GREENHECK
Dampers & Louvers

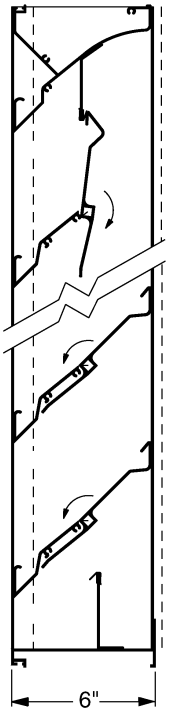
EAC-601
Combination Louver Damper

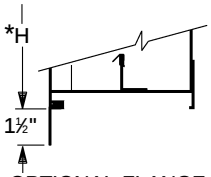
Extruded Aluminum
Drainable Blade

Application and Design

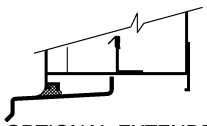
EAC-601 is a combination weather louver and air shut-off damper designed to protect air intake and exhaust openings in building exterior walls. Design incorporates drain gutters in horizontal blades to channel water to the louver side frames or jambs where water is further channeled through vertical downspouts and out at the bottom or louver sill. The integral damper is normally motorized. When open the damper permits airflow through the louver, and when closed it provides a tight seal to the passage of air and weather. The EAC-601 is an extremely efficient louver/damper with **AMCA LICENSED PERFORMANCE DATA** enabling designers to select and apply with confidence.

amca CERTIFIED RATINGS
WATER PENETRATION
AIR PERFORMANCE
AIR MOVEMENT AND CONTROL ASSOCIATION, INC.



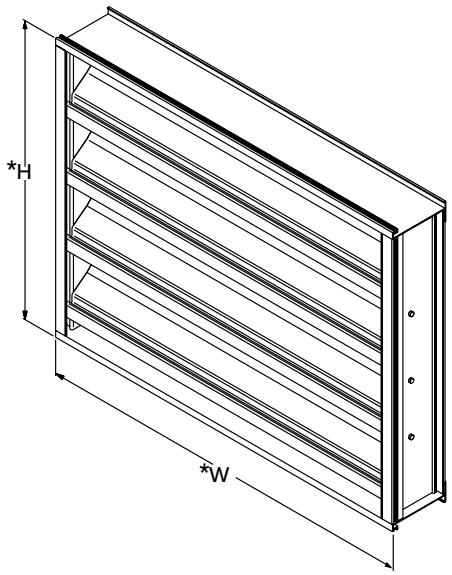


OPTIONAL FLANGE


OPTIONAL EXTENDED SILL

Standard Construction

Frame:	Heavy gauge 6063T5 extruded aluminum, 6" x 0.125" nominal dimensions
Blades:	Stationary blade - drainable design, 6063T5 extruded aluminum, 0.081" nominal wall thickness, positioned at 45° angle on approximately 6" centers. Adjustable blade - 6063T5 extruded aluminum 0.081" nominal wall thickness
Seals:	Extruded dual-durometer vinyl blade seals - compressible stainless steel jamb seals
Linkage:	Side linkage out of airstream, concealed in frame
Bearings:	Synthetic sleeve type
Axles:	1/2" diameter plated steel
Operator:	Locking louver quadrant
Finish:	Mill Finish
Minimum Size:	12"W x 16"H
Maximum Size:	60"W x 96"H (see page 4)



Options

- Flanged frame
- Extended sill
- A variety of bird and insect screens
- A variety of architectural finishes including:
  Clear anodize
  Integral color anodize
  Baked enamel
  Kynar
- A variety of pneumatic and electric actuators
- Concealed electric actuator in sill sizes 18" x 30" and larger only.
- Hinged frame
- Security bars
- Manual operators (handcrank)

✱ W & H Dimensions furnished approximately 1/4" under size.

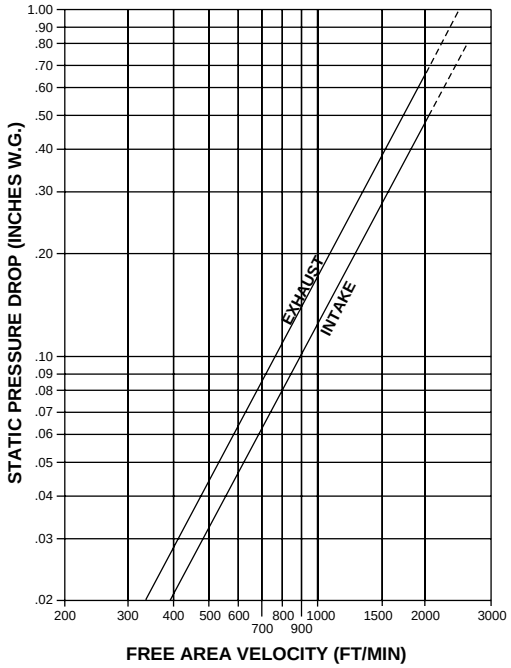
Quantity	Size		
	W Width	H Height	

Project Location

Contractor Architect/Engineer

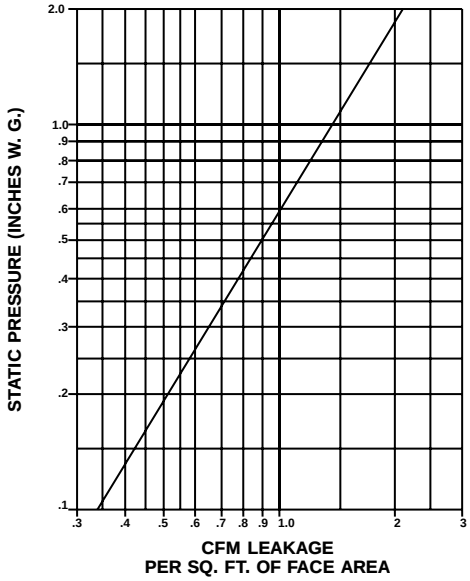
EAC-601 Louver Performance Data

Greenheck certifies that the EAC-601 louvers shown herein are 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 only to air performance and water penetration ratings.

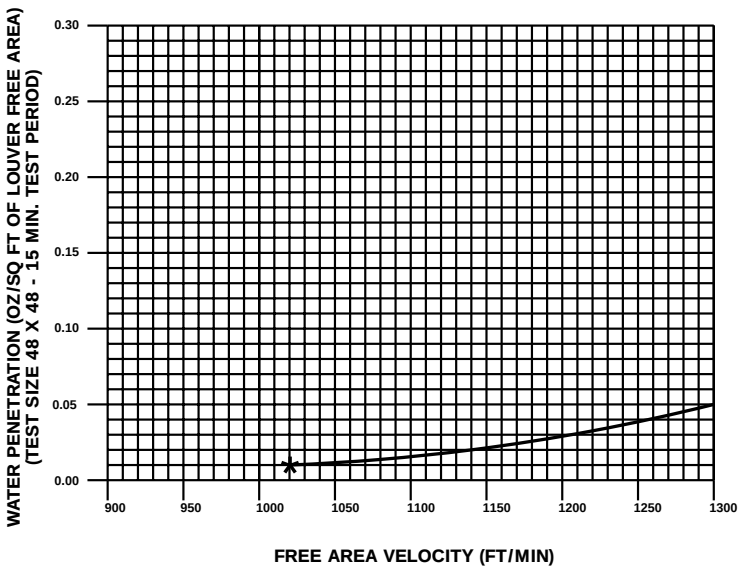


Model EAC-601 resistance to airflow is shown with damper blades fully open. Resistance (pressure drop) varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information.

Air Leakage with Damper Section Closed



Water Penetration (Standard Air - .075 lb/ft³)



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 point of zero water penetration is defined as that velocity where the water penetration curve projects through .01 oz. of water (penetration) per sq. ft. of louver free area. ***The beginning point of water penetration for Model EAC-601 is 1020 fpm free area velocity**. 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.

The AMCA certified ratings seal applies to air performance and water penetration only.

Louver Selection and Application

Application of any louver involves selecting an airflow velocity through the louver free area (free area velocity in fpm) that produces an acceptable pressure drop and for intake applications minimizes carry through of normally encountered rain water.

No louver manufacturer warrants their louver to prevent water penetration under all possible combinations of wind and rain. Water penetration through Model EAC-601 begins at 1020 fpm free area velocity. Intake air louver selection using free area velocity below 1020 fpm is recommended. Louver selection involves the following two steps, and depending on given conditions, either step may come first.

Select Free Area Velocity:

Using the **Airflow Resistance Chart**, select a free area velocity that produces an acceptable pressure drop with minimal water penetration. (Water penetration need not be considered when selecting exhaust louvers.)

Determine Louver Free Area:

Using the free area velocity from previous step and total cfm, determine Louver Free Area required. Using **Louver Free Area Chart**, select a louver with the required free area. If louver size is given, determine free area from chart and work backwards to determine maximum airflow. See examples below.

Free Area Chart

Louver Height Inches	Louver Width in Inches														Louver Height Inches
	12	15	18	21	24	27	30	33	36	39	42	48	54	60	
16	0.29	0.38	0.47	0.56	0.65	0.74	0.84	0.93	1.02	1.11	1.20	1.38	1.56	1.75	16
18	0.29	0.38	0.47	0.56	0.65	0.74	0.84	0.93	1.02	1.11	1.20	1.38	1.56	1.75	18
21	0.54	0.71	0.88	1.05	1.22	1.39	1.56	1.73	1.90	2.08	2.25	2.59	2.93	3.27	21
24	0.54	0.71	0.88	1.05	1.22	1.39	1.56	1.73	1.90	2.08	2.25	2.59	2.93	3.27	24
27	0.79	1.04	1.29	1.54	1.79	2.04	2.29	2.54	2.79	3.04	3.29	3.79	4.29	4.79	27
30	0.79	1.04	1.29	1.54	1.79	2.04	2.29	2.54	2.79	3.04	3.29	3.79	4.29	4.79	30
33	1.04	1.37	1.70	2.03	2.36	2.69	3.02	3.35	3.68	4.01	4.34	5.00	5.66	6.31	33
36	1.04	1.37	1.70	2.03	2.36	2.69	3.02	3.35	3.68	4.01	4.34	5.00	5.66	6.31	36
39	1.29	1.70	2.11	2.52	2.93	3.34	3.75	4.16	4.57	4.97	5.38	6.20	7.02	7.84	39
42	1.29	1.70	2.11	2.52	2.93	3.34	3.75	4.16	4.57	4.97	5.38	6.20	7.02	7.84	42
45	1.29	1.70	2.11	2.52	2.93	3.34	3.75	4.16	4.57	4.97	5.38	6.20	7.02	7.84	45
48	1.55	2.03	2.52	3.01	3.50	3.99	4.48	4.96	5.45	5.94	6.43	7.41	8.38	9.36	48
51	1.55	2.03	2.52	3.01	3.50	3.99	4.48	4.96	5.45	5.94	6.43	7.41	8.38	9.36	51
54	1.80	2.37	2.93	3.50	4.07	4.64	5.20	5.77	6.34	6.91	7.47	8.61	9.75	10.88	54
60	2.05	2.70	3.34	3.99	4.64	5.28	5.93	6.58	7.23	7.87	8.52	9.81	11.11	12.40	60
66	2.30	3.03	3.75	4.48	5.21	5.93	6.66	7.39	8.11	8.84	9.57	11.02	12.47	13.93	66
72	2.55	3.36	4.16	4.97	5.78	6.58	7.39	8.19	9.00	9.81	10.61	12.22	13.84	15.45	72
78	2.80	3.69	4.57	5.46	6.35	7.23	8.12	9.00	9.89	10.77	11.66	13.43	15.20	16.97	78
84	2.80	3.69	4.57	5.46	6.35	7.23	8.12	9.00	9.89	10.77	11.66	13.43	15.20	16.97	84
90	3.06	4.02	4.99	5.95	6.91	7.88	8.84	9.81	10.77	11.74	12.70	14.63	16.56	18.49	90
96	3.31	4.35	5.40	6.44	7.48	8.53	9.57	10.62	11.66	12.71	13.75	15.84	17.93	20.02	96
Louver Free Area in Square Feet															

EAC-601 Selection and Examples

Example 1:

Airflow given as 5000 cfm – select louver size.

A. Determine louver free area by dividing airflow by free area velocity (do not exceed 1020 fpm on intake louver application).

5000 (Airflow) cfm ÷ 1020 (Free Area Velocity) fpm = 4.90 (Required Louver Free Area) $ft.^2$

B. Select a louver with at least the required louver free area from **Free Area Chart** above.

33" W x 51" H

4.96 $ft.^2$ free area

1008 fpm free area velocity (5000 cfm ÷ 4.96 $ft.^2$ F.A.)

(Other selections available – See **Free Area Chart** above.)

C. Check the pressure drop of the selected louver at the given airflow (**Airflow Resistance Chart** on Page 2).

Δ P at 1008 (Free Area Velocity) fpm = 0.130 (Pressure Drop) in. w.g.

Example 2:

Louver size given as 48 x 48 – determine maximum airflow.

A. Use **Free Area Chart** to determine

Free Area = 7.41 $ft.^2$

B. Multiply Free Area x Free Area Velocity (Do not exceed 1020 fpm on intake louver applications).

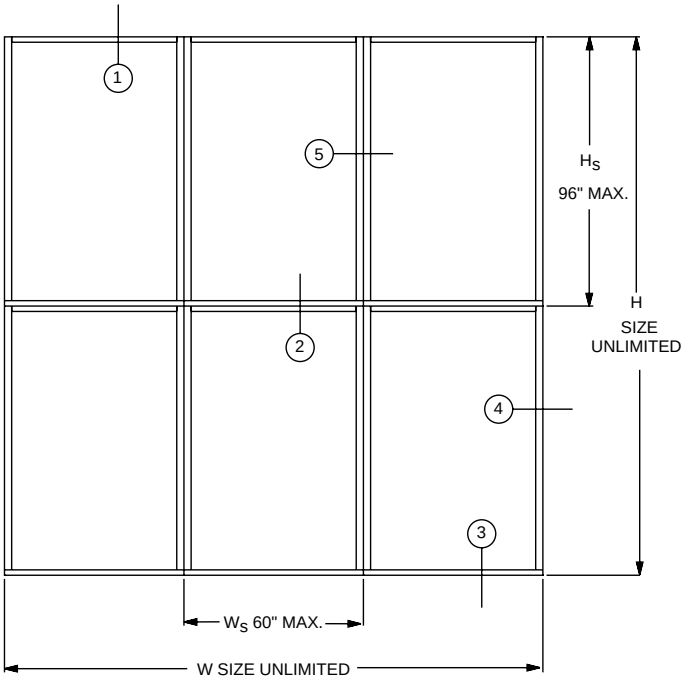
7.41 ($ft.^2$ Free Area) x 1020 (Free Area Velocity) fpm = 7558 (Maximum Airflow) cfm

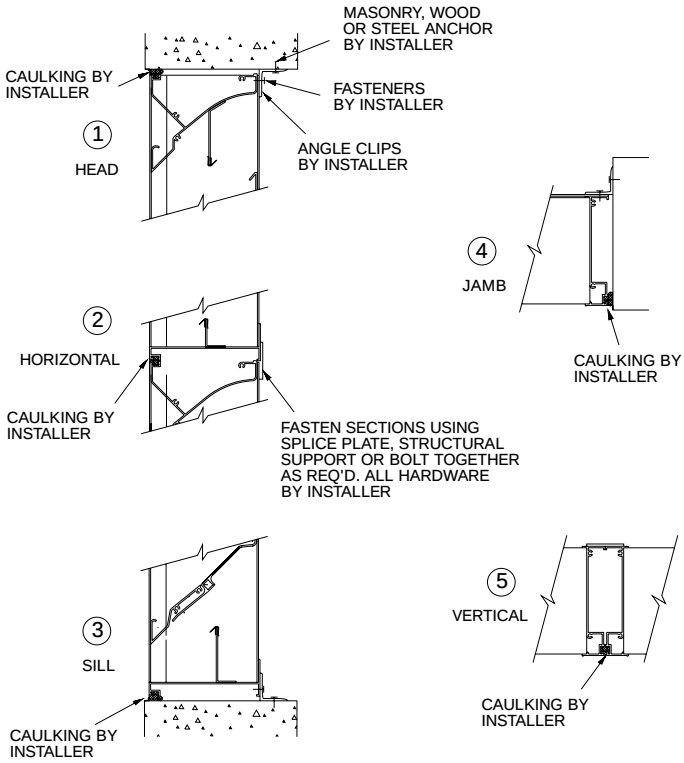
C. Check the pressure drop of the selected louver at the given airflow (**Airflow Resistance Chart** on Page 2).

Δ P at 1020 (Free Area Velocity) fpm = 0.135 (Pressure Drop) in. w.g.

Maximum Size and Installation Information

Maximum single section size for Model EAC-601 is 60"W x 96"H, and individual sections are designed to withstand wind loadings of 25 pounds per square foot (100 mph wind equivalent). Larger sizes require field assembly of equal size louver sections required to make up the overall louver size. Angles, clips, splice plates, bolts, and other fasteners required to install louvers and/or assemble louver sections are not provided with the louvers and must be supplied by the installing contractor. Louver assemblies (larger than 60"W x 96"H) require bracing or support from building structure at louver section joints to provide overall structural integrity. Details shown are general in nature. Additional information on louver installation may be found in AMCA Publication #501, Louver Application Manual.





Maximum Louver Size Information

W = Overall width – 120" unlimited
H = Overall height – 120" unlimited

W_S = Single section width - 60" maximum
H_S = Single section height - 96" maximum

Maximum Factory Assembled Size

60"W x 96"H

EAC-601 Specifications

Louvers meeting the following specifications shall be furnished and installed where shown on the plans and/or as described in schedules. Louvers shall be combination drainable type incorporating both stationary and adjustable blades within a single 6" louver frame. Adjustable blades or damper section shall be of low-leakage design incorporating pressure activated vinyl blade edge and compressible stainless steel jamb seals. When closed, adjustable blades provide an extremely tight seal to air leakage and weather. Each stationary blade shall incorporate an integral drain gutter and each jamb shall incorporate an integral downspout so water drains to blade end, then down the downspouts and out at the louver sill rather than cascading from blade to blade.

Each factory-assembled louver section shall be designed to withstand wind loadings of 25 pounds per square foot (100 mph wind equivalent). Louvers larger than 60"W x 96"H shall be built up by the installing contractor from factory-assembled louver sections. Louver frames, mullions, and section joints shall be adequately supported from the building structure to withstand this same wind loading.

Louver performance data shall be licensed under the AMCA Certified Ratings Program and shall bear the AMCA Certified Ratings Seal. This certified performance data shall include airflow pressure loss, water penetration, and shall demonstrate performance equal to or better than the Greenheck model specified.

Louvers shall be Greenheck Model EAC-601 combination type fabricated from 6063T5 aluminum extrusions of .081" nominal wall thickness. Blades shall be positioned at 45° angles approximately on 6" centers. Blade linkage shall be concealed in jamb out of airstream.

Specifier select one of the following finish specifications:

Louvers shall be supplied with standard mill finish.

Louvers shall be supplied with a baked enamel finish applied after a thorough cleaning and preparation of the metal surface. A total dry film thickness of approximately 1.2 mils shall be provided. Color shall be (specify color from standard color chart).

Louvers shall be supplied with a Kynar finish applied following a thorough cleaning and pretreatment of the metal surface. Dry film thickness of the Kynar shall be approximately 1.2 mils after baking at 450°F. Color shall be (specify color from standard color chart).

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