V-Cone Application Sizing

Serial #	99-0581
Tag	
Model	VP0CQE44N2
Job Ref.	JB4012

Fluid State	LIQUID
Fluid	Water , WATER
End User	ARGONNE LABS

Description	3/4" V-CONE
Note	

Mktg. Code	

C_f	0.8202	
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

⇐ Entered value.

q	max. Flowrate	30	GPM
Re	max. Reynolds	7.496e+04	
V	max. Velocity	4.751	fps
ΔP	max. Dp	60.667	inWC
ΔP	min. Dp	0.60667	inWC
D	Meter I.D.	1.6060	in
d	Cone O.D.	1.3390	in
β	Beta Ratio	0.5521	
	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	7.496e+04	4.7514		60.667	30.000
2	6.746e+04	4.2762		49.142	27.000
3	5.997e+04	3.8011		38.829	24.000
4	5.247e+04	3.3260		29.728	21.000
5	4.497e+04	2.8508		21.841	18.000
6	3.748e+04	2.3757		15.167	15.000
7	2.998e+04	1.9006		9.7070	12.000
8	2.249e+04	1.4254		5.4601	9.0000
9	1.499e+04	0.95028		2.4267	6.0000
10	7496	0.47514		0.60667	3.0000

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

Record Start Date	04-27-1999
Print Date	05-24-1999

McCROMETER