

DP DIAGNOSTICS

MONITOR, VERIFY, AND TRUST YOUR DP METER

Venturi Flow Meters - with Optional Diagnostic Capabilities

The Most Advanced Venturi Meter System on the Market



- The Original Differential Pressure (DP) Meter
- Simple, Robust & Reliable
- No Moving Parts
- Low Permanent Pressure Loss
- Low Operating Cost
- Calibrated Uncertainty to within 1%
- DP Diagnostics Venturi Meters are ISO / API Compliant
- Accurate, Repeatable & Cost Effective

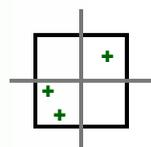
DP Diagnostics Supply Standard Calibrated ISO / API

Compliant Venturi Meters to all Industries

- Size: 3" to 48" for any pipe schedule (larger sizes on request).
- Flanges: #150 - #2500 (any specific connection on request).
- Material: All standard materials available.
- Length: Standard meters are approximately 6D long, Diagnostic ready meters are approximately 14D long and can be shorter.
- DP Transmitter: Any manufacturer's transmitters may be used.
- Calibration Requirements: Venturi meters are supplied calibrated.
- Installation Requirements: Installed according to ISO / API .
- Performance: Venturi meters calibrated to give a discharge coefficient within $\pm 1\%$ (an accepted industry standard). Turndowns up to 8:1 without stacking DP transmitters.



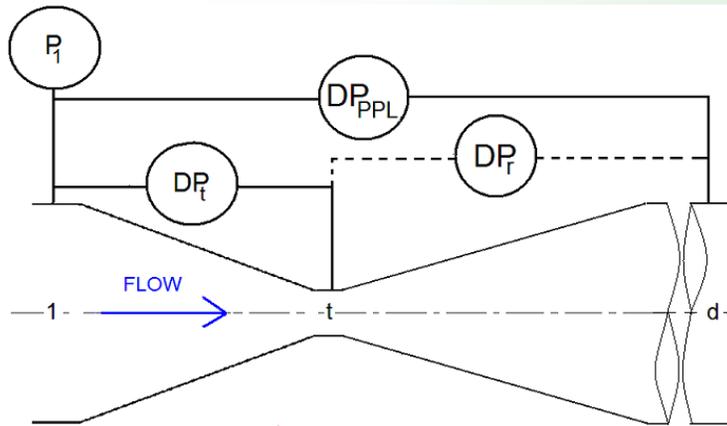
A DP Diagnostics Venturi Meter Under a Customers FAT.



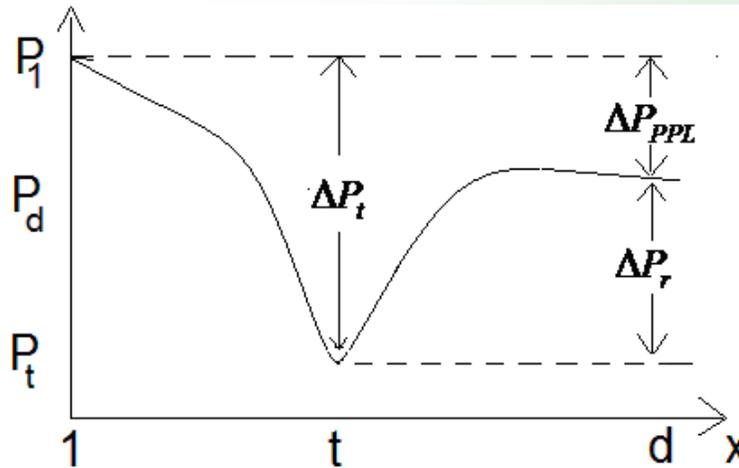
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DP Diagnostics Supplies a **Unique**, Powerful, Industrially Proven, **Patent Pending** Diagnostics System

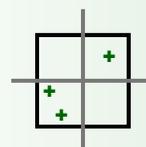


Venturi with Optional Extra DP Transmitters for Diagnostic Capabilities



Pressure Field through the Venturi Meter

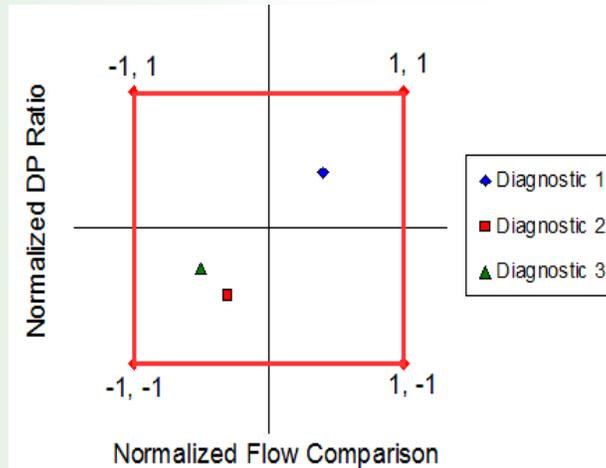
- A Downstream Pressure Tap Allows 3 DP's to be Read.
- The Pressure Field Through the Meter is Monitored.
- The Diagnostic System Multiplies the Meters Capability.
- 3 DP's are Compared to Assure Correct Meter Operation.
- A Simple Live Diagnostics Plot is Shown in the Control Room.



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The Diagnostics Results are Represented as 3 Points and a Box.
If the Points Remain in the Box this Ensures Good Flow Measurement.



Venturi Meter Problems that Produce a Warning with Diagnostics Include:

1. Incorrect Inlet or Throat Diameter Keypad Entry.
2. Two-Phase Flow.
3. Excessive Flow Disturbance Upstream of the Meter.
4. Contamination Build Up Through the Meter.
5. Blocked Impulse Lines.
6. Saturated DP Transmitter.
7. Drifting DP Transmitter.
8. Incorrect Discharge Coefficient Keypad Entry.
9. Incorrectly Spanned DP Transmitter.
10. DP Below DP Transmitter Range etc.

DP Diagnostics Can Retrofit a Diagnostic System to an Existing 3rd Party Venturi Meter if a Downstream Tap is Supplied and the Meter can be Made Available for Calibration.



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