V-CONE®

CONFIGURATION SHEET
PRECISION TUBE SERIES

MODEL VJ

JIS Slip-On - 10k or 20k

DESCRIPTION AND GENERAL PERFORMANCE SPECIFICATIONS

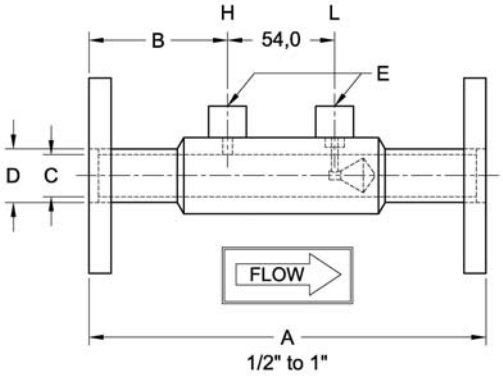
The V-Cone® flowmeter is a patented, differential pressure type flow measurement device. A cone is positioned in the center of the pipe to increase the velocity of the flowing fluid and create a differential pressure. This pressure difference can be measured and used to accurately interpret flowrate. 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:

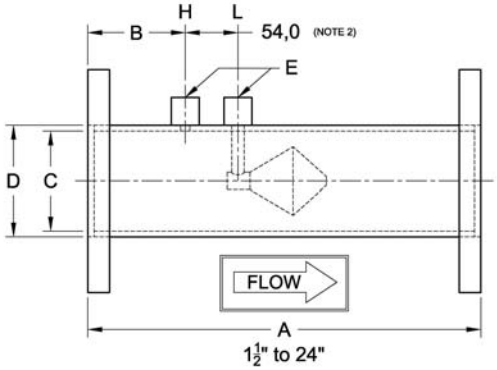
- Accuracy: up to ±0.5% of rate
- Repeatability: ±0.1%
- Turndown: 10:1
- Standard Betas: 0.45 through 0.85
- Headloss: Percentage of differential pressure produced varies with beta ratio.
- Installation: Typically 0-3 diameters upstream and 0-1 diameters downstream.

The V-Cone is manufactured under a quality management system that is certified to ISO 9001:2008.

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

MODEL VJ DIMENSIONS





DIMENSION TABLE

Size	A (Note 1)	B	C-Stainless (Note 2)	C-Carbon (Note 2)	D	E (Note 2)
inch	mm	mm	mm	mm	mm	RC
½	203	75	15,8	-	21,3	¼
¾	203	75	20,9	-	26,7	¼
1	203	75	26,64	-	33,4	¼
1½	254	76	41,78	-	48,3	¼
2	305	89	53,44	-	60,3	½
2½	305	89	63,60	-	73,0	½
3	356	89	78,84	-	88,9	½
4	406	102	103,8	-	114	½
6	559	108	154,1	154,1	168	½
8	660	127	202,7	202,7	219	½
10	711	127	254,5	254,5	273	½
12	762	133	304,8	303,3	323	½
14	762	152	336,6	333,5	355	½
16	762	152	387,4	381,0	406	½
18	813	152	438,2	438,2	457	½
20	914	152	489,0	489,0	508	½
24	1219	254	590,6	590,6	609	½

1. 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)
2. Typical values shown.
3. Wall pressure ports are required for vertical up flow applications.

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V-CONE®

CONFIGURATION SHEET

MODEL NUMBER CONFIGURATION VJ

Type	Size		Materials‡		Pipe Schedule		End Connections		Fittings	
VJ										
	0A	½"	Q	S304	A	10	26	JIS 10k	N	NPT
	0B	¾"	L	S304L	B	20	27	JIS 20k	S	Socket
	01	1"	A	S316L	D	Std			J	JIS RC
	0C	1½"	N	S304 Tube, Cone, Support & Couplings	E	40				
	02	2"		CS Steel Flanges	F	80				
	0D	2½"		Flanges painted	J	100				
	03	3"	S	CS Tube & Flanges	K	120				
	04	4"		S304 Cone, Support, & Couplings	L	140				
	06	6"		Epoxy Coated Blue (excluding cone)	G	160				
	08	8"	U	CS Tube & Flanges	H	XXS				
	10	10"		S304 Cone, Support, & Couplings	M	10S				
	12	12"		Coating / Painting Per Customer Req.	P	XS				
	14	14"								
	16	16"								
	18	18"								
	20	20"								
	24	24"								

Several types of fittings

‡Other materials can include:

HASTELLOY C-276
DUPLEX 2205
CHROMEMOLY P22/P11
MONEL K400/K500
CARBON STEELS
A350, A333, API5L, A106B
S321H
INCONEL 625

Example: VJ01QE26J V-Cone 1 inch line size, S304, schedule 40 pipe, JIS 10k , RC ¼" fittings

STANDARD PIPE SCHEDULES

Stainless Steel		Carbon Steel	
Size	Std.	Size	Std.
½" 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		
JIS	Japanese Industrial Standard		
NPT	National pipe taper		
SS	Stainless steel		
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:

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