Friction Loss Per 100 Feet For Water In New Wrought Iron Or Schedule 40 Steel Pipe (Continued)

4" 4.026" inside dia.				5" 5.047" inside dia.			
U.S. Gals. Per Min.	vel. V f.p.s.	vel. head $V^2/2g$ feet	frict. loss h_f feet	U.S. Gals. Per Min.	vel. V f.p.s.	vel. head $V^2/2g$ feet	frict. loss h_f feet
90	2.27	0.08	0.52	140	2.25	0.08	0.380
100	2.52	0.10	0.62	160	2.57	0.10	0.487
120	3.02	0.14	0.88	180	2.89	0.13	0.606
140	3.53	0.19	1.17	200	3.21	0.16	0.736
160	4.03	0.25	1.49	220	3.53	0.19	0.879
180	4.54	0.32	1.86	240	3.85	0.23	1.035
200	5.04	0.40	2.27	260	4.17	0.27	1.200
220	5.54	0.48	2.72	280	4.49	0.31	1.38
240	6.05	0.57	3.21	300	4.81	0.36	1.58
260	6.55	0.67	3.74	350	5.61	0.49	2.11
280	7.06	0.77	4.30	400	6.41	0.64	2.72
300	7.56	0.89	4.89	450	7.22	0.81	3.41
350	8.82	1.21	6.55	500	8.02	1.00	4.16
400	10.10	1.58	8.47	550	8.81	1.21	4.94
450	11.4	2.00	10.65	600	9.62	1.44	5.88
500	12.6	2.47	13.0	700	11.20	1.96	7.93
550	13.9	3.00	15.7	800	12.80	2.56	10.22
600	15.1	3.55	18.6	900	14.40	3.24	12.90
700	17.6	4.84	25.0	1000	16.00	4.00	15.80
800	20.2	6.32	32.4	1200	19.20	5.76	22.50
900	22.7	8.00	40.8	1400	22.50	7.83	30.40
1000	25.2	9.87	50.2	1600	25.70	10.20	39.50
				1800	28.80	12.90	49.70

CAUTION: No allowance has been made for age, differences in diameter resulting from manufacturing tolerances or any abnormal conditions of interior pipe surface. It is recommended that for commercial application a reserve or margin of safety to cover these effects be added to the values shown in the tables. Where no careful analysis of these effects are made a reserve of 15% is recommended.

Plastic pipe having a smoother wall will generate 15-20% less friction loss at any given flow rate.