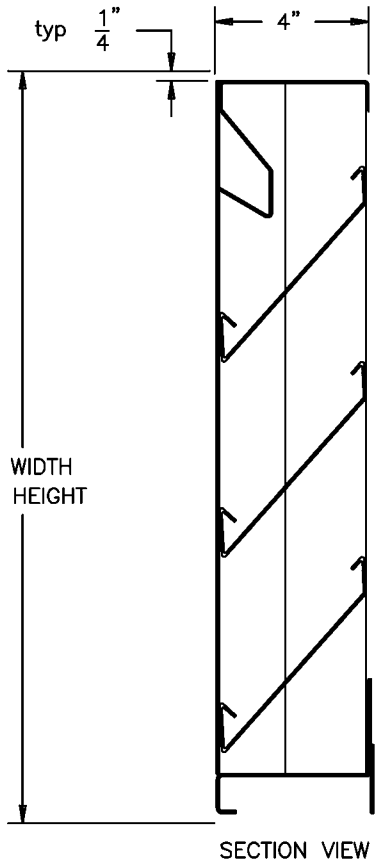


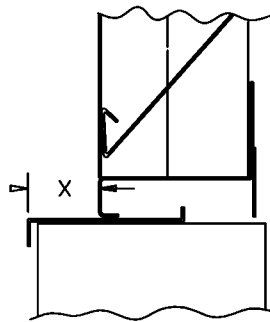
GALVANIZED STEEL, 4" DEEP, HEAVY GAUGE, DRAINABLE FIXED TYPE BLADE



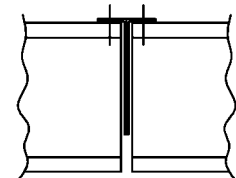
A = WIDTH
B = HEIGHT

MODEL LF-21 STANDARD SPECIFICATIONS

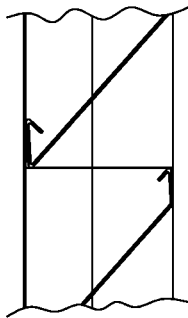
- FRAME: 4" DEEP CHANNEL, 16 GAUGE GALVANIZED STEEL.
- BLADES: 20 GAUGE GALVANIZED STEEL.
- FINISH: MILL WITH TOUCH UP ON WELDS.
- SCREEN: 1/2" REMOVABLE EXPANDED ALUMINUM BIRD SCREEN, LOCATED ON INTERIOR.
- MAXIMUM PANEL SIZE: 96" X 96".
- MINIMUM PANEL SIZE: 12" X 12".
- DIMENSIONS: "A" (WIDTH) AND "B" (HEIGHT) ARE OPENING SIZES. LOUVERS ARE MADE 1/2" UNDERSIZE.



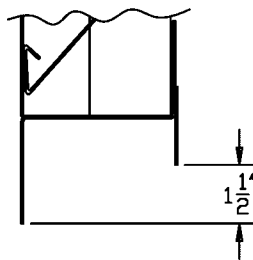
EXTENDED SILL
OPTIONAL



ARCHITECTURAL VERTICAL
MULLION OPTIONAL



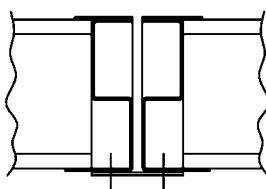
STANDARD HORIZONTAL
MULLION



FLANGED FRAME
OPTIONAL
(SILL SHOWN)



AWV certifies that the model LF-21 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.



STANDARD VERTICAL
MULLION

awv american warming and ventilating

A MESTEK COMPANY

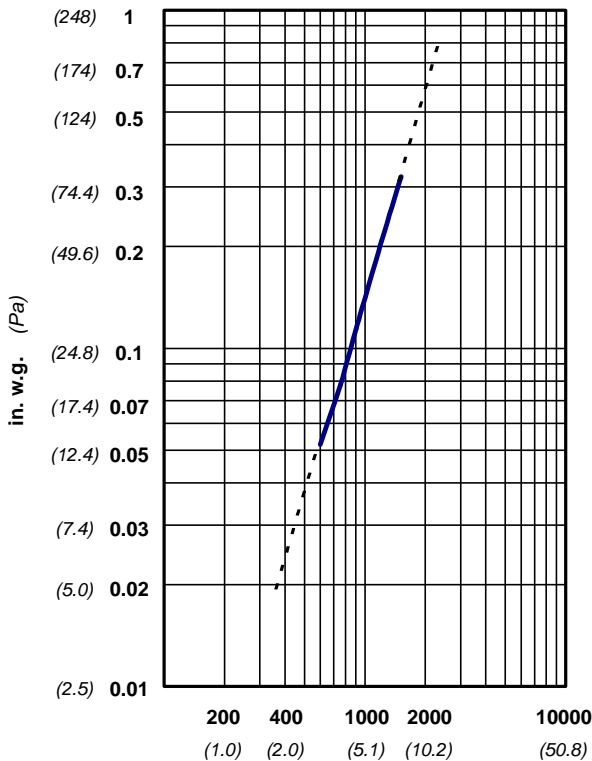
7301 INTERNATIONAL DRIVE HOLLAND, OHIO
Phone (419) 865-5000 Fax (419) 865-1375

LF-21 STATIONARY LOUVER

DRN. BY JP	DWG. NO. LF-21	REV.
DATE 12-7-00		

Water Penetration : 0.01 oz (3.0 g) at 722 fpm (3.67 m/s) recommended free area velocity
Pressure Drop : 0.073 in wg (18.1 Pa.) at 722 fpm (3.67 m/s) and 5105 scfm (2.41 scm/s)
Free Area : 7.07 sq ft (0.657 sq m) = 44.2% for 48" x 48" (1.22m x 1.22m) test size

INTAKE PRESSURE DROP



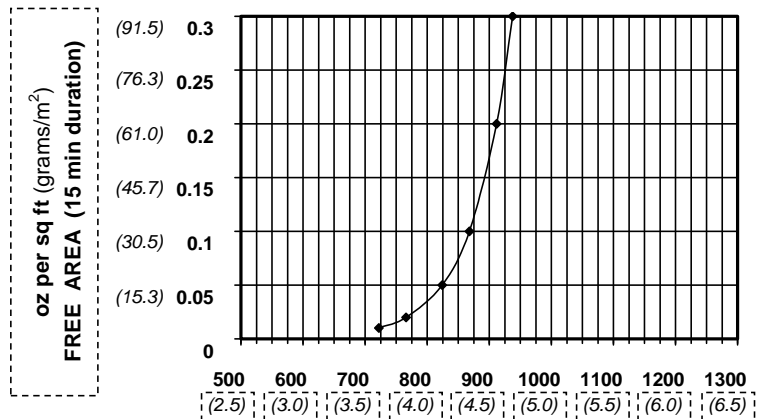
VELOCITY THROUGH FREE AREA fpm (m/s)
 standard air - .075 lbs per cu ft

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)

		WIDTH								
		in. mm	12 305	24 610	36 914	48 1219	60 1524	72 1829	84 2134	96 2438
HEIGHT	12 305	0.26	0.65	1.03	1.42	1.80	2.14	2.52	2.91	
	24 610	0.55	1.36	2.17	2.97	3.78	4.49	5.29	6.10	
	36 914	0.96	2.35	3.74	5.14	6.53	7.75	9.14	10.54	
	48 1219	1.32	3.24	5.15	7.07	8.99	10.67	12.58	14.50	
	60 1524	1.65	4.06	6.46	8.86	11.27	13.37	15.77	18.18	
	72 1829	2.07	5.08	8.08	11.09	14.10	16.73	19.74	22.74	
	84 2134	2.36	5.79	9.22	12.65	16.08	19.08	22.51	25.94	
	96 2438	2.76	6.78	10.79	14.81	18.83	22.34	26.36	30.38	
			0.256	0.630	1.002	1.376	1.749	2.075	2.449	2.822

WATER PENETRATION



VELOCITY THROUGH FREE AREA fpm (m/s)

Both maximum recommended free area velocity and beginning of water penetration are 722 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.



AWV certifies that the model LF-21 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 and water penetration ratings.

LF-21

Below is an explanation of how to use the AMCA Performance data for the recommended free area velocity of 722 fpm (3.67 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.

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.**

Example: Given: 15000 CFM design flow

Step #1:

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

$$= \frac{15000}{722} = 20.78 \text{ sq ft}$$

Step #2: From the free area table above the approximate louver size is 72" x 96" = (22.34 sq ft)