

V-Cone Flow Meter Flow Formulas

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Insertion Device # 1

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

Component	Meter I.D. (D)	Beta Ratio (β)	Discharge Coeff (Cd)	Formula
BPM1-F	0.438"	0.532	0.8276	$Q_{\text{gpm}} = 0.26587(\Delta P)^{1/2}$
FM1-F	0.656"	0.701	0.8073	$Q_{\text{gpm}} = 1.11237(\Delta P)^{1/2}$
PS1-F	0.656"	0.701	0.8079	$Q_{\text{gpm}} = 1.11319(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.8284	$Q_{\text{gpm}} = 0.26613(\Delta P)^{1/2}$
FM2-F	0.656"	0.769	0.7658	$Q_{\text{gpm}} = 1.37144(\Delta P)^{1/2}$
PS2-F	0.656"	0.701	0.8112	$Q_{\text{gpm}} = 1.11774(\Delta P)^{1/2}$