

FLOW VELOCITY & FRICTION LOSS - SCHEDULE 80

GALLONS/ MINUTE	1/2 in.			3/4 in.			1 in.			1 1/4 in.			1 1/2 in.			2 in.			2 1/2 in.			3 in.			
	VELOCITY Ft. / Second	FRICTION LOSS Ft. Water / 100 Ft.	FRICTION LOSS PSI / 100 Ft.	VELOCITY Ft. / Second	FRICTION LOSS Ft. Water / 100 Ft.	FRICTION LOSS PSI / 100 Ft.	VELOCITY Ft. / Second	FRICTION LOSS Ft. Water / 100 Ft.	FRICTION LOSS PSI / 100 Ft.	VELOCITY Ft. / Second	FRICTION LOSS Ft. Water / 100 Ft.	FRICTION LOSS PSI / 100 Ft.	VELOCITY Ft. / Second	FRICTION LOSS Ft. Water / 100 Ft.	FRICTION LOSS PSI / 100 Ft.	VELOCITY Ft. / Second	FRICTION LOSS Ft. Water / 100 Ft.	FRICTION LOSS PSI / 100 Ft.	VELOCITY Ft. / Second	FRICTION LOSS Ft. Water / 100 Ft.	FRICTION LOSS PSI / 100 Ft.	VELOCITY Ft. / Second	FRICTION LOSS Ft. Water / 100 Ft.	FRICTION LOSS PSI / 100 Ft.	
1	1.48	4.02	1.74	0.74	0.86	0.37	0.94	0.88	0.38	0.52	0.21	0.09	0.38	0.10	0.041	0.56	0.10	0.040	0.39	0.05	0.022	0.25	0.02	0.009	
2	2.95	8.03	3.48	1.57	1.72	0.74	1.88	1.04	0.45	1.12	0.29	0.13	0.78	0.15	0.065	0.78	0.15	0.065	0.54	0.07	0.032	0.35	0.028	0.012	
5	7.39	45.23	19.59	3.92	9.67	4.19	4.68	9.61	4.16	2.60	2.30	1.00	1.32	0.55	0.24	1.12	0.29	0.13	0.78	0.12	0.052	0.50	0.04	0.017	
7	10.34	83.07	35.97	5.49	17.76	7.69	7.01	20.36	8.82	3.90	4.87	2.11	2.81	2.20	0.95	1.68	0.62	0.27	1.17	0.26	0.11	0.75	0.09	0.039	
10				7.84	33.84	14.65	9.35	34.68	15.02	5.20	8.30	3.59	3.75	3.75	1.62	2.23	1.06	0.46	1.56	0.44	0.19	1.00	0.15	0.065	
15	4 in.			11.76	71.70	31.05	11.69	52.43	22.70	6.50	12.55	5.43	4.69	5.67	2.46	2.79	1.60	0.69	1.95	0.67	0.29	1.25	0.22	0.095	
20	0.57	0.04	0.017	5 in.			14.03	73.48	31.82	7.80	17.59	7.62	5.63	7.95	3.44	3.35	2.25	0.97	2.34	0.94	0.41	1.49	0.31	0.13	
25	0.72	0.06	0.026	14.03	73.48	31.82	9.10	23.40	10.13	6.57	10.58	4.58	3.91	2.99	1.29	2.73	1.25	0.54	1.74	0.42	0.18	1.74	0.42	0.18	
30	0.86	0.08	0.035	0.54	0.03	0.013	10.40	29.97	12.98	7.50	13.55	5.87	4.47	3.83	1.66	3.12	1.60	0.69	1.99	0.54	0.23	1.99	0.54	0.23	
35	1.00	0.11	0.048	0.63	0.04	0.017	11.70	37.27	16.14	8.44	16.85	7.30	5.03	4.76	2.07	3.51	1.99	0.86	2.24	0.67	0.29	2.24	0.67	0.29	
40	1.15	0.14	0.061	0.72	0.04	0.017	0.63	0.03	0.013	13.00	45.30	19.61	9.38	20.48	8.87	5.58	5.79	2.51	3.90	2.42	1.05	2.49	0.81	0.35	
45	1.29	0.17	0.074	0.81	0.06	0.026	0.75	0.04	0.017	11.26	28.70	12.43	6.70	8.12	3.52	6.70	8.12	3.52	4.68	3.39	1.47	2.99	1.14	0.49	
50	1.43	0.21	0.091	0.90	0.07	0.030	0.88	0.05	0.022				7.82	10.80	4.68	5.46	4.51	1.95	3.49	1.51	0.65	3.49	1.51	0.65	
60	1.72	0.30	0.13	1.08	0.10	0.043	0.94	0.06	0.026				8.38	12.27	5.31	5.85	5.12	2.22	3.74	1.72	0.74	3.74	1.72	0.74	
70	2.01	0.39	0.17	1.26	0.13	0.056	1.00	0.07	0.030				8.93	13.83	5.99	6.24	5.77	2.50	3.99	1.94	0.84	3.99	1.94	0.84	
75	2.15	0.45	0.19	1.35	0.14	0.061	1.13	0.08	0.035	8 in.			10.05	17.20	7.45	7.02	7.18	3.11	4.48	2.41	1.04	4.48	2.41	1.04	
80	2.29	0.50	0.22	1.44	0.16	0.069	1.25	0.10	0.043	0.90	0.045	0.019	11.17	20.90	9.05	7.80	8.72	3.78	4.98	2.93	1.27	4.98	2.93	1.27	
90	2.58	0.63	0.27	1.62	0.20	0.087	1.57	0.16	0.068							9.75	13.21	5.72	6.23	4.43	1.92	6.23	4.43	1.92	
100	2.87	0.76	0.33	1.80	0.24	0.10	1.88	0.22	0.095	1.07	0.05	0.022				11.70	18.48	8.00	7.47	6.20	2.68	7.47	6.20	2.68	
125	3.59	1.16	0.50	2.25	0.37	0.16	2.20	0.29	0.12	1.25	0.075	0.033	10 in.												
150	4.30	1.61	0.70	2.70	0.52	0.23	2.51	0.37	0.16	1.43	0.09	0.039	0.90	0.036	0.015										
175	5.02	2.15	0.93	3.15	0.69	0.30	2.51	0.37	0.16	1.79	0.14	0.061	1.14	0.045	0.02										
200	5.73	2.75	1.19	3.60	0.88	0.38	3.14	0.56	0.24	1.79	0.14	0.061	1.14	0.045	0.02										
250	7.16	4.16	1.81	4.50	1.34	0.58	3.14	0.56	0.24	2.14	0.20	0.087	1.36	0.07	0.03	12 in.									
300	8.60	5.83	2.52	5.40	1.87	0.81	3.76	0.78	0.34	2.50	0.27	0.12	1.59	0.085	0.037	1.12	0.037	0.016							
350	10.03	7.76	3.36	6.30	2.49	1.08	4.39	1.04	0.45	2.86	0.34	0.15	1.81	0.11	0.048	1.28	0.05	0.022							
400	11.47	9.93	4.30	7.19	3.19	1.38	5.02	1.33	0.58	3.21	0.42	0.18	2.04	0.14	0.061	1.44	0.06	0.026							
450				8.09	3.97	1.72	5.64	1.65	0.71	3.57	0.51	0.22	2.27	0.17	0.074	1.60	0.07	0.030							
500				8.99	4.82	2.09	6.27	2.00	0.87	5.36	1.08	0.47	3.40	0.36	0.16	2.40	0.15	0.065							
750										7.14	1.84	0.80	4.54	0.61	0.26	3.20	0.26	0.11							
1000													5.67	0.92	0.40	4.01	0.40	0.17							
1250													6.80	1.29	0.56	4.81	0.55	0.24							
1500																6.41	0.94	0.41							
2000																									
2500																									

NOTE: Plast-O-Matic recommends velocities be maintained at or below 5 feet per second; breakpoint highlighted in yellow.