



EXTRUDED ALUMINUM STATIONARY LOUVER

WIND-DRIVEN RAIN RESISTANT

5" (127) DEEP • VERTICAL BLADE

MODEL: 1605WDV

Model 1605WDV is a stationary wind-driven, rain-resistant vertical blade louver designed to protect buildings' air intake and exhaust openings on its exterior walls. This rigidly constructed louver is AMCA certified for 500-L Air Performance, Water Penetration and Wind-Driven Rain. Known for its ability to maximize free area while minimizing water penetration and pressure drop, vertical blades featured on this louver make it an ideal choice for areas known for high winds and possible storms. Thanks to its innovative blade, Model 1605WDV is capable of no water penetration even at wind speeds of 50 mph. Wind load rating of +/- 40 PSF.

STANDARD CONSTRUCTION:

FRAME: 5" (127) deep, Type 6063-T6 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.

BLADES: Type 6063-T6 extruded aluminum, .060" (1.52) nominal wall thickness, with reinforcing bosses.

BLADE ANGLE: Fixed at 45 degrees.

BLADE SPACING: Approximately 1 1/2" (38) on centers.

BLADE SUPPORT: 2.5" (64) strap every 60" (1524) or less in height.

SCREEN: 5/8" x .050 (16 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

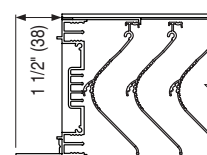
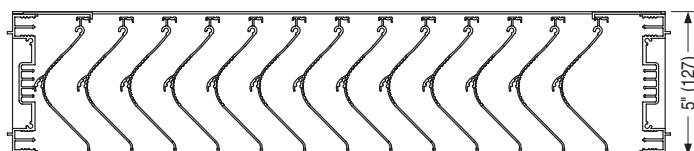
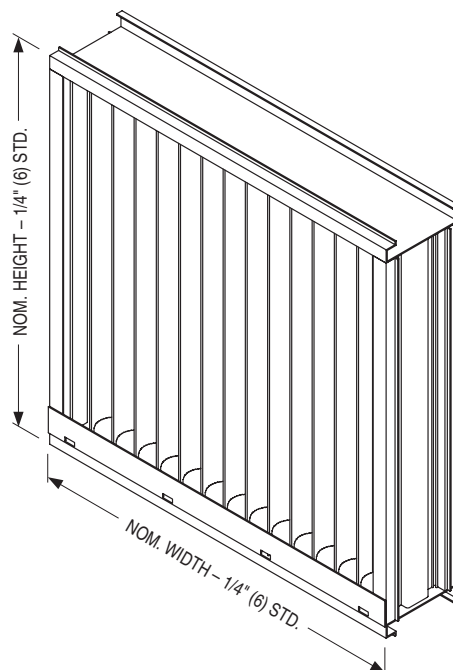
FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE 72" W x 120" H (1829 x 3048)

SECTION SIZE: or 120" W x 72" H (3048 x 1829). 60 sq. ft. (5.6 m²). Larger louvers will require field assembly of smaller sections.

APPROXIMATE SHIPPING WEIGHT: 5 lbs. per ft² (24.4 Kg per m²).



FLANGED FRAME (FL)
(OPTIONAL)

OPTIONS:

- ☐ **FL** Flanged Frame.
- ☐ **BSSS** Type 304 S.S. Bird Screen.
- ☐ **BSN** No Bird Screen.
- ☐ **ISA** Aluminum Insect Screen.
- ☐ **ISSS** Type 304 S.S. Insect Screen.
- ☐ **ESI** Extended Sill.
- ☐ **PASI** Sill Pan.
- ☐ **PAC** Perimeter Anchor Clips.
- ☐ **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:

PROJECT:

ENGINEER:

CONTRACTOR:

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Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
1 - 29 - 21	1600	NEW	1605WDV



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

I N T A K E	Free Area %	55%
	Free Area sq. ft. (sq. m.)	8.77 (0.81)
	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	10,963 cfm (5174 l/s)
	Pressure Drop @ 1000 fpm	.18 in. w.g. (45 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the beginning point of water penetration.*Maximum Free Area Velocity tested is 1250 fpm. Beginning point of water penetration for this model is above 1250 fpm.

WIND DRIVEN RAIN PERFORMANCE

Core Ventilation	0	110	196	280	399	499	590	703	783	894	984
Rate in fpm (m/s)	(0.00)	(0.56)	(0.99)	(1.42)	(2.02)	(2.53)	(3.00)	(3.57)	(3.98)	(4.54)	(5.00)
Free Area Ventilation	0	200	356	509	725	907	1073	1278	1424	1625	178
Rate in fpm (m/s)	(0.00)	(1.02)	(1.81)	(2.59)	(3.68)	(4.61)	(5.45)	(6.49)	(7.23)	(8.26)	(9.09)
Effectiveness Ratio (%)	100	100	100	100	100	100	100	100	100	100	100
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)**.

DISCHARGE LOSS COEFFICIENT CLASS (INTAKE): 2. (Discharge Loss Coefficient Classification is as follows: 1=0.4 and above, 2=0.3 to 0.399, 3 = 0.2 to 0.299, 4 = 0.199 and below.)

Core Ventilation	0	88	199	300	399	484	589	686	786	882	987
Rate in fpm (m/s)	(0.00)	(0.45)	(1.01)	(1.52)	(2.03)	(2.46)	(2.99)	(3.48)	(3.99)	(4.48)	(5.01)
Free Area Ventilation	0	160	362	545	725	880	1071	1247	1429	1604	1795
Rate in fpm (m/s)	(0.00)	(0.81)	(1.84)	(2.77)	(3.68)	(4.47)	(5.44)	(6.33)	(7.26)	(8.15)	(9.12)
Effectiveness Ratio (%)	100	100	100	100	100	100	100	100	100	100	100
Penetration Class	A	A	A	A	A	A	A	A	A	A	A

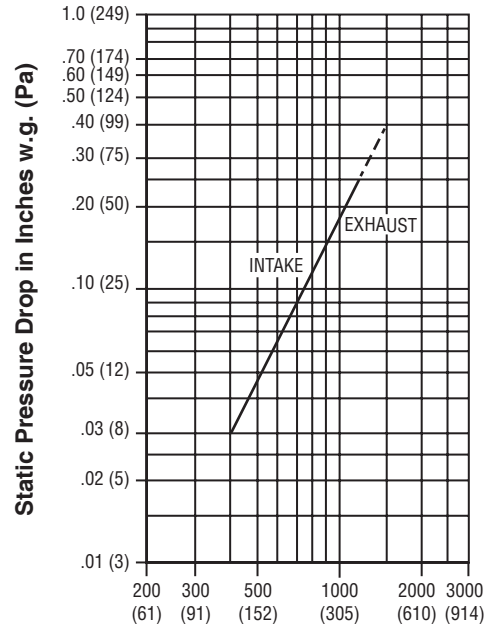
Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 8" per hour (203 mm/hour) with a wind velocity of **50 mph (22 m/s)**.

DISCHARGE LOSS COEFFICIENT CLASS (INTAKE): 2. (Discharge Loss Coefficient Classification is as follows: 1=0.4 and above, 2=0.3 to 0.399, 3 = 0.2 to 0.299, 4 = 0.199 and below.)



Nailor Industries Inc. certifies the Model 1605WDV 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. Seal applies to air performance, water penetration and wind driven rain performance ratings.

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.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

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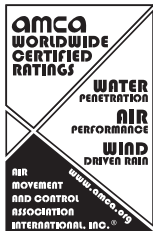
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FREE AREA in Square Feet and Square Meters

		Width in Inches and Meters																		
		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
Height in Inches and Meters	12	0.29	0.52	0.74	0.97	1.20	1.43	1.66	1.89	2.12	2.35	2.58	2.81	3.03	3.26	3.49	3.72	3.95	4.18	4.41
	0.30	0.03	0.05	0.07	0.09	0.11	0.13	0.15	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.32	0.35	0.37	0.39	0.41
	18	0.50	0.90	1.29	1.69	2.09	2.49	2.89	3.29	3.68	4.08	4.48	4.88	5.28	5.67	6.07	6.47	6.87	7.27	7.67
	0.46	0.05	0.08	0.12	0.16	0.19	0.23	0.27	0.31	0.34	0.38	0.42	0.45	0.49	0.53	0.56	0.60	0.64	0.68	0.71
	24	0.64	1.15	1.67	2.18	2.69	3.20	3.72	4.23	4.74	5.26	5.77	6.28	6.79	7.31	7.82	8.33	8.85	9.36	9.87
	0.61	0.06	0.11	0.15	0.20	0.25	0.30	0.35	0.39	0.44	0.49	0.54	0.58	0.63	0.68	0.73	0.77	0.82	0.87	0.92
	30	0.85	1.53	2.22	2.90	3.58	4.26	4.94	5.63	6.31	6.99	7.67	8.35	9.04	9.72	10.40	11.08	11.76	12.45	13.13
	0.76	0.08	0.14	0.21	0.27	0.33	0.40	0.46	0.52	0.59	0.65	0.71	0.78	0.84	0.90	0.97	1.03	1.09	1.16	1.22
	36	1.06	1.92	2.77	3.62	4.47	5.32	6.17	7.02	7.87	8.72	9.58	10.43	11.28	12.13	12.98	13.83	14.68	15.53	16.38
	0.36	0.10	0.18	0.26	0.34	0.42	0.49	0.57	0.65	0.73	0.81	0.89	0.97	1.05	1.13	1.21	1.28	1.36	1.44	1.52
	42	1.28	2.30	3.32	4.34	5.36	6.38	7.40	8.42	9.44	10.46	11.48	12.50	13.52	14.54	15.56	16.58	17.60	18.62	19.64
	1.07	0.12	0.21	0.31	0.40	0.50	0.59	0.69	0.78	0.88	0.97	1.07	1.16	1.26	1.35	1.45	1.54	1.64	1.73	1.82
	48	1.49	2.68	3.87	5.06	6.24	7.43	8.62	9.81	11.00	12.19	13.38	14.57	15.76	16.95	18.14	19.33	20.52	21.71	22.90
	1.22	0.14	0.25	0.36	0.47	0.58	0.69	0.81	0.91	1.02	1.13	1.24	1.35	1.46	1.57	1.69	1.80	1.91	2.02	2.13
	54	1.70	3.06	4.42	5.77	7.13	8.49	9.85	11.21	12.57	13.93	15.28	16.64	18.00	19.36	20.72	22.08	23.44	24.79	26.15
	1.37	0.16	0.28	0.41	0.54	0.66	0.79	0.92	1.04	1.17	1.29	1.42	1.55	1.67	1.80	1.92	2.05	2.18	2.30	2.43
	60	1.91	3.44	4.97	6.49	8.02	9.55	11.08	12.60	14.13	15.66	17.19	18.72	20.24	21.77	23.30	24.83	26.35	27.88	29.41
	1.52	0.18	0.32	0.46	0.60	0.75	0.89	1.03	1.17	1.31	1.45	1.60	1.74	1.88	2.02	2.16	2.31	2.45	2.59	2.73
	66	2.12	3.82	5.52	7.21	8.91	10.61	12.30	14.00	15.70	17.39	19.09	20.79	22.48	24.18	25.88	27.58	29.27	30.97	32.67
	1.68	0.20	0.35	0.51	0.67	0.83	0.99	1.14	1.30	1.46	1.62	1.77	1.93	2.09	2.25	2.40	2.56	2.72	2.88	3.03
72	2.33	4.20	6.06	7.93	9.80	11.66	13.53	15.40	17.26	19.13	20.99	22.86	24.73	26.59	28.46	30.32	32.19	34.06	35.92	
1.83	0.22	0.39	0.56	0.74	0.91	1.08	1.26	1.43	1.60	1.78	1.95	2.12	2.30	2.47	2.64	2.82	2.99	3.16	3.34	
78	2.54	4.58	6.61	8.65	10.69	12.72	14.76	16.79	18.83	20.86	22.90									
1.98	0.24	0.43	0.61	0.80	0.99	1.18	1.37	1.56	1.75	1.94	2.13									
84	2.76	4.96	7.16	9.37	11.57	13.78	15.98	18.19	20.39	22.60	24.80									
2.13	0.26	0.46	0.67	0.87	1.08	1.28	1.48	1.69	1.89	2.10	2.30									
90	2.97	5.34	7.71	10.09	12.46	14.84	17.21	19.58	21.96	24.33	26.70									
2.29	0.28	0.50	0.72	0.94	1.16	1.38	1.60	1.82	2.04	2.26	2.48									
96	3.18	5.72	8.26	10.81	13.35	15.89	18.44	20.98	23.52	26.06	28.61									
2.44	0.30	0.53	0.77	1.00	1.24	1.48	1.71	1.95	2.19	2.42	2.66									
102	3.39	6.10	8.81	11.53	14.24	16.95	19.66	22.37	25.09	27.80	30.51									
2.59	0.31	0.57	0.82	1.07	1.32	1.57	1.83	2.08	2.33	2.58	2.83									
108	3.60	6.48	9.36	12.24	15.13	18.01	20.89	23.77	26.65	29.53	32.41									
2.74	0.33	0.60	0.87	1.14	1.41	1.67	1.94	2.21	2.48	2.74	3.01									
114	3.81	6.86	9.91	12.96	16.01	19.06	22.11	25.16	28.22	31.27	34.32									
2.90	0.35	0.64	0.92	1.20	1.49	1.77	2.05	2.34	2.62	2.90	3.19									
120	4.02	7.24	10.46	13.68	16.90	20.12	23.34	26.56	29.78	33.00	36.22									
3.05	0.37	0.67	0.97	1.27	1.57	1.87	2.17	2.47	2.77	3.07	3.36									



SCHEDULE TYPE:	Page 3 of 3			
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ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
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