RF 5
CAVITY

V-Cone Application Sizing

Serial #	02-0456
Tag	
Model	VT0BQC02N1
Job Ref.	JB10133

Fluid State	LIQUID
Fluid	Water , WATER
End User	ARGONNE LABS

Description	3/4" V-CONE
Note	

Mktg. Code	03 04 159

C_f	0.7883	
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}	1.231	psiA

⇐ Entered value.

q	max. Flowrate	20	GPM
Re	max. Reynolds	9.692e+04	
V	max. Velocity	11.92	fps
ΔP	max. Dp	93.325	inWC
ΔP	min. Dp	0.93327	inWC
D	Meter I.D.	0.82800	in
d	Cone O.D.	0.55000	in
β	Beta Ratio	0.7475	
	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	9.692e+04	11.917		93.325	20.000
2	8.723e+04	10.725		75.595	18.000
3	7.754e+04	9.5334		59.728	16.000
4	6.785e+04	8.3417		45.730	14.000
5	5.815e+04	7.1501		33.597	12.000
6	4.846e+04	5.9584		23.332	10.000
7	3.877e+04	4.7667		14.932	8.0000
8	2.908e+04	3.5750		8.3993	6.0000
9	1.939e+04	2.3834		3.7330	4.0000
10	9693	1.1917		0.93327	2.0000

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

Record Start Date	02-12-2002
Print Date	03-19-2002

k1 = 1.5932e-02
k2 =
k3 =

McCROMETER