# V-Cone Application Sizing

| | | | |
|---|---|---|---|
| Serial # | 99-0578 | Fluid State | LIQUID |
| Tag | | Fluid | Water , WATER |
| Model | VP06QE44N | End User | ARGONNE LABS |
| Job Ref. | JB4012 | | |

| | | | |
|---|---|---|---|
| Description | 6" V-CONE | Mktg. Code | |
| Note | | | |

| | | |
|---|---|---|
| $C_f$ | 0.8309 | |
| $P_f$ | 100 | psiG |
| $T_f$ | 90 | °F |
| $\rho$ | 62.00 | lb/ft3 |
| $\mu$ | 0.7827 | cP |
| G | | |
| Z | | |
| Y | | |
| k | | |
| $C_P$ | | |
| Mw | 18.015 | |
| $P_b$ | | |
| $T_b$ | | |
| $Z_b$ | | |
| $P_{baro}$ | 14.696 | psiA |
| $P_c$ | 3198.8 | psiA |
| $T_c$ | 1164.8 | °R |
| $F_a$ | 1.000 | |
| aPE | D 9.5e-06 d 9.5e-06 | ⇐ |
| $P_v$ | 0.6991 | psiA |

⇐ Entered value.

| | | | |
|---|---|---|---|
| q | max. Flowrate | 500 | GPM |
| Re | max. Reynolds | 3.292e+05 | |
| V | max. Velocity | 5.498 | fps |
| $\Delta P$ | max. Dp | 38.376 | inWC(4°C) |
| $\Delta P$ | min. Dp | 0.38376 | inWC(4°C) |
| D | Meter I.D. | 6.0950 | in |
| d | Cone O.D. | 4.6510 | in |
| $\beta$ | Beta Ratio | 0.6463 | |
| | Turn Down | 10 | |

| | |
|---|---|
| McCrometer Cal. | |
| Third Party Cal. | |
| Dye. Pen. Exam. | |
| Hydro. Test | |
| X-Ray Exam. | |
| Mag. Part. | |
| PMI | |
| CMTR Copies | |
| McCrometer Eng. | MBB |

| | Re | Velocity fps | Gas. Exp. Y | $\Delta P$ inWC(4°C) | Flowrate GPM |
|---|---|---|---|---|---|
| 1 | 3.292e+05 | 5.4981 | | 38.376 | 500.00 |
| 2 | 2.963e+05 | 4.9483 | | 31.084 | 450.00 |
| 3 | 2.633e+05 | 4.3985 | | 24.561 | 400.00 |
| 4 | 2.304e+05 | 3.8487 | | 18.804 | 350.00 |
| 5 | 1.975e+05 | 3.2989 | | 13.815 | 300.00 |
| 6 | 1.646e+05 | 2.7490 | | 9.5940 | 250.00 |
| 7 | 1.317e+05 | 2.1992 | | 6.1402 | 200.00 |
| 8 | 9.875e+04 | 1.6494 | | 3.4538 | 150.00 |
| 9 | 6.584e+04 | 1.0996 | | 1.5350 | 100.00 |
| 10 | 3.292e+04 | 0.54981 | | 0.38376 | 50.000 |

Table based on one flow condition (P, T ...)

| | |
|---|---|
| Record Start Date | 04-27-1999 |
| Print Date | 05-20-1999 |

McCROMETER