



ASR: AQUIFER STORAGE & RECOVERY

PRODUCT BULLETIN

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The HVT-BP Halmi BiDirectional Insert-Type Venturi Meter is IDEAL for the Flow Measurement Needs Inherent with Aquifer Storage and Recovery Systems.

The Challenge:

The primary goal for any water utility is to provide a reliable supply of high quality water efficiently and cost-effectively. The growth of the population coupled with environmental concerns and municipal budgets can prove to be a significant challenge.

Specifically, increasing water demand given limited available water resources, declining groundwater levels, escalating water quality constraints, and seasonally varying availability and demand are further complicated by capital cost restrictions.

The Solution:

ASR (Aquifer Storage and Recovery) is the injection of treated water into an aquifer, which acts as an underground storage tank. As needed, water is recovered from natural storage in the aquifer. The same well is used for both recharge and recovery.

The injection of water occurs principally during "wet" months at which time, available water generally exceeds current demand. Recovery, in turn, is actuated during "dry" periods in order to satisfy peak or emergency demands which cannot be accommodated by available treatment plant capacity.

The recovery function typically requires disinfection as the only supplementary treatment and all of the stored water is recovered through this process.

The PFS Contribution:

Primary Flow Signal, Inc. has been intimately involved in the art and science of accurate, reliable and cost effective flow measurement in a widely diverse array of applications including municipal water and waste water. The HVT (Halmi Venturi Meter) has been proven through decades of successful installations worldwide, and has, in its various configurations, provided innovative solutions for nearly every kind of flow metering challenge.

The ASR system of water management is an innovative technology, and if it presents an attractive opportunity for your system requirements, the HVT-BP - -Halmi BiDirectional Insert-Type Venturi meter will prove indispensable to properly monitoring influent and effluent flows from the aquifer field.

The Advantages with a HVT-BP

Primary Flow Signal, Inc. provides the preeminent design and engineering support for any and all flow measurement application requirements, without exception. Although most applications will probably fall within standard parameters developed through PFS experience and expertise, it is reassuring to know that each and every engagement receives the top priority attention of a seasoned PFS engineering expert to assure that your specific application is properly addressed, and fully satisfied.

No other vendor resource can match the track record and the know-how of the PFS flow metering team, and no other manufacturer can substantiate its product line with the unquestioned assurance of PFS, backed up by hard data and research continuously gathered over decades of dedication to the field.

-Reliability and Accuracy: *+/- 0.50% Uncalibrated, +/- 0.25 % Calibrated.*

-Cost Considerations: *Low acquisition cost because a single meter measures flow in both directions, into and out of the aquifer.*

-Operation and Maintenance: *Simplifies field calibration of secondary group since all work can be performed at a single meter location, rather than at separate influent and effluent meters.*

There are no exceptional maintenance requirements for the HVT-BP. PFS offers an extensive warranty.

Exclusive 20 year PFS Warranty

The PFS HVT-BP facts at a glance:

Bidirectional Plastic Insert HVTs are designed to accurately measure flow in both directions.

Line Size: 3" and larger

Standard Beta Ratio: A = 0.5000 (approximate)
 B = 0.6000 (approximate)
 C = 0.7000

Cones: Polyester resin reinforced with glass, 30% by weight

Throat: 304 Stainless steel, standard
 Bronze and other materials available

Flange: Carbon steel, epoxy coated (standard)
 Stainless steel and other materials available

Line Pressure: As specified

Temperature: To 150 °F standard (to 300 °F special)

Accuracy: Bench Calibrated: $\pm 0.50\%$ for
 3" diameter and larger
 Flow Calibrated: $\pm 0.25\%$ up to 30" diameter

