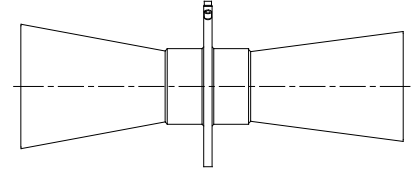


## INDUSTRIAL PRODUCTS

**VENTURI Model: VISSL** (Classical Design Venturi Insert)**Flow Measurement Instrumentation (Differential Pressure)****General:**

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

**Configuration:**

The Venturi inlet section shall be cylindrical with a pressure sensing tap and of the same diameter as the incoming pipe section and followed by a precise convergent section causing a uniform change in fluid velocity. The cylindrical throat section with a pressure sensing tap, straight section and the exit cone shall have a precise angle in order to prevent permanent pressure loss that will not exceed 12% of the generated differential pressure. The beta ratio shall be determined by the manufacturer according to recognized standards and formulas. The discharge coefficient ( $C_d$ ) shall be linear and stable in the operating flow range, have a value above 0.985, and shall be achieved by adhering to the ASME standards.

**Materials:**

The construction shall be with an inlet and outlet section with insert style wafer holding flange all of 304 stainless steel with instrument connections and instrument valves 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  $\pm 1.0\%$  uncalibrated ( $\pm 0.5\%$  calibrated) with a repeatability of  $\pm 0.1\%$  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

**Components:**

All sensors will be furnished with

**Sensor Type:**

The Venturi shall be as follows: **Model: VISSL** (Classical Design Venturi Insert)