

The Comfort First Filtered Diffuser™

Specification Sheet



PERFORMANCE DATA*

	Velocity (fpm)	300	400	500	600	700	800	900	1000
6"	Flow Rate (cfm)	59	79	98	118	137	157	177	196
	Pressure Drop (sp)	0.076	0.107	0.144	0.176	0.215	0.257	0.301	0.343
	Noise Criteria (nc)	<20	<20	22	27	32	36	40	43
8"	Flow Rate (cfm)	105	140	174	209	244	279	314	349
	Pressure Drop (sp)	0.076	0.107	0.144	0.176	0.215	0.257	0.301	0.343
	Noise Criteria (nc)	<20	<20	24	29	34	37	41	44
10"	Flow Rate (cfm)	164	218	273	327	382	436	491	545
	Pressure Drop (sp)	0.076	0.107	0.144	0.176	0.215	0.257	0.301	0.343
	Noise Criteria (nc)	<20	20	26	31	36	39	43	46
12"	Flow Rate (cfm)	236	314	393	471	550	628	707	785
	Pressure Drop (sp)	0.076	0.107	0.144	0.176	0.215	0.257	0.301	0.343
	Noise Criteria (nc)	<20	21	27	32	37	40	44	47
14"	Flow Rate (cfm)	321	427	534	641	748	855	962	1068
	Pressure Drop (sp)	0.076	0.107	0.144	0.176	0.215	0.257	0.301	0.343
	Noise Criteria (nc)	<21	27	32	38	43	46	>50	>50

Filter Efficiency vs. Particle Diameter MERV Rating = 12

Size Range (µm)	Initial Fractional Efficiency (%)	
	150 fpm	250 fpm
0.3 – 0.4	40.6	31.1
0.4 – 0.55	50.3	42.5
0.55 – 0.7	60.1	54.6
0.7 – 1.0	70.3	67.0
1.0 – 1.3	78.4	75.5
1.3 – 1.6	82.4	79.9
1.6 – 2.2	86.5	82.9
2.2 – 3.0	89.6	84.4
3.0 – 4.0	92.3	85.5
4.0 – 5.5	94.1	86.4
5.5 – 7.0	95.1	87.2
7.0 – 10.0	95.9	87.9

Test results certified by LMS Technologies

*Data extrapolated from tests conducted on an 8" Comfort First Filtered Diffuser™ with filters installed

Comfort First Filtered Diffuser™

Throw Data and Velocity in Feet Per Minute (fpm)

Distance From Ceiling Inches	Distance from diffuser (in feet)																		
	1'	2'	3'	4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'	16'	17'	18'	19'
1	340	310	265	240	210	180	170	150	130	120	105	95	90	80	75	70	60	50	
3	145	170	190	190	170	155	150	135	120	110	105	95	85	75	70	65	60	55	
6	55	65	85	85	85	90	95	95	80	90	80	80	70	60	55	55	50		
9	55						50	50	55	55	50	55	55	50					
12	80																		
18	150																		
24	55	65																	
30		95	50																
36		80	70	50															
42			65	60															
48			50	65	50														
54				55	50														
60				50	50														

Test Conditions

Air Volume (CFM) 300
 Inlet Static Pressure (in. of H₂O) 0.060"
 Room Ambient Temp. (Deg. F) 74 ± 2
 Supply Air Temp. (Deg. F) 74 ± 2
 Inlet Dimensions: 10 inch diameter

Test results certified by Intertek ETL Semko

FPM Horizontal Throw (vanes parallel to ceiling)
 FPM Downward Throw (vanes diagonal to ceiling)

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