PRODUCT DATASHEET

Insert HVT Venturi - Metallic Fabricated

Installed Between Flanges
FI Series

Description

Designed to be inserted between flanges, often already existing, the Insert Venturi Meter can be custom fabricated with almost any available machinable material, including fiberglass. For fiberglass fabrication see “Insert HVT Venturi - Fiberglass” datasheet. This style of meter is designed to match the pressure and temperature limits of the flanges it is being mated to. It is ideal for measuring clean gases or liquids. Static inlet taps and a grouted-in design is available for large line sizes. The FIDG Digester Gas models can be fitted with high and low pressure tap vent cleaners to allow the clearing of any buildup around the piezometer (pressure sensing) taps.

Common Materials

- 304-316 Stainless or Carbon Steel

Other Materials Available

- Aluminum
- Monel
- Inconel
- Tantalum
- Zirconium
- Duplex S/S
- Hastelloy B & C
- Titanium
- 321 SS

Common Applications

- Air flow for aeration basins and sparge air in WTP fillers
- Potable Water
- Water Treatment Plant
- Wastewater Treatment Plant
- Air, gas and steam flow

Special Features

- Extended product life with no moving parts
- Delivers the best high-pressure performance for the great value
- Lower susceptibility to erosion
- No downstream installation effect; minimal upstream effect
- Useful for flow measurement at high velocities
- Turndown ratio of 10:1, 20:1, 50:1 and greater can be achieved depending on the specific model and design of the meter as well as the type of secondary instrumentation system utilized
- Repeatability of ± 0.1%
- Mounts in any position

Model Types

- FIW Fabricated, Insert, Weld-In
- FIF Fabricated, Insert, Flanged
- FIWR Fabricated, Insert, Weld-In, Run
- FIFR Fabricated, Insert, Flanged, Run
- FIG Fabricated, Insert, Grout-In
- FILF Fabricated, Insert, Low Flow Meter

Specifications

Line Size: 3 to 144 inches. Larger sizes available upon request.

Head loss % of Differential: 3.50 to 10.0 percent

Basic Accuracy (% of Total): +/- 0.25 (Calibrated) +/- 0.50 (2 Sigma) (Uncalibrated)

Minimum pipe Reynolds number: Must be greater than 75,000 for basic accuracy

Required Straight Piping: Consult PFS datasheet

Beta Range: 0.20 through 0.80

Useful Service Life: Very Long

Service Functional Limits: Clear liquid, gas, and digester gas