

RUSKIN®

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Kansas City, MO 64030

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EME420MD WIND-DRIVEN RAIN RESISTANT STATIONARY LOUVER
MIAMI-DADE APPROVED
MIAMI-DADE COUNTY, FLORIDA NOTICE OF ACCEPTANCE NUMBER: 12-0907.03 (2/14/18)
FLORIDA PRODUCT APPROVAL #FL 16090.1

STANDARD CONSTRUCTION

FRAME

4" (102) deep, 6063T6 extruded aluminum with .081" (2.1) nominal wall thickness. Downspouts provided in jamb frames.

BLADES

6063T6 extruded aluminum .063" (1.6) nominal wall thickness. Double drainable blades are sightproof.

SCREEN

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

FINISH

Mill.

MINIMUM SIZE

12"w x 12"h (305 x 305).

APPROXIMATE SHIPPING WEIGHT

10 lbs. per sq. ft. (49 kg/m²)

MAXIMUM FACTORY ASSEMBLY SIZE

Single section: 105"w x 144"h (2667 x 3658) or 130"w x 112"h (3302 x 2845) actual size.

Field Assembly: Unlimited width x 144"h (3658). Multiple section louvers will be shipped in single sections and must be joined together in the field by the installer. Section joint splice hardware is provided. **Sections may not be stacked in height.** Openings taller than the maximum louver height will need to be divided into multiple openings with suitable structural members. Structural members are not designed or provided by Ruskin.

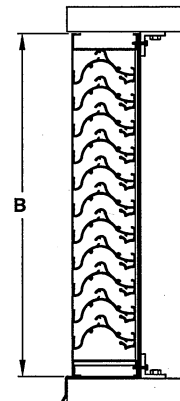
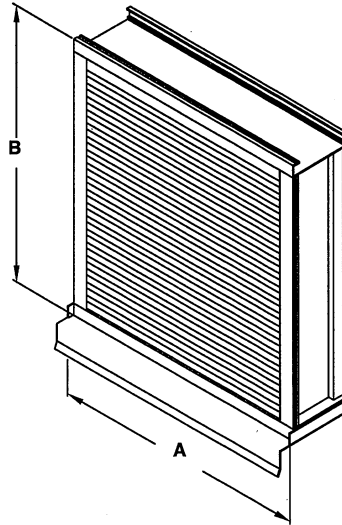
INSTALLATION

The EME420MD must be installed per the appropriate Installation Detail. Reference the appropriate separate Installation Instruction Sheet.

Consult Ruskin for additional information.

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

Dimensions in inches, parenthesis () indicate millimeters.



FEATURES

- Box Frame construction for use in cast-in-place concrete, grout filled CMU, Wood and steel installations.
- Maximum windload ±120 PSF (5.75 kPa).
- * Closely spaced horizontal blades minimize the penetration of wind-driven rain, reducing damage and additional operating expenses.
- 40% Free Area.
- Published performance ratings based on testing in accordance with AMCA Publication 511.
- Excellent pressure drop performance.
- Aluminum construction for low maintenance and high resistance to corrosion.

VARIATIONS

- Front or rear security bars.
- Filter racks.
- A variety of bird and insect screens.
- Selection of finishes: prime coat, 50% PVDF (modified fluoropolymer), epoxy, Pearledize 50 & 70, 70% PVDF, clear and color anodize. (Some variation in anodize color consistency is possible).

Consult Ruskin for other special requirements. Please provide Rough Opening dimensions for A & B dimensions. Unless ordered as actual size, louver will be provided smaller than the "A" and "B" dimensions provided. Louvers will be undersized 1/4" (6) from the rough opening dimensions provided. Louvers ordered as Actual Size will not be undersized. Engineering drawings may show actual louver frame dimensions less sleeve thickness.

EME420DD meets the requirements for the following:

- Miami-Dade NOA Approval 12-0907.03
- * AMCA 550 with AMCA 550 Approved Damper
- Florida Product Approved
- AMCA 500-L Tested

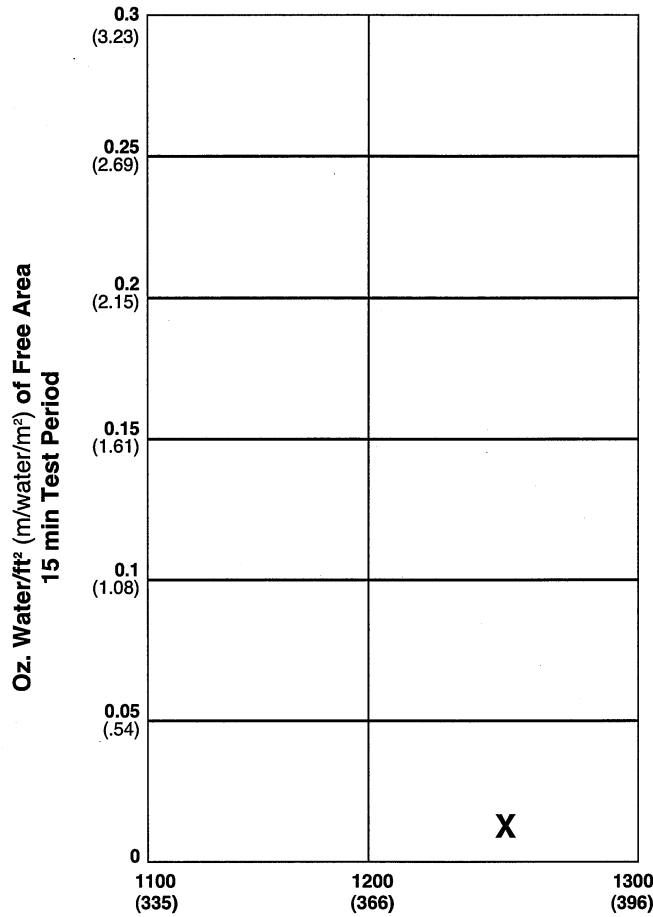
*Units furnished 1/4" (6) smaller than given opening dimensions.

TAG	QTY.	SIZE		FRAME	VARIATIONS
		A*-WIDE	B*-HIGH		

PROJECT	LOCATION
ARCH./ENGR.	CONTRACTOR
REPRESENTATIVE	DATE

WATER PENETRATION GRAPH

Test size 48" x 48" (1219 x 1219)
Beginning point of water penetration at .01 oz./sq. ft. is above 1250 fpm (381 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.

WIND-DRIVEN RAIN PERFORMANCE

Test size is 1m x 1m (39" x 39") core area, 1.04m x 1.12m (41" x 44") nominal. Free Area of test louver is 5.45 ft² (.51m²).

29 mph (13 m/s) wind & 3" (76) per hour rain conditions

Core Velocity ₁ fpm (m/s)	Airflow cfm (m³/min)	Free Area Velocity ₂ fpm (m/sec.)	Effectiveness Ratio	Class ₃
0 (0)	0 (0)	0 (0)	99.9%	A
0 (0)	0 (0)	0 (0)	99.9%	A
0 (0)	0 (0)	0 (0)	99.9%	A
283 (1.4)	3052 (86.4)	726 (221.3)	99.9%	A
376 (1.9)	4049 (114.7)	964 (293.8)	99.9%	A
464 (2.4)	4992 (141.4)	1190 (362.7)	99.1%	A
578 (2.9)	6224 (176.3)	1482 (451.9)	96.5%	B
681 (3.5)	7334 (207.7)	1746 (532.2)	93.2%	C

50 mph (22 m/s) wind & 8" (203) per hour rain conditions

Core Velocity ₁ fpm (m/s)	Airflow cfm (m³/min)	Free Area Velocity ₂ fpm (m/sec.)	Effectiveness Ratio	Class ₃
0 (0)	0 (0)	0 (0)	99.9%	A
101 (.5)	1084 (30.7)	259 (78.9)	99.8%	A
175 (.9)	1889 (53.5)	349 (136.9)	99.7%	A
296 (1.5)	3189 (90.3)	759 (231.3)	99.3%	A
390 (2.0)	4199 (118.9)	1000 (304.8)	98.3%	B
491 (2.5)	5289 (149.8)	1259 (383.7)	97.2%	B
567 (2.9)	6104 (172.9)	1454 (443.2)	96.0%	B
687 (3.5)	7392 (209.3)	1762 (537.1)	91.6%	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

- The EME420MD provides Class A performance at all velocities up to and including 3.5 m/s core velocity.

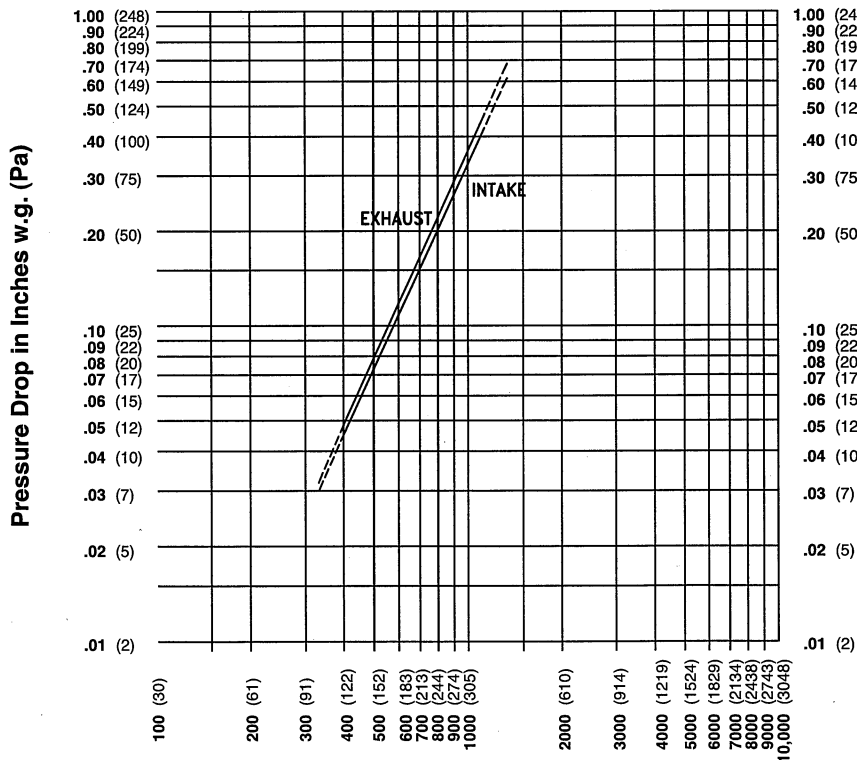
FREE AREA GUIDE

Free Area Guide shows free area in ft² and m² for various sizes of EME420MD.
Width – Inches and Meters

	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	130
12	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	3.20	3.30
0.30	0.22	0.41	0.61	0.80	0.99	1.19	1.38	1.57	1.77	1.96	2.16	2.35	2.54	2.74	2.93	3.13	3.32	3.51	3.71	3.73	3.86
18	0.02	0.04	0.06	0.07	0.09	0.11	0.13	0.15	0.16	0.18	0.20	0.22	0.24	0.25	0.27	0.29	0.31	0.33	0.34	0.35	0.36
0.46	0.34	0.64	0.95	1.25	1.55	1.86	2.16	2.46	2.77	3.07	3.37	3.68	3.98	4.28	4.59	4.89	5.19	5.50	5.80	5.84	6.04
24	0.03	0.06	0.09	0.12	0.14	0.17	0.20	0.23	0.26	0.29	0.31	0.34	0.37	0.40	0.43	0.45	0.48	0.51	0.54	0.54	0.56
0.61	0.46	0.88	1.29	1.70	2.12	2.53	2.94	3.35	3.77	4.18	4.59	5.01	5.42	5.83	6.24	6.66	7.07	7.48	7.90	7.95	8.22
30	0.04	0.08	0.12	0.16	0.20	0.24	0.27	0.31	0.35	0.39	0.43	0.47	0.50	0.54	0.58	0.62	0.66	0.70	0.73	0.74	0.76
0.76	0.63	1.19	1.75	2.31	2.87	3.43	3.99	4.55	5.11	5.68	6.24	6.80	7.36	7.92	8.48	9.04	9.60	10.16	10.72	10.79	11.16
36	0.06	0.11	0.16	0.22	0.27	0.32	0.37	0.42	0.48	0.53	0.58	0.63	0.68	0.74	0.79	0.84	0.89	0.94	1.00	1.00	1.04
0.91	0.75	1.42	2.09	2.76	3.43	4.10	4.77	5.44	6.11	6.78	7.45	8.12	8.79	9.46	10.13	10.80	11.47	12.14	12.81	12.90	13.34
42	0.07	0.13	0.19	0.26	0.32	0.38	0.44	0.51	0.57	0.63	0.69	0.76	0.82	0.88	0.94	1.00	1.07	1.13	1.19	1.20	1.24
1.07	0.88	1.66	2.44	3.22	4.00	4.77	5.55	6.33	7.11	7.89	8.67	9.45	10.23	11.01	11.79	12.57	13.35	14.13	14.91	15.01	15.53
48	0.08	0.15	0.23	0.30	0.37	0.44	0.52	0.59	0.66	0.73	0.81	0.88	0.95	1.02	1.10	1.17	1.24	1.31	1.39	1.40	1.44
1.22	1.00	1.89	2.78	3.67	4.56	5.45	6.33	7.22	8.11	9.00	9.89	10.78	11.67	12.56	13.45	14.34	15.23	16.11	17.00	17.11	17.71
54	0.09	0.18	0.26	0.34	0.42	0.51	0.59	0.67	0.75	0.84	0.92	1.00	1.09	1.17	1.25	1.33	1.42	1.50	1.58	1.59	1.65
1.37	1.17	2.20	3.24	4.28	5.31	6.35	7.39	8.42	9.46	10.50	11.53	12.57	13.61	14.64	15.68	16.72	17.75	18.79	19.83	19.96	20.65
60	0.11	0.20	0.30	0.40	0.49	0.59	0.69	0.78	0.88	0.98	1.07	1.17	1.27	1.36	1.46	1.55	1.65	1.75	1.84	1.86	1.92
1.52	1.29	2.44	3.58	4.73	5.87	7.02	8.17	9.31	10.46	11.61	12.75	13.90	15.04	16.19	17.34	18.48	19.63	20.78	21.92	22.06	22.83
66	0.12	0.23	0.33	0.44	0.55	0.65	0.76	0.87	0.97	1.08	1.19	1.29	1.40	1.51	1.61	1.72	1.83	1.93	2.04	2.05	2.12
1.68	1.41	2.67	3.92	5.18	6.44	7.69	8.95	10.20	11.46	12.71	13.97	15.23	16.48	17.74	18.99	20.25	21.50	22.76	24.02	24.17	25.01
72	0.13	0.25	0.36	0.48	0.60	0.72	0.83	0.95	1.07	1.18	1.30	1.42	1.53	1.65	1.77	1.88	2.00	2.12	2.23	2.25	2.33
1.78	1.58	2.98	4.39	5.79	7.19	8.60	10.00	11.40	12.81	14.21	15.61	17.02	18.42	19.82	21.23	22.63	24.03	25.44	26.84	27.02	27.95
1.83	0.15	0.28	0.41	0.54	0.67	0.80	0.93	1.06	1.19	1.32	1.45	1.58	1.71	1.84	1.97	2.10	2.24	2.37	2.50	2.51	2.60
78	0.16	0.30	0.44	0.58	0.72	0.86	1.00	1.14	1.28	1.42	1.57	1.71	1.85	1.99	2.13	2.27	2.41	2.55	2.69	2.71	2.80
1.98	1.83	3.45	5.07	6.69	8.31	9.94	11.56	13.18	14.80	16.43	18.05	19.67	21.29	22.92	24.54	26.16	27.78	29.41	31.03	31.23	32.31
84	0.17	0.32	0.47	0.62	0.77	0.92	1.08	1.23	1.38	1.53	1.68	1.83	1.98	2.13	2.28	2.43	2.58	2.73	2.89	2.90	3.01
2.13	1.99	3.76	5.53	7.30	9.07	10.84	12.61	14.38	16.15	17.92	19.69	21.46	23.23	25.00	26.77	28.54	30.31	32.08	33.85	34.07	35.25
2.29	0.19	0.35	0.51	0.68	0.84	1.01	1.17	1.34	1.50	1.67	1.83	2.00	2.16	2.33	2.49	2.65	2.82	2.98	3.15	3.17	3.28
96	0.21	0.39	0.57	0.75	0.93	1.11	1.29	1.47	1.65	1.83	2.01	2.19	2.37	2.55	2.73	2.91	3.09	3.27	3.45	3.46	3.62
2.44	2.11	3.99	5.87	7.75	9.63	11.51	13.39	15.27	17.15	19.03	20.91	22.79	24.67	26.55	28.43	30.31	32.19	34.07	35.95	36.18	37.43
102	0.20	0.37	0.55	0.72	0.90	1.07	1.25	1.42	1.60	1.77	1.94	2.12	2.29	2.47	2.64	2.82	2.99	3.17	3.34	3.36	3.48
2.59	2.24	4.23	6.22	8.20	10.19	12.18	14.17	16.16	18.15	20.14	22.13	24.12	26.11	28.10	30.08	32.07	34.06	36.05	38.04	38.29	39.62
108	0.21	0.39	0.58	0.76	0.95	1.13	1.32	1.50	1.69	1.87	2.06	2.24	2.43	2.61	2.80	2.98	3.17	3.35	3.54	3.56	3.68
2.74	2.40	4.54	6.68	8.81	10.95	13.09	15.22	17.36	19.50	21.63	23.77	25.91	28.04	30.18	32.32	34.45	36.59	38.73	40.86	41.13	42.56
114	0.22	0.42	0.62	0.82	1.02	1.22	1.42	1.61	1.81	2.01	2.21	2.41	2.61	2.81	3.01	3.20	3.40	3.60	3.80	3.83	3.96
2.90	2.53	4.77	7.02	9.27	11.51	13.76	16.00	18.25	20.50	22.74	24.99	27.24	29.48	31.73	33.97	36.22	38.47	40.71	42.96	43.24	44.74
120	0.24	0.44	0.65	0.86	1.07	1.28	1.49	1.70	1.91	2.12	2.32	2.53	2.74	2.95	3.16	3.37	3.58	3.79	4.00	4.02	4.16
3.05	2.65	5.01	7.36	9.72	12.07	14.43	16.78	19.14	21.50	23.85	26.21	28.56	30.92	33.28	35.63	37.99	40.34	42.70	45.05	45.35	46.92
126	0.25	0.47	0.68	0.90	1.12	1.34	1.56	1.78	2.00	2.22	2.44	2.66	2.88	3.09	3.31	3.53	3.75	3.97	4.19	4.22	4.36
3.20	2.70	5.10	7.51	9.91	12.31	14.71	17.11	19.52	21.92	24.32	26.72	29.12	31.53	33.93	36.33	38.73	41.13	43.54	45.94	46.24	47.84
132	0.25	0.47	0.70	0.92	1.14	1.37	1.59	1.81	2.04	2.26	2.49	2.71	2.93	3.16	3.39	3.60	3.83	4.05	4.27	4.30	4.45
3.35	2.83	5.34	7.85	10.36	12.87	15.38	17.89	20.41	22.92	25.43	27.94	30.45	32.96	35.47	37.99	40.50	43.01	45.52	48.03	48.35	50.02
138	0.26	0.50	0.73	0.96	1.20	1.43	1.66	1.90	2.13	2.36	2.60	2.83	3.07	3.30	3.53	3.77	4.00	4.23	4.47	4.50	4.65
3.51	3.03	5.73	8.43	11.13	13.82	16.52	19.22	21.92	24.61	27.31	30.01	32.70	35.40	38.10	40.80	43.49	46.19	48.89	51.58	51.92	53.72
144	0.28	0.53	0.78	1.03	1.29	1.54	1.79	2.04	2.29	2.54	2.79	3.04	3.29	3.54	3.79	4.04	4.30	4.55	4.80	4.83	5.00
3.66	3.16	5.96	8.77	11.58	14.38	17.19	20.00	22.80	25.61	28.42	31.23	34.03	36.84	39.65	42.45	45.26	48.07	50.87	53.68	54.03	55.90
3.66	0.29	0.55	0.82	1.08	1.34	1.60	1.86	2.12	2.38	2.64	2.90	3.16	3.43	3.69	3.95	4.21	4.47	4.73	4.99	5.02	5.20

PRESSURE DROP

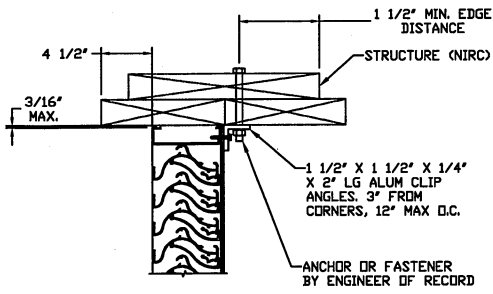
Test size 48" wide x 48" high (1219 x 1219).



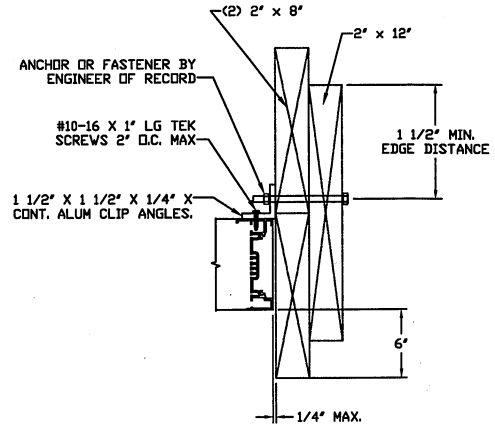
Ratings do not include the effect of a bird screen.

Air Velocity in feet and (meters) per minute through Free Area
(Data corrected to standard air density and AMCA figure or figures tested to 5.5)

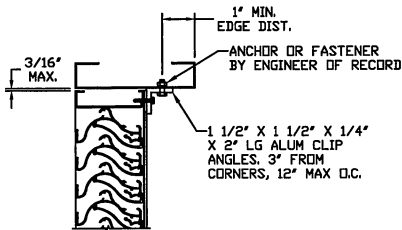
TYPICAL INSTALLATION DETAILS



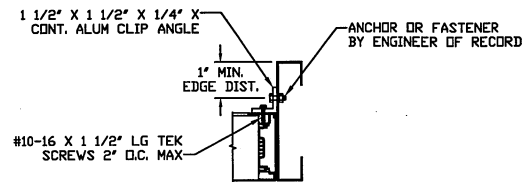
① HEAD & SILL DETAIL: WOOD INSTALL
N.T.S.



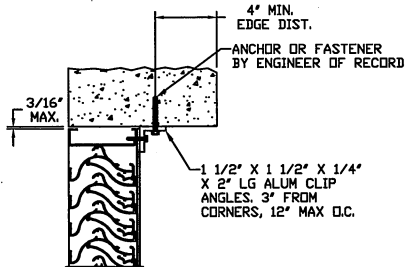
② JAMB DETAIL: WOOD INSTALL
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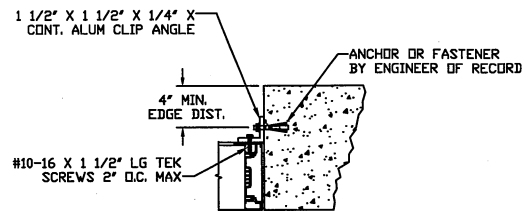
③ HEAD & SILL DETAIL: STEEL INSTALL
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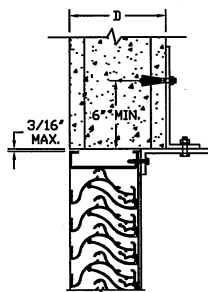
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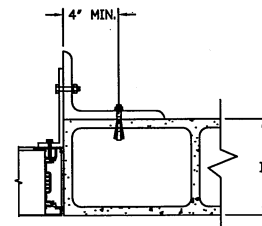
⑤ HEAD & SILL DETAIL: CONCRETE INSTALL
N.T.S.



⑥ JAMB DETAIL: CONCRETE INSTALL
N.T.S.

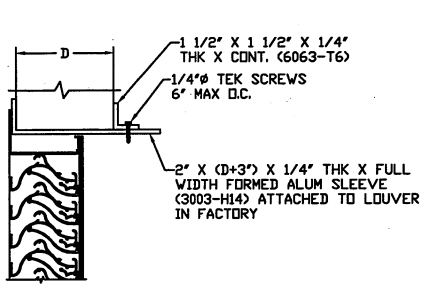


⑦ HEAD & SILL DETAIL: CMU BLOCK INSTALL
N.T.S.

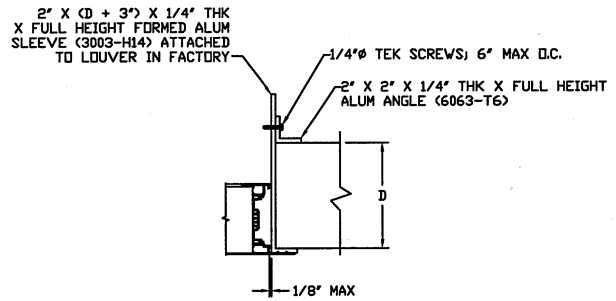


⑧ JAMB DETAIL: CMU BLOCK INSTALL
N.T.S.

TYPICAL INSTALLATION DETAILS

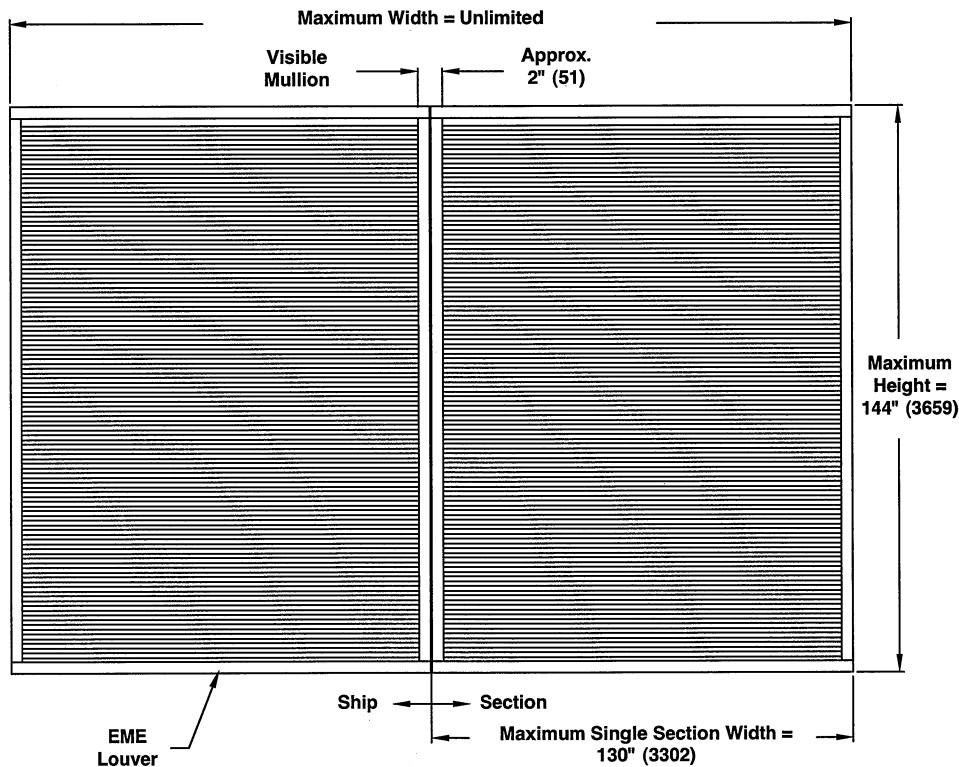


9 HEAD & SILL DETAIL: UNIVERSAL FLANGE FRAME
N.T.S.



10 JAMB DETAIL: UNIVERSAL FLANGE FRAME
N.T.S.

SHIP SECTION DETAILS



GENERAL NOTES:

1. Reference separate Installation Instruction Sheet for the proper installation method. Miami-Dade and Florida product approvals are contingent upon proper installation. It is the installing contractor's responsibility to ensure that the louvers are installed properly.
2. Some orders may require special submittal and/or shop drawings provided by Ruskin. Reference these drawings for additional installation information.
3. Continuous angles and fasteners are supplied and are shipped loose.
4. Louvers are provided with steel channel supports to be installed behind the visible mullions.
5. Louvers wider than the maximum single section width will be shipped in multiple sections and will require field assembly.