

EME745

Wind-Driven Rain Resistant Stationary Louver Extruded Aluminum



APPLICATION

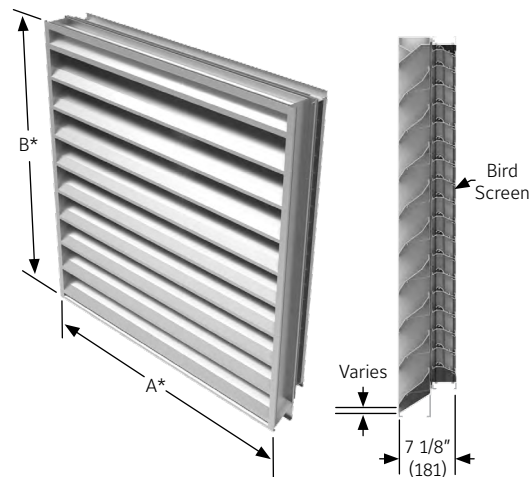
The EME745 is a 7" deep frame mechanically fastened, extruded aluminum stationary louver. This louver is designed with a drainable gutter system channeling water from downspouts in the jambs, where water is exhausted out of the front of the louver. The two component design allows for a continuous appearance while providing wind driven rain resistance under the most severe conditions.

STANDARD CONSTRUCTION

Frame	Double frame design produced from 6063T6 extruded aluminum with .081" (2.1) nominal wall thickness. Exterior frame depth is 4" (102) and interior frame depth is 3" (76). Overall combined frame depth is 7" (178) nominal.
Blades	Sight-proof double blade design produced from 6063T6 extruded aluminum with .081" (2.1) nominal wall thickness. Exterior blades are 4" (102) deep, positioned at 37 1/2° angle and spaced at approximately 4 3/4" (121) center to center. Interior blades are 3" deep (76) and positioned at approximately 2 3/8" (60) center to center.
Screen	5/8" x .040" (16 x 1) expanded, flattened aluminum bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth.
Extended Sill	.081" (2.1) formed aluminum with end dams. Not provided with front flange frame.
Finish	Mill.
Minimum Size	12"w x 12"h (305 x 305).
Approximate Shipping Weight	8 lbs. per sq. ft. (39 kg/m²).
Maximum Factory Assembly Size	Standard EME745—Shall be 37 1/2 sq. ft. (3.5m²) per section, not to exceed 90"w x 60"h (2286 x 1524) or 60"w x 90"h (1524 x 2286). Exterior 4" Deep Frame & Blade Only—shall be 75 sq. ft. (7m²) per section, not to exceed 120"w x 90"h (3048 x 2286) or 90"w x 120"h (2286 x 3048). Louvers larger than the maximum factory assembly size will require field assembly of smaller sections.
Supports	Louvers may be provided with rear mounted blade supports that increase overall louver depth depending on louver size, assembly configuration or windload.

FEATURES

- ▶ Two-piece horizontal blade design provides protection from wind-driven rain penetration, reducing damage and additional operating expenses.
- ▶ 4" (102) deep exterior blades are continuous style without visible mullions.
- ▶ May be ordered without interior blades and frames at areas that are inactive or do not need wind-driven rain protection.
- ▶ Tested in the AMCA 511 Wind-Driven Rain Penetration Test.
- ▶ 49% Free Area.
- ▶ Aluminum construction for low maintenance and high resistance to corrosion.



YEAR LIMITED
WARRANTY

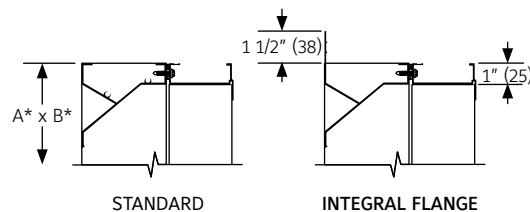
ISO9001
CERTIFIED

VARIATIONS

- ▶ Insulated or sheet blank-off panels.
- ▶ Front or rear security bars.
- ▶ Filter racks.
- ▶ Integral flange.
- ▶ Installation angles.
- ▶ A variety of bird and insect screens.
- ▶ Please provide rough opening dimensions for "A" and "B" dimensions. Unless ordered as actual size, the louver will be provided 1/2" (12) smaller than "A" and "B" dimensions provided.
- ▶ Selection of finishes: prime coat, 50% PVDF (modified fluoropolymer), epoxy, Pearledize, 70% PVDF, clear and color anodize. (Some variation in anodize color consistency is possible).

Consult Ruskin for other special requirements.

FRAME CONSTRUCTION



Note:

- Dimensions in inches, parenthesis () indicate millimeters.
- Units furnished 1/4" (6) smaller than given opening dimensions.

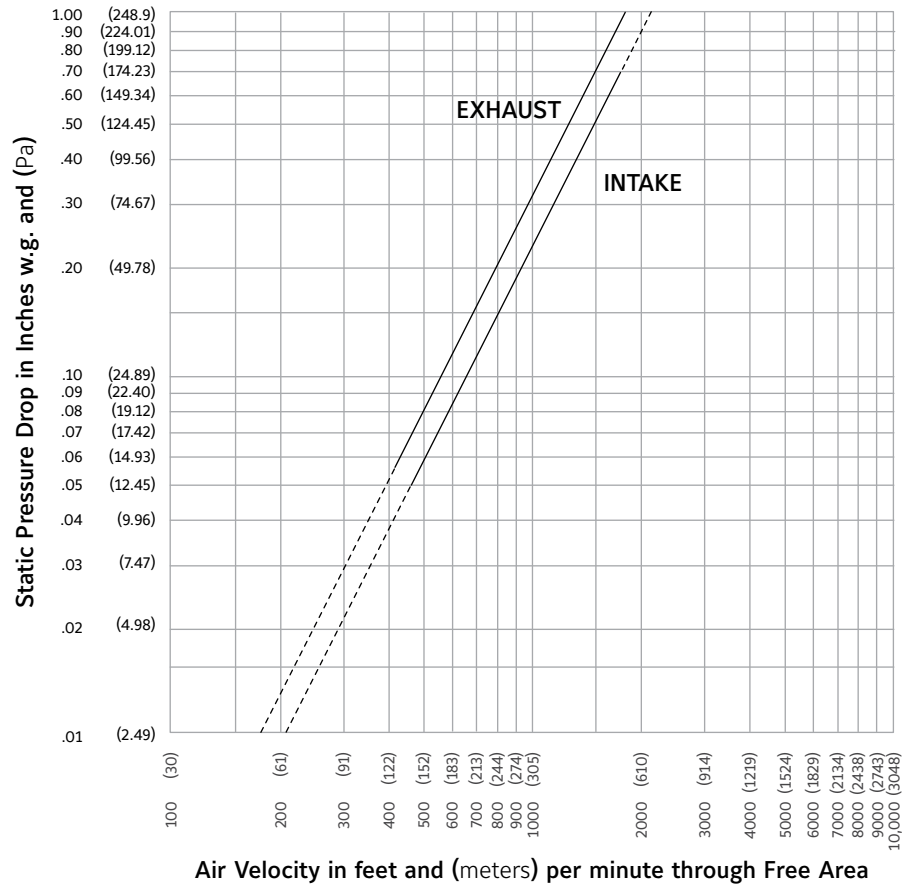
FREE AREA GUIDE

Free Area Guide shows free area in ft² and m² for various sizes of EME745.

Width – Inches and Meters

	HEIGHT	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
		0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	3.00
Height – Inches and Meters	12	0.25	0.44	0.63	0.82	1.01	1.20	1.39	1.58	1.77	1.96	2.15	2.34	2.53	2.71	2.90	3.09	3.28	3.47	3.66
	0.30	0.02	0.04	0.06	0.08	0.09	0.11	0.13	0.15	0.16	0.18	0.20	0.22	0.23	0.25	0.27	0.29	0.31	0.32	0.34
	18	0.42	0.74	1.05	1.37	1.68	2.00	2.31	2.63	2.95	3.26	3.58	3.89	4.21	4.52	4.82	5.16	5.47	5.79	6.10
	0.45	0.04	0.07	0.10	0.13	0.16	0.19	0.22	0.24	0.27	0.30	0.33	0.36	0.39	0.42	0.45	0.48	0.51	0.54	0.57
	24	0.67	1.18	1.68	2.19	2.69	3.20	3.70	4.21	4.71	5.22	5.72	6.23	6.73	7.24	7.74	8.25	8.75	9.26	9.76
	0.60	0.06	0.11	0.16	0.20	0.25	0.30	0.34	0.39	0.44	0.49	0.53	0.58	0.63	0.67	0.72	0.77	0.81	0.86	0.91
	30	0.84	1.47	2.10	2.74	3.37	4.00	4.63	5.26	5.89	6.52	7.15	7.79	8.42	9.05	9.68	10.31	10.94	11.57	12.20
	0.75	0.08	0.14	0.20	0.25	0.31	0.37	0.43	0.49	0.55	0.61	0.67	0.72	0.78	0.84	0.90	0.96	1.02	1.08	1.13
	36	1.01	1.77	2.53	3.28	4.04	4.80	5.56	6.31	7.07	7.83	8.59	9.34	10.10	10.86	11.62	12.37	13.13	13.89	14.65
	0.90	0.09	0.16	0.23	0.31	0.38	0.45	0.52	0.59	0.66	0.73	0.80	0.87	0.94	1.01	1.08	1.15	1.22	1.29	1.36
	42	1.26	2.21	3.16	4.10	5.05	6.00	6.94	7.89	8.84	9.78	10.73	11.68	12.63	13.57	14.52	15.47	16.41	17.36	18.31
	1.05	0.12	0.21	0.29	0.38	0.47	0.56	0.65	0.73	0.82	0.91	1.00	1.09	1.17	1.26	1.35	1.44	1.53	1.61	1.70
	48	1.43	2.50	3.58	4.65	5.72	6.80	7.87	8.94	10.02	11.09	12.16	13.24	14.31	15.38	16.45	17.53	18.60	19.67	20.75
	1.20	0.31	0.23	0.33	0.43	0.53	0.63	0.73	0.83	0.93	1.03	1.13	1.23	1.33	1.43	1.53	1.63	1.73	1.83	1.93
	54	1.68	2.95	4.21	5.47	6.73	8.00	9.26	10.52	11.78	13.05	14.31	15.57	16.83	18.10	19.36	20.62	21.88	23.15	24.41
	1.35	0.16	0.27	0.39	0.51	0.63	0.74	0.86	0.98	1.10	1.21	1.33	1.45	1.57	1.68	1.80	1.92	2.04	2.15	2.27
	60	1.85	3.24	4.63	6.02	7.41	8.80	10.18	11.57	12.96	14.35	15.74	17.13	18.52	19.91	21.29	22.68	24.07	25.46	26.85
	1.50	0.17	0.30	0.43	0.56	0.69	0.82	0.95	1.08	1.21	1.33	1.46	1.59	1.72	1.85	1.98	2.11	2.24	2.37	2.50
	66	2.02	3.54	5.05	6.57	8.08	9.60	11.11	12.63	14.14	15.66	17.17	18.69	20.20	21.72	23.23	24.75	26.26	27.78	29.29
	1.65	0.19	0.33	0.47	0.61	0.75	0.89	1.03	1.17	1.32	1.46	1.60	1.74	1.88	2.02	2.16	2.30	2.44	2.58	2.72
	72	2.27	3.98	5.68	7.39	9.09	10.79	12.50	14.20	15.91	17.61	19.32	21.02	22.73	24.41	26.13	27.84	29.54	31.25	32.95
	1.80	0.21	0.37	0.53	0.69	0.85	1.00	1.16	1.32	1.48	1.64	1.80	1.95	2.11	2.27	2.43	2.59	2.75	2.91	3.06
	78	2.44	4.27	6.10	7.93	9.76	11.59	13.42	15.26	17.09	18.92	20.75	22.58	24.41	26.24	28.07	29.90	31.73	33.56	35.39
	1.95	0.23	0.40	0.57	0.74	0.91	1.08	1.25	1.42	1.59	1.76	1.93	2.10	2.27	2.44	2.61	2.78	2.93	3.12	3.29
	84	2.61	4.57	6.52	8.48	10.44	12.39	14.35	16.31	18.26	20.22	22.18	24.13	26.09	28.05	30.01	31.96	33.92	35.88	37.83
	2.10	0.24	0.42	0.61	0.79	0.97	1.15	1.33	1.52	1.70	1.88	2.06	2.24	2.43	2.61	2.79	2.97	3.15	3.34	3.52
	90	2.86	5.01	7.15	9.30	11.45	13.59	15.74	17.89	20.03	22.18	24.32	26.47	28.62	30.76	32.91	35.06	37.20	39.35	41.49
	2.25	0.27	0.47	0.67	0.86	1.06	1.26	1.46	1.66	1.86	2.06	2.26	2.46	2.66	2.86	3.06	3.26	3.46	3.66	3.86
	96	3.03	5.30	7.58	9.85	12.12	14.39	16.67	18.94	21.21	23.48	25.76	28.03	30.30	32.57	34.85	37.12	39.39	41.66	43.94
	2.40	0.28	0.49	0.70	0.92	1.13	1.34	1.55	1.76	1.97	2.18	2.40	2.61	2.82	3.03	3.24	3.45	3.66	3.87	4.09
	102	3.02	5.60	8.00	10.39	12.79	15.19	17.59	19.99	22.39	24.79	27.19	29.58	31.98	34.38	36.78	39.18	41.58	43.98	46.38
	2.55	0.30	0.52	0.74	0.97	1.19	1.41	1.64	1.86	2.08	2.31	2.53	2.75	2.97	3.20	3.42	3.64	3.87	4.09	4.31
	108	3.45	6.04	8.63	11.22	13.80	16.39	18.98	21.57	24.16	26.74	29.33	31.92	34.51	37.10	39.68	42.27	44.86	47.45	50.04
	2.70	0.32	0.56	0.80	1.04	1.28	1.52	1.77	2.01	2.25	2.49	2.73	2.97	3.21	3.45	3.69	3.93	4.17	4.41	4.65
	114	3.62	6.33	9.05	11.76	14.48	17.19	19.91	22.62	25.33	28.05	30.76	33.48	36.19	38.91	41.62	44.33	47.05	49.76	52.48
	2.85	0.34	0.59	0.84	1.09	1.35	1.60	1.85	2.10	2.36	2.61	2.86	3.11	3.37	3.62	3.87	4.12	4.38	4.63	4.88
	120	3.87	6.78	9.68	12.58	15.49	18.39	21.29	24.20	27.10	30.01	32.91	35.81	38.72	41.62	44.52	47.43	50.33	53.24	56.14
	3.00	0.36	0.63	0.90	1.17	1.44	1.71	1.98	2.25	2.52	2.79	3.06	3.33	3.60	3.87	4.14	4.41	4.68	4.95	5.22

PRESSURE DROP



Ratings do not include the effect of a bird screen.

WIND-DRIVEN RAIN PERFORMANCE – AMCA 500-L WIND-DRIVEN RAIN TEST

Test size is: 45 7/8" x 43 1/4" (1.16m x 1.10m) core area, 48" x 48" (1.22 x 1.22) nominal. Free Area of test louver is 7.87 ft.² (.73m²).

Wind Velocity mph (kph)	Rainfall Rate in./hr. (mm/hr.)	Core Velocity fpm (m/sec)	Airflow cfm (m ³ /min)	Free Area Velocity ₂ fpm (m/sec)	Effectiveness Ratio	Class ₃	Discharge Loss Class ₄ Intake
29 (46.4)	3 (76)	0	0	0	99.4%	A	2
29 (46.4)	3 (76)	102 (.5)	1406 (40)	179 (.9)	99.3%	A	2
29 (46.4)	3 (76)	205 (1)	2825 (80)	360 (1.8)	98.5%	B	2
29 (46.4)	3 (76)	294 (1.5)	4051 (115)	517 (2.6)	98.2%	B	2
29 (46.4)	3 (76)	394 (2)	5429 (154)	693 (3.5)	98.0%	B	2
29 (46.4)	3 (76)	497 (2.5)	6849 (194)	874 (4.4)	96.2%	B	2
29 (46.4)	3 (76)	593 (3)	8172 (231)	1042 (5.3)	86.3%	C	2
29 (46.4)	3 (76)	665 (3.5)	9164 (260)	1169 (5.9)	74.3%	D	2

NOTE:

1. Core area is the open area of the louver face (face area less louver frames). Core Velocity is the airflow velocity through the Core Area of the louver (1m x 1m).

2. Free Area of test size is calculated per AMCA standard 500-L.

3. Wind Driven Rain Penetration Classes:

Class	Effectiveness
A	1 to .99
B	0.989 to 0.95
C	0.949 to 0.80
D	Below 0.8

4. Discharge Loss Coefficient is calculated by dividing a louver's actual airflow rate vs. a theoretical airflow for the opening. It provides an indication of the louver's airflow characteristics.

Discharge Loss Classes:

Class	Discharge Loss Coefficient
1	0.4 and above
2	0.3 to 0.399
3	0.2 to 0.299
4	0.199 and below

(The higher the coefficient, the less resistance to airflow.)



Ruskin Company certifies that the louver 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. The AMCA Certified Ratings Seal applies to air performance ratings and wind-driven rain ratings only.

SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall possess stationary horizontal blades designed to prevent the penetration of wind-driven rain. Louver blades shall be contained within a 7" (178) frame. Extended sill shall be provided to capture and drain water to exterior of building. Louver components (heads, jambs, sill and blades) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections to provide overall sizes required. Louver design shall have continuous blades without visible mullions and shall withstand a wind load of 30 lbs. per sq. ft. (1.44 kPa) (equivalent of a 110 mph wind [177 kph] – specifier may substitute any loading required).

Louvers shall be Ruskin Model EME745 extruded 6063T6 aluminum alloy construction as follows:

Frame: .081" (2.1) wall thickness, caulking surfaces provided.

Blades: .081" (2.1) wall thickness, exterior 4" deep blades positioned at 37 1/2° and spaced at approximately 4 3/4" (121) c-c. Interior blades are 3" deep (76) and positioned at approximately 2 3/8" (60) centers.

Extended Sill: .081" (2.1) wall thickness, with upturned side panels to prevent water leakage.

Screen: 5/8" x .040" (16 x 1) expanded, flattened aluminum bird screen in removable frame.

Finish: Select finish specification from Ruskin Finishes Brochure.

Published louver performance data bearing the AMCA Certified Ratings Seal for Air Performance & Water Penetration must be submitted for approval prior to fabrication and must demonstrate pressure drop and water penetration equal to or less than the Ruskin model specified.

LINKS TO IMPORTANT DOCUMENTS

Document Title
Paint Finishes and Color Guide
Limited Warranty Document



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