

ESM-5LS-H

WIND DRIVEN RAIN AND IMPACT LOUVER (AMCA 500L)
HIGH PERFORMANCE LOUVER
STATIONARY LOUVER

APPLICATION

ESM-5LS-H is a Florida Product Approved extruded aluminum sightproof stationary louver system designed to protect air intake and exhaust openings in building's exterior walls. System is tested and qualified per Florida test protocols: TAS 201 (Large Missile Impact), TAS 202 (Loads) and TAS 203 (Cyclic Wind Loading). Designed and tested to comply with the requirements of the 8th Edition Florida Building Code (2023) including High Velocity Hurricane Zone (HVHZ). Louver system shall only be installed in a location where the room behind the louver is designed to drain water penetrating into the room, and the room will house water resistant/waterproof equipment, components or supplies.

STANDARD CONSTRUCTION

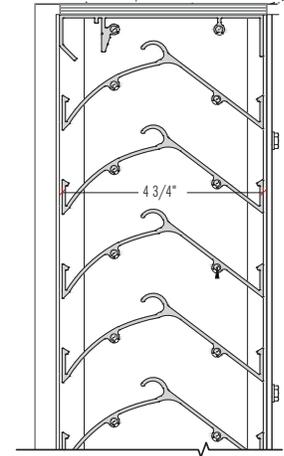
MATERIAL	6063-T6 extruded aluminum
FRAME	The frame is 5" deep 0.081" nominal wall thickness
BLADES	0.081" nominal wall thickness. The distance between centers is 2" Double drainable
MAXIMUM LOUVER SIZE	Dimensions: 1. 120"w x 60"h 2. 60"w x 120"h Single section Area: 50sqft Louvers exceeding maximum single section will be built in multiple sections

MINIMUM LOUVER SIZE	Dimensions: 12"w x 12" h
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APPROX. WEIGHT 6,34 lb/ft²

FEATURES

- High performance
- High Free Area: 50%
- AMCA 500L Air Performance, Water Penetration and Wind Driven Rain
- Florida Building Code Approval : No.FL 31288
- TAS 201, TAS 202 and TAS 203
- Hurricane Resistant
- Stainless Steel Hardware
- 150 psf max design pressure
- Corrosion resistant
- Durability and low maintenance



CERTIFICATION

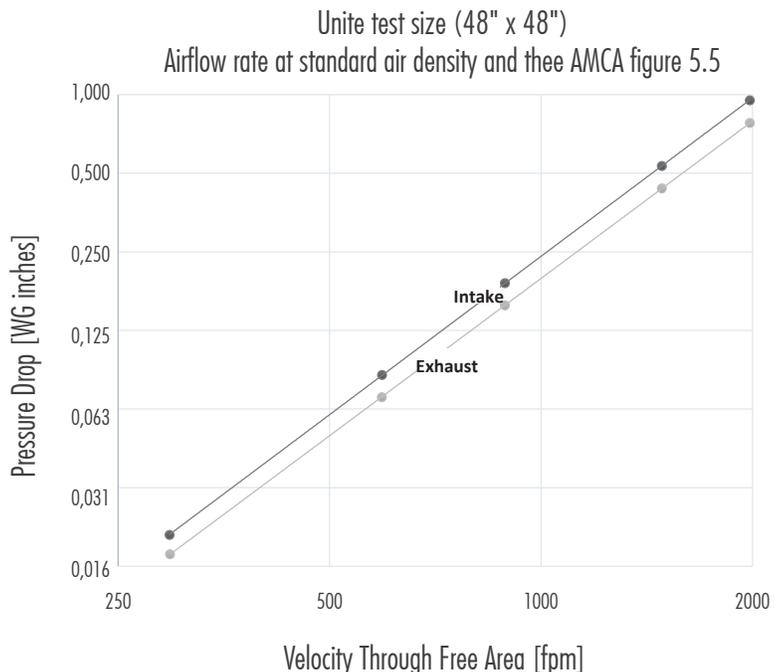


CI ES METALS certifies that the model ESM-5LS-H shown herein is licensed to bear the AMCA seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings seal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

FLORIDA BUILDING CODE APPROVAL #FL31288

AIR PERFORMANCE

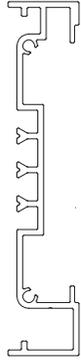
Model ESM-5LS-H resistance to airflow (pressure drop) varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information. (Test Figure 5.5)



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FRAME



COMP-120

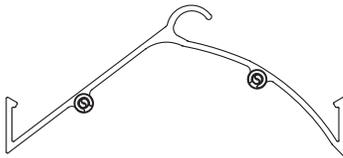


COMP-121



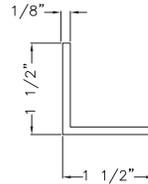
COMP-123

BLADE

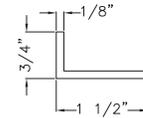


COMP-122

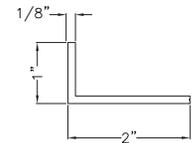
INSTALLATION ANGLES



ALU-A-019



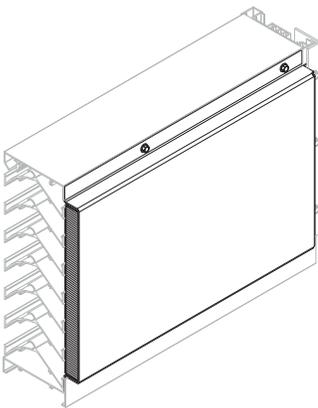
ESM-081



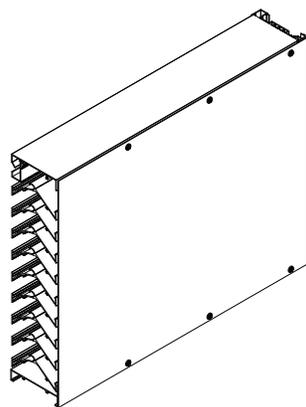
ALU-A-002

OPTIONAL ACCESSORIES

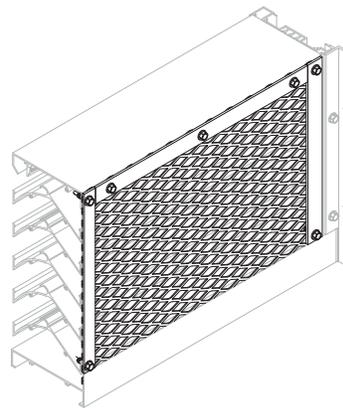
Options available at additional cost include:



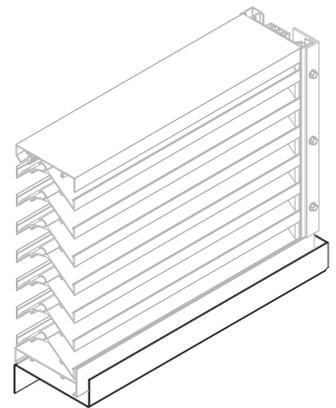
INSULATED BLANK OFF
(INTERNAL VIEW)



BACK PAN
(INTERNAL VIEW)



BIRD/INSECT SCREEN
(INTERNAL VIEW)



SILL PAN LOUVER 5LS
(INTERNAL VIEW)

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FREE AREA CHART (Free area chart shows free area in %)

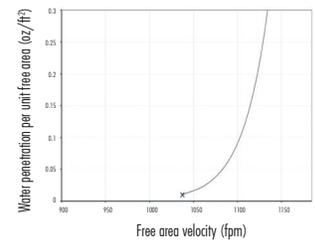
		UNIT WIDTH									
		12"	24"	36"	48"	60"	72"	84"	96"	108"	120"
UNIT HEIGHT	12"	37%	41%	42%	43%	43%	43%	43%	43%	43%	43%
	24"	43%	48%	49%	50%	50%	50%	50%	50%	50%	51%
	36"	45%	50%	51%	52%	53%	52%	52%	53%	53%	53%
	48"	46%	51%	53%	53%	54%	53%	53%	54%	54%	54%
	60"	47%	52%	53%	54%	55%	54%	54%	54%	55%	55%
	72"	47%	52%	54%	55%	55%	54%	55%	55%	55%	55%
	84"	48%	53%	54%	55%	55%	55%	55%	55%	56%	56%
	96"	48%	53%	54%	55%	56%	55%	55%	55%	56%	56%
	108"	48%	53%	55%	55%	56%	55%	55%	56%	56%	56%
	120"	48%	53%	55%	56%	56%	55%	56%	56%	56%	56%

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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. (m²) of louver free area. * The beginning point of water penetration for Model ESM-5LS is 1037,5 fpm free area velocity. Standard Air - 0.075 lb/ft³ (1.2 kg/m³), 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.

Ventilation Air Velocity (m/s)	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)		
	Core Velocity (fpm)	Rating	Effectiveness Class	Core Velocity (fpm)	Rating	Effectiveness Class
0	0	99,1	A	0	94,5	C
0,5	97	98,6	B	97,75	93,7	C
1	199,118	97	B	194,43	92,2	C
1,5	288,24	94,8	C	289,27	89,3	C
2	399,31	92,8	C	390,75	86,3	C
2,5	489,91	91,4	C	480,81	83,4	C
3	595	85,2	C	589,35	79,7	D
3,5	694,28	73,3	D	691,13	74,4	D
4	788,38	51,4	D	795,75	67	D
4,5	890,37	4,1	D	887,86	55,8	D
5	985,39	0,7	D	989,85	35,6	D
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.	

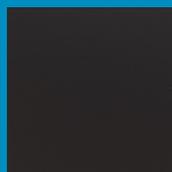
FINISHES

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



Bone White
UC43350

AAMA2605



Black
UC40577

AAMA2604

UC141202



Arcadia Silver
UC70123F

UC130902

UC143459



Silverstorm
UC106685F

UC139554



Bermuda Bronze
UC105262

UC143010



Note: Contact us for more custom colors.