

EXTRUDED ALUMINUM STATIONARY LOUVER HIGH VELOCITY WIND-DRIVEN RAIN AND IMPACT RESISTANT 5" (127) DEEP • VERTICAL BLADE MODEL: V-DEM-05

QUALIFICATIONS:

- AMCA 500-L (Wind-Driven 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 +/- 70 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, .070" (1.78) 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:** 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 SECTION SIZE:** 72" W x 120" H (1829 x 3048) or 120" W x 72" H (3048 x 1829). 60 sq. ft. (5.6 m²). Larger louvers will require field assembly of smaller sections.
- MAXIMUM SIZE:** Unlimited Width x 120" H (3048).

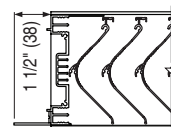
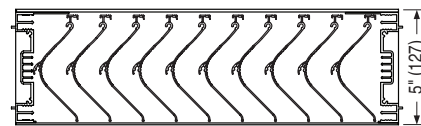
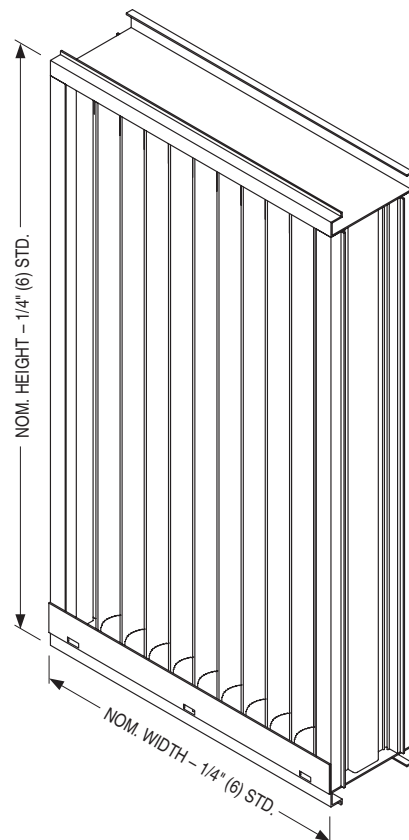
OPTIONS:

- ☐ **FL15** Flanged Frame, 1 1/2" (38).
- ☐ **FL20** Flanged Frame, 2" (51).
- ☐ **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.
- ☐ **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.



OPT. FLANGED FRAME
(FL15 STD.)



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

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Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
3 - 31 - 25	LOUVER	1 - 30 - 24	V-DEM-05



EXTRUDED ALUMINUM STATIONARY LOUVER
HIGH VELOCITY WIND-DRIVEN RAIN AND IMPACT RESISTANT
5" (127) DEEP • VERTICAL BLADE • PERFORMANCE DATA
MODEL: V-DEM-05

FREE AREA in Square Feet and Square Meters

		Width in Inches and Meters																		
		12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
Height in Inches and Meters	12 0.30	0.28 0.03	0.51 0.05	0.74 0.07	0.96 0.09	1.19 0.11	1.42 0.13	1.65 0.15	1.87 0.17	2.10 0.20	2.33 0.22	2.55 0.24	2.78 0.26	3.01 0.28	3.24 0.30	3.46 0.32	3.69 0.34	3.92 0.36	4.14 0.38	4.37 0.41
	18 0.46	0.49 0.05	0.89 0.08	1.28 0.12	1.68 0.16	2.07 0.19	2.47 0.23	2.86 0.27	3.26 0.30	3.65 0.34	4.05 0.38	4.44 0.41	4.83 0.45	5.23 0.49	5.62 0.52	6.02 0.56	6.41 0.60	6.81 0.63	7.20 0.67	7.60 0.71
	24 0.61	0.63 0.06	1.14 0.11	1.65 0.15	2.15 0.20	2.66 0.25	3.17 0.29	3.67 0.34	4.18 0.39	4.69 0.44	5.19 0.48	5.70 0.53	6.20 0.58	6.71 0.62	7.22 0.67	7.72 0.72	8.23 0.76	8.74 0.81	9.24 0.86	9.75 0.91
	30 0.76	0.84 0.08	1.52 0.14	2.19 0.20	2.87 0.27	3.54 0.33	4.21 0.39	4.89 0.45	5.56 0.52	6.24 0.58	6.91 0.64	7.58 0.70	8.26 0.77	8.93 0.83	9.61 0.89	10.28 0.96	10.96 1.02	11.63 1.08	12.30 1.14	12.98 1.21
	36 0.36	1.05 0.10	1.89 0.18	2.74 0.25	3.58 0.33	4.42 0.41	5.26 0.49	6.10 0.57	6.95 0.65	7.79 0.72	8.63 0.80	9.47 0.88	10.31 0.96	11.15 1.04	12.00 1.11	12.84 1.19	13.68 1.27	14.52 1.35	15.36 1.43	16.21 1.51
	42 1.07	1.26 0.12	2.27 0.21	3.28 0.30	4.29 0.40	5.30 0.49	6.31 0.59	7.32 0.68	8.33 0.77	9.34 0.87	10.35 0.96	11.36 1.06	12.37 1.15	13.38 1.24	14.39 1.34	15.39 1.43	16.40 1.52	17.41 1.62	18.42 1.71	19.43 1.81
	48 1.22	1.47 0.14	2.65 0.25	3.83 0.36	5.00 0.46	6.18 0.57	7.36 0.68	8.53 0.79	9.71 0.90	10.89 1.01	12.07 1.12	13.24 1.23	14.42 1.34	15.60 1.45	16.77 1.56	17.95 1.67	19.13 1.78	20.31 1.89	21.48 2.00	22.66 2.11
	54 1.37	1.68 0.16	3.03 0.28	4.37 0.41	5.72 0.53	7.06 0.66	8.41 0.78	9.75 0.91	11.09 1.03	12.44 1.16	13.78 1.28	15.13 1.41	16.47 1.53	17.82 1.66	19.16 1.78	20.51 1.91	21.85 2.03	23.20 2.16	24.54 2.28	25.89 2.40
	60 1.52	1.89 0.18	3.40 0.32	4.92 0.46	6.43 0.60	7.94 0.74	9.45 0.88	10.97 1.02	12.48 1.16	13.99 1.30	15.50 1.44	17.02 1.58	18.53 1.72	20.04 1.86	21.55 2.00	23.07 2.14	24.58 2.28	26.09 2.42	27.60 2.56	29.12 2.70
	66 1.68	2.10 0.20	3.78 0.35	5.46 0.51	7.14 0.66	8.82 0.82	10.50 0.98	12.18 1.13	13.86 1.29	15.54 1.44	17.22 1.60	18.90 1.76	20.58 1.91	22.26 2.07	23.94 2.22	25.62 2.38	27.30 2.54	28.98 2.69	30.66 2.85	32.34 3.00
	72 1.83	2.31 0.21	4.16 0.39	6.01 0.56	7.85 0.73	9.70 0.90	11.55 1.07	13.40 1.24	15.24 1.42	17.09 1.59	18.94 1.76	20.79 1.93	22.64 2.10	24.48 2.27	26.33 2.45	28.18 2.62	30.03 2.79	31.88 2.96	33.72 3.13	35.57 3.30
	78 1.98	2.52 0.23	4.53 0.42	6.55 0.61	8.57 0.80	10.58 0.98	12.60 1.17	14.61 1.36	16.63 1.54	18.64 1.73	20.66 1.92	22.67 2.11								
	84 2.13	2.73 0.25	4.91 0.46	7.10 0.66	9.28 0.86	11.46 1.06	13.64 1.27	15.83 1.47	18.01 1.67	20.19 1.88	22.38 2.08	24.56 2.28								
	90 2.29	2.94 0.27	5.29 0.49	7.64 0.71	9.99 0.93	12.34 1.15	14.69 1.36	17.04 1.58	19.39 1.80	21.75 2.02	24.10 2.24	26.45 2.46								
	96 2.44	3.15 0.29	5.67 0.53	8.19 0.76	10.70 0.99	13.22 1.23	15.74 1.46	18.26 1.70	20.78 1.93	23.30 2.16	25.81 2.40	28.33 2.63								
	102 2.59	3.36 0.31	6.04 0.56	8.73 0.81	11.42 1.06	14.10 1.31	16.79 1.56	19.47 1.81	22.16 2.06	24.85 2.31	27.53 2.56	30.22 2.81								
	108 2.74	3.57 0.33	6.42 0.60	9.27 0.86	12.13 1.13	14.98 1.39	17.84 1.66	20.69 1.92	23.54 2.19	26.40 2.45	29.25 2.72	32.11 2.98								
	114 2.90	3.78 0.35	6.80 0.63	9.82 0.91	12.84 1.19	15.86 1.47	18.88 1.75	21.91 2.04	24.93 2.32	27.95 2.60	30.97 2.88	33.99 3.16								
	120 3.05	3.99 0.37	7.18 0.67	10.36 0.96	13.55 1.26	16.74 1.56	19.93 1.85	23.12 2.15	26.31 2.44	29.50 2.74	32.69 3.04	35.88 3.33								



SCHEDULE TYPE:	Page 2 of 3			
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	3 - 31 - 25	LOUVER	1 - 30 - 24	V-DEM-05



EXTRUDED ALUMINUM STATIONARY LOUVER
HIGH VELOCITY WIND-DRIVEN RAIN AND IMPACT RESISTANT
5" (127) DEEP • VERTICAL BLADE • PERFORMANCE DATA
MODEL: V-DEM-05

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

I N T A K E	Free Area %	53%
	Free Area sq. ft. (sq. m.)	8.53 (0.79)
	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	10,663 cfm (5032 l/s)
	Free Area Velocity	
	Pressure Drop @ 1250 fpm	.29 in. w.g. (72 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	195	279	396	497	588	701	781	891	984
Rate in fpm (m/s)	(0.00)	(0.56)	(0.99)	(1.42)	(2.01)	(2.52)	(2.99)	(3.56)	(3.97)	(4.53)	(5.00)
Free Area Ventilation	0	186	330	473	671	842	996	1187	1323	1509	1667
Rate in fpm (m/s)	(0.00)	(0.95)	(1.68)	(2.40)	(3.41)	(4.28)	(5.06)	(6.03)	(6.72)	(7.63)	(8.47)
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	301	400	485	590	687	787	883	987
Rate in fpm (m/s)	(0.00)	(0.45)	(1.01)	(1.53)	(2.03)	(2.46)	(3.00)	(3.49)	(4.00)	(4.49)	(5.01)
Free Area Ventilation	0	149	337	510	678	822	999	1164	1333	1496	1672
Rate in fpm (m/s)	(0.00)	(0.76)	(1.71)	(2.59)	(3.44)	(4.18)	(5.07)	(5.91)	(6.77)	(7.60)	(8.49)
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.)

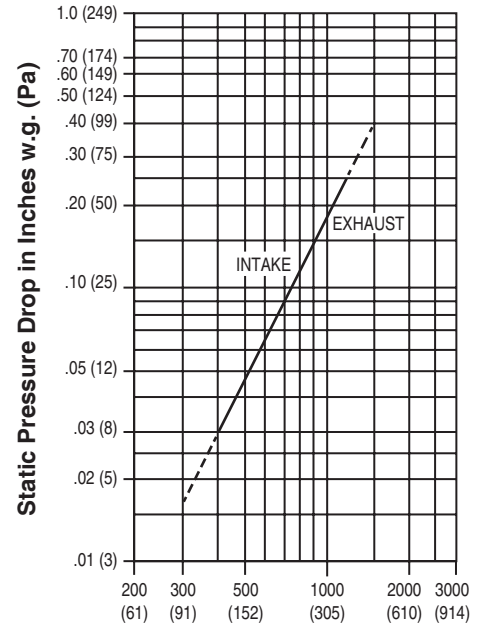


Safe-Air certifies that the Model V-DEM-05 shown herein is licensed to bear the AMCA Certified Ratings Program seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Program Seal applies to Air Performance, Water Penetration, and Wind-Driven Rain 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.



HIGH VELOCITY RAIN
RESISTANT WITH BLADES
FULLY OPEN AND
IMPACT RESISTANT LOUVER
Enhanced Protection Level E
See www.AMCA.org for all certified or listed products

This label does not signify
AMCA airflow performance
certification.

Safe-Air certifies that the V-DEM-05 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 Listing Label applies to Wind Borne Debris Impact Resistant louvers rated for "Enhanced Protection" and +/- 70PSF 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.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

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Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
3 - 31 - 25	LOUVER	1 - 30 - 24	V-DEM-05