

V-Cone Flow Meter Flow Formulas

Insertion Device # 11

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	0.8294	$Q_{\text{gpm}} = 0.26645(\Delta P)^{1/2}$
FM1-F	0.656	0.701	0.8169	$Q_{\text{gpm}} = 1.12559(\Delta P)^{1/2}$
PS1-F	0.656	0.701	0.8064	$Q_{\text{gpm}} = 1.11112(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.8337	$Q_{\text{gpm}} = 0.26784(\Delta P)^{1/2}$
FM2-F	0.656"	0.769	0.7856	$Q_{\text{gpm}} = 1.40690(\Delta P)^{1/2}$
PS2-F	0.656"	0.701	0.8106	$Q_{\text{gpm}} = 1.11691(\Delta P)^{1/2}$