

V-Cone Flow Meter Flow Formulas

Insertion Device # 9

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	0.8163	$Q_{\text{gpm}} = 0.26225(\Delta P)^{1/2}$
FM1-F	0.656"	0.769	0.7896	$Q_{\text{gpm}} = 1.41406(\Delta P)^{1/2}$
PS1-F	0.656"	0.701	0.8101	$Q_{\text{gpm}} = 1.11623(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.7921	$Q_{\text{gpm}} = 0.25447(\Delta P)^{1/2}$
FM2-F	0.656"	0.769	0.7837	$Q_{\text{gpm}} = 1.40349(\Delta P)^{1/2}$
PS2-F	0.656"	0.701	0.8126	$Q_{\text{gpm}} = 1.11967(\Delta P)^{1/2}$