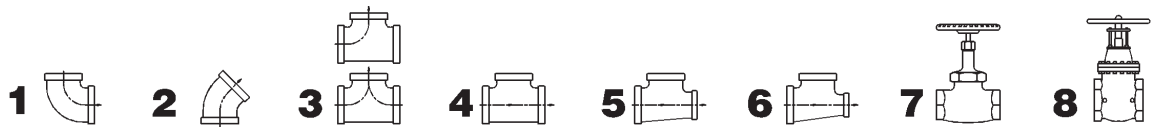


Water Flow Data

FLOW OF WATER THROUGH SCHEDULE 40 STEEL PIPE

Discharge		Pressure Drop per 100 feet and Velocity in Schedule 40 Pipe for Water at 60° F															
Gallons per Minute	Cubic Ft. per Second	Velocity	Press. Drop	Velocity	Press. Drop	Velocity	Press. Drop	Velocity	Press. Drop	Velocity	Press. Drop	Velocity	Press. Drop	Velocity	Press. Drop	Velocity	Press. Drop
		feet per Second	Lbs. per Sq. In.	feet per Second	Lbs. per Sq. In.	feet per Second	Lbs. per Sq. In.	feet per Second	Lbs. per Sq. In.	feet per Second	Lbs. per Sq. In.	feet per Second	Lbs. per Sq. In.	feet per Second	Lbs. per Sq. In.	feet per Second	Lbs. per Sq. In.
0.2	0.000446	1/8"		1/4"		3/8"		1/2"		3/4"		1"		1 1/4"		1 1/2"	
0.3	0.000668	1.13	1.86	0.616	0.359												
0.4	0.000891	1.69	4.22	0.924	0.903	0.504	0.159	0.317	0.061								
0.5	0.00111	2.26	6.98	1.23	1.61	0.672	0.345	0.422	0.086								
0.6	0.00178	2.82	10.5	1.54	2.39	0.840	0.539	0.528	0.167	0.301	0.033						
0.8	0.00178	3.39	14.7	1.85	3.29	1.01	0.751	0.633	0.240	0.361	0.041						
1	0.00223	4.52	25.0	2.46	5.44	1.34	1.25	0.844	0.408	0.481	0.102						
2	0.00446																
3	0.00668																
4	0.00891																
5	0.01114																
6	0.01337																
8	0.01782																
10	0.02228																
15	0.03342																
20	0.04456																
25	0.05570																
30	0.06684																
35	0.07798																
40	0.08912																
45	0.1003																
50	0.1114																
60	0.1337																
70	0.1560																
80	0.1782																
90	0.2005																
100	0.2228																
125	0.2785																
150	0.3342																
175	0.3899																
200	0.4456																
225	0.5013																
250	0.5570																
275	0.6127																
300	0.6684																
350	0.7798																
400	0.8912																
450	1.0030																
500	1.114																
600	1.337																
700	1.560																
800	1.782																
900	2.005																
1000	2.228																
1200	2.674																
1400	3.119																
1600	3.565																
1800	4.010																
2000	4.456																



Valve & Fitting Losses in Expressed in Equivalent Feet of Pipe

Pipe Fitting or Valve	Nominal Pipe or Tube Size (inches)													
	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8
1 90° Standard Elbow	1.4	1.6	2.0	2.6	3.3	4.0	5.0	6.0	7.5	9.0	10	13	16	20
2 45° Standard Elbow	0.7	0.8	0.9	1.3	1.7	2.1	2.6	3.2	4.0	4.7	5.2	6.5	7.9	10
3 Flow-Through Branch Tee	2.7	3.0	4.0	5.0	7.0	8.0	10	12	15	18	21	25	30	40
4 Straight Through Flow Tee - No Reduction	0.9	1.0	1.4	1.7	2.3	2.6	3.3	4.1	5.0	5.9	6.7	8.2	10	13
5 Straight Through Flow Tee - Reduced 1/4	1.2	1.4	1.9	2.3	3.1	3.7	4.7	5.6	7.0	8.0	9.0	12	14	18
6 Straight Through Flow Tee - Reduced 1/8	1.4	1.6	2.0	2.6	3.3	4.0	5.0	6.0	7.5	9.0	10	13	16	20
7 Globe Valve - Fully opened	17	18	22	29	38	43	55	69	84	100	120	140	170	220
8 Gate Valve - Fully opened	0.6	0.7	0.9	1.0	1.5	1.8	2.3	2.8	3.2	4.0	4.5	6.0	7.0	9.0

Notes!

PHONE: 413-772-2166 or Fax to: 413-772-6729

FLOW OF AIR THROUGH SCHEDULE 40 STEEL PIPE

Free Air q' ft ³ /min. at 60°F & 14.7 psia	Compressed Air ft ³ /min. at 60°F at 100 psig	Pressure Drop per 100' of Schedule 40 Pipe For Air For 60° and 100 Pounds Per Square Inch (PSI)									
		1/8"	1/4"	3/8"	1/2"						
1	0.128	0.361	0.083	0.018							
2	0.256	1.31	0.285	0.064	0.020						
3	0.384	3.06	0.605	0.133	0.042	3/4"					
4	0.513	4.83	1.04	0.226	0.071						
5	0.641	7.45	1.58	0.343	0.106	0.027					
6	0.769	10.6	2.23	0.408	0.148	0.037	1"	1 1/4"			
8	1.025	18.6	3.89	0.848	0.255	0.062	0.019				
10	1.282	28.7	5.96	1.26	0.356	0.094	0.029			1 1/2"	
15	1.922		1 3.0	2.73	0.834	0.201	0.062				
20	2.563		2 2.8	4.76	1.43	0.345	0.102	0.026			
25	3.204		3 5.6	7.34	2.21	0.526	0.156	0.039	0.019		
30	3.845		1	0.5	3.15	0.748	0.219	0.055	0.026		
35	4.486		1	4.2	4.24	1.00	0.293	0.073	0.035		
40	5.126		1	8.4	5.49	1.30	0.379	0.095	0.044		
45	5.767		2	3.1	6.90	1.62	0.474	0.116	0.055		2"
50	6.408		2	8.5	8.49	1.99	0.578	0.149	0.067	0.019	
60	7.690	2 1/2"	4	0.7	12.2	2.85	0.819	0.200	0.094	0.027	
70	8.971		1		6.5	3.83	1.10	0.270	0.126	0.036	
80	10.25	0.019			21.4	4.96	1.43	0.350	0.162	0.046	
90	11.53	0.023			27.0	6.25	1.80	0.437	0.203	0.058	