

Water Pipe Sizing Chart



Friction Loss in Plastic Pipe with Standard Inside Diameter (SIDR)

This chart applies only to PVC pipe, Schedule 40 (160 psi) and to PE (polyethylene) pipe with SIDR designation, commonly known as 100 PSI black pipe.

Head Loss is shown in vertical feet per hundred feet of pipe or vertical meters per hundred meters of pipe.

Nominal Pipe Diameter (inches)

Flow Rate		½*	¾	1	1 ¼	1 ½	2	2 ½	3	4	5	6
actual inside diameter (inches)		0.612	0.804	1.029	1.36	1.59	2.047	2.445	3.042	3.998	5.05	6.031
GPM	LPM											
1	3.8	1.13	0.14	0.05	0.02	-	-	-	-	-	-	-
2	7.06	4.16	0.35	0.14	0.05	0.02	-	-	-	-	-	-
3	11	8.55	2.19	0.32	0.09	0.05	-	-	-	-	-	-
4	15	14.8	3.7	0.53	0.16	0.09	0.02	-	-	-	-	-
5	19	22.2	5.78	0.81	0.25	0.12	0.04	-	-	-	-	-
6	23	31	7.85	1	0.35	0.18	0.07	0.02	-	-	-	-
7	27	-	10.6	1.52	0.46	0.23	0.08	0.03	-	-	-	-
8	30	-	13.4	1.94	0.58	0.3	0.09	0.05	-	-	-	-
9	34	-	16.9	2.43	0.72	0.37	0.12	0.06	-	-	-	-
10	38	-	20.3	2.93	0.88	0.46	0.16	0.07	0.02	-	-	-
11	42	-	24.3	3.51	1.04	0.53	0.18	0.08	0.03	-	-	-
12	46	-	28.6	4.11	1.22	0.65	0.21	0.09	0.04	-	-	-
14	53	-	-	5.47	1.64	0.85	0.28	0.12	0.05	-	-	-
16	61	-	-	7.02	2.1	1.09	0.37	0.14	0.06	-	-	-
18	68	-	-	8.73	2.61	1.34	0.46	0.18	0.07	-	-	-
20	76	-	-	10.6	3.16	1.64	0.55	0.21	0.08	0.02	-	-
22	83	-	-	13.3	3.79	1.96	0.67	0.25	0.09	0.03	-	-
24	91	-	-	14.9	4.44	2.31	0.79	0.3	0.11	0.04	-	-
26	99	-	-	-	5.15	2.66	0.9	0.35	0.14	0.05	-	-
28	106	-	-	-	5.91	3.05	1.04	0.42	0.16	0.05	-	-
30	114	-	-	-	6.72	3.46	1.18	0.46	0.18	0.06	-	-
35	133	-	-	-	8.94	4.62	1.57	0.62	0.23	0.07	-	-
40	152	-	-	-	11	5.91	1.99	0.79	0.3	0.09	0.02	-
45	171	-	-	-	14.2	7.37	2.49	0.97	0.37	0.12	0.04	-
50	190	-	-	-	17.3	8.96	3.03	1.2	0.46	0.14	0.05	-
55	208	-	-	-	-	10.7	3.6	1.43	0.55	0.16	0.06	-
60	227	-	-	-	-	12.5	4.23	1.66	0.65	0.18	0.07	0.02
65	246	-	-	-	-	14.5	4.9	1.94	0.74	0.22	0.08	0.03
70	265	-	-	-	-	16.7	5.64	2.22	0.85	0.25	0.09	0.04
75	284	-	-	-	-	19	6.4	2.52	0.97	0.28	0.1	0.05
80	303	-	-	-	-	-	7.21	2.84	1.09	0.32	0.12	0.06
85	322	-	-	-	-	-	8.06	3.19	1.22	0.37	0.13	0.07
90	341	-	-	-	-	-	8.96	3.53	1.36	0.39	0.14	0.08
95	360	-	-	-	-	-	9.91	3.9	1.5	0.44	0.16	0.09
100	379	-	-	-	-	-	10.9	4.3	1.66	0.49	0.18	0.12
150	569	-	-	-	-	-	23.1	9.1	3.51	1.04	0.37	0.16
200	758	-	-	-	-	-	-	15.5	5.98	1.76	0.62	0.28

NOTE: Shaded Values are at velocities over 5 feet per second and should be selected with caution



* Note: ½" data applies to PE pipe only. PVC has smaller ID of 0.602"

