

Table Showing Maximum Equivalent Length of Piping Based on Pipe Size and NFPA99 SCFM Rating											
NFPA99 SCFM with one pump in reserve (from cut sheet)	Pipe Size										
	1	1.25	1.5	2	2.5	3	3.5	4	5	6	8
3.4	83	295	606	1950							
6	31	110	230	759	1740						
8.3	17	61	129	430	1000						
9.5		49	103	340	786	2210					
11.3		36	76	252	585	1710					
16.6			38	128	299	885	1685				
18.6				105	245	740	1400				
21.4				84	198	583	1095				
23.8				68	159	450	910	1650			
29					119	317	685	1200			
31.6					96	260	560	1000			
33.2					88	245	520	900			
36.2					76	210	440	780			
37.2					72	200	410	725	1710		
42.8					56	153	325	590	1427		
47.6					45	130	275	500	1200		
49.8					41	120	245	450	1092		
50.9					39	115	241	435	1015		
55.8					34	96	207	375	900		
58					31	90	188	350	850		
63.2						81	165	300	780		
64.2						75	160	290	720	1700	
66.4						70	152	275	660	1620	
71.4						63	133	250	575	1425	
72.4						60	125	240	550	1350	
83						48	101	200	440	1100	
87						46	92	185	395	975	
94.8							80	150	360	900	
95.2							77	145	340	860	
99.6							72	140	330	800	
101.8							69	130	318	750	
108.6								120	300	685	
126.4								93	248	600	
132.8								85	232	560	2060
142.8								75	200	500	1825
149.4								66	182	460	1650
152.7								63	175	430	1600
158								59	165	400	1500
166									150	375	1400
189.6									121	300	1185
190.4									115	295	1125
199.2									107	260	1050

NFPA99 SCFM with one pump in reserve (from cut sheet)	Pipe Size										
	1	1.25	1.5	2	2.5	3	3.5	4	5	6	8
204									100	250	975
221.2									85	215	900
249									75	185	785
253									70	165	725
266									65	150	650
316										112	485
379											350
398											325
408											310
428											285
474											225
569											160
612											133

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Sizing and Pipe length based on .03 psi pressure drop

If higher pressure drop and performance losses are accepted, length for a given pipe size and flow may be increased

See web site below for calculation method:

<http://www.pressure-drop.com/Online-Calculator/index.html>

### Determining Equivalent Length of Piping

Equivalent straight length in feet for fittings:		
Pipe size	For 90 degree elbow, cross, or tee	For 45 degree elbow
1	2.5	1.25
1.25	3	1.5
1.5	3.75	1.8
2	5	2.5
2.5	6.25	3.1
3	7.5	3.8
3.5	8.75	4.4
4	10	5
5	12.5	6.25
6	15	7.5
8	20	10