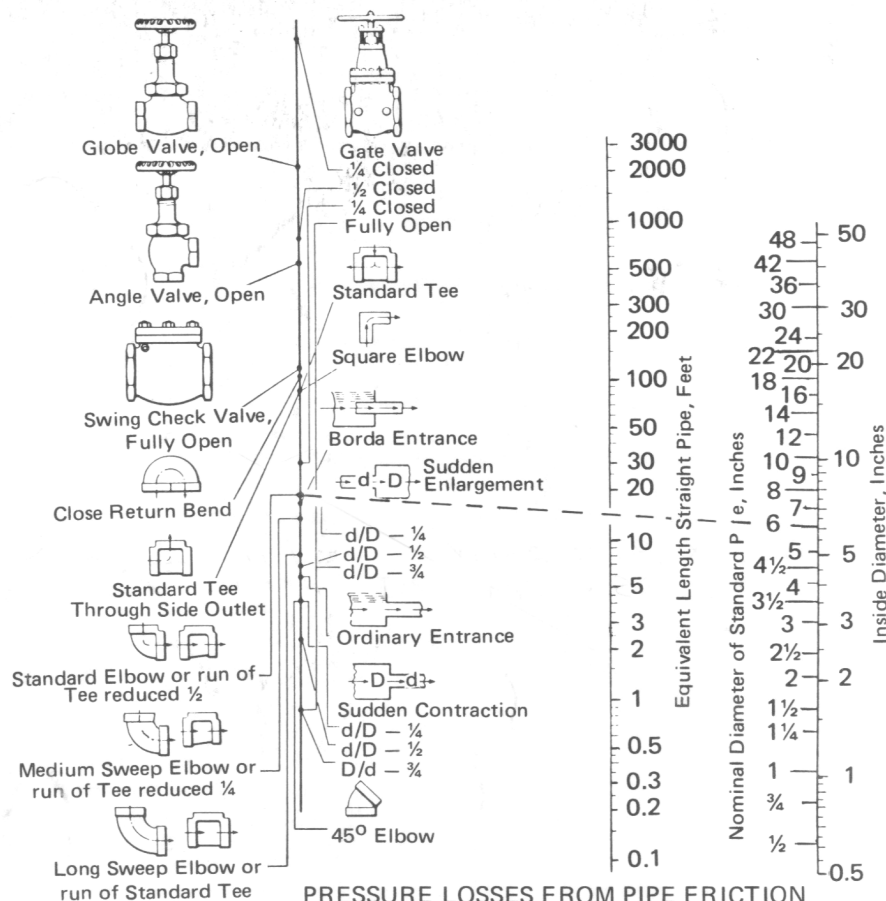




Note
For sudden enlargements or sudden contractions, use the smaller diameter, d , on the pipe size scale.

Example

The dotted line shows that the resistance of a 6-inch Standard Elbow is equivalent to approximately 16 feet of 6-inch Standard Pipe.

PRESSURE LOSSES FROM PIPE FRICTION

Loss in pounds per square inch per foot of pipe with liquids having specific gravity of 1.00. For oil multiply the value obtained by .87, its specific gravity. Generally you can assume that a vacuum of 1" of mercury or 0.5 psi is required to lift oil one foot.

GPH	Pipe Size	Viscosity, SSU																
		32 (Water)	50	100	200	400	600	800	1000	2000	3000	4000	5000	6000	7000	8000	9000	10,000
300	3/4	.029	.045	.060	.13	.26	.40	.52	.65	1.3	2.0	2.6	3.2	4.0	4.5	5.2	6.0	6.5
	1	.0090	.0092	.018	.050	.10	.15	.20	.25	.50	.72	1.0	1.3	1.5	1.8	2.0	2.2	2.5
	1 1/4	.0022	.0028	.0079	.016	.033	.050	.066	.083	.17	.25	.33	.41	.50	.56	.66	.72	.80
	1 1/2	.0012	.0015	.0041	.0090	.018	.027	.036	.045	.090	.13	.18	.23	.27	.32	.36	.40	.45
420	3/4	.055	.075	.090	.18	.36	.55	.73	.90	1.8	2.8	3.6	4.5	5.5	6.2	7.3	8.1	9.0
	1	.016	.025	.032	.070	.14	.21	.28	.35	.70	1.1	1.4	1.8	2.1	2.5	2.8	3.1	3.5
	1 1/4	.0040	.009	.011	.023	.046	.070	.092	.11	.23	.35	.46	.60	.70	.80	.92	1.0	1.1
	1 1/2	.0019	.0021	.0060	.013	.025	.038	.050	.062	.13	.19	.25	.31	.37	.45	.50	.55	.62
600	3/4	.10	.14	.14	.26	.52	.80	1.1	1.3	2.6	4.0	5.2	6.4	8.0	9.0			
	1	.030	.045	.047	.10	.20	.30	.40	.50	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
	1 1/4	.0080	.013	.016	.033	.066	.10	.13	.17	.34	.50	.68	.85	1.0	1.2	1.3	1.5	1.7
	1 1/2	.0035	.0055	.0085	.018	.036	.053	.071	.090	.18	.27	.35	.45	.54	.62	.71	.81	.90
900	1	.064	.092	.14	.15	.30	.45	.60	.75	1.5	2.3	3.0	3.8	4.5	5.2	6.0	7.0	7.5
	1 1/4	.016	.025	.025	.050	.10	.15	.20	.25	.50	.75	1.0	1.3	1.5	1.8	2.0	2.3	2.5
	1 1/2	.0075	.011	.013	.026	.052	.080	.11	.13	.20	.40	.52	.66	.80	.92	1.1	1.2	1.3
	2	.0022	.0036	.0047	.010	.020	.030	.040	.050	.10	.15	.20	.25	.30	.35	.40	.45	.50
1080	1	.090	.12	.17	.18	.36	.54	.70	.90	1.8	2.7	3.6	4.5	5.4	6.1	7.0	8.0	9.0
	1 1/4	.023	.030	.033	.060	.12	.18	.24	.30	.60	.90	1.2	1.5	1.8	2.1	2.4	2.8	3.0
	1 1/2	.011	.016	.016	.032	.064	.098	.13	.16	.32	.49	.64	.82	.98	1.1	1.3	1.5	1.6
	2	.0031	.0050	.0056	.012	.024	.036	.050	.060	.12	.18	.24	.30	.36	.42	.50	.56	.60
1200	1	.11	.15	.20	.26	.40	.60	.80	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
	1 1/4	.028	.040	.060	.065	.13	.20	.26	.32	.65	1.0	1.3	1.6	2.0	2.3	2.6	3.0	3.2
	1 1/2	.013	.018	.019	.036	.071	.11	.15	.18	.36	.53	.70	.80	1.1	1.3	1.5	1.7	1.8
	2	.0039	.0058	.0061	.013	.026	.040	.054	.067	.13	.20	.27	.34	.40	.48	.54	.60	.67
1500	1 1/4	.042	.060	.075	.080	.16	.25	.34	.42	.62	1.3	1.6	2.1	2.5	2.9	3.4	3.7	4.2
	1 1/2	.020	.029	.035	.045	.090	.13	.18	.23	.45	.67	.90	1.1	1.3	1.6	1.8	2.0	2.3
	2	.0058	.0083	.0085	.017	.033	.050	.069	.083	.17	.25	.33	.42	.50	.60	.69	.78	.83
	2 1/2	.0025	.0036	.0038	.0080	.016	.025	.032	.033	.080	.14	.16	.20	.25	.29	.37	.36	.30
1800	1 1/4	.060	.083	.10	.10	.20	.30	.40	.50	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
	1 1/2	.027	.040	.045	.054	.11	.16	.21	.28	.52	.80	1.1	1.4	1.6	1.9	2.1	2.4	2.6
	2	.0080	.012	.016	.020	.040	.060	.080	.10	.20	.30	.40	.50	.60	.70	.80	.90	1.0
	2 1/2	.0034	.0047	.0048	.0095	.019	.030	.038	.047	.098	.15	.19	.24	.30	.35	.38	.44	.47
2100	1 1/4	.080	.11	.13	.18	.23	.35	.46	.59	1.1	1.8	2.3	2.9	3.5	4.0	4.6	4.2	5.9
	1 1/2	.037	.052	.065	.065	.13	.19	.25	.32	.62	.94	1.3	1.6	1.9	2.3	2.5	2.8	3.2
	2	.011	.015	.020	.023	.046	.070	.094	.12	.23	.35	.46	.59	.70	.81	.94	1.1	1.2
	2 1/2	.0045	.0065	.009	.011	.023	.035	.045	.056	.11	.17	.22	.28	.35	.40	.45	.51	.56