V-Cone Application Sizing

Serial #	03-0751	Fluid State	LIQUID
Tag		Fluid	Water , WATER
Model	VP0CQE44N2	End User	ARGONNE NATION LABORATORY
Job Ref.	SO61580		

Description	V-CONE 1.5" ALL S304 WITH VICTAILIC GROOVE ENDS, 1/4" NPT 3000# COUPIN	Mktg. Code	03 04 159
Note			

C_f	0.8658	
P_f	150	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 9.5e-06	d 9.5e-06 ⇐
P_v	0.6991	psiA
P_{loss}	2.173	psiA

⇐ Entered value.

q	max. Flowrate	24	GPM
Re	max. Reynolds	6.019e+04	
V	max. Velocity	3.830	fps
ΔP	max. Dp	82.119	inWC
ΔP	min. Dp	0.82119	inWC
D	Meter I.D.	1.6000	in
d	Cone O.D.	1.4260	in
β	Beta Ratio	0.4535	
	Turn Down	10	

McCrometer Cal.	
Third Party Cal.	
Dye. Pen. Exam.	
Hydro. Test	
X-Ray Exam.	
Mag. Part.	
PMI	
CMTR Copies	
McCrometer Eng.	MPG

	Re	Velocity fps	Gas. Exp. Y	ΔP inWC	Flowrate GPM
1	6.019e+04	3.8297		82.119	24.000
2	5.417e+04	3.4467		66.517	21.600
3	4.815e+04	3.0637		52.557	19.200
4	4.213e+04	2.6808		40.239	16.800
5	3.611e+04	2.2978		29.564	14.400
6	3.010e+04	1.9148		20.530	12.000
7	2.408e+04	1.5319		13.139	9.6000
8	1.806e+04	1.1489		7.3907	7.2000
9	1.204e+04	0.76593		3.2849	4.8000
10	6019	0.38297		0.82119	2.4000

Table based on one flow condition (P, T ,Z , k ...) V40 Version 1.23

Record Start Date	03-18-2003
Print Date	04-03-2003

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