“EZ Flow” Piezometer Tubes

The flow passages of Models IB, CI, and SI 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, and SI silencers with built in piezometer tubes. The E-Z Flow Piezometer Tube is designed for measuring the airflow through the silencer’s open inlet and is not designed for use when upstream obstructions or ducting are present.

Accurate and simple, the “EZ Flow” piezometer tubes are outstanding tools for measuring flow through Aeroacoustic silencers. Unlike pitot tubes, piezometer tubes automatically average pressure readings at different locations within the airstream, making them easier to use. In addition, piezometer tubes provide greater sensitivity and reliability than traditional pitot tubes. (Piezometer tubes sensitivity is approximately twice that of a comparable pitot tube.) Combined with readily available vacuum gages or differential pressure meters, piezometer tubes provide an absolute accuracy of + or – 4% and repeatability limited only by the meter quality. Field calibration permits even greater accuracy to be obtained if necessary. When piezometer tubes are supplied with an inlet silencer, only one connection needs to be made on site. No moving parts or electronics complicate attachment of the tube to the pressure meter.
“EZ Flow” Piezometer Tube Installation

“EZ Flow” Piezometer Tubes inserted into Aeroacoustic silencers require one simple step before use: connect the single ½” npt piezometer tube connection to a vacuum gage (Not Supplied). The vacuum reading will be Px. If a differential pressure meter must be used, the high-pressure connection is left open to atmosphere. The low-pressure connection is attached to the threaded outlet on the piezometer tube and again the meter reading will be Px. Meters with ranges of 0 to 5” or 0 to 10” of water column are typical.

![Diagram of EZ Flow Piezometer Tube Installation]

**Installation Instructions:**
1. Remove inlet screen over air path.
2. Locate and drill 1” dia. holes through the silencer sheet on top and bottom of silencer.
3. Locate and drill 1” holes through 18 gage channels (if supplied) in silencer air path. (Notching back of material is acceptable)
4. Remove shaft collar on end of piezometer tube and insert tube through silencer. Be sure that 1/8” drilled holes on tube face toward fan inlet.
5. Tighten shaft collars on end of tubes to secure tube in place. Be sure that all holes on the tube are in silencer air stream.

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