

# V-Cone Flow Meter Flow Formulas

Insertion Device # 3

Base Formula :  $Q_{gpm} = 5.6748766 D^2 \beta^2 Cd (\Delta P)^{1/2} / (1-\beta^4)^{1/2}$

<b>Component</b>	<b>Meter I.D. (D)</b>	<b>Beta Ratio (β)</b>	<b>Discharge Coeff (Cd)</b>	<b>Formula</b>
BPM1-F	0.438"	0.532	0.8215	$Q_{gpm} = 0.26392(\Delta P)^{1/2}$
FM1-F	0.656"	0.701	0.8144	$Q_{gpm} = 1.12215(\Delta P)^{1/2}$
PS1-F	0.656"	0.701	0.8132	$Q_{gpm} = 1.12050(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.8279	$Q_{gpm} = 0.26597(\Delta P)^{1/2}$
FM2-F	0.656"	0.769	0.7852	$Q_{gpm} = 1.40618(\Delta P)^{1/2}$
PS2-F	0.656"	0.701	0.8143	$Q_{gpm} = 1.12201(\Delta P)^{1/2}$