

application report

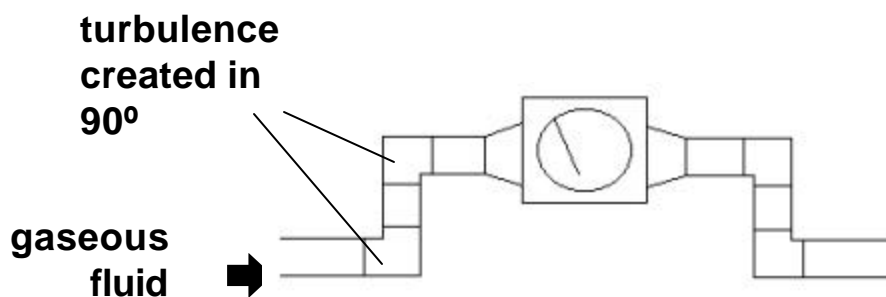
For: AIR FLOW VELOCITY FOR PIPES SMALLER THAN 1/2" (GASEOUS SFI)

Sight Flow indicators smaller than 1/2" in connection size are too small to contain a gaseous indicator. The relatively small vision window as well as the comparative weight of the swinging hinge make it impractical in manufacture and application. Penberthy recommends using the 1/2" gaseous sight flow indicator for fluid pipelines smaller than one-half inch if a minimum velocity of air equivalent mass impact (0.004 SCFS) can be achieved.

Fluid Line Size	Sch 40			Sch 80		
	I.D. Area (ft ²)	Minimum Velocity (ft/s)	Minimum Velocity (m/s)	I.D. Area (ft ²)	Minimum Velocity (ft/s)	Minimum Velocity (m/s)
3/8"	0.001	9.052	2.759	0.001	12.296	3.748
1/4"	0.001	16.605	5.061	0.001	24.123	7.353

Inducing turbulence in the fluid line improves the visibility of first indication and continuous flow. By causing turbulence (swirling) within the gas pipeline, the "fingers" of the gaseous indicator become increasingly random in their movement making it easier to detect movement.

SUGGESTED CONFIGURATION:



Although pictured in a vertical configuration, it should be obvious that the 90° elbows can be installed in the same plane (horizontally). 90° elbows are preferred to 45° elbows since 45° elbows would have less tendency to create turbulence.