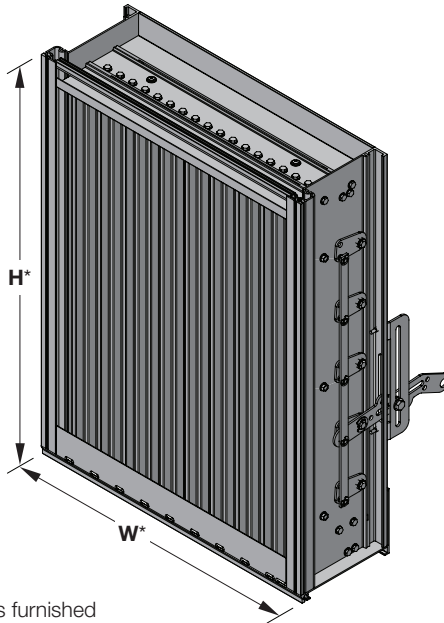




EXV-640

(standard)

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

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

■ Net OD (actual size)

■ Factory-mounted electric or pneumatic actuator

■ Pull-chain operator

■ Sleeve (galvanized steel):

- 20-GA
- 16-GA

The EXV-640 combination louver is engineered and tested to withstand debris impact and water infiltration associated with severe weather effects of hurricanes. It features stationary vertical louver blades in front to protect against rain, and an integral control damper in the rear to allow positive shutoff of air intake and exhaust openings. The EXV-640 is tested in accordance with AMCA 540 and 550, making it ideally suited for hurricane-prone regions. Unlike most other louver-damper combo designs, the EXV-640 passes AMCA 550 with the damper blades fully open, providing uninterrupted ventilation even during a severe weather event. These units are available with a variety of factory-mounted electric or pneumatic actuators.

Standard Construction

Material: Mill finish 6063-T5 extruded aluminum

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

Blades (Front): 45° × 0.05" (1.3) thick vertical chevron style

Blades (Back): 40° × 0.14" (3.6) thick airfoil style

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

Axles: 1/2" (13) diameter plated steel hex

Linkage: Concealed in frame

Low Leakage Seals: TPV blade edge and flexible metal jamb

Bearings: Synthetic

Minimum Size: 12" × 12" (305 × 305)

Maximum Size:

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

Multiple section: Unlimited

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

Ratings

Free Area: [48" × 48" (1219 × 1219) unit]: 6.8 ft² (0.63 m²)
42.7%

Performance @ Beginning Point of Water Penetration

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

Air Volume Delivered: 8,563 cfm (4.04 m³/s)

Pressure Loss: 0.30 in.wg. (75 Pa)

Velocity @ 0.15 in.wg. Pressure Loss: 864 fpm (4.39 m/s)

Tested in accordance with AMCA 540 (impact resistant, Basic protection) and AMCA 550 (high velocity rain resistant)

Std. Design Load: 30 psf

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

PERFORMANCE

EXV-640

Extruded Aluminum Louver
6" deep • 40 – 45° Combination Blade

Free Area (ft²)

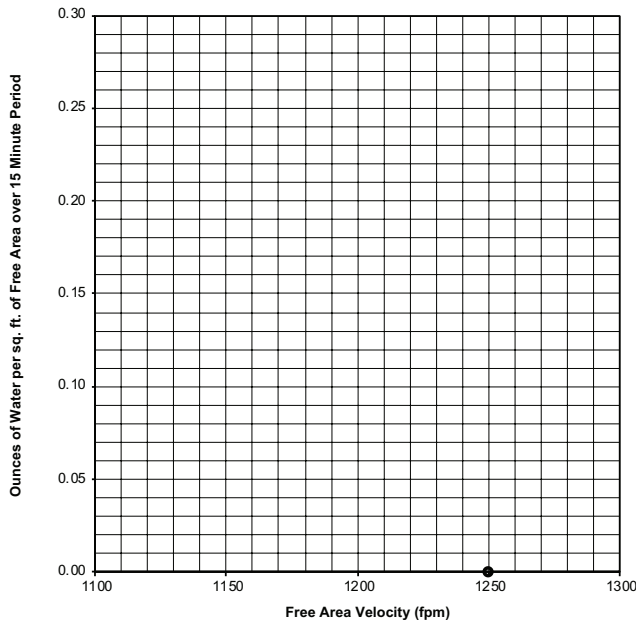
Width (Inches)

Height (Inches)		12	18	24	30	36	42	48	54	60
	12	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.6
	18	0.3	0.6	0.8	1.0	1.3	1.5	1.8	2.0	2.2
	24	0.6	1.0	1.4	1.8	2.2	2.6	3.0	3.4	3.8
	30	0.7	1.2	1.7	2.2	2.7	3.2	3.7	4.2	4.6
	36	0.9	1.6	2.3	2.9	3.6	4.3	4.9	5.6	6.3
	42	1.2	2.0	2.8	3.7	4.5	5.4	6.2	7.0	7.9
	48	1.3	2.2	3.1	4.1	5.0	5.9	6.8	7.8	8.7
	54	1.5	2.6	3.7	4.8	5.9	7.0	8.1	9.2	10.3
	60	1.7	3.0	4.3	5.6	6.8	8.1	9.4	10.6	11.9
	66	1.9	3.2	4.6	5.9	7.3	8.6	10.0	11.4	12.7
	72	2.1	3.6	5.2	6.7	8.2	9.7	11.3	12.8	14.3
	78	2.3	4.0	5.7	7.4	9.1	10.8	12.5	14.2	15.9
	84	2.5	4.2	6.0	7.8	9.6	11.4	13.2	15.0	16.7
	90	2.7	4.6	6.6	8.6	10.5	12.5	14.4	16.4	18.4
	96	2.9	5.1	7.2	9.3	11.4	13.6	15.7	17.8	20.0
102	3.0	5.3	7.5	9.7	11.9	14.1	16.3	18.6	20.8	
108	3.3	5.7	8.1	10.4	12.8	15.2	17.6	20.0	22.4	
114	3.5	6.1	8.6	11.2	13.8	16.3	18.9	21.4	24.0	
120	3.6	6.3	8.9	11.6	14.2	16.9	19.5	22.2	24.8	

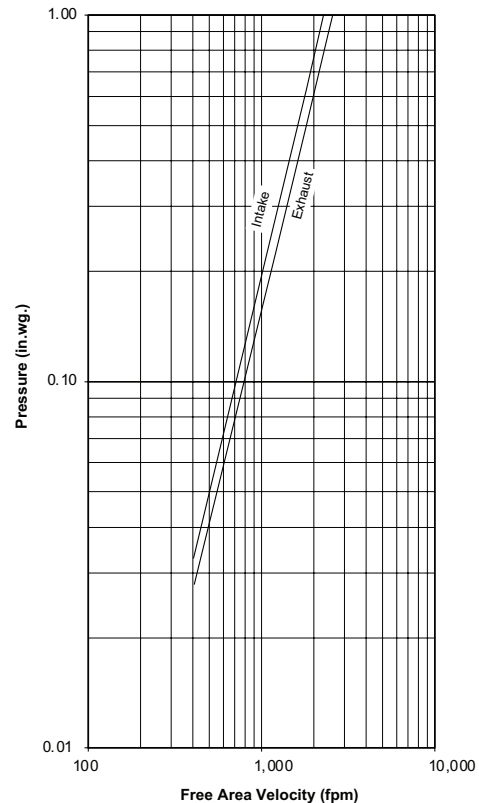
Water Penetration

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

EXV-640

Extruded Aluminum Louver
6" deep • 40 – 45° Combination 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	10,441 (4.9)	987 (5.0)	1,981 (10.1)	100%	A

NOTE:

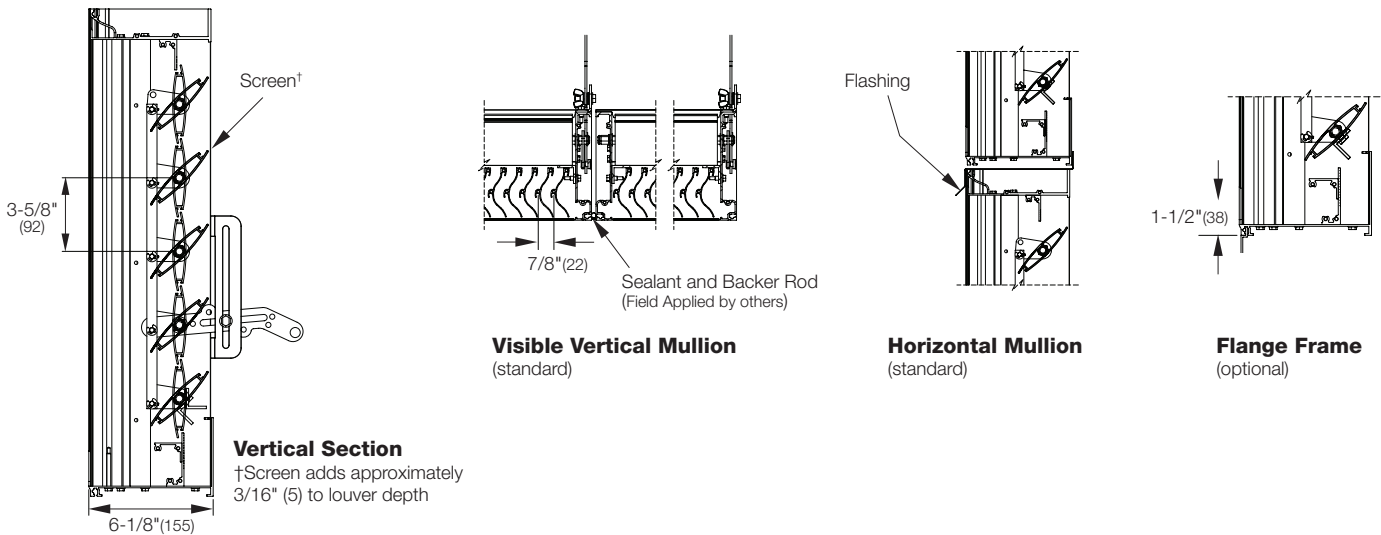
1. Core area is the open area of the louver face (face area less louver frame). Core velocity is the airflow divided by core area. Test louver core area is 10.77 ft² (1 m²).

2. Free area velocity is the airflow divided by free area. Test louver free area is 5.3 ft² (0.49 m²).

Wind Driven Rain

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

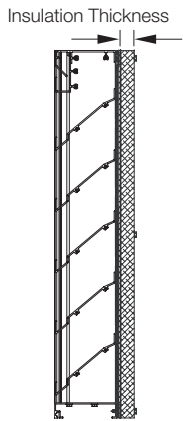
Attributes



Supplemental Options

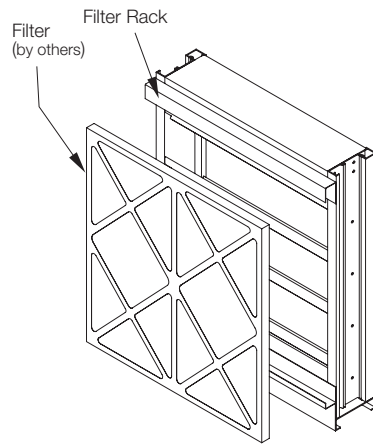
EXV-640

Extruded Aluminum Louver
6" deep • 40 – 45° Combination Blade

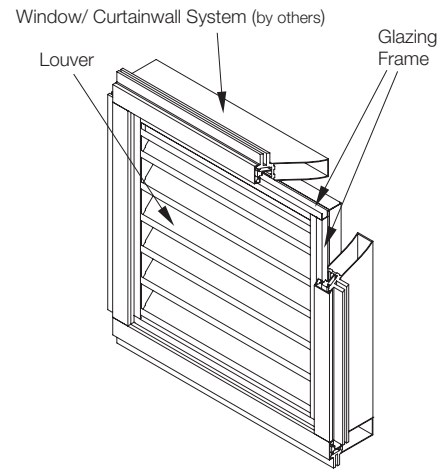


Blank-Off Options

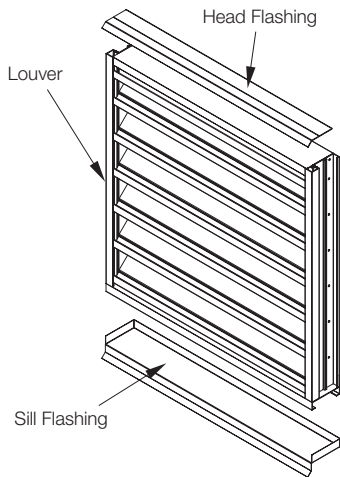
Non-Insulated and Gasketed
1" Insulated (4.25 R-value)
2" Insulated (8.75 R-value)



Filter Rack

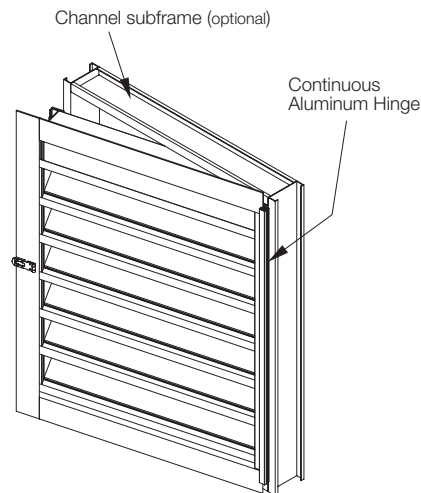


Glazing Frame



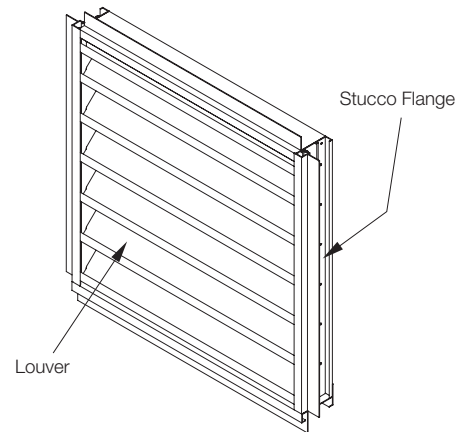
Flashing Options

Head and Sill Available



Hinge and Subframe

Right or Left Side Option Available



Stucco Flange