

V-Cone Flow Meter Flow Formulas

Bending Magnet # 2

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	0.7657	$Q_{\text{gpm}} = 0.52700(\Delta P)^{1/2}$
BPM1-F	0.438"	0.532	0.8109	$Q_{\text{gpm}} = 0.26051(\Delta P)^{1/2}$
FM2/PS1-F	0.438"	0.731	0.7678	$Q_{\text{gpm}} = 0.52844(\Delta P)^{1/2}$
BPM2-F	0.438"	0.532	0.8252	$Q_{\text{gpm}} = 0.26510(\Delta P)^{1/2}$
M3/PS2-F	0.438"	0.731	0.7684	$Q_{\text{gpm}} = 0.52886(\Delta P)^{1/2}$
BeW-F	0.438"	0.731	0.7759	$Q_{\text{gpm}} = 0.53402(\Delta P)^{1/2}$