# V-Cone Flow Meter Flow Formulas

## Bending Magnet # 17

Base Formula : $Q_{gpm} = 5.6748766\ D^2\ \beta^2\ Cd\ (\Delta P)^{1/2} / (1-\beta^4)^{1/2}$

| Component Formula | Meter I.D. (D) | Beta Ratio (ß) | Discharge Coeff (Cd) | |
|---|---|---|---|---|
| FM1-F | 0.438" | 0.731 | 0.7719 | $Qgpm = 0.53127(\Delta P)^{1/2}$ |
| BPM1-F | 0.438" | 0.532 | 0.8159 | $Qgpm = 0.26212(\Delta P)^{1/2}$ |
| FM2/PS1-F | 0.438" | 0.731 | 0.7680 | $Qgpm = 0.52858(\Delta P)^{1/2}$ |
| BPM2-F | 0.438" | 0.532 | 0.8247 | $Qgpm = 0.26494(\Delta P)^{1/2}$ |
| FM3/PS2-F | 0.438" | 0.731 | 0.7709 | $Qgpm = 0.53058(\Delta P)^{1/2}$ |
| BeW-F | 0.438" | 0.731 | 0.7710 | $Qgpm = 0.53065(\Delta P)^{1/2}$ |