

V-Cone Flow Meter Flow Formulas

Bending Magnet # 14

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

Component Formula	Meter I.D. (D)	Beta Ratio (β)	Discharge Coeff (Cd)	
FM1-F	0.438"	0.731	0.7677	$Q_{\text{gpm}} = 0.52838(\Delta P)^{1/2}$
BPM1-F	0.438"	0.532	0.8224	$Q_{\text{gpm}} = 0.26421(\Delta P)^{1/2}$
FM2/PS1-F	0.438"	0.731	0.7566	$Q_{\text{gpm}} = 0.52074(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.8383	$Q_{\text{gpm}} = 0.26931(\Delta P)^{1/2}$
FM3/PS2-F	0.438"	0.731	0.7684	$Q_{\text{gpm}} = 0.52886(\Delta P)^{1/2}$
BeW-F	0.438"	0.731	0.7788	$Q_{\text{gpm}} = 0.53601(\Delta P)^{1/2}$