

MODEL VI

Insertion Saddles with ANSI Slip-On, Raised Face Flanges

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:

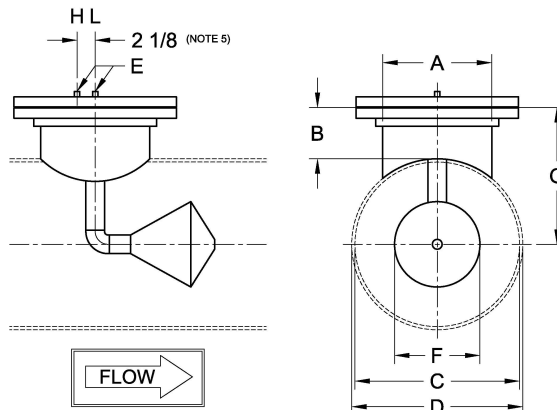
- Accuracy: up to $\pm 1.0\%$ of rate*
- Repeatability: $\pm 0.1\%$
- Turndown: 10:1
- Standard Betas: 0.45 through 0.8
- Headloss: Percentage of differential pressure produced varies with beta ratio.
- Installation: The Upstream Tap should be at least one diameter from an upstream disturbance and up to three diameters from a severe piping configuration. Downstream requirement: one diameter from the downstream end of the cone and up to three diameters depending on the first downstream disturbance. Not recommended for vertical up flow.



The V-Cone is manufactured under a quality management system that is certified to ISO 9001:2000.

* The accuracy statement is dependent on the precise insertion of the Saddle V-Cone into the pipe, the circularity, the internal dimensions, and the internal surface of the pipe. McCrometer is not responsible for: the branch connection, the welding associated with the branch, the branch reinforcement pads, the hole into the parent pipe, or the installation into the pipe. It may be possible to improve the accuracy if the meter is flow tested as a complete unit within the pipe.

MODEL VI DIMENSIONS



DIMENSION TABLE

Nom. Saddle Size A		Cone Diameter Range F	Pipeline Diameter Range D	Class 150/125 B (Note 5)		Class 300/250 B (Note 5)		Fittings E (Note 5)
inch	Pipe Sch.	Inch	inch	inch	mm	inch	mm	NPT
6	40	up to 5.5	6 to 14	5	127	6	152	1/2
8	40	up to 7.5	8 to 20	5	127	6	152	1/2
10	40	up to 9.5	10 to 24	5	127	6	152	1/2
12	40	up to 11.5	12 to 30	5	127	6	152	1/2
14	40	up to 12.75	14 to 30	5	127	6	152	1/2
16	40	up to 14.75	16 to 36	5	127	6	152	1/2
18	std	up to 16.75	18 to 40	7	178	8	203	1/2
20	std	up to 18.75	20 to 48	7	178	8	203	1/2
24	std	up to 22.75	24 to 56	7	178	8	203	1/2
30	std	up to 28.75	30 to 68	7	178	8	203	1/2
36	std	up to 34.75	36 to 90	7	178	8	203	1/2

Notes:

1. Dimension G = 0.5D + B.
2. Dimensions C, D & F are specified by the customer.
3. Bolts, nuts and gasket are not shown.
4. Saddle sizes 10" and larger incorporate two lifting hooks.
5. Typical values shown.



CONFIGURATION SHEET

MODEL NUMBER CONFIGURATION VI

Type	Size		Materials‡		Saddle Schedule		End Connections		Fittings	
VI										
	06	6"	Q	S304	A	10	03	CL 150 RF SO	N	NPT
	08	8"	L	S304L	B	20	04	CL 300 RF SO	S	Socket
	10	10"	A	S316L	D	Std	30	CL 125 RF SO >24"	Several types of fittings	
	12	12"	N	S304 Saddle, Cone, Support & Couplings	E	40	31	CL 250 RF SO >24"		
	14	14"		CS Steel Flanges						
	16	16"		Flanges painted						
	18	18"	S	CS Saddle & Flanges						
	20	20"		S304 Cone, Support, & Couplings						
	24	24"		Epoxy Coated Blue (excluding cone)						
	30	30"	U	CS Saddle & Flanges						
	36	36"		S304 Cone, Support, & Couplings						
				Coating / Painting Per Customer Req.						

‡Other materials can include:
 HASTELLOY C-276 S321H
 DUPLEX 2205 INCONEL 625
 CHROMEMOLY P22/P11
 MONEL K400/K500
 CARBON STEELS
 A350, A333, API5L, A106B

Example: VI10SE03N V-Cone 10 inch size, epoxy coated CS weld on saddle, S304 Cone and support, schedule 40 saddle pipe, ANSI CL 150 RF flanges, and 1/2" NPT fittings, pipeline outside diameters 10" to 24"

STD. SADDLE PIPE SCHEDULES

Stainless Steel		Carbon Steel	
Size	Std.	Size	Std.
6" to 10"	E	6" to 16"	E
12" and up	D	18" and up	D

Meters 6" and smaller utilize seamless pipe.
 Meters 8" and larger utilize welded pipe.

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:

