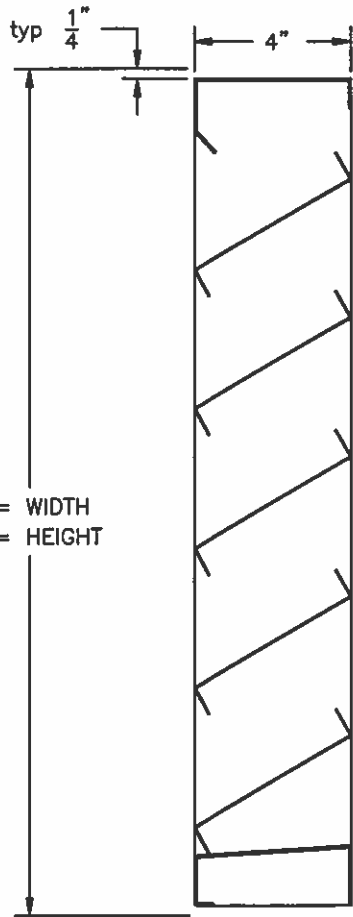


# GALVANIZED STEEL, 4" DEEP, HEAVY GAUGE, J FIXED TYPE BLADE

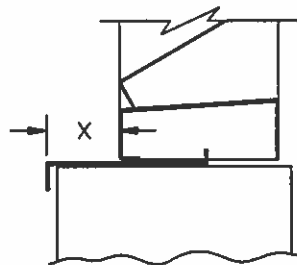


A = WIDTH  
B = HEIGHT

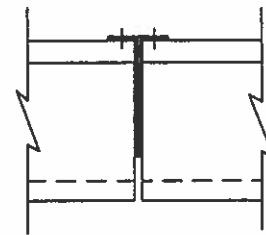
SECTION VIEW

## MODEL FL-49 STANDARD SPECIFICATIONS

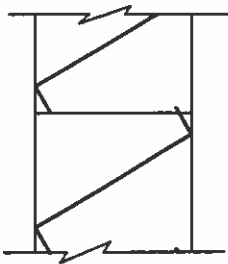
- FRAME: 4" DEEP CHANNEL, 16 GAUGE GALVANIZED STEEL.
- BLADES: 16 GAUGE GALVANIZED STEEL.
- FINISH: MILL WITH TOUCH UP ON WELDS.
- SCREEN: 1/2" REMOVABLE EXPANDED ALUMINUM BIRD SCREEN, LOCATED ON INTERIOR.
- MAXIMUM PANEL SIZE: 96" x 96".
- MINIMUM PANEL SIZE: 12" x 12".
- DIMENSIONS: "A" (WIDTH) AND "B" (HEIGHT) ARE OPENING SIZES. LOUVERS ARE MADE 1/2" UNDERSIZE.



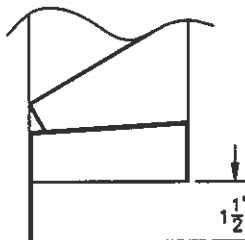
EXTENDED SILL  
OPTIONAL



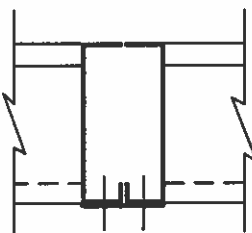
ARCHITECTURAL VERTICAL  
MULLION OPTIONAL



STANDARD HORIZONTAL  
MULLION



FLANGED FRAME  
OPTIONAL  
(SILL SHOWN)



STANDARD VERTICAL  
MULLION



L&D certifies that the model FL-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.

## **L** LOUVERS & DAMPERS A MESTEK COMPANY

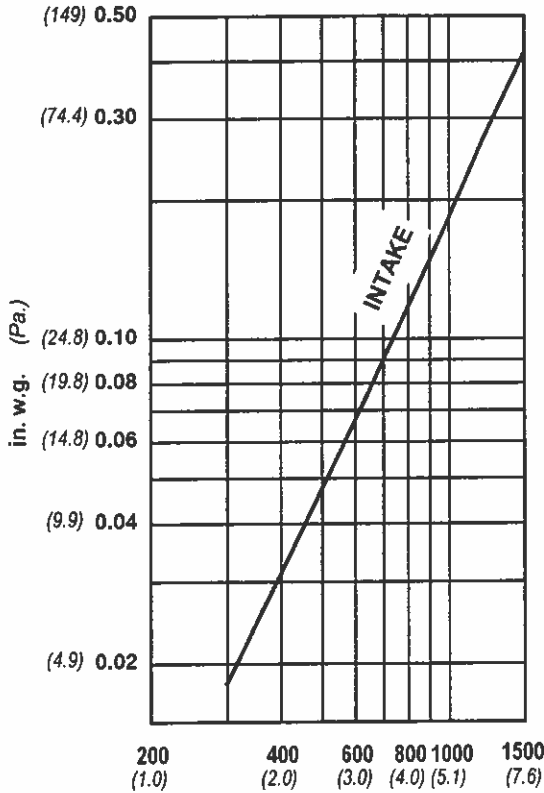
7435 INDUSTRIAL ROAD      FLORENCE, KY  
Phone (859) 647-2299      Fax (859) 647-7810

### FL-49 STATIONARY LOUVER

DRN. BY ESS	DWG. NO.  <b>FL-49</b>	REV.
DATE 12-01-02		

**Water Penetration** : .01 oz. (3.0 g.) at 631 fpm (3.21 m/s) recommended free area velocity  
**Pressure Drop** : .074 in. wg. (18.5 Pa.) at 631 fpm (3.21 m/s) and 5490 SCFM (2.59 scm/s)  
**Free Area** : 8.70 sq.ft. (0.808 sq. m.) = 54.4% for 48" x 48" (1.22 m x 1.22 m) test size

**PRESSURE DROP**

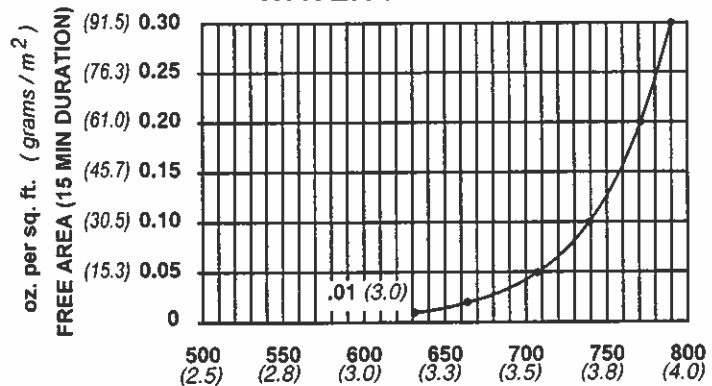


standard air - .075 lbs. per cu. ft.  
 Ratings do not include the effect of a bird screen

**FREE AREA IN SQUARE FEET (sq. meters)**

		WIDTH								
		in mm	12 304	24 609	36 914	48 1219	60 1524	72 1828	84 2133	96 2438
HEIGHT	12 304	.299 .028	.687 .064	1.075 .100	1.463 .136	1.85 .172	2.19 .203	2.58 .240	2.97 .276	
	24 609	.777 .072	1.79 .166	2.79 .260	3.80 .353	4.81 .447	5.69 .529	6.70 .622	7.71 .716	
	36 914	1.312 .122	3.01 .280	4.72 .438	6.42 .596	8.12 .754	9.61 .893	11.31 1.051	13.01 1.209	
	48 1219	1.78 .165	4.09 .380	6.40 .594	8.70 .809	11.01 1.023	13.03 1.211	15.34 1.425	17.65 1.64	
	60 1524	2.30 .214	5.29 .492	8.28 .769	11.27 1.047	14.26 1.325	16.87 1.57	19.86 1.85	22.85 2.12	
	72 1828	2.79 .259	6.40 .595	10.02 .931	13.64 1.267	17.26 1.60	20.42 1.90	24.04 2.23	27.65 2.57	
	84 2133	3.30 .306	7.58 .704	11.86 1.101	16.13 1.50	20.41 1.90	24.16 2.24	28.44 2.64	32.72 3.04	
	96 2438	3.82 .354	8.77 .814	13.72 1.274	18.67 1.73	23.62 2.19	27.95 2.60	32.90 3.06	37.85 3.52	

**WATER PENETRATION**



Both maximum recommended free area velocity and beginning of water penetration are 631 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.

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.



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**FL-49**

Below is an explanation of how to use the AMCA performance data for the recommended free area velocity of 631 fpm (3.21 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 15,000 CFM design flow

**Step #1:**

$$\text{min. free area} = \frac{\text{Design CFM}}{\text{Max. Recommended Velocity}} = \frac{15,000}{631} = 23.77 \text{ sq. ft.}$$

**Step #2:** From the free area table above the approximate louver size is 84" x 72" = (24.04 sq. ft.)