

Air Flow Company, Inc.

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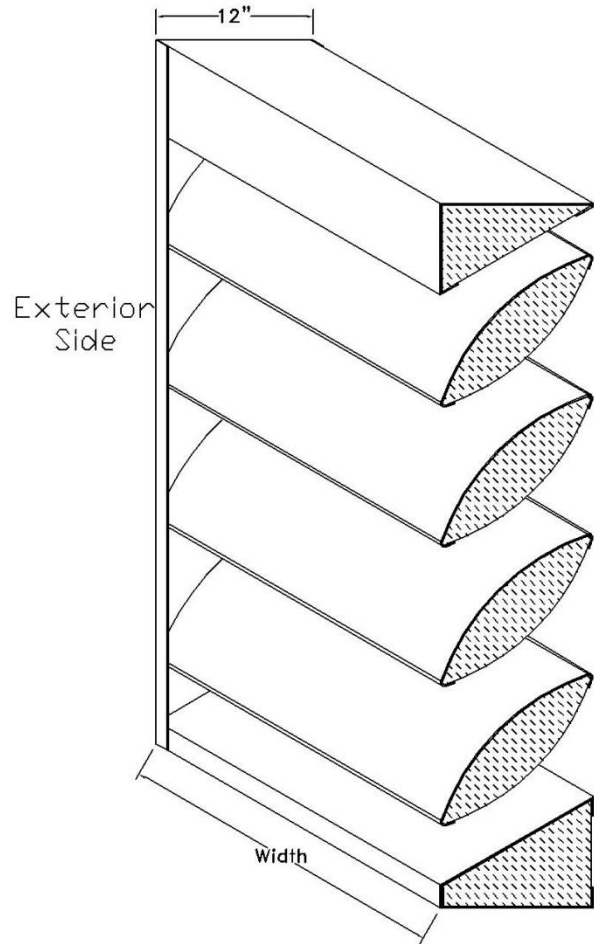
AL-A12 12" Deep Formed Steel Acoustical Louver

Standard Louver Construction

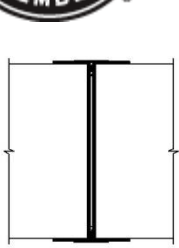
✓ Frame	Channel
✓ Frame Thickness	16 Gauge galvanized steel
✓ Blades Thickness	18 Ga. Galvanized steel-exterior surface
	22 Ga. Galvanized perforated steel interior surface
✓ Blade Positioning	45° angle
✓ Sound Insulation	6# density pcf mineral wool
✓ Fasteners	3/16" plated steel rivets exposed to view
✓ Screen	12" x 19 Ga. Galvanized screen in frame
✓ Finish	Mill
✓ Undersized	1/4" under opening sizes
✓ Mullions	Visible
✓ Minimum Size	12" W x 12" H
✓ Maximum Single Section	60" W x 120" H

Optional Construction

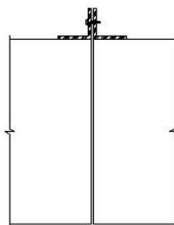
Frames	Heavier gauge		
	Stainless steel		
	Formed aluminum		
Blades	Heavier gauge		
	Stainless steel		
	Formed aluminum		
Fasteners	Stainless Steel Fasteners		
Screen	.063" x 3/4" expanded aluminum		
	18 x 16 Insect screen		
Finish	Prime coat		
	Baked enamel		
	Powder coat		
	Kynar 500	2 Coat	3 Coat
	Anodized	Clear	Color
Frame Accessories	Flange		
	Pan		
	Extended sill		



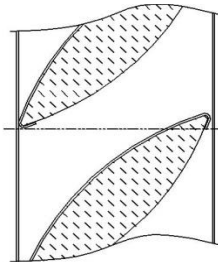
Air Flow Model AL-A12. The ratings shown are based on tests & Procedures Made in accordance with AMCA standard 500-L. The actual test results of water penetration & air performance may vary (+/-10%) depending on the actual application. Free area calculations are (+/-5%)



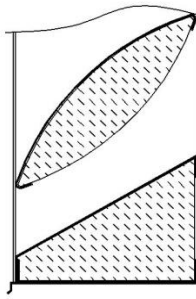
Exposed Mullion



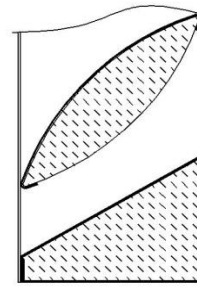
Invisible Mullion



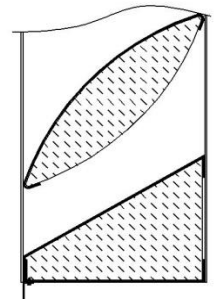
Hor. Invisible Mullion



Channel w/Sill



Channel Frame



Flanged (1-1/2")

Louver Schedule

Item	Qty	Opening Size (W x H)	Notes	Project:
				Location:
				Arch/Eng:
				Customer:

Free Area Calculations (Sq. Ft.)

		WIDTH (Inches)								
		12	18	24	30	36	42	48	54	60
HEIGHT (Inches)	12	0.26	0.42	0.58	0.74	0.90	1.06	1.22	1.38	1.54
	18	0.29	0.46	0.63	0.80	0.97	1.15	1.32	1.49	1.66
	30	0.54	0.86	1.18	1.50	1.82	2.14	2.46	2.78	3.11
	36	0.68	1.08	1.49	1.90	2.30	2.71	3.11	3.52	3.93
	42	0.80	1.28	1.76	2.24	2.72	3.19	3.67	4.15	4.63
	48	1.05	1.67	2.30	2.93	3.56	4.18	4.81	5.44	6.07
	54	1.07	1.71	2.35	2.99	3.63	4.27	4.91	5.55	6.19
	60	1.32	2.11	2.90	3.69	4.48	5.27	6.06	6.85	7.64
	66	1.46	2.33	3.21	4.08	4.96	5.83	6.71	7.58	8.46
	72	1.58	2.53	3.48	4.42	5.37	6.32	7.27	8.22	9.16
	78	1.83	2.92	4.02	5.12	6.21	7.31	8.41	9.50	10.60
84	1.85	2.96	4.07	5.18	6.29	7.40	8.51	9.61	10.72	
90	2.10	3.36	4.62	5.87	7.13	8.39	9.65	10.91	12.17	
96	2.24	3.58	4.93	6.27	7.61	8.96	10.30	11.65	12.99	

♦ To determine the pressure drop of a louver: Calculate the Velocity thru free area; divide the required CFM (volume of air) by the required free area above chart. The pressure drop is expressed in (inches w.g.)

♦ To determine the minimum free area required for louver: Divide the required CFM (volume of air) by the free area velocity before water penetration, then select the most desirable louver size from the free area chart above.

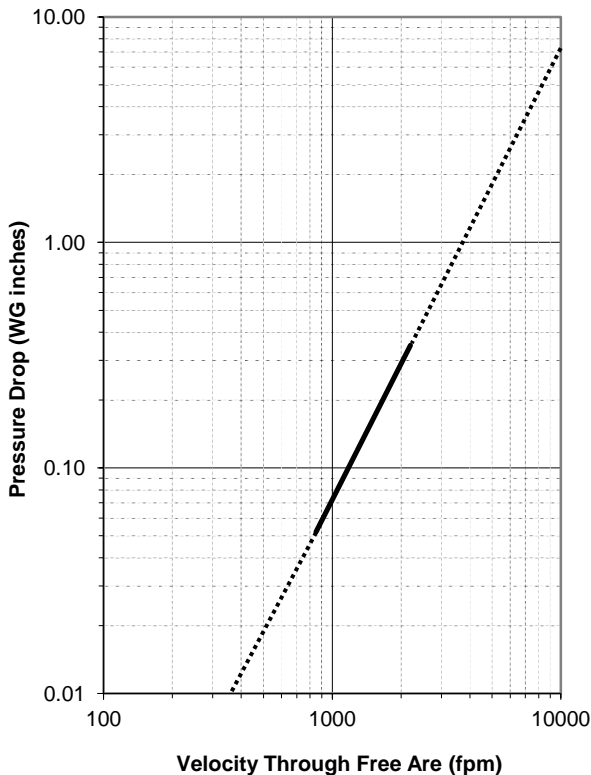
♦ To determine the maximum CFM (volume), knowing the louver size: Multiply the required free area (see above free area chart) by maximum velocity thru free area.

Air Performance

Unit test size (48" x 48")
Airflow rate at standard air density and the AMCA figure 5.5



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CALCULATING TRANSMISSION LOSS

In order to calculate transmission loss (dB), take the Free Field Noise Reduction (dB) and subtract by 6 (dB)

$$\text{Free-Field Noise Reduction} - 6 \text{ (dB)} = \text{Transmission Loss (dB)}$$

OCTAVE BANDS

Frequency (Hz)	63	125	250	500	1000	2000	4000	5000
Free Field Noise Reduction (dB)	12	11	12	13	20	18	16	20
Transmission Loss (dB)	6	5	6	7	14	12	10	14

