V-Cone Application Sizing

Serial #	02-0451	Fluid State	LIQUID
Tag		Fluid	Water , WATER
Model	VT0BQC02N1	End User	ARGONNE LABS
Job Ref.	JB10133		

Description	3/4" V-CONE	Mktg. Code	03 04 159
Note			

C_f	0.8209	
P_f	120.0	psiG
T_f	90.0	°F
ρ	62.00	lb/ft3
μ	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
P_{loss}	0.8158	psiA

⇐ Entered value.

q	max. Flowrate	10	GPM
Re	max. Reynolds	4.870e+04	
V	max. Velocity	6.016	fps
ΔP	max. Dp	46.227	inWC
ΔP	min. Dp	0.46227	inWC
D	Meter I.D.	0.82400	in
d	Cone O.D.	0.62700	in
β	Beta Ratio	0.6488	
	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	ΔP inWC	Flowrate GPM
1	4.870e+04	6.0164		46.227	10.000
2	4.383e+04	5.4147		37.443	9.0000
3	3.896e+04	4.8131		29.585	8.0000
4	3.409e+04	4.2115		22.651	7.0000
5	2.922e+04	3.6098		16.642	6.0000
6	2.435e+04	3.0082		11.557	5.0000
7	1.948e+04	2.4066		7.3963	4.0000
8	1.461e+04	1.8049		4.1603	3.0000
9	9740	1.2033		1.8491	2.0000
10	4870	0.60164		0.46227	1.0000

Table based on one flow condition (P, T ,Z , k ...) V40 Version 1.20

Record Start Date	02-12-2002
Print Date	03-20-2002

k1 = 1.1318e-02
k2 =
k3 =

McCROMETER