

Pipe Size	O.D. in inches	5s	5	10s	10					20		30	40s & Std.	40		60	80s & XH	80	100	120	140	160	XXH
1/8	0.405		.035 .14	.049 .19	.049 .19								.068 .25	.068 .25			.095 .31	.095 .31					
1/4	0.540		.049 .26	.065 .33	.065 .33								.088 .43	.088 .43			.119 .54	.119 .54					
3/8	0.675		.049 .33	.065 .42	.065 .42								.091 .57	.091 .57			.126 .74	.126 .74					
1/2	0.840	.065 .54	.065 .54	.083 .67	.083 .67								.109 .85	.109 .85			.147 1.09	.147 1.09				.188 1.31	.294 1.72
3/4	1.050	.065 .68	.065 .68	.083 .86	.083 .86								.113 1.13	.113 1.13			.154 1.48	.154 1.48				.219 1.95	.308 2.44
1	1.315	.065 .87	.065 .87	.109 1.41	.109 1.41								.133 1.68	.133 1.68			.179 2.17	.179 2.17				.250 2.85	.358 3.66
1 1/4	1.660	.065 1.11	.065 1.11	.109 1.81	.109 1.81								.140 2.27	.140 2.27			.191 3.00	.191 3.00				.250 3.77	.382 5.22
1 1/2	1.900	.065 1.28	.065 1.28	.109 2.09	.109 2.09								.145 2.72	.145 2.72			.200 3.63	.200 3.63				.281 4.86	.400 6.41
2	2.375	.065 1.61	.065 1.61	.109 2.64	.109 2.64								.154 3.66	.154 3.66			.218 5.03	.218 5.03				.344 7.47	.436 9.04
2 1/2	2.875	.083 2.48	.083 2.48	.120 3.53	.120 3.53								.203 5.80	.203 5.80			.276 7.67	.276 7.67				.375 10.02	.552 13.71
3	3.500	.083 3.03	.083 3.03	.120 4.34	.120 4.34	.156 5.58	.188 6.66						.216 7.58	.216 7.58			.300 10.26	.300 10.26				.438 14.34	.600 18.60
3 1/2	4.000	.083 3.48	.083 3.48	.120 4.98	.120 4.98								.226 9.12	.226 9.12			.318 12.52	.318 12.52					.636 22.87
4	4.500	.083 3.92	.083 3.92	.120 5.62	.120 5.62	.156 7.24	.188 8.67						.237 10.80	.237 10.80		.281 12.67	.337 15.00	.337 15.00		.438 19.02		.531 22.53	.674 27.57
4 1/2	5.000												.247 12.55				.355 17.63						.710 32.53
5	5.563	.109 6.35	.109 6.35	.134 7.78	.134 7.78				.203 11.63				.258 14.63	.258 14.63			.375 20.80	.375 20.80		.500 27.06		.625 32.99	.750 38.59
6	6.625	.109 7.59	.109 7.59	.134 9.30	.134 9.30	.156 10.79	.188 12.94		.203 13.94				.280 18.99	.280 18.99	.375 25.05		.432 28.60	.432 28.60		.562 36.43		.719 45.39	.864 53.21
7	7.625												.301 23.57				.500 38.08						.875 63.14
8	8.625	.109 9.92	.109 9.92	.148 13.41	.148 13.41	.156 14.12	.188 16.96	.219 19.68	.250 22.38			.277 24.72	.322 28.58	.322 28.58	.375 33.07	.406 35.67	.500 43.43	.500 43.43	.594 51.00	.719 60.77	.812 67.82	.906 74.76	.875 72.49
9	9.625												.342 33.94				.500 48.77						
10	10.750	.134 15.21	.134 15.21	.165 18.67	.165 18.67	.188 21.23	.219 24.65		.250 28.06			.307 34.27	.365 40.52	.365 40.52		.500 54.79	.500 54.79	.594 64.49	.719 77.10	.844 89.38	1.000 104.23	1.125 115.75	1.000 104.23
11	11.750												.375 45.60				.500 60.13						
12	12.750	.156 21.00	.165 22.20	.180 24.19	.180 24.19	.188 25.25	.219 29.34		.250 33.41	.281 37.46	.330 43.81	.375 49.61	.406 53.57		.562 73.22	.500 65.48	.688 88.71	.844 107.42	1.000 125.61	1.125 139.81	1.312 160.42	1.000 125.61	
14	14.000	.156 23.09		.188 27.76	.250 36.75				.312 45.65		.375 54.62	.375 54.62	.438 63.50		.594 85.13	.500 72.16	.750 106.23	.938 130.98	1.094 150.93	1.250 170.37	1.406 189.29		
16	16.000	.165 27.93		.188 31.78	.250 42.09	.188 31.78	.219 36.95		.312 52.32	.281 47.22	.375 62.64	.375 62.64	.500 82.85	.625 102.72	.656 107.60	.500 82.85	.844 136.74	1.031 164.98	1.219 192.61	1.438 223.85	1.594 245.48		
18	18.000	.165 31.46		.188 35.80	.250 47.44				.312 58.99		.438 82.23	.375 70.65	.562 104.76	.625 116.09	.750 138.30	.500 93.54	.938 171.08	1.156 208.15	1.375 244.37	1.562 274.48	1.781 308.79		
20	20.000	.188 39.82		.219 46.31	.250 52.78				.375 78.67		.500 104.23	.375 78.67	.594 123.23	.625 129.45	.750 166.56	.500 104.23	1.031 209.06	1.281 256.34	1.500 296.65	1.750 341.41	1.969 379.53		
22	22.000				.250 58.13				.375 86.69		.500 114.92	.375 86.69			.875 197.60	.500 114.92	1.125 251.05	1.375 303.16	1.625 353.94	1.875 403.38	2.125 451.49		
24	24.000	.219 55.67		.250 63.47	.250 63.47				.375 94.71		.562 140.81	.375 94.71	.688 171.45	.750 186.41	.969 238.57	.500 125.61	1.219 296.86	1.531 367.74	1.812 429.79	2.062 483.57	2.344 542.64		
26	26.000				.312 85.68				.500 136.30			.375 102.72				.500 136.30							
28	28.000				.312 92.35				.500 146.99		.625 182.90	.375 110.74											
30	30.000	.250 79.51		.312 99.02	.312 99.02				.500 157.68		.625 196.26	.375 118.76		.750 234.51		.500 157.68							
32	32.000				.312 105.69				.500 168.37		.625 209.62	.375 126.78	.688 230.29			.500 168.37							
34	34.000				.312 112.36				.500 179.06		.625 222.99	.375 134.79	.688 245.00			.500 179.06							
36	36.000				.312 119.03				.500 189.75		.625 236.35	.375 142.81	.750 282.62			.500 189.75							
42	42.000											.375 166.86				.500 221.82							
48	48.000											.375 190.92				.500 253.89							