

ACOUSTICAL LOUVER

8" (203) DEEP • AIRFOIL BLADE • FORMED ALUMINUM
 MODEL: 1608QAF

Model 1608QAF acoustical louver is designed to protect air intake and exhaust openings in exterior walls, offering a combination of weather protection and sound attenuation. The insulated airfoil blades provide a higher free area and lower pressure drop compared to traditional straight J blade models.

STANDARD CONSTRUCTION:

- FRAME:** 8" (203) deep, formed aluminum, .080" (2.03) nominal thickness.
- BLADES:** Formed aluminum, .080" (2.03) nominal thickness. Perforated interior retains and protects internal insulation.
- ACOUSTICAL INSULATION:** Fiberglass.
- BLADE ANGLE:** Fixed at 45 degrees.
- BLADE SPACING:** Approximately 6" (152) on centers.
- SCREEN:** 3/4" x .051" (19 x 1.3) expanded, flattened aluminum bird screen in removable frame (adds approximately 3/8" [10] to louver depth).
- FINISH:** Mill.
- MINIMUM SIZE:** 12" W x 12" H (305 x 305).
- MAX. SINGLE SECTION SIZE:** 60" W x 120" H (1524 x 3048). Larger louvers will require field assembly of smaller sections.

OPTIONAL FINISHES:

OPTIONS:

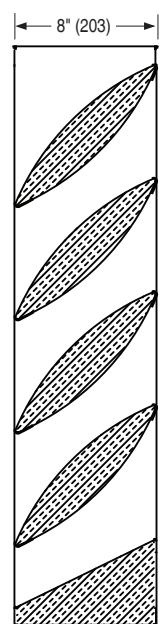
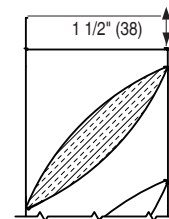
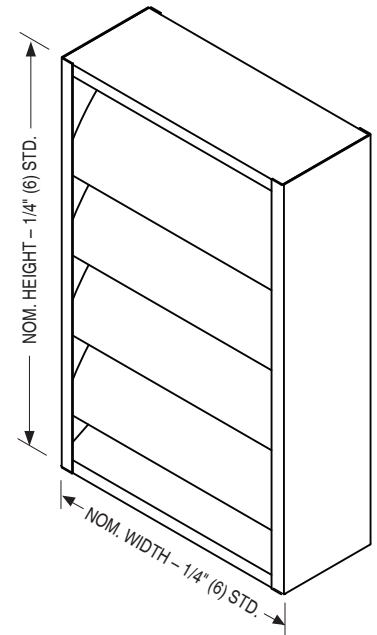
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|--|--|
| ☐ FL15 Flanged Frame, 1 1/2" (38). | ☐ 18GA 18 ga. Galv. Steel Construction. (Supplied with 1/2" (38) x 19 ga. (1.0) Galv. Bird Screen) |
| ☐ FL20 Flanged Frame, 2" (51). | ☐ ESI Extended Sill. |
| ☐ WE Welded Construction. | ☐ FR1 1" (25) Filter Rack. |
| ☐ BSSS Type 304 S. S. Bird Screen. | ☐ FR2 2" (51) Filter Rack. |
| ☐ BSN No Bird Screen. | ☐ PAC Perimeter Anchor Clips. |
| ☐ ISA Aluminum Insect Screen. | ☐ Other: _____. |
| ☐ ISSS Type 304 S. S. Insect Screen. | |
| ☐ PC3 Powder Coat AAMA 2603. Color: _____. | |
| ☐ PC4 High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____. | |
| ☐ PC5 Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____. | |
| ☐ PCC Prime Coat. | |
| ☐ AN04 Clear Anodized 204-R1. | |
| ☐ AN15 Clear Anodized 215-R1. | |

Color Anodized:

- | | |
|--|---|
| ☐ ANLB Light Bronze. | ☐ ANMB Medium Bronze. |
| ☐ ANDB Dark Bronze. | ☐ ANBK Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- ☐ **U00** Exact Size.
- ☐ **U38** Undersize 3/8" (9.5).
- ☐ **U50** Undersize 1/2" (12.7).



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

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 Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
4 - 22 - 25	1600	2 - 19 - 25	1608QAF



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PERFORMANCE DATA
MODEL: 1608QAF

FREE AREA in Square Feet and Square Meters

		Width in Inches and Meters								
		12	18	24	30	36	42	48	54	60
		0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52
Height in Inches and Meters	12	0.12	0.20	0.27	0.35	0.42	0.49	0.57	0.64	0.72
	0.30	0.01	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07
	18	0.28	0.44	0.61	0.77	0.94	1.10	1.27	1.43	1.60
	0.46	0.03	0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.15
	24	0.43	0.68	0.94	1.19	1.45	1.71	1.96	2.22	2.47
	0.61	0.04	0.06	0.09	0.11	0.13	0.16	0.18	0.21	0.23
	30	0.58	0.92	1.27	1.62	1.96	2.31	2.66	3.00	3.35
	0.76	0.05	0.09	0.12	0.15	0.18	0.21	0.25	0.28	0.31
	36	0.73	1.17	1.60	2.04	2.48	2.92	3.35	3.79	4.23
	0.91	0.07	0.11	0.15	0.19	0.23	0.27	0.31	0.35	0.39
	42	0.88	1.41	1.94	2.47	2.99	3.52	4.05	4.58	5.11
	1.07	0.08	0.13	0.18	0.23	0.28	0.33	0.38	0.43	0.47
	48	1.03	1.65	2.27	2.89	3.51	4.13	4.75	5.37	5.99
	1.22	0.10	0.15	0.21	0.27	0.33	0.38	0.44	0.50	0.56
	54	1.18	1.89	2.60	3.31	4.02	4.73	5.44	6.15	6.86
	1.37	0.11	0.18	0.24	0.31	0.37	0.44	0.51	0.57	0.64
	60	1.33	2.14	2.94	3.74	4.54	5.34	6.14	6.94	7.74
	1.52	0.12	0.20	0.27	0.35	0.42	0.50	0.57	0.64	0.72
	66	1.49	2.38	3.27	4.16	5.05	5.94	6.84	7.73	8.62
	1.68	0.14	0.22	0.30	0.39	0.47	0.55	0.64	0.72	0.80
	72	1.64	2.62	3.60	4.59	5.57	6.55	7.53	8.52	9.50
	1.83	0.15	0.24	0.33	0.43	0.52	0.61	0.70	0.79	0.88
	78	1.79	2.86	3.94	5.01	6.08	7.16	8.23	9.30	10.38
	1.98	0.17	0.27	0.37	0.47	0.57	0.66	0.76	0.86	0.96
	84	1.94	3.10	4.27	5.43	6.60	7.76	8.93	10.09	11.25
	2.13	0.18	0.29	0.40	0.50	0.61	0.72	0.83	0.94	1.05
	90	2.09	3.35	4.60	5.86	7.11	8.37	9.62	10.88	12.13
	2.29	0.19	0.31	0.43	0.54	0.66	0.78	0.89	1.01	1.13
	96	2.24	3.59	4.93	6.28	7.63	8.97	10.32	11.66	13.01
	2.44	0.21	0.33	0.46	0.58	0.71	0.83	0.96	1.08	1.21
	102	2.39	3.83	5.27	6.70	8.14	9.58	11.01	12.45	13.89
	2.59	0.22	0.36	0.49	0.62	0.76	0.89	1.02	1.16	1.29
	108	2.55	4.07	5.60	7.13	8.66	10.18	11.71	13.24	14.77
	2.74	0.24	0.38	0.52	0.66	0.80	0.95	1.09	1.23	1.37
	114	2.70	4.32	5.93	7.55	9.17	10.79	12.41	14.03	15.64
	2.90	0.25	0.40	0.55	0.70	0.85	1.00	1.15	1.30	1.45
	120	2.85	4.56	6.27	7.98	9.69	11.39	13.10	14.81	16.52
	3.05	0.26	0.42	0.58	0.74	0.90	1.06	1.22	1.38	1.53



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B SERIES

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1600

2 - 19 - 25

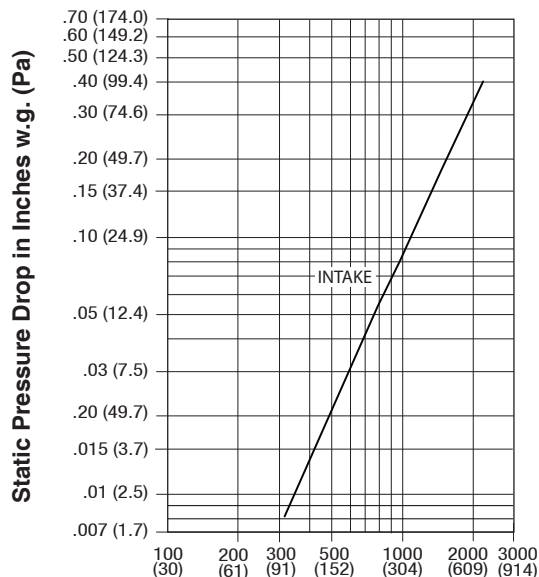
1608QAF

AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

I N T A K E	Free Area %	30%
	Free Area sq. ft. (sq. m.)	4.75 (0.44)
	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	676 fpm (206 m/min.)
	Air Volume at 676 fpm	3212 cfm (1516 l/s)
	Free Area Velocity	
	Pressure Drop @ 676 fpm	.04 in. w.g. (10 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP

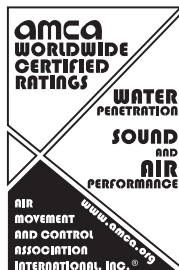


Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm).

Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5 – 6.5.



Nailor Industries Inc. certifies that the Model 1608QAF shown herein is licensed to bear the AMCA Certified Ratings Program 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 Program seal applies to air performance, water penetration and sound performance ratings.

Louvers were tested in accordance with AMCA Standard 500-L.



FREE FIELD NOISE REDUCTION

Octave Band (Frequency)(Hz)	Free Field Noise Reduction (db)	Transmission Loss (db)	Sound Transmission Class
2 (125)	11	5	9
3 (250)	9	3	
4 (500)	11	5	
5 (1000)	15	9	
6 (2000)	21	15	
7 (4000)	17	11	

NOTE: The Sound Transmission Class (STC) is a single number rating of the louver's resistance to transfer airborne sound, calculated in accordance with ASTM E413-22. The higher the STC rating number, the less sound is transmitted through the louver. STC is not AMCA certified.

SOUND TRANSMISSION CLASS

The Sound Transmission Class (STC) measures how an assembly reduces or blocks airborne sound transmission. It is a single numerical value that summarizes the sound insulation performance of an assembly. Higher STC ratings indicate better soundproofing capabilities. The STC rating is determined based on the guidelines set by ASTM E413-22.

TRANSMISSION LOSS

Transmission loss (TL) measures the reduction in sound power (dB) as sound passes through a material at a specific frequency. A higher TL indicates better sound reduction. When testing a louver's sound performance, TL shows how effectively it blocks sound. This is typically tested in accordance with ASTM E90-09.

FREE FIELD NOISE REDUCTION IN DECIBELS

Free Field Noise Reduction is determined by adding 6 dB to the Transmission Loss.

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