

Severe Weather Louver

IL42/3

4" Deep • Aluminum Construction • Architectural Storm Louver

STANDARD CONSTRUCTION

- FRAME:** .093" thick 6063-T5 extruded aluminum alloy
- SILL:** .093" thick 6063-T5 extruded aluminum alloy
- JAMBS:** .093" thick 6063-T5 extruded aluminum alloy
- BLADES:** .24" thick at edges, reducing to .063" thickness at midpoint of profile 6063-T5 extruded aluminum alloy
- BLADE SPACING:** IL42 - 1.25"
IL43 - 1.5"
- ASSEMBLY:** Mechanical fastened
- FINISH:** Mill
- SCREEN:** None
- MULLIONS:** 1.75" x .08" x 6063-T5 extruded aluminum exposed vertical cover; .08" sill plate exposed horizontal

OPTIONS

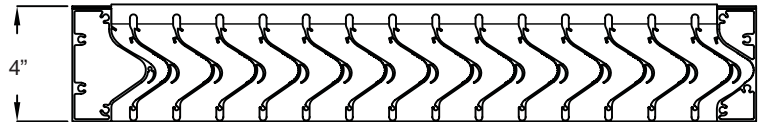
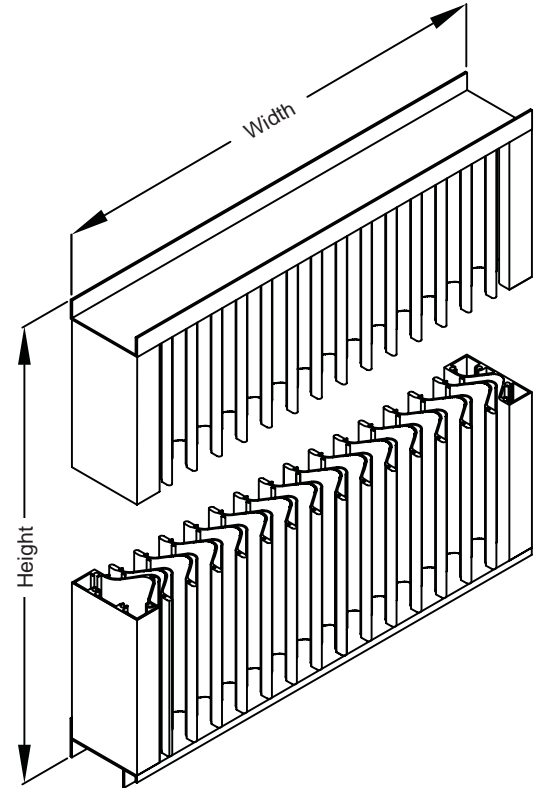
- Finish - Baked Enamel, Kynar, or Anodize
- Variety of Bird or Insect Screens
- Welded Construction
- Flange Frame
- Extended Sill

NOTES

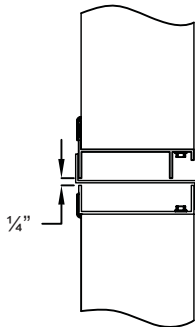
1. "A" width and "B" height are opening dimensions. Dampers are provided ¼" undercut.
2. Panels over 60" wide will have a 1.5" x 1.5" x .125" 6063-T5 aluminum support angle mounted vertically on interior approximately at the midpoint.

LOUVER SIZE

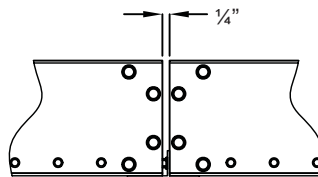
Panels	Min Panel	Max Single Panel
IL42 (1.25" blade spacing)	12"W x 12"H	60"W x 96"H 96"W x 60"H
IL43 (1.5" blade spacing)	12"W x 12"H	60"W x 96"H 96"W x 60"H



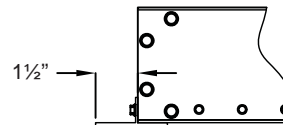
Top View IL4



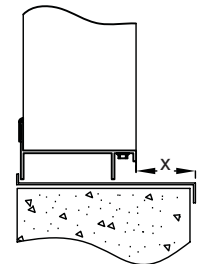
Standard Exposed Horizontal Mullion



Standard Exposed Vertical Mullion



Optional Flange Frame



Optional Extended Sill

1. Test size in 48"W x 48"H (1.2m x 1.2m)
2. Ratings do not include the effect of a screen.
3. Data is at standard air density.

Water Penetration: Not AMCA Certified

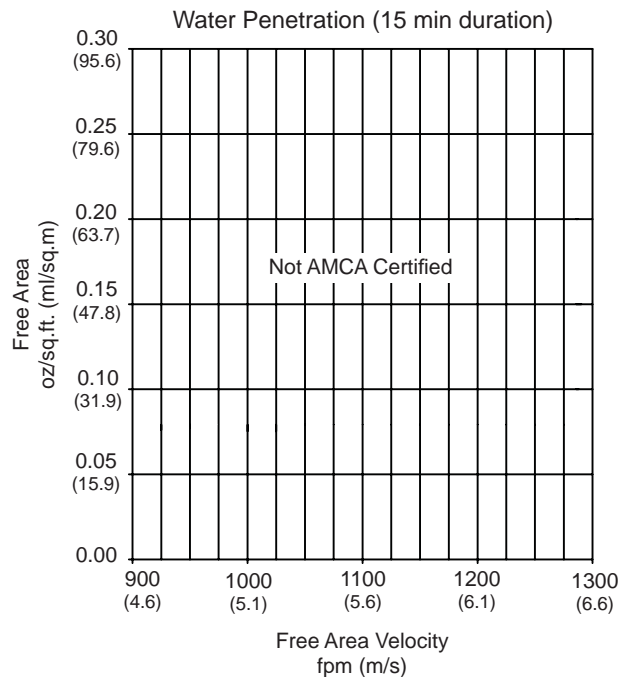
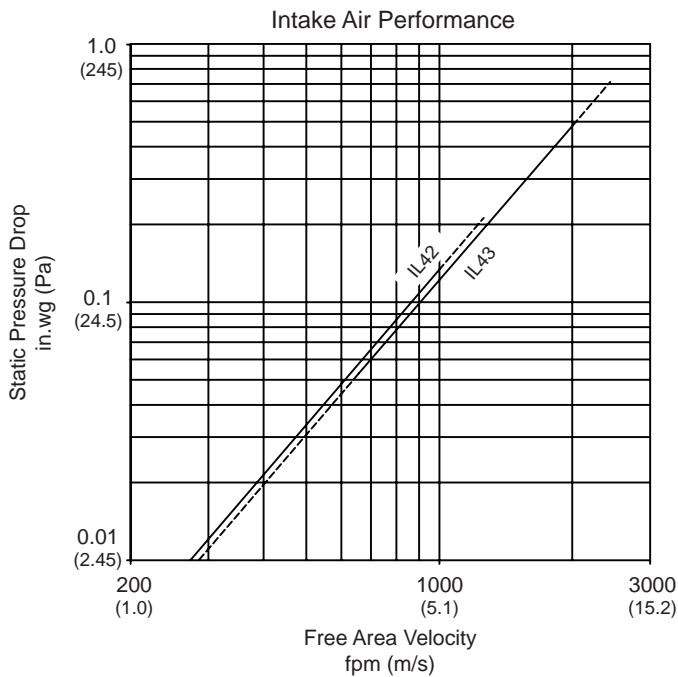
Air Performance: 1¼" Blade Spacing (IL42) - 0.19 in.wg (47.6 Pa) at 1250 fpm (6.4 m/s) and 6602 scfm (3.1 scm/s)
 1½" Blade Spacing (IL43) - 0.45 in.wg (111.6 Pa) at 1250 fpm (6.4 m/s) and 9667 scfm (4.6 scm/s)

Free Area: 1¼" Blade Spacing (IL42) - 5.17 sq.ft. (0.48 sq.m) = 32.3%
 1½" Blade Spacing (IL43) - 5.62 sq.ft. (0.52 sq.m) = 35.1%

Wind Driven Rain:

1. Test size in 48"W x 48"H (1.2m x 1.2m)
2. Core velocity is the air velocity through the core area of the louver, which is the louver face area less the louver frames.
3. Discharge Loss Coefficient is calculated by dividing a louver's actual airflow rate by the theoretical airflow rate for the opening. A higher coefficient indicates less resistance to airflow.

Blade Spacing	Rainfall Rate	Wind Velocity	Core Velocity	Airflow	Free Area Velocity	Water Penetration Effectiveness	Discharge Loss Coefficient
1.25" (31.8mm)	8 in/hr (200 mm/hr)	50 mph (22 m/s)	684 fpm (3.5 m/s)	10253 cfm (4.8 cm/s)	1774 fpm (9.0 m/s)	100% - Class A	≥ 0.2 - Class 3
1.5" (38.1mm)	3 in/hr (75 mm/hr)	29 mph (13 m/s)	700 fpm (3.6 m/s)	9806 cfm (4.6 cm/s)	1894 fpm (9.6 m/s)	100% - Class A	≥ 0.2 - Class 3



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IL42 Free Area sq.ft (sq.m)

		Width							
		12 (305)	24 (610)	36 (914)	48 (1219)	60 (1524)	72 (1829)	84 (2134)	96 (2438)
Height	12 (305)	.19 (.017)	.46 (.042)	.71 (.066)	.96 (.090)	1.23 (.114)	1.49 (.138)	1.75 (.163)	2.01 (.187)
	24 (610)	.46 (.043)	1.12 (.104)	1.74 (.162)	2.37 (.220)	3.02 (.281)	3.65 (.339)	4.31 (.400)	4.93 (.458)
	36 (914)	.73 (.068)	1.78 (.165)	2.77 (.258)	3.77 (.350)	4.82 (.447)	5.81 (.540)	6.86 (.637)	7.85 (.729)
	48 (1219)	1.01 (.093)	2.44 (.227)	3.81 (.354)	5.16 (.479)	6.61 (.614)	7.97 (.740)	9.41 (.874)	10.77 (1.001)
	60 (1524)	1.28 (.119)	3.11 (.289)	4.84 (.450)	6.57 (.610)	8.40 (.780)	10.13 (.941)	11.96 (1.111)	13.96 (1.297)
	72 (1829)	1.55 (.144)	3.77 (.350)	5.87 (.545)	7.97 (.741)	10.19 (.947)	11.74 (1.091)	13.85 (1.286)	15.95 (1.481)
	84 (2134)	1.82 (.169)	4.43 (.412)	6.90 (.641)	9.38 (.871)	11.98 (1.113)	13.81 (1.283)	16.28 (1.512)	18.75 (1.742)
	96 (2438)	2.10 (.195)	5.09 (.473)	7.94 (.737)	10.78 (1.001)	13.78 (1.280)	15.87 (1.474)	18.71 (1.738)	21.56 (2.002)
	1 Section Wide					2 Sections Wide			

- To determine minimum free area required for louvers:
1. Divide the required flow by the maximum recommended free area velocity.
 2. Select the most desirable louver size from the free area table that meets the minimum free area that is required.
 3. Compare specified performance to the certified water penetration and air performance ratings.

Example:
Given 10,000 CFM design flow

$$\text{minimum free area} = \frac{\text{design flow}}{\text{maximum recommended velocity}}$$

$$\text{minimum free area} = \frac{15,000}{1250} = 12 \text{ sq.ft.}$$

2. From the free area table the required louver size 60"W x 84"H for an IL42.

IL43 Free Area sq.ft (sq.m)

		Width							
		12 (305)	24 (610)	36 (914)	48 (1219)	60 (1524)	72 (1829)	84 (2134)	96 (2438)
Height	12 (305)	.20 (.019)	.48 (.045)	.77 (.071)	1.05 (.097)	1.33 (.124)	1.61 (.150)	1.90 (.176)	2.18 (.202)
	24 (610)	.49 (.046)	1.19 (.110)	1.88 (.175)	2.57 (.239)	3.27 (.303)	3.96 (.368)	4.65 (.432)	5.34 (.496)
	36 (914)	.79 (.073)	1.89 (.176)	2.99 (.278)	4.10 (.381)	5.20 (.483)	6.30 (.586)	7.41 (.688)	8.51 (.791)
	48 (1219)	1.08 (.100)	2.59 (.241)	4.11 (.382)	5.85 (.543)	7.14 (.663)	8.65 (.803)	10.16 (.944)	11.68 (1.085)
	60 (1524)	1.37 (.128)	3.30 (.306)	5.22 (.485)	7.15 (.664)	9.07 (.843)	11.00 (1.021)	12.92 (1.200)	14.84 (1.379)
	72 (1829)	1.67 (.155)	4.00 (.372)	6.34 (.589)	8.67 (.664)	11.01 (1.022)	12.67 (1.177)	15.01 (1.394)	17.34 (1.611)
	84 (2134)	1.96 (.182)	4.71 (.437)	7.45 (.692)	10.20 (.947)	12.94 (1.202)	14.90 (1.384)	17.65 (1.639)	20.39 (1.894)
	96 (2438)	2.25 (.209)	5.41 (.502)	8.56 (.796)	11.72 (1.089)	14.88 (1.382)	17.13 (1.591)	20.28 (1.884)	23.44 (2.177)
1 Section Wide					2 Sections Wide				



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