

VenturiSizer

mass-median particle diameter	8 μm		
particle density	1.7 g/cm ³		
gas viscosity	0.0002 g/cm s	2.00E-04 g/cm s	
gas kinematic viscosity	0.2 cm ² /s		
gas density	1 kg/m ³	0.0625 lb/cu.ft.	
gas flow rate	27.75 m ³ /s	58799 CFM	99900 m ³ /h
gas velocity through throat	10625 cm/s	349 fps	106.25 m/s
venturi gas temperature	100 °C	212 °F	373 °Kelvin
liquid (water) temperature	30 °C	86 °F	
liquid (water) density	1000 kg/cm ³	62.5 lb/cu.ft.	
liquid (water) flow rate	0.025 m ³ /s	396 US GPM	
L/G	0.0009 dimensionless	6.7 gallon per 1,000 cu.ft. gas	



Cunningham correction factor	1.029	deltaP	33	33	40.68 inches H ₂ O
aerodynamic geometric mean diameter	10.6 μm	BHP est.	470		580.2 HP
droplet diameter	72 μm		0.001058065 cmA		
inertial parameter Kpg	919		0.007188205 cm		
Reynolds number	382				
drag coefficient Cd	0.617				
B parameter	1.46				
Pt	0.0042				
1 - Pt	0.9958				

μ	Cc	ρ_{dynan}	Dpg	Kpg	Re	Cd	B	Pt	1- Pt	% removal
0.1	3.316	0.2	0.0072	0	382	0.617	1.46	0.7841	0.2159	21.6
0.2	2.158	0.4	0.0072	1	382	0.617	1.46	0.4612	0.5388	53.9
0.3	1.772	0.5	0.0072	2	382	0.617	1.46	0.2635	0.7365	73.7
0.4	1.579	0.7	0.0072	4	382	0.617	1.46	0.1604	0.8396	84.0
0.5	1.463	0.8	0.0072	5	382	0.617	1.46	0.1055	0.8945	89.4
0.6	1.386	0.9	0.0072	7	382	0.617	1.46	0.0744	0.9256	92.6
0.7	1.331	1.1	0.0072	9	382	0.617	1.46	0.0555	0.9445	94.5
0.8	1.290	1.2	0.0072	12	382	0.617	1.46	0.0433	0.9567	95.7
0.9	1.257	1.3	0.0072	14	382	0.617	1.46	0.0351	0.9649	96.5
1	1.232	1.4	0.0072	17	382	0.617	1.46	0.0293	0.9707	97.1
2	1.116	2.8	0.0072	62	382	0.617	1.46	0.0109	0.9891	98.9
2.5	1.093	3.4	0.0072	95	382	0.617	1.46	0.0087	0.9913	99.1
3	1.077	4.1	0.0072	135	382	0.617	1.46	0.0073	0.9927	99.3
4	1.058	5.4	0.0072	236	382	0.617	1.46	0.0059	0.9941	99.4
5	1.046	6.7	0.0072	365	382	0.617	1.46	0.0052	0.9948	99.5
6	1.039	8.0	0.0072	522	382	0.617	1.46	0.0047	0.9953	99.5
7	1.033	9.3	0.0072	707	382	0.617	1.46	0.0044	0.9956	99.6
8	1.029	10.6	0.0072	919	382	0.617	1.46	0.0042	0.9958	99.6
9	1.026	11.9	0.0072	1160	382	0.617	1.46	0.0040	0.9960	99.6
10	1.023	13.2	0.0072	1428	382	0.617	1.46	0.0039	0.9961	99.6

