

Material Properties

Table 3.2 – Flow Velocity								
Flow Rate	ft/sec							
GPM	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
0.2	0.67	0.36	0.25	0.18	0.11	0.07	0.05	0.03
0.3	1.00	0.54	0.37	0.27	0.16	0.11	0.08	0.05
0.4	1.33	0.72	0.50	0.36	0.22	0.15	0.11	0.06
0.5	1.67	0.91	0.62	0.45	0.27	0.18	0.13	0.08
0.6	2.00	1.09	0.74	0.54	0.33	0.22	0.16	0.09
0.7	2.33	1.27	0.87	0.64	0.38	0.26	0.18	0.11
0.8	2.67	1.45	0.99	0.73	0.44	0.29	0.21	0.12
0.9	3.00	1.63	1.12	0.82	0.49	0.33	0.24	0.14
1.0	3.33	1.81	1.24	0.91	0.55	0.37	0.26	0.15
1.1	3.67	1.99	1.36	1.00	0.60	0.40	0.29	0.17
1.2	4.00	2.17	1.49	1.09	0.66	0.44	0.32	0.18
1.3	4.34	2.35	1.61	1.18	0.71	0.48	0.34	0.20
1.4	4.67	2.53	1.74	1.27	0.76	0.51	0.37	0.22
1.5	5.00	2.72	1.86	1.36	0.82	0.55	0.40	0.23
1.6	5.34	2.90	1.98	1.45	0.87	0.59	0.42	0.25
1.7	5.67	3.08	2.11	1.54	0.93	0.62	0.45	0.26
1.8	6.00	3.26	2.23	1.63	0.98	0.66	0.47	0.28
1.9	6.34	3.44	2.36	1.72	1.04	0.70	0.50	0.29
2.0	6.67	3.62	2.48	1.81	1.09	0.73	0.53	0.31
2.5	8.34	4.53	3.10	2.27	1.36	0.92	0.66	0.38
3.0	10.00	5.43	3.72	2.72	1.64	1.10	0.79	0.46
3.5	11.67	6.34	4.34	3.18	1.91	1.28	0.92	0.54
4.0		7.24	4.96	3.63	2.18	1.47	1.05	0.62
4.5		8.15	5.58	4.08	2.46	1.65	1.19	0.69
5.0		9.05	6.20	4.54	2.73	1.84	1.32	0.77
6.0		10.86	7.44	5.44	3.28	2.20	1.58	0.92
7.0			8.68	6.35	3.82	2.57	1.84	1.08
8.0			9.92	7.26	4.37	2.94	2.11	1.23
9.0			11.16	8.17	4.91	3.30	2.37	1.39

Material Properties

Table 3.2 – Flow Velocity <i>(continued)</i>								
Flow Rate	ft/sec							
GPM	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
10.0				9.07	5.46	3.67	2.64	1.54
11.0				9.98	6.01	4.04	2.90	1.69
12.0				10.89	6.55	4.40	3.16	1.85
13.0					7.10	4.77	3.43	2.00
14.0					7.64	5.14	3.69	2.16
15.0					8.19	5.51	3.95	2.31

Table 3.3 – Pressure Loss								
60°F (16°C) Water								
Flow Rate	Pressure Loss psi/100 ft of Pipe							
GPM	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
0.2	0.427	0.099	0.040	0.019	0.006	0.002	0.001	0.0003
0.3	0.880	0.204	0.083	0.039	0.012	0.005	0.002	0.001
0.4	1.470	0.341	0.138	0.065	0.019	0.008	0.003	0.001
0.5	2.189	0.508	0.205	0.097	0.029	0.011	0.005	0.001
0.6	3.032	0.703	0.284	0.135	0.040	0.015	0.007	0.002
0.7	3.993	0.926	0.374	0.177	0.053	0.020	0.009	0.003
0.8	5.069	1.175	0.475	0.225	0.067	0.026	0.012	0.003
0.9	6.258	1.450	0.586	0.278	0.082	0.032	0.014	0.004
1.0	7.555	1.751	0.707	0.335	0.099	0.038	0.017	0.005
1.1	8.960	2.076	0.839	0.397	0.118	0.046	0.021	0.006
1.2	10.47	2.425	0.980	0.464	0.138	0.053	0.024	0.007
1.3	12.08	2.799	1.131	0.535	0.159	0.061	0.028	0.008
1.4	13.80	3.195	1.291	0.611	0.181	0.070	0.032	0.009
1.5	15.61	3.615	1.460	0.691	0.205	0.079	0.036	0.010
1.6	17.52	4.058	1.639	0.776	0.230	0.089	0.040	0.011
1.7	19.53	4.523	1.827	0.865	0.256	0.099	0.045	0.012
1.8	21.64	5.010	2.023	0.958	0.284	0.110	0.050	0.014

Material Properties

Table 3.3 – Pressure Loss <i>(continued)</i>								
60°F (16°C) Water								
Flow Rate	Pressure Loss psi/100 ft of Pipe							
GPM	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
1.9	23.84	5.519	2.229	1.055	0.313	0.121	0.055	0.015
2.0	26.14	6.050	2.443	1.157	0.343	0.133	0.060	0.017
2.5	39.00	9.024	3.643	1.724	0.511	0.197	0.089	0.025
3.0	54.10	12.51	5.050	2.390	0.708	0.274	0.124	0.034
3.5	71.36	16.50	6.658	3.150	0.933	0.360	0.163	0.045
4.0		20.97	8.459	4.002	1.185	0.458	0.207	0.057
4.5		25.90	10.45	4.943	1.463	0.565	0.256	0.071
5.0		31.30	12.63	5.972	1.768	0.683	0.309	0.085
6.0		43.44	17.52	8.284	2.451	0.946	0.428	0.118
7.0			23.11	10.93	3.232	1.248	0.564	0.156
8.0			29.38	13.89	4.108	1.585	0.717	0.198
9.0			36.32	17.17	5.076	1.959	0.885	0.244
10.0				20.75	6.134	2.367	1.070	0.295
11.0				24.63	7.281	2.808	1.269	0.350
12.0				28.81	8.514	3.284	1.484	0.409
13.0					9.832	3.792	1.713	0.472
14.0					11.24	4.332	1.957	0.539
15.0					12.72	4.905	2.216	0.610

Shown is pressure loss in units of psi per 100 feet of pipe.