V-Cone Application Sizing

Serial #	99-0577
Tag	
Model	VP04QE44N
Job Ref.	JB4012

Fluid State	LIQUID
Fluid	Water , WATER
End User	ARGONNE LABS

Description	4" V-CONE
Note	

Mktg. Code	

C_f	0.7972	
P_f	75	psiG
T_f	75	°F
ρ	62.13	lb/ft3
μ	0.9353	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	0.4302	psiA

⇐ Entered value.

q	max. Flowrate	600	GPM
Re	max. Reynolds	5.015e+05	
V	max. Velocity	15.12	fps
ΔP	max. Dp	144.31	inWC(4°C)
ΔP	min. Dp	1.0021	inWC(4°C)
D	Meter I.D.	4.0260	in
d	Cone O.D.	2.6630	in
β	Beta Ratio	0.7500	
	Turn Down	12	

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(4°C)	Flowrate GPM
1	5.015e+05	15.121		144.31	600.00
2	4.504e+05	13.581		116.41	538.89
3	3.994e+05	12.041		91.503	477.78
4	3.483e+05	10.501		69.593	416.67
5	2.972e+05	8.9609		50.675	355.56
6	2.461e+05	7.4207		34.753	294.44
7	1.950e+05	5.8806		21.825	233.33
8	1.440e+05	4.3404		11.889	172.22
9	9.288e+04	2.8003		4.9488	111.11
10	4.179e+04	1.2601		1.0021	50.000

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

Record Start Date	04-27-1999
Print Date	05-18-1999

McCROMETER