

V-Cone Flow Meter Flow Formulas

Bending Magnet # 7

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	0.7501	$Q_{\text{gpm}} = 0.51626(\Delta P)^{1/2}$
BPM1-F	0.438"	0.532	0.8204	$Q_{\text{gpm}} = 0.26356(\Delta P)^{1/2}$
FM2/PS1-F	0.438"	0.731	0.7654	$Q_{\text{gpm}} = 0.52679(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.8211	$Q_{\text{gpm}} = 0.26379(\Delta P)^{1/2}$
M3/PS2-F	0.438"	0.731	0.7654	$Q_{\text{gpm}} = 0.52679\Delta P)^{1/2}$
BeW-F	0.438"	0.731	0.7660	$Q_{\text{gpm}} = 0.52721(\Delta P)^{1/2}$