

# V-Cone Flow Meter Flow Formulas

## Insertion Device # 14

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

<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	0.8251	$Q_{\text{gpm}} = 0.26507(\Delta P)^{1/2}$
FM1-F	0.656	0.701	0.8002	$Q_{\text{gpm}} = 1.10258(\Delta P)^{1/2}$
PS1-F	0.656	0.701	0.8069	$Q_{\text{gpm}} = 1.11182(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.8215	$Q_{\text{gpm}} = 0.26392(\Delta P)^{1/2}$
FM2-F	0.656"	0.769	0.7821	$Q_{\text{gpm}} = 1.40063(\Delta P)^{1/2}$
PS2-F	0.656"	0.701	0.8078	$Q_{\text{gpm}} = 1.11306(\Delta P)^{1/2}$