

Technical Datasheet



Flow elements and Flow measurement set

Orifice plates, Meter Run, Venturi tubes, Pitot tubes

Key Features

- Manufactured according to ANSI B16.5/ISO 5167.
- Standard manufacturing materials: Carbon Steel, Stainless Steel. A wide range of exotic materials are available for specific application requirements
- Rating ANSI 300, 600, 900, 1500 or DIN starting from PN6
- Manufactured from a single forged piece and machined with a fine and uniform tool finish
- Standard 2+2 ½"NPTF pressure taps with plugs at 180° for universal applications on liquid or gasses
- Orifice plate with handle as standard
- Jack screw supplied as standard
- Calculation sheet, dimensional drawing and materials certificates are supplied with the elements as standard
- Flow direction marked when required

Series Overview

The calibrated orifice flange is the most simple and economic method for measuring the flow of liquids or gases.

Manufactured at our facilities within the EU, we can supply a wide range of different types of primary elements. From the basic simple orifice plate, to the complete measuring system with our D-SERIES digital SMART Hart differential pressure, pressure and temperature transmitters. These come with a base accuracy of 0.075% to provide an accurate and complete compensated gas flow measurement system.

We have the 2 valve manifold for the pressure transmitter, the 3 or 5 valve manifold for the differential pressure transmitter, directly mounted onto the instrument and the thermowell for the temperature transmitter, completing the measurement set.

Other products we can offer:



Product applications

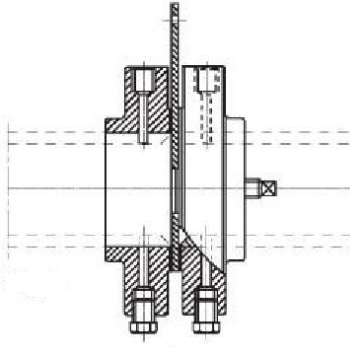
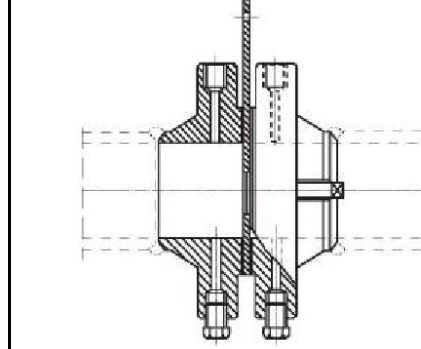
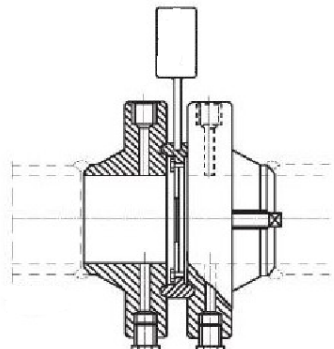
- Oil & Gas (production and refining)
- Power generation
- Gas processing
- Water Treatment
- Boilers & Combustion systems
- Chemical
- Petrochemical industry

How can we help you?

Delta Mobrey offers fast, efficient and knowledgeable support when and where you need it. Please visit our website at www.delta-mobrey.com to find your local support centre or call us on:

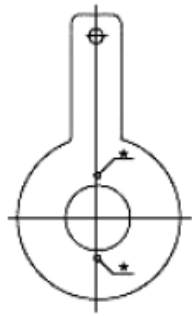



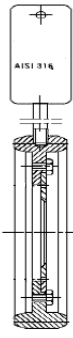
+44 (0)1252 729140

FLOW ELEMENTS

		
SLIP ON FLANGES	RF WELDING NECK FLANGES	RJ WELDING NECK FLANGES

- Construction according to ASME B16.36 / ISO 5167-2
- Flanges material Carbon Steel, SS316 as standard made from forged piece and machined fine and uniform tool finish. Other materials are available
- Orifice plate in SS316 as standard
- Spiral wound metal gaskets, asbestos free,
- Pressure taps at 180° as standard. Other available according to the requirement and the application
- Bolting in high resistance steel completely threaded
- Please refer to the description in the quotation for full identification of the device proposed.

ORIFICE PLATES

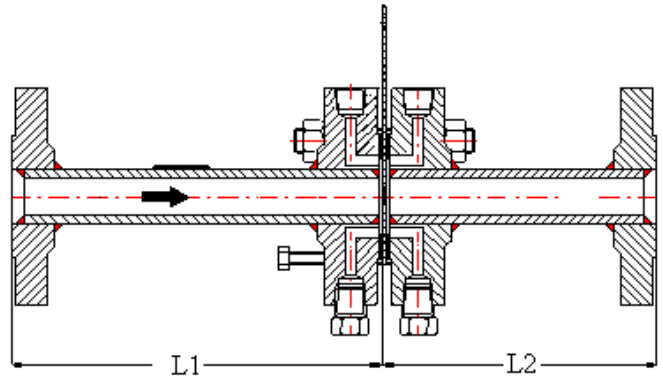
				
Concentric,	Eccentric	Segment type	Quarter circle	For Ring joint type

- Manufactured in different types : Concentric with sharp edge, Eccentric , segment type, quarter circle, Ring Joint type
- Manufactured according to ASME B16.36 / ISO 5167-2
- Standard material 316 Stainless Steel, exotic material available (Monel, Hastelloy, etc.),
- Thickness designed according to the operating conditions, starting from 3mm
- Handle with all data: tag number, rating, material diameter, flow direction
- Flow calculation sheet supplied as standard
- Please refer to the description in the quotation for full identification of the device proposed

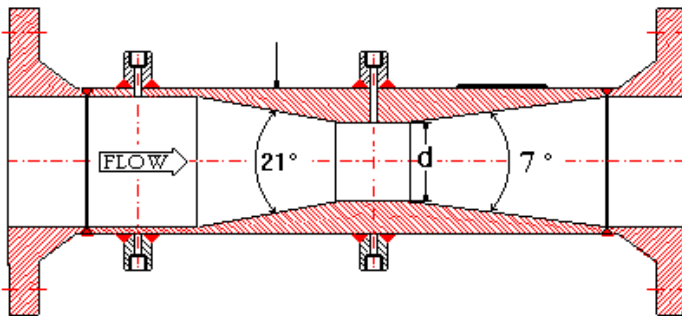
METER RUN

Suitable for small diameter (normally DN10 to DN50) pipes, in a straight line straight pipes for easy installation

- Manufactured according to ASME B16.36 / ISO 5167-2
- Standard material 316 stainless steel, exotic materials are available (Monel, Hastelloy, etc.)
- Thickness is manufactured according to the operating conditions, starting from 3mm. Handle with all data : tag number, rating, material diameter, flow direction
- Flow calculation sheet supplied as standard
- Please refer to the description in the quotation for the complete identification of the device suggested



VENTURI TUBES

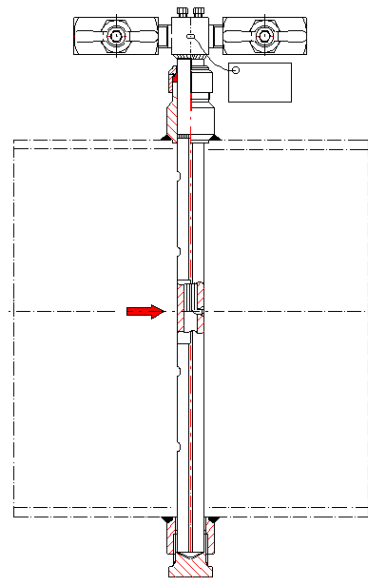


- To be used where low pressure drops are required
- Manufactured in sizes from 2" to 48" according to ASME/ISO 5167-4
- Wide range of applications at medium and high pressure and temperature
- Standard construction in carbon steel or SS316.
- Please refer to the description in the quotation for options of the device suggested

AVERAGE PITOT TUBES

For air or gasses with low pressure measurement and large pipes/ducts, from DN300 to DN12000, we can offer a standard accuracy 1% and 0.1% repeatability.

- Multi-Hole Averaging Pitot Tubes)
- Suitable for insertion in lines of any size
- Simple and fast installation
- Available as standard in SS316, but many different materials are available.
- Retractable option is available, allowing for the installation or removal of the equipment without system shutdown
- Root valves are supplied as standard
- Front supports are available for wide pipes and conduits.
- Nipples and adaptors, supplied as standard
- Please refer to the description in the quotation for the suggested device proposal



SPECIAL COMPACT CONSTRUCTION

Transmitter supporting Flow Element

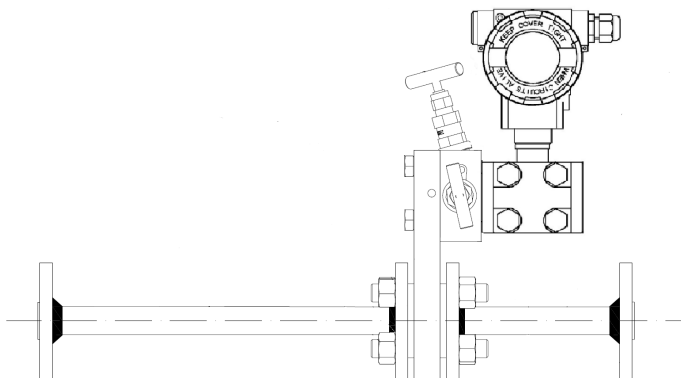
Compact construction designed for all flow measurement applications of **clean liquids** and **gasses** where space is limited.

Main advantages:

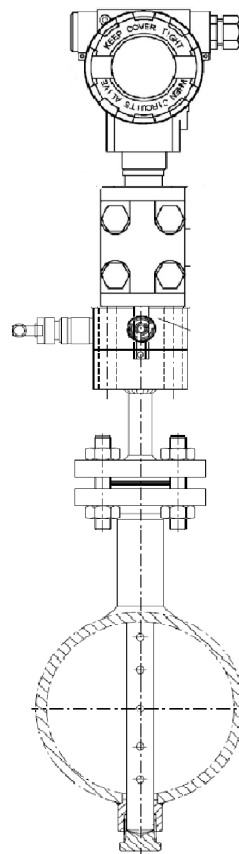
- no remote support for the transmitter required
- no tubing/capillary to connect the parts is needed
- reduced connections means less risk of leakage
- SQ root extraction directly on the transmitter
- Reduced installation costs
- Suitable for fluid temperature up to 120C

The manufacture of the calibrated disc or Pitot tube, is built with a thickness ratio sufficient to support the assembly manifold and transmitter, offering a viable flow measurement solution for those applications where space is limited, optimising the installation without affecting the performance of the system.

Compact meter run



Compact Pitot Tube



COMPLETE FLOW RATE MEASURING SYSTEM

Delta Mobrey can supply a complete range of equipment for the measurement of flow of liquids and gasses. For gasses, in particular, the complete measuring set with pressure and temperature measurement for flow compensation, is available:

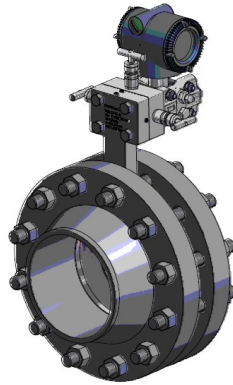
- **Flow element**
- D SERIES D-31 Differential Pressure Transmitters, with programmable display and square root function
- D SERIES D-21 Pressure transmitters
- D SERIES D-72 Temperature transmitters
- Different type of flow computer for the flow calculation are available upon request.
- Condensation pots for steam
- Valves, Manifolds, Thermowells

A set of instruments are available, suitable for use in safe or in hazardous areas, according to the ATEX directive and SIL 2 construction. This are available as options.

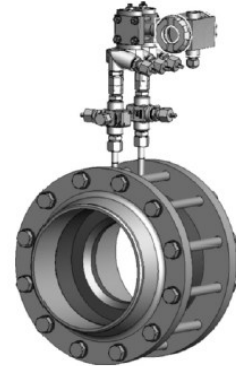
Each transmitter is supplied with a manifold and any accessory specifically for the correct installation.

The flow element is supplied with a drawing, calculation sheet and wetted parts material certification.

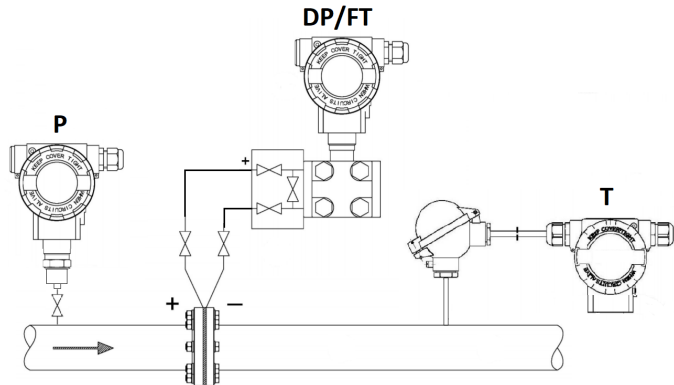
Compact



Standard



Complete system ready for flow measurement with Pressure and Temperature compensation



HOW TO ORDER:

To be able to proceed with the quotation, please confirm:

- Pipe size, thickness & Material
- Process media type & density
- Flow rate min, norm, max
- Pressure and temperature norm. and max

Flow elements and Flow measurement set

In the interest of development and improvement Delta Mobrey Ltd, reserves the right to amend, without notice, details contained in this publication. No legal liability will be accepted by Delta Mobrey Ltd for any errors, omissions or amendments.

Delta Mobrey Limited
 Hudson House, Albany Park Camberley Surrey, GU16 7PL, UK.
 T+44 (0)1252 729140 F+44 (0)1252 729168 E sales@delta-mobrey.com W www.delta-mobrey.com



FM00720