

V-Cone Flow Meter Flow Formulas

Insertion Device # 7

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	0.8283	$Q_{\text{gpm}} = 0.26610(\Delta P)^{1/2}$
FM1-F	0.656	0.701	0.8109	$Q_{\text{gpm}} = 1.11733(\Delta P)^{1/2}$
PS1-F	0.656	0.701	0.8100	$Q_{\text{gpm}} = 1.11609(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.8260	$Q_{\text{gpm}} = 0.26536(\Delta P)^{1/2}$
FM2-F	0.656"	0.769	0.7898	$Q_{\text{gpm}} = 1.41442(\Delta P)^{1/2}$
PS2-F	0.656"	0.701	0.8010	$Q_{\text{gpm}} = 1.10369(\Delta P)^{1/2}$