Adjustable Louvers





MODEL AFL-D-4 HIGH PERFORMANCE ADJUSTABLE LOUVER 4"

STANDARD CONSTRUCTION:

FRAME:

.081 Extruded Aluminum 4.25" deep.

BLADES:

.081 Extruded Aluminum Positioned on a 37° angle on approximately 2.88" centers.

LINKAGE:

In Airstream

BIRDSCREEN:

.75" X .051 Flattened Aluminum in Removable Frame. Screen is mounted on inside (rear) as looking from exterior of building.

OPERATOR:

Louvers without actuators will be supplied with Locking Quadrants

FINISH:

Mill Aluminum (Std.)

MINIMUM SIZE:

12"w x 12"h

MAXIMUM SIZE:

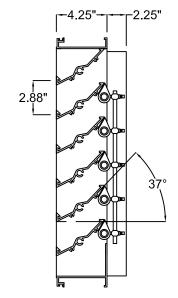
60"w x 96"h single section, Multiple louvers can be bolted together up to 120"w x 84" h or 84"w x 120"h. Factory assembled multi-section max: 108"w x48"h. Larger sizes are field assembled.

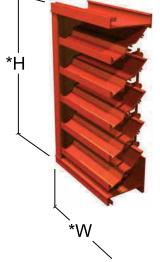
OPTIONS:

- ☐ Flanged Frame (1.5" std.)
- ☐ Custom Flange (1", 2", or 3")
- ☐ Glazing Adapter (.50" or .75")
- Extended Sill
- ☐ Insect Screen (Other Screens Available, See Screen Page)
- ☐ Filter Racks (no screen)
- ☐ Security Bars
- ☐ Blade Seals (EPDM)
- ☐ Jamb Seals (Stainless Steel)
- ☐ Hinged Sub Frame
- ☐ Actuator: See Actuator Selection Chart

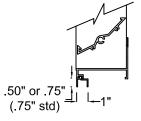
AVAILABLE FINISHES:

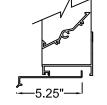
- □ Powder Polyester TGIC (2 coats) baked on at 410°F, 2.5 to 3.5 mils
- ☐ Powder Super durable polyester (2 coats) baked on at 410°F, 2.5 to 3.5 mils
- ☐ Acrylic baked ename! (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F, 0.8 to 1.2 mils dry
- ☐ Kynar® (ALUM*A*STAR®) 2 coats
 by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry
- Kynar 500® or HYLAR® 5000 70% TRINAR® (2 coats) by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry,
- ☐ Clear Anodize 204 R-1 Class II (AA-C22A31)(0.4 to 0.7 mil)
- ☐ Clear Anodize 215 R-1 Class I (AA-C22A41)(>0.7 mil)
- ☐ Integral Color Anodize (AA-C22A42)(>0.7 mil)
- Clear coat available for all above finishes.
- Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
- \bullet Kynar® 500 is a registered trademark of Arkema.
- ALUM*A*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
- ACRA-BOND® ULTRA is a registered trademark of AkzoNobel











OPTIONAL GLAZING ADAPTER

OPTIONAL EXTENDED SILL

MODEL AFL-D-4
HIGH PERFORMANCE ADJUSTABLE LOUVER 4"

^{*}Width and Height dimensions are approximately 1/4" under listed size.

SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be adjustable drainable type with drain gutters in each blade and downspouts in jambs and mullions, adjustable drainable blades shall be contained within a 4.25" frame. Louver components (heads, jambs, sills, blades, and mullions) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections to provide overall sizes required. Louver design shall incorporate structural supports required to withstand a wind load of 30 lbs. Per sq. ft. (equivalent of a 110 mph wind).

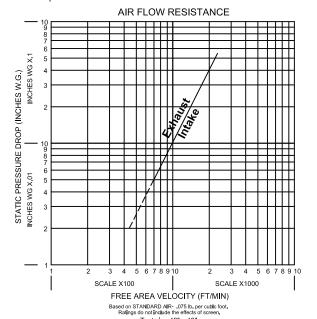
Louvers shall be CVS #AFL-D-4 6063T6 extruded aluminum construction as follows:

Frame: 4.25" deep, .081 nominal wall thickness. Blades: .081 nominal wall thickness. Drainable. Blades are positioned at 37-degree angle and spaced approximately 2.88 center to center. Screen: .75" x .051" (19 x 1.3) expanded, flattened aluminum in removable frame.

PERFORMANCE DATA

AMCA Standard 500-L provides a reasonable basis for testing and rating louvers. Testing to AMCA 500-L is performed under a certain set of laboratory conditions. This does not guarantee that other conditions will not occur in the actual environment where louvers must operate.

The louver system should be designed with a reasonable safety factor for louver performance. To ensure protection from water carryover, design with a performance level somewhat below maximum desired pressure drop and .01 oz./sq.ft. of water penetration



Test size 48" x 48"

FREE AREA CHART (SQUARE FEET)												
Louver		Louver Width In Inches										
Height		Height										
Inches	12 18 24 30 36 42 48 54 60 li								Inches			
12	0.27	0.44	0.60	0.77	0.94	1.10	1.28	1.45	1.61	12		
18	0.47	0.77	1.05	1.35	1.64	1.94	2.24	2.52	2.82	18		
24	0.68	1.11	1.53	1.96	2.38	2.81	3.23	3.66	4.08	24		
30	0.84	1.37	1.89	2.41	2.94	3.47	3.99	4.51	5.04	30		
36	1.03	1.67	2.32	2.96	3.60	4.24	4.89	5.53	6.17	36		
42	1.25	2.02	2.81	3.59	4.36	5.14	5.92	6.62	7.47	42		
48	1.44	2.34	3.23	4.13	5.02	5.92	6.81	7.71	8.61	48		
54	1.63	2.65	3.67	4.69	5.71	6.73	7.74	8.76	9.78	54		
60	1.84	2.98	4.12	5.26	6.40	7.55	8.69	9.83	10.97	60		
66	2.03	3.29	4.56	5.83	6.55	7.10	9.63	10.90	12.16	66		
72	2.24	3.62	5.02	6.41	7.80	9.19	10.58	11.98	13.37	72		
78	2.42	3.94	5.44	6.95	8.46	9.97	11.48	12.99	14.50	78		
84	2.64	4.59	5.93	7.57	9.22	10.86	12.51	14.17	15.82	84		
90	2.84	4.61	6.38	8.14	9.91	11.69	13.45	15.22	16.97	90		
96	3.04	4.95	6.84	8.75	10.65	12.31	14.44	16.34	18.24	96		

WATER PENETRATION

Standard Air - 075 lb/ft WATER PENETRATION (02/SQ FT OF LOUVER FREE AREA) TEST SIZE 48 X 48 -15 MIN. TEST PERIOD 0.15 0.10

FREE AREA VELOCITY (FT/MIN)

Based on STANDARD AIR- .075 lb. per cubic foot. Ratings do not include the effects of screen.

15 minute test duration

Beginning point of WATER PENETRATION is 1217 fpm the maximum recommended FREE AREA VELOCITY



MODEL AFL-D-6 HIGH PERFORMANCE ADJUSTABLE LOUVER 6"

STANDARD CONSTRUCTION:

FRAME:

.081 Extruded Aluminum 6.20" deep.

BLADES:

.081 Extruded Aluminum Positioned on a 37° angle on approximately 4.64" centers.

LINKAGE:

In Airstream

BIRDSCREEN:

.75" X .051 Flattened Aluminum in Removable Frame. Screen is mounted on inside (rear) as looking from exterior of building.

OPERATOR:

Louvers without actuators will be supplied with Locking Quadrants

FINISH:

Mill Aluminum (Std.)

MINIMUM SIZE:

12"w x 12"h

MAXIMUM SIZE:

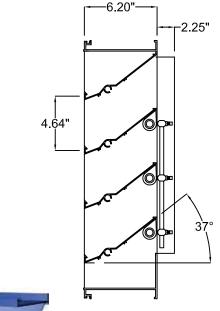
60"w x 96"h single section. Multiple louvers can be bolted together up to 120"w x 84" h or 84"w x 120"h. Factory assembled multi-section max: 108"w x48"h. Larger sizes are field assembled.

OPTIONS:

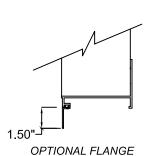
- ☐ Flanged Frame (1.5" std.)
- ☐ Custom Flange (1", 2", or 3")
- ☐ Glazing Adapter (.50" or .75")
- Extended Sill
- ☐ Insect Screen (Other Screens Available, See Screen Page)
- ☐ Filter Racks (no screen)
- ☐ Security Bars
- ☐ Blade Seals (EPDM)
- ☐ Jamb Seals (Stainless Steel)
- ☐ Hinged Sub Frame
- ☐ Actuator: See Actuator Selection Chart

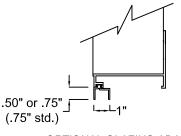
AVAILABLE FINISHES:

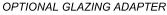
- □ Powder Polyester TGIC (2 coats) baked on at 410°F, 2.5 to 3.5 mils Meets AAMA-2603 Standards
- ☐ Powder Super durable polyester (2 coats) baked on at 410°F, 2.5 to 3.5 mils Meets AAMA-2604-05 Standards
- ☐ Acrylic baked enamel (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F, 0.8 to 1.2 mils dry Meets AAMA-2603 Standards
- □ Kynar® (ALUM*A*STAR®) 2 coats
 by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry
 Meets AAMA-2604-05 Standards
- ☐ Kynar 500® or HYLAR® 5000 70% TRINAR® (2 coats) by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards
- □ Kynar 500® or HYLAR® 5000 (70% Tri-Escent II)
 (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments creates subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors custom colors available. Baked on at 415°F, 1.4 to 1.8 mils dry, meets AAMA 2605-05.
- Clear Anodize 204 R-1 Class II (AA-C22A31)(0.4 to 0.7 mil)
- ☐ Clear Anodize 215 R-1 Class I (AA-C22A41)(>0.7 mil)
- Integral Color Anodize (AA-C22A42)(>0.7 mil)
- Clear coat available for all above finishes.
- Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
- Kynar® 500 is a registered trademark of Arkema.
- ALUM*A*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
- ACRA-BOND® ULTRA is a registered trademark of AkzoNobel

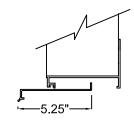












OPTIONAL EXTENDED SILL

*Width and Height dimensions are approximately 1/4" under listed size.

MODEL AFL-D-6
HIGH PERFORMANCE ADJUSTABLE LOUVER 6"

SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be adjustable drainable type with drain gutters in each blade and downspouts in jambs and mullions. adjustable drainable blades shall be contained within a 6.20" frame. Louver components (heads, jambs, sills, blades, and mullions) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections to provide overall sizes required. Louver design shall incorporate structural supports required to withstand a wind load of 30 lbs. Per sq. ft. (equivalent of a 110 mph wind).

PERFORMANCE DATA

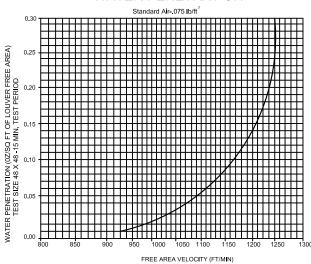
AMCA Standard 500 provides a reasonable basis for testing and rating louvers. Testing to AMCA 500 is performed under a certain set of laboratory conditions. This does not guarantee that other conditions will not occur in the actual environment where louvers must operate.

The louver system should be designed with a reasonable safety factor for louver performance. To ensure protection from water carryover, design with a performance level somewhat below maximum desired pressure drop and .01 oz./sq.ft. of water penetration.

Beginning point of WATER PENETRATION is 922 fpm

free area velocity at .01 oz. of water penetration

WATER PENETRATION



Louvers shall be CVS #AFL-D-6 6063T6 extruded aluminum construction as follows:

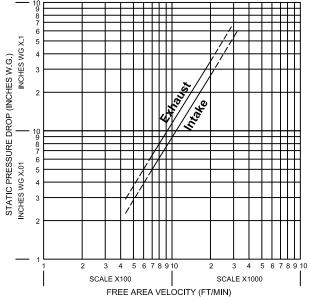
Frame: 6.20" deep, .125 nominal wall thickness. Blades: .081 nominal wall thickness. Drainable. Blades are positioned at 37-degree angle and spaced approximately 4.64 center to center. Screen: 3/4" x .051" (19 x 1.3) expanded, flattened aluminum in removable frame.

Published louver performance data bearing the AMCA Certified Ratings Seal for Air Performance & Water Penetration must be submitted for approval prior to fabrication and must demonstrate pressure drop and water penetration equal to or less than the model specified.

FREE AREA CHART (SQUARE FEET)

Louver Height		Louver Height								
Inches	12	18	24	30	36	42	48	54	60	Inches
12	0.27	0.44	0.61	0.78	0.95	1.11	1.28	1.45	1.62	12
18	0.54	0.87	1.20	1.54	1.87	2.20	2.53	2.86	3.20	18
24	0.79	1.27	1.76	2.24	2.72	3.21	3.69	4.18	4.66	24
30	1.06	1.72	2.37	3.03	3.68	4.34	4.99	5.65	6.30	30
36	1.27	2.06	2.84	3.62	4.40	5.19	5.97	6.75	7.54	36
42	1.51	2.44	3.37	4.29	5.22	6.15	7.08	8.01	8.94	42
48	1.82	2.95	4.07	5.19	6.31	7.43	8.56	9.68	10.80	48
54	1.99	3.22	4.45	5.68	6.90	8.13	9.36	10.59	11.81	54
60	2.24	3.62	5.00	6.39	7.77	9.15	10.53	11.91	13.29	60
66	2.50	4.05	5.59	7.13	8.67	10.21	11.75	13.29	14.83	66
72	2.72	4.40	6.07	7.75	9.42	11.10	12.77	14.45	16.12	72
78	2.99	4.82	6.66	8.50	10.33	12.17	14.01	15.85	17.68	78
84	3.22	5.21	7.19	9.18	11.16	13.15	15.13	17.12	19.10	84
90	3.50	5.66	7.81	9.97	12.12	14.28	16.43	18.59	20.74	90
96	3.72	6.01	8.29	10.58	12.87	15.16	17.45	19.73	22.02	96

AIR FLOW RESISTANCE



Based on STANDARD AIR- .075 lb. per cubic foot. Ratings do not include the effects of screen. Test size 48" x 48"



MODEL SAFL-4

4" [102mm] ADJUSTABLE STEEL LOUVER

4.13" [105mm]-

STANDARD CONSTRUCTION:

FRAME: 18 ga. galvanized steel, 4.13" [105mm] deep

BLADES: J style, 18 ga. galvanized steel, positioned at 45° angles

on approximately 4" [102mm] centers.

BIRDSCREEN: 0.50" x 0.050" [12.70mm x 1.27mm] Expanded flattened alum.

in removable frame. Screen is mounted on inside (rear)

OPERATOR: Louvers without actuators will be suplied with Locking Quadrants

FINISH: Mill Galvanized

MINIMUM SIZE: 8"w x 10"h [203mm x 254mm]

MAXIMUM SIZE: 48"w x 72"h [1219mm x 1829mm]

Larger sizes made in multiple sections.

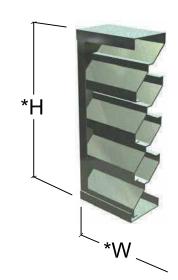
OPTIONS:

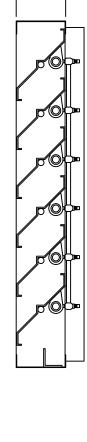
- ☐ Flanged Frame (1.5" std.) [38mm]
- ☐ Custom Flange (1", 2", or 3") [25mm, 51mm, or 76mm]
- ☐ Filter Racks (no screen)
- ☐ Hinged Sub Frame
- ☐ Welded Construction
- ☐ Insect Screen (Other Screens Available, See Screen Page)
- ☐ Actuator: See Actuator Selection Chart
- ☐ Aluminum Construction
- ☐ 304 Stainless Steel Construction
- ☐ 316 Stainless Steel Construction
- ☐ Blade Seals ☐ Extended Sill
- ☐ Jamb Seals ☐ Security Bars

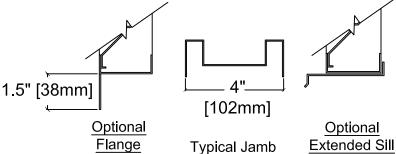
AVAILABLE FINISHES:

- □ Powder Polyester TGIC (2 coats) baked on at 410°F [210° C], 2.5 to 3.5 mils Meets AAMA-2603 Standards
- Powder Super durable polyester (2 coats) baked on at 410°F
- [210° C], 2.5 to 3.5 mils Meets AAMA-2604-05 Standards

 Acrylic baked enamel (ACRA-BOND® ULTRA)
- by AkzoNobel baked on at 350°F [177° C], 0.8 to 1.2 mils dry Meets AAMA-2603 Standards
- ☐ Kynar® (ALUM*A*STAR®) 2 coats
 - by AkzoNobel baked on at 450°F [222° C], 1.2 to 1.6 mils dry Meets AAMA-2604-05 Standards
- ☐ Kynar 500® or HYLAR® 5000 70% TRINAR® (2 coats) by AkzoNobel baked on at 450°F [222°C], 1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards
- □ Kynar 500® or HYLAR® 5000 (70% Tri-Escent II)
 (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments creates subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors custom colors available. Baked on at 415°F [213° C], 1.4 to 1.8 mils dry, meets AAMA 2605-05.
- ☐ Clear Anodize 204 R-1 Class II (AA-C22A31)(0.4 to 0.7 mil)
- ☐ Clear Anodize 215 R-1 Class I (AA-C22A41)(>0.7 mil)
- ☐ Integral Color Anodize (AA-C22A42)(>0.7 mil)
- Clear coat available for all above finishes.
- Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
- Kynar® 500 is a registered trademark of Arkema.
- ALUM*A*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
- ACRA-BOND® ULTRA is a registered trademark of AkzoNobel

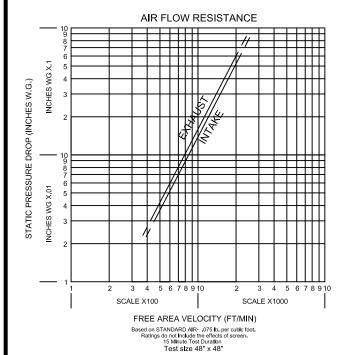






*W & H dimensions furnished approximately 1/4" [6.35mm] under size.

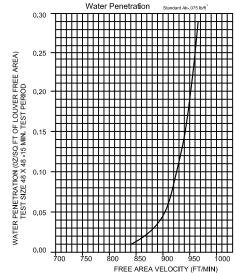
MODEL SAFL-4
4" [102mm] ADJUSTABLE STEEL LOUVER



Model SAFL-4 resistance to airflow 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.

Beginning Point of water penetration for Model SAFL-4 is **840 FPM**

FREE AREA VELOCITY AT .01 OZ. OF WATER



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 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 SAFL-4 begins at approximately 840 FPM free area velocity. Intake air louver selection using free area velocity below 840 FPM is recommended. Louver selection involves the following two steps, and depending on air 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 the 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 (square feet):

Louver Height		Louver Width in Inches												
Inches	8	12	18	24	30	36	42	48	54	60	Height Inches			
10	0.07	0.11	0.19	0.26	0.34	0.41	0.49	0.56	0.64	0.71	10			
12	0.13	0.23	0.38	0.53	0.68	0.83	0.98	1.13	1.28	1.43	12			
18	0.23	0.41	0.67	0.93	1.20	1.46	1.73	1.99	2.25	2.52	18			
24	0.38	0.67	1.10	1.54	1.97	2.40	2.84	3.27	3.70	4.14	24			
30	0.48	0.84	1.39	1.94	2.49	3.04	3.58	4.13	4.68	5.23	30			
36	0.63	1.11	1.82	2.54	3.26	3.98	4.69	5.41	6.13	6.85	36			
42	0.73	1.28	2.11	2.95	3.78	4.61	5.44	6.27	7.11	7.94	42			
48	0.88	1.54	2.55	3.55	4.55	5.55	6.55	7.55	8.56	9.56	48			
54	0.98	1.72	2.84	3.95	5.07	6.18	7.30	8.42	9.53	10.65	54			
60	1.12	1.98	3.27	4.55	5.84	7.12	8.41	9.70	10.98	12.27	60			
66	1.22	2.16	3.56	4.96	6.36	7.76	9.16	10.56	11.96	13.36	66			
72	1.37	2.42	3.99	5.56	7.13	8.70	10.27	11.84	13.41	14.98	72			
78	1.47	2.60	4.28	5.96	7.65	9.33	11.02	12.70	14.38	16.07	78			
84	1.62	2.86	4.71	6.57	8.42	10.27	12.13	13.98	15.83	17.69	84			
90	1.72	3.03	5.00	6.97	8.94	10.91	12.87	14.84	16.81	18.78	90			
96	1.87	3.30	5.43	7.57	9.71	11.85	13.98	16.12	18.26	20.40	96			



MODEL SAFL-6

6" [152mm] ADJUSTABLE STEEL LOUVER

STANDARD CONSTRUCTION:

FRAME: 18 ga. galvanized steel, 6.13" [156mm] deep

BLADES: J style, 18 ga. galvanized steel, positioned at 45° angles

on approximately 6" [152mm] centers.

BIRDSCREEN: 0.50" x 0.050" [12.70mm x 1.27mm] Expanded flattened alum. in removable frame.

Screen is mounted on inside (rear)

OPERATOR: Louvers without actuators will be supplied with Locking Quadrants.

FINISH: Mill Galvanized

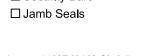
MINIMUM SIZE: 8"w x 12"h [203mm x 305mm]

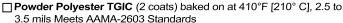
MAXIMUM SIZE: 48"w x 72"h [1219mm x 1829mm]

Larger sizes made in multiple sections.

OPTIONS:

- ☐ Flanged Frame (1.50" std.) [38mm]
- ☐ Custom Flange (1", 2", or 3") [25mm, 51mm. or 76mm]
- ☐ Filter Racks (no screen)
- ☐ Hinged Sub Frame
- ☐ Welded Construction
- ☐ Insect Screen (Other Screens Available, See Screen Page)
- ☐ Actuator: See Actuator Selection Chart
- ☐ Aluminum Construction
- ☐ 304 Stainless Steel Construction ☐ Extended Sill
- ☐ 316 Stainless Steel Construction ☐ Security Bars
- ☐ Blade Seals



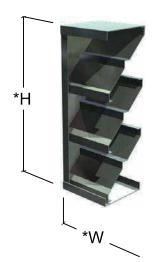


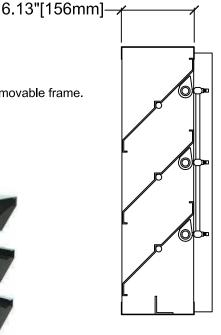
5.5 mils Meets AAMA-2005 Standards

□ Powder Super durable polyester (2 coats) baked on at 410°F [210° C], 2.5 to 3.5 mils Meets AAMA-2604-05 Standards

□ Acrylic baked enamel (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F [177° C], 0.8 to 1.2 mils dry Meets AAMA-2603 Standards

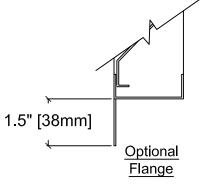
- ☐ Kynar 500® or HYLAR® 5000 70% TRINAR® (2 coats) by AkzoNobel baked on at 450°F [222°C], 1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards
- ☐ Clear Anodize 204 R-1 Class II (AA-C22A31)(0.4 to 0.7 mil)
- ☐ Clear Anodize 215 R-1 Class I (AA-C22A41)(>0.7 mil)
- ☐ Integral Color Anodize (AA-C22A42)(>0.7 mil)
- Clear coat available for all above finishes.
- Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
- Kynar® 500 is a registered trademark of Arkema.
- ALUM*A*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
- ACRA-BOND® ULTRA is a registered trademark of AkzoNobel

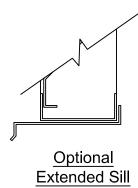






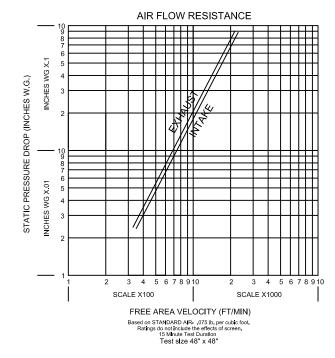
Typical Jamb



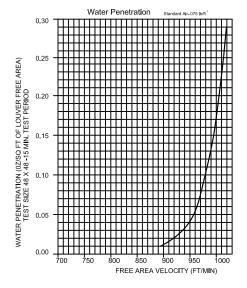


*W & H dimensions furnished approximately 1/4" [6.35mm] under size.

MODEL SAFL-6
(6" [152mm] ADJUSTABLE STEEL LOUVER)



Model SAFL-6 resistance to airflow 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.



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 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 SAFL-6 begins at approximately 896 FPM free area velocity. Intake air louver selection using free area velocity below 896 FPM is recommended. Louver selection involves the following two steps, and depending on air 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 the 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 (square feet):

			\ •		,							
Louver Height	Louver Width in Inches											
Inches	8	12	18	24	30	36	42	48	54	60	Height Inches	
12	0.1	0.11	0.3	041	053	065	0.77	0.88	1	1.12	12	
18	0.22	0.23	0.65	0.90	1.16	1.41	1.67	1.92	2.18	2.43	18	
24	0.34	0.41	1.00	1.39	1.79	2.18	2.57	2.97	3.36	3.75	24	
30	0.46	0.67	1.35	1.88	2.41	2.94	3.48	4.01	4.54	5.07	30	
36	0.59	.84	1.7	2.37	3.04	3.71	4.38	5.05	5.72	6.39	36	
42	0.74	1.11	2.15	2.99	3.83	4.68	5.52	6.37	7.21	8.06	42	
48	0.88	1.28	2.55	3.55	4.56	5.56	6.56	7.57	8.57	9.57	48	
54	1.02	1.54	2.95	4.12	5.28	6.44	7.60	8.77	9.93	11.09	54	
60	1.16	1.72	3.36	4.68	6.00	7.32	8.64	9.96	11.29	12.61	60	
66	1.30	1.98	3.76	5.24	6.72	8.20	9.68	11.16	12.64	14.12	66	
72	1.43	2.16	4.16	5.80	7.43	9.07	10.70	12.34	13.98	15.61	72	
78	1.55	2.42	4.51	6.28	8.06	9.83	11.61	13.38	15.16	16.93	78	
84	1.67	2.60	4.86	6.77	8.69	10.60	12.51	14.42	16.34	18.25	84	
90	1.79	2.86	5.21	7.26	9.31	11.36	13.42	15.47	17.52	19.57	90	
96	1.92	3.03	5.56	7.75	9.94	12.13	14.32	16.51	18.70	20.89	96	

Product Range

- ► Fire-Resisting Ductwork (BS & EN)
- ► Fire-rated Insulation (ASTM & UL)
- ➤ Sound Attenuators (ASTM & BS)
- ➤ VAV Boxes (AHRI)
- ► Life Safety Dampers (UL)
- ► Control Dampers (AMCA & BS)
- ➤ Access Doors (BS & EN)
- ► Louvers (AMCA)

- Smoke Exhaust, Building, Car Park & Tunnel Ventilation Fans (AMCA & EN)
- ► Domestic and Industrial Ventilation Fans
- ► AHU, FAHU, FCU, RTU, ERV & Ecology Units (Eurovent, TUV & AHRI)
- Electrostatic Precipitators (ESPs)& UL Listed Air Filters (UL)

Our Brands



Non-Coated Fire-Resisting Ductwork & Life Safety Dampers



Smoke Exhaust, Car Park & Tunnel Ventilation



Control Dampers, Louvers, Sound Attenuators & VAV Boxes



Fire-rated Insulation



Coated Fire-Resisting
Ductwork



General Ventilation



AHU, FCU, RTU, ERV & Ecology Units

U.A.E

Industrial Area 2, Al Wasit Road, Sharjah, UAE K.S.A

Dammam 2nd Industrial City, Dammam 31952, K.S.A **Egypt**

Al Minya Industrial Zone, Al Minya Governorate 2427606, Egypt Qatar

Street 9 Industrial Area, Doha, Qatar





www.cvshvac.com