TABLE 1. (Cont.)
FRICTION LOSS PER 100 FEET FOR WATER IN NEW WROUGHT IRON OR SCHEDULE 40 STEEL PIPE

4″
4.026″ inside dia.

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
100	2.52	0.10	0.62
120	3.02	0.14	0.88
140	3.53	0.19	1.17
160	4.03	0.25	1.49
180	4.54	0.32	1.86
200	5.04	0.40	2.27
220	5.54	0.48	2.72
240	6.05	0.57	3.21
260	6.55	0.67	3.74
280	7.06	0.77	4.30
300	7.56	0.89	4.89
350	8.82	1.21	6.55
400	10.10	1.58	8.47
450	11.4	2.00	10.65
500	12.6	2.47	13.0
550	13.9	3.00	15.7
600	15.1	3.55	18.6
700	17.6	4.84	25.0
800	20.2	6.32	32.4
900	22.7	8.00	40.8
1000	25.2	9.87	50.2

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
140	2.25	0.08	0.380
160	2.57	0.10	0.487
180	2.89	0.13	0.606
200	3.21	0.16	0.736
220	3.53	0.19	0.879
240	3.85	0.23	1.035
260	4.17	0.27	1.200
280	4.49	0.31	1.38
300	4.81	0.36	1.58
350	5.61	0.49	2.11
400	6.41	0.64	2.72
450	7.22	0.81	3.41
500	8.02	1.00	4.16
550	8.81	1.21	4.94
600	9.62	1.44	5.88
700	11.20	1.96	7.93
800	12.80	2.56	10.22
900	14.40	3.24	12.90
1000	16.00	4.00	15.80
1200	19.20	5.76	22.50
1400	22.50	7.83	30.40
1600	25.7	10.2	39.5
1800	28.80	12.90	49.70

6″
6.065″ inside dia.

U.S. Gals. Per Min.	vel. V f.p.s.	vel. head $V^2/2g$ feet	frict. loss h_f feet
200	2.22	0.08	0.30
220	2.44	0.09	0.357
240	2.66	0.11	0.419
260	2.89	0.13	0.487
280	3.11	0.15	0.56
300	3.33	0.17	0.637
350	3.89	0.24	0.851
400	4.44	0.31	1.09
450	5.00	0.39	1.36
500	5.55	0.48	1.66
600	6.66	0.69	2.34
650	7.21	0.81	2.72
700	7.77	0.94	3.13
750	8.32	1.08	3.59
800	8.88	1.23	4.03
850	9.43	1.39	4.50
900	9.99	1.55	5.05
950	10.55	1.73	5.61
1000	11.10	1.92	6.17
1100	12.20	2.32	7.41
1200	13.30	2.76	8.76
1300	14.40	3.24	10.2
1400	15.50	3.76	11.8
1500	16.70	4.31	13.5
1600	17.80	4.91	15.4
1700	18.90	5.54	17.3
1800	20.00	6.21	19.4
1900	21.10	6.92	21.6
2000	22.20	7.67	23.8

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.