

Threaded Ends

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:

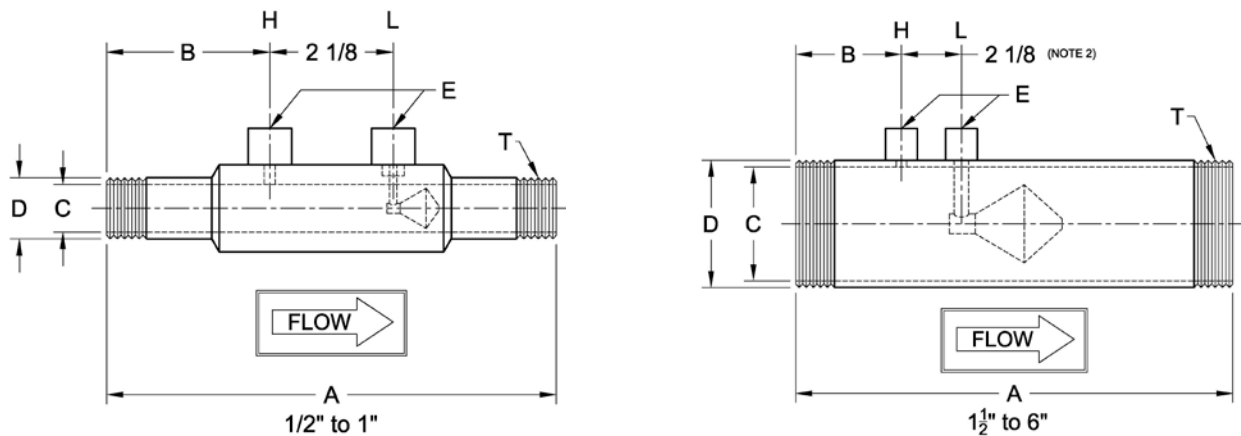
- Accuracy: up to $\pm 0.5\%$ of rate
- Repeatability: $\pm 0.1\%$
- Turndown: 10:1
- Standard Betas: 0.45 through 0.85
- Headloss: Percentage of differential pressure produced varies with beta ratio.
- Installation: Typically 0-3 diameters upstream and 0-1 diameters downstream.

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



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

MODEL VT DIMENSIONS



DIMENSION TABLE

Size	A (Note 1)		B		C-Stainless (Note 2)		C-Carbon (Note 2)		D		E (Note 2)		T
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	NPT	NPT	
1/2	7.75	197	2.81	71.4	0.622	15.8	-	-	0.84	21.3	1/4	1/2	
3/4	7.75	197	2.81	71.4	0.824	20.9	-	-	1.05	26.7	1/4	3/4	
1	7.75	197	2.81	71.4	1.049	26.64	-	-	1.315	33.4	1/4	1	
1 1/2	9.75	248	2.88	73.2	1.645	41.78	-	-	1.9	48.3	1/4	1 1/2	
2	11.63	295	3.31	84.1	2.104	53.44	-	-	2.375	60.3	1/2	2	
2 1/2	11.50	292	3.25	82.6	2.504	63.60	-	-	2.875	73.0	1/2	2 1/2	
3	13.50	343	3.25	82.6	3.104	78.84	-	-	3.5	88.9	1/2	3	
4	15.50	394	3.75	95.3	4.090	103.8	-	-	4.5	114	1/2	4	
6	21.50	546	4.00	102	6.065	154.1	6.065	154.1	6.625	168	1/2	6	

1. Overall length (A) tolerance varies with line size: 1/2" to 1", $\pm 0.01"$ ($\pm 0.3\text{mm}$); 1 1/2" to 4", $\pm 0.06"$ ($\pm 2\text{mm}$); 6", $\pm 0.12"$ ($\pm 4\text{mm}$).

2. Typical values shown.

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



MODEL NUMBER CONFIGURATION VT

Type	Size	Materials‡		Pipe Schedule		End Connections		Fittings	
VT									
	0A 1/2"	Q	S304/L	D	Std	02	Threaded	N	NPT
	0B 3/4"	A	S316/L	R	30			S	Socket
	01 1"	S	CS Tube S304 Cone, Support, & Couplings Epoxy Coated Blue (excluding cone)	E	40			F	Direct mount assembly
	0C 1 1/2"			Q	60				
	02 2"			F	80				
	0D 2 1/2"	U	CS Tube S304 Cone, Support, & Couplings	J	100				
	03 3"			K	120				
	04 4"	F	CS Tube, Flanges, & Couplings, 316/L Cone & Supports	L	140				
	06 6"			G	160				
				W	CS Tube, Flanges, & Couplings, S304/L Cone & Supports			P	XS
		G	LTCS Tube, Flanges, & Couplings, S316/L Cone & Supports	H	XXS				
		N	S304/L Tube, Cone, Support & Couplings CS Steel Flanges						

Several types of fittings available.

‡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: VT01QC02N V-Cone 1 inch line size, S304, bored to schedule 40, 1" threaded ends, 1/2" NPT fittings

STANDARD PIPE SCHEDULES

Stainless Steel		Carbon Steel	
Size	Std.	Size	Std.
1/2" to 6"	E	6"	E

ABBREVIATIONS

ASME	American Society of Mechanical Engineers
NPT	National pipe taper
SS	Stainless steel
CS	Carbon steel

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:

