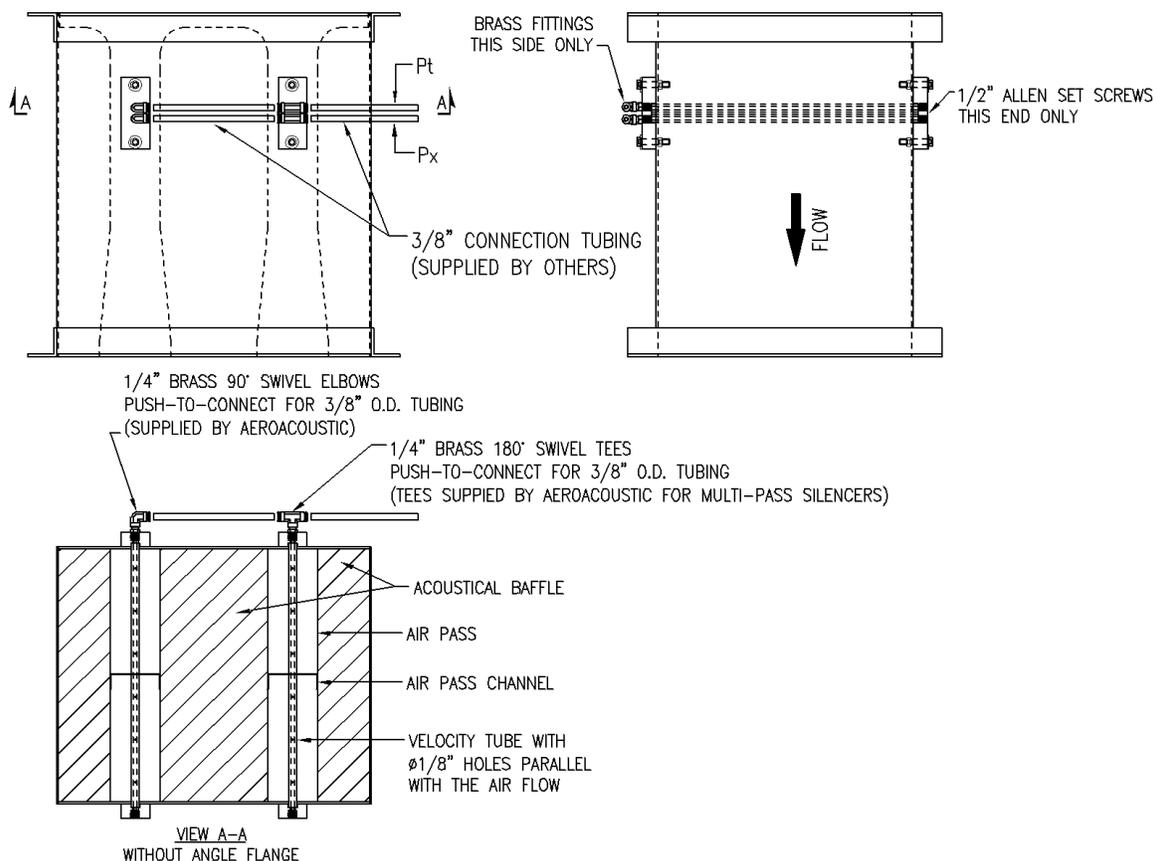




“EZ Flow” Velocity Tubes

The flow passages of Models IB, CI, SI, and DF silencers are true venturi channels and may be used for flow measurement, thereby eliminating the need for a separate venturi. The Aeroacoustic Corporation supplies, on special order, IB, CI, SI, and DF silencers with built in velocity tubes. The E-Z Flow Velocity Tube is designed for measuring the airflow velocity with higher sensitivity and self-averaging of flow velocity readings. This is made up of dual tubes. The front tube, defined as Pt, measures total pressure and the back tube, defined as Px, measures the drag loss plus the static pressure.



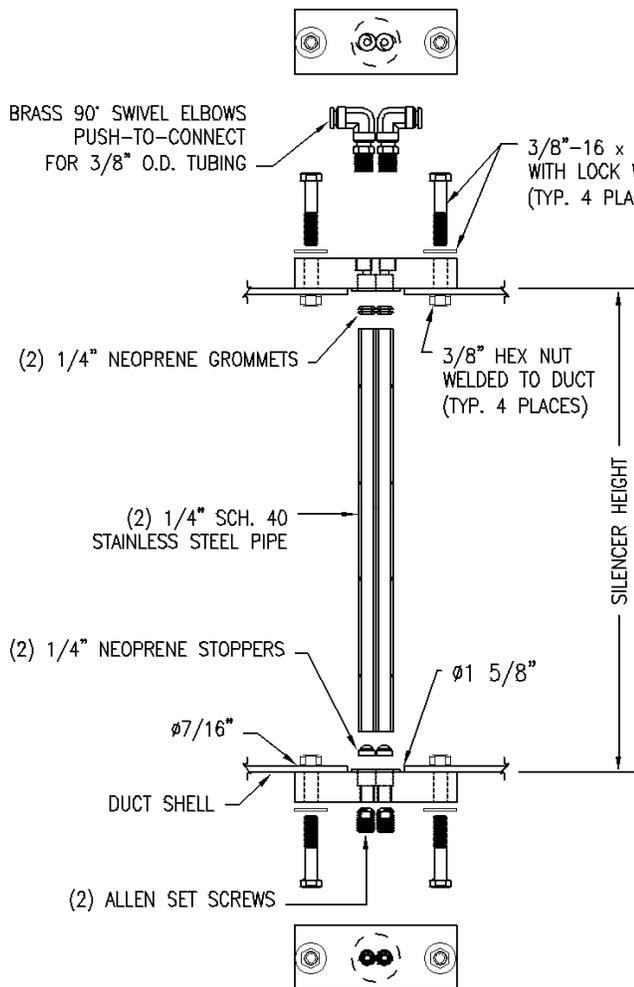
Advantages of “EZ Flow” Velocity Tubes

1. Higher sensitivity of velocity readings. The sensitivity is 1.7 times higher than a pitot tube.
2. The velocity tube has 1/3 the pressure drop of a piezometer tube.
3. The velocity tube can be used at the discharge flow of our silencers or ductwork. Piezometer tubes can only be used on inlet silencers.
4. The velocity tubes can be used on ducted systems. Piezometer tubes can only be used on non-ducted inlets.



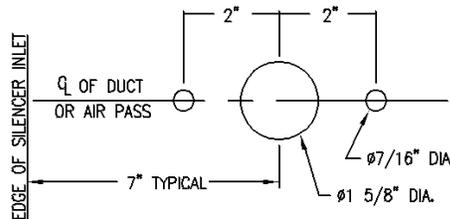
“EZ Flow” Velocity Tube Installation

“EZ Flow” Velocity Tubes inserted into Aeroacoustic silencers require one simple step before use: connect the velocity tube to a differential pressure gage (Not Supplied). The front tube, Pt, is connected to the positive pressure side of the gage. The back tube, Px, is connected to the negative pressure side of the gage. Gages, with a range of 0-2.0 inches of water, work well with lower CFM fans (Dwyer Differential Pressure Transmitter Model #604D-1 with 4-20mA output). On Higher CFM applications, a gage with a range from 0-10 inches of water should be used (Dwyer Model #604D-2). Minihelic differential pressure transmitters to match the silencer’s CFM may be ordered with velocity tube from Aeroacoustic or directly from Dwyer Instruments, Inc.



IF VELOCITY TUBES AND BLOCKS ARE ALREADY IN SILENCER, GOTO STEP #8.

- 1) REMOVE INLET SCREEN OVER AIR PASS.
- 2) LOCATE AND DRILL 1 $\frac{5}{8}$ " HOLE IN CENTER OF DUCT OR CENTER OF AIR PASS THROUGH SILENCER SHEET, TOP AND BOTTOM, 7" FROM SILENCER INLET. (SEE VELOCITY TUBE DRILLED PATTERN)
- 2) DRILL (2) $\frac{7}{16}$ " HOLES ON CENTER, PARALLEL WITH AIR FLOW, 2" FROM CENTER OF 1 $\frac{5}{8}$ " HOLE. (SEE VELOCITY TUBE DRILLED PATTERN)
- 3) LOCATE AND DRILL 1 $\frac{5}{8}$ " HOLE THROUGH 18 GA. CHANNEL IN SILENCER AIR PASS. (NOTCHING BACK OF MATERIAL IS ALSO ACCEPTABLE.)
- 4) USING $\frac{3}{8}$ " BOLTS, FLATWASHERS & LOCKWASHERS FROM THE OUTSIDE, BOLT CLOSED SIDE ALUMINUM VELOCITY BLOCK ON OUTSIDE OF DUCT OR SILENCER. (THIS IS BLOCK WITH $\frac{1}{2}$ " SET SCREWS)
- 5) INSERT $\frac{1}{4}$ " RUBBER STOPPERS ON ONE END OF VELOCITY TUBE. SLIDE THROUGH OPEN 1 $\frac{5}{8}$ " HOLE AND INTO CLOSED END VELOCITY TUBE BLOCK. (VELOCITY TUBE SHOULD EXTEND $\frac{1}{4}$ " BEYOND DUCT, IF NOT, TRIM TUBE TO FIT.)
- 6) INSERT $\frac{1}{4}$ " RUBBER GROMMET INTO OPEN END VELOCITY TUBE BLOCK. LINE UP VELOCITY TUBE WITH BLOCK AND BOLT BLOCK ON SAME AS CLOSED END BLOCK.
- 7) TURN $\frac{1}{2}$ " SET SCREWS CLOCK-WISE UNTIL RUBBER STOPPER AND GROMMET ARE COMPRESSED.
- 8) INSTALL $\frac{1}{4}$ " SWIVEL ELBOWS INTO OPEN SIDE VELOCITY TUBE BLOCK (IF 2, 3, 4, ETC. TUBES ARE USED, INSTALL $\frac{1}{4}$ " SWIVEL TEES IN THESE BLOCKS AND CONNECT WITH TUBING). INSTALL METERING DEVICE TO LAST FITTING.



“Building For a Quieter Tomorrow”