

CycloneSizer

Industria Minera

Vc	60 fps	18.3 m/s	1829 cm/s
Wi	0.5 feet	15.2 cm	
N	5		
H	1 feet	flow =	1800 CFM
particle diameter	5 μm		
particle density	124.8 lb/cu.ft	2000 kg/m ³	1.999999872 g/cm ³
gas viscosity	0.018 cp	0.000012096 lb / ft * s	1.80E-04 g/cm s
gas density	1.2 kg/m ³	0.075 lb/cu.ft	
K	8		
delta P	1606 Pa	6.4 inches H ₂ O	0.23 psig
HP range estimate	2.5 HP	2.8 HP	
cut diameter	4.6 μ	pd / cd =	1.078122605 53.8 %

base Vc	Wi	N	μ particle	cut diameter		
60	0.5	5	5	4.6		
			particle diameter			expected removal for said particle diameter
60	0.5	5	0.1	4.6	0.0005	0.0 %
60	0.5	5	0.2	4.6	0.0019	0.2 %
60	0.5	5	0.3	4.6	0.0042	0.4 %
60	0.5	5	0.4	4.6	0.0074	0.7 %
60	0.5	5	0.5	4.6	0.0115	1.1 %
60	0.5	5	0.6	4.6	0.0165	1.6 %
60	0.5	5	0.7	4.6	0.0223	2.2 %
60	0.5	5	0.8	4.6	0.0289	2.9 %
60	0.5	5	0.9	4.6	0.0363	3.6 %
60	0.5	5	1	4.6	0.0444	4.4 %
60	0.5	5	2	4.6	0.1568	15.7 %
60	0.5	5	3	4.6	0.2950	29.5 %
60	0.5	5	4	4.6	0.4266	42.7 %
60	0.5	5	5	4.6	0.5375	53.8 %
60	0.5	5	6	4.6	0.6260	62.6 %
60	0.5	5	6.55	4.6	0.6661	66.6 %
60	0.5	5	6.559	4.6	0.6667	66.7 %
60	0.5	5	9	4.6	0.7902	79.0 %
60	0.5	5	10	4.6	0.8230	82.3 %
60	0.5	5	15	4.6	0.9127	91.3 %
60	0.5	5	20	4.6	0.9490	94.9 %
60	0.5	5	25	4.6	0.9667	96.7 %
60	0.5	5	30	4.6	0.9767	97.7 %

