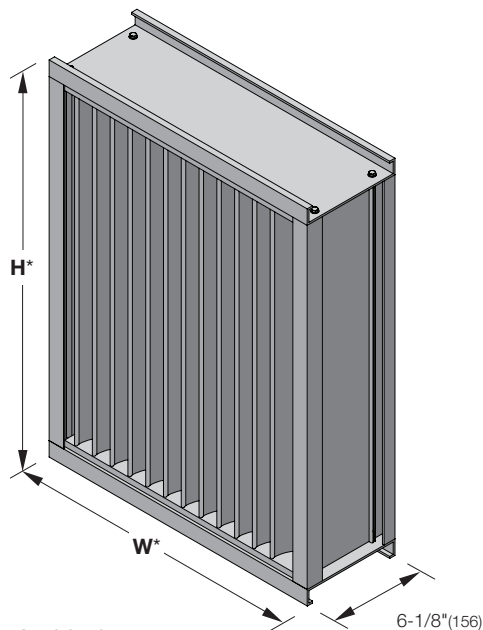




EV-645

(standard)

*Louver dimensions furnished approximately 1/2" (13) undersize.

Ratings

Free Area: [48" × 48" (1219 × 1219) unit]: 7.4 ft² (0.68m²)
46.0%

Performance @ Beginning Point of Water Penetration

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

Air Volume Delivered: 9,250 cfm (4.4 m³/s)

Pressure Loss: 0.15 in.wg. (37 Pa)

Velocity @ 0.15 in.wg. Pressure Loss: 1,270 fpm (6.4 m/s)

Tested in accordance with AMCA 540 (impact resistance) and AMCA 550 (high velocity wind-driven rain)

Std. Design Load: 30 psf

The EV-645 offers exceptional protection against wind-driven rain under the most severe conditions and is ideally suited for high wind areas or applications that are sensitive to wind-driven rain penetration. The EV-645 incorporates vertical blades and is available in a wide array of anodized and painted finishes including custom color matching.

Standard Construction

Material: Mill finish 6063-T5 extruded aluminum

Frame: 6" deep × 0.081" thick (152 × 2) channel

Blades: 0.081" (2) thick vertical chevron style

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

Mullion: Visible

Minimum Size: 12" × 12" (305 × 305)

Maximum Size:

Single section: 60" × 120" (1524 × 3048)

120" × 60" (3048 × 1524)

Multiple section: Unlimited

Shipping Weight (approximate): 10 lbs/ft² (49 kg/m²)

Options

■ Factory finish:

- High Performance Fluoropolymer ■ Prime Coat
- Baked Enamel ■ Clear Anodize ■ Integral Color Anodize

■ Frame Options:

- 1-1/2" (38) flange frame ■ Custom-size flange
- Stucco flange ■ Glazing frame

■ Installation Hardware

- Clip angles ■ Continuous angles

■ Alternate bird or insect screens

■ Insulated or non-insulated blank-off panels

■ Filter racks

■ Hinged frame

■ Subframe

■ Head and/or sill flashing

■ Frame closure

■ Burglar bars

■ Net OD (actual size)



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

PERFORMANCE

EV-645

Extruded Aluminum Louver
6" deep • Vertical Blade

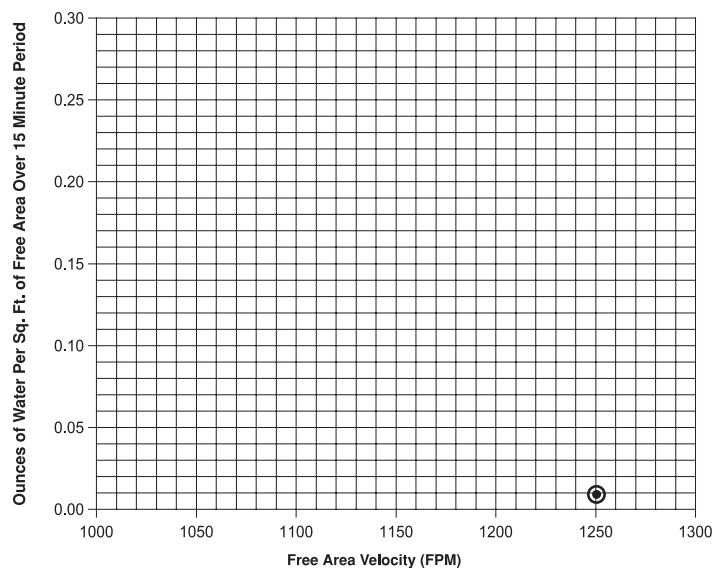
Free Area (ft²)

		Width (Inches)																		
		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
Height (Inches)	12	0.2	0.4	0.5	0.7	0.9	1.1	1.3	1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.7	2.9	3.1	3.3	3.5
	18	0.3	0.7	1.0	1.3	1.7	2.0	2.3	2.7	3.0	3.3	3.7	4.0	4.3	4.7	5.0	5.3	5.7	6.0	6.3
	24	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.3	4.8	5.3	5.8	6.3	6.8	7.2	7.7	8.2	8.7	9.2
	30	0.6	1.2	1.9	2.5	3.2	3.8	4.4	5.1	5.7	6.3	7.0	7.6	8.2	8.9	9.5	10.1	10.8	11.4	12.0
	36	0.8	1.5	2.3	3.1	3.9	4.7	5.5	6.3	7.0	7.8	8.6	9.4	10.2	11.0	11.8	12.5	13.3	14.1	14.9
	42	0.9	1.8	2.8	3.7	4.6	5.6	6.5	7.5	8.4	9.3	10.3	11.2	12.1	13.1	14.0	15.0	15.9	16.8	17.8
	48	1.0	2.1	3.1	4.2	5.2	6.3	7.4	8.4	9.5	10.5	11.6	12.6	13.7	14.8	15.8	16.9	17.9	19.0	20.1
	54	1.2	2.4	3.7	4.9	6.1	7.4	8.6	9.9	11.1	12.3	13.6	14.8	16.1	17.3	18.5	19.8	21.0	22.2	23.5
	60	1.3	2.7	4.0	5.4	6.7	8.1	9.5	10.8	12.2	13.5	14.9	16.3	17.6	19.0	20.3	21.7	23.1	24.4	25.8
	66	1.4	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5										
	72	1.6	3.3	4.9	6.6	8.2	9.9	11.6	13.2	14.9										
	78	1.7	3.5	5.4	7.2	9.0	10.8	12.6	14.4	16.2										
	84	1.9	3.8	5.7	7.6	9.6	11.5	13.4	15.4	17.3										
90	2.0	4.1	6.2	8.2	10.3	12.4	14.5	16.6	18.7											
96	2.1	4.4	6.6	8.8	11.1	13.3	15.5	17.8	20.0											
102	2.3	4.6	7.0	9.3	11.7	14.0	16.4	18.7	21.1											
108	2.4	4.9	7.4	9.9	12.4	14.9	17.4	19.9	22.4											
114	2.5	5.2	7.9	10.5	13.2	15.8	18.5	21.1	23.8											
120	2.7	5.5	8.3	11.1	13.9	16.7	19.5	22.3	25.2											

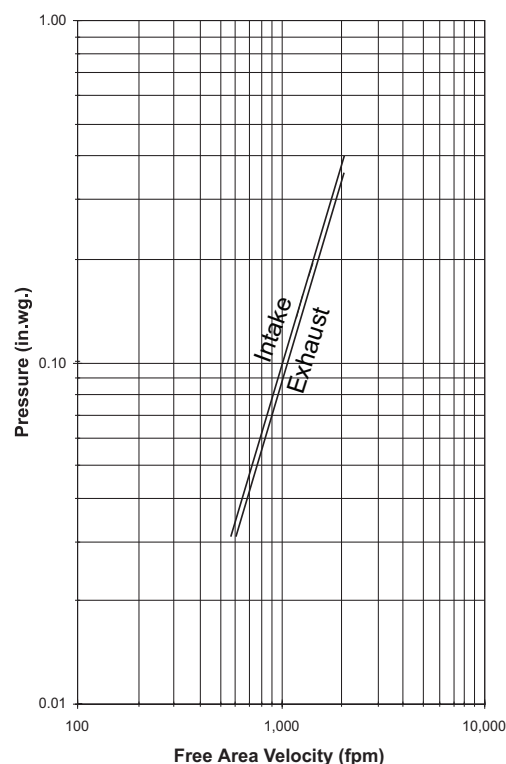
Water Penetration

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 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. We recommend 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 = 1,250 fpm



Pressure Loss



Louver Test Size = 48" x 48" (1219 x 1219)
Pressure loss tested in accordance with Figure 5.5 of AMCA
Standard 500-L. Data corrected to standard air density.

PERFORMANCE

EV-645

Extruded Aluminum Louver
6" deep • Vertical Blade

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

Wind Velocity	Rainfall	Airflow cfm (m³/s)	Core Velocity¹ fpm (m/s)	Free Area Velocity² fpm (m/s)	Effectiveness Ratio	Wind-Driven Rain Penetration Class
50 mph	8 in/hr	10,390 (4.9)	965 (4.9)	2,045 (10.4)	100.0%	A

NOTE:

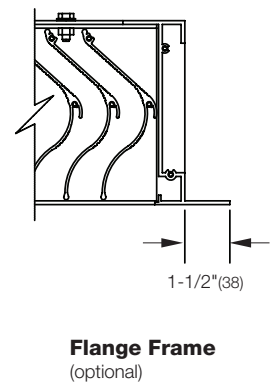
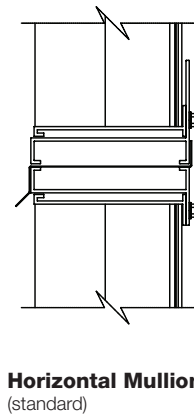
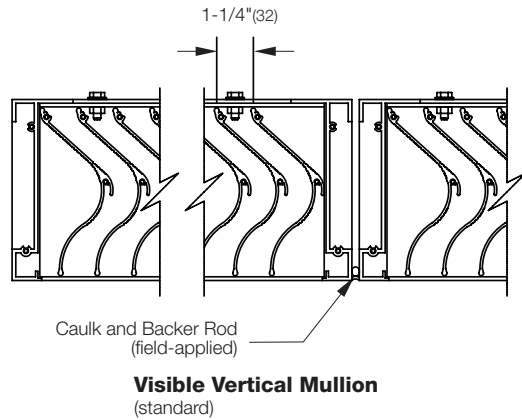
1. Core area is the open area of the louver face (face area less louver frame). Core velocity is the airflow divided by core area. Test louver core area is 10.77 ft² (1 m²).

2. Free area velocity is the airflow divided by free area. Test louver free area is 5.1 ft² (0.47 m²).

Wind Driven Rain

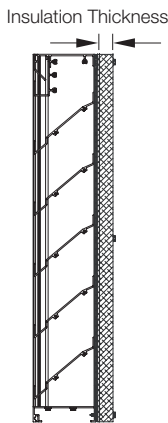
Class	Effectiveness
A	99% and above
B	95% to 98.9%
C	80% to 94.9%
D	below 80%

Attributes

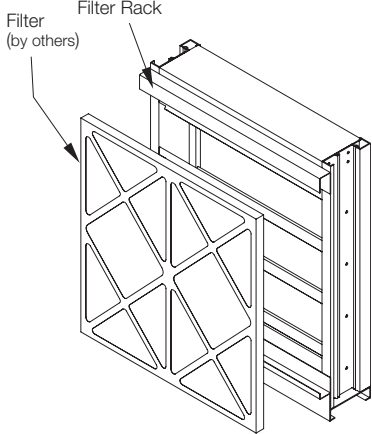


Supplemental Options

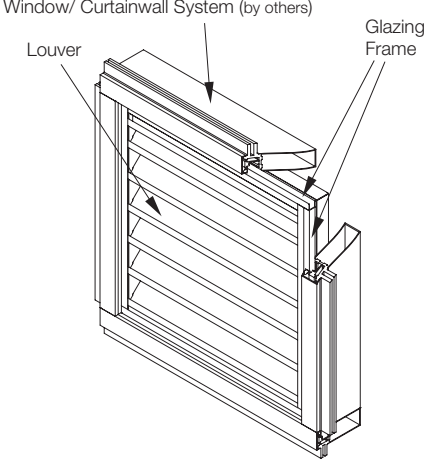
EV-645
Extruded Aluminum Louver
6" deep • Vertical Blade



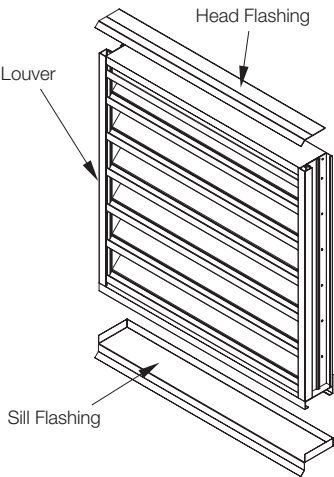
Blank-Off Options
Non-Insulated and Gasketed
1" Insulated (4.25 R-value)
2" Insulated (8.75 R-value)



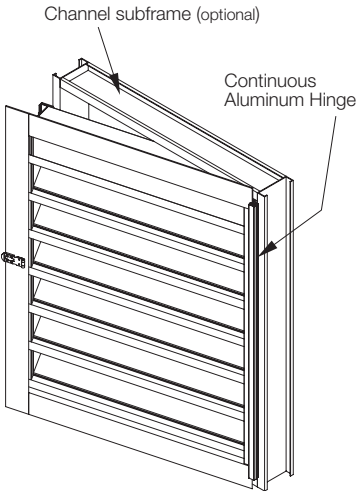
Filter Rack



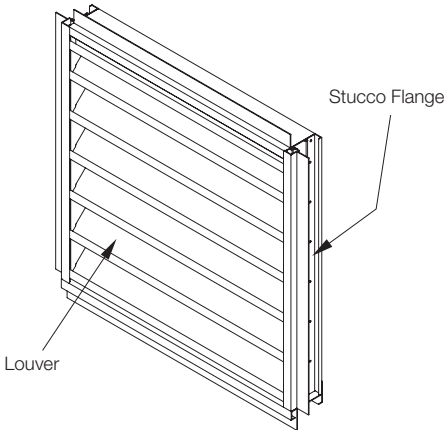
Glazing Frame



Flashing Options
Head and Sill Available



Hinge and Subframe
Right or Left Side Option Available



Stucco Flange