

## **ExactSteam™ V-Cone® Flowmeter**



**Measure more steam,  
reduce energy costs**

# Measure More Steam, Reduce Energy Costs with the ExactSteam™ V-Cone®

- A **complete flowmeter** for steam metering, factory configured for energy metering or mass flow
- Accurately **measure steam across the entire range** with technology-leading low flow cut off
- The V-Cone flowmeter acts as its own **flow conditioner** by disrupting all centralized flow disturbances
- Makes retrofitting and new installations easier with **minimum installation requirements** - no flow conditioner required!
- V-Cone technology enables the lowest **permanent pressure loss** to maximize plant efficiency
- Reduce maintenance costs with the V-Cone flowmeter primary element's **+25 year lifespan**

## Stop Questioning Your Steam Measurement ...

### Learn What V-Cone Users Already Know

<b>Capture Low Flows</b>	Missing the low portion of your flow range could be costing you thousands of dollars annually
<b>Install Anywhere</b>	Install near common flow disturbers with no straight pipe needed, saving you money and space
<b>Maximize Efficiency</b>	Permanent pressure loss from other meters increases costs - the V-Cone has the lowest PPL in the industry
<b>Long Life</b>	Lifespan of +25 years eliminates costly plant downtime



\* Impulse lines not included

## What Types of Steam Can the ExactSteam V-Cone Measure?

- |                         |                                     |                    |
|-------------------------|-------------------------------------|--------------------|
| Saturated (Dry) .....   | <input checked="" type="checkbox"/> | Yes                |
| Superheated .....       | <input checked="" type="checkbox"/> | Yes                |
| Unsaturated (Wet) ..... | <input checked="" type="checkbox"/> | <b>Absolutely!</b> |

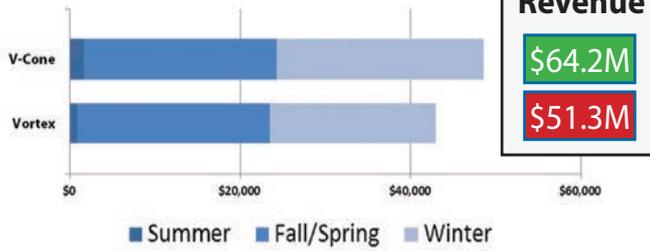
Try our cost calculator to see how much you can save!

## Metered Steam

6" Steam Line, 10psi, \$2.64 / k LB

### Flow rates:

- Summer - 1000 lb/hr
- Fall/Spring - 7,000 lb/hr
- Winter - 15,000 lb/hr

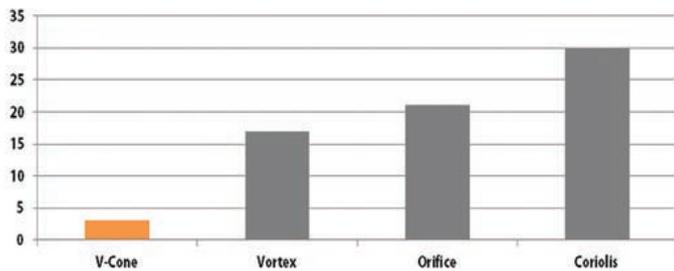


**Pairing high turndown with the minimum low flow cutoff enables accurate measurement across your entire range.**

Unmeasured steam is wasted steam. Unlike other technologies, V-Cone meters measure the high velocity core of a low flow profile, due to a conical design that acts as a flow conditioner.

## Permanent Pressure Loss

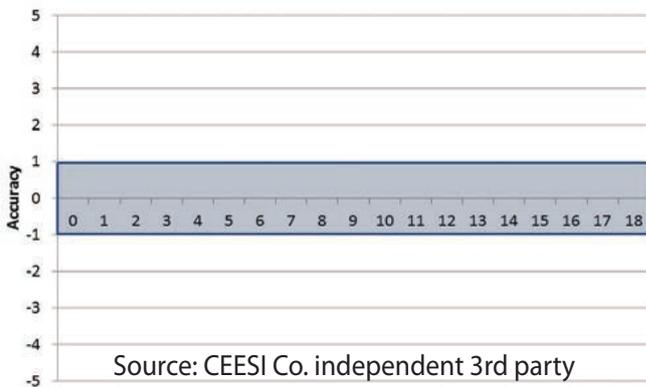
on a 3" 1145 LPM (kPA)



**In steam, losing pressure costs you real dollars in terms of energy production.**

The V-Cone's signal stability allows it to measure a wider range of flow than other meters, minimizing pressure loss. No added flow conditioner further improves its performance – maximizing energy efficiency for your plant.

## 3rd Party Calibration Results Over Time:



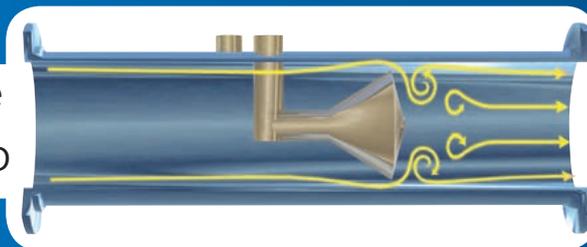
Source: CEESI Co. independent 3rd party test of 15 V-Cone Flowmeters

**Taking your plant offline to repair or replace a flowmeter adds unnecessary cost and burden.**

The V-Cone flowmeter primary element has a +25 year lifespan, proven to stay within 1% accuracy even when tested yearly over a decade.

**The V-Cone flowmeter's unique design shapes the flow profile, giving you unparalleled installation flexibility – saving you money and valuable space.**

The V-Cone flowmeter requires O-D



The V-Cone flowmeter acts as its own flow conditioner by disrupting all centralized flow disturbances.

An Orifice Plate requires 22-D

A Vortex flow meter requires 30-D

## SPECIFICATIONS

<b>Accuracy:</b>	± 0.5% for primary element, ±1% for total system
<b>Repeatability:</b>	±0.1% or better
<b>Turn Down:</b>	Up to 50:1 with stacked configuration or 10:1 with compact
<b>Installation Piping Requirements:</b>	0-3 diameters upstream, 0-1 diameters downstream
<b>Materials of Construction:</b>	Stainless Steel or Carbon Steel
<b>RTD:</b>	<ul style="list-style-type: none"><li>• Sensor Type: PT-100, thin Im</li><li>• Range: -58° to 752° F (-50° to 400° C)</li></ul>
<b>Manifold:</b>	Configuration: 3-Valve
<b>dP Transmitter:</b>	<ul style="list-style-type: none"><li>• Housing Material: F30 Aluminum</li><li>• Membrane Material: 316L</li><li>• Enclosure Rating: NEMA 4X/6P, IP66/67</li><li>• Electrical Connections: NPT1/2 thread</li></ul>
<b>Flow Computer:</b>	<ul style="list-style-type: none"><li>• Output: 4-20 mA, Isolated Pulse</li></ul>

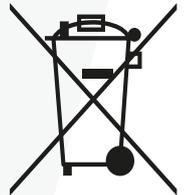
## McCrometer's Legacy of Quality Manufacturing

McCrometer is a leading global flow instrumentation specialist. We specialize in the design, manufacture, installation and testing of flow metering solutions. Instrument, process, facility and consulting engineers worldwide have confidently chosen McCrometer's flow meters for over 60 years.

Our application engineers, researchers and designers apply their expertise in flow physics and real-world operating dynamics. The results are some of the most accurate, innovative and trusted flow meters on the market. Our ISO certified manufacturing facilities and quality control system are the foundation for being a trusted supplier.

## V-Cone Flowmeter Certifications

- ISO 9001, ISO 17025
- PP Stamp Accredited
- PED / CE / CSA
- NVLAP Accredited



The V-Cone conforms to the industry standard ISO 5167 part 5-Cone Meters.



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