

Standard Construction

Mounting	Continuous aluminum angle along the head and sill
Frame	Heavy gauge extruded 6005-T5 and 6063-T5 aluminum, 5 in. (127 mm) x 0.081 in. (2 mm) nominal wall thickness
Blades	Vertical rain resistant style design, heavy gauge extruded 6063-T5 aluminum, 0.060 in. (2 mm) nominal wall thickness, positioned on approximately 1.5 in. (38 mm) centers
Louver Depth	5 in. (127 mm)
Construction	Mechanically fastened
Finish	Mill
Minimum Size	12 in. W x 12 in. H (305 mm W x 305 mm H)
Maximum Single Section Size	120 in. W x 120 in. H (3048 mm W x 3048 mm H) Limited to 60 sq. ft. (5.6 sq. m)
- Multi-wide assemblies are permitted without any additional vertical reinforcing. - Multi-high assemblies are permitted provided suitable load bearing structure is provided (by others) at each horizontal joint to allow anchoring of the head and sill at the joint in accordance with the instructions shown herein.	
Wind Load	+/- 130 PSF (6.2 kPa)

Performance Ratings



Greenheck Fan Corporation certifies that the EVH-501D louvers shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Water Penetration, Air Performance, and Wind-Driven Rain ratings.

Louvers were tested in accordance with AMCA Standard 500-L.



HIGH VELOCITY RAIN
RESISTANT WITH BLADES
FULLY OPEN AND
IMPACT RESISTANT LOUVER
Enhanced Protection Level E
See www.amca.org for all certified or listed products

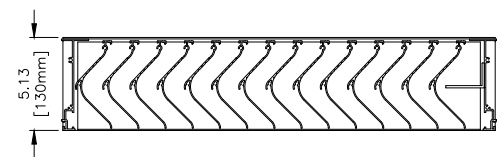
This label does not signify
AMCA airflow performance
certification.

Greenheck Fan Corporation certifies that the EVH-501D louver shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in

accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program. The AMCA Listing Label applies to Wind Borne Debris Impact Resistant louvers rated for Enhanced Protection with a minimum blade span of less than 12 in. (305 mm) and a maximum unsupported blade span of 69.44 in. (1764 mm) and to High Velocity Wind-Driven Rain Resistant Louvers tested in the fully open position that permits airflow through the louver.

Performance of 48 in. x 48 in. (1219 mm x 1219 mm) Louver

Free Area	
Area	8.77 sq. ft. (0.815 sq. m)
Percent	54.8%
Performance at Beginning Point of Water Penetration	
Free Area Velocity	above 1250 fpm (6.350 m/s)
Max Intake Volume	10,963 cfm (5.174 m³/s)
Performance at 6,000 CFM (2.832 m³/s) Intake	
Pressure Drop	0.085 in. wg (0.021 kPa)



Options and Accessories

- [Bird Screen](#)
- [Blank-Off Panels](#)
- [Extended Sill](#)
- [Filter Rack/Filter](#)
- [Flange Frame](#)
- [Insect Screen](#)
- [Security Bars](#)
- [Variety of Architectural Finishes](#)

Product Details

[EVH-501D Standard Channel Frame Installation Details](#)

[EVH-501D Optional Flange/Sleeve Frame Installation Details](#)

[Miami-Dade County, FL Notice of Acceptance](#)

Structural reinforcing members may be required to adequately support and install multiple louver sections within a large opening. Structural reinforcing members along with any associated installation hardware is not provided by Greenheck unless indicated otherwise by Greenheck. Options and accessories including, but not limited to, screens, filter racks, louver doors, and blank off panels are not subject to structural analysis unless indicated otherwise by Greenheck.

Free Area Chart

Free Area Chart shows free area in square feet and square meters.

Louver Height Inches (Meters)	Louver Width in Inches (Meters)																		
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
0.30	0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52	1.68	1.83	1.98	2.13	2.29	2.44	2.59	2.74	2.90	3.05
12	0.26	0.45	0.65	0.84	1.04	1.23	1.43	1.62	1.82	2.01	2.21	2.40	2.60	2.79	2.99	3.18	3.38	3.57	3.76
0.30	0.02	0.04	0.06	0.08	0.10	0.11	0.13	0.15	0.17	0.19	0.21	0.22	0.24	0.26	0.28	0.30	0.31	0.33	0.35
18	0.48	0.84	1.20	1.57	1.93	2.29	2.65	3.01	3.37	3.74	4.10	4.46	4.82	5.18	5.55	5.91	6.27	6.63	6.99
0.46	0.04	0.08	0.11	0.15	0.18	0.21	0.25	0.28	0.31	0.35	0.38	0.41	0.45	0.48	0.52	0.55	0.58	0.62	0.65
24	0.70	1.23	1.76	2.29	2.82	3.35	3.88	4.40	4.93	5.46	5.99	6.52	7.05	7.58	8.10	8.63	9.16	9.69	10.22
0.61	0.07	0.11	0.16	0.21	0.26	0.31	0.36	0.41	0.46	0.51	0.56	0.61	0.65	0.70	0.75	0.80	0.85	0.90	0.95
30	0.93	1.62	2.32	3.01	3.71	4.40	5.10	5.79	6.49	7.19	7.88	8.58	9.27	9.97	10.66	11.36	12.05	12.75	13.45
0.76	0.09	0.15	0.22	0.28	0.34	0.41	0.47	0.54	0.60	0.67	0.73	0.80	0.86	0.93	0.99	1.06	1.12	1.18	1.25
36	1.15	2.01	2.87	3.74	4.60	5.46	6.32	7.19	8.05	8.91	9.77	10.64	11.50	12.36	13.22	14.09	14.95	15.81	16.67
0.91	0.11	0.19	0.27	0.35	0.43	0.51	0.59	0.67	0.75	0.83	0.91	0.99	1.07	1.15	1.23	1.31	1.39	1.47	1.55
42	1.37	2.40	3.43	4.46	5.49	6.52	7.55	8.58	9.61	10.64	11.66	12.69	13.72	14.75	15.78	16.81	17.84	18.87	19.90
1.07	0.13	0.22	0.32	0.41	0.51	0.61	0.70	0.80	0.89	0.99	1.08	1.18	1.27	1.37	1.47	1.56	1.66	1.75	1.85
48	1.59	2.79	3.99	5.18	6.38	7.57	8.77	9.97	11.16	12.36	13.56	14.75	15.95	17.15	18.34	19.54	20.73	21.93	23.13
1.22	0.15	0.26	0.37	0.48	0.59	0.70	0.81	0.93	1.04	1.15	1.26	1.37	1.48	1.59	1.70	1.82	1.93	2.04	2.15
54	1.81	3.18	4.54	5.90	7.27	8.63	9.99	11.36	12.72	14.08	15.45	16.81	18.17	19.54	20.90	22.26	23.63	24.99	26.35
1.37	0.17	0.30	0.42	0.55	0.68	0.80	0.93	1.06	1.18	1.31	1.44	1.56	1.69	1.82	1.94	2.07	2.20	2.32	2.45
60	2.04	3.57	5.10	6.63	8.16	9.69	11.22	12.75	14.28	15.81	17.34	18.87	20.40	21.93	23.46	24.99	26.52	28.05	29.58
1.52	0.19	0.33	0.47	0.62	0.76	0.90	1.04	1.18	1.33	1.47	1.61	1.75	1.90	2.04	2.18	2.32	2.46	2.61	2.75
66	2.26	3.96	5.65	7.35	9.05	10.74	12.44	14.14	15.84	17.53	19.23	20.93	22.63	24.32	26.02	27.72	29.41	31.11	32.81
1.68	0.21	0.37	0.52	0.68	0.84	1.00	1.16	1.31	1.47	1.63	1.79	1.94	2.10	2.26	2.42	2.58	2.73	2.89	3.05
72	2.48	4.35	6.21	8.07	9.94	11.80	13.67	15.53	17.39	19.26	21.12	22.99	24.85	26.71	28.58	30.44	32.31	34.17	36.04
1.83	0.23	0.40	0.58	0.75	0.92	1.10	1.27	1.44	1.62	1.79	1.96	2.14	2.31	2.48	2.66	2.83	3.00	3.17	3.35
78	2.65	4.64	6.63	8.62	10.61	12.59	14.58	16.57	18.56	20.55	22.54								
1.98	0.25	0.43	0.62	0.80	0.99	1.17	1.35	1.54	1.72	1.91	2.09								
84	2.87	5.03	7.18	9.34	11.50	13.65	15.81	17.96	20.12	22.28	24.43								
2.13	0.27	0.47	0.67	0.87	1.07	1.27	1.47	1.67	1.87	2.07	2.27								
90	3.09	5.42	7.74	10.06	12.39	14.71	17.03	19.35	21.68	24.00	26.32								
2.29	0.29	0.50	0.72	0.93	1.15	1.37	1.58	1.80	2.01	2.23	2.45								
96	3.31	5.80	8.29	10.78	13.28	15.77	18.26	20.75	23.24	25.73	28.22								
2.44	0.31	0.54	0.77	1.00	1.23	1.47	1.70	1.93	2.16	2.39	2.62								
102	3.54	6.19	8.85	11.51	14.17	16.82	19.48	22.14	24.79	27.45	30.11								
2.59	0.33	0.58	0.82	1.07	1.32	1.56	1.81	2.06	2.30	2.55	2.80								
108	3.76	6.58	9.41	12.23	15.05	17.88	20.70	23.53	26.35	29.17	32.00								
2.74	0.35	0.61	0.87	1.14	1.40	1.66	1.92	2.19	2.45	2.71	2.97								
114	3.98	6.97	9.96	12.95	15.94	18.94	21.93	24.92	27.91	30.90	33.89								
2.90	0.37	0.65	0.93	1.20	1.48	1.76	2.04	2.32	2.59	2.87	3.15								
120	4.20	7.36	10.52	13.68	16.83	19.99	23.15	26.31	29.47	32.62	35.78								
3.05	0.39	0.68	0.98	1.27	1.56	1.86	2.15	2.44	2.74	3.03	3.32								

Document Links

[EVH-501D Specification](#)[EVH-501D Environmental Product Declaration](#)[Louver Finishes & Colors](#)[Louver Product Selection Guide](#)[Louver Products Catalog](#)[Louver Warranty Statement](#)

Core Area Chart

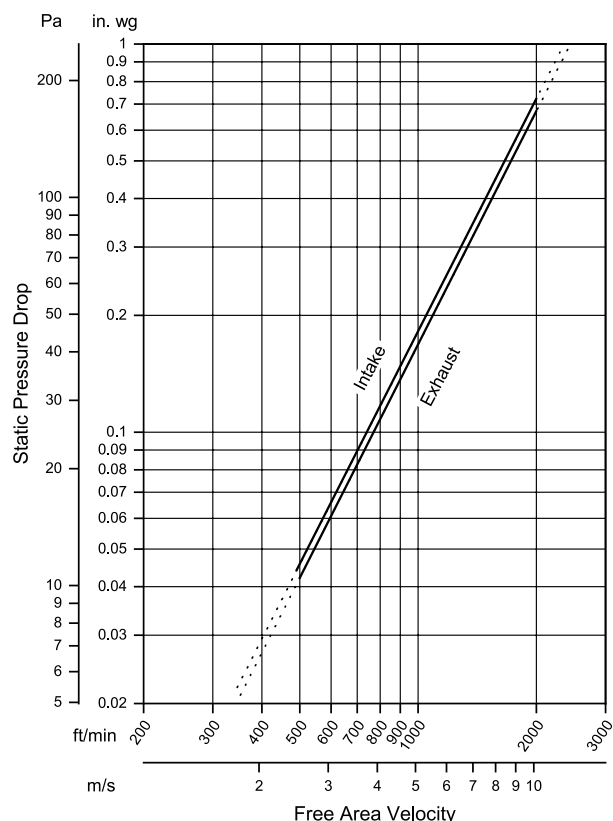
Core Area Chart shows core area in square feet and square meters.

Louver Height Inches (Meters)	Louver Width in Inches (Meters)																		
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
0.30	0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52	1.68	1.83	1.98	2.13	2.29	2.44	2.59	2.74	2.90	3.05
12	0.51	0.80	1.09	1.39	1.68	1.97	2.26	2.55	2.84	3.14	3.43	3.72	4.01	4.30	4.59	4.89	5.18	5.47	5.76
0.30	0.05	0.07	0.10	0.13	0.16	0.18	0.21	0.24	0.26	0.29	0.32	0.35	0.37	0.40	0.43	0.45	0.48	0.51	0.54
18	0.95	1.49	2.03	2.57	3.11	3.66	4.20	4.74	5.28	5.82	6.36	6.91	7.45	7.99	8.53	9.07	9.61	10.16	10.70
0.46	0.09	0.14	0.19	0.24	0.29	0.34	0.39	0.44	0.49	0.54	0.59	0.64	0.69	0.74	0.79	0.84	0.89	0.94	0.99
24	1.39	2.18	2.97	3.76	4.55	5.34	6.14	6.93	7.72	8.51	9.30	10.09	10.89	11.68	12.47	13.26	14.05	14.84	15.64
0.61	0.13	0.20	0.28	0.35	0.42	0.50	0.57	0.64	0.72	0.79	0.86	0.94	1.01	1.09	1.16	1.23	1.31	1.38	1.45
30	1.82	2.86	3.91	4.95	5.99	7.03	8.07	9.11	10.16	11.20	12.24	13.28	14.32	15.36	16.41	17.45	18.49	19.53	20.57
0.76	0.17	0.27	0.36	0.46	0.56	0.65	0.75	0.85	0.94	1.04	1.14	1.23	1.33	1.43	1.52	1.62	1.72	1.81	1.91
36	2.26	3.55	4.84	6.14	7.43	8.72	10.01	11.30	12.59	13.89	15.18	16.47	17.76	19.05	20.34	21.64	22.93	24.22	25.51
0.91	0.21	0.33	0.45	0.57	0.69	0.81	0.93	1.05	1.17	1.29	1.41	1.53	1.65	1.77	1.89	2.01	2.13	2.25	2.37
42	2.70	4.24	5.78	7.32	8.86	10.41	11.95	13.49	15.03	16.57	18.11	19.66	21.20	22.74	24.28	25.82	27.36	28.91	30.45
1.07	0.25	0.39	0.54	0.68	0.82	0.97	1.11	1.25	1.40	1.54	1.68	1.83	1.97	2.11	2.26	2.40	2.54	2.69	2.83
48	3.14	4.93	6.72	8.51	10.30	12.09	13.89	15.68	17.47	19.26	21.05	22.84	24.64	26.43	28.22	30.01	31.80	33.59	35.39
1.22	0.29	0.46	0.62	0.79	0.96	1.12	1.29	1.46	1.62	1.79	1.96	2.12	2.29	2.46	2.62	2.79	2.95	3.12	3.29
54	3.57	5.61	7.66	9.70	11.74	13.78	15.82	17.86	19.91	21.95	23.99	26.03	28.07	30.11	32.16	34.20	36.24	38.28	40.32
1.37	0.33	0.52	0.71	0.90	1.09	1.28	1.47	1.66	1.85	2.04	2.23	2.42	2.61	2.80	2.99	3.18	3.37	3.56	3.75
60	4.01	6.30	8.59	10.89	13.18	15.47	17.76	20.05	22.34	24.64	26.93	29.22	31.51	33.80	36.09	38.39	40.68	42.97	45.26
1.52	0.37	0.59	0.80	1.01	1.22	1.44	1.65	1.86	2.08	2.29	2.50	2.71	2.93	3.14	3.35	3.57	3.78	3.99	4.20
66	4.45	6.99	9.53	12.07	14.61	17.16	19.70	22.24	24.78	27.32	29.86	32.41	34.95	37.49	40.03	42.57	45.11	47.66	50.20
1.68	0.41	0.65	0.89	1.12	1.36	1.59	1.83	2.07	2.30	2.54	2.77	3.01	3.25	3.48	3.72	3.95	4.19	4.43	4.66
72	4.89	7.68	10.47	13.26	16.05	18.84	21.64	24.43	27.22	30.01	32.80	35.59	38.39	41.18	43.97	46.76	49.55	52.34	55.14
1.83	0.45	0.71	0.97	1.23	1.49	1.75	2.01	2.27	2.53	2.79	3.05	3.31	3.57	3.83	4.08	4.34	4.60	4.86	5.12
78	5.21	8.19	11.17	14.15	17.13	20.11	23.09	26.07	29.05	32.03	35.01								
1.98	0.48	0.76	1.04	1.31	1.59	1.87	2.15	2.42	2.70	2.98	3.25								
84	5.65	8.88	12.11	15.34	18.57	21.80	25.03	28.26	31.48	34.71	37.94								
2.13	0.52	0.82	1.13	1.43	1.73	2.03	2.33	2.63	2.92	3.22	3.52								
90	6.09	9.57	13.05	16.53	20.01	23.48	26.96	30.44	33.92	37.40	40.88								
2.29	0.57	0.89	1.21	1.54	1.86	2.18	2.50	2.83	3.15	3.47	3.80								
96	6.53	10.26	13.98	17.71	21.44	25.17	28.90	32.63	36.36	40.09	43.82								
2.44	0.61	0.95	1.30	1.65	1.99	2.34	2.68	3.03	3.38	3.72	4.07								
102	6.96	10.94	14.92	18.90	22.88	26.86	30.84	34.82	38.80	42.78	46.76								
2.59	0.65	1.02	1.39	1.76	2.13	2.50	2.87	3.23	3.60	3.97	4.34								
108	7.40	11.63	15.86	20.09	24.32	28.55	32.78	37.01	41.23	45.46	49.69								
2.74	0.69	1.08	1.47	1.87	2.26	2.65	3.05	3.44	3.83	4.22	4.62								
114	7.84	12.32	16.80	21.28	25.76	30.23	34.71	39.19	43.67	48.15	52.63								
2.90	0.73	1.14	1.56	1.98	2.39	2.81	3.22	3.64	4.06	4.47	4.89								
120	8.28	13.01	17.73	22.46	27.19	31.92	36.65	41.38	46.11	50.84	55.57								
3.05	0.77	1.21	1.65	2.09	2.53	2.97	3.40	3.84	4.28	4.72	5.16								

Airflow Resistance

Standard Air - 0.075 lb/ft³ (1.2 kg/m³)

Test size 48 in. x 48 in. (1219 mm x 1219 mm)

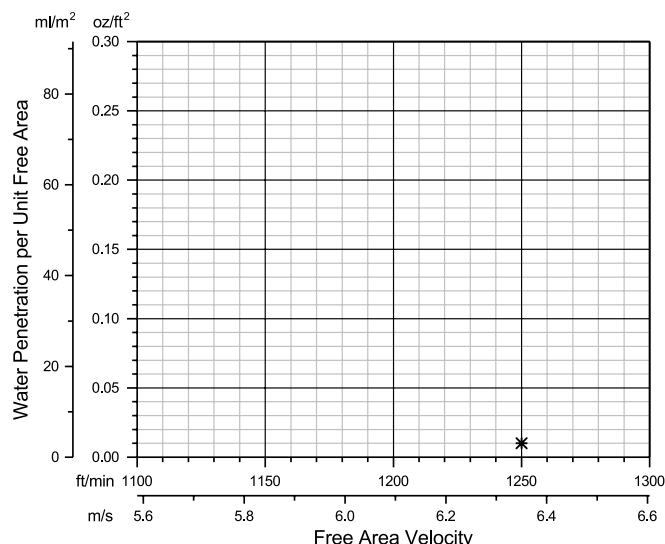


Model EVH-501D resistance to airflow (pressure drop) varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information. (Test Figure 5.5-6.5)

Water Penetration

Standard Air - 0.075 lb/ft³ (1.2 kg/m³)

Test size 48 in. x 48 in. (1219 mm x 1219 mm) Test duration of 15 min.



The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The beginning point of water penetration is defined as that velocity where the water penetration curve projects through 0.01 oz. (3 g) of water (penetration) per sq. ft. (m²) of louver free area. *The beginning point of water penetration for Model EVH-501D is above 1250 fpm (6.350 m/s) free area velocity. These performance ratings do not guarantee a louver to be weatherproof or stormproof and should be used in combination with other factors including good engineering judgement in selecting louvers.

Wind-Driven Rain Performance

3 in./hr. (75 mm/hr.) Rainfall Rate & 29 mph (13 m/s) Wind Velocity				8 in./hr. (203 mm/hr.) Rainfall Rate & 50 mph (22.4 m/s) Wind Velocity			
Ventilation Air Core Velocity fpm (m/s)	Ventilation Air Free Area Velocity fpm (m/s)	Water Penetration Effectiveness %	Water Penetration Classification	Ventilation Air Core Velocity fpm (m/s)	Ventilation Air Free Area Velocity fpm (m/s)	Water Penetration Effectiveness %	Water Penetration Classification
0 (0.0)	0 (0.0)	100	A	0 (0.0)	0 (0.0)	100	A
98 (0.5)	156 (0.8)	100	A	98 (0.5)	156 (0.8)	100	A
197 (1.0)	314 (1.6)	100	A	197 (1.0)	314 (1.6)	100	A
295 (1.5)	470 (2.4)	100	A	295 (1.5)	470 (2.4)	100	A
394 (2.0)	628 (3.2)	100	A	394 (2.0)	628 (3.2)	100	A
492 (2.5)	784 (4.0)	100	A	492 (2.5)	784 (4.0)	100	A
591 (3.0)	941 (4.8)	100	A	591 (3.0)	941 (4.8)	100	A
689 (3.5)	1098 (5.6)	100	A	689 (3.5)	1098 (5.6)	100	A
782 (4.0)	1246 (6.3)	100	A	782 (4.0)	1254 (6.4)	100	A
875 (4.4)	1394 (7.1)	99.9	A	872 (4.4)	1389 (7.1)	100	A
989 (5.0)	1575 (8.0)	99.8	A	975 (5.0)	1553 (7.9)	99.9	A

Wind-Driven Rain Penetration Classes	
Class	Effectiveness
A	1 to 0.99
B	0.989 to 0.95
C	0.949 to 0.80
D	Below 0.80

Water penetration classification ratings are based on the amount of simulated rain that penetrates the louver during a specific rainfall rate, wind velocity, and intake velocity. Ratings are based on a 39.4 in. x 39.4 in. (1 m x 1 m) core size.

