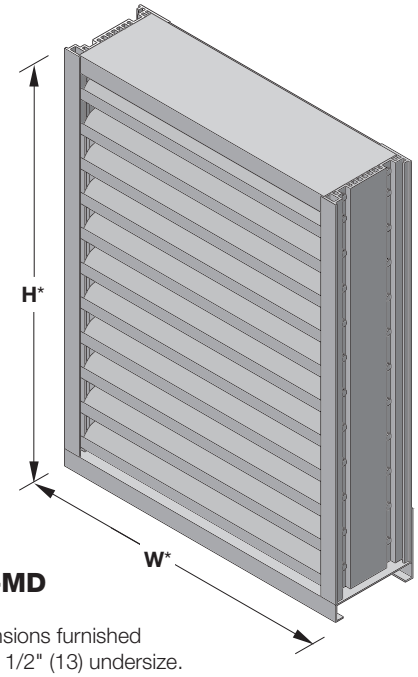
ALL-LITE

ECD-545-MD

Extruded Aluminum Louver
5" deep • 45° Horizontal Drainable Blade



ECD-545-MD
(standard)
*Louver dimensions furnished approximately 1/2" (13) undersize.

The ECD-545-MD is engineered and tested to withstand extreme loads, debris impact, and cyclic fatigue associated with the severe weather effects of hurricanes (Miami-Dade County approval #18-1120.06). When combined with the optional factory-attached CD-51 damper in the closed position, the ECD-545-MD also protects against high-velocity wind-driven rain per AMCA 550 and TAS 100A. For installation, the ECD-545-MD is available either with standard continuous angles or with an optional factory installed sleeve which eliminates the need for direct anchorage to the substrate. The ECD-545-MD is AMCA 540 listed, making it ideally suited for use in hurricane-prone and wind borne debris regions per the International Building Code.

Ratings

Free Area: [48" × 48" (1219 × 1219) unit]: 6.7 ft² (0.62 m²)
41.9%

Performance @ Beginning Point of Water Penetration

Free Area Velocity: Above 1,250 fpm (6.35 m/s)

Air Volume Delivered: Above 8,388 cfm (3.96 m³/s)

Pressure Loss: 0.21 in.wg. (52 Pa)

Velocity @ 0.15 in.wg. Pressure Loss: 1,057 fpm (5.37 m/s)

AMCA 540 (impact resistance) listed

AMCA 540 (high velocity rain resistant) listed
(Applies when the CD-51 damper option is utilized and the damper is in the closed position.)

Miami Dade County: NOA No. 18-1120.05 (Expires 0/09/2023)
Approved to FBC TAS202-94, TAS201-94 and TAS203-94

Florida Building Code Approval (2017-FBC): FL16748.1

Design Load: 150 psf

Standard Construction

Material: Mill finish 6063-T5 extruded aluminum

Frame: 5" deep × 0.125" thick (127 × 3) channel

Blades: 45° × 0.063" (1.6) thick horizontal drainable style

Screen: 1/2" × 0.063" (12.7 × 1.6) expanded and flattened aluminum

Mullion: Visible

Minimum Size: 6" × 6" (152 × 152)
12" × 14" (305 × 356) with CD-51 option

Maximum Size:

Single section: 60" × 144" (1524 × 3658)
Multiple section: Unlimited width × 144" (3658)
or 60" (1524) × unlimited height

Installation Hardware: Standard continuous angles and associated fasteners (anchors to substrate by others - refer to installation instructions)

Options

- **Full Sleeve and Retaining Angles** (eliminates need for anchors to substrate; 1-1/2" (38) flange frame required)
- **Factory finish:**
  - High Performance Fluoropolymer
  - Prime Coat
  - Baked Enamel
  - Clear Anodize
  - Integral Color Anodize
- **Frame Options:**
  - 1-1/2" (38) flange frame
- **Alternate bird or insect screens**
- **Insulated or non-insulated blank-off panels**
- **Filter racks**
- **Head and/or sill flashing**
- **Burglar bars**
- **CD-51 Damper**

5 year warranty

NOTE: Dimensions in parentheses ( ) are millimeters.
Information is subject to change without notice or obligation.

PERFORMANCE

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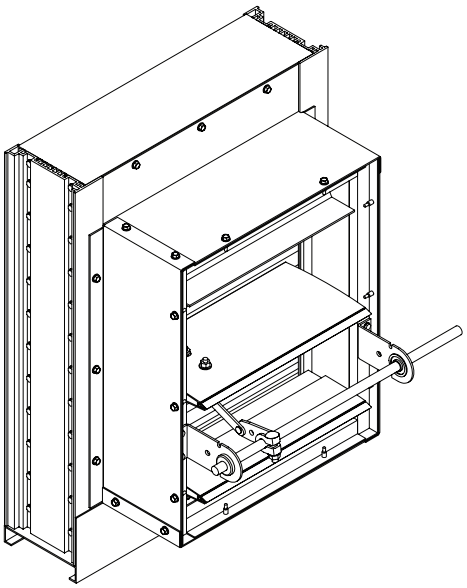
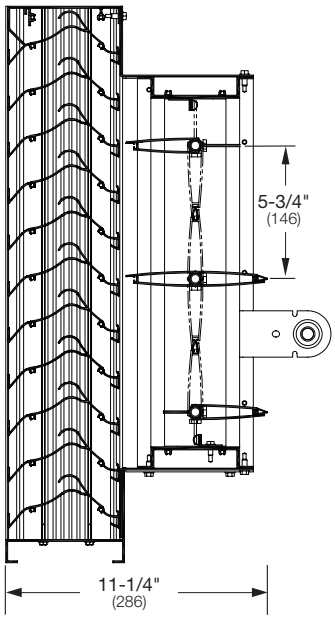


Rear View w/CD-51
(optional)



Vertical Section w/CD-51
(optional)

Certified Ratings:
All-Lite certifies that the model ECD-545-MD 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 High Velocity Rain and Impact resistance.

HIGH VELOCITY
RAIN RESISTANT
WITH BLADES FULLY CLOSED

This label does not signify AMCA airflow performance certification.

See www.AMCA.org for all certified or listed products

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Free Area (ft²)

Width (Inches)

Height (Inches)	6	12	18	24	30	36	42	48	54	60
6	**0.00**	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	**0.2**	0.3	0.5	0.6	0.7	0.9	1.0	1.1	1.3
18	0.1	0.4	**0.6**	0.9	1.1	1.4	1.7	1.9	2.2	2.5
24	0.1	0.5	0.9	**1.3**	1.7	2.1	2.5	2.9	3.3	3.7
30	0.2	0.7	1.2	1.8	**2.3**	2.8	3.3	3.9	4.4	4.9
36	0.2	0.9	1.5	2.2	2.8	**3.5**	4.1	4.8	5.5	6.1
42	0.3	1.0	1.8	2.6	3.4	4.2	**5.0**	5.8	6.5	7.3
48	0.3	1.2	2.1	3.1	4.0	4.9	5.8	**6.7**	7.6	8.5
54	0.3	1.4	2.4	3.5	4.5	5.6	6.6	7.7	**8.7**	9.8
60	0.4	1.6	2.7	3.9	5.1	6.3	7.4	8.6	9.8	**11.0**
66	0.4	1.7	3.0	4.3	5.7	7.0	8.3	9.6	10.9	12.2
72	0.5	1.9	3.3	4.8	6.2	7.7	9.1	10.5	12.0	13.4
78	0.5	2.1	3.7	5.2	6.8	8.3	9.9	11.5	13.0	14.6
84	0.6	2.3	4.0	5.6	7.3	9.0	10.7	12.4	14.1	15.8
90	0.6	2.4	4.3	6.1	7.9	9.7	11.6	13.4	15.2	17.0
96	0.7	2.6	4.6	6.5	8.5	10.4	12.4	14.3	16.3	18.2
102	0.7	2.8	4.9	6.9	9.0	11.1	13.2	15.3	17.4	19.5
108	0.7	3.0	5.2	7.4	9.6	11.8	14.0	16.2	18.5	20.7
114	0.8	3.1	5.5	7.8	10.2	12.5	14.8	17.2	19.5	21.9
120	0.8	3.3	5.8	8.2	10.7	13.2	15.7	18.1	20.6	23.1
126	0.9	3.5	6.1	8.7	11.3	13.9	16.5	19.1	21.7	24.3
132	0.9	3.6	6.4	9.1	11.8	14.6	17.3	20.1	22.8	25.5
138	1.0	3.8	6.7	9.5	12.4	15.3	18.1	21.0	23.9	26.7
144	1.0	4.0	7.0	10.0	13.0	16.0	19.0	22.0	25.0	27.9

PERFORMANCE

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Wind Driven Rain Performance - AMCA 500L Wind-Driven Rain Test

3 in/hr Rainfall & 29 mph Wind Speed				8 in/hr Rainfall & 50 mph Wind Speed			
Airflow	**Core Velocity[1]**	**Effectiveness**	**Class[2]**	**Airflow**	**Core Velocity[1]**	**Effectiveness**	**Class[2]**
7361 cfm	684 fpm	99.4%	A	8478 cfm	787 fpm	96.0%	B
Discharge Loss Coefficient Class[3] (Intake) = 2							

NOTE:
1. Core area is the open area of the louver face (face area less louver frame). Test louver core area is 39-3/8" x 39-3/8" (1000 x 1000)

2. Wind-Driven Rain Penetration Classes:

Class	Effectiveness
A	99% and Above
B	95% to 98.9%
C	80% to 94.9%
D	Below 80%

3. Discharge Loss Coefficient Classes:

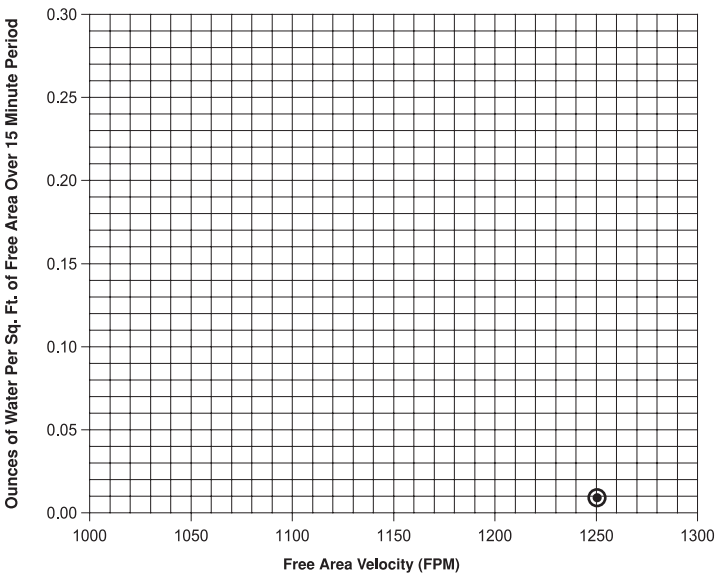
Class	Effectiveness
1	0.4 and Above
2	0.3 to 0.399
3	0.2 to 0.299
4	Below 0.2

Discharge Loss Coefficient is calculated by dividing the louver's actual airflow rate by the theoretical airflow rate for an unobstructed opening. The higher the coefficient, the lower the resistance to airflow.

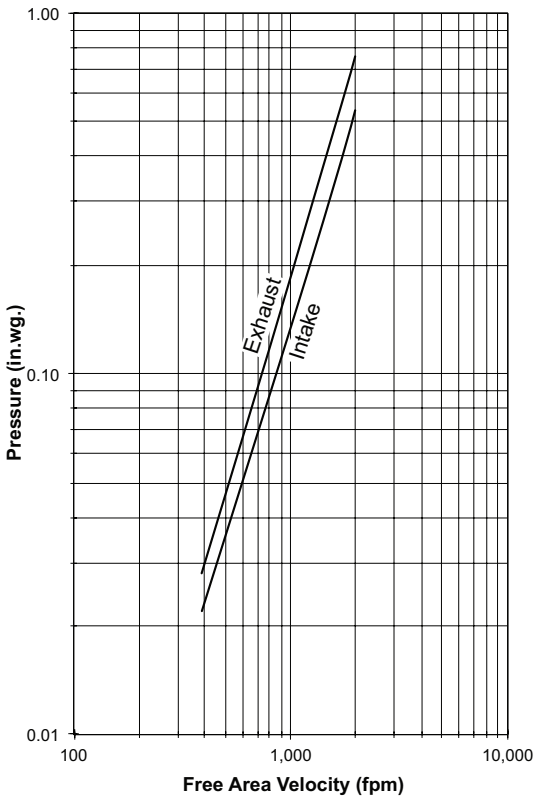
Water Penetration

AMCA defines the beginning point of water penetration as the free area velocity at the intersection of a simple linear regression of test data and the line of 0.01 ounces of water per square foot of free area and is measured through a 48" x 48" louver during a 15 minute period. The AMCA water penetration test provides a method for comparing louver models and designs as to their efficiency in resisting the penetration of rainfall under specific lab conditions. Pottorff recommends that intake louvers are selected with a reasonable margin of safety below the beginning point of water penetration in order to avoid unwanted penetration during severe storm conditions.

Beginning Point of Water Penetration = Above 1,250 fpm



Pressure Loss



Louver Test Size = 48" x 48" (1219 x 1219)

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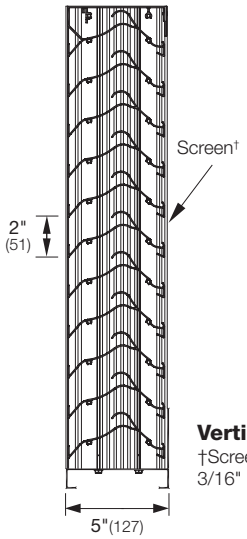
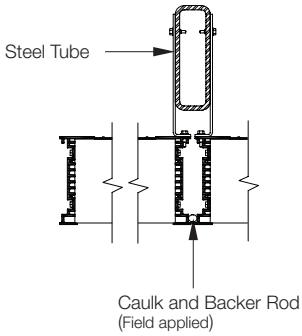
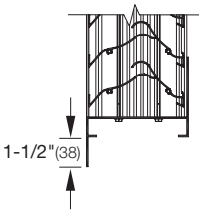
Attributes



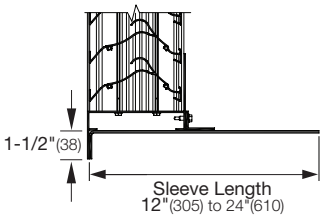
Vertical Section
†Screen adds approximately
3/16" (5) to louver depth



Visible Vertical Mullion
(standard)

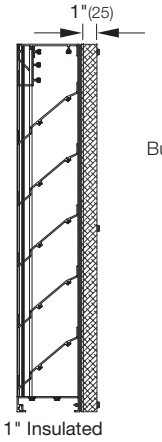


Flange Frame
(optional)

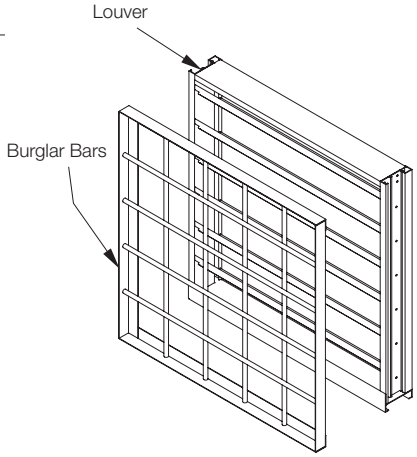


Sleeve
(optional)

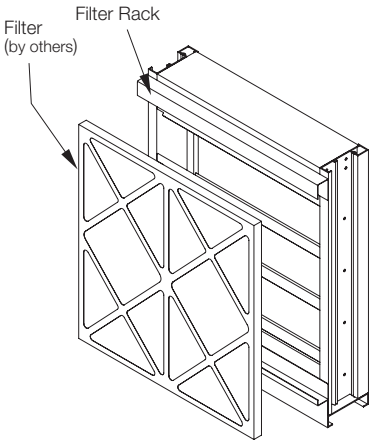
Supplemental Options



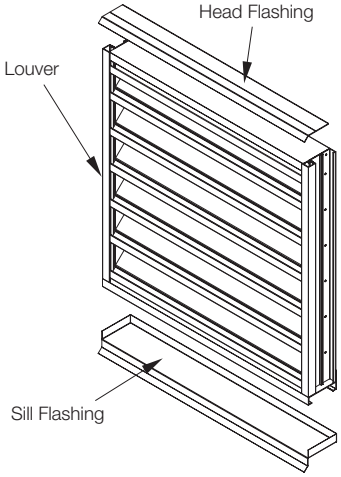
Blank-Off Options
Non-Insulated and Gasketed
1" Insulated (4.4 R-value) As Shown
2" Insulated (8.7 R-value)



Burglar Bars
Shipped Loose or Mounted



Filter Rack



Flashing Options
Head and Sill Available