

FRICTION LOSS CHARACTERISTICS

PVC SCHEDULE 40 IPS PLASTIC PIPE

(1120, 1220) C = 150

PSI LOSS PER 100 FEET OF TUBE (PSI/100 FT)

Velocity of flow values are computed from the general equation:

$$V = .408 \frac{Q}{d^2}$$

Friction pressure loss values are computed from the equation:

$$h_f = 0.2083 \left(\frac{100}{C} \right)^{1.852} \frac{Q^{1.852}}{d^{4.866}}$$

		Sizes 1/2" thru 6" Flow GPM 1 thru 600																				
		1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		2 1/2"		3"		4"		6"		
Flow G.P.M.	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss		
1	1.05	0.43	0.60	0.11	0.37	0.03	0.21	0.01	0.15	0.00												
2	2.11	1.55	1.20	0.39	0.74	0.12	0.42	0.03	0.31	0.02	0.19	0.00										
3	3.16	3.28	1.80	0.84	1.11	0.26	0.64	0.07	0.47	0.03	0.28	0.01	0.20	0.00								
4	4.22	5.60	2.40	1.42	1.48	0.44	0.85	0.12	0.62	0.05	0.38	0.02	0.26	0.01								
5	5.27	8.46	3.00	2.15	1.85	0.66	1.07	0.18	0.78	0.08	0.47	0.02	0.33	0.01	0.21	0.00						
6	6.33	11.86	3.60	3.02	2.22	0.93	1.28	0.25	0.94	0.12	0.57	0.03	0.40	0.01	0.26	0.01						
7	7.38	15.77	4.20	4.01	2.59	1.24	1.49	0.33	1.10	0.15	0.66	0.05	0.46	0.02	0.30	0.01						
8	8.44	20.20	4.80	5.14	2.96	1.59	1.71	0.42	1.25	0.20	0.76	0.06	0.53	0.02	0.34	0.01						
9	9.49	25.12	5.40	6.39	3.33	1.97	1.92	0.52	1.41	0.25	0.85	0.07	0.60	0.03	0.39	0.01						
10	10.55	30.54	6.00	7.77	3.70	2.40	2.14	0.63	1.57	0.30	0.95	0.09	0.66	0.04	0.43	0.01						
11	11.60	36.43	6.60	9.27	4.07	2.86	2.35	0.75	1.73	0.36	1.05	0.11	0.73	0.04	0.47	0.02						
12	12.65	42.80	7.21	10.89	4.44	3.36	2.57	0.89	1.88	0.42	1.14	0.12	0.80	0.05	0.52	0.02	0.30	0.00				
14	14.76	56.94	8.41	14.48	5.19	4.47	2.99	1.18	2.20	0.56	1.33	0.17	0.93	0.07	0.60	0.02	0.35	0.01				
16	16.87	72.92	9.61	18.55	5.93	5.73	3.42	1.51	2.51	0.71	1.52	0.21	1.07	0.09	0.69	0.03	0.40	0.01				
18	18.98	90.69	10.81	23.07	6.67	7.13	3.85	1.88	2.83	0.89	1.71	0.26	1.20	0.11	0.78	0.04	0.45	0.01				
20	21.09	110.23	12.01	28.04	7.41	8.66	4.28	2.28	3.14	1.08	1.90	0.32	1.33	0.13	0.86	0.05	0.50	0.01				
22			13.21	33.45	8.15	10.33	4.71	2.72	3.46	1.29	2.10	0.38	1.47	0.16	0.95	0.06	0.55	0.01				
24			14.42	39.30	8.89	12.14	5.14	3.20	3.77	1.51	2.29	0.45	1.60	0.19	1.04	0.07	0.60	0.02				
26			15.62	45.58	9.64	14.08	5.57	3.17	4.09	1.75	2.48	0.52	1.74	0.22	1.12	0.08	0.65	0.02				
28			16.82	52.28	10.38	16.15	5.99	4.25	4.40	2.01	2.67	0.60	1.87	0.25	1.21	0.09	0.70	0.02				
30			18.02	59.41	11.12	18.35	6.42	4.83	4.72	2.28	2.86	0.68	2.00	0.29	1.30	0.10	0.75	0.03				
35					12.97	24.42	7.49	6.43	5.50	3.04	3.34	0.90	2.34	0.38	1.51	0.13	0.88	0.04	0.38	0.00		
40					14.83	31.27	8.56	8.23	6.29	3.89	3.81	1.15	2.67	0.49	1.73	0.17	1.00	0.04	0.44	0.01		
45					16.68	38.89	9.64	10.24	7.08	4.84	4.29	1.43	3.01	0.60	1.95	0.21	1.13	0.06	0.49	0.01		
50					18.53	47.27	10.71	12.45	7.87	5.88	4.77	1.74	3.34	0.73	2.16	0.26	1.25	0.07	0.55	0.01		
55							11.78	14.85	8.65	7.01	5.25	2.08	3.68	0.88	2.38	0.30	1.38	0.08	0.61	0.01		
60							12.85	17.45	9.44	8.24	5.72	2.44	4.01	1.03	2.60	0.36	1.51	0.10	0.66	0.01		
65							13.92	20.23	10.23	9.56	6.20	2.83	4.35	1.19	2.81	0.41	1.63	0.11	0.72	0.02		
70							14.99	23.21	11.01	10.96	6.68	3.25	4.68	1.37	3.03	0.48	1.76	0.13	0.77	0.02		
75							16.06	26.37	11.80	12.46	7.16	3.69	5.01	1.56	3.25	0.54	1.88	0.14	0.83	0.02		
80							17.13	29.72	12.59	14.04	7.63	4.16	5.35	1.75	3.46	0.61	2.01	0.16	0.88	0.02		
85							18.21	33.26	13.37	15.71	8.11	4.66	5.68	1.96	3.68	0.68	2.13	0.18	0.94	0.02		
90							19.28	36.97	14.16	17.46	8.59	5.18	6.02	2.18	3.90	0.76	2.26	0.20	0.99	0.03		
95									14.95	19.30	9.07	5.72	6.35	2.41	4.11	0.84	2.39	0.22	1.05	0.03		
00									15.74	21.22	9.54	6.29	6.69	2.65	4.33	0.92	2.51	0.25	1.10	0.03		
110									17.31	25.32	10.50	7.51	7.36	3.16	4.76	1.10	2.76	0.29	1.22	0.04		
120									18.88	29.75	11.45	8.82	8.03	3.72	5.20	1.29	3.02	0.34	1.33	0.05		
130											12.41	10.23	8.70	4.31	5.63	1.50	3.27	0.40	1.44	0.05		
140											13.36	11.74	9.37	4.94	6.06	1.72	3.52	0.46	1.55	0.06		
150											14.32	13.33	10.03	5.62	6.50	1.95	3.77	0.52	1.66	0.07		
160											15.27	15.03	10.70	6.33	6.93	2.20	4.02	0.59	1.77	0.08		
170											16.23	16.81	11.37	7.08	7.36	2.46	4.27	0.66	1.88	0.09		
180											17.18	18.69	12.04	7.87	7.80	2.74	4.53	0.73	1.99	0.10		
190											18.14	20.66	12.71	8.70	8.23	3.02	4.78	0.81	2.10	0.11		
200											19.09	22.72	13.38	9.57	8.66	3.33	5.03	0.89	2.21	0.12		
225														15.05	11.90	9.75	4.14	5.66	1.10	2.49	0.15	
250														16.73	14.47	10.83	5.03	6.29	1.34	2.77	0.18	
275														18.40	17.26	11.92	6.00	6.92	1.60	3.05	0.22	
300																13.00	7.05	7.55	1.88	3.32	0.26	
325																14.08	8.17	8.18	2.18	3.60	0.30	
350																15.17	9.38	8.81	2.50	3.88	0.34	
375																16.25	10.65	9.43	2.84	4.15	0.39	
400																17.33	12.01	10.06	3.20	4.43	0.44	
425																18.42	13.43	10.69	3.58	4.71	0.49	
450																19.50	14.93	11.32	3.98	4.99	0.54	
475																		11.95	4.40	5.26	0.60	
500																		12.58	4.84	5.54	0.66	
550																		13.84	5.77	6.10	0.79	
600																		15.10	6.78	6.65	0.92	

Note: Shaded areas of chart indicate velocities over 5' per second. Use with Caution.

PVC SCHEDULE 80 IPS PLASTIC PIPE

(1120, 1220) C = 150

PSI LOSS PER 100 FEET OF TUBE (PSI/100 FT)

Velocity of flow values are computed from the general equation:

$$V = .408 \frac{Q}{d^2}$$

Friction pressure loss values are computed from the equation:

$$h_f = 0.2083 \left(\frac{100}{C} \right)^{1.852} \frac{Q^{1.852}}{d^{4.866}}$$

SIZE	Sizes 1/2" thru 6"																				
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"											
OD	0.840	1.050	1.315	1.660	1.900	2.375	2.875	3.500	4.500	6.625											
ID	0.546	0.742	0.957	1.278	1.500	1.939	2.323	2.900	3.826	5.761											
WALL THK	0.147	0.154	0.179	0.191	0.200	0.218	0.276	0.300	0.337	0.432											
Flow G.P.M.	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	
1	1.36	0.81	0.74	0.18	0.44	0.05	0.24	0.01	0.18	0.01	0.10	0.00									
2	2.73	2.92	1.48	0.66	0.89	0.19	0.49	0.05	0.36	0.02	0.21	0.01	0.15	0.00							
3	4.10	6.19	2.22	1.39	1.33	0.40	0.74	0.10	0.54	0.05	0.32	0.01	0.22	0.01							
4	5.47	10.54	2.96	2.37	1.78	0.69	0.99	0.17	0.72	0.08	0.43	0.02	0.30	0.01							
5	6.84	15.93	3.70	3.58	2.22	1.04	1.24	0.25	0.90	0.12	0.54	0.03	0.37	0.01	0.24	0.00					
6	8.21	22.33	4.44	5.02	2.67	1.46	1.49	0.36	1.08	0.16	0.65	0.05	0.45	0.02	0.29	0.01					
7	9.58	29.71	5.18	6.68	3.11	1.94	1.74	0.47	1.26	0.22	0.75	0.06	0.52	0.03	0.33	0.01					
8	10.94	38.05	5.92	8.56	3.56	2.48	1.99	0.61	1.45	0.28	0.86	0.08	0.60	0.03	0.38	0.01					
9	12.31	47.33	6.66	10.64	4.00	3.09	2.24	0.76	1.63	0.35	0.97	0.10	0.68	0.04	0.43	0.01					
10	13.68	57.52	7.41	12.93	4.45	3.75	2.49	0.92	1.81	0.42	1.08	0.12	0.75	0.05	0.48	0.02	0.27	0.00			
11	15.05	68.63	8.15	15.43	4.90	4.47	2.74	1.10	1.99	0.50	1.19	0.14	0.83	0.06	0.53	0.02	0.30	0.01			
12	16.42	80.63	8.89	18.13	5.34	5.26	2.99	1.29	2.17	0.59	1.30	0.17	0.90	0.07	0.58	0.02	0.33	0.01			
14			10.37	24.12	6.23	6.99	3.49	1.71	2.53	0.79	1.51	0.23	1.05	0.09	0.67	0.03	0.39	0.01			
16			11.85	30.88	7.12	8.95	3.99	2.19	2.90	1.00	1.73	0.29	1.20	0.12	0.77	0.04	0.44	0.01			
18			13.33	38.41	8.01	11.14	4.49	2.73	3.26	1.26	1.95	0.36	1.36	0.15	0.87	0.05	0.50	0.01			
20			14.82	46.69	8.90	13.54	4.99	3.31	3.62	1.52	2.17	0.44	1.51	0.18	0.97	0.06	0.55	0.02			
22			16.30	55.70	9.80	16.15	5.49	3.95	3.98	1.81	2.38	0.52	1.66	0.22	1.06	0.07	0.61	0.02			
24			17.78	65.44	10.69	18.97	5.99	4.64	4.35	2.13	2.60	0.61	1.81	0.25	1.16	0.09	0.66	0.02			
26			19.26	75.90	11.58	22.01	6.49	5.39	4.71	2.47	2.82	0.71	1.96	0.29	1.26	0.10	0.72	0.03			
28			12.47		12.47	25.24	6.99	6.18	5.07	2.83	3.03	0.81	2.11	0.34	1.35	0.11	0.78	0.03			
30					13.36	28.69	7.49	7.02	5.43	3.22	3.25	0.92	2.26	0.38	1.45	0.13	0.83	0.03	0.36	0.00	
35					15.59	38.16	8.74	9.34	6.34	4.29	3.79	1.23	2.64	0.51	1.69	0.17	0.97	0.05	0.43	0.01	
40					17.81	48.87	9.99	11.96	7.25	5.49	4.34	1.57	3.02	0.65	1.94	0.22	1.11	0.06	0.49	0.01	
45					11.24	14.88	8.16	6.83	4.88	1.96	3.40	0.81	2.18	0.28	1.25	0.07	0.55	0.01			
50					12.49	18.09	9.06	8.30	5.42	2.38	3.78	0.99	2.42	0.34	1.39	0.09	0.61	0.01			
55					13.73	21.58	9.97	9.90	5.96	2.84	4.15	1.18	2.66	0.40	1.53	0.10	0.67	0.01			
60					14.98	25.35	10.87	11.63	6.51	3.33	4.53	1.38	2.91	0.47	1.67	0.12	0.73	0.02			
65					16.23	29.40	11.78	13.49	7.05	3.87	4.91	1.61	3.15	0.55	1.81	0.14	0.79	0.02			
70					17.48	33.72	12.69	15.47	7.59	4.44	5.29	1.84	3.39	0.63	1.95	0.16	0.86	0.02			
75					18.73	38.32	13.59	17.58	8.13	5.04	5.67	2.09	3.63	0.71	2.09	0.18	0.92	0.03			
80					19.98	43.19	14.50	19.81	8.68	5.68	6.04	2.36	3.88	0.80	2.22	0.21	0.98	0.03			
85							15.41	22.16	9.22	6.36	6.42	2.63	4.12	0.90	2.36	0.23	1.04	0.03			
90							16.32	24.64	9.76	7.07	6.80	2.93	4.36	1.00	2.50	0.26	1.10	0.04			
95							17.22	27.23	10.30	7.81	7.18	3.24	4.60	1.10	2.64	0.29	1.16	0.04			
100							18.13	29.95	10.85	8.59	7.56	3.57	4.85	1.21	2.78	0.31	1.22	0.04			
110							19.94	35.73	11.93	10.25	8.31	4.25	5.33	1.45	3.06	0.38	1.35	0.05			
120									13.02	12.04	9.07	5.00	5.82	1.70	3.34	0.44	1.47	0.06			
130									14.10	13.96	9.82	5.60	6.30	1.97	3.62	0.51	1.59	0.07			
140									15.19	16.02	10.58	6.65	6.79	2.27	3.90	0.59	1.72	0.08			
150									16.27	18.20	11.34	7.56	7.27	2.57	4.18	0.67	1.84	0.09			
160									17.36	20.51	12.09	8.51	7.76	2.89	4.45	0.75	1.96	0.10			
170									18.44	22.95	12.85	9.53	8.24	3.24	4.73	0.84	2.08	0.11			
180									19.53	25.51	13.60	10.59	8.73	3.60	5.01	0.93	2.21	0.13			
190											14.36	11.71	9.21	3.98	5.29	1.03	2.33	0.14			
200											15.12	12.87	9.70	4.37	5.57	1.14	2.45	0.16			
225											17.01	16.01	10.91	5.44	6.27	1.41	2.76	0.19			
250											18.90	19.46	12.12	6.61	6.96	1.72	3.07	0.23			
275													13.34	7.89	7.66	2.05	3.38	0.28			
300													14.55	9.27	8.36	2.41	3.68	0.33			
325													15.76	10.75	9.05	2.79	3.99	0.38			
350													16.97	12.33	9.75	3.20	4.30	0.44			
375													18.19	14.01	10.45	3.64	4.60	0.50			
400													19.40	15.79	11.14	4.10	4.91	0.56			
425															11.84	4.59	5.22	0.63			
450															12.54	5.10	5.53	0.70			
475																5.64	5.83	0.77			
500																13.93	6.20	6.14	0.85		
550																15.32	7.40	6.76	1.01		
600																16.72	8.69	7.37	1.19		

Note: Shaded areas of chart indicate velocities over 5' per second. Use with Caution.

PVC CLASS 125 IPS PLASTIC PIPE

(1120, 1220) SDR 32.5 C = 150
PSI LOSS PER 100 FEET OF PIPE (PSI/100 FT)

Velocity of flow values are computed from the general equation:

$$V = .408 \frac{Q}{d^2}$$

Friction pressure loss values are computed from the equation:

$$h_f = 0.2083 \left(\frac{100}{C} \right)^{1.852} \frac{Q^{1.852}}{d^{4.866}}$$

SIZE	Sizes 1" thru 6"															
	Flow GPM 1 thru 600															
OD	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"								
ID	1.315	1.660	1.900	2.375	2.875	3.500	4.500	6.625								
WALL THK	0.052	0.056	0.058	0.073	0.088	0.108	0.138	0.204								
Flow G.P.M.	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss
1	0.27	0.02	0.17	0.01	0.12	0.00										
2	0.55	0.06	0.34	0.02	0.25	0.01	0.16	0.00								
3	0.83	0.13	0.51	0.04	0.38	0.02	0.24	0.01								
4	1.11	0.22	0.68	0.07	0.51	0.03	0.32	0.01	0.22	0.00						
5	1.39	0.33	0.85	0.10	0.64	0.05	0.41	0.02	0.28	0.01						
6	1.66	0.46	1.02	0.14	0.76	0.07	0.49	0.02	0.33	0.01						
7	1.94	0.62	1.19	0.19	0.89	0.09	0.57	0.03	0.39	0.01	0.26	0.00				
8	2.22	0.79	1.36	0.24	1.02	0.12	0.65	0.04	0.44	0.02	0.30	0.01				
9	2.50	0.98	1.53	0.30	1.15	0.15	0.73	0.05	0.50	0.02	0.34	0.01				
10	2.78	1.19	1.70	0.36	1.28	0.18	0.82	0.06	0.56	0.02	0.37	0.01				
11	3.06	1.42	1.87	0.43	1.41	0.22	0.90	0.07	0.61	0.03	0.41	0.01				
12	3.33	1.67	2.04	0.51	1.53	0.25	0.98	0.09	0.67	0.03	0.45	0.01	0.27	0.00		
14	3.89	2.22	2.38	0.67	1.79	0.34	1.14	0.11	0.78	0.05	0.52	0.02	0.32	0.01		
16	4.45	2.85	2.72	0.86	2.05	0.43	1.31	0.15	0.89	0.06	0.60	0.02	0.36	0.01		
18	5.00	3.54	3.06	1.07	2.30	0.54	1.47	0.18	1.00	0.07	0.68	0.03	0.41	0.01		
20	5.56	4.31	3.40	1.30	2.56	0.65	1.64	0.22	1.12	0.09	0.75	0.03	0.45	0.01		
22	6.12	5.14	3.74	1.56	2.82	0.78	1.80	0.26	1.23	0.10	0.83	0.04	0.50	0.01		
24	6.67	6.04	4.08	1.83	3.07	0.92	1.97	0.31	1.34	0.12	0.90	0.05	0.54	0.01		
26	7.23	7.00	4.42	2.12	3.33	1.06	2.13	0.36	1.45	0.14	0.98	0.05	0.59	0.02		
28	7.78	8.03	4.76	2.43	3.58	1.22	2.29	0.41	1.56	0.16	1.05	0.06	0.64	0.02		
30	8.34	9.13	5.10	2.76	3.84	1.39	2.46	0.47	1.68	0.18	1.13	0.07	0.68	0.02		
35	9.73	12.14	5.95	3.68	4.48	1.84	2.87	0.62	1.96	0.25	1.32	0.09	0.80	0.03	0.36	0.00
40	11.12	15.55	6.81	4.71	5.12	2.36	3.28	0.80	2.24	0.31	1.51	0.12	0.91	0.04	0.42	0.01
45	12.51	19.34	7.66	5.86	5.76	2.94	3.69	0.99	2.52	0.39	1.70	0.15	1.02	0.04	0.47	0.01
50	13.91	23.50	8.51	7.12	6.40	3.57	4.10	1.21	2.80	0.48	1.89	0.18	1.14	0.05	0.52	0.01
55	15.30	28.04	9.36	8.49	7.05	4.26	4.51	1.44	3.08	0.57	2.08	0.22	1.25	0.06	0.58	0.01
60	16.69	32.94	10.21	9.98	7.69	5.00	4.92	1.69	3.36	0.67	2.26	0.26	1.37	0.08	0.63	0.01
65	18.08	38.21	11.06	11.57	8.33	5.80	5.33	1.96	3.64	0.77	2.45	0.30	1.48	0.09	0.68	0.01
70	19.47	43.83	11.91	13.27	8.97	6.55	5.74	2.25	3.92	0.89	2.64	0.34	1.60	0.10	0.73	0.02
75			12.76	15.08	9.61	7.56	6.15	2.56	4.20	1.01	2.83	0.39	1.71	0.11	0.79	0.02
80			13.62	17.00	10.25	8.52	6.56	2.88	4.48	1.14	3.02	0.44	1.82	0.13	0.84	0.02
85			14.47	19.02	10.89	9.53	6.98	3.23	4.76	1.27	3.21	0.49	1.94	0.14	0.89	0.02
90			15.32	21.14	11.53	10.60	7.39	3.59	5.04	1.41	3.40	0.54	2.05	0.16	0.95	0.02
95			16.17	23.37	12.17	11.71	7.80	3.96	5.32	1.56	3.59	0.60	2.17	0.18	1.00	0.03
100			17.02	25.69	12.81	12.88	8.21	4.36	5.60	1.72	3.78	0.66	2.28	0.19	1.05	0.03
110			18.72	30.65	14.10	15.37	9.03	5.20	6.16	2.05	4.16	0.79	2.51	0.23	1.16	0.04
120					15.38	18.06	9.85	6.11	6.72	2.41	4.53	0.93	2.74	0.27	1.26	0.04
130					16.66	20.94	10.67	7.09	7.28	2.79	4.91	1.08	2.97	0.32	1.37	0.05
140					17.94	24.04	11.49	8.13	7.84	3.20	5.29	1.23	3.20	0.36	1.47	0.06
150					19.22	27.30	12.31	9.24	8.40	3.64	5.67	1.40	3.43	0.41	1.58	0.06
160							13.13	10.41	8.96	4.10	6.05	1.58	3.65	0.46	1.68	0.07
170							13.96	11.65	9.52	4.59	6.43	1.77	3.88	0.52	1.79	0.08
180							14.78	12.95	10.08	5.10	6.80	1.96	4.11	0.58	1.90	0.09
190							15.60	14.31	10.64	5.64	7.18	2.17	4.34	0.64	2.00	0.10
200							16.42	15.74	11.20	6.20	7.56	2.39	4.57	0.70	2.11	0.11
225							18.47	19.57	12.60	7.72	8.51	2.97	5.14	0.87	2.37	0.13
250									14.00	9.38	9.45	3.61	5.71	1.06	2.63	0.16
275									15.40	11.19	10.40	4.31	6.28	1.27	2.90	0.19
300									16.80	13.15	11.34	5.06	6.86	1.49	3.16	0.23
325									18.20	15.25	12.29	5.87	7.43	1.72	3.43	0.26
350									19.60	17.49	13.24	6.73	8.00	1.98	3.69	0.30
375											14.18	7.65	8.57	2.25	3.95	0.34
400											15.13	8.62	9.14	2.53	4.22	0.39
425											16.07	9.65	9.71	2.83	4.48	0.43
450											17.02	10.72	10.29	3.15	4.75	0.48
475											17.96	11.85	10.86	3.48	5.01	0.53
500											18.91	13.03	11.43	3.83	5.27	0.58
550													12.57	4.57	5.80	0.70
600													13.72	5.37	6.33	0.82

Note: Shaded areas of chart indicate velocities over 5' per second. Use with Caution.

PVC CLASS 160 IPS PLASTIC PIPE

(1120, 1220) SDR 26 C = 150
PSI LOSS PER 100 FEET OF PIPE (PSI/100 FT)

Velocity of flow values are computed from the general equation: Friction pressure loss values are computed from the equation:

$$V = .408 \frac{Q}{d^2} \quad h_f = 0.2083 \left(\frac{100}{C} \right)^{1.852} \frac{Q^{1.852}}{d^{4.866}}$$

		Sizes 1" thru 6" Flow GPM 1 thru 600																
		1"		1 1/4"		1 1/2"		2"		2 1/2"		3"		4"		6"		
SIZE		1.315	1.660	1.900	2.375	2.875	3.500	4.500	6.625									
OD		1.211	1.548	1.784	2.229	2.699	3.284	4.224	6.217									
ID		0.052	0.056	0.058	0.073	0.088	0.108	0.138	0.204									
WALL THK																		
Flow G.P.M.	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss
1	0.28	0.02	0.17	0.01	0.13	0.00												
2	0.57	0.06	0.34	0.02	0.26	0.01	0.16	0.00										
3	0.85	0.14	0.52	0.04	0.39	0.02	0.25	0.01										
4	1.14	0.23	0.69	0.07	0.53	0.04	0.33	0.01	0.23	0.00								
5	1.42	0.35	0.86	0.11	0.66	0.05	0.42	0.02	0.28	0.01								
6	1.71	0.49	1.04	0.15	0.79	0.08	0.50	0.03	0.34	0.01	0.23	0.00						
7	1.99	0.66	1.21	0.20	0.92	0.10	0.59	0.03	0.40	0.01	0.27	0.01						
8	2.28	0.84	1.39	0.25	1.06	0.13	0.67	0.04	0.46	0.02	0.31	0.01						
9	2.57	1.05	1.56	0.31	1.19	0.16	0.76	0.05	0.52	0.02	0.35	0.01						
10	2.85	1.27	1.73	0.38	1.32	0.20	0.84	0.07	0.57	0.03	0.39	0.01						
11	3.14	1.52	1.91	0.45	1.45	0.23	0.93	0.08	0.63	0.03	0.43	0.01						
12	3.42	1.78	2.08	0.53	1.59	0.28	1.01	0.09	0.69	0.04	0.46	0.01	0.28	0.00				
14	3.99	2.37	2.43	0.71	1.85	0.37	1.18	0.12	0.81	0.05	0.54	0.02	0.33	0.01				
16	4.57	3.04	2.78	0.91	2.12	0.47	1.35	0.16	0.92	0.06	0.62	0.02	0.37	0.01				
18	5.14	3.78	3.12	1.13	2.38	0.58	1.52	0.20	1.04	0.08	0.70	0.03	0.42	0.01				
20	5.71	4.59	3.47	1.37	2.65	0.71	1.69	0.24	1.15	0.09	0.78	0.04	0.47	0.01				
22	6.28	5.48	3.82	1.64	2.91	0.85	1.86	0.29	1.27	0.11	0.86	0.04	0.52	0.01				
24	6.85	6.44	4.17	1.92	3.18	1.00	2.03	0.34	1.38	0.13	0.93	0.05	0.56	0.02				
26	7.42	7.47	4.51	2.23	3.44	1.15	2.20	0.39	1.50	0.15	1.01	0.06	0.61	0.02				
28	7.99	8.57	4.86	2.56	3.71	1.32	2.37	0.45	1.62	0.18	1.09	0.07	0.66	0.02				
30	8.57	9.74	5.21	2.91	3.97	1.50	2.54	0.51	1.73	0.20	1.17	0.08	0.70	0.02				
35	9.99	12.95	6.08	3.87	4.64	2.00	2.96	0.68	2.02	0.27	1.36	0.10	0.82	0.03	0.38	0.00		
40	11.42	16.59	6.95	4.95	5.30	2.56	3.39	0.86	2.31	0.34	1.56	0.13	0.94	0.04	0.43	0.01		
45	12.85	20.63	7.82	6.16	5.96	3.19	3.81	1.08	2.60	0.42	1.75	0.16	1.06	0.05	0.49	0.01		
50	14.28	25.07	8.69	7.49	6.63	3.88	4.24	1.31	2.89	0.52	1.95	0.20	1.18	0.06	0.54	0.01		
55	15.71	29.91	9.56	8.93	7.29	4.62	4.66	1.56	3.18	0.62	2.15	0.24	1.30	0.07	0.60	0.01		
60	17.14	35.14	10.43	10.49	7.95	5.43	5.09	1.83	3.47	0.72	2.34	0.28	1.41	0.08	0.65	0.01		
65	18.57	40.76	11.29	12.17	8.62	6.30	5.51	2.12	3.76	0.84	2.54	0.32	1.53	0.09	0.70	0.01		
70	19.99	46.76	12.16	13.96	9.28	7.23	5.93	2.44	4.05	0.96	2.73	0.37	1.65	0.11	0.76	0.02		
75			13.03	15.86	9.94	8.21	6.36	2.77	4.34	1.09	2.93	0.42	1.77	0.12	0.81	0.02		
80			13.90	17.88	10.60	9.25	6.78	3.12	4.63	1.23	3.12	0.47	1.89	0.14	0.87	0.02		
85			14.77	20.00	11.27	10.35	7.21	3.49	4.91	1.38	3.32	0.53	2.00	0.16	0.92	0.02		
90			15.64	22.23	11.93	11.51	7.63	3.88	5.20	1.53	3.51	0.59	2.12	0.17	0.98	0.03		
95			16.51	24.58	12.59	12.72	8.05	4.29	5.49	1.69	3.71	0.65	2.24	0.19	1.03	0.03		
100			17.38	27.03	13.26	13.99	8.48	4.72	5.78	1.86	3.91	0.72	2.36	0.21	1.09	0.03		
110			19.12	32.24	14.58	16.69	9.33	5.63	6.36	2.22	4.30	0.86	2.60	0.25	1.20	0.04		
120					15.91	19.61	10.18	6.61	6.94	2.61	4.69	1.01	2.83	0.30	1.30	0.05		
130					17.24	22.74	11.02	7.67	7.52	3.03	5.08	1.17	3.07	0.34	1.41	0.05		
140					18.56	26.09	11.87	8.80	8.10	3.47	5.47	1.34	3.31	0.39	1.52	0.06		
150					19.89	29.64	12.72	10.00	8.68	3.94	5.86	1.52	3.54	0.45	1.63	0.07		
160							13.57	11.27	9.26	4.45	6.25	1.71	3.78	0.50	1.74	0.08		
170							14.42	12.61	9.83	4.97	6.64	1.92	4.01	0.56	1.85	0.09		
180							15.27	14.02	10.41	5.53	7.03	2.13	4.25	0.63	1.96	0.10		
190							16.11	15.49	10.99	6.11	7.43	2.35	4.49	0.69	2.07	0.11		
200							16.96	17.03	11.57	6.72	7.82	2.59	4.72	0.76	2.18	0.12		
225							19.08	21.19	13.02	8.36	8.79	3.22	5.31	0.95	2.45	0.14		
250									14.47	10.16	9.77	3.91	5.91	1.15	2.72	0.18		
275									15.91	12.12	10.75	4.67	6.50	1.37	3.00	0.21		
300									17.36	14.24	11.73	5.49	7.09	1.61	3.27	0.25		
325									18.81	16.51	12.70	6.36	7.68	1.87	3.54	0.29		
350											13.68	7.30	8.27	2.15	3.81	0.33		
375											14.66	8.29	8.86	2.44	4.09	0.37		
400											15.64	9.35	9.45	2.75	4.36	0.42		
425											16.62	10.46	10.04	3.07	4.63	0.47		
450											17.59	11.62	10.63	3.42	4.90	0.52		
475											18.57	12.85	11.23	3.78	5.18	0.58		
500											19.55	14.13	11.82	4.15	5.45	0.63		
550													13.00	4.96	6.00	0.76		
600													14.18	5.82	6.54	0.89		

Note: Shaded areas of chart indicate velocities over 5' per second. Use with Caution.

PVC CLASS 315 IPS PLASTIC PIPE

(1120, 1220) SDR 13.5 C = 150
PSI LOSS PER 100 FEET OF PIPE (PSI/100 FT)

Velocity of flow values are computed from the general equation:

$$V = .408 \frac{Q}{d^2}$$
 Friction pressure loss values are computed from the equation:

$$h_f = 0.2083 \left(\frac{100}{C} \right)^{1.852} \frac{Q^{1.852}}{d^{4.866}}$$

SIZE	Sizes 1/2" thru 6"																			
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"										
OD	0.840	1.050	1.315	1.660	1.900	2.375	2.875	3.500	4.500	6.625										
ID	0.716	0.894	1.121	1.414	1.618	2.023	2.449	2.982	3.834	5.643										
WALL THK	0.062	0.078	0.097	0.123	0.141	0.176	0.213	0.259	0.333	0.491										
Flow G.P.M.	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss
1	0.79	0.22	0.51	0.07	0.32	0.02	0.20	0.01	0.15	0.00										
2	1.59	0.78	1.02	0.27	0.64	0.09	0.40	0.03	0.31	0.01	0.19	0.00								
3	2.38	1.65	1.53	0.56	0.97	0.19	0.61	0.06	0.46	0.03	0.29	0.01	0.20	0.00						
4	3.18	2.82	2.04	0.96	1.29	0.32	0.81	0.10	0.62	0.05	0.39	0.02	0.27	0.01						
5	3.97	4.26	2.55	1.45	1.62	0.48	1.02	0.16	0.77	0.08	0.49	0.03	0.34	0.01	0.22	0.00				
6	4.77	5.97	3.06	2.03	1.94	0.67	1.22	0.22	0.93	0.11	0.59	0.04	0.40	0.02	0.27	0.01				
7	5.57	7.95	3.57	2.70	2.27	0.90	1.42	0.29	1.09	0.15	0.69	0.05	0.47	0.02	0.32	0.01				
8	6.36	10.18	4.08	3.45	2.59	1.15	1.63	0.37	1.24	0.19	0.79	0.06	0.54	0.03	0.36	0.01				
9	7.16	12.66	4.59	4.30	2.92	1.43	1.83	0.46	1.40	0.24	0.89	0.08	0.61	0.03	0.41	0.01				
10	7.95	15.38	5.10	5.22	3.24	1.74	2.04	0.56	1.55	0.29	0.99	0.10	0.68	0.04	0.45	0.01	0.27	0.00		
11	8.75	18.35	5.61	6.23	3.57	2.07	2.24	0.67	1.71	0.35	1.09	0.12	0.74	0.05	0.50	0.02	0.30	0.01		
12	9.55	21.56	6.12	7.32	3.89	2.43	2.44	0.79	1.87	0.41	1.19	0.14	0.81	0.05	0.55	0.02	0.33	0.01		
14	11.14	28.69	7.14	9.74	4.54	3.24	2.85	1.05	2.18	0.54	1.39	0.18	0.95	0.07	0.64	0.03	0.38	0.01		
16	12.73	36.74	8.16	12.47	5.19	4.15	3.26	1.34	2.49	0.70	1.59	0.23	1.08	0.09	0.73	0.04	0.44	0.01		
18	14.32	45.69	9.18	15.51	5.84	5.16	3.67	1.67	2.80	0.87	1.79	0.29	1.22	0.12	0.82	0.04	0.49	0.01		
20	15.91	55.54	10.20	18.86	6.49	6.27	4.08	2.03	3.11	1.05	1.99	0.35	1.36	0.14	0.91	0.05	0.55	0.02		
22	17.50	66.26	11.23	22.50	7.14	7.48	4.48	2.42	3.42	1.25	2.19	0.42	1.49	0.17	1.00	0.06	0.61	0.02		
24	19.10	77.84	12.25	26.43	7.79	8.79	4.89	2.84	3.74	1.47	2.39	0.50	1.63	0.20	1.10	0.08	0.66	0.02		
26			13.27	30.65	8.44	10.19	5.30	3.29	4.05	1.71	2.59	0.58	1.76	0.23	1.19	0.09	0.72	0.03		
28			14.29	35.16	9.09	11.69	5.71	3.78	4.36	1.96	2.79	0.66	1.90	0.26	1.28	0.10	0.77	0.03	0.35	0.00
30			15.31	39.95	9.74	13.29	6.12	4.29	4.67	2.23	2.99	0.75	2.04	0.30	1.37	0.11	0.83	0.03	0.38	0.01
35			17.86	53.15	11.36	17.68	7.14	5.71	5.45	2.96	3.48	1.00	2.38	0.39	1.60	0.15	0.97	0.04	0.44	0.01
40					12.98	22.64	8.16	7.31	6.23	3.80	3.98	1.28	2.72	0.51	1.83	0.19	1.11	0.06	0.51	0.01
45					14.61	28.15	9.18	9.10	7.01	4.72	4.48	1.59	3.06	0.63	2.06	0.24	1.24	0.07	0.57	0.01
50					16.23	34.22	10.20	11.06	7.79	5.74	4.98	1.94	3.40	0.76	2.29	0.29	1.38	0.09	0.64	0.01
55					17.85	40.83	11.22	13.19	8.57	6.85	5.48	2.31	3.74	0.91	2.52	0.35	1.52	0.10	0.70	0.02
60					19.48	47.97	12.24	15.50	9.35	8.04	5.98	2.71	4.08	1.07	2.75	0.41	1.66	0.12	0.76	0.02
65							13.26	17.97	10.13	9.33	6.48	3.15	4.42	1.24	2.98	0.48	1.80	0.14	0.83	0.02
70							14.28	20.62	10.90	10.70	6.97	3.61	4.76	1.42	3.21	0.55	1.94	0.16	0.89	0.02
75							15.30	23.43	11.68	12.16	7.47	4.10	5.10	1.62	3.44	0.62	2.08	0.18	0.96	0.03
80							16.32	26.40	12.46	13.71	7.97	4.62	5.44	1.82	3.67	0.70	2.22	0.21	1.02	0.03
85							17.34	29.54	13.24	15.33	8.47	5.17	5.78	2.04	3.89	0.78	2.35	0.23	1.08	0.04
90							18.36	32.84	14.02	17.05	8.97	5.75	6.12	2.27	4.12	0.87	2.49	0.26	1.15	0.04
95							19.38	36.30	14.80	18.84	9.47	6.35	6.46	2.51	4.35	0.96	2.63	0.28	1.21	0.04
100									15.58	20.72	9.96	6.99	6.80	2.76	4.58	1.06	2.77	0.31	1.28	0.05
110									17.14	24.72	10.96	8.34	7.48	3.29	5.04	1.26	3.05	0.37	1.40	0.06
120									18.70	29.04	11.96	9.79	8.16	3.87	5.50	1.48	3.33	0.44	1.53	0.07
130											12.96	11.36	8.84	4.48	5.96	1.72	3.60	0.51	1.66	0.08
140											13.95	13.03	9.52	5.14	6.42	1.97	3.88	0.58	1.79	0.09
150											14.95	14.81	10.20	5.84	6.88	2.24	4.16	0.66	1.92	0.10
160											15.95	16.69	10.88	6.59	7.34	2.53	4.44	0.74	2.04	0.11
170											16.94	18.67	11.56	7.37	7.79	2.83	4.71	0.83	2.17	0.13
180											17.94	20.75	12.24	8.19	8.25	3.14	4.99	0.93	2.30	0.14
190											18.94	22.94	12.92	9.05	8.71	3.47	5.27	1.02	2.43	0.16
200											19.93	25.23	13.60	9.95	9.17	3.82	5.55	1.12	2.56	0.17
225													15.30	12.38	10.32	4.75	6.24	1.40	2.88	0.21
250													17.00	15.05	11.47	5.77	6.93	1.70	3.20	0.26
275													18.70	17.95	12.61	6.89	7.63	2.03	3.52	0.31
300															13.76	8.09	8.32	2.38	3.84	0.36
325															14.91	9.39	9.02	2.76	4.16	0.42
350															16.05	10.77	9.71	3.17	4.48	0.48
375															17.20	12.23	10.40	3.60	4.80	0.55
400															18.35	13.79	11.10	4.06	5.12	0.62
425															19.49	15.42	11.79	4.54	5.44	0.69
450																	12.49	5.05	5.76	0.77
475																	13.18	5.58	6.08	0.85
500																	13.87	6.14	6.40	0.94
550																	15.26	7.32	7.04	1.12
600																	16.65	8.60	7.68	1.31

Note: Shaded areas of chart indicate velocities over 5' per second. Use with Caution.

SCHEDULE 40 STANDARD STEEL PIPE C = 100

Velocity of flow values are computed from the general equation:
 $V = .408 \frac{Q}{d^2}$

Friction pressure loss values are computed from the equation:
 $h_f = 0.2083 \left(\frac{100}{C} \right)^{1.852} \frac{Q^{1.852}}{d^{4.866}}$

PSI LOSS PER 100 FEET OF PIPE (PSI/100 FT)

		Sizes 1/2" thru 6"																					
		Flow GPM 1 thru 600																					
SIZE		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"												
OD		0.840	1.050	1.315	1.660	1.900	2.375	2.875	3.500	4.500	6.625												
ID		0.622	0.824	1.049	1.380	1.610	2.067	2.469	3.068	4.026	6.065												
WALL THK		0.109	0.113	0.133	0.140	0.145	0.154	0.203	0.216	0.237	0.280												
Flow G.P.M.	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss			
1	1.05	0.91	0.60	0.23	0.37	0.07	0.21	0.02	0.15	0.01	0.09	0.00											
2	2.10	3.28	1.20	0.84	0.74	0.26	0.42	0.07	0.31	0.03	0.19	0.01	0.13	0.00									
3	3.16	6.95	1.80	1.77	1.11	0.55	0.64	0.14	0.47	0.07	0.28	0.02	0.20	0.01	0.13	0.00							
4	4.21	11.85	2.40	3.02	1.48	0.93	0.85	0.25	0.62	0.12	0.38	0.03	0.26	0.01	0.17	0.01							
5	5.27	17.91	3.00	4.56	1.85	1.41	1.07	0.37	0.78	0.18	0.47	0.05	0.33	0.02	0.21	0.01							
6	6.32	25.10	3.60	6.39	2.22	1.97	1.28	0.52	0.94	0.25	0.57	0.07	0.40	0.03	0.26	0.01							
7	7.38	33.40	4.20	8.50	2.59	2.63	1.49	0.69	1.10	0.33	0.66	0.10	0.46	0.04	0.30	0.01							
8	8.43	42.77	4.80	10.89	2.96	3.36	1.71	0.89	1.25	0.42	0.76	0.12	0.53	0.05	0.34	0.02	0.20	0.00					
9	9.49	53.19	5.40	13.54	3.33	4.18	1.92	1.10	1.41	0.52	0.85	0.15	0.60	0.06	0.39	0.02	0.22	0.01					
10	10.54	64.65	6.00	16.46	3.70	5.08	2.14	1.34	1.57	0.63	0.95	0.19	0.66	0.08	0.43	0.03	0.25	0.01					
11	11.60	77.13	6.60	19.63	4.07	6.07	2.35	1.60	1.73	0.75	1.05	0.22	0.73	0.09	0.47	0.03	0.27	0.01					
12	12.65	90.62	7.21	23.07	4.44	7.13	2.57	1.88	1.88	0.89	1.14	0.26	0.80	0.11	0.52	0.04	0.30	0.01					
14	14.76	20.56	8.41	30.69	5.19	9.48	2.99	2.50	2.20	1.18	1.33	0.35	0.93	0.15	0.60	0.05	0.35	0.01					
16	16.87	54.39	9.61	39.30	5.93	12.14	3.42	3.20	2.51	1.51	1.52	0.45	1.07	0.19	0.69	0.07	0.40	0.02					
18	18.98	92.02	10.81	48.88	6.67	15.10	3.85	3.98	2.83	1.88	1.71	0.56	1.20	0.23	0.78	0.08	0.45	0.02					
20			12.01	59.41	7.41	18.35	4.28	4.83	3.14	2.28	1.90	0.68	1.33	0.29	0.86	0.10	0.50	0.03					
22			13.21	70.88	8.15	21.90	4.71	5.77	3.46	2.72	2.10	0.81	1.47	0.34	0.95	0.12	0.55	0.03	0.24	0.00			
24			14.42	83.27	8.89	25.72	5.14	6.77	3.77	3.20	2.29	0.95	1.60	0.40	1.04	0.14	0.60	0.04	0.26	0.01			
26			15.62	96.57	9.64	29.83	5.57	7.86	4.09	3.71	2.48	1.10	1.74	0.46	1.12	0.16	0.65	0.04	0.28	0.01			
28			16.82	110.78	10.38	34.22	5.99	9.01	4.40	4.26	2.67	1.26	1.87	0.53	1.21	0.18	0.70	0.05	0.31	0.01			
30			18.02	125.88	11.12	38.89	6.42	10.24	4.72	4.84	2.86	1.43	2.00	0.60	1.30	0.21	0.75	0.06	0.33	0.01			
35					12.97	51.74	7.49	13.62	5.50	6.44	3.34	1.91	2.34	0.80	1.51	0.28	0.88	0.07	0.38	0.01			
40					14.83	66.25	8.56	17.45	6.29	8.24	3.81	2.44	2.67	1.03	1.73	0.36	1.00	0.10	0.44	0.01			
45					16.68	82.40	9.64	21.70	7.08	10.25	4.29	3.04	3.01	1.28	1.95	0.44	1.13	0.12	0.49	0.02			
50					18.53	100.16	10.71	26.37	7.87	12.46	4.77	3.69	3.34	1.56	2.16	0.54	1.25	0.14	0.55	0.02			
55							11.78	31.47	8.65	14.86	5.25	4.41	3.68	1.86	2.38	0.65	1.38	0.17	0.61	0.02			
60							12.85	36.97	9.44	17.46	5.72	5.18	4.01	2.18	2.60	0.76	1.51	0.20	0.66	0.03			
65							13.92	42.88	10.23	20.25	6.20	6.00	4.35	2.53	2.81	0.88	1.63	0.23	0.72	0.03			
70							14.99	49.18	11.01	23.23	6.68	6.89	4.68	2.90	3.03	1.01	1.76	0.27	0.77	0.04			
75							16.06	55.89	11.80	26.40	7.16	7.83	5.01	3.30	3.25	1.15	1.88	0.31	0.83	0.04			
80							17.13	62.98	12.59	29.75	7.63	8.82	5.35	3.72	3.46	1.29	2.01	0.34	0.88	0.05			
85							18.21	70.47	13.37	33.29	8.11	9.87	5.68	4.16	3.68	1.44	2.13	0.39	0.94	0.05			
90							19.28	78.33	14.16	37.00	8.59	10.97	6.02	4.62	3.90	1.61	2.26	0.43	0.99	0.06			
95									14.95	40.90	9.07	12.13	6.35	5.11	4.11	1.78	2.39	0.47	1.05	0.06			
100									15.74	44.97	9.54	13.33	6.69	5.62	4.33	1.95	2.51	0.52	1.10	0.07			
110									17.31	53.66	10.50	15.91	7.36	6.70	4.76	2.33	2.76	0.62	1.22	0.08			
120									18.88	63.04	11.45	18.69	8.03	7.87	5.20	2.74	3.02	0.73	1.33	0.10			
130											12.41	21.68	8.70	9.13	5.63	3.17	3.27	0.85	1.44	0.12			
140											13.36	24.87	9.37	10.47	6.06	3.64	3.52	0.97	1.55	0.13			
150											14.32	28.26	10.03	11.90	6.50	4.14	3.77	1.10	1.66	0.15			
160											15.27	31.84	10.70	13.41	6.93	4.66	4.02	1.24	1.77	0.17			
170											16.23	35.63	11.37	15.01	7.36	5.22	4.27	1.39	1.88	0.19			
180											17.18	39.61	12.04	16.68	7.80	5.80	4.53	1.55	1.99	0.21			
190											18.14	43.78	12.71	18.44	8.23	6.41	4.78	1.71	2.10	0.23			
200											19.09	48.14	13.38	20.28	8.66	7.05	5.03	1.88	2.21	0.26			
225													15.08	25.22	9.75	8.76	5.66	2.34	2.49	0.32			
250													16.73	30.65	10.83	10.65	6.29	2.84	2.77	0.39			
275													18.40	36.57	11.92	12.71	6.92	3.39	3.05	0.46			
300															13.00	14.93	7.55	3.98	3.32	0.54			
325															14.08	17.32	8.18	4.62	3.60	0.63			
350															15.17	19.87	8.81	5.30	3.88	0.72			
375															16.25	22.57	9.43	6.02	4.15	0.82			
400															17.33	25.44	10.06	6.78	4.43	0.92			
425															18.42	28.46	10.69	7.59	4.71	1.03			
450															19.50	31.64	11.32	8.43	4.99	1.15			
475																	11.95	9.32	5.26	1.27			
500																	12.58	10.25	5.54	1.40			
550																	13.84	12.23	6.10	1.67			
600																	15.10	14.37	6.65	1.96			

Note: Shaded areas of chart indicate velocities over 5' per second. Use with Caution.

POLYETHYLENE (PE) SDR-PRESSURE RATED TUBE

(2306, 3206, 3306) SDR 7, 9, 11.5, 15 C = 140
PSI LOSS PER 100 FEET OF TUBE (PSI/100 FT)

Velocity of flow values are computed from the general equation:

$$V = .408 \frac{Q}{d^2}$$

Friction pressure loss values are computed from the equation:

$$h_f = 0.2083 \left(\frac{100}{C} \right)^{1.852} \frac{Q^{1.852}}{d^{4.866}}$$

Sizes 1/2" thru 6"
Flow GPM 1 thru 600

SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"
ID	0.622	0.824	1.049	1.380	1.610	2.067	2.469	3.068	4.026	6.065

Flow G.P.M.	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss	Velocity F.P.S.	PS.I. Loss
1	1.05	0.49	0.60	0.12	0.37	0.04	0.21	0.01	0.15	0.00	0.09	0.00								
2	2.10	1.76	1.20	0.45	0.74	0.14	0.42	0.04	0.31	0.02	0.19	0.01								
3	3.16	3.73	1.80	0.95	1.11	0.29	0.64	0.08	0.47	0.04	0.28	0.01	0.20	0.00						
4	4.21	6.35	2.40	1.62	1.48	0.50	0.85	0.13	0.62	0.06	0.38	0.02	0.26	0.01						
5	5.27	9.60	3.00	2.44	1.85	0.76	1.07	0.20	0.78	0.09	0.47	0.03	0.33	0.01	0.21	0.00				
6	6.32	13.46	3.60	3.43	2.22	1.06	1.28	0.28	0.94	0.13	0.57	0.04	0.40	0.02	0.26	0.01				
7	7.38	17.91	4.20	4.56	2.59	1.41	1.49	0.37	1.10	0.18	0.66	0.05	0.46	0.02	0.30	0.01				
8	8.43	22.93	4.80	5.84	2.96	1.80	1.71	0.47	1.25	0.22	0.76	0.07	0.53	0.03	0.34	0.01				
9	9.49	28.52	5.40	7.26	3.33	2.24	1.92	0.59	1.41	0.28	0.85	0.08	0.60	0.03	0.39	0.01				
10	10.54	34.67	6.00	8.82	3.70	2.73	2.14	0.72	1.57	0.34	0.95	0.10	0.66	0.04	0.43	0.01				
11	11.60	41.36	6.60	10.53	4.07	3.25	2.35	0.86	1.73	0.40	1.05	0.12	0.73	0.05	0.47	0.02	0.27	0.00		
12	12.65	48.60	7.21	12.37	4.44	3.82	2.57	1.01	1.88	0.48	1.14	0.14	0.80	0.06	0.52	0.02	0.30	0.01		
14	14.76	64.65	8.41	16.46	5.19	5.08	2.99	1.34	2.20	0.63	1.33	0.19	0.93	0.08	0.60	0.03	0.35	0.01		
16	16.87	82.79	9.61	21.07	5.93	6.51	3.42	1.71	2.51	0.81	1.52	0.24	1.07	0.10	0.69	0.04	0.40	0.01		
18	18.98	102.97	10.81	26.21	6.67	8.10	3.85	2.13	2.83	1.01	1.71	0.30	1.20	0.13	0.78	0.04	0.45	0.01		
20			12.01	31.86	7.41	9.84	4.28	2.59	3.14	1.22	1.90	0.36	1.33	0.15	0.86	0.05	0.50	0.01		
22			13.21	38.01	8.15	11.74	4.71	3.09	3.46	1.46	2.10	0.43	1.47	0.18	0.95	0.06	0.55	0.02		
24			14.42	44.65	8.89	13.79	5.14	3.63	3.77	1.72	2.29	0.51	1.60	0.21	1.04	0.07	0.60	0.02		
26			15.62	41.79	9.64	16.00	5.57	4.21	4.09	1.99	2.48	0.59	1.74	0.25	1.12	0.09	0.65	0.02		
28			16.82	59.41	10.38	18.35	5.99	4.83	4.40	2.28	2.67	0.68	1.87	0.29	1.21	0.10	0.70	0.03		
30			18.02	67.50	11.12	20.85	6.42	5.49	4.72	2.59	2.86	0.77	2.00	0.32	1.30	0.11	0.75	0.03	0.33	0.00
35					12.97	27.74	7.49	7.31	5.50	3.45	3.34	1.02	2.34	0.43	1.51	0.15	0.88	0.04	0.38	0.01
40					14.83	35.53	8.56	9.36	6.29	4.42	3.81	1.31	2.67	0.55	1.73	0.19	1.00	0.05	0.44	0.01
45					16.68	44.19	9.64	11.64	7.08	5.50	4.29	1.63	3.01	0.69	1.95	0.24	1.13	0.06	0.49	0.01
50					18.53	53.71	10.71	14.14	7.87	6.68	4.77	1.98	3.34	0.83	2.16	0.29	1.25	0.08	0.55	0.01
55							11.78	16.87	8.65	7.97	5.25	2.36	3.68	1.00	2.38	0.35	1.38	0.09	0.61	0.01
60							12.85	19.82	9.44	9.36	5.72	2.78	4.01	1.17	2.60	0.41	1.51	0.11	0.66	0.01
65							13.92	22.99	10.23	10.86	6.20	3.22	4.35	1.36	2.81	0.47	1.63	0.13	0.72	0.02
70							14.99	26.37	11.01	12.46	6.68	3.69	4.68	1.56	3.03	0.54	1.76	0.14	0.77	0.02
75							16.06	29.97	11.80	14.16	7.16	4.20	5.01	1.77	3.25	0.61	1.88	0.16	0.83	0.02
80							17.13	33.77	12.59	15.95	7.63	4.73	5.35	1.99	3.46	0.69	2.01	0.18	0.88	0.03
85							18.21	37.79	13.37	17.85	8.11	5.29	5.68	2.23	3.68	0.77	2.13	0.21	0.94	0.03
90							19.28	42.01	14.16	19.84	8.59	5.88	6.02	2.48	3.90	0.86	2.26	0.23	0.99	0.03
95									14.95	21.93	9.07	6.50	6.35	2.74	4.11	0.95	2.39	0.25	1.05	0.03
100									15.74	24.12	9.54	7.15	6.69	3.01	4.33	1.05	2.51	0.28	1.10	0.04
110									17.31	28.77	10.50	8.53	7.36	3.59	4.76	1.25	2.76	0.33	1.22	0.05
120									18.88	33.80	11.45	10.02	8.03	4.22	5.20	1.47	3.02	0.39	1.33	0.05
130											12.41	11.62	8.70	4.90	5.63	1.70	3.27	0.45	1.44	0.06
140											13.36	13.33	9.37	5.62	6.06	1.95	3.52	0.52	1.55	0.07
150											14.32	15.15	10.03	6.38	6.50	2.22	3.77	0.59	1.66	0.08
160											15.27	17.08	10.70	7.19	6.93	2.50	4.02	0.67	1.77	0.09
170											16.23	19.11	11.37	8.05	7.36	2.80	4.27	0.75	1.88	0.10
180											17.18	21.24	12.04	8.95	7.08	3.11	4.53	0.83	1.99	0.11
190											18.14	23.48	12.71	9.89	8.23	3.44	4.78	0.92	2.10	0.12
200											19.09	25.81	13.38	10.87	8.66	3.78	5.03	1.01	2.21	0.14
225													15.05	13.52	9.75	4.70	5.66	1.25	2.49	0.17
250													16.73	16.44	10.83	5.71	6.29	1.52	2.77	0.21
275													18.40	19.61	11.92	6.82	6.92	1.82	3.05	0.25
300															13.00	8.01	7.55	2.13	3.32	0.29
325															14.08	9.29	8.18	2.48	3.60	0.34
350															15.17	10.65	8.81	2.84	3.88	0.39
375															16.25	12.10	9.43	3.23	4.15	0.44
400															17.33	13.64	10.06	3.64	4.43	0.50
425															18.42	15.26	10.69	4.07	4.71	0.55
450															19.50	16.97	11.32	4.52	4.99	0.62
475																	11.95	5.00	5.26	0.68
500																	12.58	5.50	5.54	0.75
550																	13.84	6.56	6.10	1.89
600																	15.10	7.70	6.65	1.05

Note: Shaded areas of chart indicate velocities over 5' per second. Use with Caution.