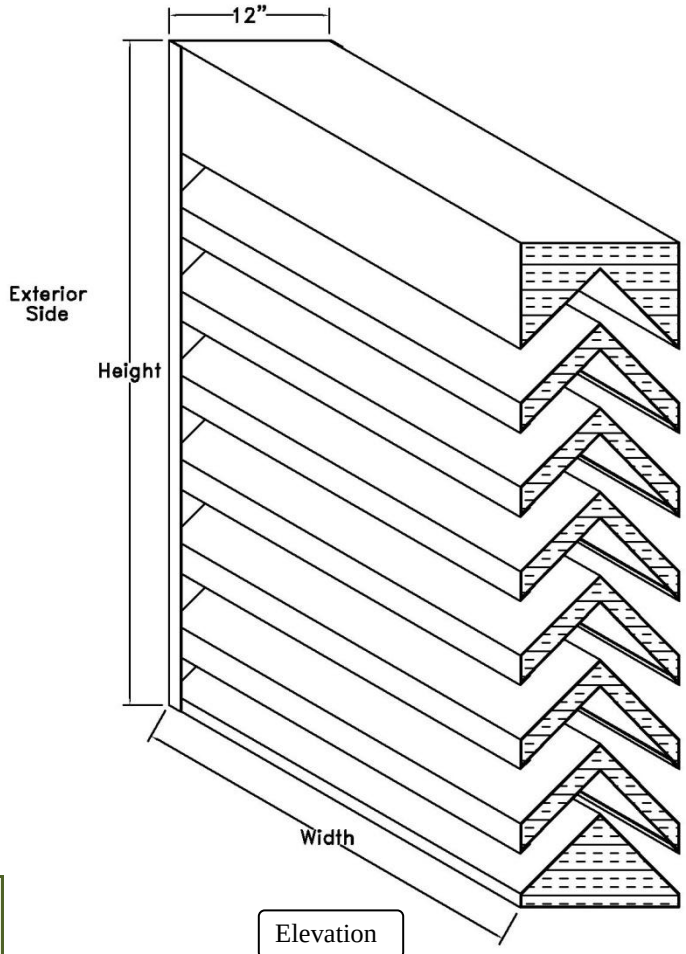
Air Flow Company, Inc.
850 W. Fullerton Ave. • Addison, IL. 60101
Tel (630) 628-1138 Fax (630) 628-1149

AL-V12

12" Deep Formed Steel Acoustical Sight proof Louver

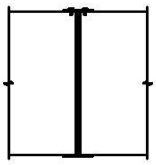
Standard Louver Construction		
✓	**Frame**	Channel
✓	**Frame Thickness**	16 Gauge galvanized steel
✓	**Blades Thickness**	18 Ga. galvanized steel-exterior surface
		22 Ga. galvanized steel-interior surface
✓	**Sound Insulation**	6# density pcf mineral wool
✓	**Fasteners**	3/16" plated steel rivets exposed to view
✓	**Screen**	12" x 19 Ga. Galvanized screen in frame
✓	**Finish**	Mill
✓	**Undersized**	¼" under opening sizes
✓	**Mullions**	Visible
✓	**Minimum Size**	18" W x 12" H
✓	**Maximum Single Section**	60" W x 120" H

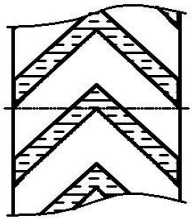
Optional Construction						
	Frames		Heavier gauge			
			Stainless steel			
			Formed aluminum			
	Blades		Heavier gauge			
			Stainless steel			
			Formed aluminum			
	Fasteners		Stainless steel fasteners			
	Screen		.063" x ¾" expanded aluminum			
			18 x 16 Insect screen			
	Finish		Prime coat			
			Baked enamel			
			Powder coat			
			Kynar 500	2 Coat		3 Coat
			Anodized	Clear		Color
	Frame Accessories		Flange			
			Pan			
			Extended sill			

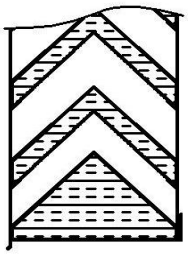


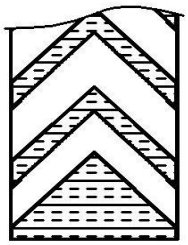
Elevation

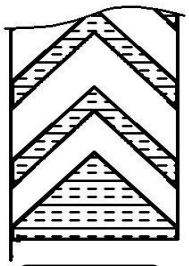
Air Flow Model AL-V12. The ratings shown are based on tests & Procedures Made in accordance with AMCA standard 500-L. The actual test results of water penetration & air performance may vary (+/-10%) depending on the actual application. Free area calculations are (+/-5%)


Exposed Mullion


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:	

Air Flow Company, Inc.
850 W. Fullerton Ave. • Addison, IL. 60101
Tel (630) 628-1138 Fax (630) 628-1149

AL-V12

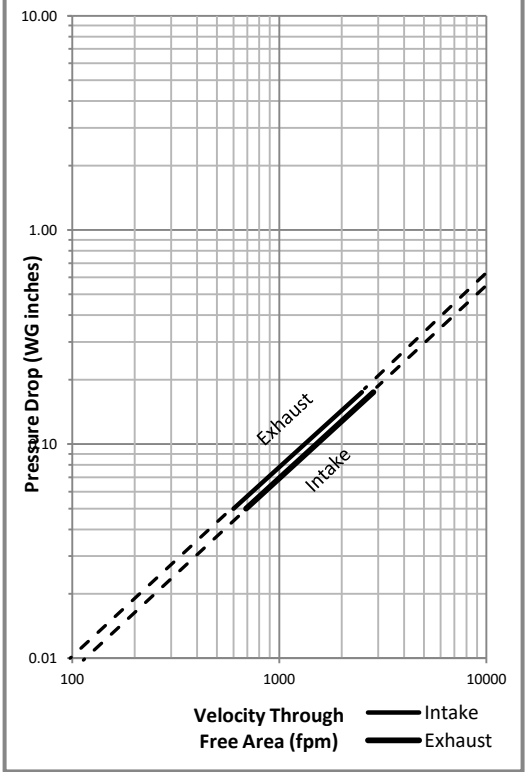
12" Deep Formed Steel Acoustical Sight proof Louver

Free Area Calculations (Sq. Ft.)

HEIGHT (Inches)	WIDTH (Inches) 12	18	24	30	36	42	48	54	60
12	0.16	0.25	0.35	0.44	0.54	0.63	0.73	0.82	0.92
18	0.35	0.57	0.78	0.99	1.21	1.42	1.63	1.84	2.06
24	0.55	0.88	1.21	1.54	1.87	2.20	2.53	2.86	3.19
30	0.75	1.19	1.64	2.09	2.54	2.98	3.43	3.88	4.33
36	0.94	1.51	2.07	2.64	3.20	3.77	4.33	4.90	5.46
42	1.14	1.82	2.50	3.18	3.87	4.55	5.23	5.91	6.60
48	1.33	2.13	2.93	3.73	4.53	5.33	6.13	6.93	7.73
54	1.53	2.45	3.36	4.28	5.20	6.12	7.03	7.95	8.87
60	1.72	2.76	3.79	4.83	5.86	6.90	7.93	8.97	10.00
66	1.92	3.07	4.22	5.38	6.53	7.68	8.83	9.99	11.14
72	2.12	3.39	4.66	5.92	7.19	8.46	9.73	11.00	12.27
78	2.31	3.70	5.09	6.47	7.86	9.25	10.63	12.02	13.41
84	2.51	4.01	5.52	7.02	8.53	10.03	11.53	13.04	14.54
90	2.70	4.33	5.95	7.57	9.19	10.81	12.43	14.06	15.68
96	2.90	4.64	6.38	8.12	9.86	11.60	13.33	15.07	16.81
102	3.09	4.95	6.81	8.66	10.52	12.38	14.24	16.09	17.95
108	3.29	5.26	7.24	9.21	11.19	13.16	15.14	17.11	19.08
114	3.49	5.58	7.67	9.76	11.85	13.94	16.04	18.13	20.22
120	3.68	5.89	8.10	10.31	12.52	14.73	16.94	19.15	21.35

- 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**



Air Flow Model AL-V12. 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%)

CALCULATING RANSMISSION LOSS
In order to calculate transmission loss(dB), take the Free Field Noise Reduction(dB) and subtract by 6 (dB) Free-Field Noise Reduction -6 (dB)= **Transmission Loss (dB)**

OCTAVE BANDS								
Frequency (Hz)	63	125	250	500	1000	2000	4000	5000
Free Field Noise Reduction (dB)	6	10	12	16	22	34	28	27
Transmission Loss (dB)	0	4	6	10	16	28	22	21

**The sound data shown are in accordance ASTM E90 and ASTM E413.*

Water Penetration
Unit test size (48"x48")
Beginning of water penetration= 865 FPM
(15 Min Duration)