

**MODEL ExactSteam™ V-Cone®****DESCRIPTION**

The ExactSteam V-Cone System's innovative design delivers repeatable accuracy of +0.5% of rate with up to a 50:1 flow range under the most difficult flow conditions. The ExactSteam V-Cone System acts as its own flow conditioner, fully conditioning and mixing the flow prior to measurement. Readings are always precise and reliable, even under changing flow situations.

With this unique ability to self-condition flow, the ExactSteam V-Cone System virtually eliminates the need for upstream or downstream straight pipe runs. Thus, the ExactSteam V-Cone System can be installed virtually anywhere in a piping system or easily retrofit into an existing piping layout, resulting in significant installation flexibility and cost savings. In addition, the ExactSteam V-Cone System has proven to provide long-term performance with no moving parts to replace or maintain.

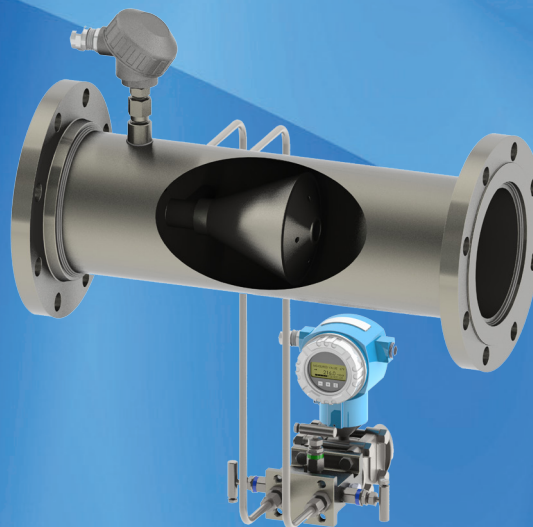
**KEY FEATURES**

- 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
- 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

**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>Line Sizes:</b>	2" to 24"
<b>End Fittings:</b>	Beveled or Raised Face 150# or 300# Flanges
<b>RTD:</b>	• Sensor Type: PT-100, thin film • Range: -58° to 752° F (-50° to 400° C)
<b>Manifold:</b>	Configuration: 3-Valve
<b>dP Transmitter:</b>	• Housing Material: F30 Aluminum • Membrane Material: 316L • Enclosure Rating: NEMA 4X/6P, IP66/67 • Electrical Connections: NPT1/2 thread
<b>Flow Computer:</b>	• Output: 4-20 mA, Isolated Pulse

Contact [vcouerfq@mccrometer.com](mailto:vcouerfq@mccrometer.com) for other sizes or configuration options.

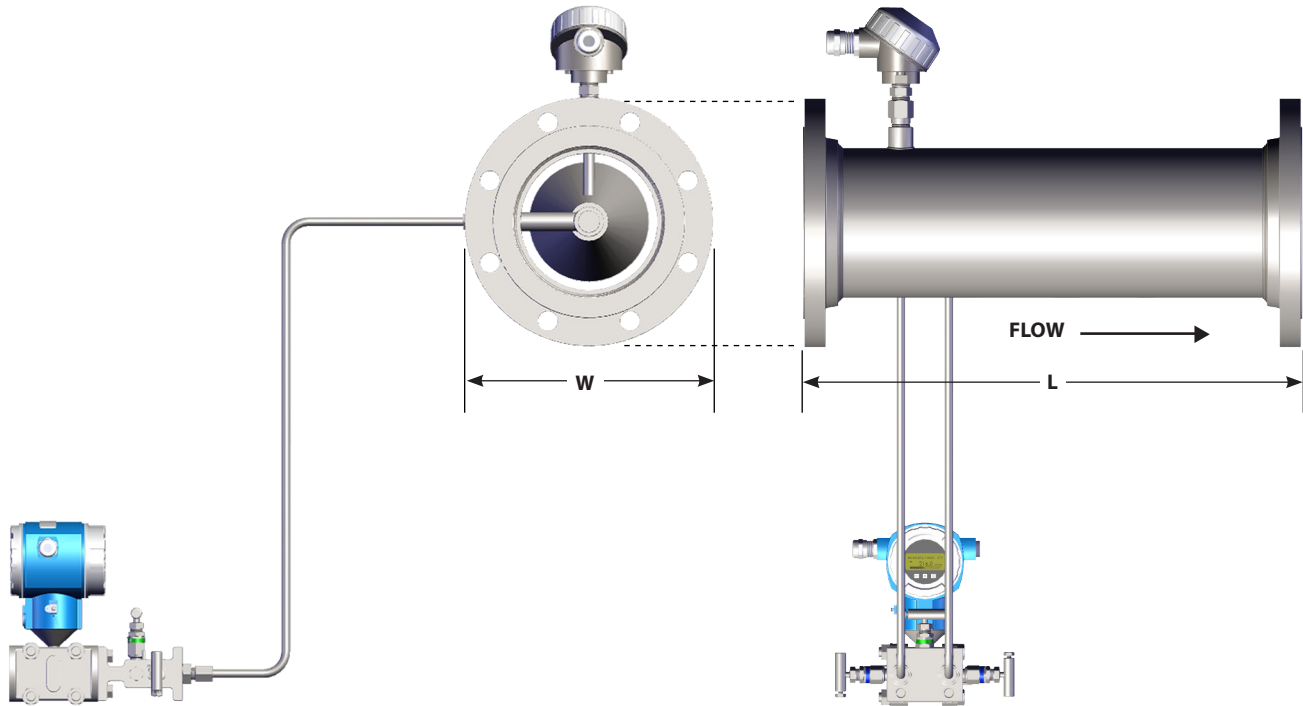




MODEL **ExactSteam™ V-Cone®**

Latin America

Fitting Options: Beveled Ends, ANSI 150# Flanges, ANSI 300# Flanges



McCrometer reserves the right to change design specifications without notice.

Size (in)	2	4	6	8	10	12	14	16	18	20	24
<b>Beveled Flanges</b>											
Approx. Weight - lbs. (meter only)	12	25	50	110	120	157	208	243	207	258	411
W (width - inches)	2.375	4.5	6.625	8.625	10.75	12.75	14	16	18	20	24
L (length - inches)	11.63	15.5	21.5	25.25	27.25	29.25	29	29	31	35	47
<b>ANSI 150# Flanges</b>											
Approx. Weight - lbs. (meter only)	20	50	110	160	259	336	388	455	493	620	890
W (width - inches)	6	9	11	13.5	16	19	21	23.5	25	27.5	32
L (length - inches)	12	16	22	26	28	30	30	30	32	36	48
No. of Bolts per Flange	4	8	8	8	12	12	12	16	16	20	20
<b>ANSI 300# Flanges</b>											
Approx. Weight - lbs. (meter only)	25	70	125	220	330	456	486	603	739	920	1430
W (width - inches)	6.5	10	12.5	15	17.5	20.5	23	25.5	28	30.5	36
L (length - inches)	12	16	22	26	28	30	30	30	32	36	48
No. of Bolts per Flange	8	8	12	12	16	16	20	20	24	24	24

**Beveled:** Overall length (A) tolerance varies with line size: ½" to 1", ±0.01" (±0.3mm); 1½" to 4", ±0.06" (±2mm); 6" to 10", ±0.12" (±4mm); 12" to 24", ±0.19" (±6mm); 28" to 60", ±0.25" (±7mm).

**150#/300#:** Overall length (A) tolerance varies with line size: ½" to 1", ±1/16" (±2mm); 1½" to 10", ±1/8" (±4mm); 12" to 24", ±3/16" (±6mm).

Meter will be 10:1 flow range standard (i.e. 400 to 40 GPM)

**NOTE:** Larger meter sizes, special laying lengths, other flow ranges available by special order.

**ORDERING INFORMATION:**

1. Select Nominal Pipe Size and include Maximum Flow Rate.
2. Specify units of measurement for both the flow rate indicator and totalizer.
3. For vertical installation, specify upflow or downflow.



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**MODEL ExactSteam™ V-Cone®**

**Primary Element**

Steam Designation	Line Size	Materials		Schedule		Flange & Class		Process Connection	
		Code	Description	Code	Description	Code	Description	Code	Description
EVS	02*	F	Carbon Steel Body, 316/L Cone, A105 Carbon Steel Flange and Coupling	D	STD	11	Beveled	N	Traditional Mount (1/2" NPT 3000#)
	04*								
	06	A	All S316/L	F	S40	13	ANSI 150#	W	Universal Mount for Vertical Flow
	08	*Carbon steel construction not recommended for line sizes less than 6".							
	10								
	12								
	14								
	16								
	18								
	20								
24									

- Notes:**
- RTD orientation is viewed from upstream.
  - Standard RTD location (90° clockwise from HP tap viewed upstream)
  - Steam package includes 3-valve traditional manifold.

**Electronics**

-	Make		DP Range*		LCD Display		Communication Protocol		Output*		Flow Computer*	
	Code	Description	Code	Description	Code	Description	Code	Description	Code	Description	Code	Description
-	E	Endress + Hauser DP Transmitter	1	Standard DP Range	N	No LCD	1	HART	A	Mass Flow Rate	1	Panel Mount
	S	Stacked Endress + Hauser DP Transmitters	2	Low DP Range	Y	LCD	0	None	B	Energy	2	NEMA 4X
	R	Rosemount DP Transmitter	3	High DP Range					N	None	0	No Flow Computer
	T	Stacked Rosemount DP Transmitters	0	None								
	M	Rosemount MV Transmitter										
	N	No Transmitter										

\* Stacked transmitters recommended for Turndowns greater than 10:1. Not available with MV transmitter.

**\* Manufacturer - DP Range**

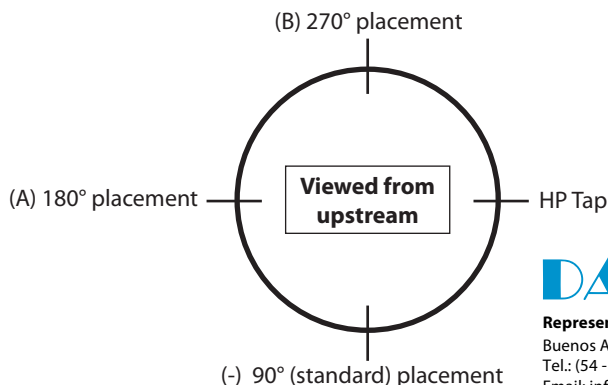
Endress+Hauser	1 - 200" WC
	2 - 40" WC
	3 - 1200" WC
Rosemount	1 - 250" WC
	2 - 25" WC
	3 - 1000" WC

\* Standard output  
Mass - lbs / hr  
Energy - BTU / hr

\* Flow computer not available with multivariable transmitter.

**Options**

Accreditation Options		RTD Positioning Options	
Code	Description	Code	Description
P	PP	-	90° (6 o'clock)
		A	180° (9 o'clock)
		B	270° (12 o'clock)
		C	No RTD or thermowell



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