

V-Cone Flow Meter Flow Formulas

Bending Magnet # 10

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 | 0.7603 | $Q_{\text{gpm}} = 0.52328(\Delta P)^{1/2}$ |
| BPM1-F | 0.438" | 0.532 | 0.8146 | $Q_{\text{gpm}} = 0.26170(\Delta P)^{1/2}$ |
| FM2/PS1-F | 0.438" | 0.731 | 0.7343 | $Q_{\text{gpm}} = 0.50539(\Delta P)^{1/2}$ |
| BPM2-F | 0.438" | 0.532 | 0.8210 | $Q_{\text{gpm}} = 0.26376(\Delta P)^{1/2}$ |
| M3/PS2-F | 0.438" | 0.731 | 0.7658 | $Q_{\text{gpm}} = 0.52707(\Delta P)^{1/2}$ |
| BeW-F | 0.438" | 0.731 | 0.7599 | $Q_{\text{gpm}} = 0.52301(\Delta P)^{1/2}$ |