	33,600	38,400	42,000	50,400	58,800										
1/4	12,000	13,200	15,000	16,800	19,200	21,000	25,200	29,400	34,800	39,000								
3/8	8,000	8,800	10,000	11,200	12,800	14,000	16,800	19,600	23,200	26,000								
1/2	6,000	6,600	7,500	8,400	9,600	10,500	12,600	14,700	17,400	19,500	21,600	24,900	28,500					
5/8	4,800	5,300	6,000	6,725	7,675	8,400	10,075	11,750	13,925	15,600	17,250	19,925	22,800					
3/4	4,000	4,400	5,000	5,600	6,400	7,000	8,400	9,800	11,600	13,000	14,400	16,600	19,000	21,800				
7/8	3,425	3,750	4,300	4,800	5,475	6,000	7,200	8,400	9,950	11,150	12,350	14,225	16,275	18,675				
1	3,000	3,300	3,750	4,200	4,800	5,250	6,300	7,350	8,700	9,750	10,800	12,450	14,250	16,350	18,000	20,100	22,200	
1-1/8			3,325	3,750	4,275	4,650	5,600	6,550	7,750	8,650	9,600	11,050	12,650	14,550	16,000	17,875	19,725	
1-1/4			3,000	3,350	3,850	4,200	5,050	5,875	6,950	7,800	8,650	9,950	11,400	13,075	14,400	16,075	17,750	
1-3/8			2,725	3,050	3,500	3,825	4,575	5,350	6,325	7,100	7,850	9,050	10,350	11,900	13,100	14,625	16,150	
1-1/2			2,500	2,800	3,200	3,500	4,200	4,900	5,800	6,500	7,200	8,300	9,500	10,900	12,000	13,400	14,800	
1-5/8			2,300	2,575	2,950	3,225	3,875	4,525	5,350	6,000	6,650	7,650	8,775	10,050	11,075	12,375	13,650	
1-3/4			2,150	2,400	2,750	3,000	3,600	4,200	4,975	5,575	6,175	7,125	8,150	9,350	10,275	11,475	12,675	
1-7/8						2,800	3,350	3,925	4,650	5,200	5,750	6,650	7,600	8,725	9,600	10,725	11,850	
2						2,625	3,150	3,675	4,350	4,875	5,400	6,225	7,125	8,175	9,000	10,050	11,100	
2-1/8						2,475	2,975	3,450	4,100	4,600	5,075	5,850	6,700	7,700	8,475	9,450	10,450	

Wall Thickness — Inches & B.W.G.

STAINLESS STEEL TUBING
THEORETICAL INTERNAL BURSTING PRESSURES

O.D.	.020	.022	.025	.028	.032	.035	.042	.049	.058	.065	.072	.083	.095	.109	.120	.134	.148	.165
In.	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8
2-1/4							2,800	3,275	3,875	4,350	4,800	5,550	6,350	7,275	8,000	8,975	9,875	
2-3/8							2,650	3,100	3,675	4,100	4,550	5,250	6,000	6,900	8,475	8,475	9,350	10,425
2-1/2							2,525	2,950	3,475	3,900	4,325	4,975	5,700	6,550	7,200	8,050	8,875	9,900
2-5/8							2,400	2,800	3,325	3,725	4,125	4,750	5,425	6,225	6,850	7,650	8,450	9,425
2-3/4								2,675	3,150	3,550	3,925	4,525	5,175	5,950	6,550	7,300	8,075	9,000
2-7/8								2,550	3,025	3,400	3,750	4,325	4,950	5,675	6,250	7,000	7,725	8,600
3								2,450	2,900	3,250	3,600	4,150	4,750	5,450	6,000	6,700	7,400	8,250
3-1/8								2,350	2,775	3,125	3,450	3,975	4,550	5,225	5,550	6,425	7,100	7,925
3-1/4								2,250	2,675	3,000	3,325	3,825	4,375	5,025	5,525	6,175	6,825	7,600
3-3/8								2,175	2,575	2,875	3,200	3,675	4,225	4,850	5,325	5,950	6,575	7,325
3-1/2								2,100	2,475	2,775	3,075	3,550	4,075	4,675	5,150	5,750	6,350	7,075
3-5/8								2,025	2,400	2,675	2,975	3,425	3,925	4,500	4,950	5,550	6,100	6,825

O.D.	.049	.058	.065	.072	.083	.095	.109	.120	.134	.148	.165	.180	.203	.220	.238	.259	.284	.300
In.	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
3-3/4	1,950	2,325	2,600	2,875	3,325	3,800	4,350	4,800	5,350	5,900	6,600	7,200	8,125	8,800				
3-7/8	1,900	2,250	2,500	2,775	3,200	3,675	4,200	4,650	5,175	5,725	6,375	6,975	7,850	8,500				
4	1,825	2,175	2,425	2,700	3,100	4,075	4,090	4,500	5,025	5,550	6,175	6,750	7,600	8,250				

Specifications and code rulings assign maximum stresses in use which are dependent on factors such as inspection requirements, temperatures encountered, service life expected and alloy.

Theoretical Bursting Pressure, in pounds for welded stainless tubes. Based on Barlow's Formula:

$$P = \frac{2ST}{D}$$

P = Bursting pressure in psi. D = Outside diameter of tube in inches. S = Fiber stress of 75,000 psi ultimate for bursting pressure. T = Wall thickness.

Pressures used when hydrotesting are usually based on fiber stress of 20,000 psi (26.7% of burst pressures listed below) unless specifications require other pressures.

NOMINAL (AVERAGE) WALL THICKNESS WITH ±12.50% VALUES

Avg.	Thickness in Inches (Min.) −12-1/2%	+12-1/2%
0.068	0.060	0.076
0.088	0.077	0.099
0.091	0.080	0.102
0.095	0.083	0.107
0.109	0.095	0.122
0.113	0.099	0.127
0.119	0.104	0.134
0.120	0.105	0.135
0.125	0.109	0.141
0.126	0.110	0.142
0.133	0.116	0.149
0.134	0.117	0.150
0.140	0.122	0.158
0.145	0.127	0.163
0.147	0.129	0.165
0.148	0.130	0.166
0.154	0.135	0.173

Avg.	Thickness in Inches (Min.) −12-1/2%	+12-1/2%
0.156	0.136	0.176
0.165	0.144	0.185
0.179	0.157	0.201
0.180	0.158	0.202
0.187	0.164	0.210
0.188	0.164	0.212
0.191	0.167	0.215
0.200	0.175	0.225
0.203	0.178	0.228
0.216	0.189	0.243
0.218	0.191	0.245
0.219	0.192	0.246
0.226	0.198	0.254
0.237	0.207	0.267
0.250	0.219	0.281
0.258	0.226	0.290
0.276	0.242	0.310

Avg.	Thickness in Inches (Min.) −12-1/2%	+12-1/2%
0.277	0.242	0.312
0.279	0.244	0.314
0.280	0.245	0.315
0.281	0.246	0.316
0.294	0.257	0.331
0.300	0.262	0.338
0.307	0.269	0.345
0.308	0.270	0.346
0.312	0.273	0.351
0.318	0.278	0.358
0.322	0.282	0.362
0.330	0.289	0.371
0.337	0.295	0.379
0.343	0.300	0.386
0.344	0.301	0.387
0.358	0.313	0.403
0.365	0.319	0.411

NOMINAL (AVERAGE) WALL THICKNESS WITH ±12.50% VALUES

Avg.	Thickness in Inches (Min.) −12-1/2%	+12-1/2%
0.375	0.328	0.422
0.382	0.334	0.430
0.400	0.350	0.450
0.406	0.355	0.457
0.432	0.378	0.486
0.436	0.382	0.492
0.437	0.382	0.492
0.438	0.383	0.493
0.500	0.438	0.562
0.531	0.465	0.597
0.522	0.483	0.621
0.562	0.492	0.632
0.593	0.519	0.667
0.600	0.525	0.675
0.625	0.547	0.703
0.656	0.574	0.738
0.674	0.590	0.758

Avg.	Thickness in Inches (Min.) −12-1/2%	+12-1/2%
0.687	0.601	0.773
0.718	0.629	0.807
0.750	0.656	0.844
0.812	0.710	0.914
0.843	0.738	0.948
0.864	0.756	0.972
0.875	0.766	0.984
0.906	0.793	1.018
0.937	0.820	1.054
0.968	0.847	1.089
1.000	0.875	1.125
1.031	0.902	1.160
1.062	0.929	1.195
1.093	0.956	1.230
1.125	0.984	1.266
1.156	1.012	1.300
1.218	1.066	1.370

Avg.	Thickness in Inches (Min.) −12-1/2%	+12-1/2%
1.250	1.094	1.406
1.281	1.121	1.441
1.312	1.148	1.476
1.343	1.175	1.511
1.375	1.203	1.547
1.406	1.230	1.582
1.408	1.258	1.618
1.500	1.312	1.688
1.531	1.340	1.722
1.562	1.367	1.757
1.593	1.394	1.792
1.750	1.531	1.969
1.781	1.558	2.004
1.812	1.586	2.038
1.968	1.722	2.214
2.062	1.804	2.320
2.343	2.050	2.636

STAINLESS STEEL ORNAMENTAL TUBING

Standard Grades	304 Other grades to order.
Wall Average (inches)	.049 and .065 (standard).
Length	20 feet.
Finishes	180 grit, 600 grit/polished and buffed, as welded, specials by order.
Other items	Ovals, rectangles, special finishes and lengths are available to order.
Pipe Sizes	Also available.

Form it to fit your functions.

- Architectural
- Hospital and Kitchen
- Marine
- Swimming Pool
- Automotive
- Mechanical/Electronic

Stainless steel ornamental tubing is available for immediate shipment from stock in a complete range of sizes, both rounds and squares.

Standard 180 grit and 600 grit/polished and buffed finishes on the shelf.