

S = 18000		Pipe					© 2003 Pressure Vessel Engineering Ltd. www.pveng.com												
12.5% undertolerance removed, no corrosion allowance, ASME VIII-1 UG-27(c)							Phone: (519)-880-9808 Fax: (519) 880-9810												
Schedule							20	30	40	STD	60	80	XS	100	120	140	160	XXS	
0.405 OD	wall	0.035	0.049					0.057	0.068	0.068		0.095	0.095						Inch
Max PSI at E=1.00		2898	4164					4918	5993	5993		8840	8840						PSI
Max PSI at E=0.85		2463	3539					4180	5094	5094		7514	7514						PSI
1/8"	Volume	0.001	0.001					0.000	0.000	0.000		0.000	0.000						ft ³ /ft
	Weight	0.138	0.187					0.212	0.245	0.245		0.315	0.315						Lb/ft cs
0.540 OD	wall	0.049	0.065					0.073	0.088	0.088		0.119	0.119						Inch
Max PSI at E=1.00		3052	4141					4703	5794	5794		8208	8208						PSI
Max PSI at E=0.85		2594	3519					3998	4925	4925		6977	6977						PSI
1/4"	Volume	0.001	0.001					0.001	0.001	0.001		0.000	0.000						ft ³ /ft
	Weight	0.257	0.330					0.364	0.425	0.425		0.536	0.536						Lb/ft cs
0.675 OD	wall	0.049	0.065					0.073	0.091	0.091		0.126	0.126						Inch
Max PSI at E=1.00		2409	3253					3686	4689	4689		6764	6764						PSI
Max PSI at E=0.85		2048	2765					3133	3986	3986		5749	5749						PSI
3/8"	Volume	0.002	0.002					0.002	0.001	0.001		0.001	0.001						ft ³ /ft
	Weight	0.328	0.424					0.470	0.568	0.568		0.740	0.740						Lb/ft cs
0.840 OD	wall	0.065	0.083					0.095	0.109	0.109		0.147	0.147				0.188	0.294	Inch
Max PSI at E=1.00		2577	3344					3869	4496	4496		6282	6282				8360	14603	PSI
Max PSI at E=0.85		2191	2842					3288	3821	3821		5340	5340				7106	12412	PSI
1/2"	Volume	0.003	0.002					0.002	0.002	0.002		0.002	0.002				0.001	0.000	ft ³ /ft
	Weight	0.539	0.672					0.757	0.852	0.852		1.089	1.089				1.311	1.716	Lb/ft cs
1.050 OD	wall	0.065	0.083					0.095	0.113	0.113		0.154	0.154				0.219	0.308	Inch
Max PSI at E=1.00		2038	2636					3043	3666	3666		5149	5149				7693	11628	PSI
Max PSI at E=0.85		1733	2240					2586	3116	3116		4376	4376				6539	9883	PSI
3/4"	Volume	0.005	0.004					0.004	0.004	0.004		0.003	0.003				0.002	0.001	ft ³ /ft
	Weight	0.685	0.858					0.970	1.132	1.132		1.475	1.475				1.946	2.443	Lb/ft cs
1.315 OD	wall	0.065	0.109					0.114	0.133	0.133		0.179	0.179				0.250	0.358	Inch
Max PSI at E=1.00		1613	2772					2907	3429	3429		4739	4739				6908	10595	PSI
Max PSI at E=0.85		1371	2356					2471	2914	2914		4029	4029				5872	9005	PSI
1"	Volume	0.008	0.007					0.006	0.006	0.006		0.005	0.005				0.004	0.002	ft ³ /ft
	Weight	0.869	1.405					1.464	1.681	1.681		2.174	2.174				2.847	3.663	Lb/ft cs
1.660 OD	wall	0.065	0.109					0.117	0.140	0.140		0.191	0.191				0.250	0.382	Inch
Max PSI at E=1.00		1268	2168					2335	2823	2823		3942	3942				5303	8641	PSI
Max PSI at E=0.85		1078	1843					1985	2400	2400		3351	3351				4508	7345	PSI
1 1/4"	Volume	0.013	0.011					0.011	0.010	0.010		0.009	0.009				0.007	0.004	ft ³ /ft
	Weight	1.108	1.808					1.930	2.275	2.275		3.000	3.000				3.769	5.220	Lb/ft cs
1.900 OD	wall	0.065	0.109					0.125	0.145	0.145		0.200	0.200				0.281	0.400	Inch
Max PSI at E=1.00		1104	1883					2172	2540	2540		3580	3580				5197	7778	PSI
Max PSI at E=0.85		938	1600					1847	2159	2159		3043	3043				4417	6611	PSI
1 1/2"	Volume	0.017	0.015					0.015	0.014	0.014		0.012	0.012				0.010	0.007	ft ³ /ft
	Weight	1.275	2.087					2.372	2.721	2.721		3.635	3.635				4.864	6.415	Lb/ft cs

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Schedule									20	30	40	STD	60	80	XS	100	120	140	160	XXS	
2.375 OD	wall	0.065	0.083	0.109	0.125	0.141	0.172	0.188			0.154	0.154		0.218	0.218				0.344	0.436	Inch
	Max PSI at E=1.00	879	1128	1494	1721	1951	2403	2640			2140	2140		3090	3090				5077	6635	PSI
	Max PSI at E=0.85	747	959	1270	1463	1659	2043	2244			1819	1819		2626	2626				4316	5640	PSI
2"	Volume	0.027	0.027	0.025	0.025	0.024	0.022	0.022			0.023	0.023		0.021	0.021				0.016	0.012	ft^3/ft
	Weight	1.61	2.03	2.64	3.01	3.37	4.05	4.40			3.66	3.66		5.03	5.03				7.47	9.04	Lb/ft cs
2.875 OD	wall	0.083	0.109	0.125	0.141	0.156	0.172	0.188			0.203	0.203		0.276	0.276				0.375	0.552	Inch
	Max PSI at E=1.00	928	1227	1413	1600	1777	1967	2159			2340	2340		3242	3242				4522	6987	PSI
	Max PSI at E=0.85	789	1043	1201	1360	1510	1672	1835			1989	1989		2756	2756				3843	5939	PSI
2 1/2"	Volume	0.040	0.039	0.038	0.037	0.036	0.035	0.034			0.033	0.033		0.029	0.029				0.025	0.017	ft^3/ft
	Weight	2.48	3.22	3.68	4.12	4.54	4.97	5.40			5.80	5.80		7.67	7.67				10.02	13.71	Lb/ft cs
3.500 OD	wall	0.083	0.109	0.125	0.141	0.156	0.172	0.188			0.216	0.216		0.300	0.300				0.438	0.600	Inch
	Max PSI at E=1.00	760	1003	1154	1306	1449	1603	1758			2032	2032		2872	2872				4320	6136	PSI
	Max PSI at E=0.85	646	852	981	1110	1232	1363	1494			1727	1727		2441	2441				3672	5216	PSI
3"	Volume	0.061	0.059	0.058	0.056	0.055	0.054	0.053			0.051	0.051		0.046	0.046				0.038	0.029	ft^3/ft
	Weight	3.03	3.95	4.51	5.06	5.58	6.12	6.66			7.58	7.58		10.26	10.26				14.34	18.60	Lb/ft cs
4.000 OD	wall	0.083	0.109	0.125	0.141	0.156	0.172	0.188			0.226	0.226		0.318	0.318					0.636	Inch
	Max PSI at E=1.00	663	875	1006	1138	1263	1397	1531			1853	1853		2652	2652					5636	PSI
	Max PSI at E=0.85	564	744	855	968	1074	1187	1301			1575	1575		2254	2254					4790	PSI
3 1/2"	Volume	0.080	0.078	0.077	0.075	0.074	0.073	0.072			0.069	0.069		0.062	0.062					0.041	ft^3/ft
	Weight	3.48	4.53	5.18	5.82	6.41	7.04	7.66			9.12	9.12		12.52	12.52					22.88	Lb/ft cs
4.500 OD	wall	0.083	0.109	0.125	0.141	0.156	0.172	0.188			0.237	0.237	0.281	0.337	0.337		0.438		0.531	0.674	Inch
	Max PSI at E=1.00	589	776	892	1009	1119	1237	1356			1723	1723	2057	2490	2490		3290		4052	5271	PSI
	Max PSI at E=0.85	500	660	758	858	951	1052	1152			1464	1464	1748	2116	2116		2797		3444	4480	PSI
4"	Volume	0.102	0.100	0.099	0.097	0.096	0.094	0.093			0.088	0.088	0.085	0.080	0.080		0.072		0.064	0.054	ft^3/ft
	Weight	3.92	5.12	5.85	6.57	7.25	7.96	8.67			10.80	10.80	12.68	15.00	15.00		19.02		22.53	27.57	Lb/ft cs
5.563 OD	wall	0.083	0.125	0.156	0.188	0.219	0.281	0.312			0.258	0.258		0.375	0.375		0.500		0.625	0.750	Inch
	Max PSI at E=1.00	475	719	901	1090	1275	1649	1839			1510	1510		2229	2229		3021		3841	4689	PSI
	Max PSI at E=0.85	404	611	766	927	1084	1402	1563			1283	1283		1894	1894		2568		3265	3986	PSI
5"	Volume	0.159	0.154	0.150	0.147	0.143	0.136	0.133			0.139	0.139		0.126	0.126		0.114		0.101	0.090	ft^3/ft
	Weight	4.86	7.27	9.02	10.80	12.51	15.87	17.52			14.63	14.63		20.80	20.80		27.07		33.00	38.59	Lb/ft cs
6.625 OD	wall	0.083	0.109	0.125	0.141	0.156	0.172	0.188			0.280	0.280		0.432	0.432		0.562		0.719	0.864	Inch
	Max PSI at E=1.00	398	524	602	681	754	833	912			1372	1372		2152	2152		2841		3700	4521	PSI
	Max PSI at E=0.85	338	446	512	578	641	708	775			1166	1166		1829	1829		2415		3145	3843	PSI
6"	Volume	0.228	0.224	0.222	0.219	0.217	0.215	0.213			0.201	0.201		0.181	0.181		0.165		0.147	0.131	ft^3/ft
	Weight	5.81	7.59	8.69	9.77	10.79	11.87	12.94			19.00	19.00		28.60	28.60		36.43		45.40	53.22	Lb/ft cs
8.625 OD	wall	0.125	0.156	0.188	0.203	0.219	0.312	0.344	0.250	0.277	0.322	0.322	0.406	0.500	0.500	0.594	0.719	0.812	0.906	0.875	Inch
	Max PSI at E=1.00	461	577	697	754	814	1169	1292	932	1035	1208	1208	1533	1903	1903	2279	2789	3175	3571	3440	PSI
	Max PSI at E=0.85	392	490	593	641	692	994	1099	792	880	1026	1026	1303	1618	1618	1937	2370	2699	3036	2924	PSI
8"	Volume	0.383	0.377	0.371	0.368	0.366	0.349	0.344	0.360	0.355	0.347	0.347	0.333	0.317	0.317	0.302	0.282	0.267	0.253	0.258	ft^3/ft
	Weight	11.36	14.13	16.96	18.28	19.68	27.73	30.46	22.39	24.72	28.59	28.59	35.68	43.44	43.44	51.00	60.78	67.83	74.77	72.50	Lb/ft cs

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Schedule									20	30	40	STD	60	80	XS	100	120	140	160	XXS	
10.750 OD	wall	0.156	0.188	0.203	0.219	0.279	0.344	0.438	0.250	0.307	0.365	0.365	0.500	0.594	0.500	0.719	0.844	1.000	1.125	1.000	Inch
	Max PSI at E=1.00	462	558	603	651	833	1031	1321	745	918	1096	1096	1514	1811	1514	2210	2617	3134	3557	3134	PSI
	Max PSI at E=0.85	393	474	512	553	708	876	1123	633	780	931	931	1287	1539	1287	1879	2224	2664	3024	2664	PSI
10"	Volume	0.594	0.587	0.584	0.580	0.567	0.552	0.532	0.573	0.560	0.548	0.548	0.518	0.499	0.518	0.473	0.448	0.418	0.394	0.418	ft ³ /ft
	Weight	17.7	21.2	22.9	24.7	31.2	38.3	48.3	28.1	34.3	40.5	40.5	54.8	64.5	54.8	77.1	89.4	104.2	115.8	104.2	Lb/ft cs
12.750 OD	wall	0.172	0.188	0.203	0.219	0.281	0.312	0.344	0.250	0.330	0.406	0.375	0.562	0.688	0.500	0.844	1.000	1.125	1.312	1.000	Inch
	Max PSI at E=1.00	429	469	507	548	705	784	866	626	830	1026	946	1433	1766	1270	2186	2614	2962	3493	2614	PSI
	Max PSI at E=0.85	365	399	431	465	599	667	736	532	706	872	804	1218	1502	1080	1859	2222	2518	2969	2222	PSI
12"	Volume	0.839	0.835	0.831	0.827	0.810	0.802	0.794	0.818	0.797	0.777	0.785	0.737	0.706	0.753	0.667	0.630	0.601	0.559	0.630	ft ³ /ft
	Weight	23.1	25.3	27.2	29.3	37.5	41.5	45.6	33.4	43.8	53.6	49.6	73.2	88.7	65.5	107.4	125.6	139.8	160.4	125.6	Lb/ft cs
14.000 OD	wall	0.188	0.203	0.210	0.219	0.250	0.281	0.344	0.312	0.375	0.438	0.375	0.594	0.750	0.500	0.938	1.094	1.250	1.406		Inch
	Max PSI at E=1.00	427	461	478	498	570	641	788	713	860	1008	860	1377	1753	1154	2214	2604	3000	3403		PSI
	Max PSI at E=0.85	363	392	406	423	484	545	669	606	731	856	731	1171	1490	981	1882	2213	2550	2892		PSI
14"	Volume	1.012	1.008	1.006	1.003	0.994	0.985	0.967	0.976	0.958	0.939	0.958	0.895	0.852	0.922	0.802	0.761	0.721	0.683		ft ³ /ft
	Weight	27.8	29.9	31.0	32.3	36.8	41.2	50.2	45.7	54.6	63.5	54.6	85.1	106.2	72.2	131.0	151.0	170.4	189.3		Lb/ft cs
16.000 OD	wall	0.188	0.203	0.219	0.281	0.344	0.406	0.438	0.312	0.375	0.500	0.375	0.656	0.844	0.500	1.031	1.219	1.438	1.594		Inch
	Max PSI at E=1.00	373	403	435	560	688	814	879	623	751	1006	751	1330	1725	1006	2126	2535	3021	3373		PSI
	Max PSI at E=0.85	317	343	370	476	584	692	747	529	638	855	638	1130	1467	855	1807	2155	2568	2867		PSI
16"	Volume	1.331	1.326	1.321	1.300	1.279	1.258	1.248	1.289	1.268	1.227	1.268	1.177	1.117	1.227	1.060	1.003	0.939	0.895		ft ³ /ft
	Weight	31.8	34.3	37.0	47.2	57.6	67.7	72.9	52.3	62.6	82.9	62.6	107.6	136.8	82.9	165.0	192.6	223.9	245.5		Lb/ft cs
18.000 OD	wall	0.188	0.203	0.219	0.250	0.281	0.406	0.469	0.312	0.438	0.562	0.375	0.750	0.938	0.500	1.156	1.375	1.562	1.781		Inch
	Max PSI at E=1.00	331	358	387	442	497	722	836	553	780	1005	666	1352	1704	892	2118	2542	2910	3349		PSI
	Max PSI at E=0.85	282	304	329	376	423	614	711	470	663	855	566	1149	1448	758	1800	2161	2474	2846		PSI
18"	Volume	1.694	1.688	1.682	1.670	1.659	1.611	1.588	1.647	1.599	1.553	1.623	1.485	1.418	1.576	1.342	1.268	1.207	1.137		ft ³ /ft
	Weight	35.8	38.6	41.6	47.4	53.2	76.4	87.9	59.0	82.2	104.8	70.7	138.3	171.1	93.6	208.2	244.4	274.5	308.8		Lb/ft cs
20.000 OD	wall	0.188	0.203	0.219	0.250	0.281	0.312	0.344	0.375	0.500	0.594	0.375	0.812	1.031	0.500	1.281	1.500	1.750	1.969		Inch
	Max PSI at E=1.00	298	322	348	397	447	497	548	598	802	955	598	1316	1685	802	2112	2493	2936	3331		PSI
	Max PSI at E=0.85	253	274	295	338	380	422	466	509	681	812	509	1119	1432	681	1795	2119	2496	2831		PSI
20"	Volume	2.100	2.094	2.087	2.074	2.061	2.048	2.034	2.021	1.969	1.930	2.021	1.842	1.755	1.969	1.659	1.576	1.485	1.407		ft ³ /ft
	Weight	39.8	43.0	46.3	52.8	59.2	65.7	72.3	78.7	104.2	123.2	78.7	166.6	209.1	104.2	256.4	296.7	341.5	379.6		Lb/ft cs
24.000 OD	wall	0.188	0.203	0.219	0.250	0.281	0.312	0.344	0.375	0.562	0.688	0.375	0.969	1.219	0.500	1.531	1.812	2.062	2.344		Inch
	Max PSI at E=1.00	248	268	289	331	372	413	456	498	750	921	498	1309	1659	666	2103	2511	2880	3302		PSI
	Max PSI at E=0.85	211	228	246	281	316	351	388	423	637	783	423	1112	1410	566	1788	2134	2448	2807		PSI
24"	Volume	3.044	3.036	3.028	3.012	2.996	2.980	2.964	2.948	2.854	2.792	2.948	2.655	2.536	2.885	2.391	2.264	2.155	2.034		ft ³ /ft
	Weight	47.9	51.6	55.7	63.5	71.3	79.0	87.0	94.7	140.8	171.5	94.7	238.6	296.9	125.6	367.8	429.9	483.7	542.7		Lb/ft cs
30.000 OD	wall	0.250	0.281	0.312	0.344	0.406	0.438	0.469	0.500	0.625		0.375			0.500						Inch
	Max PSI at E=1.00	264	297	330	364	430	465	498	531	666		397			531						PSI
	Max PSI at E=0.85	224	252	281	310	366	395	423	452	566		338			452						PSI
30"	Volume	4.746	4.727	4.707	4.686	4.647	4.626	4.607	4.587	4.508		4.666			4.587						ft ³ /ft
	Weight	79.5	89.3	99.0	109.1	128.5	138.4	148.1	157.7	196.3		118.8			157.7						Lb/ft cs