



Flow Control HVT Venturi System

Rate of Flow Controller – FC Series

Available for Cast Iron, Ductile Iron and Fabricated Venturi Meters

Description

Flow rate control in municipal or industrial transmission and processing scenarios inevitably requires a high degree of precision, repeatability, and accuracy to assure the integrity of the process. Incorrect design and sizing of flow control elements can have far reaching effects that include needlessly incurring increased energy costs, improper process control, or damage or loss of costly filter beds, to name a few.

It is rarely effective or appropriate to simply install a meter and a valve in series and expect properly optimized performance to result. The only way to obtain optimal accuracy and control performance is to properly study the entire flow loop, then select the proper meter valve combination.

The Rate of Flow Controller offers the ability to analyze the unique flow conditions and design the correct flow control solution for the specific demands of any application. Rate of Flow Controllers can be designed using any style HVT Venturi such as the FV, CI, DI PI, FI, RV series.

The HVT-Halmi Venturi Flow Element in Cast Iron and Ductile Iron form is offered exclusively by Primary Flow Signal, Inc. for the highest accuracy and reliability for flow measurement of pressurized line fluids, including liquids and gases, as well as high-viscosity line fluids, solids-bearing line fluids, and harsh or contaminated line fluids

Model Types

- HVT-FCC Flow Control Cast Iron HVT Venturi
- HVT-FCD Flow Control Ductile Iron HVT Venturi
- HVT-FCF Flow Control Fabricated HVT Venturi

Specifications

Line Size: 4 to 96 inches. Larger sizes available upon request.

Head loss % of Differential (Venturi): 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

Required Straight Piping: Consult datasheet for required US & DS piping based on your specific application

Beta Range: 0.30 through 0.75

Useful Service Life: Very Long

Service Functional Limits: Clear liquid, gas, contaminated and solid-bearing line fluid

Applications

- WTP Filter Effluent Rate of Flow Control
- Special Lay-lengths to fit existing piping constraints
- Potable Water
- Water Treatment Plant
- Wastewater Treatment Plant
- Backwash Flow Rate Controller

Special Features

- Extended product life with no moving parts (Venturi)
- Lower susceptibility to erosion
- No downstream installation effect; minimal upstream effect
- No annular chambers therefore no plugging
- 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 $\pm 0.1\%$
- Mounts in any position
- NSF-61 (Potable Water) approved materials or coatings are standard
- **Laying Length, the already shortened lay length of the HVT can be special designed even shorter to fit limited space installations.**

Common Materials

- Cast Iron or Ductile Iron body
- 304 or 316SS sleeved throat section