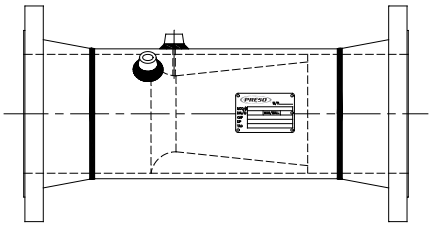
VENTURI Model: LPL (Low Pressure Loss Venturi Design)

Flow Measurement Instrumentation (Differential Pressure)



General:

Furnish and install as shown on the drawings a flow element of the Venturi Nozzle design differential pressure type as manufactured by Preso.

Configuration:

The Venturi inlet shall be cylindrical and have the same diameter as the incoming pipe section. The meter shall have high and low pressure sensing ports. The inlet of the meter is followed by a precise smooth contoured radius section causing a uniform change in fluid velocity to reduce permanent pressure loss to 3%. The beta ratio shall be selected by the manufacturer according to standard engineering formulas. The discharge coefficient (Cd) shall be linear and stable in the operating flow range.

Materials:

The construction material, instrument connections, instrument valves and end connections shall be selected to meet the intended service conditions. Identification tag shall be provided as required.

Accuracy & Repeatability:

The accuracy of the flow element shall be within ±3.0 uncalibrated (±0.5% calibrated) with a repeatability of ±0.1% and turndown of 10:1 in the corresponding and appropriate range of Reynolds' Numbers. For custody transfer applications the Venturi shall be wet flow tested by an independent NIST certified laboratory under the design operating conditions and piping configurations.

Quality:

All Venturi meters shall be manufactured under an ISO 9001:2008 certified quality program. Certification documentation shall be available for inspection. The manufacturer shall provide a Flow Calculation Data Sheet with standard data and formulas for approval by the design engineer.

Applicable Fluids:

Liquids, gases and steam

Sensor Type:

The Venturi shall be as follows: **Model: LPL** (Low Pressure Loss Venturi Design)