

Friction Loss Characteristics

Class 315 IPS PVC Plastic Pipe

(1120,1220) C=150 SDR 13.5
 PRESSURE LOSS PER 100 FEET OF PIPE (PSI) SIZES 3 1/2" THRU 6"

Nominal Size	3 1/2"	4"	5"	6"	Nominal Size	3 1/2"	4"	5"	6"	
Pipe ID	3.408	3.834	4.739	5.643	Pipe ID	3.408	3.834	4.739	5.643	
Pipe OD	4.000	4.500	5.563	6.625	Pipe OD	4.000	4.500	5.563	6.625	
Wall Thick	0.296	0.333	0.412	0.491	Wall Thick	0.296	0.333	0.412	0.491	
Flow GPM	Velocity FPS	PSI LOSS	Velocity FPS	PSI LOSS	Flow GPM	Velocity FPS	PSI LOSS	Velocity FPS	PSI LOSS	
6	0.21	0.00			340	11.94	5.32	9.44	3.00	
7	0.25	0.00			350	12.30	5.62	9.71	3.17	
8	0.28	0.01			360	12.65	5.92	9.99	3.34	
9	0.32	0.01			370	13.00	6.23	10.27	3.51	
10	0.35	0.01	0.28	0.00	380	13.35	6.54	10.55	3.69	
11	0.39	0.01	0.31	0.01	390	13.70	6.86	10.82	3.87	
12	0.42	0.01	0.33	0.01	400	14.05	7.19	11.10	4.06	
13	0.46	0.01	0.36	0.01	410	14.40	7.53	11.38	4.25	
14	0.49	0.01	0.39	0.01	420	14.75	7.87	11.66	4.44	
15	0.53	0.02	0.42	0.01	430	15.11	8.22	11.94	4.64	
16	0.56	0.02	0.44	0.01	440	15.46	8.58	12.21	4.84	
17	0.60	0.02	0.47	0.01	450	15.81	8.95	12.49	5.04	
18	0.63	0.02	0.50	0.01	460	16.16	9.32	12.77	5.25	
19	0.67	0.03	0.53	0.01	470	16.51	9.70	13.05	5.47	
20	0.70	0.03	0.56	0.02	480	16.86	10.08	13.32	5.68	
22	0.77	0.03	0.61	0.02	490	17.21	10.48	13.60	5.91	
24	0.84	0.04	0.67	0.02	500	17.56	10.87	13.88	6.13	
26	0.91	0.05	0.72	0.03	510	17.92	11.28	14.16	6.36	
28	0.98	0.05	0.78	0.03	520	18.27	11.69	14.43	6.59	
30	1.05	0.06	0.83	0.03	530	18.62	12.11	14.71	6.83	
32	1.12	0.07	0.89	0.04	540	18.97	12.54	14.99	7.07	
34	1.19	0.07	0.94	0.04	550	19.32	12.97	15.27	7.31	
36	1.26	0.08	1.00	0.05	560	19.67	13.41	15.54	7.56	
38	1.33	0.09	1.05	0.05	570			15.82	7.81	
40	1.41	0.10	1.11	0.06	580			16.10	8.07	
42	1.48	0.11	1.17	0.06	600			16.65	8.59	
44	1.55	0.12	1.22	0.07	625			17.35	9.27	
48	1.69	0.14	1.33	0.08	650			18.04	9.97	
50	1.76	0.15	1.39	0.09	675			18.74	10.69	
55	1.93	0.18	1.53	0.10	700			19.43	11.43	
60	2.11	0.21	1.67	0.12	725			13.17	4.35	
65	2.28	0.25	1.80	0.14	750			13.63	4.63	
70	2.46	0.29	1.94	0.16	775			14.08	4.92	
75	2.63	0.32	2.08	0.18	800			14.53	5.22	
80	2.81	0.37	2.22	0.21	825			14.99	5.53	
85	2.99	0.41	2.36	0.23	850			15.44	5.84	
90	3.16	0.45	2.50	0.26	875			15.90	6.16	
95	3.34	0.50	2.64	0.28	900			16.35	6.49	
100	3.51	0.55	2.78	0.31	925			16.80	6.83	
110	3.86	0.66	3.05	0.37	950			17.26	7.18	
120	4.22	0.77	3.33	0.44	975			17.71	7.53	
130	4.57	0.90	3.61	0.51	1000			18.17	7.89	
140	4.92	1.03	3.89	0.58	1025			18.62	8.26	
150	5.27	1.17	4.16	0.66	1050			19.08	8.64	
160	5.62	1.32	4.44	0.74	1075			19.53	9.02	
170	5.97	1.47	4.72	0.83	1100			19.98	9.42	
180	6.32	1.64	5.00	0.92	1125				14.41	4.20
190	6.67	1.81	5.27	1.02	1150				14.73	4.37
200	7.03	1.99	5.55	1.12	1175				15.05	4.55
210	7.38	2.18	5.83	1.23	1200				15.38	4.73
220	7.73	2.38	6.11	1.34	1225				15.70	4.91
230	8.08	2.58	6.38	1.46	1250				16.02	5.10
240	8.43	2.79	6.66	1.57	1275				16.34	5.29
250	8.78	3.01	6.94	1.70	1300				16.66	5.49
260	9.13	3.24	7.22	1.83	1325				16.98	5.68
270	9.48	3.47	7.49	1.96	1350				17.30	5.88
280	9.84	3.72	7.77	2.09	1375				17.62	6.09
290	10.19	3.97	8.05	2.24	1400				17.94	6.29
300	10.54	4.22	8.33	2.38	1425				18.26	6.50
310	10.89	4.49	8.60	2.53	1450				18.58	6.72
320	11.24	4.76	8.88	2.68	1475				18.90	6.93
330	11.59	5.04	9.16	2.84	1500				19.22	7.15

Shaded area represents velocities over 5 fps. Use with caution where water hammer is a concern.