

Friction (PSI) Loss & Water Velocity (Feet Per Second) Chart

PVC Sch 40 Pipe (Loss in PSI Per 100 ft of Pipe)

Flow GPM	1/2"			3/4"			1"			1 1/4"			1 1/2"			2"			2 1/2"			3"			4"			6"			Flow GPM
	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.	PSI Loss	Velocity F.P.S.			
1	0.32	0.43	0.11	0.60	0.03	0.37	0.01	0.21	0.00	0.15																		1			
2	1.14	1.55	0.39	1.20	0.12	0.74	0.03	0.42	0.02	0.31	0.00	0.19																2			
3	2.42	3.28	0.84	1.80	0.26	1.11	0.07	0.64	0.03	0.47	0.01	0.28	0.00	0.20														3			
4	4.13	5.60	1.42	2.40	0.44	1.48	0.12	0.85	0.05	0.62	0.02	0.38	0.01	0.26														4			
5	6.24	8.56	2.15	3.00	0.66	1.85	0.18	1.07	0.08	0.78	0.02	0.47	0.01	0.33	0.00	0.21												5			
6	8.75	11.86	3.02	3.60	0.93	2.22	0.25	1.28	0.12	0.94	0.03	0.57	0.01	0.40	0.01	0.26												6			
7	11.64	15.77	4.01	4.20	1.24	2.59	0.33	1.49	0.15	1.10	0.05	0.66	0.02	0.46	0.01	0.30												7			
8	14.90	20.20	5.14	4.80	1.59	2.96	0.42	1.71	0.20	1.25	0.06	0.76	0.02	0.53	0.01	0.34												8			
9	18.54	25.12	6.39	5.40	1.97	3.33	0.52	1.92	0.25	1.41	0.07	0.85	0.03	0.60	0.01	0.39												9			
10	22.53	30.54	7.77	6.00	2.40	3.70	0.63	2.14	0.30	1.57	0.09	0.95	0.04	0.66	0.01	0.43												10			
11	26.88	36.43	9.27	6.60	2.86	4.07	0.75	2.35	0.36	1.73	0.11	1.05	0.04	0.73	0.02	0.47												11			
12	31.58	42.80	10.89	7.21	3.36	4.44	0.89	2.57	0.42	1.88	0.12	1.14	0.05	0.80	0.02	0.52	0.00	0.30										12			
14	42.01	56.94	14.48	8.41	4.47	5.19	1.18	2.99	0.56	2.20	0.17	1.33	0.07	0.93	0.02	0.60	0.01	0.35										14			
16	53.80	72.92	18.55	9.61	5.73	5.93	1.51	3.42	0.71	2.51	0.21	1.52	0.09	1.07	0.03	0.69	0.01	0.40										16			
18	66.92	90.69	23.07	10.81	7.13	6.67	1.88	3.85	0.89	2.83	0.26	1.71	0.11	1.20	0.04	0.78	0.01	0.45										18			
20	81.34	110.23	28.04	12.01	8.66	7.41	2.28	4.28	1.08	3.14	0.32	1.90	0.13	1.33	0.05	0.86	0.01	0.50										20			
22			33.45	13.21	10.33	8.15	2.72	4.71	1.29	3.46	0.38	2.10	0.16	1.47	0.06	0.95	0.01	0.55										22			
24			39.30	14.42	12.14	8.89	3.20	5.14	1.51	3.77	0.45	2.29	0.19	1.60	0.07	1.04	0.02	0.60										24			
26			45.58	15.62	14.08	9.64	3.17	5.57	1.75	4.09	0.52	2.48	0.22	1.74	0.08	1.12	0.02	0.65										26			
28			52.28	16.82	16.15	10.38	4.25	5.99	2.01	4.40	0.60	2.67	0.25	1.87	0.09	1.21	0.03	0.70										28			
30			59.41	18.02	18.35	11.12	4.83	6.42	2.28	4.72	0.68	2.86	0.29	2.00	0.10	1.30	0.03	0.75										30			
35					24.42	12.97	6.43	7.49	3.04	5.50	0.90	3.34	0.38	2.34	0.13	1.51	0.03	0.88	0.00	0.38								35			
40					31.27	14.83	8.23	8.56	3.89	6.29	1.15	3.81	0.49	2.67	0.17	1.73	0.04	1.00	0.01	0.44								40			
45					38.89	16.68	10.24	9.64	4.84	7.08	1.43	4.29	0.60	3.01	0.21	1.95	0.06	1.13	0.01	0.49								45			
50					47.27	18.53	12.45	10.71	5.88	7.87	1.74	4.77	0.73	3.34	0.26	2.16	0.07	1.25	0.01	0.55								50			
55							14.85	11.78	7.01	8.65	2.08	5.25	0.88	3.68	0.30	2.38	0.08	1.38	0.01	0.61								55			
60							17.45	12.85	8.24	9.44	2.44	5.72	1.03	4.01	0.36	2.60	0.09	1.51	0.01	0.66								60			
65							20.23	13.92	9.56	10.23	2.83	6.20	1.19	4.35	0.41	2.81	0.11	1.63	0.01	0.72								65			
70							23.21	14.99	10.96	11.01	3.25	6.68	1.37	4.68	0.48	3.03	0.13	1.76	0.02	0.77								70			
75							26.37	16.06	12.46	11.80	3.69	7.16	1.56	5.01	0.54	3.25	0.14	1.88	0.02	0.83								75			
80							29.72	17.13	14.04	12.59	4.16	7.63	1.75	5.35	0.61	3.46	0.16	2.01	0.02	0.88								80			
85							33.26	18.21	15.71	13.37	4.66	8.11	1.96	5.68	0.68	3.68	0.18	2.13	0.02	0.94								85			
90							36.97	19.28	17.46	14.16	5.18	8.59	2.18	6.02	0.76	3.90	0.20	2.26	0.03	0.99								90			
95									19.30	14.95	5.72	9.07	2.41	6.35	0.84	4.11	0.22	2.39	0.03	1.05								95			
100									21.22	15.74	6.29	9.54	2.65	6.69	0.92	4.33	0.24	2.51	0.03	1.10								100			
110									25.32	17.31	7.51	10.50	3.16	7.36	1.10	4.76	0.29	2.76	0.04	1.22								110			
120									29.75	18.88	8.82	11.45	3.72	8.03	1.29	5.20	0.34	3.02	0.05	1.33								120			
130											10.23	12.41	4.31	8.70	1.50	5.63	0.40	3.27	0.05	1.44								130			
140											11.74	13.36	4.94	9.37	1.72	6.06	0.45	3.52	0.06	1.55								140			
150											13.33	14.32	5.62	10.03	1.98	6.50	0.52	3.77	0.07	1.66								150			
160											15.03	15.27	6.33	10.70	2.20	6.93	0.58	4.02	0.08	1.77								160			
170											16.81	16.23	7.08	11.37	2.46	7.36	0.65	4.27	0.09	1.88								170			
180											18.69	17.18	7.87	12.04	2.74	7.80	0.72	4.53	0.10	1.99								180			
190											20.66	18.14	8.70	12.71	3.02	8.23	0.80	4.78	0.11	2.10								190			
200											22.72	19.09	9.57	13.38	3.33	8.66	0.88	5.03	0.12	2.21								200			
225															11.90	15.05	4.14	9.75	1.09	5.66	0.15	2.49						225			
250															14.47	16.73	5.03	10.83	1.33	6.29	0.18	2.77						250			
275															17.26	18.40	6.00	11.92	1.58	6.92	0.22	3.05						275			
300																	7.05	13.00	1.86	7.55	0.25	3.32						300			
325																	8.17	14.08	2.16	8.18	0.29	3.60						325			
350																	9.38	15.17	2.47	8.81	0.34	3.88						350			
375																	10.65	16.25	2.81	9.43	0.38	4.15						375			
400																	12.01	17.33	3.16	10.06	0.43	4.43						400			
425																	13.43	18.42	3.54	10.69	0.48	4.71						425			
450																	14.93	19.50	3.93	11.32	0.54	4.99						450			
475																			4.35	11.95	0.59	5.26						475			
500																			4.78	12.58	0.65	5.54						500			
550																			5.70	13.84	0.78	6.10						550			
600																			6.70	15.10	0.91	6.65						600			

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