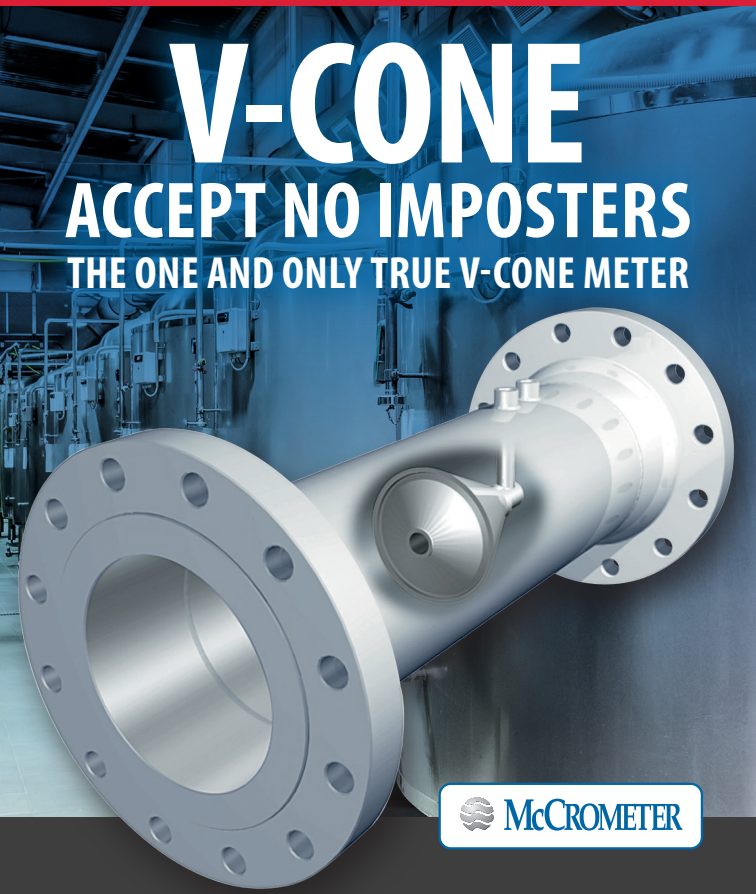
ABLE INSTRUMENTS & CONTROLS

V-CONE

ACCEPT NO IMPOSTERS

THE ONE AND ONLY TRUE V-CONE METER



BECAUSE NOT ALL DIFFERENTIAL PRESSURE METERS ARE CREATED EQUAL

- Flowmeter accuracy to +/-0.5%
- Flowmeter repeatability to +/-0.1%
- Flow ranges: 10:1 and greater
- Preconditions flow
- Requires minimal straight pipe
- Low head loss, low maintenance
- Exotic materials of construction available
- No recalibration
- Suitable for use as an ATEX flow meter

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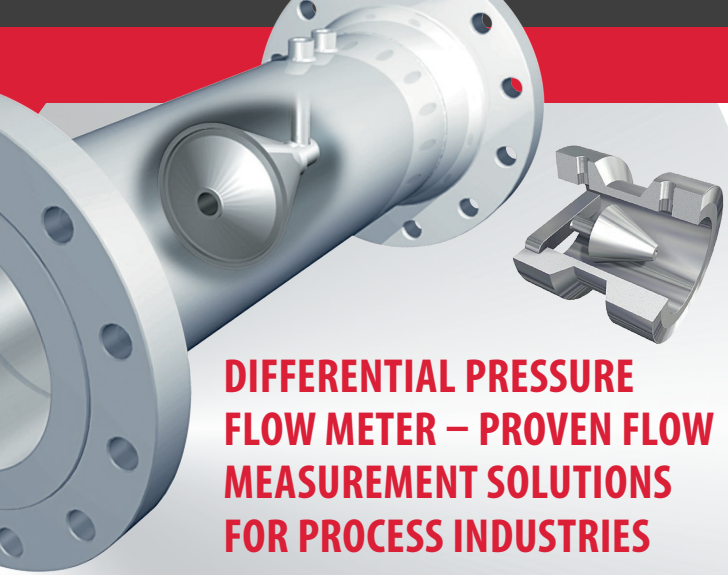


DIFFERENTIAL PRESSURE FLOW METER – PROVEN FLOW MEASUREMENT SOLUTIONS FOR PROCESS INDUSTRIES

The McCrometer V-Cone's built in-flow condition design makes it ideal for use in tight-fit and retrofit installations. When accuracy and repeatability are critical, the V-Cone's performance brings superior value.

Proven Performance

McCrometer invented and patented the first V-Cone flow meter, in 1985. Today, there are over 100,000 McCrometer V-Cone flow meters installed worldwide.

Accuracy You Can Count On

The V-Cone flow meter's unique design provides repeatable accuracy of up to ±0.5% of rate under even the most difficult flow conditions.

High-Performance in Challenging Applications

Designed for mild to harsh operating environments, this advanced flow meter consistently outperforms traditional differential pressure (DP) devices, and other flow technologies.

Maximum Installation Flexibility

Can be installed virtually anywhere in the piping system, or easily retrofit into an existing piping layout giving significant cost savings.

Low-to-No Operating Costs

Long-term performance assurance with no moving parts to replace and maintain.

ABLE Instruments & Controls Ltd are **McCrometer's exclusive representative** for sales and service

Whilst it is very common for cone meter's to be called a V-Cone, McCrometer, Inc. invented and patented the first successful cone meter, the one and only V-Cone® Flow Meter, in 1985.

Due to the dynamics of liquids and gases flowing through elbows, valves, pumps, and other pipeline structures, every flow-meter methodology has its own design limitations. Unlike Venturi meters, pitot tubes, orifice plates, and other devices, V-Cone meters provide highly accurate and reliable readings with minimal straight-pipe length restrictions and virtually no maintenance, in pipe sizes up to 120".

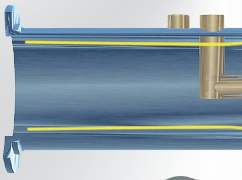
The advanced V-Cone flow meter requires only 1-3 straight pipe diameters upstream and 0-1 downstream to operate effectively. In comparison to traditional DP instruments, the V-Cone Flow Meter's design is inherently more accurate because the flow conditioning function is built into the basic instrument.

The McCrometer V-Cone® flow meter technology accurately measures flow over a wide range of Reynolds numbers, under many conditions and for a variety of fluids (liquid, steam or gas media) with unrivalled performance. **Accept no fakes**.

UNIQUE HYDRODYNAMIC CONE SHAPE TAKES FLO

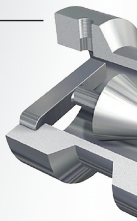
The contoured shape of the centrally located cone in the V-Cone flow meter Overcomes virtually any flow disturbance.

The short vortices formed by the flow create a low amplitude, high frequency signal which enables a wide measurement range and excellent signal stability.



Wafer-Cone®

The Wafer-Cone® flow meter is the ideal low cost solution, offering exceptional flexibility for natural gas, coal bed methane, and shale gas wellheads. Also ideal for small process lines and many other plant infrastructure applications.



ACCOMPLISHED INNOVATION… A CATEGORY OF ITS OWN

After more than thirty years, McCrometer's V-Cone flow meter remains the most innovative DP meter available today. The self-conditioning cone is a simple, yet powerful way to provide accuracy you can count on regardless of flow dynamics. This results in maximum installation flexibility and unsurpassed performance.

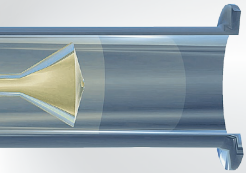
Low Total Cost of Ownership

With no moving parts to replace or maintain, the V-Cone flow meter assures long-term performance without the operating costs of other flow meters. The contoured aerodynamic shape of the cone profiles the flow in the pipe without impacting it against a sharp beta edge.

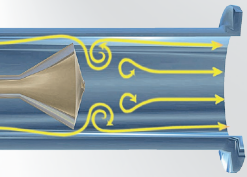
Design Flexibility

The V-Cone flow meter is available in line sizes from 0.5" to greater than 120" in an extensive variety of construction materials with beta ratios to suit any application. The V-Cone flow meter can be jacketed, painted, coated, or treated like any other piece of piping. The V-Cone flow meter is regularly calibrated, tested and certified to the most demanding specifications.

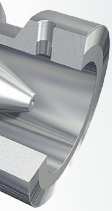
W MEASUREMENT TO A NEW LEVEL



As the flow approaches the cone, the flow profile flattens toward the shape of a well developed profile – even in extreme flow conditions.

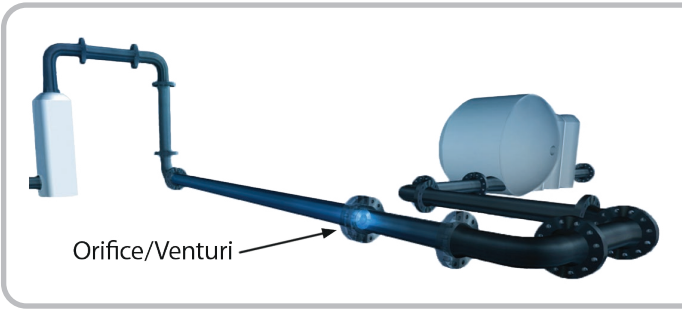


The contour shaped cone directs the flow away from the cone, keeping the beta edge free from wear. V-Cone meters therefore rarely require recalibration or replacement.



The Wafer-Cone flow meter is available in line sizes from 1 to 6 inches and can be oil or gas flow calibrated. Featuring a removable cone and flangeless design, cones with different beta ratios can be easily exchanged to accommodate changing flow conditions without the need for recalibration.

McCROMETER



V-CONE FLOW METER SPECIFICATIONS

Standard Accuracy:
± 0.5% of rate (certain fluids and Reynolds number applications may require specific calibrations to achieve this value)

Repeatability:
±0.1% or better

Flow Ranges:
10:1 and greater

Standard Beta Ratios:
0.45 through 0.85, custom betas available

Head Loss:
Varies with beta ratio and DP

Installation Piping Requirements:
Typically 0-3 diameters upstream and 0-1 diameter downstream of the cone are required, depending on fittings or valves in the adjacent pipeline

Materials of Construction Include:
S304, S316, Duplex 2205 and 2507, Carbon steels, Hastelloy C276, 6Mo, other materials are available on request

Line Sizes:
0.5" to 120" or larger

End Fittings:
Flanged, threaded, hub or weld-end standard – Others on request

Configurations:
Precision flow tube and wafer-type
Calibrated for customer application
ASME B31.3 standard / ASME B31.1. B31.4, B31.8, Sec. VIII, API 6A, and other standards available on request

Proven Flow Measurement Solutions for the Oil and Gas Industry

Approvals for the V-Cone Flow Meter:

Manufactured in accordance with ISO 5167-5
Russian compliance EAC
Canadian custody transfer approved
INMETRO approved
Meters in compliance with PED 2014/68/EU Annex III, module H are available upon request
ISO 9001:2018 certified quality management system

Performance Verification Testing:

Tested at an API Registered MPMS Test Facility according to the requirements of API MPMS Chapter 22.2

V-cone is designed for today's most challenging applications, including:

- Oil and Gas
- Agriculture and Irrigation
- Plastics
- Textiles
- Metals and Mining
- Power
- Chemical Manufacturing
- Food and Beverage
- Pharmaceuticals
- District HVAC
- Process and Industrial app
- Water and Wastewater

For an evaluation of your flow application or to find out about our other flow meter products, contact **info@ableinstruments.com** today where our specialists are waiting to assist you.

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