

Loss of Air Pressure Due to Friction
(In psi in 1,000 feet of pipe, @ 80-lb. gauge initial pressure)

Cubic Feet Free Air Per Minute	Equivalent Cubic Feet Compressed Air Per Minute	Nominal Diameter Inches															
		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	6	8	10	12
10	1.55	7.9	1.21	0.34													
20	3.10	31.4	4.72	1.35	0.31												
30	4.65	70.8	10.9	3.04	0.69	0.31											
40	6.20	*****	19.5	5.4	1.25	0.56											
50	7.74	*****	30.5	8.45	1.96	0.87											
60	9.29	*****	43.8	12.16	2.82	1.24	0.34										
70	10.82	*****	59.8	16.6	3.84	1.7	0.45										
80	12.40	*****	78.2	21.6	5.03	2.22	0.59										
90	13.95	*****	*****	27.4	6.36	2.82	0.75										
100	15.50	*****	*****	33.8	7.85	3.47	0.93	0.36									
125	19.40	*****	*****	46.2	12.4	5.45	1.44	0.56									
150	23.20	*****	*****	76.2	17.7	7.82	2.08	0.81									
175	27.20	*****	*****	*****	24.8	10.6	2.87	1.10									
200	31.00	*****	*****	*****	31.4	13.9	3.72	1.44	0.45								
250	38.70	*****	*****	*****	49	21.7	5.82	2.25	0.70	0.33							
300	46.50	*****	*****	*****	70.6	31.2	8.35	3.24	1.03	0.47							
350	54.20	*****	*****	*****	*****	42.5	11.4	4.42	1.39	0.65	0.33						
400	62.00	*****	*****	*****	*****	55.5	14.7	5.76	1.82	0.84	0.42						
450	69.70	*****	*****	*****	*****	*****	18.7	7.25	2.29	1.06	0.55						
500	77.40	*****	*****	*****	*****	*****	23.3	9.0	2.84	1.32	0.67	0.30					
600	92.90	*****	*****	*****	*****	*****	33.4	12.9	4.08	1.89	0.96	0.53					
700	108.20	*****	*****	*****	*****	*****	45.7	17.6	5.52	2.58	1.32	0.72					
800	124.00	*****	*****	*****	*****	*****	59.3	23.1	7.15	3.36	1.72	0.95					
900	139.50	*****	*****	*****	*****	*****	*****	29.2	9.17	4.26	2.18	1.19					
1,000	155	*****	*****	*****	*****	*****	*****	36.1	11.3	5.27	2.68	1.48					
1,500	232	*****	*****	*****	*****	*****	*****	81.7	25.5	11.8	6.0	3.32	1.83	0.69			
2,000	310	*****	*****	*****	*****	*****	*****	*****	45.3	21.0	10.7	5.9	3.30	1.21	0.29		
2,500	387	*****	*****	*****	*****	*****	*****	*****	70.9	32.9	16.8	9.2	5.1	1.91	0.45		
3,000	465	*****	*****	*****	*****	*****	*****	*****	*****	47.4	24.2	13.2	7.3	2.74	0.64	0.19	
3,500	542	*****	*****	*****	*****	*****	*****	*****	*****	64.5	32.8	17.8	10.1	3.70	0.85	0.26	
4,000	620	*****	*****	*****	*****	*****	*****	*****	*****	*****	43.0	23.4	13.0	4.87	1.14	0.34	
4,500	697	*****	*****	*****	*****	*****	*****	*****	*****	*****	54.8	29.8	16.4	6.15	1.44	0.43	
5,000	774	*****	*****	*****	*****	*****	*****	*****	*****	*****	67.4	36.7	20.3	7.65	1.78	0.53	0.21
6,000	929	*****	*****	*****	*****	*****	*****	*****	*****	*****	53.0	29.2	11.0	2.57	0.77	0.29	
7,000	1,082	*****	*****	*****	*****	*****	*****	*****	*****	*****	72.1	39.8	14.8	3.40	1.06	0.40	
8,000	1,240	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	52.1	19.5	4.57	1.36	0.56	
9,000	1,395	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	65.8	24.7	5.78	1.74	0.69	
10,000	1,550	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	30.5	7.15	2.14	0.84	
11,000	1,710	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	36.8	8.61	2.60	1.01
12,000	1,860	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	43.8	10.3	3.08	1.19
13,000	2,020	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	51.7	12.0	3.62	1.40
14,000	2,170	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	60.2	14.0	4.20	1.63
15,000	2,320	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	68.5	16.0	4.82	1.86
16,000	2,480	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	78.2	18.2	5.48	2.13
18,000	2,790	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	23.0	6.95	2.70
20,000	3,100	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	28.6	8.55	3.33
22,000	3,410	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	34.5	10.4	4.04
24,000	3,720	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	41.0	12.3	4.69
26,000	4,030	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	48.2	14.4	5.6
28,000	4,350	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	55.9	16.8	6.5
30,000	4,650	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	64.2	19.3	7.5

* For longer or shorter lengths of pipe the friction loss is proportional to the length, i.e., for 500 feet one-half of the above; for 4,000 feet, four times the above, etc.