V-Cone Application Sizing

Serial #	98-1911
Tag	
Model	VP01QC44N1
Job Ref.	JB4627

Fluid State	LIQUID
Fluid	Water , WATER
End User	ARGONNE LABS

Description	1" V-Cone, all 304 SS.
Note	

Mktg. Code	

C_f	0.8688	
P_f	120	psiG
T_f	90	°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 6.7e-06	d 6.7e-06
P_v	0.6991	psiA
P_{loss}	8.330	psiA

⇐ Entered value.

q	max. Flowrate	20	GPM
Re	max. Reynolds	7.643e+04	
V	max. Velocity	7.410	fps
ΔP	max. Dp	313.34	inWC
ΔP	min. Dp	3.1334	inWC
D	Meter I.D.	1.0500	in
d	Cone O.D.	0.93730	in
β	Beta Ratio	0.4507	
	Turn Down	10	

McCrometer Cal.	MC 1500#
Third Party Cal.	
Dye. Pen. Exam.	
Hydro. Test	
X-Ray Exam.	
Mag. Part.	
PMI	
CMTR Copies	✓
McCrometer Eng.	JAM

	Re	Velocity fps	Gas. Exp. Y	ΔP inWC	Flowrate GPM
1	7.643e+04	7.4104		313.34	20.000
2	6.879e+04	6.6694		253.81	18.000
3	6.115e+04	5.9283		200.53	16.000
4	5.350e+04	5.1873		153.53	14.000
5	4.586e+04	4.4462		112.80	12.000
6	3.822e+04	3.7052		78.335	10.000
7	3.057e+04	2.9642		50.135	8.0000
8	2.293e+04	2.2231		28.200	6.0000
9	1.529e+04	1.4821		12.533	4.0000
10	7643	0.74104		3.1334	2.0000

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

Record Start Date	12-01-1998
Print Date	05-21-2002

k1 = 8.6947e-03
k2 =
k3 =

McCROMETER