

V-Cone Flow Meter Flow Formulas

Bending Magnet # 19

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 (B)	Discharge Coeff (Cd)	
FM1-F	0.438"	0.731	0.7431	$Q_{\text{gpm}} = 0.51144(\Delta P)^{1/2}$
BPM1-F	0.438"	0.532	0.8258	$Q_{\text{gpm}} = 0.26530(\Delta P)^{1/2}$
FM2/PS1-F	0.438"	0.731	0.7468	$Q_{\text{gpm}} = 0.51399(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.8148	$Q_{\text{gpm}} = 0.26176(\Delta P)^{1/2}$
M3/PS2-F	0.438"	0.731	0.7647	$Q_{\text{gpm}} = 0.52631(\Delta P)^{1/2}$
BeW-F	0.438"	0.731	0.7621	$Q_{\text{gpm}} = 0.52452(\Delta P)^{1/2}$