DISAI
Automatic Systems
T· 962 448 450 www.disai.net

Venturi tube
Model FLC-VT-BAR, from bar stock
Model FLC-VT-WS, from welded sheet

Applications

- Power generation
- Oil production and refining
- Water treatment and distribution
- Gas processing and transmission
- Chemical and petrochemical industry

Special features

- Suitable for liquid, gas and steam flow measurement
- Accuracy ≤ ±0.5 % of actual flow rate
- Repeatability of measurement 0.1 %
- Ensure the lowest pressure loss in the family of primary flow elements
- Calibration may be performed if required

Venturi tube
Fig. top: From bar stock
Fig. bottom: From welded sheet

Description

A Venturi tube is a reliable and easily-managed and maintained instrument that can measure a wide range of clean liquids and gases.

The main advantage of a Venturi tube over other differential pressure flow measuring instruments is the higher pressure recovery and the lower upstream and downstream straight pipe length requirements.

The instrument consists of a gradually decreasing nozzle, through which the medium in a pipe is accelerated, followed by a gradually increasing diffuser section. The diffuser section allows the fluid to nearly regain its original pressure.

Due to the fact that a major part of the output pressure is regained, the Venturi tube is particularly suited for the measurement of flow rates in systems with a low pressure differential. Thanks to the low pressure loss the cost of pumping the medium can be reduced to a minimum.

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General data

Design
The design is calculated in accordance with the following standards
- ISO 5167-4
- ASME MFC3

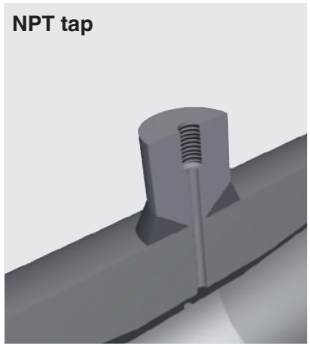
Nominal size and pipe schedule
All nominal sizes are available in accordance with the relevant standard. The pipe schedule must be specified by the customer.

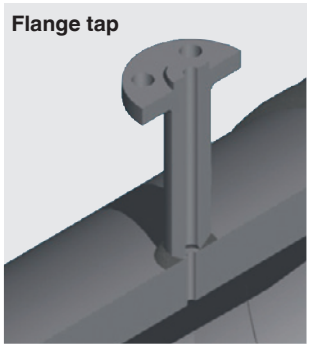
Standards cover diameters from 2 ... 48" (25 ... 1,200 mm), larger diameters are available on request.

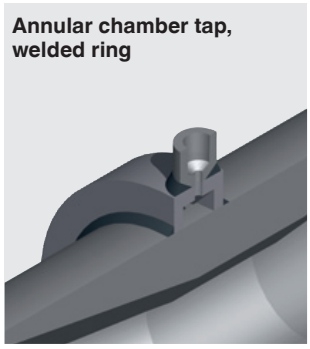
Nominal pressure rating
Available in accordance with all relevant standards.

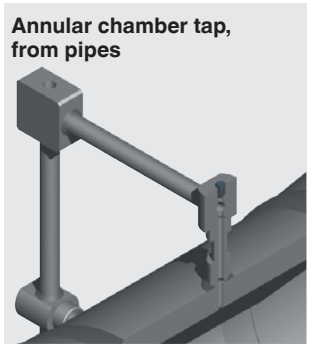
Materials
A wide range of materials is available.

Pressure tappings
The best solution depends on the application and will be created individually.

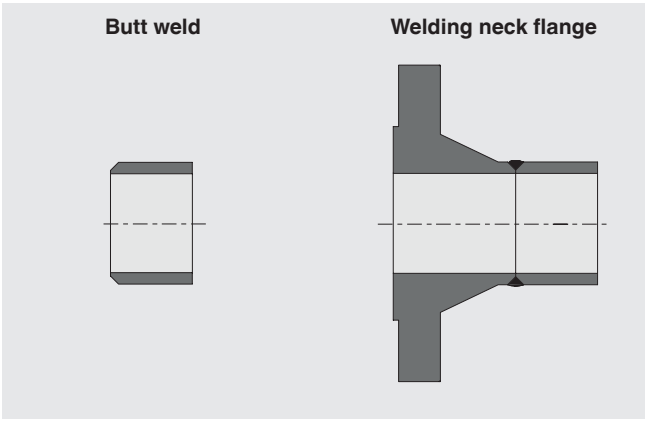




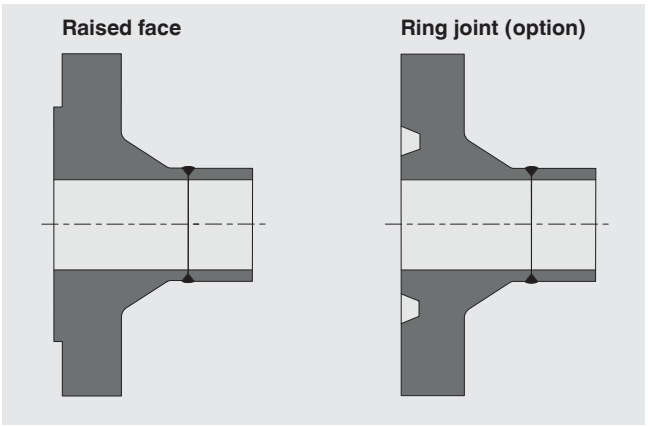




Mounting options



Sealing faces for flanged version



Venturi tube, model FLC-VT-BAR, from bar stock

Specifications

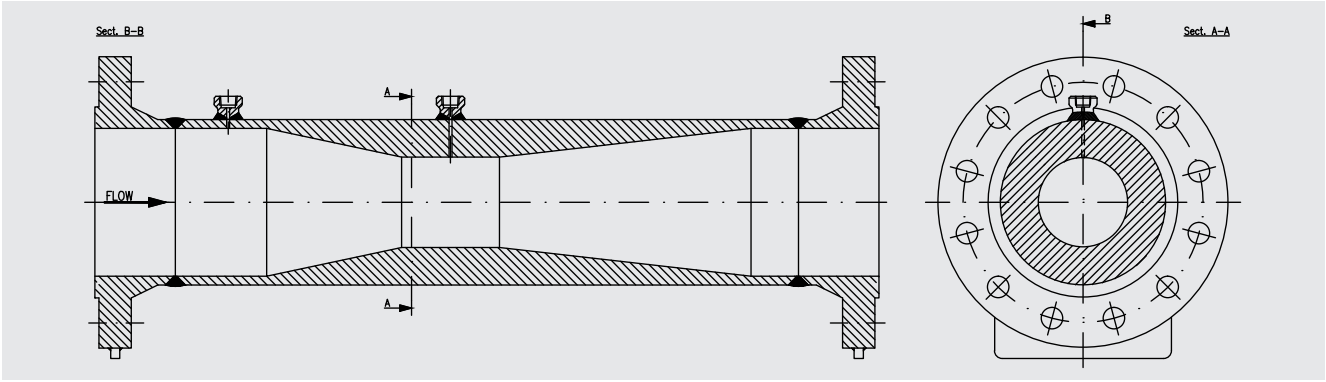
Description
Model FLC-VT-BAR is manufactured from a bar of solid body material. In this model the convergent sections, i.e. the throat and the entrance cylinder, are machined from this solid body material.

Nominal size
50 ... 250 mm

β-ratio:
0.4 ... 0.75

Reynolds number
$2 \times 10^5 \ldots 1 \times 10^6$

Accuracy
≤ ±0.5 % of full scale flow rate



Venturi tube, model FLC-VT-WS, from welded sheet

Specifications

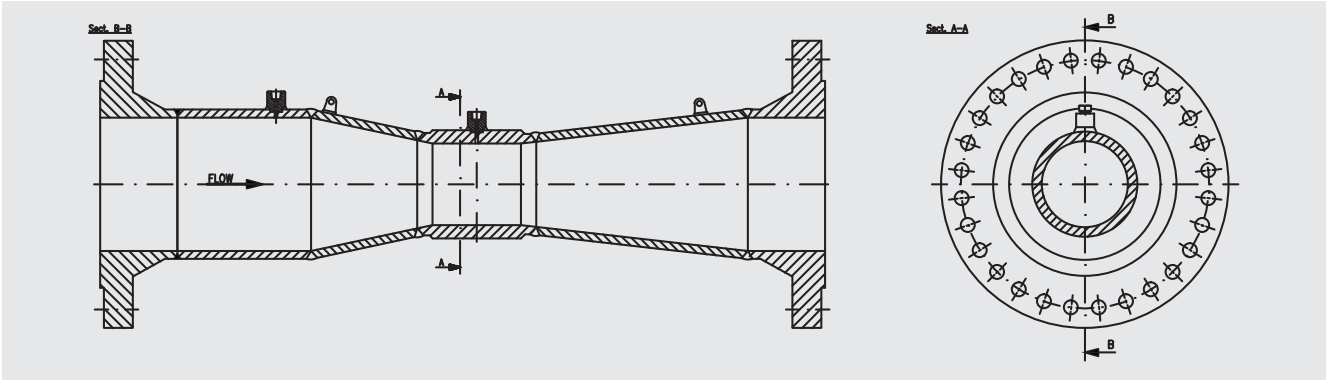
Description
Model FLC-VT-WS is a classical Venturi tube, which is manufactured from welded sheets. For smaller nominal sizes the throat section is machined from a single piece.

Nominal size
200 ... 1,200 mm

β-ratio:
0.4 ... 0.7

Reynolds number
$2 \times 10^5 \ldots 1 \times 10^6$

Accuracy
≤ ±1.5 % of full scale flow rate



Ordering information

Model / Nominal size / Pipe schedule / Nominal pressure rating / Sealing face / Pressure tappings / Material

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We reserve the right to make modifications to the specifications and materials.

WIKA Alexander Wiegand SE & Co. KG
Alexander-Wiegand-Straße 30
63911 Klingenberg/Germany
Tel. (+49) 9372/132-0
Fax (+49) 9372/132-406
E-mail info@wika.de
www.wika.de

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