

V-Cone Flow Meter Flow Formulas

Bending Magnet # 12

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	0.7614	$Q_{\text{gpm}} = 0.52404(\Delta P)^{1/2}$
BPM1-F	0.438"	0.532	0.8141	$Q_{\text{gpm}} = 0.26154(\Delta P)^{1/2}$
FM2/PS1-F	0.438"	0.731	0.7608	$Q_{\text{gpm}} = 0.52363(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.8281	$Q_{\text{gpm}} = 0.26604(\Delta P)^{1/2}$
M3/PS2-F	0.438"	0.731	0.7686	$Q_{\text{gpm}} = 0.52899(\Delta P)^{1/2}$
BeW-F	0.438"	0.731	0.7674	$Q_{\text{gpm}} = 0.52817(\Delta P)^{1/2}$