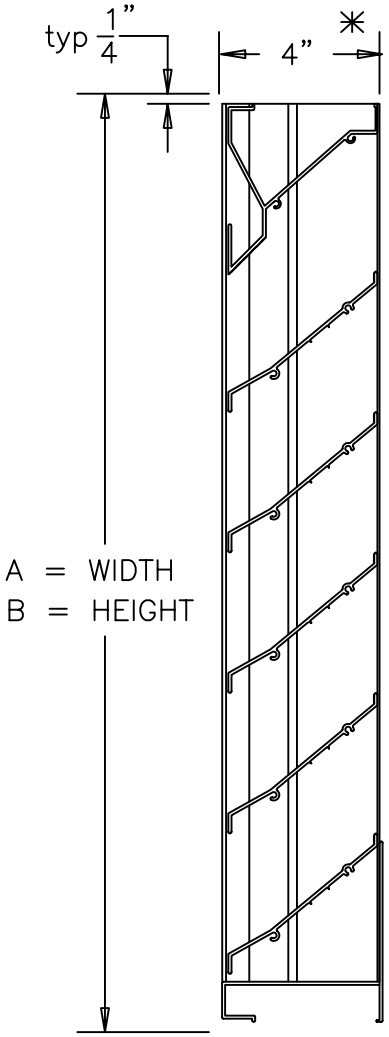
EXTRUDED ALUMINUM, 4" DEEP, FIXED J TYPE BLADE



SECTION VIEW

MODEL LE–49
STANDARD SPECIFICATIONS

FRAME: 4" DEEP CHANNEL, .081" THICK 6063–T5 EXTRUDED ALUMINUM ALLOY.

BLADES: .081" THICK 6063–T5 EXTRUDED ALUMINUM ALLOY.

FINISH: MILL.

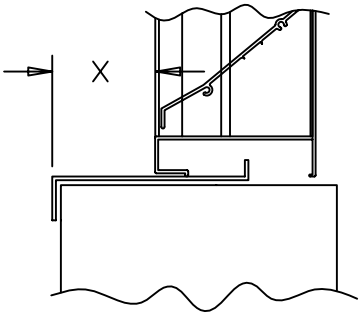
SCREEN: 1/2" REMOVABLE EXPANDED ALUMINUM BIRD SCREEN, LOCATED ON INTERIOR.

MAXIMUM PANEL SIZE: 96" X 96".

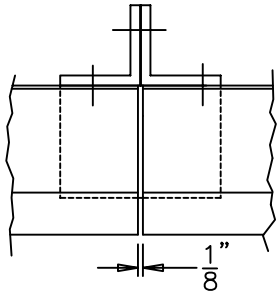
MINIMUM PANEL SIZE: 12" X 12".

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

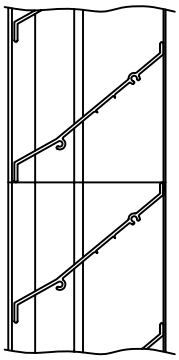
✳ PANELS OVER 48" WIDE WILL BE 5–1/2" DEEP DUE TO A VERTICAL INTERIOR BLADE SUPPORT ANGLE.



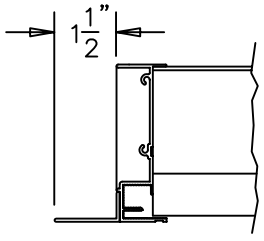
EXTENDED SILL
OPTIONAL



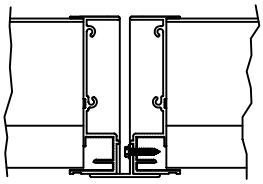
ARCHITECTURAL VERTICAL
MULLION OPTIONAL



STANDARD HORIZONTAL
MULLION



FLANGED FRAME
OPTIONAL
(JAMB SHOWN)



STANDARD VERTICAL
MULLION

amca CERTIFIED RATINGS
WATER PENETRATION
AIR PERFORMANCE
AIR MOVEMENT AND CONTROL ASSOCIATION INC.

American Warming and Ventilating certifies that the model LE–49 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.

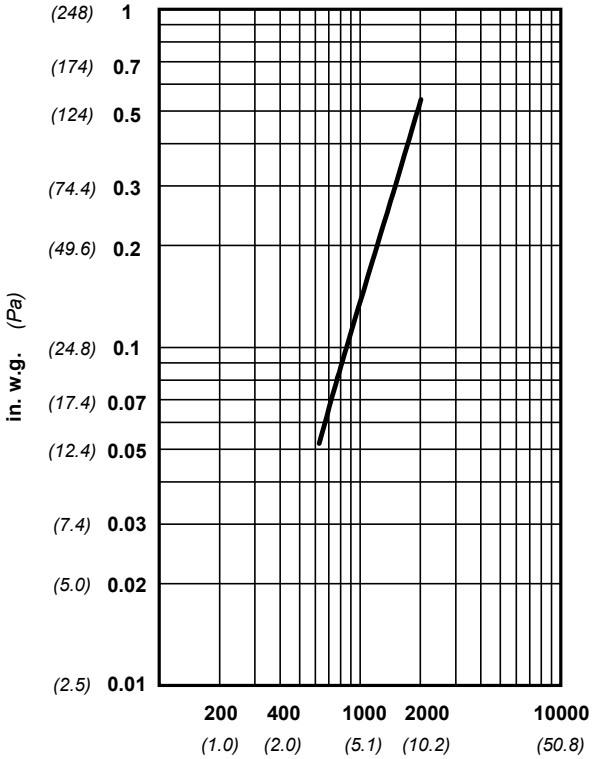
awv® american warming and ventilating
A MESTEK COMPANY
7301 INTERNATIONAL DRIVE HOLLAND, OHIO
Phone (419) 865–5000 Fax (419) 865–1375

LE–49 STATIONARY LOUVER

DRN. BY JVC	DWG. NO. LE–49	REV.
DATE 8/13/09		

Water Penetration : 0.01 oz (3.0 g) at 902 fpm (4.58 m/s) recommended free area velocity
Pressure Drop : 0.11 in wg (27.3 Pa.) at 902 fpm (4.58 m/s) and 8271 scfm (3.9 scm/s)
Free Area : 9.17 sq ft (0.852 sq m) = 57.3% for 48" x 48" (1.22m x 1.22m) test size

INTAKE PRESSURE DROP

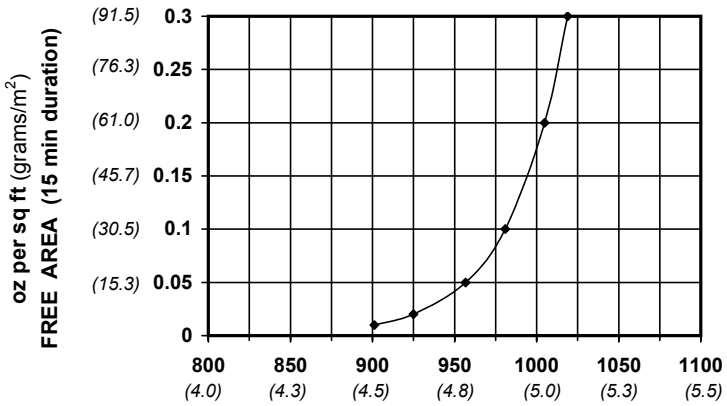


VELOCITY THROUGH FREE AREA fpm (m/s)
standard air- .075 lbs per cu ft
Ratings do not include the effect of a wire bird screen
Test based on a 48" x 48" test size per AMCA Standard 511

FREE AREA IN SQUARE FEET *(sq meters)*

HEIGHT	WIDTH								
	in.	**12**	**24**	**36**	**48**	**60**	**72**	**84**	**96**
	mm	*305*	*610*	*914*	*1219*	*1524*	*1829*	*2134*	*2438*
	12	**0.28**	**0.64**	**1.00**	**1.36**	**1.73**	**2.09**	**2.45**	**2.81**
	305	*0.026*	*0.060*	*0.093*	*0.127*	*0.160*	*0.194*	*0.228*	*0.261*
	24	**0.81**	**1.86**	**2.92**	**3.97**	**5.02**	**6.07**	**7.13**	**8.18**
	610	*0.075*	*0.173*	*0.271*	*0.369*	*0.466*	*0.564*	*0.662*	*0.760*
	36	**1.35**	**3.10**	**4.86**	**6.61**	**8.36**	**10.12**	**11.87**	**13.62**
	914	*0.125*	*0.288*	*0.451*	*0.614*	*0.777*	*0.940*	*1.102*	*1.265*
	48	**1.87**	**4.31**	**6.74**	**9.17**	**11.60**	**14.03**	**16.47**	**18.90**
	1219	*0.174*	*0.400*	*0.626*	*0.852*	*1.078*	*1.304*	*1.530*	*1.755*
	60	**2.41**	**5.53**	**8.66**	**11.78**	**14.91**	**18.03**	**21.15**	**24.28**
	1524	*0.224*	*0.514*	*0.804*	*1.094*	*1.385*	*1.675*	*1.965*	*2.255*
	72	**2.93**	**6.73**	**10.54**	**14.34**	**18.14**	**21.95**	**25.75**	**29.56**
	1829	*0.272*	*0.626*	*0.979*	*1.332*	*1.686*	*2.039*	*2.392*	*2.745*
	84	**3.46**	**7.96**	**12.45**	**16.94**	**21.44**	**25.93**	**30.42**	**34.92**
	2134	*0.322*	*0.739*	*1.157*	*1.574*	*1.991*	*2.409*	*2.826*	*3.244*
	96	**3.99**	**9.16**	**14.34**	**19.51**	**24.69**	**29.86**	**35.03**	**40.21**
	2438	*0.370*	*0.851*	*1.332*	*1.812*	*2.293*	*2.774*	*3.254*	*3.735*

WATER PENETRATION



VELOCITY THROUGH FREE AREA fpm (m/s)
Both maximum recommended free area velocity and beginning of water penetration are 902 fpm at standard air -.075 lbs per cu ft.
The above water penetration data is based on mill finish, 48" x 48" test size per AMCA Standard 511.

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LE-49

Openings that require multiple louver panels in both width and height will require internal structural supports. It is recommended that large openings be divided with structural members so that the louvers will span either width or height with a single panel. Unusually high wind loading may require structural supports on non-multiple wide and multiple high assemblies. **Structural supports and mounting accessories are not supplied as a standard**.

Below is an explanation of how to use the AMCA Performance data for the recommended free area velocity of 902 fpm (4.58 m/s).

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: 15000 CFM design flow

Step #1:

$$\text{min. free area} = \frac{\text{Design CFM}}{\text{Max. Recommended Velocity}}$$

$$= \frac{15000}{902} = \textbf{16.63 sq ft}$$

Step #2: From the free area table above the approximate louver size is 48" x 84" = (16.94 sq ft)