



LOSS OF AIR PRESSURE DUE TO FRICTION

Cu. Ft. Free Air Per Min.	Equivalent Cu. Ft. Compressed Air Per Min.	Nominal Diameter, In.												
		1/2	3/4	1	1 ¼	1 ½	2	3	4	6	8	10	12	
10	1.55	7.90	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	5.40	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	1.70	0.45							
80	12.40		78.2	21.6	5.03	2.22	0.59							
90	13.95		.....	27.4	6.35	2.82	0.75							
100	15.5		.....	33.8	7.85	3.74	0.93							
125	19.4		.....	46.2	12.4	5.45	1.44							
150	23.2		.....	76.2	17.7	7.82	2.08							
175	27.2				24.8	10.6	2.87							
200	31.0				31.4	13.9	3.72	0.45						
250	38.7				49.0	21.7	5.82	0.70						
300	46.5				70.6	31.2	8.35	1.03						
350	54.2				.....	42.5	11.4	1.39	0.33					
400	62.0	.....				55.5	14.7	1.82	0.42					
450	69.7	.....					18.7	2.29	0.55					
500	77.4	.....					23.3	2.84	0.67					
600	92.9	.....					33.4	4.08	0.96					
700	108.2						45.7	5.52	1.32					
800	124.0						59.3	7.15	1.72					
900	139.5							9.17	2.18					
1,000	155							11.3	2.68					
1,500	232							25.5	6.0	0.69				
2,000	310							45.3	10.7	1.21	0.29			
2,500	387							70.9	16.8	1.91	0.45			
3,000	465								24.2	2.74	0.64	0.19		
3,500	542								32.8	3.70	0.85	0.26		
4,000	620								43.0	4.87	1.14	0.34		
4,500	697								54.8	6.15	1.44	0.43		
5,000	774								67.4	7.65	1.78	0.53	0.21	
6,000	929								.....	11.0	2.57	0.77	0.29	
7,000	1,082								.....	14.8	3.40	1.06	0.40	
8,000	1,240								.....	19.5	4.57	1.36	0.54	
9,000	1,395									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	1.84	
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	6.3	
30,000	4,650										64.2	19.3	7.5	

In psi in 1000-ft of pipe, 80-lb gage initial pressure. For longer or shorter lengths of pipe the friction loss is proportional to the length, i.e. for 500-ft., one-half of the above; for 4,000-ft, four times the above.



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Cu. Ft. Free Air Per Min.	Equivalent Cu. Ft. Compressed Air Per Min.	Nominal Diameter, In.											
		1/2	3/4	1	1 ¼	1 ½	2	3	4	6	8	10	12
10	1.28	6.50	.99	0.28									
20	2.56	25.9	3.90	1.11	0.25	0.11							
30	3.84	58.5	9.01	2.51	0.57	0.26							
40	5.12	.....	16.0	4.45	1.03	0.46							
50	6.41	.....	25.1	9.96	1.61	0.71	0.19						
60	7.68	.....	36.2	10.0	2.32	1.02	0.28						
70	8.96		49.3	13.7	3.16	1.40	0.37						
80	10.24		64.5	17.8	4.14	1.83	0.49						
90	11.52		82.8	22.6	5.23	2.32	0.62						
100	12.81		.....	27.9	6.47	2.86	0.77						
125	15.82		.....	48.6	10.2	4.49	1.19						
150	19.23		.....	62.8	14.6	6.43	1.72	0.21					
175	22.40				19.8	8.72	2.36	0.28					
200	25.62				25.9	11.4	3.06	0.37					
250	31.64				40.4	17.9	4.78	0.58					
300	38.44				58.2	25.8	6.85	0.84	0.20				
350	44.80				.....	35.1	9.36	1.14	0.27				
400	51.24				.....	45.8	12.1	1.50	0.35				
450	57.65				.....	58.0	15.4	1.89	0.46				
500	63.28				.....	71.6	19.2	2.34	0.55				
600	76.88						27.6	3.36	0.79				
700	89.60						37.7	4.55	1.09				
800	102.5						49.0	5.89	1.42				
900	115.3						62.3	7.6	1.80				
1,000	128.1						76.9	9.3	2.21				
1,500	192.3						.....	21.0	4.9	0.57			
2,000	256.2						.....	37.4	8.8	0.99	0.24		
2,500	316.4						.....	58.4	13.8	1.57	0.37		
3,000	384.6						.....	84.1	20.0	2.26	0.53		
3,500	447.8						.....	.....	27.2	3.04	0.70	0.22	
4,000	512.4						.....	.....	35.5	4.01	0.94	0.28	
4,500	576.5						.....	.....	45.0	5.10	1.19	0.36	
5,000	632.8						.....	.....	55.6	6.3	1.47	0.44	0.17
6,000	768.8						.....	.....	80.0	9.1	2.11	0.64	0.24
7,000	896.0						.....	.....	.....	12.2	2.88	0.87	0.33
8,000	1,025						.....	.....	.....	16.1	3.77	1.12	0.46
9,000	1,153						.....	.....	.....	20.4	4.77	1.43	0.57
10,000	1,280						.....	.....	.....	25.1	5.88	1.77	0.69
11,000	1,410						.....	.....	.....	30.4	7.10	2.14	0.83
12,000	1,540						.....	.....	.....	36.2	8.5	2.54	0.98
13,000	1,668						.....	.....	.....	42.6	9.8	2.98	1.15
14,000	1,795						.....	.....	.....	49.2	11.5	3.46	1.35
15,000	1,923						.....	.....	.....	56.6	13.2	3.97	1.53
16,000	2,050						.....	.....	.....	64.5	15.0	4.52	1.75
18,000	2,310						.....	.....	.....	81.5	19.0	5.72	2.22
20,000	2,560						.....	.....	.....	.....	23.6	7.0	2.74
22,000	2,820						.....	.....	.....	.....	28.5	8.5	3.33
24,000	3,080						.....	.....	.....	.....	33.8	10.0	3.85
26,000	3,338						.....	.....	.....	.....	39.7	11.9	4.65
28,000	3,590						.....	.....	.....	.....	46.2	13.8	5.40
30,000	3,850						.....	.....	.....	.....	53.0	15.9	6.17

In psi in 1000-ft of pipe, 100-lb gage initial pressure. For longer or shorter lengths of pipe the friction loss is proportional to the length, i.e. for 500-ft, one-half of the above; for 4,000-ft, four times the above etc.



LOSS OF AIR PRESSURE DUE TO FRICTION

Cu. Ft. Free Air Per Min.	Equivalent Cu. Ft. Compressed Air Per Min.	Nominal Diameter, In.																		
		1/2	1/4	1	1 ¼	1 ½	2	3	4	6	8	10	12							
10	1.05	5.35	0.82	0.23																
20	2.11	21.3	3.21	0.92	0.21															
30	3.16	48.0	7.42	2.07	0.47	0.21														
40	4.21	.....	13.2	3.67	0.85	0.38														
50	5.26	.....	20.6	5.72	1.33	0.59														
60	6.32	.....	29.7	8.25	1.86	0.84	0.23													
70	7.38		40.5	11.2	2.61	1.15	0.31													
80	8.42		53.0	14.7	3.41	1.51	0.40													
90	9.47		68.0	18.6	4.30	1.91	0.51													
100	10.50		.....	22.9	5.32	2.36	0.63													
125	13.15		.....	39.9	8.4	3.70	0.98													
150	15.79		.....	51.6	12.0	5.30	1.41	0.17												
175	18.41				16.3	7.2	1.95	0.24												
200	21.05				21.3	9.4	2.52	0.31												
250	26.30				33.2	14.7	3.94	0.48												
300	31.60				47.3	21.2	5.62	0.70												
350	36.80				.....	28.8	7.7	0.94	0.22											
400	42.10				.....	37.6	10.0	1.23	0.28											
450	47.30				.....	47.7	12.7	1.55	0.37											
500	52.60				.....	58.8	15.7	1.93	0.46											
600	63.20						22.6	2.76	0.65											
700	73.80						30.0	3.74	0.89											
800	84.20						40.2	4.85	1.17											
900	94.70						51.2	6.2	1.48											
1,000	105.1						63.2	7.7	1.82											
1,500	157.9						.....	17.2	4.1	0.47										
2,000	210.5						.....	30.7	7.3	0.82	0.19									
2,500	263.0						.....	48.0	11.4	1.30	0.31									
3,000	316						.....	69.2	16.4	1.86	0.43									
3,500	368						.....	.....	22.3	2.51	0.57	0.18								
4,000	421						.....	.....	29.2	3.30	0.77	0.23								
4,500	473						.....	.....	37.0	4.2	0.98	0.24								
5,000	526						.....	.....	45.7	5.2	1.21	0.36								
6,000	632						.....	.....	65.7	7.5	1.74	0.52	0.20							
7,000	738						.....	.....	.....	10.0	2.37	0.72	0.27							
8,000	842						.....	.....	.....	13.2	3.10	0.93	0.38							
9,000	947						.....	.....	.....	16.7	3.93	1.18	0.47							
10,000	1,051						.....	.....	.....	20.6	4.85	1.46	0.57							
11,000	1,156						.....	.....	.....	25.0	5.8	1.76	0.68							
12,000	1,262						.....	.....	.....	29.7	7.0	2.09	0.81							
13,000	1,368						.....	.....	.....	35.0	8.1	2.44	0.95							
14,000	1,473						.....	.....	.....	40.3	9.7	2.85	1.11							
15,000	1,579						.....	.....	.....	46.5	10.9	3.26	1.26							
16,000	1,683						.....	.....	.....	53.0	12.4	3.72	1.45							
18,000	1,893						.....	.....	.....	66.9	15.6	4.71	1.83							
20,000	2,150						.....	.....	.....	.....	19.4	5.8	2.20							
22,000	2,315						.....	.....	.....	.....	23.4	7.1	2.74							
24,000	2,525						.....	.....	.....	.....	27.8	8.4	3.17							
26,000	2,735						.....	.....	.....	.....	32.8	9.8	3.83							
28,000	2,946						.....	.....	.....	.....	37.9	16.4	4.4							
30,000	3,158						.....	.....	.....	.....	43.5	13.1	5.1							

In psi in 1000-ft of pipe, 125-lb gage initial pressure. For longer or shorter lengths of pipe the friction loss is proportional to the length, i.e. for 500-ft, one-half of the above; for 4,000-ft four times the above etc.