



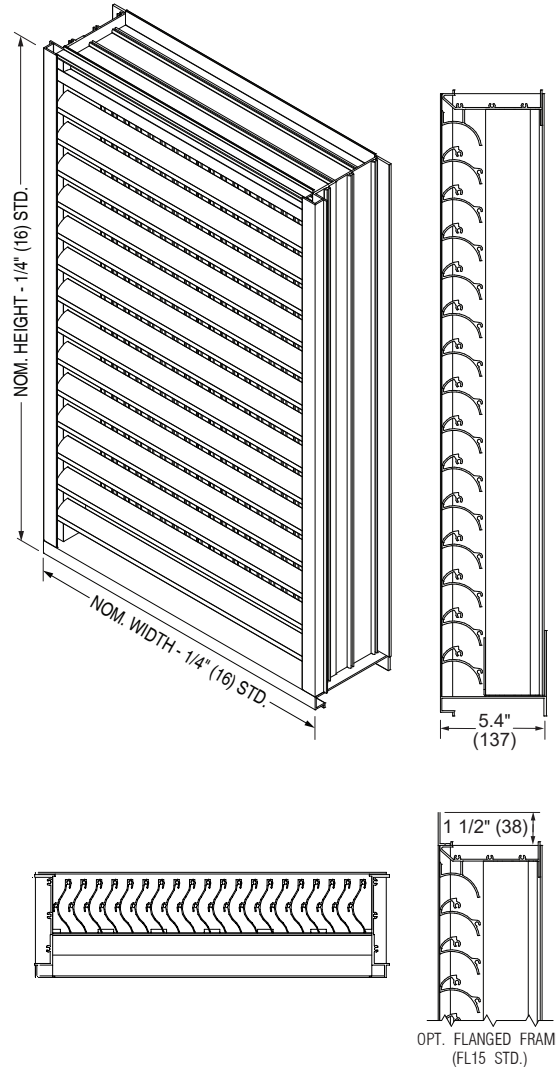
EXTRUDED ALUMINUM STATIONARY HYBRID LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
HIGH VELOCITY WIND-DRIVEN RAIN RESISTANT
5.4" (137) DEEP • HORIZONTAL AND VERTICAL BLADE
MODEL: 1605HM

QUALIFICATIONS:

- Miami-Dade County NOA No. 25-1223.02
- Florida Product Approval No. PENDING
- Tested in accordance with: TAS-201 (Missile Impact Test), TAS-202 (Uniform Static Air Pressure Test), TAS-203 (Cyclic Wind Pressure Loading Test.)
- AMCA 500-L (Wind-Drive Rain, Water Penetration, Air Performance)
- AMCA 540 (Wind-Borne Debris Impact Test [Enhanced "Level E" Protection]).
- AMCA 550 (High Velocity Wind-Driven Rain Resistance Test).
- Wind load rating +/- 100 PSF

STANDARD CONSTRUCTION:

- FRAME:** 5.4" (137) deep, Type 6063-T6 extruded aluminum, .080" (2.03) nominal wall thickness. Integral caulking slot provided.
- BLADES:** **Front:** Horizontal Type 6063-T6 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses. J style.
Rear: Vertical Type 6063-T6 extruded aluminum, .060" (1.52) nominal wall thickness, with reinforcing bosses.
- BLADE SPACING:** **Front:** Approximately 1.965" (50) on centers.
Rear: Approximately .875" (22) on centers.
- BLADE SUPPORT:** 2.5" (64) strap every 60" (1524) or less in height
- SCREEN:** 3/4" x .050 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).
- FINISH:** Mill.
- MINIMUM SIZE:** 12" W x 12" H (305 x 305).
- MAX. SINGLE** 60" W x 120" H (1524 x 3048).
- SECTION SIZE:** 50 ft² (4.6 m²). Larger louvers will require field assembly of smaller sections.
- MAXIMUM SIZE:** Unlimited Width x 120" H (3048).



OPTIONS:

- BSSS** Type 304 S.S. Bird Screen.
- BSN** No Bird Screen.
- ISSS** Type 304 S.S. Insect Screen.
- ISA** Aluminum Insect Screen.
- FL15** Flanged Frame, 1 1/2" (38).
- FL20** Flanged Frame, 2" (51).
- PASI** Sill Pan.
- PAAA** Perimeter Anchor Angles (Aluminum, Continuous).
- Other: _____

OPTIONAL FINISHES:

- 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.
- ANLB** Light Bronze.
- ANMB** Medium Bronze.
- ANDB** Dark Bronze.
- ANBK** Black.

SCHEDULE TYPE:		Page 1 of 3			
PROJECT:		Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.	
CONTRACTOR:	05 - 15 - 26	1600M	04 - 09 - 26	1605HM	



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FREE AREA in Square Feet and Square Meters

		Width in Inches and Meters									
		12	18	24	30	36	42	48	54	60	
Height in Inches and Meters	12	0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52	
	0.30	0.23	0.39	0.53	0.69	0.85	1.01	1.17	1.33	1.49	
	18	0.46	0.47	0.80	1.08	1.41	1.74	2.06	2.39	2.72	3.05
	0.46	0.04	0.07	0.10	0.13	0.16	0.19	0.22	0.25	0.28	
	24	0.61	0.71	1.20	1.63	2.13	2.62	3.12	3.61	4.11	4.61
	0.61	0.07	0.11	0.15	0.20	0.24	0.29	0.34	0.38	0.43	
	30	0.76	0.95	1.61	2.18	2.85	3.51	4.17	4.84	5.50	6.16
	0.76	0.09	0.15	0.20	0.26	0.33	0.39	0.45	0.51	0.57	
	36	0.36	1.19	2.02	2.73	3.56	4.40	5.23	6.06	6.89	7.72
	0.36	0.11	0.19	0.25	0.33	0.41	0.49	0.56	0.64	0.72	
	42	1.07	1.43	2.43	3.28	4.28	5.28	6.28	7.28	8.28	9.28
	1.07	0.13	0.23	0.31	0.40	0.49	0.58	0.68	0.77	0.86	
	48	1.22	1.67	2.83	3.83	5.00	6.17	7.34	8.50	9.67	10.84
	1.22	0.15	0.26	0.36	0.46	0.57	0.68	0.79	0.90	1.01	
	54	1.37	1.91	3.24	4.39	5.72	7.05	8.39	9.72	11.06	12.39
	1.37	0.18	0.30	0.41	0.53	0.66	0.78	0.90	1.03	1.15	
	60	1.52	2.15	3.65	4.94	6.44	7.94	9.44	10.95	12.45	13.95
	1.52	0.20	0.34	0.46	0.60	0.74	0.88	1.02	1.16	1.30	
	66	1.68	2.39	4.06	5.49	7.16	8.83	10.50	12.17	13.84	15.51
	1.68	0.22	0.38	0.51	0.66	0.82	0.98	1.13	1.29	1.44	
72	1.83	2.63	4.46	6.04	7.88	9.71	11.55	13.39	15.23	17.07	
1.83	0.24	0.41	0.56	0.73	0.90	1.07	1.24	1.41	1.59		
78	1.98	2.87	4.87	6.59	8.60	10.60	12.61	14.61	16.62	18.62	
1.98	0.27	0.45	0.61	0.80	0.98	1.17	1.36	1.54	1.73		
84	2.13	3.10	5.28	7.14	9.31	11.49	13.66	15.83	18.01	20.18	
2.13	0.29	0.49	0.66	0.87	1.07	1.27	1.47	1.67	1.87		
90	2.29	3.34	5.69	7.69	10.03	12.37	14.71	17.06	19.40	21.74	
2.29	0.31	0.53	0.71	0.93	1.15	1.37	1.58	1.80	2.02		
96	2.44	3.58	6.09	8.24	10.75	13.26	15.77	18.28	20.79	23.29	
2.44	0.33	0.57	0.77	1.00	1.23	1.46	1.70	1.93	2.16		
102	2.59	3.82	6.50	8.79	11.47	14.15	16.82	19.50	22.18	24.85	
2.59	0.36	0.60	0.82	1.07	1.31	1.56	1.81	2.06	2.31		
108	2.74	4.06	6.91	9.34	12.19	15.03	17.88	20.72	23.57	26.41	
2.74	0.38	0.64	0.87	1.13	1.40	1.66	1.92	2.19	2.45		
114	2.90	4.30	7.31	9.90	12.91	15.92	18.93	21.94	24.95	27.97	
2.90	0.40	0.68	0.92	1.20	1.48	1.76	2.04	2.32	2.60		
120	3.05	4.54	7.72	10.45	13.63	16.81	19.99	23.16	26.34	29.52	
3.05	0.42	0.72	0.97	1.27	1.56	1.86	2.15	2.45	2.74		



This label does not signify AMCA airflow performance certification.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 3
 Dimensions are in inches (mm).

DATE

B SERIES

SUPERSEDES

DRAWING NO.

04 - 09 - 26

1600M

03 - 25 - 26

1605HM



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

Free Area %	51%
Free Area sq. ft. (sq. m.)	8.18 (0.76)
Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1250 fpm (381 m/min.)
Air Volume at 1250 fpm Free Area Velocity	10,225 cfm (4826 l/s)
Pressure Drop @ 1250 fpm	.66 in. w.g. (164 Pa)

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

WIND DRIVEN RAIN PERFORMANCE

Core Ventilation	0	98	197	295	393	492	590	688	787	889	975
Rate in fpm (m/s)	(0.00)	(0.50)	(1.00)	(1.50)	(2.00)	(2.50)	(3.00)	(3.50)	(4.00)	(4.52)	(4.95)
Free Area Ventilation	0	169	339	508	678	848	1017	1186	1355	1498	1644
Rate in fpm (m/s)	(0.00)	(0.86)	(1.72)	(2.58)	(3.44)	(4.31)	(5.17)	(6.02)	(6.88)	(7.61)	(8.35)
Effectiveness Ratio (%)	100	100	100	100	100	100	100	100	100	100	99.8
Penetration Class	A	A	A	A	A	A	A	A	A	A	A

Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 3" per hour (76 mm/hour) with a wind velocity of **29 mph (13 m/s)**.

Core Ventilation	0	94	190	291	398	477	576	677	762	867	948
Rate in fpm (m/s)	(0.00)	(0.48)	(0.97)	(1.48)	(2.02)	(2.42)	(2.93)	(3.44)	(3.87)	(4.40)	(4.82)
Free Area Ventilation	0	161	327	501	685	821	993	1166	1285	1473	1611
Rate in fpm (m/s)	(0.00)	(0.82)	(1.66)	(2.55)	(3.48)	(4.17)	(5.04)	(5.92)	(6.53)	(7.48)	(8.18)
Effectiveness Ratio (%)	100	100	100	100	100	100	100	100	99.8	99.7	99.6
Penetration Class	A	A	A	A	A	A	A	A	A	A	A

Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 8" per hour (203 mm/hour) with a wind velocity of **50 mph (22 m/s)**.

Wind Driven Rain Penetration Classes	
Class	Effectiveness
A	1 to 0.99
B	0.989 to .95
C	0.949 to .80
D	Below 0.80

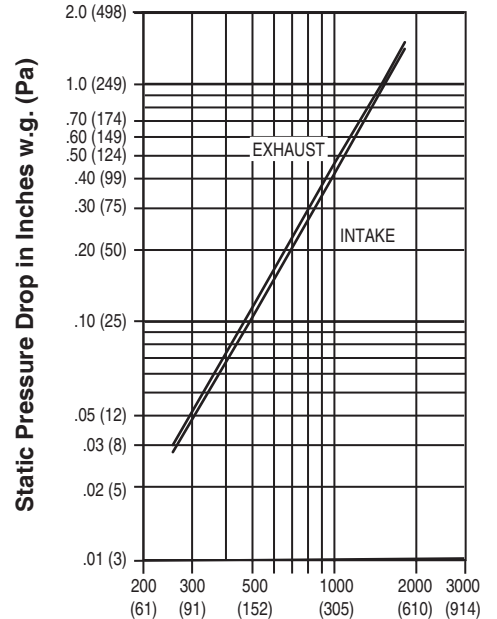


Nailor Industries Inc. certifies that the Model 1605HM shown herein is licensed to bear the AMCA Certified Ratings Program seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Program seal applies to Water Penetration, Wind Driven Rain, and Air Performance ratings.

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



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 1605HM louver shown herein is approved to bear the AMCA International Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA publications and comply with the requirements of the AMCA International Listing Label program. The AMCA International Listing Label applies to wind borne debris impact resistant louvers rated for Enhanced Protection and +/- 100PSF with a minimum blade span of less than 12 in. (305mm) and a maximum unsupported blade span of 58 in. (1473 mm) and to High Velocity Wind-Driven Rain Resistant Louvers tested in the fully open position that permits airflow through a louver.

This label does not signify AMCA airflow performance certification.

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