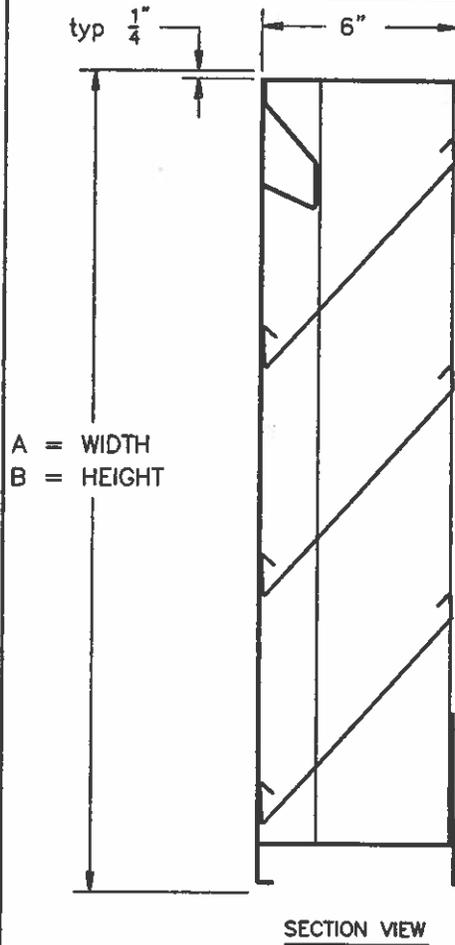
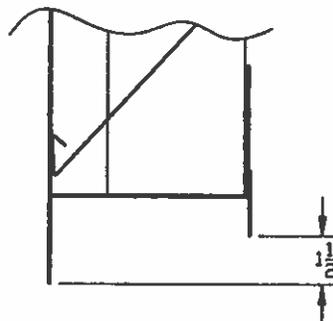
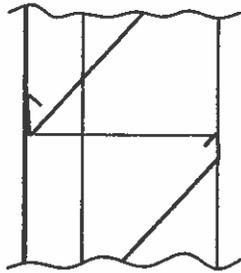
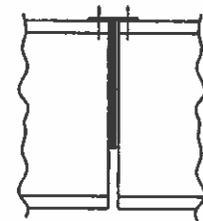
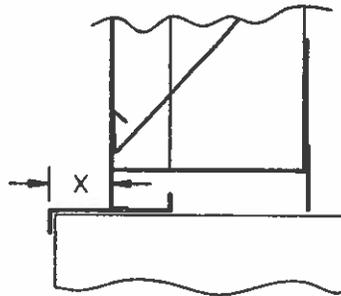


# GALVANIZED STEEL, 6" DEEP, HEAVY GAUGE, DRAINABLE FIXED TYPE BLADE

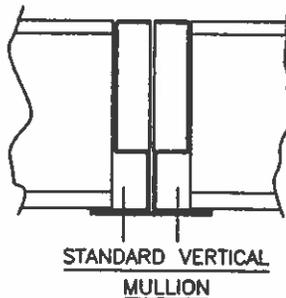


## MODEL LF-33 STANDARD SPECIFICATIONS

- 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

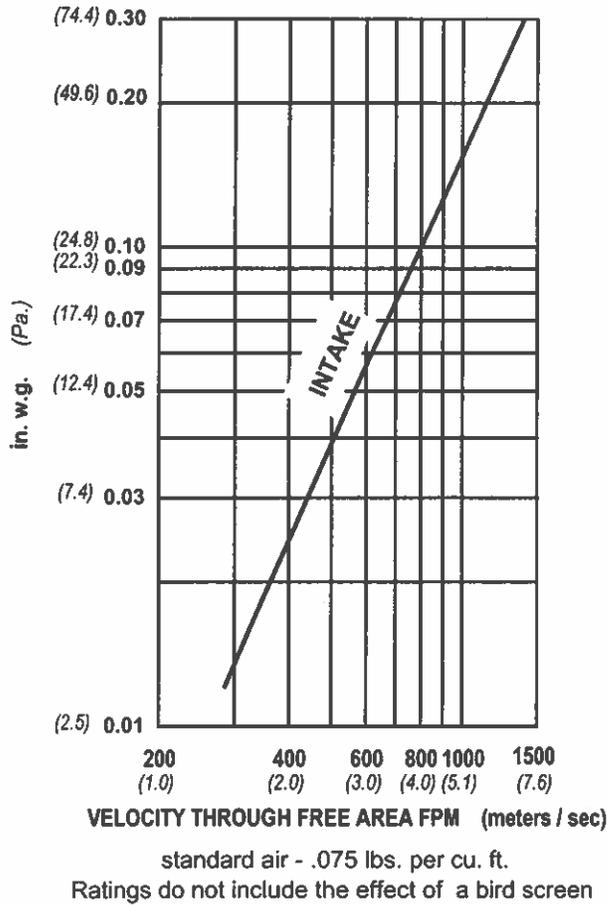
7301 INTERNATIONAL DRIVE HOLLAND, OHIO  
Phone (419) 865-5000 Fax (419) 865-1375

## LF-33 STATIONARY LOUVER

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

**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

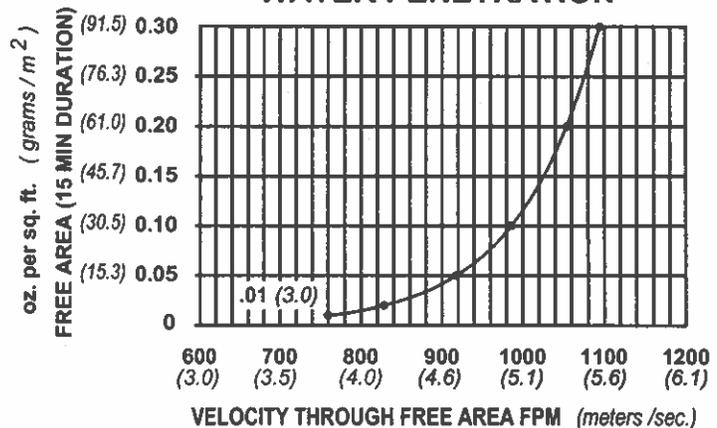
### PRESSURE DROP



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

		WIDTH							
		12	24	36	48	60	72	84	96
HEIGHT	In	.165	.405	.645	.884	1.09	1.33	1.57	1.81
	mm	304	609	914	1219	1524	1828	2133	2438
	12	.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



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### 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.

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.)