

# EXTRUDED ALUMINUM, 2" DEEP, VERTICAL FIXED TYPE BLADE FOR WIND DRIVEN RAIN

MODEL LE-29  
STANDARD SPECIFICATION

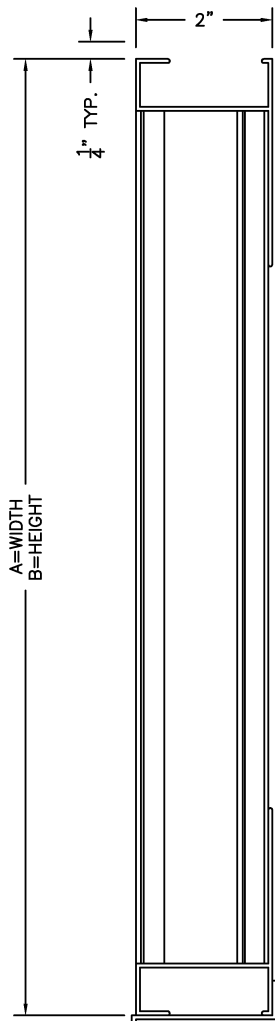
- FRAME: 2" DEEP .061" 6063 T52/T6 THICK EXTRUDED ALUMINUM ALLOY.
- BLADES: .056" THICK 6063 T52/T6 EXTRUDED ALUMINUM ALLOY.
- SILL PAN: .050 THICK FORMED ALUMINUM.
- FINISH: MILL.
- SCREEN: 1/2" REMOVABLE ALUMINUM BIRD SCREEN, LOCATED ON INTERIOR.

NOTES:

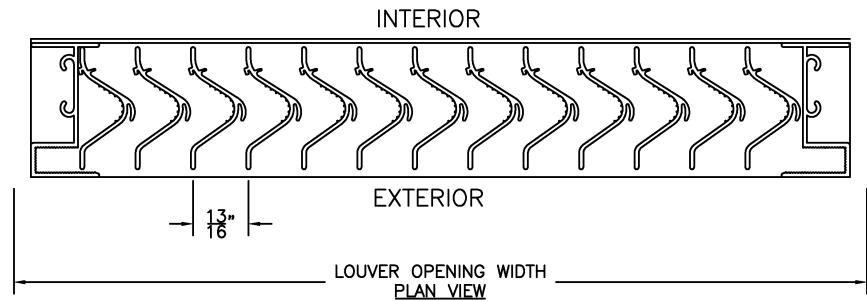
MAX. PANEL SIZE: PANEL WIDTH NOT TO EXCEED 96", PANEL HEIGHT NOT TO EXCEED 96", PANEL SQUARE FOOTAGE NOT TO EXCEED 30', UNLIMITED ASSEMBLY WIDTH UTILIZING ARCHITECTURAL VERTICAL MULLIONS, ASSEMBLY HEIGHT LIMITED TO A SINGLE PANEL. CONSULT FACTORY FOR OPENINGS GREATER THEN 96" HIGH.

MIN. PANEL SIZE: 12' WIDE X 12' HIGH.

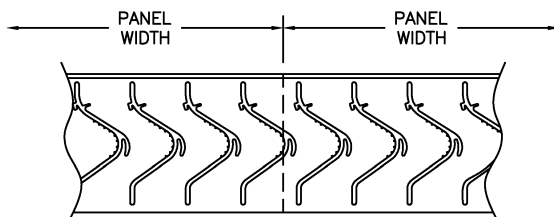
DIMENSIONS: "A" (WIDTH) AND "B" (HEIGHT) ARE OPENING SIZES LOUVERS ARE MADE 1/2" UNDERSIZED.



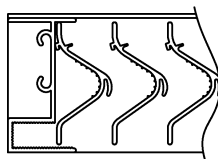
SILL PAN SECTION VIEW



LOUVER OPENING WIDTH PLAN VIEW



ARCHITECTURAL VERTICAL MULLION OPTIONAL



STANDARD JAMB



AWV certifies that the model LE-29 louver 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 Wind Driven Rain only.

**awv** american warming and ventilating

A MESTEK COMPANY

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Phone (419) 865-5000 Fax (419) 865-1375

## LE-29 STATIONARY LOUVER

DRN. BY	JVC	DWG. NO.	REV.
DATE	6-15-05	LE-29	

**Free Area** : 5.62 sq ft (0.522 sq m) = 35.1% for 48" x 48" (1.22m x 1.22m) test size

## LE-29 WIND DRIVEN RAIN PERFORMANCE

Wind Velocity 50 mph (80.5 kph)

Rainfall 8" per hour (203 mm/h)

Test Size 1m x 1m core area

**Water Penetration**  
Class A

**Effectiveness Ratio**  
99.6%

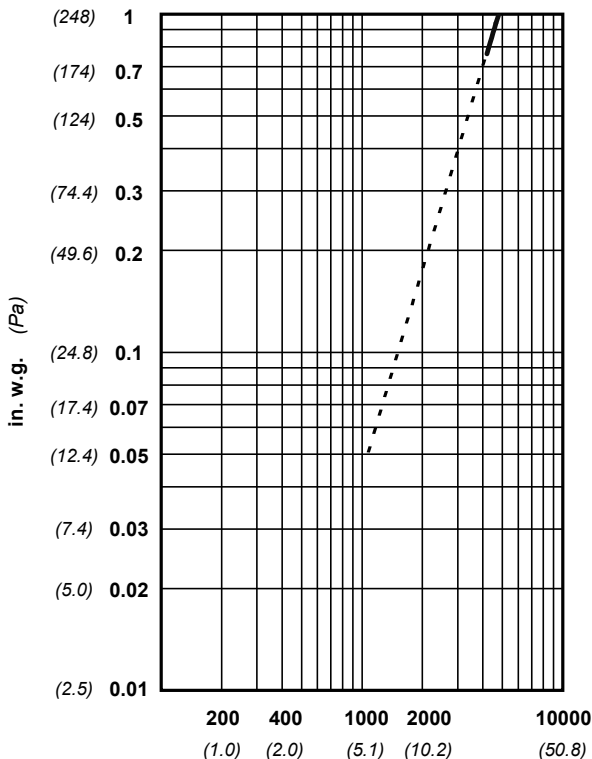
**Coefficient of Discharge**  
n/a

**Core Velocity**  
676 fpm (3.4 m/s)

**Ventilation Airflow**  
7283 cfm (3.4 cm/s)

**Free Area Velocity**  
2086 fpm (10.6 m/s)

### INTAKE PRESSURE DROP



### FREE AREA IN SQUARE FEET (sq meters)

		WIDTH								
		in. mm	12 305	24 610	36 914	48 1219	60 1524	72 1829	84 2134	96 2438
HEIGHT	12 305	<b>0.16</b> 0.015	<b>0.35</b> 0.033	<b>0.55</b> 0.051	<b>0.75</b> 0.070	<b>0.95</b> 0.088	<b>1.13</b> 0.105	<b>1.33</b> 0.124	<b>1.53</b> 0.142	
	24 610	<b>0.51</b> 0.047	<b>1.10</b> 0.102	<b>1.74</b> 0.162	<b>2.37</b> 0.220	<b>3.01</b> 0.280	<b>3.60</b> 0.334	<b>4.24</b> 0.394	<b>4.87</b> 0.452	
	36 914	<b>0.86</b> 0.080	<b>1.86</b> 0.173	<b>2.93</b> 0.272	<b>4.00</b> 0.372	<b>5.07</b> 0.471	<b>6.07</b> 0.564	<b>7.14</b> 0.663	<b>8.21</b> 0.763	
	48 1219	<b>1.21</b> 0.112	<b>2.61</b> 0.242	<b>4.12</b> 0.383	<b>5.62</b> 0.522	<b>7.13</b> 0.662	<b>8.54</b> 0.793	<b>10.04</b> 0.933	<b>11.55</b> 1.073	
	60 1524	<b>1.55</b> 0.144	<b>3.37</b> 0.313	<b>5.31</b> 0.493	<b>7.25</b> 0.674	<b>9.19</b> 0.854	<b>11.01</b> 1.023	<b>12.95</b> 1.203	<b>14.89</b> 1.383	
	72 1829	<b>1.90</b> 0.177	<b>4.12</b> 0.383	<b>6.50</b> 0.604	<b>8.88</b> 0.825	<b>11.26</b> 1.046	<b>13.47</b> 1.251	<b>15.85</b> 1.473	<b>18.23</b> 1.694	
	84 2134	<b>2.25</b> 0.209	<b>4.88</b> 0.453	<b>7.69</b> 0.714	<b>10.50</b> 0.975	<b>13.32</b> 1.237	<b>15.94</b> 1.481	<b>18.76</b> 1.743	<b>21.57</b> 2.004	
	96 2438	<b>2.60</b> 0.242	<b>5.63</b> 0.523	<b>8.88</b> 0.825	<b>12.13</b> 1.127	<b>15.38</b> 1.429	<b>18.41</b> 1.710	<b>21.66</b> 2.012	<b>24.91</b> 2.314	

### VELOCITY THROUGH FREE AREA fpm (m/s)

standard air - .075 lbs per cu ft

Ratings do not include the effect of a wire bird screen  
The pressure drop is not licensed to bear the AMCA seal.



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### LE-29

To determine minimum free area required for louver:

**Step #1:** Divide the required CFM flow by the maximum recommended free area velocity.

**Step #2:** Select the most desirable louver size, from the free area table, that meets the minimum free area requirement.

**Step #3:** Compare specified performance to the certified water penetration and pressure drop ratings.

Example: Given: 10000 CFM design flow

**Step #1:**

$$\text{min. free area} = \frac{\text{Design CFM}}{\text{Max. Recommended Velocity}} = \frac{10000}{676} = 14.79 \text{ sq ft}$$

**Step #2:** From the free area table above the approximate louver size is 96" x 60" = (14.89 sq ft)