



3900 Dr. Greaves Rd. • Kansas City, MO 64030 • (816) 761-7476 • FAX (816) 765-8955

EME520MD WIND-DRIVEN RAIN RESISTANT STATIONARY LOUVER

MIAMI-DADE APPROVED

**MIAMI-DADE COUNTY, FLORIDA NOTICE OF ACCEPTANCE NUMBER: 16-1107.03 (EXPIRES 2/23/21)
FLORIDA PRODUCT APPROVAL #FL 21829.5**

STANDARD CONSTRUCTION

FRAME

Box frame, 5" (127) deep, 6063T6 extruded aluminum with .081" (2.1) nominal wall thickness. Downspouts and caulking provided. Universal Installation Frame: Same material and gages as above with flange.

BLADES

6063T6 extruded aluminum .060" (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

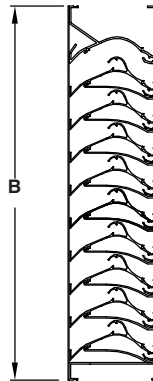
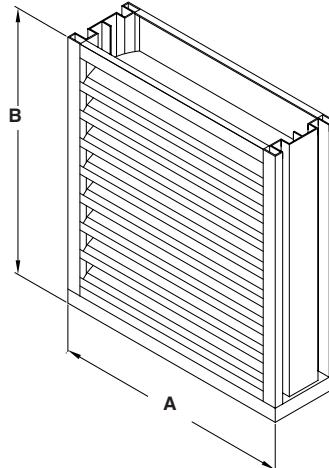
Single Section: (Varies) 144"w x 112"h (3658 x 2845) or 88"x144" (2236 x 3658)

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 EME520MD must be installed per the appropriate Installation Detail. Reference the appropriate separate Installation Instruction Sheet.

Consult Ruskin for additional information.



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.
- 47% 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

- Universal Flange Frame construction when fasteners penetrating the wall are not utilized.
- ELR and ELT Specialty Shape Louvers with Miami Dade NOA
- Extended sill.
- Front or rear security bars.
- Filter racks.
- A variety of bird and insect screens.
- Selection of finishes: prime coat, 50% PVDF (modified fluoropolymer), epoxy, Pearl dize 50 & 70, 70% PVDF, clear and color ano dize. (Some variation in anodize color consistency is possible).

Consult Ruskin for other special requirements.

EME520MD meets the requirements for the following:

- AMCA Listed for Basic Protection
- Miami Dade NOA Approval 16-1107.03
- Florida Product Approved FL 21829.5
- Texas Department of Insurance (TDI) Listed LVR-10
- AMCA 500-L Tested

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

Dimensions in inches, parenthesis () indicate millimeters.

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



IMPACT RESISTANT LOUVER
Basic Protection

See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

Ruskin Company certifies that the EME520MD shown herein is approved to bear the AMCA 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 Listing Label Program. The AMCA Listing Label applies to Wind Borne Debris Impact Resistant Louvers.

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

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 4" (102) 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 limit single span between visible mullions to 10' (3048).

Louvers shall be *Ruskin*® Model EME520MD extruded 6063T6 aluminum alloy construction as follows:

MATERIAL

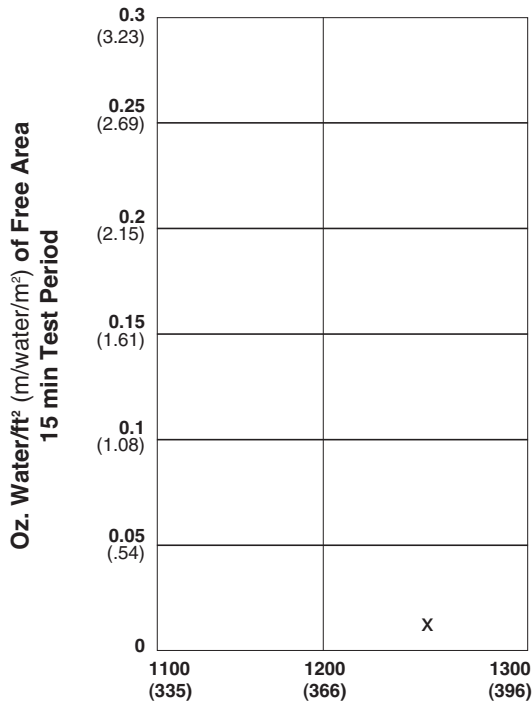
Frame: .081" (2.1) wall thickness, caulking surfaces provided.
 Blades: .081" (2.1) wall thickness.
 Extended Sill: .081" (2.1) wall thickness, with upturned side panels to prevent water leakage.
 Screen: 5/8" x .040" (16 x 1) expanded, flattened aluminum bird screen in removable frame.
 Finish: Select finish specification from Ruskin Finishes Brochure.

STRUCTURAL DESIGN

Integral structural supports shall be designed and furnished by the louver manufacturer to carry a wind load of not less than ±130 psf (6.7 kPa).

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).

Wind Velocity mph (kph)	Rain Fall Rate In./hr. (mm/hr.)	Core Velocity ₁ fpm (m/s)	Airflow cfm (m³/min)	Free Area Velocity ₂ fpm (m/sec.)	Effectiveness Ratio	Class _{3, 4}	Discharge Loss Class ₄ Intake
29 (46.4)	3 (76)	586 (3.0)	6310 (179)	1158 (5.9)	99.0%	A	2
50 (80.0)	8 (203)	293 (1.5)	3152 (89)	3152 (2.9)	99.0%	A	2

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 C 0.949 to 0.80
 B 0.989 to 0.95 D Below 0.8

- 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.

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.)

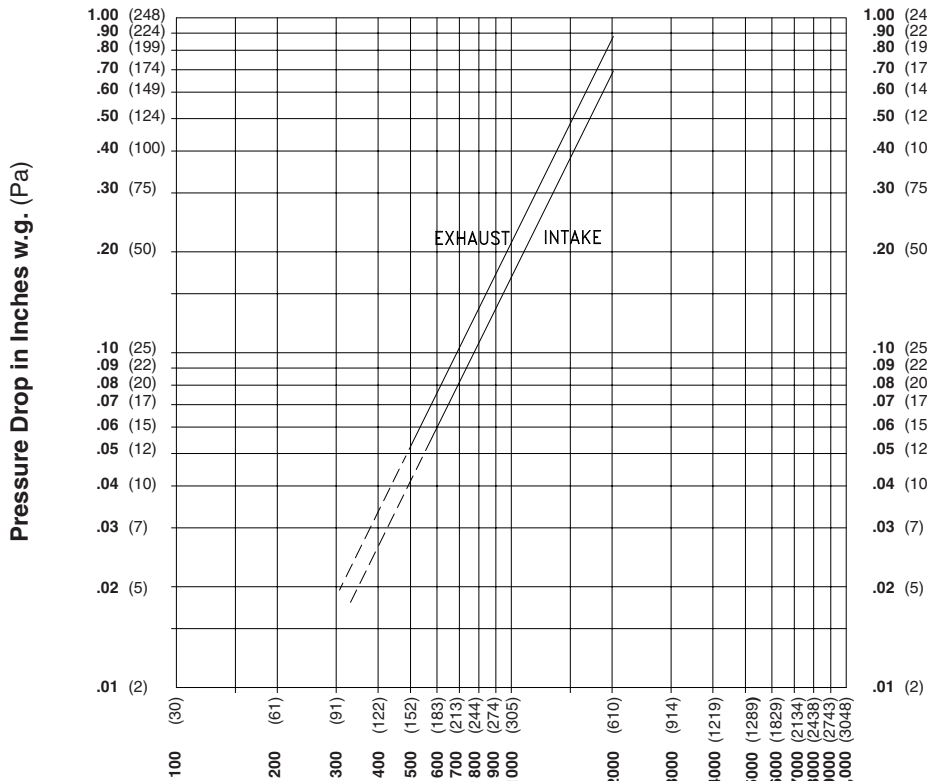
FREE AREA GUIDE

Free Area Guide shows free area in ft² and m² for various sizes of EME520MD.
Width – Inches and Meters

	12	18	24	30	36	42	48	54	60	66	72	78	84	88
	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	2.24
12	0.28	0.49	0.70	0.97	1.18	1.39	1.60	1.81	2.09	2.30	2.51	2.71	2.92	3.06
0.30	0.03	0.05	0.07	0.09	0.11	0.13	0.15	0.17	0.19	0.21	0.23	0.25	0.27	0.28
18	0.45	0.79	1.13	1.58	1.92	2.26	2.60	2.94	3.39	3.73	4.07	4.41	4.75	4.97
0.46	0.04	0.07	0.10	0.15	0.18	0.21	0.24	0.27	0.31	0.35	0.38	0.41	0.44	0.46
24	0.62	1.09	1.56	2.19	2.66	3.13	3.60	4.07	4.69	5.16	5.63	6.10	6.57	6.88
0.61	0.06	0.10	0.14	0.20	0.25	0.29	0.33	0.38	0.44	0.48	0.52	0.57	0.61	0.64
30	0.80	1.40	1.99	2.79	3.39	3.99	4.59	5.19	5.99	6.59	7.19	7.79	8.39	8.79
0.76	0.07	0.13	0.18	0.26	0.31	0.37	0.43	0.48	0.56	0.61	0.67	0.72	0.78	0.82
36	0.97	1.70	2.43	3.40	4.13	4.86	5.59	6.32	7.29	8.02	8.75	9.48	10.21	10.70
0.91	0.09	0.16	0.23	0.32	0.38	0.45	0.52	0.59	0.68	0.75	0.81	0.88	0.95	0.99
42	1.14	2.00	2.86	4.01	4.87	5.73	6.59	7.45	8.60	9.46	10.32	11.18	12.04	12.61
1.07	0.11	0.19	0.27	0.37	0.45	0.53	0.61	0.69	0.80	0.88	0.96	1.04	1.12	1.17
48	1.31	2.30	3.29	4.62	5.61	6.60	7.59	8.58	9.90	10.89	11.88	12.87	13.86	14.52
1.22	0.12	0.21	0.31	0.43	0.52	0.61	0.71	0.80	0.92	1.01	1.10	1.20	1.29	1.35
54	1.49	2.61	3.73	5.22	6.34	7.46	8.58	9.70	11.20	12.32	13.44	14.56	15.68	16.43
1.37	0.14	0.24	0.35	0.48	0.59	0.69	0.80	0.90	1.04	1.14	1.25	1.35	1.46	1.53
60	1.66	2.91	4.16	5.83	7.08	8.33	9.58	10.83	12.50	13.75	15.00	16.25	17.50	18.34
1.52	0.15	0.27	0.39	0.54	0.66	0.77	0.89	1.01	1.16	1.28	1.39	1.51	1.63	1.70
66	1.83	3.21	4.59	6.44	7.82	9.20	10.58	11.96	13.80	15.18	16.56	17.95	19.33	20.25
1.68	0.17	0.30	0.43	0.60	0.73	0.85	0.98	1.11	1.28	1.41	1.54	1.67	1.80	1.88
72	2.00	3.52	5.03	7.04	8.55	10.07	11.58	13.09	15.10	16.62	18.13	19.64	21.15	22.16
1.83	0.19	0.33	0.47	0.65	0.79	0.94	1.08	1.22	1.40	1.54	1.68	1.82	1.96	2.06
78	2.18	3.82	5.46	7.65	9.29	10.93	12.57	14.22	16.41	18.05	19.69	21.33	22.97	24.07
1.98	0.20	0.35	0.51	0.71	0.86	1.02	1.17	1.32	1.52	1.68	1.83	1.98	2.13	2.24
84	2.35	4.12	5.89	8.26	10.03	11.80	13.57	15.34	17.71	19.48	21.25	23.02	24.79	25.98
2.13	0.22	0.38	0.55	0.77	0.93	1.10	1.26	1.43	1.65	1.81	1.97	2.14	2.30	2.41
90	2.52	4.43	6.33	8.86	10.77	12.67	14.57	16.47	19.01	20.91	22.81	24.72	26.62	27.89
2.29	0.23	0.41	0.59	0.82	1.00	1.18	1.35	1.53	1.77	1.94	2.12	2.30	2.47	2.59
96	2.70	4.73	6.76	9.47	11.50	13.54	15.57	17.60	20.31	22.34	24.38	26.41	28.44	29.79
2.44	0.25	0.44	0.63	0.88	1.07	1.26	1.45	1.64	1.89	2.08	2.26	2.45	2.64	2.77
102	2.87	5.03	7.19	10.08	12.24	14.40	16.57	18.73	21.61	23.77	25.94	28.10	30.26	31.70
2.59	0.27	0.47	0.67	0.94	1.14	1.34	1.54	1.74	2.01	2.21	2.41	2.61	2.81	2.95
108	3.04	5.33	7.63	10.68	12.98	15.27	17.56	19.86	22.91	25.21	27.50	29.79	32.09	33.61
2.74	0.28	0.50	0.71	0.99	1.21	1.42	1.63	1.85	2.13	2.34	2.55	2.77	2.98	3.12
114	3.21	5.64	8.06	11.29	13.71	16.14	18.56	20.98	24.21	26.64	29.06	31.48	33.91	35.52
2.90	0.30	0.52	0.75	1.05	1.27	1.50	1.72	1.95	2.25	2.47	2.70	2.92	3.15	3.30
120	3.39	5.94	8.49	11.90	14.45	17.00	19.56	22.11	25.52	28.07	30.62	33.18	35.73	37.43
3.05	0.31	0.55	0.79	1.11	1.34	1.58	1.82	2.05	2.37	2.61	2.84	3.08	3.32	3.48
126	3.56	6.24	8.93	12.51	15.19	17.87	20.56	23.24	26.82	29.50	32.19	34.87	37.55	39.34
3.20	0.33	0.58	0.83	1.16	1.41	1.66	1.91	2.16	2.49	2.74	2.99	3.24	3.49	3.65
132	3.73	6.55	9.36	13.11	15.93	18.74	21.55	24.37	28.12	30.93	33.75	36.56	39.38	41.25
3.35	0.35	0.61	0.87	1.22	1.48	1.74	2.00	2.26	2.61	2.87	3.14	3.40	3.66	3.83
138	3.90	6.85	9.79	13.72	16.66	19.61	22.55	25.50	29.42	32.37	35.31	38.25	41.20	43.16
3.51	0.36	0.64	0.91	1.27	1.55	1.82	2.09	2.37	2.73	3.01	3.28	3.55	3.83	4.01
144	4.08	7.15	10.23	14.33	17.40	20.47	23.55	26.62	30.72	33.80	36.87	39.95	43.02	45.07
3.66	0.38	0.66	0.95	1.33	1.62	1.90	2.19	2.47	2.85	3.14	3.43	3.71	4.00	4.19

PRESSURE DROP

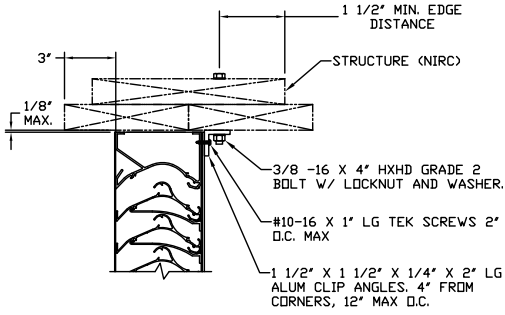
Test size 48" wide x 48" high (1219 x 1219).



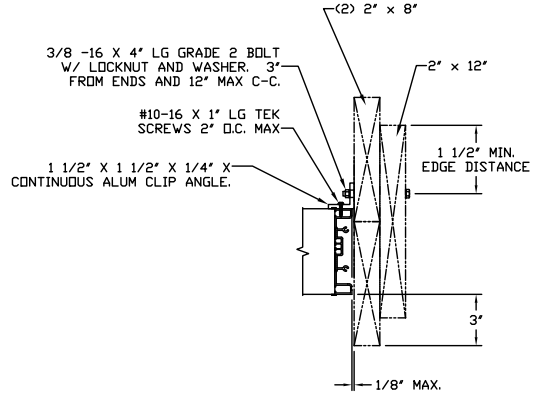
Ratings do not include the effect of a bird screen.

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)

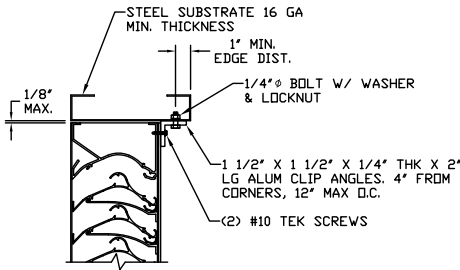
FRAME CONSTRUCTION



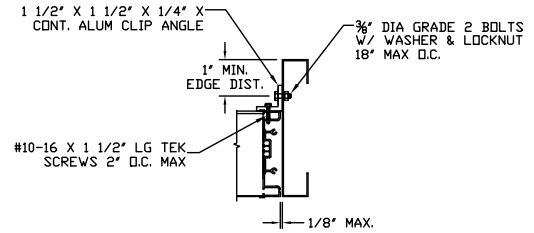
1 HEAD & SILL DETAIL: WOOD INSTALL
- N.T.S.



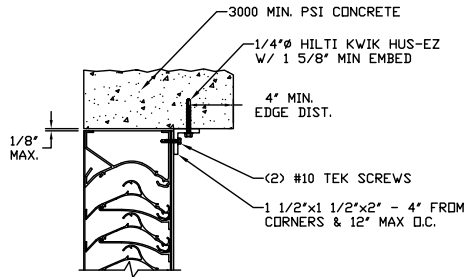
2 JAMB DETAIL: WOOD INSTALL
- N.T.S.



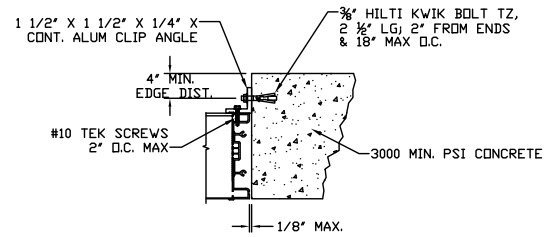
3 HEAD & SILL DETAIL: STEEL INSTALL
- N.T.S.



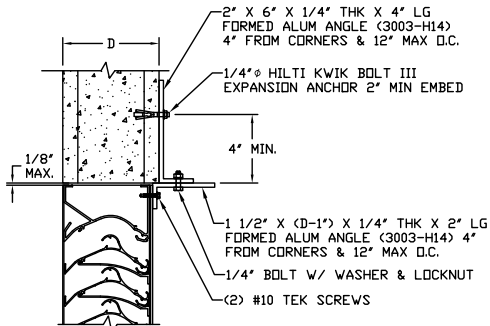
4 JAMB DETAIL: STEEL INSTALL
- N.T.S.



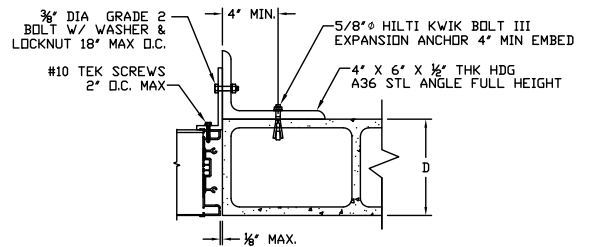
5 HEAD & SILL DETAIL: CONCRETE INSTALL
- N.T.S.



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

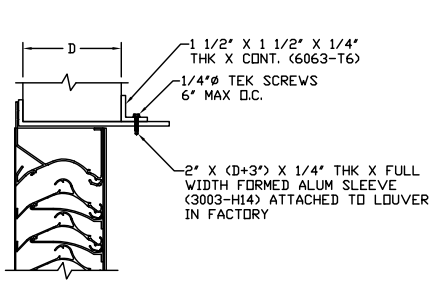


7 HEAD & SILL DETAIL: CMU BLOCK INSTALL
- N.T.S.

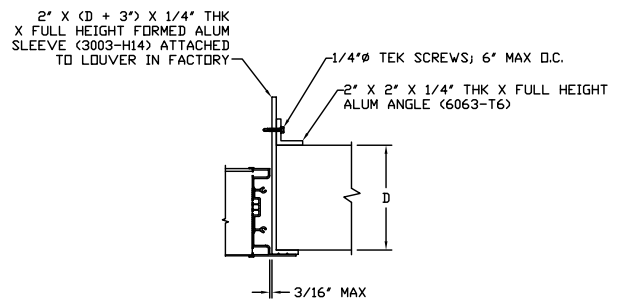


8 JAMB DETAIL: CMU BLOCK INSTALL
- N.T.S.

FRAME CONSTRUCTION

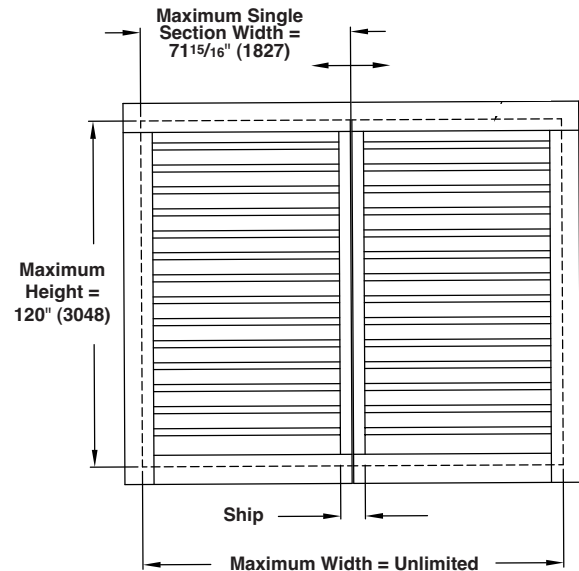
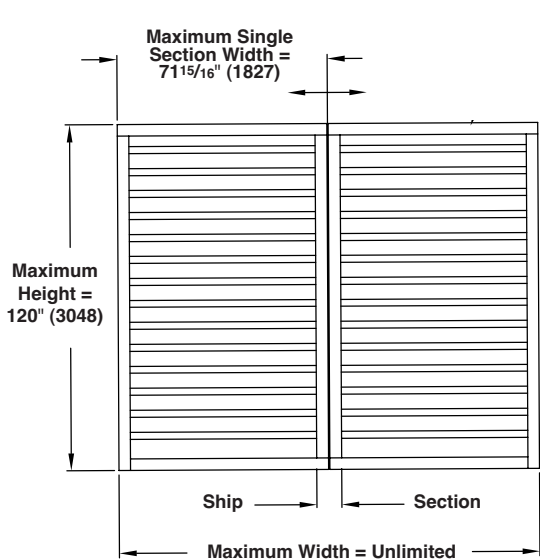


9 HEAD & SILL DETAIL: UNIVERSAL FLANGE FRAME
- N.T.S



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

FRAME CONSTRUCTION ELEVATION



FRONT ELEVATION OF EME520MD LOUVER WITH UFF FRAME

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.