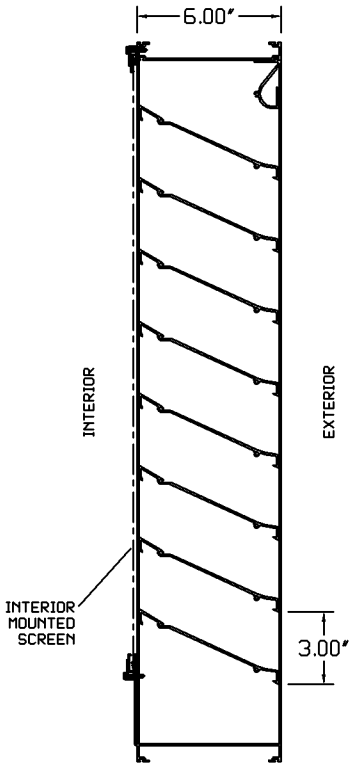
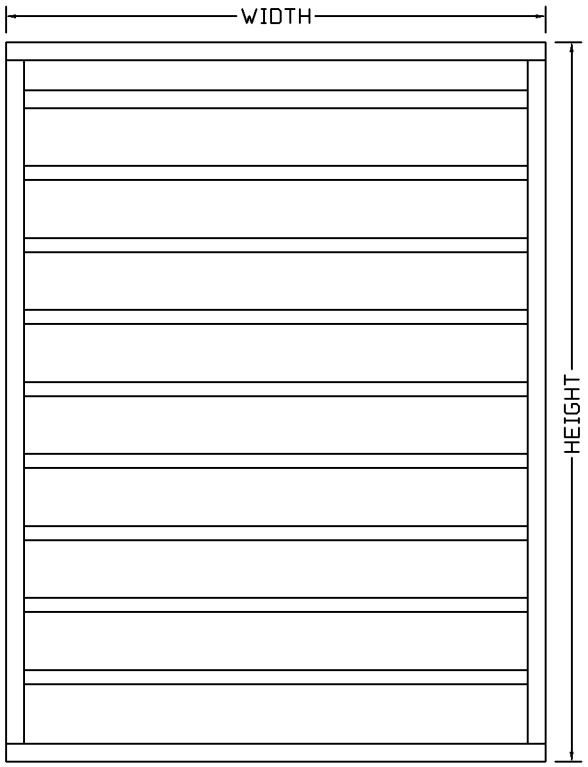
# E6JN - 6" DEEP 25 DEGREE NARROW N BLADE EXTRUDED ALUMINUM STATIONARY LOUVER




SECTION VIEW




ELEVATION VIEW

BLADE - 0.081" THICKNESS TYPE 6063-T5 EXTRUDED ALUMINUM

FRAME - 0.081" THICKNESS TYPE 6063-T5 EXTRUDED ALUMINUM

DESIGNED FOR 30 PSF WIND LOAD

SIZES 12" WIDE X 12" HIGH UP TO UNLIMITED SIZE AVAILABLE

OPTIONS:

MOUNTING FOR VARIOUS OPENING TYPES (SEE FRAME STYLES BELOW)

ARCHITECTURAL SHAPES (SEE SPECIAL SHAPES TECH SHEET)

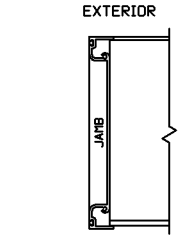
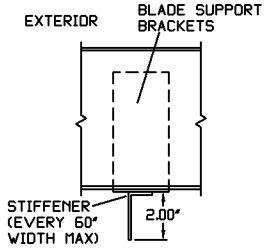
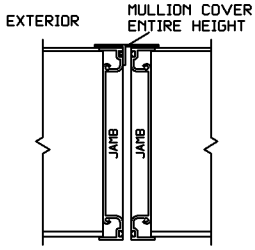
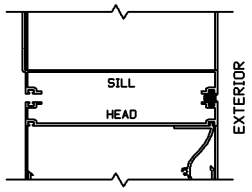
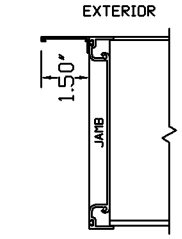
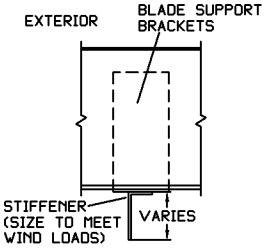
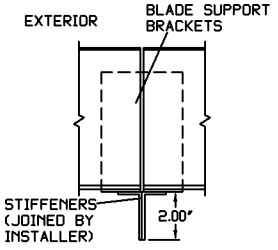
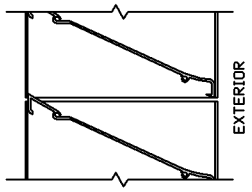
HIGHER WIND LOAD RATINGS

ARCHITECTURAL FINISHES

VARIOUS SCREENS

* SEE MOUNTING OPTIONS TECHNICAL SHEET FOR MORE FRAME STYLES:

1. J-CHANNEL FOR SIDING OR STUCCO
2. G-CHANNEL FOR GLAZING INTO STOREFRONT OR CURTAINWALL

| CONSTRUCTION | FRAME STYLE * | STIFFENER | VERTICAL MULLION (MULTIPLE PANELS WIDE) | HORIZONTAL MULLION (MULTIPLE PANELS HIGH) |
|---|---|---|---|---|
| STANDARD |   CHANNEL "C" FRAME |   BLADE STIFFENER |   EXPOSED |   EXPOSED |
| OPTIONAL |   FLANGE "F" FRAME |   BLADE STIFFENER |   HIDDEN |   HIDDEN |


ARCHITECTURAL LOUVERS

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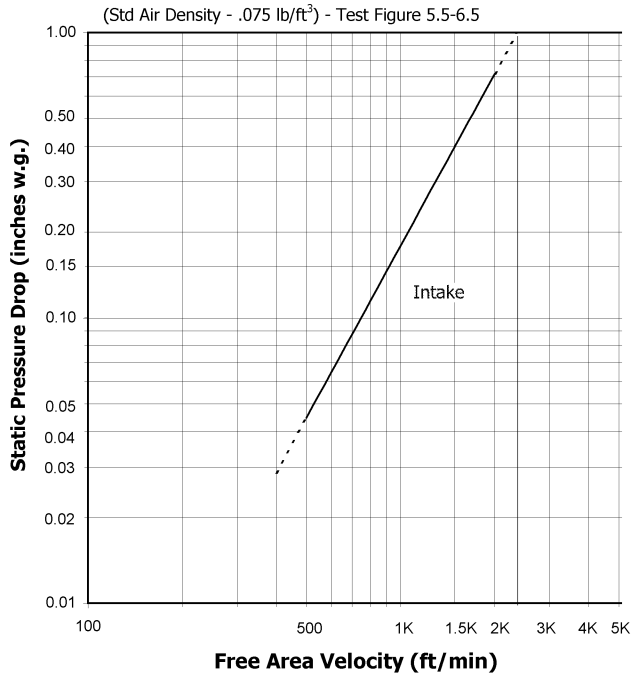
|---|---|---|---|
| PROJECT | | | |
| CONTRACTOR | | | |
| ARCHITECT | | | |
| DRAWN BY: JRR | DATE: 9/2013 | DRAWING TYPE: TECHNICAL SHEET | DRAWING TITLE: E6JN |

# MODEL: E6JN Louver Performance Data

The Architectural Louvers Model E6JN is tested in accordance with AMCA 500-L Laboratory Methods of Testing Air Louvers for Rating. The data presented are the results of these tests. Tested louver size is 48" wide x 48" high and does not include the effects of bird screen.

## Airflow Resistance

(Std Air Density - .075 lb/ft$^3$) - Test Figure 5.5-6.5

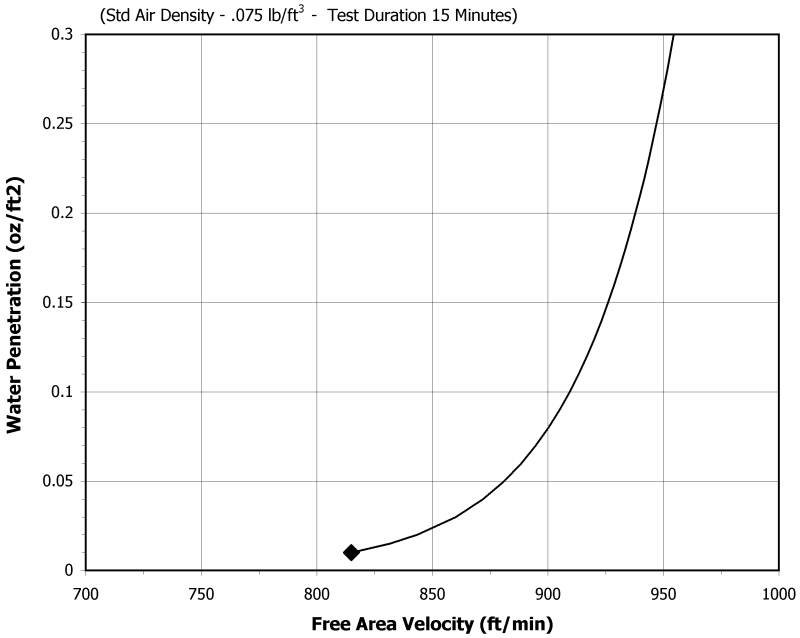



Model: E6JN resistance to airflow
Free area velocities (shown left) are higher than average face velocity or duct velocity. See louver application information.

Architectural Louvers certifies that model E6JN 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 air performance ratings and water penetration ratings only.

## Water Penetration

(Std Air Density - .075 lb/ft$^3$ - Test Duration 15 Minutes)




The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The point of zero water penetration is defined as that velocity where the water penetration curve projects through .01 oz. of water (penetration) per sq. ft. of louver free area. The beginning point of water penetration for this Model E6JN is 815 fpm free area velocity. These performance ratings do not guarantee a louver to be weatherproof or stormproof and should be used in combination with other factors in selecting louvers (i.e. prevailing wind direction, weather patterns for the building location area, desired safety factor, etc.).

# MODEL: E6JN Louver Application Guide

Application of air louvers involves selecting an airflow velocity through the louver free area (free area velocity in fpm) that produces an acceptable pressure drop and for intake applications minimizes carry-over of normally occurring rain. Architectural Louvers does not warrant our louvers to prevent water penetration under all combinations of wind and rain. Water penetration through Model E6JN begins at 815 fpm free area velocity. Intake air louver selection using a free area velocity below 815 fpm is recommended. Louver selection involves the following steps, and depending on the information provided, either step may come first.

## Select Free Area Velocity - Fan Forced Intake:

Using the Airflow Resistance Chart, select a free area velocity that produces an acceptable pressure drop with minimal water penetration. (Water penetration is not typically considered when selecting exhaust louvers.)

## Determine Louver Free Area:

Using the free area velocity from previous step and total cfm, determine the louver Free Area required. Using louver Free Area Chart, select a louver with the required free area. If louver size is given, determine free area from chart and work backwards to determine maximum airflow. See examples below.

## Free Area Chart ($ft^2$)

**Louver Width (Inches)**

| Louver Height (Inches) | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 |
|---|---|---|---|---|---|---|---|---|
| 12 | 0.43 | 0.93 | 1.42 | 1.92 | 2.41 | 2.85 | 3.34 | 3.84 |
| 24 | 1.12 | 2.40 | 3.68 | 4.97 | 6.25 | 7.37 | 8.65 | 9.93 |
| 36 | 1.81 | 3.88 | 5.94 | 8.01 | 10.08 | 11.89 | 13.96 | 16.02 |
| 48 | 2.50 | 5.35 | 8.20 | **11.06** | 13.91 | 16.41 | 19.26 | 22.12 |
| 60 | 3.18 | 6.82 | 10.46 | 14.10 | 17.74 | 20.93 | 24.57 | 28.21 |
| 72 | 3.87 | 8.30 | 12.73 | 17.15 | 21.58 | 25.45 | 29.88 | 34.30 |
| 84 | 4.56 | 9.77 | 14.99 | 20.20 | 25.41 | 29.97 | 35.18 | 40.40 |
| 96 | 5.25 | 11.25 | 17.25 | 23.24 | 29.24 | 34.49 | 40.49 | 46.49 |

## Louver Selection Examples - Fan Forced Intake:

**Example 1:**

Airflow given as 5000 cfm (fan volume)– select louver size.

A. Determine louver free area by dividing airflow by free area velocity (do not exceed 815 fpm on intake louver applications).

| cfm / | fpm | = $ft^2$ |
|---|---|---|
| 5000 / | 815 | = 6.13 |

B. Select a louver with at least the required louver free area from Free Area Chart above.

| Width | x Height | Free Area from Chart |
|---|---|---|
| 60 | x 24 | 6.25 |

(Other selections available – See Free Area Chart above)

C. Calculate Free Area Velocity

fpm = cfm / $ft^2$ free area of louver
800 = 5000 / 6.25

D. Check the pressure drop of the selected louver at the calculated airflow (Airflow Resistance Chart on Page 2).

in w.g. = 0.115 at 800 fpm free area velocity

**Example 2:**

Louver size given as 96 W x 48 H – determine maximum airflow.

A. Use Free Area Chart to obtain $ft^2$ for given size

Free Area = 22.12 sq ft

B. Multiply Free Area x Free Area Velocity (Do not exceed 815 fpm on intake louver applications).

| $ft^2$ x | fpm | = cfm |
|---|---|---|
| 22.12 x | 815 | = 18025 |

C. Check the pressure drop of the selected louver at the calculated airflow (Airflow Resistance Chart on Page 2).

in w.g. = 0.119 at 815 fpm free area velocity