

EME220DD WIND-DRIVEN RAIN RESISTANT STATIONARY LOUVER EXTRUDED ALUMINUM

STANDARD CONSTRUCTION

FRAME

2" (51) deep, 6063T6 extruded aluminum with .060" (1.5) nominal wall thickness.

BLADES

6063T6 extruded aluminum .045" (1.1) nominal wall thickness. Double drainable blades are sightproof.

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.

FINISH

Mill.

MINIMUM SIZE

6"w x 6"h (152 x 152).

APPROXIMATE SHIPPING WEIGHT

4 lbs. per sq. ft. (19.4 kg/m²)

MAXIMUM FACTORY ASSEMBLY SIZE

Single sections shall not exceed 120" x 90"h (3048 x 2286) or 90"w x 120"h (2286 x 3048).

Louvers larger than the maximum single section size will require field assembly of smaller sections.

SUPPORTS

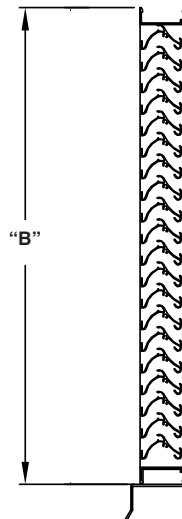
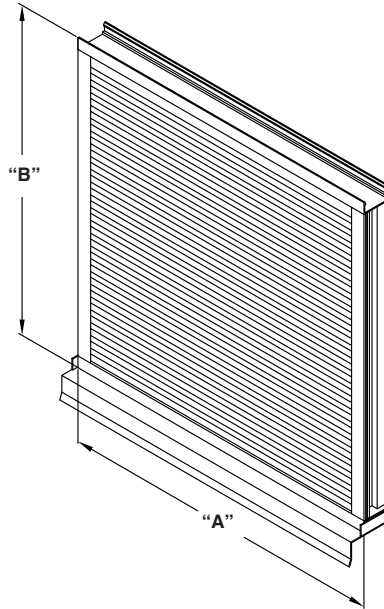
Louvers may be provided with rear mounted blade supports that increase overall louver depth depending on louver size, assembly configuration or windload.

Consult Ruskin for additional information.

Please reference our website
www.ruskin.com for up to date
LEED® information

NOTES:

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



FEATURES

- Closely spaced horizontal blades minimize the penetration of wind-driven rain, reducing damage and additional operating expenses.
- Tested in the AMCA 500-L Wind-Driven Rain Penetration Test.
- Published performance ratings based on testing in accordance with AMCA Publication 511.
- 43% Free Area.
- Excellent pressure drop performance.
- Aluminum construction for low maintenance and high resistance to corrosion.

VARIATIONS

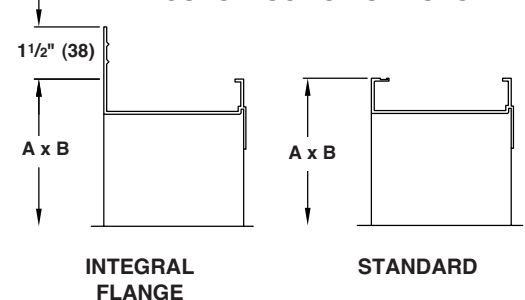
- Extended sill.
- Hinged frame.
- Front or rear security bars.
- Filter racks.
- Installation angles.
- A variety of bird and insect screens.

Finishes:

- Prime coat.
- Baked enamel (modified fluoropolymer).
- Epoxy
- Pearledize 50 & 70.
- Kynar.
- Clear and color anodize.
- Triangular and round shapes available.

Consult Ruskin for other special requirements.

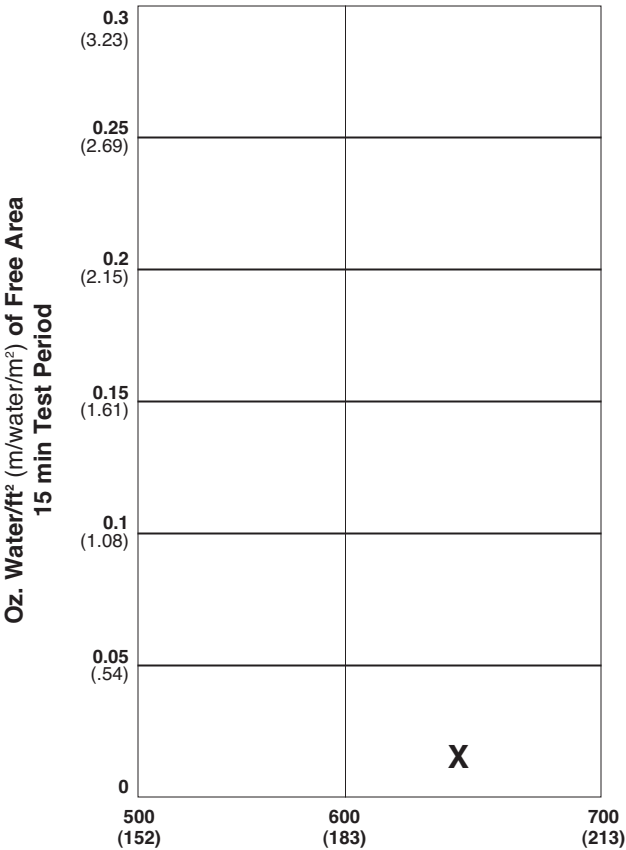
FRAME CONSTRUCTION OPTIONS



TAG	QTY.	SIZE		FRAME	VARIATIONS
		A*-WIDE	B*-HIGH		
PROJECT ARCH./ENGR. REPRESENTATIVE			LOCATION CONTRACTOR DATE		

WATER PENETRATION GRAPH

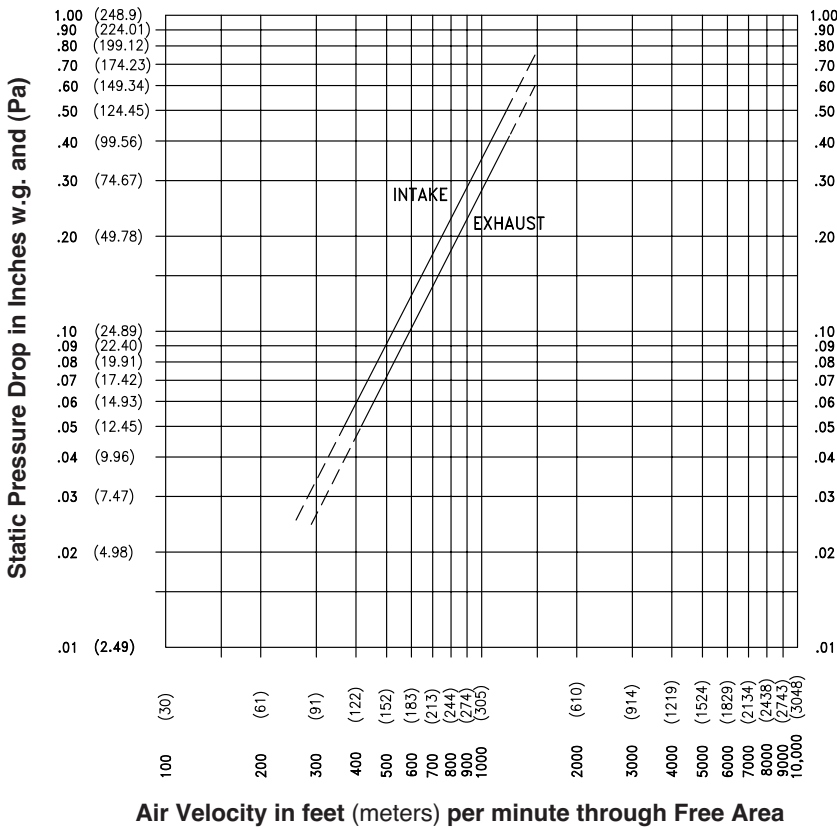
Test size 48" x 48" (1219 x 1219)
Beginning point of water penetration at .01 oz./sq. ft. is 680 fpm (208 m/min.)



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, water penetration ratings and wind driven rain ratings only.

PRESSURE DROP

Pressure Drop testing performed on 48" x 48" (1219 x 1219) unit.



Ratings do not include the effect of a bird screen.

FREE AREA GUIDE

Free Area Guide shows free area in ft² and m² for various sizes of EME220DD. Width – Inches and Meters

	6		12		18		24		30		36		42		48		54		60		66		72		78		84		90		96		102		108		114		120						
	0.15	0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52	1.68	1.83	1.98	2.13	2.29	2.44	2.59	2.74	2.90	3.05	3.21	3.36	3.52	3.67	3.83	3.98	4.14	4.29	4.45	4.60	4.76	4.91	5.07	5.22	5.38	5.53	5.69	5.84	6.00						
6	0.04	0.11	0.18	0.25	0.32	0.39	0.46	0.53	0.60	0.67	0.74	0.82	0.89	0.96	1.03	1.10	1.17	1.24	1.31	1.38	1.45	1.52	1.59	1.66	1.73	1.80	1.87	1.94	2.01	2.08	2.15	2.22	2.29	2.36	2.43	2.50	2.57	2.64	2.71	2.78	2.85	2.92	2.99		
12	0.10	0.28	0.46	0.64	0.82	1.00	1.18	1.36	1.54	1.72	1.90	2.08	2.26	2.44	2.62	2.80	2.98	3.16	3.34	3.52	3.70	3.88	4.06	4.24	4.42	4.60	4.78	4.96	5.14	5.32	5.50	5.68	5.86	6.04	6.22	6.40	6.58	6.76	6.94	7.12	7.30	7.48	7.66	7.84	
18	0.17	0.48	0.78	1.09	1.40	1.71	2.01	2.32	2.63	2.94	3.24	3.55	3.86	4.17	4.47	4.78	5.09	5.40	5.70	6.01	6.31	6.62	6.92	7.23	7.53	7.84	8.14	8.45	8.75	9.06	9.36	9.67	9.97	10.28	10.58	10.88	11.19	11.49	11.79	12.09	12.39	12.69	12.99		
24	0.24	0.67	1.11	1.54	1.98	2.41	2.85	3.28	3.72	4.15	4.59	5.02	5.45	5.89	6.32	6.76	7.19	7.63	8.06	8.50	8.93	9.37	9.80	10.24	10.67	11.11	11.54	11.98	12.41	12.85	13.28	13.72	14.15	14.59	15.02	15.45	15.89	16.32	16.76	17.19	17.63	18.06	18.50		
30	0.30	0.84	1.39	1.93	2.48	3.02	3.56	4.11	4.65	5.20	5.74	6.29	6.83	7.37	7.92	8.46	9.01	9.55	10.10	10.64	11.18	11.72	12.26	12.80	13.34	13.88	14.42	14.96	15.50	16.04	16.58	17.12	17.66	18.20	18.74	19.28	19.82	20.36	20.90	21.44	21.98	22.52	23.06	23.60	
36	0.37	1.04	1.71	2.38	3.05	3.73	4.40	5.07	5.74	6.41	7.08	7.76	8.43	9.10	9.77	10.44	11.11	11.78	12.46	13.13	13.80	14.47	15.14	15.81	16.48	17.15	17.82	18.49	19.16	19.83	20.50	21.17	21.84	22.51	23.18	23.85	24.52	25.19	25.86	26.53	27.20	27.87	28.54	29.21	
42	0.43	1.21	1.99	2.77	3.55	4.33	5.12	5.90	6.68	7.46	8.24	9.02	9.80	10.58	11.37	12.15	12.93	13.71	14.49	15.27	16.05	16.83	17.61	18.39	19.17	19.95	20.73	21.51	22.29	23.07	23.85	24.63	25.41	26.19	26.97	27.75	28.53	29.31	30.09	30.87	31.65	32.43	33.21	33.99	
48	0.50	1.41	2.31	3.22	4.13	5.04	5.95	6.86	7.77	8.67	9.58	10.49	11.40	12.31	13.22	14.12	15.03	15.94	16.85	17.76	18.67	19.58	20.49	21.40	22.31	23.22	24.13	25.04	25.95	26.86	27.77	28.68	29.59	30.50	31.41	32.32	33.23	34.14	35.05	35.96	36.87	37.78	38.69	39.60	
54	0.57	1.60	2.64	3.67	4.71	5.75	6.78	7.82	8.85	9.89	10.92	11.96	13.00	14.03	15.07	16.10	17.14	18.17	19.21	20.24	21.28	22.31	23.35	24.38	25.42	26.45	27.49	28.52	29.56	30.59	31.63	32.66	33.70	34.73	35.77	36.80	37.84	38.87	39.91	40.94	41.98	43.01	44.05	45.08	
60	0.63	1.77	2.92	4.06	5.21	6.35	7.50	8.65	9.79	10.94	12.08	13.23	14.37	15.52	16.66	17.81	18.95	20.10	21.24	22.39	23.53	24.67	25.81	26.95	28.09	29.23	30.37	31.51	32.65	33.79	34.93	36.07	37.21	38.35	39.49	40.63	41.77	42.91	44.05	45.19	46.33	47.47	48.61	49.75	
66	0.70	1.97	3.24	4.52	5.79	7.06	8.33	9.61	10.88	12.15	13.42	14.70	15.97	17.24	18.51	19.79	21.06	22.33	23.60	24.88	26.15	27.42	28.69	29.96	31.23	32.50	33.77	35.04	36.31	37.58	38.85	40.12	41.39	42.66	43.93	45.20	46.47	47.74	49.01	50.28	51.55	52.82	54.09	55.36	
72	0.76	2.14	3.52	4.90	6.29	7.67	9.05	10.43	11.82	13.20	14.58	15.96	17.34	18.73	20.11	21.49	22.87	24.25	25.64	27.02	28.40	29.78	31.16	32.54	33.92	35.30	36.68	38.06	39.44	40.82	42.20	43.58	44.96	46.34	47.72	49.10	50.48	51.86	53.24	54.62	56.00	57.38	58.76	60.14	
78	0.83	2.34	3.85	5.36	6.87	8.37	9.88	11.39	12.90	14.41	15.92	17.43	18.94	20.45	21.96	23.47	24.98	26.49	28.00	29.51	31.02	32.53	34.04	35.55	37.06	38.57	40.08	41.59	43.10	44.61	46.12	47.63	49.14	50.65	52.16	53.67	55.18	56.69	58.20	59.71	61.22	62.73	64.24	65.75	
84	0.90	2.53	4.17	5.81	7.44	9.08	10.72	12.35	13.99	15.63	17.26	18.90	20.54	22.17	23.81	25.45	27.08	28.72	30.36	31.99	33.63	35.26	36.89	38.52	40.15	41.78	43.41	45.04	46.67	48.30	49.93	51.56	53.19	54.82	56.45	58.08	59.71	61.34	62.97	64.60	66.23	67.86	69.49	71.12	
90	0.96	2.70	4.45	6.20	7.94	9.69	11.44	13.18	14.93	16.67	18.42	20.17	21.91	23.66	25.41	27.15	28.90	30.64	32.39	34.14	35.88	37.63	39.37	41.12	42.86	44.61	46.35	48.09	49.84	51.58	53.32	55.06	56.80	58.54	60.28	62.02	63.76	65.50	67.24	68.98	70.72	72.46	74.20	75.94	
96	1.03	2.90	4.77	6.65	8.52	10.39	12.27	14.14	16.01	17.89	19.76	21.64	23.51	25.38	27.26	29.13	31.00	32.88	34.75	36.62	38.49	40.36	42.23	44.10	45.97	47.84	49.71	51.58	53.45	55.32	57.19	59.06	60.93	62.80	64.67	66.54	68.41	70.28	72.15	74.02	75.89	77.76	79.63	81.50	
102	1.10	3.12	5.00	6.98	8.96	10.94	12.92	14.90	16.88	18.86	20.84	22.82	24.80	26.78	28.76	30.74	32.72	34.70	36.68	38.66	40.64	42.62	44.60	46.58	48.56	50.54	52.52	54.50	56.48	58.46	60.44	62.42	64.40	66.38	68.36	70.34	72.32	74.30	76.28	78.26	80.24	82.22	84.20	86.18	
108	1.16	3.27	5.38	7.49	9.60	11.71	13.82	15.93	18.04	20.15	22.26	24.37	26.48	28.59	30.70	32.81	34.92	37.03	39.14	41.25	43.36	45.47	47.58	49.69	51.80	53.91	56.02	58.13	60.24	62.35	64.46	66.57	68.68	70.79	72.90	75.01	77.12	79.23	81.34	83.45	85.56	87.67	89.78	91.89	
114	1.23	3.46	5.70	7.94	10.18	12.41	14.65	16.89	19.13	21.36	23.60	25.84	28.08	30.32	32.55	34.79	37.03	39.27	41.51	43.75	45.99	48.23	50.47	52.71	54.95	57.19	59.43	61.67	63.91	66.15	68.39	70.63	72.87	75.11	77.35	79.59	81.83	84.07	86.31	88.55	90.79	93.03	95.27	97.51	99.75
120	1.29	3.63	5.98	8.33	10.68	13.02	15.37	17.72	20.06	22.41	24.76	27.11	29.45	31.80	34.15	36.50	38.84	41.19	43.54	45.88	48.23	50.57	52.92	55.26	57.61	59.95	62.30	64.64	66.99	69.33	71.68	74.02	76.36	78.71	81.05	83.39	85.74	88.08	90.43	92.77	95.12	97.46	99.81	102.15	104.50

WIND-DRIVEN RAIN PERFORMANCE

Test size is 1m x 1m (39" x 39") core area, 1.05m x 1.04m (41.25" x 40.875") nominal. Free Area of test louver is 4.97 ft² (.46m²).

29 mph (75 mm/h) wind & 3" (76) per hour rain conditions

Core Velocity ₁ fpm (m/s)	Airflow cfm (m ³ /min)	Free Area Velocity ₂ fpm (m/sec.)	Effectiveness Ratio	Class
0 (0.0)	0 (0.0)	0 (0.0)	100.0	A
98 (0.5)	1055 (29.9)	212 (1.1)	100.0	A
197 (1.0)	2118 (60.0)	426 (2.2)	100.0	A
279 (1.5)	3000 (85.0)	604 (3.1)	99.0	A
397 (2.0)	4277 (121.1)	861 (4.4)	97.5	B
498 (2.5)	5363 (151.9)	1079 (5.5)	93.8	C
588 (3.0)	6330 (179.2)	1274 (6.5)	90.6	C
700 (3.5)	7538 (213.5)	1517 (7.7)	83.8	C

50 mph (202 mm/h) wind & 8" (203) per hour rain conditions

Core Velocity ₁ fpm (m/s)	Airflow cfm (m ³ /min)	Free Area Velocity ₂ fpm (m/sec.)	Effectiveness Ratio	Class
0 (0.0)	0 (0.0)	0 (0.0)	98.8	B
88 (0.5)	924 (26.2)	186 (0.9)	98.4	B
199 (1.0)	2152 (60.9)	433 (2.2)	97.3	B
301 (1.5)	3176 (89.9)	639 (3.2)	96.2	B
400 (2.0)	4409 (124.8)	887 (4.5)	95.7	B
485 (2.5)	5186 (146.9)	1043 (5.3)	95.0	B
590 (3.0)	6324 (179.1)	1272 (6.5)	94.0	C
687 (3.5)	7349 (208.1)	1479 (7.5)	91.3	C

NOTES

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

- Intake Discharge Loss

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

Discharge Loss Classes:

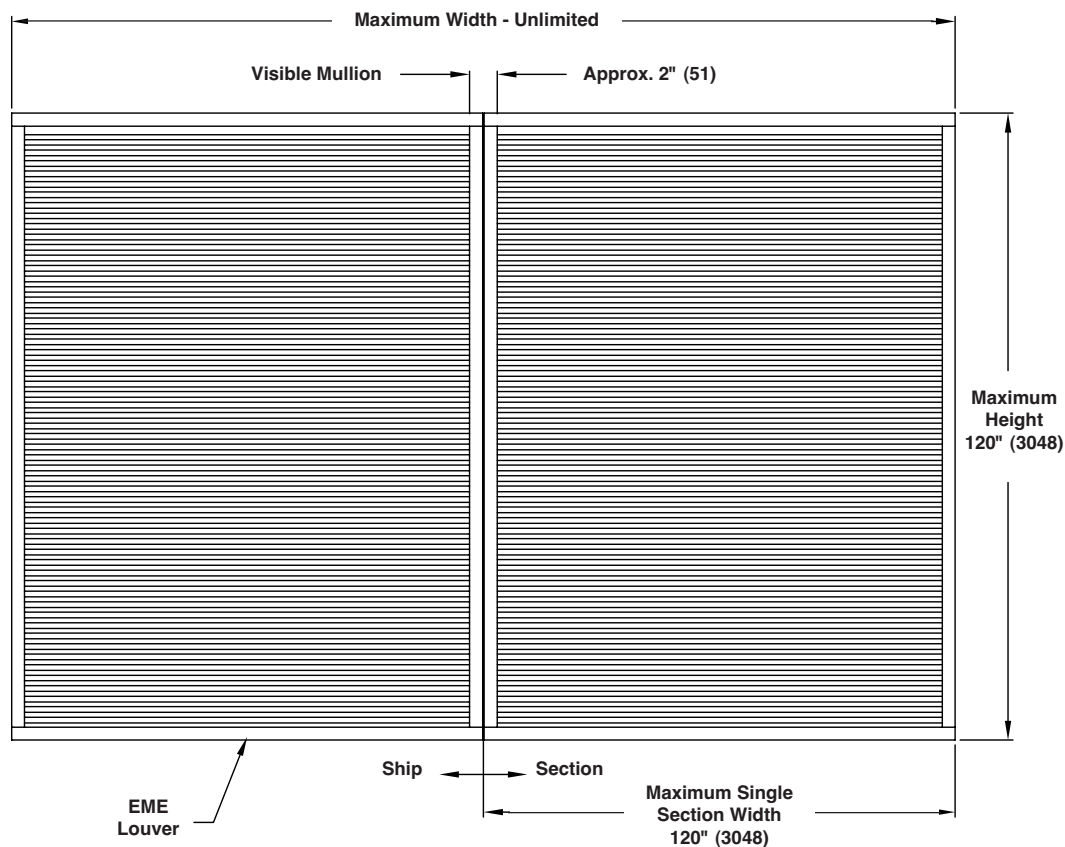
Class Discharge Loss Coefficient

- 0.4 and above
- 0.3 to 0.399
- 0.2 to 0.299
- 0.199 and below

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

- The AMCA Wind Driven Rain Test is performed in a laboratory environment and incorporates controlled wind, water and system airflow effects. In actual field installations, storms may create conditions not considered by the AMCA test. Penthouse and similar applications where wind can pass through multiple louvers in an enclosure is another condition that is not simulated by AMCA tests. These applications can create elevated water penetration rates through any louver. Because of these uncontrolled situations, it is recommended that provisions to manage water penetration through louvers be included in the building design.

EME220DD CONSTRUCTION INFORMATION



1. Reference separate Installation Instruction sheets for installation details. It is the responsibility of the installing contractor to properly install the louvers per the appropriate detail.
2. Louvers wider than the maximum single section width will be shipped in multiple sections and will require field assembly. Field assembly is not by Ruskin.

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