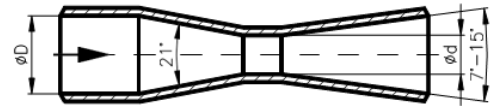


## Venturi Tube Machined - VTM Venturi Tube Fabricated -VTF

### DESCRIPTION

Venturi tubes are used as flow elements for flow measurement of aggressive and non- aggressive gases, steam and liquids where a very low pressure loss is required.



### DESIGN

Venturi tubes consist of a cylindrical throat, an inlet cone and an outlet cone. While the throat section produces differential pressure, the inlet and outlet cones provide for high-pressure recovery. They are offered with flanged ends or with weld ends. In the absence of obstructions, the Venturi tube can handle slurries and dirty fluids, and since there are no sharp edges or protrusions to wear, Venturis have a considerably long life. Due to this, Venturi Tubes are preferred over Orifice plates and Flow Nozzles.

There are types of venturi tubes offered which differ by their inner surface contour:

- Venturi tubes with a machined convergent section
- Venturi tubes with a rough-welded sheet-iron convergent section

Generally, the pressure tappings are designed with 4 bore holes which connect to a ring chamber or an annular ring. For some applications, however, it is recommended to design them with single-bore pressure tappings. In special cases, venturi canals with a rectangular cross-section may be furnished, which are being manufactured from sheet iron and which are not part of the calculation standard.

### APPLICATIONS

- Oil & Gas
- Petrochemical Industries
- Power Generation
- Water treatment and distribution

### SIZES

All nominal sizes are available in accordance with relevant standards.  
Standard diameters 2" – 48"; larger diameters are available on request.  
Other sizes and thickness on request.

### MATERIAL OF CONSTRUCTION

- Stainless Steel (standard)
- Hastelloy C276
- Monel 400
- Duplex
- Super Duplex

Others on request.

### ADVANTAGES

Due to their design, venturi tubes generate very low pressure losses. In comparison to orifice plates and nozzles, they only need short inlet straight pipe sections.

## ■ PRESSURE TAPS

Pressure taps will be designed according to customer requirements.

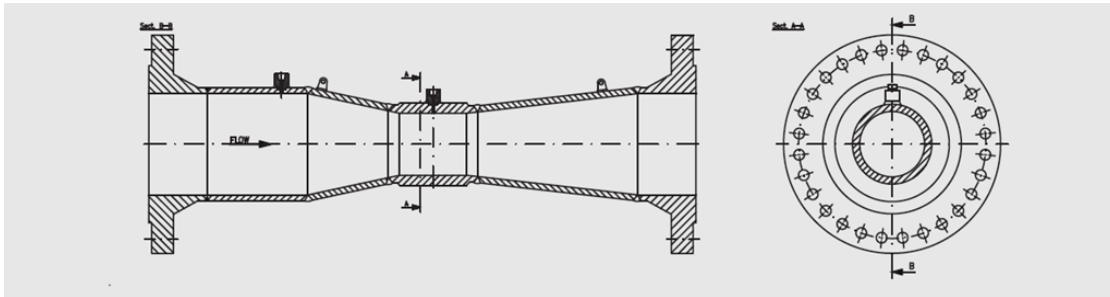
Typical tap designs are:

- Plain ends for fittings
- Butt weld ends
- Threaded ends
- Flanged ends

## ■ TYPES OF CONSTRUCTION

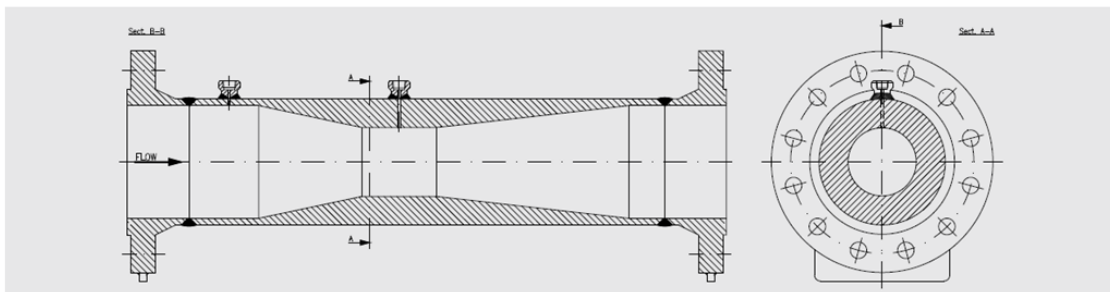
### Fabricated Venturi Tube – VTF

Mountable between flanges; with a rough-welded sheet-iron convergent section; 4 pressure bore holes with an annular ring.



### Machined Venturi Tube - VTM

To be welded into the pipe; with a machined convergent section; 4 pressure bore holes with a ring chamber



## ■ INSTALLATION

For mounting between flanges according to EN 1092-1 / ASME B 16.5 or other standard such as DIN, JIS or BS. The pipe may be positioned horizontally, vertically or sloped. Weld-inconnection also possible.

## ■ ACCESSORIES

Pipe flanges, bolts/nuts, gaskets for installation, tap valves, condensate pots, manifolds, mounting accessories, calibration may be offered for additional charges.

## ■ NOTES

Installation can be in either horizontal or vertical orientation and can be mounted between flanges complying to ASME B1 16.5 / EN 1092-1 or other standard such as DIN, JIS or BS.