

**Friction of Air in Hose
Pulsating Flow ***

Size of Hose Coupled Each End Inches	Gauge Pressure at Line psig	Cubic Feet Free Air per Minute Passing through 50 feet Lengths of Hose													
		20	30	40	50	60	70	80	90	100	110	120	130	140	150
Loss of Pressure (psi) in 50 feet Lengths of Hose															
1/2	50	1.8	5.0	10.1	18.1										
	60	1.3	4.0	8.4	14.8	23.4									
	70	1.0	3.4	7.0	12.4	20.0	28.4								
	80	0.9	2.8	6.0	10.8	17.4	25.2	34.6							
	90	0.8	2.4	5.4	9.5	14.8	22.0	30.5	41.0						
	100	0.7	2.3	4.8	8.4	13.3	19.3	27.2	36.6						
3/4	110	0.6	2.0	4.3	7.6	12.0	17.6	24.6	33.3	44.5					
	50	0.4	0.8	1.5	2.4	3.5	4.4	6.5	8.5	11.4	14.2				
	60	0.3	0.6	1.2	1.9	2.8	3.8	5.2	6.8	8.6	11.2				
	70	0.2	0.5	0.9	1.5	2.3	3.2	4.2	5.5	7.0	8.8	11.0			
	80	0.2	0.5	0.8	1.3	1.9	2.8	3.6	4.7	5.8	7.2	8.8	10.6		
	90	0.2	0.4	0.7	1.1	1.6	2.3	3.1	4.0	5.0	6.2	7.5	9.0		
1	100	0.2	0.4	0.6	1.0	1.4	2.0	2.7	3.5	4.4	5.4	6.6	7.9	9.4	11.1
	110	0.1	0.3	0.5	0.9	1.3	1.8	2.4	3.1	3.9	4.9	5.9	7.1	8.4	9.9
	50	0.1	0.2	0.3	0.5	0.8	1.1	1.5	2.0	2.6	3.5	4.8	7.0		
	60	1.1	0.2	0.3	0.4	0.6	0.8	1.2	1.5	2.0	2.6	3.3	4.2	5.5	7.2
	70	***	0.1	0.2	0.4	0.5	0.7	1.0	1.3	1.6	2.0	2.5	3.1	3.8	4.7
	80	***	0.1	0.2	0.3	0.5	0.7	0.8	1.1	1.4	1.7	2.0	2.4	2.7	3.5
1 1/4	90	***	1.1	0.2	0.3	0.4	0.6	0.7	0.9	1.2	1.4	1.7	2.0	2.4	2.8
	100	***	1.1	0.2	0.2	0.4	0.5	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4
	110	***	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.5	1.8	2.1
	50	***	***	0.1	0.2	0.2	0.3	0.4	0.5	0.7	1.1				
	60	***	***	***	0.1	0.2	0.3	0.3	0.5	0.6	0.8	1.0	1.2	1.5	
	70	***	***	***	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.7	0.8	1.0	1.3
1 1/2	80	***	***	***	***	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0
	90	***	***	***	***	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8
	100	***	***	***	***	***	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.7
	110	***	***	***	***	***	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6
	50	***	***	***	***	***	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6
	60	***	***	***	***	***	***	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5

* For longer or shorter lengths of hose the friction loss is proportional to the length, i.e., for 25 feet one-half of the above; for 150 feet, three times the above, etc.