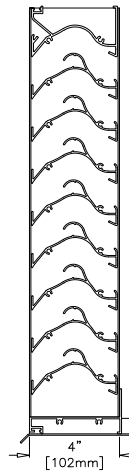


Standard Construction

Frame	Heavy gauge extruded 6063-T5 aluminum, 4 in. (102 mm) x 0.081 in. (2 mm) nominal wall thickness
Blades	Horizontal rain resistant design, heavy gauge extruded 6063-T5 aluminum, 0.063 in. (2 mm) nominal wall thickness, positioned on approximately 2 in. (51 mm) centers
Louver Depth	4 in. (102 mm)
Construction	Mechanically fastened
Finish	Mill
Minimum Size	12 in. W x 6 in. H (305 mm W x 152 mm H)
Maximum Single Section Size	120 in. W x 120 in. H (3048 mm W x 3048 mm H) Limited to 70 sq. ft. (6.5 sq. m)
Wind Load	25 PSF (1.2 kPa)



Performance Ratings



Greenheck Fan Corporation certifies that the EHH-401 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. *Ratings include the effect of a sill pan.

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

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

Free Area	Area 6.76 sq. ft. (0.628 sq. m)
	Percent 42.3%
Performance at Beginning Point of Water Penetration	Free Area Velocity 1043 fpm (5.298 m/s)
	Max Intake Volume 7051 cfm (3.328 m ³ /s)
Performance at 6,000 CFM (2.832 m³/s) Intake	Pressure Drop 0.146 in. wg (0.036 kPa)

Document Links

[Louver Finishes & Colors](#)
[Louver Product Selection Guide](#)
[Louver Products Catalog](#)
[Louver Warranty Statement](#)

Options and Accessories

- [Bird Screen](#)
- [Blank-Off Panels](#)
- [Filter Rack/Filter](#)
- [Flange Frame](#)
- [Glazing Frame](#)
- [Insect Screen](#)
- [Mounting Angles](#)
- [Security Bars](#)
- [Variety of Architectural Finishes](#)
- Welded Construction

Product Details

[EHH-401 Standard Details](#)

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
6	0.07	0.11	0.15	0.20	0.24	0.28	0.32	0.36	0.40	0.44	0.49	0.53	0.57	0.61	0.66	0.69	0.73	0.77	0.82
0.15	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.08
12	0.25	0.41	0.57	0.73	0.89	1.04	1.20	1.32	1.48	1.64	1.80	1.95	2.11	2.27	2.43	2.55	2.70	2.86	3.02
0.30	0.02	0.04	0.05	0.07	0.08	0.10	0.11	0.12	0.14	0.15	0.17	0.18	0.20	0.21	0.23	0.24	0.25	0.27	0.28
18	0.44	0.71	0.99	1.26	1.53	1.81	2.08	2.29	2.56	2.83	3.11	3.38	3.65	3.93	4.20	4.41	4.68	4.95	5.23
0.46	0.04	0.07	0.09	0.12	0.14	0.17	0.19	0.21	0.24	0.26	0.29	0.31	0.34	0.37	0.39	0.41	0.43	0.46	0.49
24	0.69	1.11	1.54	1.97	2.40	2.82	3.25	3.57	4.00	4.43	4.85	5.28	5.71	6.13	6.56	6.88	7.31	7.74	8.17
0.61	0.06	0.10	0.14	0.18	0.22	0.26	0.30	0.33	0.37	0.41	0.45	0.49	0.53	0.57	0.61	0.64	0.68	0.72	0.76
30	0.87	1.41	1.96	2.50	3.04	3.58	4.13	4.53	5.08	5.62	6.16	6.71	7.25	7.79	8.33	8.74	9.28	9.83	10.37
0.76	0.08	0.13	0.18	0.23	0.28	0.33	0.38	0.42	0.47	0.52	0.57	0.62	0.67	0.72	0.77	0.81	0.86	0.91	0.96
36	1.06	1.71	2.37	3.03	3.69	4.35	5.00	5.50	6.16	6.82	7.47	8.13	8.79	9.45	10.11	10.60	11.26	11.92	12.57
0.91	0.10	0.16	0.22	0.28	0.34	0.40	0.46	0.51	0.57	0.63	0.69	0.76	0.82	0.88	0.94	0.98	1.05	1.11	1.17
42	1.24	2.01	2.79	3.56	4.34	5.11	5.88	6.46	7.24	8.01	8.78	9.56	10.33	11.10	11.88	12.46	13.23	14.01	14.78
1.07	0.12	0.19	0.26	0.33	0.40	0.47	0.55	0.60	0.67	0.74	0.82	0.89	0.96	1.03	1.10	1.16	1.23	1.30	1.37
48	1.43	2.31	3.20	4.09	4.98	5.87	6.76	7.43	8.32	9.20	10.09	10.98	11.87	12.76	13.65	14.32	15.21	16.09	16.98
1.22	0.13	0.21	0.30	0.38	0.46	0.55	0.63	0.69	0.77	0.85	0.94	1.02	1.10	1.19	1.27	1.33	1.41	1.49	1.58
54	1.67	2.72	3.76	4.80	5.84	6.89	7.93	8.71	9.76	10.80	11.84	12.88	13.93	14.97	16.01	16.79	17.84	18.88	19.92
1.37	0.16	0.25	0.35	0.45	0.54	0.64	0.74	0.81	0.91	1.00	1.10	1.20	1.29	1.39	1.49	1.56	1.66	1.75	1.85
60	1.86	3.02	4.17	5.33	6.49	7.65	8.81	9.68	10.83	11.99	13.15	14.31	15.47	16.63	17.78	18.65	19.81	20.97	22.13
1.52	0.17	0.28	0.39	0.50	0.60	0.71	0.82	0.90	1.01	1.11	1.22	1.33	1.44	1.54	1.65	1.73	1.84	1.95	2.06
66	2.04	3.32	4.59	5.86	7.14	8.41	9.69	10.64	11.91	13.19	14.46	15.73	17.01	18.28	19.56	20.51	21.78	23.06	24.33
1.68	0.19	0.31	0.43	0.54	0.66	0.78	0.90	0.99	1.11	1.23	1.34	1.46	1.58	1.70	1.82	1.91	2.02	2.14	2.26
72	2.23	3.62	5.01	6.40	7.78	9.17	10.56	11.60	12.99	14.38	15.77	17.16	18.55	19.94	21.33	22.37	23.76	25.15	26.54
1.83	0.21	0.34	0.47	0.59	0.72	0.85	0.98	1.08	1.21	1.34	1.47	1.59	1.72	1.85	1.98	2.08	2.21	2.34	2.47
78	2.41	3.92	5.42	6.93	8.43	9.94	11.44	12.57	14.07	15.58	17.08	18.59	20.09	21.60	23.10	24.23	25.73	27.24	28.74
1.98	0.22	0.36	0.50	0.64	0.78	0.92	1.06	1.17	1.31	1.45	1.59	1.73	1.87	2.01	2.15	2.25	2.39	2.53	2.67
84	2.66	4.32	5.98	7.63	9.29	10.95	12.61	13.85	15.51	17.17	18.83	20.49	22.15	23.80	25.46	26.71	28.36	30.02	31.68
2.13	0.25	0.40	0.56	0.71	0.86	1.02	1.17	1.29	1.44	1.60	1.75	1.90	2.06	2.21	2.37	2.48	2.63	2.79	2.94
90	2.85	4.62	6.39	8.17	9.94	11.71	13.49	14.82	16.59	18.37	20.14	21.91	23.69						
2.29	0.26	0.43	0.59	0.76	0.92	1.09	1.25	1.38	1.54	1.71	1.87	2.04	2.20						
96	3.03	4.92	6.81	8.70	10.59	12.48	14.37	15.78	17.67	19.56	21.45	23.34	25.23						
2.44	0.28	0.46	0.63	0.81	0.98	1.16	1.34	1.47	1.64	1.82	1.99	2.17	2.34						
102	3.22	5.22	7.22	9.23	11.23	13.24	15.24	16.75	18.75	20.76	22.76	24.76	26.77						
2.59	0.30	0.48	0.67	0.86	1.04	1.23	1.42	1.56	1.74	1.93	2.11	2.30	2.49						
108	3.40	5.52	7.64	9.76	11.88	14.00	16.12	17.71	19.83	21.95	24.07	26.19	28.31						
2.74	0.32	0.51	0.71	0.91	1.10	1.30	1.50	1.65	1.84	2.04	2.24	2.43	2.63						
114	3.65	5.92	8.19	10.47	12.74	15.02	17.29	19.00	21.27	23.54	25.82	28.09	30.36						
2.90	0.34	0.55	0.76	0.97	1.18	1.40	1.61	1.77	1.98	2.19	2.40	2.61	2.82						
120	3.83	6.22	8.61	11.00	13.39	15.78	18.17	19.96	22.35	24.74	27.13	29.52	31.91						
3.05	0.36	0.58	0.80	1.02	1.24	1.47	1.69	1.85	2.08	2.30	2.52	2.74	2.96						

Core Area Chart

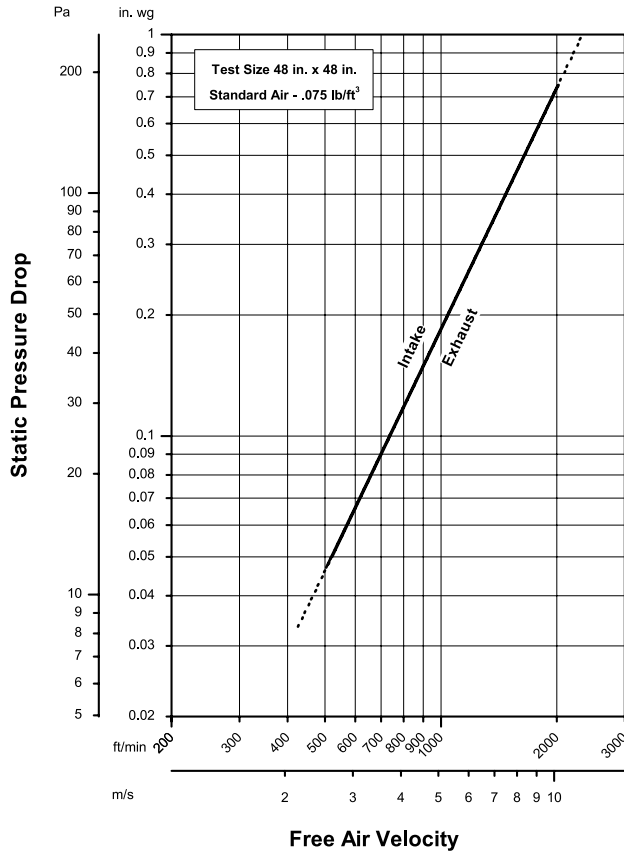
Free Area Chart shows free area in square feet and square meters.

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
6	0.20	0.32	0.45	0.57	0.70	0.82	0.95	1.07	1.19	1.32	1.44	1.57	1.69	1.82	1.94	2.06	2.19	2.31	2.44
0.15	0.02	0.03	0.04	0.05	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.23
12	0.60	0.97	1.34	1.72	2.09	2.46	2.84	3.21	3.58	3.96	4.33	4.70	5.08	5.45	5.82	6.19	6.57	6.94	7.31
0.30	0.06	0.09	0.12	0.16	0.19	0.23	0.26	0.30	0.33	0.37	0.40	0.44	0.47	0.51	0.54	0.58	0.61	0.64	0.68
18	1.00	1.62	2.24	2.86	3.48	4.11	4.73	5.35	5.97	6.59	7.22	7.84	8.46	9.08	9.70	10.32	10.95	11.57	12.19
0.46	0.09	0.15	0.21	0.27	0.32	0.38	0.44	0.50	0.55	0.61	0.67	0.73	0.79	0.84	0.90	0.96	1.02	1.07	1.13
24	1.40	2.27	3.14	4.01	4.88	5.75	6.62	7.49	8.36	9.23	10.10	10.97	11.84	12.71	13.58	14.45	15.32	16.19	17.06
0.61	0.13	0.21	0.29	0.37	0.45	0.53	0.62	0.70	0.78	0.86	0.94	1.02	1.10	1.18	1.26	1.34	1.42	1.50	1.58
30	1.80	2.91	4.03	5.15	6.27	7.39	8.51	9.63	10.75	11.87	12.99	14.11	15.23	16.34	17.46	18.58	19.70	20.82	21.94
0.76	0.17	0.27	0.37	0.48	0.58	0.69	0.79	0.89	1.00	1.10	1.21	1.31	1.41	1.52	1.62	1.73	1.83	1.93	2.04
36	2.19	3.56	4.93	6.30	7.67	9.03	10.40	11.77	13.14	14.51	15.87	17.24	18.61	19.98	21.34	22.71	24.08	25.45	26.82
0.91	0.20	0.33	0.46	0.59	0.71	0.84	0.97	1.09	1.22	1.35	1.47	1.60	1.73	1.86	1.98	2.11	2.24	2.36	2.49
42	2.59	4.21	5.83	7.44	9.06	10.68	12.29	13.91	15.53	17.14	18.76	20.38	21.99	23.61	25.23	26.84	28.46	30.08	31.69
1.07	0.24	0.39	0.54	0.69	0.84	0.99	1.14	1.29	1.44	1.59	1.74	1.89	2.04	2.19	2.34	2.49	2.64	2.79	2.94
48	2.99	4.86	6.72	8.59	10.45	12.32	14.18	16.05	17.91	19.78	21.65	23.51	25.38	27.24	29.11	30.97	32.84	34.70	36.57
1.22	0.28	0.45	0.62	0.80	0.97	1.14	1.32	1.49	1.66	1.84	2.01	2.18	2.36	2.53	2.70	2.88	3.05	3.22	3.40
54	3.39	5.50	7.62	9.73	11.85	13.96	16.07	18.19	20.30	22.42	24.53	26.65	28.76	30.87	32.99	35.10	37.22	39.33	41.44
1.37	0.31	0.51	0.71	0.90	1.10	1.30	1.49	1.69	1.89	2.08	2.28	2.48	2.67	2.87	3.06	3.26	3.46	3.65	3.85
60	3.79	6.15	8.52	10.88	13.24	15.60	17.97	20.33	22.69	25.05	27.42	29.78	32.14	34.51	36.87	39.23	41.59	43.96	46.32
1.52	0.35	0.57	0.79	1.01	1.23	1.45	1.67	1.89	2.11	2.33	2.55	2.77	2.99	3.21	3.43	3.64	3.86	4.08	4.30
66	4.19	6.80	9.41	12.02	14.63	17.25	19.86	22.47	25.08	27.69	30.30	32.91	35.53	38.14	40.75	43.36	45.97	48.58	51.19
1.68	0.39	0.63	0.87	1.12	1.36	1.60	1.85	2.09	2.33	2.57	2.81	3.06	3.30	3.54	3.79	4.03	4.27	4.51	4.76
72	4.59	7.45	10.31	13.17	16.03	18.89	21.75	24.61	27.47	30.33	33.19	36.05	38.91	41.77	44.63	47.49	50.35	53.21	56.07
1.83	0.43	0.69	0.96	1.22	1.49	1.75	2.02	2.29	2.55	2.82	3.08	3.35	3.61	3.88	4.15	4.41	4.68	4.94	5.21
78	4.99	8.10	11.20	14.31	17.42	20.53	23.64	26.75	29.86	32.97	36.08	39.18	42.29	45.40	48.51	51.62	54.73	57.84	60.95
1.98	0.46	0.75	1.04	1.33	1.62	1.91	2.20	2.49	2.77	3.06	3.35	3.64	3.93	4.22	4.51	4.80	5.08	5.37	5.66
84	5.39	8.74	12.10	15.46	18.82	22.17	25.53	28.89	32.25	35.60	38.96	42.32	45.68	49.03	52.39	55.75	59.11	62.46	65.82
2.13	0.50	0.81	1.12	1.44	1.75	2.06	2.37	2.68	3.00	3.31	3.62	3.93	4.24	4.56	4.87	5.18	5.49	5.80	6.11
90	5.78	9.39	13.00	16.60	20.21	23.82	27.42	31.03	34.63	38.24	41.85	45.45	49.06						
2.29	0.54	0.87	1.21	1.54	1.88	2.21	2.55	2.88	3.22	3.55	3.89	4.22	4.56						
96	6.18	10.04	13.89	17.75	21.60	25.46	29.31	33.17	37.02	40.88	44.73	48.59	52.44						
2.44	0.57	0.93	1.29	1.65	2.01	2.37	2.72	3.08	3.44	3.80	4.16	4.51	4.87						
102	6.58	10.69	14.79	18.89	23.00	27.10	31.20	35.31	39.41	43.52	47.62	51.72	55.83						
2.59	0.61	0.99	1.37	1.75	2.14	2.52	2.90	3.28	3.66	4.04	4.42	4.80	5.19						
108	6.98	11.33	15.69	20.04	24.39	28.74	33.10	37.45	41.80	46.15	50.51	54.86	59.21						
2.74	0.65	1.05	1.46	1.86	2.27	2.67	3.08	3.48	3.88	4.29	4.69	5.10	5.50						
114	7.38	11.98	16.58	21.18	25.78	30.39	34.99	39.59	44.19	48.79	53.39	57.99	62.59						
2.90	0.69	1.11	1.54	1.97	2.40	2.82	3.25	3.68	4.11	4.53	4.96	5.39	5.81						
120	7.78	12.63	17.48	22.33	27.18	32.03	36.88	41.73	46.58	51.43	56.28	61.13	65.98						
3.05	0.72	1.17	1.62	2.07	2.53	2.98	3.43	3.88	4.33	4.78	5.23	5.68	6.13						

Airflow Resistance

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

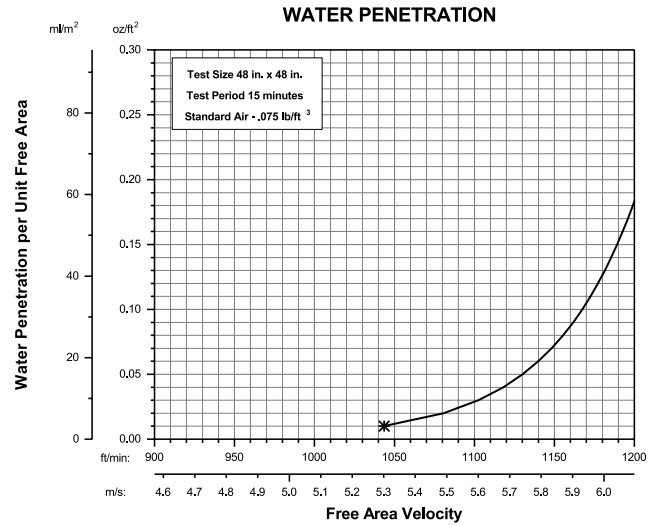
Test size 48 in. x 48 in. (1219 mm x 1219 mm)



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 EHH-401 is 1043 fpm (5.298 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.

Model EHH-401 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)

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)		A	0 (0.0)	0 (0.0)	98.8	B
98 (0.5)	207 (1.1)		A	106 (0.5)	224 (1.1)	98.7	B
197 (1.0)	416 (2.1)		A	192 (1.0)	405 (2.1)	98.5	B
295 (1.5)	623 (3.2)		A	281 (1.4)	593 (3.0)	98.2	B
398 (2.0)	840 (4.3)	99.4	A	409 (2.1)	863 (4.4)	97.6	B
490 (2.5)	1034 (5.3)	99.3	A	499 (2.5)	1053 (5.3)	97.1	B
588 (3.0)	1241 (6.3)	99.0	A	575 (2.9)	1214 (6.2)	96.6	B
691 (3.5)	1458 (7.4)	98.1	B	679 (3.4)	1433 (7.3)	95.4	B
790 (4.0)	1667 (8.5)	93.5	C	788 (4.0)	1663 (8.4)	92.4	C
887 (4.5)	1872 (9.5)	85.1	C	867 (4.4)	1830 (9.3)	88.7	C
984 (5.0)	2077 (10.6)	77.0	D	957 (4.9)	2020 (10.3)	81.7	C

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.

