



FLOWSTREAM Venturi Tubes

For Topside Flow Measurement

Flow Measurement Excellence

Widely recognized by the Oil, Gas & Petrochemical industries worldwide, Solartron ISA offers more than 45 years experience in the design and manufacture of primary Differential Pressure flow meter devices.

Solartron ISA: Engineering a solution for the metering community.

Classical Venturi Tubes

Venturi Tubes are used on many different process applications and conditions, typically where low permanent pressure loss is required. Line sizes available range from 25mm up to 1800mm and greater.

Venturi Tube design provides a key cost saving benefit, as the profile is virtually immune to any wear or erosion, therefore with very little maintenance and inspection required. Venturi Tubes are often regarded as "fit and forget" devices.

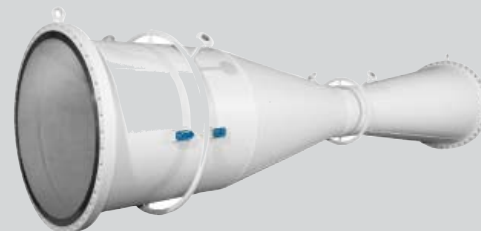
Venturi Tubes can be supplied to meet the requirements of your application. We offer a number of different designs to suit the needs of any pipe-work configuration, with different lengths, orientations and end connections available.

Solartron ISA provides complete Engineering support from initial design and sizing concepts to manufactured final products.

Benefits

Proven flow metering technology and robust design, supported by ISO 5167

- Accurate flow metering of Hydrocarbons, liquids and gasses
- Venturi profile is inherently robust with no maintenance and inspection required
- Low permanent pressure loss resulting in energy savings
- Minimal upstream straight length requirements in comparison to orifice plates



Applications

- ✓ Hydrocarbon, Liquid & Gas Process
- ✓ LNG Trains
- ✓ Compression Stations
- ✓ Process Measurement
- ✓ High Accuracy Custody Transfer, Fiscal and Allocation Flow Metering

Key Parameters

- ✓ Proven Technology
- ✓ Robust Design
- ✓ Low Permanent Pressure Loss
- ✓ Accurate Flow Measurement
- ✓ Suitability for Most Process Conditions
- ✓ Minimal Upstream Lengths

Standards

- ✓ ISO 5167-4
- ✓ ASME MFC-3M
- ✓ ISO 9001
- ✓ PED-97/23/EC

FLOWSTREAM Venturi Tubes

Specifications

Functional Specifications

Line Size

DN25 (1/2") to DN1800 (72")

Larger line sizes are available on request

Pressure Ratings

Ranging from ANSI 150# to API 15K PSI

Types of Classical Venturi Tubes

Solid (Machined), Fabricated, 'As Cast' Profile

End Connections

Flanged, Butt-Weld, Hub

Further connections are available on request

Types of Tappings

Flanged /Thread O'let / Socket O'let, Piezo Rings

Further types are available on request

Beta Ratio

0.4 to 0.75

Reynolds Number

Ranging from 5×10^4 up to 2×10^8

Accuracy

Typically $\pm 3\%$ un-calibrated

$\pm 1\%$ calibrated

NDT Testing

Hydro-testing, Dye Penetrant, Radiography

Additional options:

Magnetic Particle, PMI, Gas and Water Calibrations

Further testing is available on request

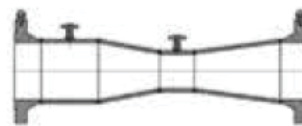
Flow Turndown

Typically $>10:1$, depending on Transmitter configuration

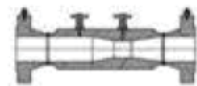
Venturi Tube Material

Carbon Steel, Low Temperature Carbon Steel, Stainless Steel, Chrome Moly Steel, Duplex, Super Duplex, 6 Mo, Aluminum, Monel, Hastelloy, Inconel

Further materials are available on request



Fabricated Design



Solid Design



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