ESM-5LS-VP

HURRICANE LOUVER
HIGH PERFORMANCE LOUVER
STATIONARY LOUVER

E|S Louvers & Screens

APPLICATION

5LS-VP is a stationary sight-proof ventilation louver system made of extruded aluminum, designed to protect air intake and exhaust openings in the exterior walls of buildings. The ventilation grille system is AMCA 550, AMCA 540, TAS 201, TAS 202 & TAS 203 certified. (Tested without the perforated aluminum sheet), allowing it to be installed in rooms without drainage and capable of housing equipment that lacks water protection.
This model includes a perforated sheet that can feature either a standard or customized pattern, depending on the project requirements. Various sheet gauges are available to suit different aesthetic and functional needs.

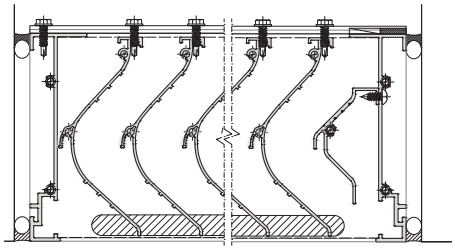
STANDARD CONSTRUCTION

MATERIAL	6063-T6 and 6005-T5 extruded aluminum
FRAME	The frame is 5" deep 0.081" nominal wall thickness
BLADES	0.060" nominal wall thickness. The distance between centers is 1.5" Double drainable
MAXIMUM LOUVER SIZE	Dimensions: 1. 120"w x 72"h 2. 72"w x 120"h Single section Area: 60sqft Louvers exceeding maximum single section will be built in multiple sections
MINIMUM LOUVER SIZE	Dimensions: 12"w x 12" h
APPROX. WEIGHT	5,7 lb/ft²
PERFORATED PANEL	AL 5052 H32 Standard thickness: 0.125"

LOUVER FEATURES (WITHOUT PERFORATED PANEL)

- High performance
- High Free Area: 51%
- AMCA 550 & 540
- Hurricane Resistant
- Stainless Steel Hardware
- 150 psf max design pressure
- Corrosion resistant
- Durability and low maintenance





CERTIFICATION (WITHOUT PERFORATED PANEL)

550 HIGH VELOCITY RAIN RESISTANT WITH BLADES FULLY OPEN AND
540 IMPACT RESISTANT LOUVER
Enhanced Protection Level E
See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

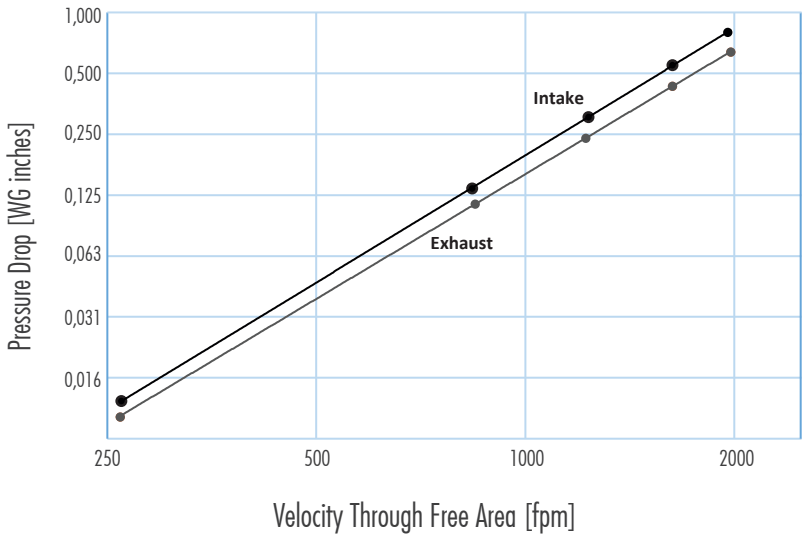
CI ES METALS certifies that the model ESM-5LS-V shown herein is licensed to bear the AMCA seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings seal applies to air performance.

FLORIDA BUILDING CODE APPROVAL #FL47774

AIR PERFORMANCE (WITHOUT PERFORATED PANEL)

Model ESM-5LS-V resistance to airflow (pressure drop) varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information. (Test Figure 5.5)

Unite test size (48" x 48")
Airflow rate at standard air density and thee AMCA figure 5.5

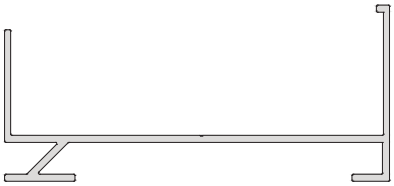


ESM-5LS-VP

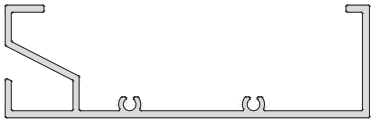
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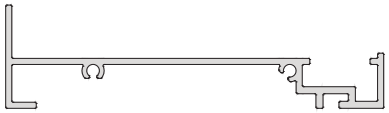
FRAME



ESM-325

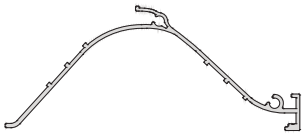


ESM-143



ESM-144

BLADE



ESM-321

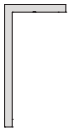


ESM-146

INSTALLATION ANGLES



ESM-147



A-002



ESM-149



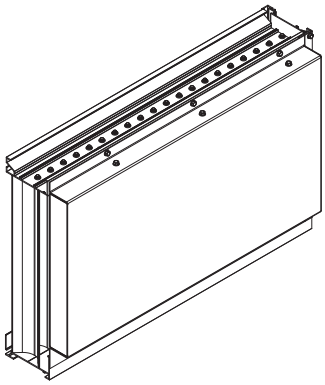
ESM-148



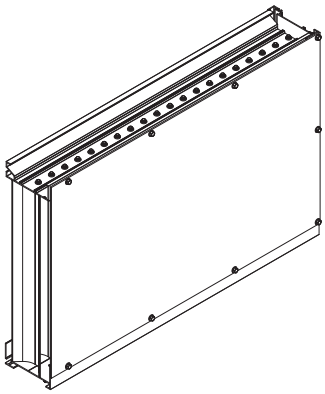
ESM-150

OPTIONAL ACCESSORIES

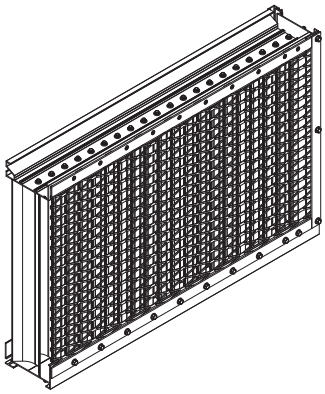
Options available at additional cost include:



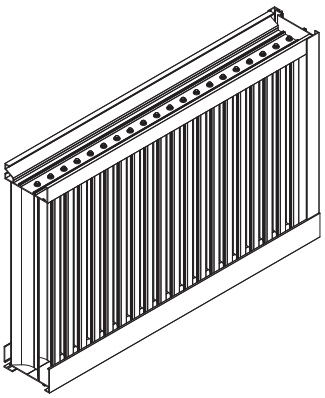
INSULATED BLANK OFF
(INTERNAL VIEW)



BACK PAN
(INTERNAL VIEW)



BIRD/INSECT SCREEN
(INTERNAL VIEW)



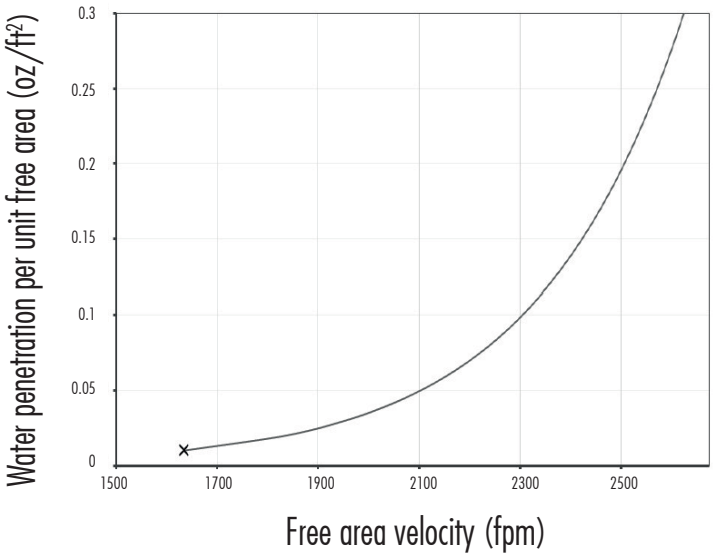
SILL PAN LOUVER
(INTERNAL VIEW)

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WATER PENETRATION

The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The beginning point of water penetration is defined as that velocity where the water penetration curve projects through 0.01 oz. (3 g) of water (penetration) per sq. ft. (m^2) of louver free area. The beginning point of water penetration for Model ESM-5LS-V is 1634,5 fpm free area velocity. Standard Air - 0.075 lb/ft^3 (1.2 kg/m^3), test size 48 in. x 48 in. (1219 mm x 1219 mm) and test duration of 15 min. These performance ratings do not guarantee a louver to be weatherproof or stormproof and should be used in combination with other factors including good engineering judgement in selecting louvers.



WIND DRIVEN RAIN

Water penetration classification ratings are based on the amount of simulated rain that penetrates the louver during a specific rainfall rate, wind velocity, and intake velocity. Ratings are based on a 39.4 in. x 39.4 in. (1 m x 1 m) core size.

	Rainfall rate of 3" per hour (76 mm) and a wind velocity of 29 mph (47 kph)			Rainfall rate of 8" per hour (203 mm) and a wind velocity of 50 mph (81 kph)		
Ventilation Air Velocity (m/s)	Core Velocity (fpm)	Rating Effectivensess	Class	Core Velocity (fpm)	Rating Effectivensess	Class
4	799,13	100	A	-	-	-
4,5	898,71	99,90	A	-	-	-
5	993,23	99,80	A	995,56	100	A

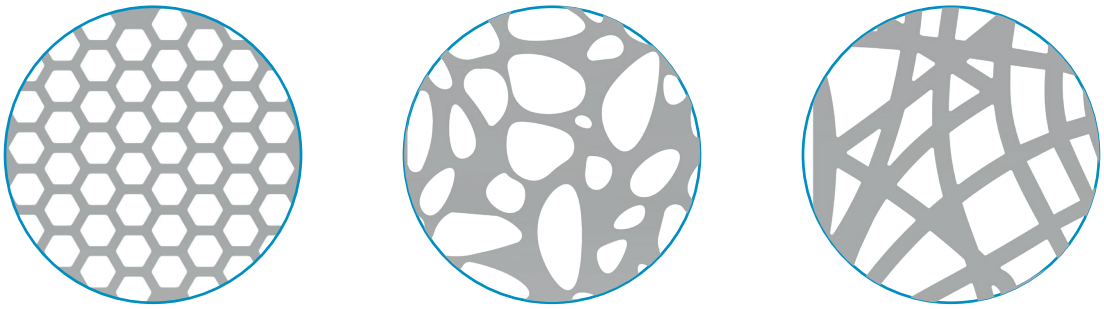
Effectiveness Rating	A= 1 to 0,99	B= 0,989 to 0,95	C= 0,949 to 0,80	Effectiveness Rating	Ratings are based on a 39.4 in. x 39.4 in. (1 m x 1 m) core size.

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AVAILABLE PERFORATION PATTERNS



Note: The perforation patterns of the sheet can be customized according to project requirements. It is important to note that the perforated element will impact the original free area percentage of the louver. Additionally, the perforated panel can be painted in a different color than the louver to achieve aesthetic contrast or meet specific design criteria.

FREE AREA CHART (Free area chart shows % free area of the model, excluding the perforated panel).

ESM-5LS-VP LOUVER SYSTEM OPEN AREA %

UNIT HEIGHT \ UNIT WIDTH	12''	24''	36''	48''	60''	72''	84''	96''	108''	120''
12''	28 %	35 %	37 %	38 %	38 %	42 %	39 %	39 %	40 %	40 %
24''	35 %	43 %	45 %	47 %	47 %	48 %	48 %	49 %	49 %	49 %
36''	37 %	45 %	48 %	50 %	50 %	51 %	51 %	52 %	52 %	52 %
48''	38 %	47 %	50 %	51 %	52 %	53 %	53 %	53 %	54 %	54 %
60''	38 %	47 %	50 %	52 %	53 %	53 %	54 %	54 %	54 %	55 %
72''	39 %	48 %	51 %	53 %	53 %	54 %	54 %	55 %	55 %	55 %
84''	39 %	48 %	51 %	53 %	54 %	55 %	55 %	55 %	56 %	56 %
96''	39 %	49 %	52 %	53 %	54 %	55 %	55 %	56 %	56 %	56 %
108''	40 %	49 %	52 %	54 %	55 %	55 %	56 %	56 %	56 %	56 %
120''	40 %	49 %	52 %	54 %	55 %	55 %	56 %	56 %	56 %	57 %

ESM-5LS-VP LOUVER SYSTEM FREE AREA SQFT

UNIT HEIGHT \ UNIT WIDTH	12''	24''	36''	48''	60''	72''	84''	96''	108''	120''
12''	0,28	0,69	1,10	1,51	1,92	2,53	2,74	3,15	3,56	3,97
24''	0,69	1,70	2,72	3,73	4,74	5,75	6,77	7,78	8,79	9,81
36''	1,10	2,72	4,33	5,95	7,56	9,18	10,80	12,41	14,03	15,64
48''	1,51	3,73	5,95	8,17	10,39	12,61	14,82	17,04	19,26	21,48
60''	1,92	4,74	7,56	10,39	13,21	16,03	18,85	21,68	24,50	27,32
72''	2,33	5,76	9,18	12,61	16,03	19,46	22,88	26,31	29,73	33,16
84''	2,74	6,77	10,80	14,83	18,85	22,88	26,91	30,94	34,97	39,00
96''	3,15	7,78	12,41	17,05	21,68	26,31	30,94	35,57	40,20	44,83
108''	3,56	8,80	14,03	19,27	24,50	29,73	34,97	40,20	45,44	50,67
120''	3,97	9,81	15,65	21,49	27,32	33,16	39,00	44,84	50,67	56,51

FINISHES

ES METALS standard colors are the following: Two coats: Primer and color coat:

E|S METALS

	Bone White	Black	Arcadia Silver	Silverstorm	Bermuda Bronze
AAMA2605	UC43350	UC40577	UC70123F	UC106685F	UC105262
AAMA2604	UC141202	UC130902	UC143459	UC139554	UC143010

Note: Contact us for more custom colors.

+1 (305) 213 2985 contact@es-metals.com www.es-metals.com