

The following charts are representative of a typical chart showing schedule numbers and nominal sizes with their respective maximum pressures.

US Pipe Size and Pressure Ratings based on Pipe Schedule.									
Wp = Working pressure with safety factor. Bp = Burst pressure based on Barlow's Formula.									
Nominal Pipe Size (NPS)	Actual Outside Diameter (OD)	Schedule 40 Standard		Schedule 80 Extra Heavy		Schedule 160		Double Extra Heavy	
		WT	ID	WT	ID	WT	ID	WT	ID
1/8	0.405	0.136	0.269	0.190	0.215	Tensile 55,000			
Wp 4:1		9,235	12,901						
Wp 6:1		6,156	8,601						
Bp		36,938	51,605						
1/4	0.540	0.176	0.364	0.238	0.302	Tensile 55,000			
Wp 4:1		8,963	12,120						
Wp 6:1		5,975	8,080						
Bp		35,852	48,481						
3/8	0.675	0.182	0.493	0.252	0.423	Tensile 55,000			
Wp 4:1		7,415	10,267						
Wp 6:1		4,943	6,844						
Bp		29,659	41,067						
1/2	0.840	0.218	0.622	0.294	0.546	0.374	0.466	0.588	0.252
Wp 4:1		7,137	9,625	12,244	19,250				
Wp 6:1		4,758	6,417	8,163	12,833				
Bp		28,548	38,500	48,976	77,000				
3/4	1.050	0.226	0.824	0.308	0.742	0.436	0.614	0.616	0.434
Wp 4:1		5,919	8,067	11,419	16,133				
Wp 6:1		3,946	5,378	7,613	10,756				
Bp		23,676	32,267	45,676	64,533				
1	1.315	0.266	1.049	0.358	0.957	0.500	0.815	0.716	0.599
Wp 4:1		5,563	7,487	10,456	14,973				
Wp 6:1		3,708	4,991	6,971	9,982				
Bp		22,251	29,947	41,825	59,894				
1 1/4	1.660	0.280	1.380	0.382	1.278	0.500	1.160	0.764	0.896
Wp 4:1		4,639	6,328	8,283	12,657				
Wp 6:1		3,092	4,219	5,522	8,438				
Bp		18,554	25,313	33,133	50,627				
1 1/2	1.900	0.290	1.610	0.400	1.500	0.562	1.338	0.800	1.100
Wp 4:1		4,197	5,789	8,134	11,579				
Wp 6:1		2,798	3,860	5,423	7,719				
Bp		16,789	23,158	32,537	46,316				
2	2.375	0.308	2.067	0.436	1.939	0.686	1.689	0.872	1.503
Wp 4:1		3,566	5,048	7,943	10,097				
Wp 6:1		2,378	3,366	5,295	6,731				
Bp		14,265	20,194	31,773	40,387				
2 1/2	2.875	0.406	2.469	0.552	2.323	0.750	2.125	1.104	1.771
Wp 4:1		3,883	5,280	7,174	10,560				
Wp 6:1		2,589	3,520	4,783	7,040				
Bp		15,534	21,120	28,696	42,240				
3	3.500	0.432	3.068	0.600	2.900	Tensile 55,000			
Wp 4:1		3,394	4,714						
Wp 6:1		2,263	3,143						
Bp		13,577	18,857						
3 1/2	4.000	0.452	3.548	0.636	3.364	1.376	2.624	Tensile 55,000	
Wp 4:1		3,108	4,373	9,460					
Wp 6:1		2,072	2,915	6,307					
Bp		12,430	17,490	37,840					
4	4.500	0.474	4.026	0.674	3.826	1.062	3.438	Tensile 55,000	
Wp 4:1		2,897	4,119	6,490					
Wp 6:1		1,931	2,746	4,327					
Bp		11,587	16,476	25,960					
5	5.563	0.516	5.047	0.750	4.813	1.250	4.313	1.500	4.063
Wp 4:1		2,551	3,708	6,179	7,415				
Wp 6:1		1,701	2,472	4,119	4,943				
Bp		10,203	14,830	24,717	29,660				
6	6.625	0.560	6.065	0.864	5.761	1.436	5.189	1.728	4.897
Wp 4:1		2,325	3,586	5,961	7,173				
Wp 6:1		1,550	2,391	3,974	4,782				
Bp		9,298	14,346	23,843	28,691				
8	8.625	0.644	7.981	1.000	7.625	1.812	6.813	1.750	6.875
Wp 4:1		2,053	3,188	5,777	5,580				
Wp 6:1		1,369	2,126	3,852	3,720				
Bp		8,213	12,754	23,110	22,319				
10	10.750	0.730	10.020	1.186	9.564	2.250	8.500	2.000	8.750
Wp 4:1		1,867	3,034	5,756	5,116				
Wp 6:1		1,245	2,023	3,837	3,411				
Bp		7,470	12,136	23,023	20,465				
12	12.750	0.816	11.934	1.374	11.376	2.624	10.126	2.000	10.750
Wp 4:1		1,760	2,964	5,660	4,314				
Wp 6:1		1,173	1,976	3,773	2,876				
Bp		7,040	11,854	22,638	17,255				

This chart is based on Barlow's Formula, Burst Pressure_{psi} = (2 x Wall Thickness_{inches} x Material Strength_{psi}) / Tube Outside Diameter_{inches}; using carbon steel pipe with a tensile strength of 55,000 psi. The working pressure is derived by dividing the burst pressure by a design safety factor.

Metric Pipe Size and Pressure Ratings based on Pipe Schedule.									
Wp = Working pressure with safety factor. Bp = Burst pressure based on Barlow's Formula.									
Nominal Pipe Size (DN)	Actual Outside Diameter (OD)	Schedule 40 Standard		Schedule 80 Extra Heavy		Schedule 160		Double Extra Heavy	
		WT	ID	WT	ID	WT	ID	WT	ID
6	10.29	3.45	6.83	4.83	5.46	Tensile 380			
Wp 4:1		64	89						
Wp 6:1		43	60						
Bp		256	357						
8	13.72	4.47	9.25	6.05	7.67	Tensile 380			
Wp 4:1		62	84						
Wp 6:1		41	56						
Bp		248	335						
10	17.15	4.62	12.52	6.40	10.74	Tensile 380			
Wp 4:1		51	71						
Wp 6:1		34	47						
Bp		205	284						
15	21.34	5.54	15.80	7.47	13.87	9.50	11.84	14.94	6.40
Wp 4:1		49	67	85	133				
Wp 6:1		33	44	56	89				
Bp		197	266	339	533				
20	26.67	5.74	20.93	7.82	18.85	11.07	15.60	15.65	11.02
Wp 4:1		41	56	79	112				
Wp 6:1		27	37	53	74				
Bp		164	223	316	446				
25	33.40	6.76	26.64	9.09	24.31	12.70	20.70	18.19	15.21
Wp 4:1		38	52	72	104				
Wp 6:1		26	35	48	69				
Bp		154	207	289	414				
32	42.16	7.11	35.05	9.70	32.46	12.70	29.46	19.41	22.76
Wp 4:1		32	44	57	88				
Wp 6:1		21	29	38	58				
Bp		128	175	229	350				
40	48.26	7.37	40.89	10.16	38.10	14.27	33.99	20.32	27.94
Wp 4:1		29	40	56	80				
Wp 6:1		19	27	38	53				
Bp		116	160	225	320				
50	60.33	7.82	52.50	11.07	49.25	17.42	42.90	22.15	38.18
Wp 4:1		25	35	55	70				
Wp 6:1		16	23	37	47				
Bp		99	140	220	279				
65	73.03	10.31	62.71	14.02	59.00	19.05	53.98	28.04	44.98
Wp 4:1		27	37	50	73				
Wp 6:1		18	24	33	49				
Bp		107	146	199	292				
80	88.90	10.97	77.93	15.24	73.66	Tensile 380			
Wp 4:1		23	33						
Wp 6:1		16	22						
Bp		94	130						
90	101.60	11.48	90.12	16.15	85.45	34.95	66.65	Tensile 380	
Wp 4:1		21	30	65					
Wp 6:1		14	20	44					
Bp		86	121	262					
100	114.30	12.04	102.26	17.12	97.18	26.97	87.33	Tensile 380	
Wp 4:1		20	28	45					
Wp 6:1		13	19	30					
Bp		80	114	180					
125	141.30	13.11	128.19	19.05	122.25	31.75	109.55	38.10	103.20
Wp 4:1		18	26	43	51				
Wp 6:1		12	17	28	34				
Bp		71	103	171	205				
150	168.28	14.22	154.05	21.95	146.33	36.47	131.80	43.89	124.38
Wp 4:1		16	25	41	50				
Wp 6:1		11	17	27	33				
Bp		64	99	165	198				
200	219.08	16.36	202.72	25.40	193.68	46.02	173.05	44.45	174.63
Wp 4:1		14	22	40	39				
Wp 6:1		9	15	27	26				
Bp		57	88	160	154				
250	273.05	18.54	254.51	30.12	242.93	57.15	215.90	50.80	222.25
Wp 4:1		13	21	40	35				
Wp 6:1		9	14	27	24				
Bp		52	84	159	142				
300	323.85	20.73	303.12	34.90	288.95	66.65	257.20	50.80	273.05
Wp 4:1		12	21	39	30				
Wp 6:1		8	14	26	20				
Bp		49	82	157	119				

This chart is based on Barlow's Formula, Burst Pressure_{MPa} = (2 x Wall Thickness_{mm} x Material Strength_{MPa}) / Tube Outside Diameter_{mm}; using carbon steel pipe with a tensile strength of 380 MPa. The working pressure is derived by dividing the burst pressure by a design safety factor.