

MODEL EA-520-D

Severe Weather Louver • 5" Deep • Chevron Drainable Blades • Stationary • Channel Type • Sightproof Page 1

Standard Materials and Construction

FRAME: .081" thk. (nominal) extruded aluminum, 6063-T52/T6 alloy.

BLADE: .081" thk. (nominal) extruded aluminum, 6063-T52/T6 alloy.
Blades approximately 2" on centers.

LOUVER FACE: Head and blades are contained within jambs, sill contains jambs.

SCREENS: (When indicated, in a removable frame.)

- 1/2" flattened aluminum (.051" thick),
- or- 1/2" sq. mesh, intermediate double-crimped aluminum wire, .063" dia.,
- or- 18/16 mesh, .011" dia. aluminum wire, insect screen.

FINISH: Mill

Options

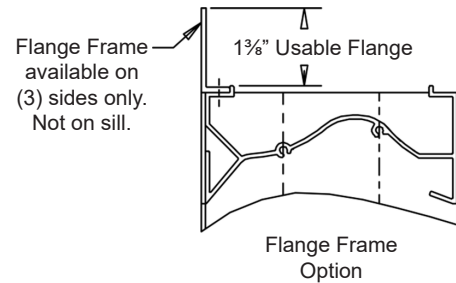
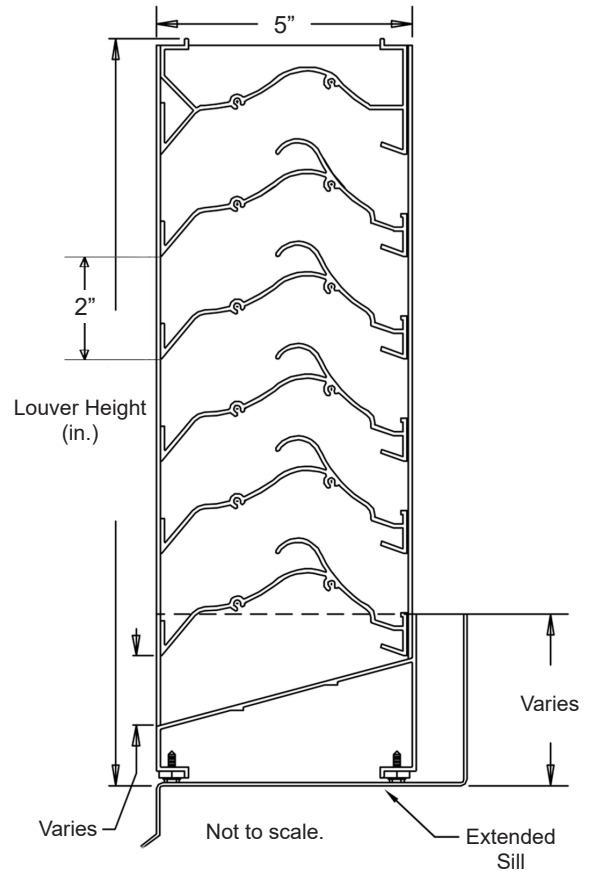
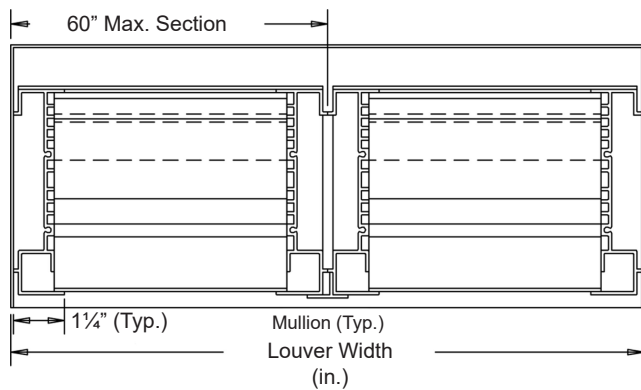
Finish - Baked Enamel, Kynar, Anodize


Notes

- Nominal deductions will be made to the opening size given.
- Louvers larger than the maximum factory assembled size will require field assembly of smaller louver sections.
- Approximate shipping weight is 5.5 lbs./sq.ft.

Louver Sizes

Min Panel	Max Single Panel
12"W x 12"H	40 sq. ft.



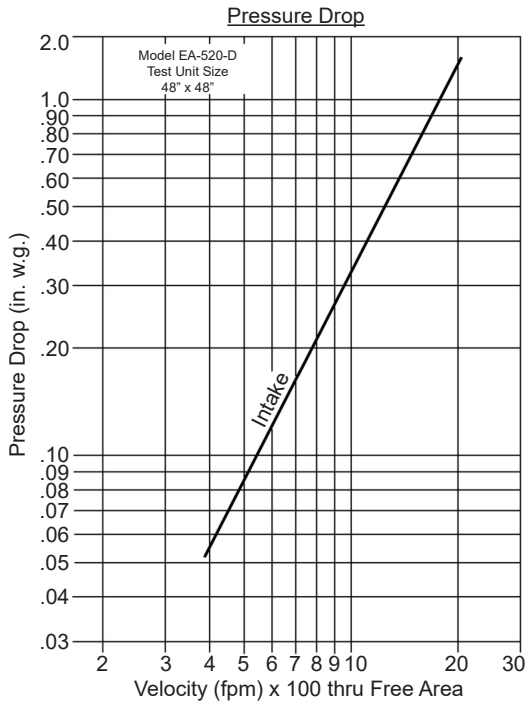
												
Item #	Qty	Width	Height	Width	Height	Mullion	Type	Location				
		Opening Size		Louver Size			Screens		Union Made			
Arch. / Eng.:						EDR:		ECN:		Job:		
Contractor:												
Project:						Date:		DWN:		DWG:		

Performance Data

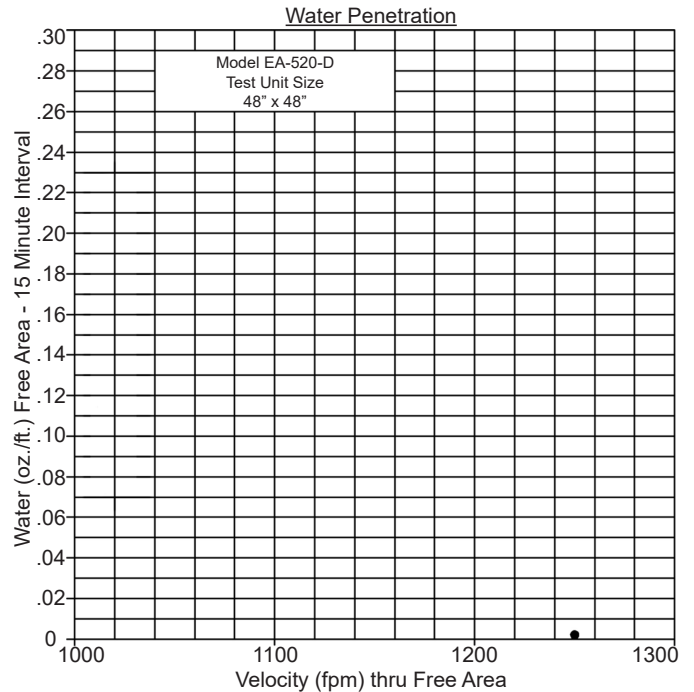
Pressure Drop: .32 in. w.g. at 1000 fpm (intake)
 Free Area: 7.08 sq.ft. = 44.3% for 48"W x 48"H sample tested in accordance with AMCA Standard 500-L.
 Beginning Point of Water Penetration: Over 1250 fpm

Class "A" Rating with 99.0% efficiency at 3 in. rain fall at intake velocity of 1133 fpm (8,022 cfm) at wind speed of 29 mph.
 Class "B" Rating with 95.7% efficiency at 8 in. rain fall at intake velocity of 1307 fpm (9,254 cfm) at wind speed of 50 mph.
 Testing based on 48" x 48" based on AMCA Standard 500-L.

Ratings do not include effects of a screen.



Intake air converted to standard air density.
 Tested to AMCA Standard 500-L, Figure 5.5.



The Beginning Point of Water Penetration is above 1250 fpm through the free area of the louver.*

* AMCA Standard 500-L limits testing of water penetration to either a maximum velocity of 1250 fpm or 2.5 ounces of water per square foot of louver free area.

		Free Area (sq. ft.)									
		Width (in.)									
		12"	24"	36"	48"	60"	72"	84"	96"	108"	120"
Height (in.)	12"	.21	.49	.76	1.04	1.31	1.58	1.86	2.13	2.40	2.68
	24"	.63	1.43	2.24	3.04	3.85	4.65	5.46	6.26	7.07	7.87
	36"	1.04	2.38	3.72	5.05	6.39	7.73	9.06	10.40	11.73	13.07
	48"	1.46	3.33	5.19	7.08	8.93	10.80	12.67	14.53	16.40	18.27
	60"	1.88	4.27	6.67	9.07	11.47	13.87	16.27	18.67	21.07	23.46
	72"	2.29	5.22	8.15	11.08	14.01	16.94	19.87	22.80	25.73	28.66
	84"	2.71	6.17	9.63	13.09	16.55	20.01	23.47	26.93	30.40	33.86
	96"	3.12	7.11	11.11	15.10	19.09	23.08	27.08	31.07	35.06	39.05
	108"	3.54	8.06	12.58	17.11	21.63	26.16	30.68	35.20	39.73	44.25
	120"	3.95	9.01	14.06	19.12	24.17	29.23	34.28	39.34	44.39	49.45

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Wind Driven Rain

Wind Driven Rainwater Penetration Test
 Conducted to AMCA Standard 500-L.

Test size 1m x 1m (39.7" x 39.7") core area, 41.87" x 42.77" nominal.
 Louver Free Area 5.54 square feet.

Core Ventilation (m/s)	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	Rain Fall / MPH
FPM	0	0	0	0	385	474	583	682	771	866	981	3 in. / hr. rain fall and 29 mph Velocity
Free Area Ventilation (cfm)	-	-	-	-	4,143	5,108	6,276	7,347	8,303	9,321	10,560	
Free Area Velocity (fpm)	-	-	-	-	748	922	1,133	1,326	1,499	1,682	1,906	
Effective Rating Class	A	A	A	A	A	A	A	B	B	C	C	
Effectiveness Ratio (%)	-	-	-	-	99.8	99.6	99.0	97.1	95.1	90.6	89.3	
FPM	0	122	190	285	390	481	569	673	773	884	945	8 in. / hr. rain fall and 50 mph Velocity
Free Area Ventilation (cfm)	-	1,313	2,049	3,071	4,202	5,179	6,129	7,243	8,324	9,521	10,174	
Free Area Velocity (fpm)	-	237	370	554	758	935	1,106	1,307	1,503	1,719	1,836	
Effective Rating Class	B	B	B	B	B	B	B	B	C	C	C	
Effectiveness Ratio (%)	98.3	98.2	98.1	97.9	97.7	97.9	97.6	95.7	93.9	89.8	85.8	

Wind Driven Rain Penetration Classifications

Class	Effectiveness %
A	100 to 99%
B	98.9% to 95%
C	94.9% to 80%
D	Below 80%

Discharge Loss Coefficient Classifications

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

Discharge Coefficient
 Intake Cd= 0.29 (Class 3)

Class 1 Loss Coefficient has the least resistance to airflow.

1. Core area is the front opening of a louver assembly with the blades removed.
2. Core area velocity is the airflow rate through the louver divided by the core area (39.37" x 39.37").
3. Free area is the minimum area through which air can pass. It is determined by multiplying the sum of the minimum distance between intermediate blades, top blade and head, bottom blade and sill, by the minimum distance between jambs.
4. Discharge loss coefficient is calculated by dividing a louver actual airflow rate vs. a theoretical airflow for the opening, providing an indication of the louver air flow characteristics.



Arrow United Industries certifies that the Model EA-520-D 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 Water Penetration, Air Performance, and Wind Driven Rain Ratings only.