

MODEL VS<sub>(x)</sub>

## PRECISION TUBE SERIES

## ANSI B16.1 Slip-On, Raised Face Flanges - Class 125 or 250

## DESCRIPTION AND GENERAL PERFORMANCE SPECIFICATIONS

The V-Cone® flowmeter is a patented, differential pressure type flow measurement device. A cone is positioned in the center of the pipe to increase the velocity of the flowing fluid and create a differential pressure. This pressure difference can be measured and used to accurately interpret flowrate. Two taps are provided on every V-Cone to allow sensing of the high and low pressures. A typical V-Cone application can follow these general performance specifications:

- Accuracy: up to  $\pm 0.5\%$  of rate
- Repeatability:  $\pm 0.1\%$
- Turndown: 10:1
- Standard Betas: 0.45 through 0.85
- Headloss: Percentage of differential pressure produced varies with beta ratio.
- Installation: Typically 0-3 diameters upstream and 0-1 diameters downstream.

\* Each V-Cone is sized for the intended application. Specific performance ratings must be obtained through the sizing process.

**Model VS Bulletins**ANSI B16.5 Slip-on, RF Flanges

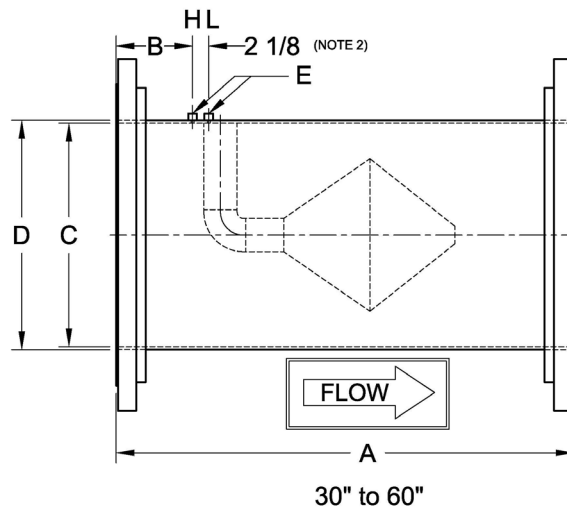
24509-32 Class 150 or 300

24509-33 Class 600 or 900

24509-34 Class 125 or 250



The V-Cone is manufactured under a quality management system that is certified to ISO 9001:2015.

MODEL VS<sub>(x)</sub> DIMENSIONS

## DIMENSION TABLE

Size	A (Note 1)		B		C-Stainless (Note 2)		C-Carbon (Note 2)		D		E (Note 2)
inch	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	NPT
30	60	1524	10	254.0	29.25	743.0	29.25	743.0	30	762	1/2
36	62	1524	10	254.0	35.25	895.4	35.25	895.4	36	914	1/2
48	78	1829	12	304.8	47.25	1200	47.25	1200	48	1219	1/2
60	96	2438	12	304.8	59.25	1505	59.25	1505	60	1524	1/2

1. Overall length (A) tolerance: 30" to 60",  $\pm 0.25"$  ( $\pm 7\text{mm}$ ).

2. Typical values shown.

3. Wall pressure ports are required for vertical up flow applications.





## SPECIFICATION SHEET

### MODEL NUMBER CONFIGURATION VS(x)

Type	Size		Materials‡		Pipe Schedule		End Connections		Fittings		
<b>VS</b>											
	30	30"	Q	S304/L	D	Std	30	CL 125 RF SO	N	NPT	
	36	36"	A	S316/L	R	30	31	CL 250 RF SO	S	Socket	
	48	48"	S	CS Tube	E	40			F	Direct mount assembly	
	60	60"		S304 Cone, Support, & Couplings		Q					60
				Epoxy Coated Blue (excluding cone)		F					80
				CS Tube		J					100
			U	S304 Cone, Support, & Couplings	K	120	Several types of fittings				
			F	CS Tube, Flanges, & Couplings, 316/L Cone & Supports	L	140					
			W	CS Tube, Flanges, & Couplings, S304/L Cone & Supports	G	160					
					P	XS					
					H	XXS					
			G	LTCS Tube, Flanges, & Couplings, S316/L Cone & Supports	‡Other materials can include: HASTELLOY C-276 DUPLEX 2205 CHROMEMOLY P22/P11 MONEL K400/K500 CARBON STEELS A350, A333, API5L, A106B S321H INCONEL 625						
			N	S304/L Tube, Cone, Support & Couplings CS Steel Flanges							

Several types of fittings

Example: VS30ND30N V-Cone 30 inch line size, S304 schedule std pipe, painted CS ANSI CL 125 RF slip on flanges, 1/2" NPT fittings

### STANDARD PIPE SCHEDULES

Stainless Steel		Carbon Steel	
Size	Std.	Size	Std.
30" and up	D	30" and up	D

### ABBREVIATIONS

ASME	American Society of Mechanical Engineers		
NPT	National pipe taper		
SS	Stainless steel	RF	Raised Face
CS	Carbon steel	SO	Slip On

Technical questions can be answered through a local representative or through our application engineers.

### MANUFACTURING STANDARDS

McCrometer's welders and welding procedures are qualified in accordance with ASME Section IX. All meters are visually inspected for weld defects. Specific customer requirements can be complied with upon request.

The welding can be in accordance with:

- ASME Section VIII
- ASME B31.1
- ASME B31.3

Non-destructive testing can include:

- Hydrostatic Pressure Testing
- Penetrant Examination
- Radiographic Examination
- Positive Material Inspection
- Magnetic Particle Examination

REPRESENTED BY:



3255 W. Stetson Ave., Hemet, CA 92545 USA -- Phone (951) 652-6811 / Fax (951) 652-3078  
www.mccrometer.com

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