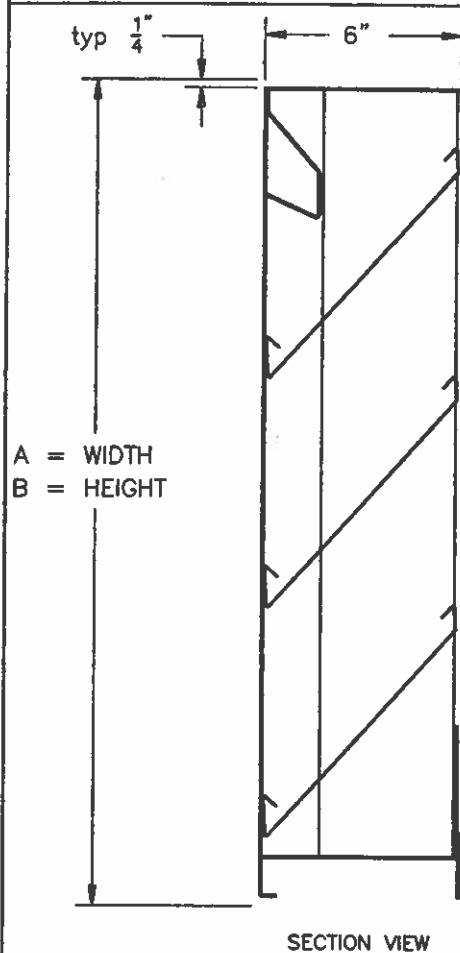
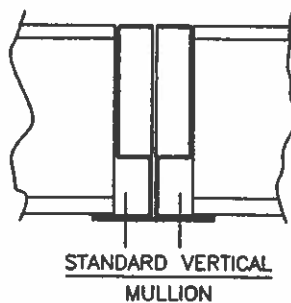
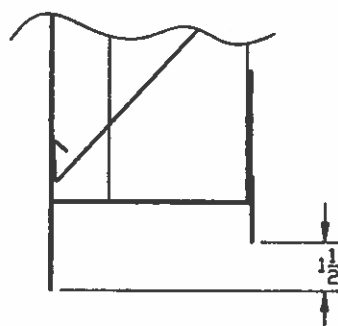
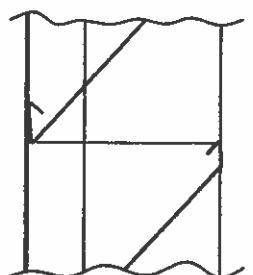
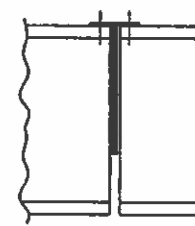
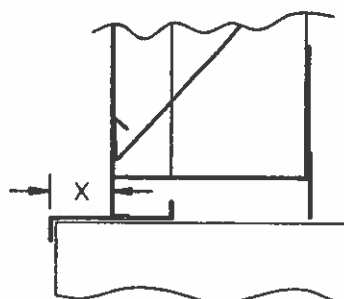


GALVANIZED STEEL, 6" DEEP, HEAVY GAUGE, DRAINABLE FIXED TYPE BLADE



MODEL LF-33 STANDARD SPECIFICATIONS

- FRAME: 6" DEEP CHANNEL, 16 GAUGE GALVANIZED STEEL.
- BLADES: 20 GAUGE GALVANIZED STEEL.
- FINISH: MILL WITH TOUCH UP ON WELDS.
- SCREEN: $\frac{1}{2}$ " 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 $\frac{1}{2}$ " UNDERSIZE.



AWV certifies that the model LF-33 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

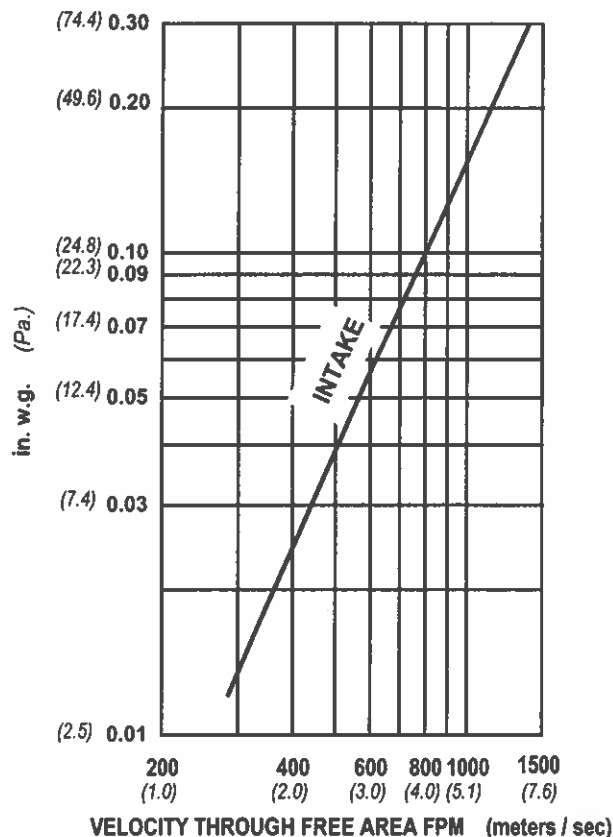
7301 INTERNATIONAL DRIVE HOLLAND, OHIO
Phone (419) 865-5000 Fax (419) 865-1375

LF-33 STATIONARY LOUVER

DRN. BY	JP	DWG. NO.	REV.
DATE	12-7-00	LF-33	

Water Penetration : .01 oz. (3.0 g.) at 760 fpm (3.86 m/s) recommended free area velocity
Pressure Drop : .09 in. wg. (22.3 Pa.) at 760 fpm (3.86 m/s) and 5890 SCFM (2.78 scm/s)
Free Area : 7.75 sq.ft. (0.72 sq. m.) = 48.4% 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



AWW certifies that the model LF-33 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.

LF-33

Below is an explanation of how to use the AMCA performance data for the recommended free area velocity of 760 fpm (3.86 m/s).

To determine minimum free area required for louver:

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

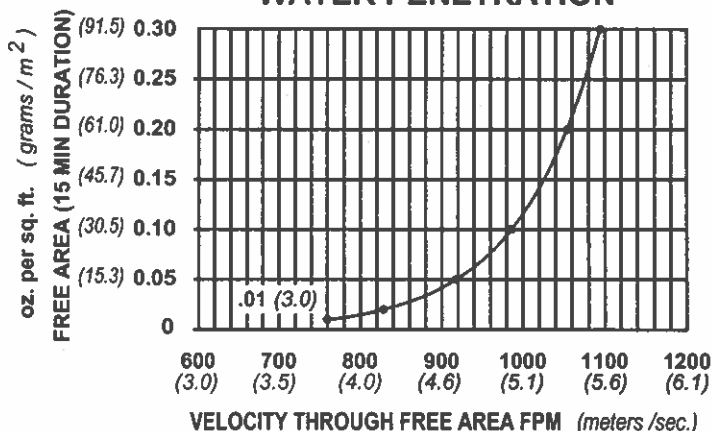
Step #2: Select the most desirable louver size, from the free area table, that meets the minimum free area requirement.

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

FREE AREA IN SQUARE FEET (sq. meters)

	WIDTH								
	In mm	12	24	36	48	60	72	84	96
HEIGHT	12	.165	.405	.645	.884	1.09	1.33	1.57	1.81
	304	.015	.038	.060	.082	.102	.124	.146	.169
	24	.580	1.42	2.27	3.11	3.85	4.69	5.54	6.38
	609	.054	.132	.211	.289	.358	.436	.514	.593
	36	1.036	2.54	4.05	5.56	6.88	8.39	9.89	11.40
	914	.096	.236	.376	.516	.639	.779	.919	1.059
	48	1.45	3.55	5.65	7.75	9.59	11.70	13.80	15.90
	1219	.134	.330	.525	.720	.891	1.087	1.282	1.48
	60	1.80	4.41	7.03	9.64	11.93	14.54	17.16	19.77
	1524	.167	.410	.653	.896	1.108	1.35	1.59	1.84
	72	2.21	5.43	8.65	11.87	14.68	17.90	21.12	24.34
	1828	.206	.505	.804	1.103	1.36	1.66	1.96	2.26
	84	2.67	6.55	10.43	14.32	17.71	21.60	25.48	29.36
	2133	.248	.609	.969	1.33	1.65	2.01	2.37	2.73
	96	3.02	7.42	11.81	16.20	20.05	24.44	28.84	33.23
	2438	.281	.689	1.097	1.51	1.86	2.27	2.68	3.09

WATER PENETRATION



Both maximum recommended free area velocity and beginning of water penetration are 760 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.

Example: Given 15,000 CFM design flow
Step #1:
 min. free area = $\frac{\text{Design CFM}}{\text{Max. Recommended Velocity}}$
 = $\frac{15,000}{760}$ = 19.73 sq. ft.

Step #2: From the free area table above the approximate louver size is 96" x 60" = (19.77 sq. ft.)