



FRICTION LOSS CHARACTERISTICS

PVC Schedule 40 Plastic Pipe IPS Dimensions

PVC 1120, 1220 C=150

Loss per 100 feet of pipe in PSI



Size	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	Size											
OD	0.814	1.050	1.315	1.660	1.900	2.375	2.875	3.500	4.500	OD											
ID	0.622	0.824	1.049	1.380	1.610	2.067	2.469	3.068	4.026	ID											
Wall	0.109	0.113	0.133	0.140	0.145	0.154	0.203	0.216	0.237	Wall											
Flow GPM	Velocity FPS		PSI Loss		Velocity FPS		PSI Loss		Velocity FPS		PSI Loss		Velocity FPS		PSI Loss		Velocity FPS		PSI Loss		Flow GPM
	Velocity FPS	PSI Loss	Velocity FPS	PSI Loss	Velocity FPS	PSI Loss	Velocity FPS	PSI Loss	Velocity FPS	PSI Loss	Velocity FPS	PSI Loss	Velocity FPS	PSI Loss	Velocity FPS	PSI Loss	Velocity FPS	PSI Loss			
1	1.05	0.43	0.60	0.11	0.37	0.03	0.21	0.01	0.15	0.00											1
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									2
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							3
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							4
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					5
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					6
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					7
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					8
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					9
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					10
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					11
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					12
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					14
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					16
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					18
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					20
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					22
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					24
26			15.62	45.58	9.64	14.08	5.57	3.63	4.09	1.75	2.48	0.52	1.74	0.22	1.12	0.08					26
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					28
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					30
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	0.38	0.00			35
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	0.44	0.01			40
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	0.49	0.01			45
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	0.55	0.01			50
55							11.78	14.85	8.65	7.01	5.25	2.08	3.68	0.88	2.38	0.30	0.61	0.01			55
60							12.85	17.45	9.44	8.24	5.72	2.44	4.01	1.03	2.60	0.36	0.66	0.01			60
65							13.92	20.23	10.23	9.56	6.20	2.83	4.35	1.19	2.81	0.41	0.72	0.02			65
70							14.99	23.21	11.01	10.96	6.68	3.25	4.68	1.37	3.03	0.48	0.77	0.02			70
75							16.06	26.37	11.80	12.46	7.16	3.69	5.01	1.56	3.25	0.54	0.83	0.02			75
80							17.13	29.72	12.59	14.04	7.63	4.16	5.35	1.75	3.46	0.61	0.88	0.02			80
85							18.21	33.26	13.37	15.71	8.11	4.66	5.68	1.96	3.68	0.68	0.94	0.02			85
90							19.28	36.97	14.16	17.46	8.59	5.18	6.02	2.18	3.90	0.76	0.99	0.03			90
95								14.95	19.30	9.07	5.72	6.35	2.41	4.11	0.84	1.05	0.03				95
100								15.74	21.22	9.54	6.29	6.69	2.65	4.33	0.92	1.10	0.03				100
110								17.31	25.32	10.50	7.51	7.36	3.16	4.76	1.10	1.22	0.04				110
120								18.88	29.75	11.45	8.82	8.03	3.72	5.20	1.29	1.33	0.05				120
130									12.41	10.23	8.70	4.31	5.63	1.50	1.44	0.05					130
140									13.36	11.74	9.37	4.94	6.06	1.72	1.55	0.06					140
150									14.32	13.33	10.03	5.62	6.50	1.95	1.66	0.07					150
160									15.27	15.03	10.70	6.33	6.93	2.20	1.77	0.08					160
170									16.23	16.81	11.37	7.08	7.36	2.46	1.88	0.09					170
180									17.18	18.69	12.04	7.87	7.80	2.74	1.99	0.10					180
190									18.14	20.66	12.71	8.70	8.23	3.02	2.10	0.11					190
200									19.09	22.72	13.38	9.57	8.66	3.33	2.21	0.12					200
225													15.05	11.90	9.75	4.14	2.49	0.15			225
250													16.73	14.47	10.83	5.03	2.77	0.18			250
275													18.40	17.26	11.92	6.00	3.05	0.22			275
300															13.00	7.05	3.32	0.26			300
325															14.08	8.17	3.60	0.30			325

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Note: Velocities in shaded (Red) area exceed 5'/sec and should be used with caution