

MODEL EAV-81

Miami-Dade HVHZ Louver • 8" Deep • Chevron Blades • Stationary • Vertical • Extruded Aluminum

Standard Materials and Construction

FRAME: Head & Sill: .125" thick (nominal) formed aluminum, 6063-T52/T6 alloy.

Jamb: .125" thick (nominal) extruded aluminum, 6063-T52/T6 alloy. Welded construction.

BLADE: .24" thick at edges, reducing to .063" at midpoint of profile. Blades approximately 1 1/4" on centers. Welded construction.

LOUVER FACE: Full width sill with head and blades contained within jamb.

SCREEN: None

FINISH: Mill

MULLIONS: Exposed, vertical with 1 1/4" x .080" (nominal) 6063-T52/T6 extruded aluminum cover (multiple panels only).

Test Methods

Passed the following Miami-Dade County Florida Test Protocols:

- TAS 100
- TAS (PA) 201
- TAS (PA) 202
- TAS (PA) 203
- ASTM E1996, ASTM E330, ASTM E1886

Options

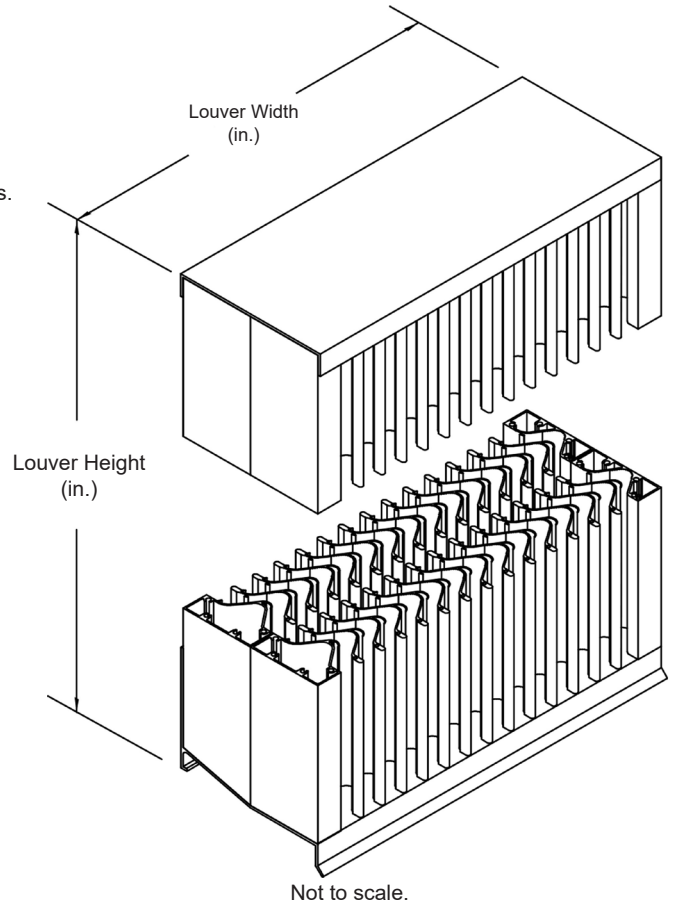
Finish - Baked Enamel, Kynar, Anodize

Extended Sill - .063" thick formed aluminum

Sleeve

Notes

1. Nominal deductions will be made to the opening size given.
2. Louver panels may be butted together to infinite width with a maximum height of 96". Maximum single panel is 48"W x 96"H.
3. Approved opening types include wood, steel, concrete/masonry (masonry acceptable at jamb only, head and sill must be concrete). Anchoring details may vary.
4. Units are supplied with 2" x 2" mounting angles and mounting hardware for concrete installation as standard. Please specify if louvers are to be mounted in substrates other than concrete or if the installation will require a 2" x 4" mounting angle. Larger 2" x 4" mounting angles may be required to either maintain the minimum edge distance or to ensure that the screws do not penetrate the sill pan.
5. See installation drawings for required mounting structure.
6. Approximate shipping weight is 8.0 lbs./sq.ft.

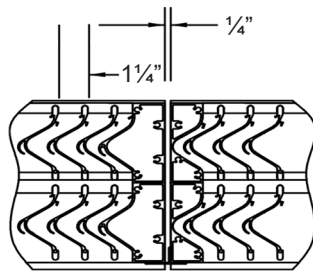


Not to scale.

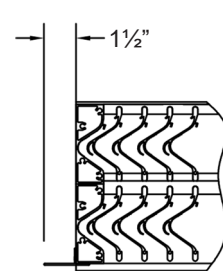
Louver Sizes

| Min Panel | Max Single Panel |
|-------------|------------------|
| 12"W x 12"H | 48"W x 96"H |

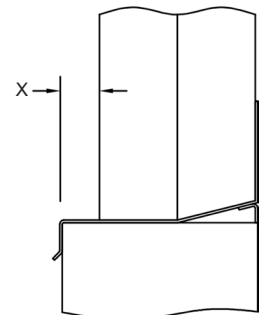
This louvers has been tested to **AMCA Standard 550 for High Velocity Rain Resistance**. See Page 2 for seal and listing information.



Standard Vertical Mullion



Optional Flange Frame



Optional Extended Sill

| Item # | Qty | Width | Height | Width | Height | Mullion | Type | Location | Union Made |
|---------------|-----|--------------|--------|-------------|--------|---------|---------|----------|------------|
| | | Opening Size | | Louver Size | | | Screens | | |
| Arch. / Eng.: | | | | | | EDR: | | ECN: | Job: |
| Contractor: | | | | | | | | | |
| Project: | | | | | | Date: | DWN: | DWG: | |



Visit our Miami-Dade Listing Page for the latest NOA information:
<https://goo.gl/DJ5UtM>

In the interest of product development, Arrow United reserves the right to make changes without notice.
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 AUI-09-01-07

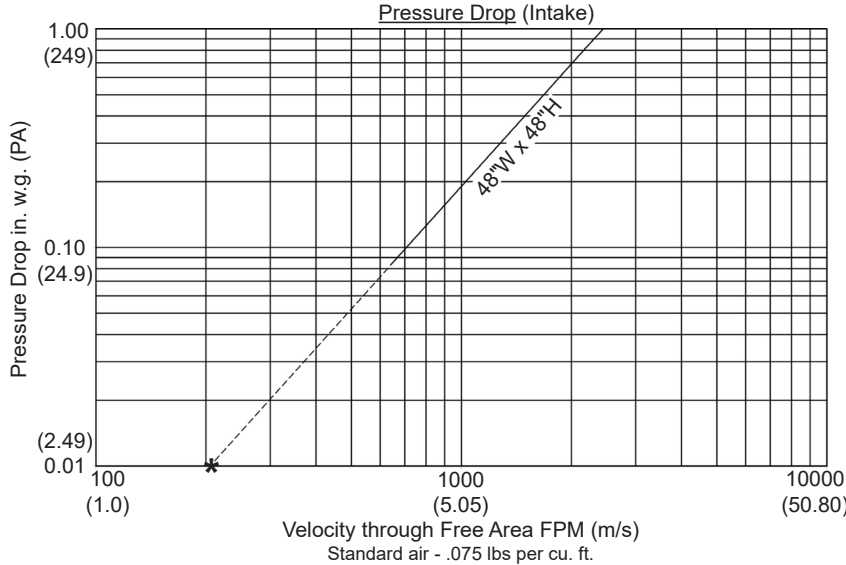
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Performance Data

Pressure Drop: .30 in. w.g. (74.73 Pa) at 1250 fpm (6.4 m/s) and 5862.5 scfm (2.8 scm/s)
 Free Area: 4.69 sq.ft. (0.435 sq. m.) = 29.31% for 48"W x 48"H (1.2m x 12m) sample tested in accordance with AMCA Standard 500-L.

Ratings do not include effects of a screen.



| | | Free Area sq.ft. (sq.m.) | | | |
|-----------------|---------------|--------------------------|-----------------|-----------------|------------------|
| | | Width in. (mm) | | | |
| | | 12" (305) | 24" (610) | 36" (914) | 48" (1219) |
| Height in. (mm) | 12" (305) | 0.10 (0.009) | 0.22 (0.021) | 0.36 (0.033) | 0.49 (0.045) |
| | 24" (610) | 0.38 (0.036) | 0.88 (0.082) | 1.40 (0.130) | 1.90 (0.177) |
| | 36" (914) | 0.67 (0.062) | 1.53 (0.142) | 2.45 (0.227) | 3.31 (0.308) |
| | 48" (1219) | 0.95 (0.088) | 2.19 (0.203) | 3.49 (0.324) | 4.69 (0.435) |
| | 60" (1524) | 1.24 (0.115) | 2.84 (0.264) | 4.54 (0.421) | 6.14 (0.571) |
| | 72" (1829) | 1.52 (0.141) | 3.50 (0.325) | 5.58 (0.518) | 7.56 (0.702) |
| | 84" (2134) | 1.80 (0.168) | 4.15 (0.386) | 6.62 (0.615) | 8.97 (0.833) |
| | 96" (2438) | 2.09 (0.194) | 4.80 (0.446) | 7.67 (0.712) | 10.38 (0.965) |

To determine minimum free area required for louvers:

1. Divide the required airflow by the maximum recommended free area velocity.
2. Select the most desirable louver size from the free area table that meets the minimum free area required.
3. Compare specified performance to the certified water penetration and air performance ratings.

Example:

Given 10,000 CFM design flow

1. minimum free area = $\frac{\text{design flow}}{\text{maximum recommended velocity}}$
 minimum free area = $\frac{10,000}{1000} = 10 \text{ sq. ft.}$
2. From the free area table, the required louver size is 48"W x 96"H.

| Blade Spacing | Rainfall Rate | Wind Velocity | Core Velocity | Airflow | Free Area Velocity | Water Penetration Effectiveness | Discharge Loss Coefficient |
|---------------------|------------------------|-----------------------|----------------------|----------------------------|------------------------|---------------------------------|----------------------------|
| 1.25" (31.75 mm) | 8 in/hr (203 mm/hr) | 50 mph (80.47 kph) | 970 fpm (4.9 m/s) | 10,447 cfm (296 m³/min) | 2208 fpm (11.2 m/s) | 100% - Class A | ≤ .199 - Class 4 |

Wind Driven Rain Performance Test based on 39.37"W x 39.37"H (1m x 1m) Core Area Louver with 3.43 ft² (0.319m²) Free Area.



Arrow United Industries certifies that the Model EAV-81 shown herein is 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 Air Performance and Wind Driven Rain Ratings only.



HIGH VELOCITY
 RAIN RESISTANT
 WITH BLADES FULLY OPEN

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

Arrow United Industries certifies that the Model EAV-81 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 Resistant Louvers.

This label does not signify AMCA airflow performance certification.



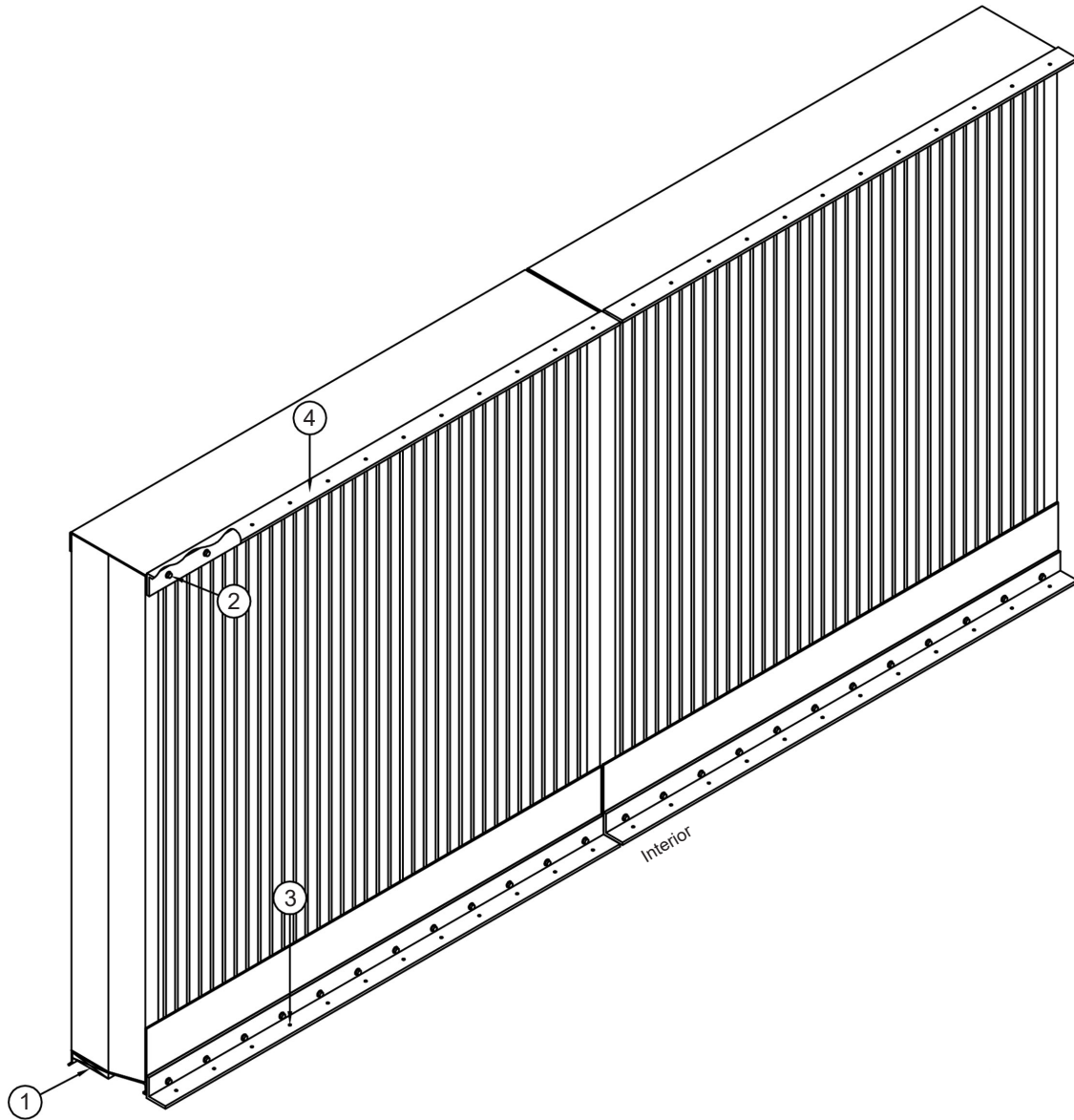
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Standard Installation

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Fasteners

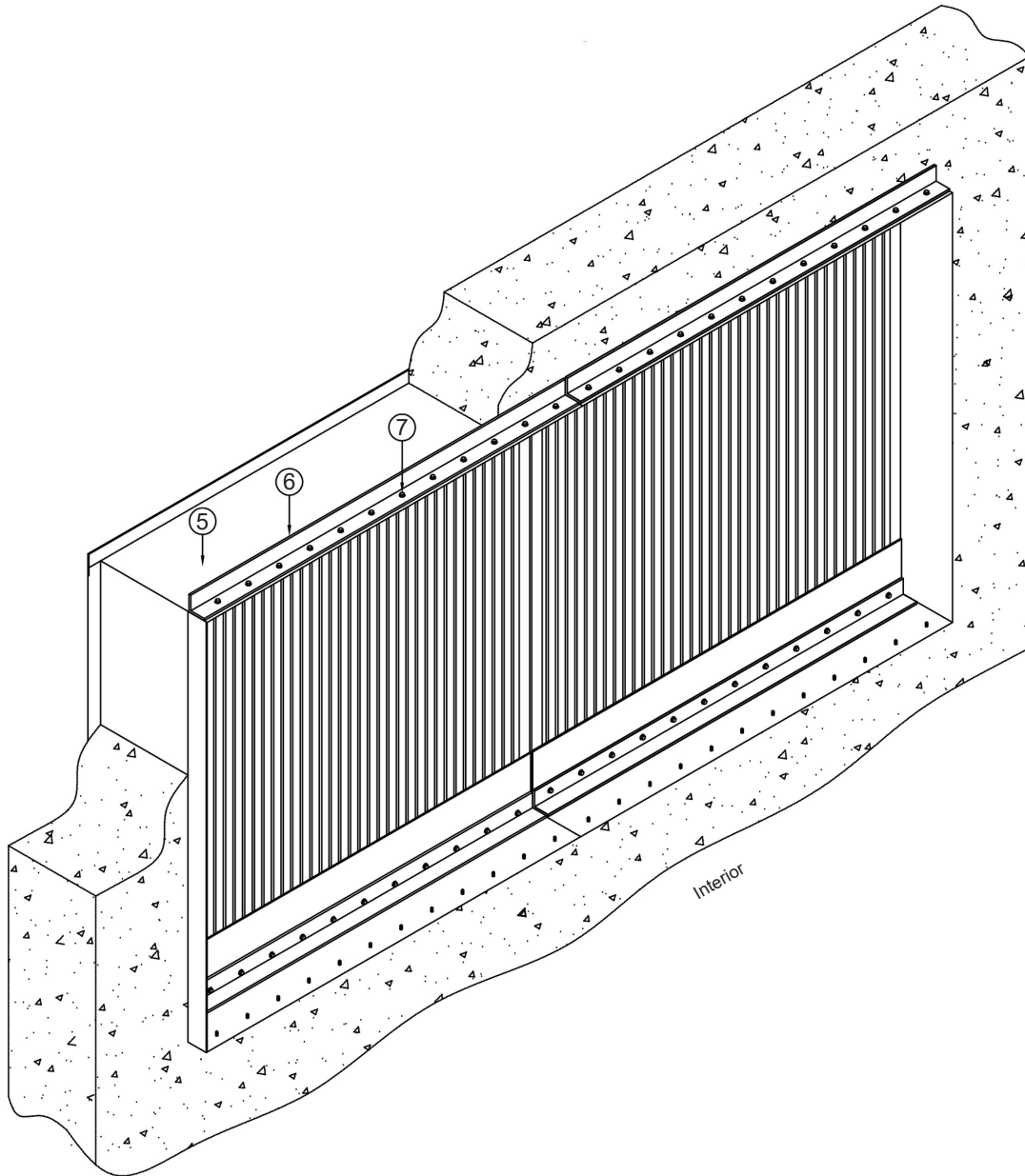
All fasteners must be A307 plated steel or 304 stainless steel.

| | |
|---|---|
| A | 1/2" Shim Block |
| B | #14 x 1 1/4" Tek screw |
| C | #10 x 2" wood screw |
| D | #10 x 2" long sheet metal screw |
| E | 1/4" x 1 3/4" long Tapcon screw |
| F | 1/4" x 1 3/4" bolt |
| G | 2" x 2" 6063-T5 extruded aluminum angle |
| H | 2" x 4" 6063-T5 extruded aluminum angle |
| I | .125" aluminum sleeve |

| Fastener Location | Wood Substrate | Concrete Substrate | Steel Substrate |
|-------------------|----------------|--------------------|-----------------|
| 1 | A | A | A |
| 2 | B | B | B |
| 3 | C | E | B/F |
| 4 | G/H | G/H | G/H |

Sleeve Installation

All installations must be in accordance with drawings contained within the NOA File. Visit <https://goo.gl/DJ5UtM> for the latest NOA information.



All fasteners must be A307 plated steel or 304 stainless steel.

| | |
|---|---|
| A | 1/2" Shim Block |
| B | #14 x 1 1/4" Tek screw |
| C | #10 x 2" wood screw |
| D | #10 x 2" long sheet metal screw |
| E | 1/4" x 1 3/4" long Tapcon screw |
| F | 1/4" x 1 3/4" bolt |
| G | 2" x 2" 6063-T5 extruded aluminum angle |
| H | 2" x 4" 6063-T5 extruded aluminum angle |
| I | .125" aluminum sleeve |

| Fastener Location | Wood Substrate | Concrete Substrate | Steel Substrate |
|-------------------|----------------|--------------------|-----------------|
| 5 | I | I | I |
| 6 | G/H | G/H | G/H |
| 7 | C | C | C |