



SAND REMOVAL EFFICIENCY

Pressure Drop	.10" W.G.	.20" W.G.	.30" W.G.
Free Area Velocity	940 fpm	1300 fpm	1600 fpm
Sand Particle Size	Removal Efficiency	Removal Efficiency	Removal Efficiency
1-1100 Micron	96.1%	86.3%	74.3%
1100-1500 Micron	99.9%	99.8%	99.2%

Select Free Area Velocity:

Using the Airflow Resistance Chart, select a free area velocity that produces an acceptable pressure drop with minimal water penetration. (Water penetration need not be considered when selecting exhaust louvers.)

Determine Louver Free Area:

Using the free area velocity from the previous step and total CFM, determine Louver Free Area required. Using Louver Free Area Chart, select a louver with the required free area. If louver size is given, determine free area from chart and work backwards to determine maximum airflow. See examples below.

Free Area Chart (square feet): *To convert to square meters, divide square feet by 10.765*

Louver Height Inches	Louver Width in Inches																				Louver Height Inches
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120		
18	0.19	0.31	0.42	0.56	0.67	0.79	0.94	1.05	1.16	1.30	1.42	1.54	1.68	1.79	1.91	2.04	2.16	2.28	2.42	18	
24	0.33	0.54	0.75	1.00	1.21	1.42	1.66	1.87	2.07	2.33	2.54	2.75	2.99	3.20	3.41	3.66	3.87	4.08	4.32	24	
30	0.48	0.78	1.08	1.44	1.74	2.03	2.39	2.69	2.99	3.35	3.65	3.94	4.31	4.60	4.90	5.26	5.56	5.86	6.22	30	
36	0.63	1.01	1.40	1.88	2.26	2.66	3.12	3.52	3.90	4.38	4.76	5.16	5.63	6.01	6.41	6.87	7.27	7.65	8.12	36	
42	0.77	1.25	1.74	2.31	2.79	3.27	3.86	4.35	4.82	5.40	5.88	6.37	6.91	7.42	7.90	8.49	8.97	9.44	10.03	42	
48	0.91	1.49	2.07	2.75	3.33	3.90	4.58	5.16	5.74	6.42	6.99	7.56	8.26	8.83	9.40	10.09	10.67	11.34	11.93	48	
54	1.07	1.73	2.39	3.19	3.86	4.52	5.32														
60	1.21	1.97	2.73	3.63	4.38	5.15	6.05														
66	1.35	2.20	3.06	4.07	4.91	5.76	6.78														
72	1.51	2.44	3.37	4.51	5.45	6.39	7.51														
78	1.65	2.68	3.70	4.95	5.98	7.01	8.25														
84	1.79	2.91	4.03	5.39	6.51	7.63	8.98														
90	1.95	3.16	4.36	5.83	7.04	8.25	9.71														
96	2.09	3.39	4.69	6.27	7.56	8.88	10.43														