

Weather Protective Blade Louver in 4" thick frame design

Design Features – Uniquely designed louver that provides weather protection and permits airflow while incorporating itself into a metal panel wall design integrating a continuous façade that offers both form and function.

STANDARD CONSTRUCTION

FRAME

S-LFC-04" (102) thick, is 12 gauge (2.03) formed aluminum in style #2

BLADES

S-LFC-04", (102) are 12 gauge (2.03) formed alum, approx. spacing is 7-1/4" (184) @ 45°

MAXIMUM SIZE

Unlimited, with mullions, structural bracing supplied by others

MAXIMUM SINGLE SECTION

120" w x 84" h or 84" w x 120" h
 (allows for best handling)

MULLIONS

Visible

MINIMUM SIZE

12" W x 12" H (305 x 305)

UNDERSIZED

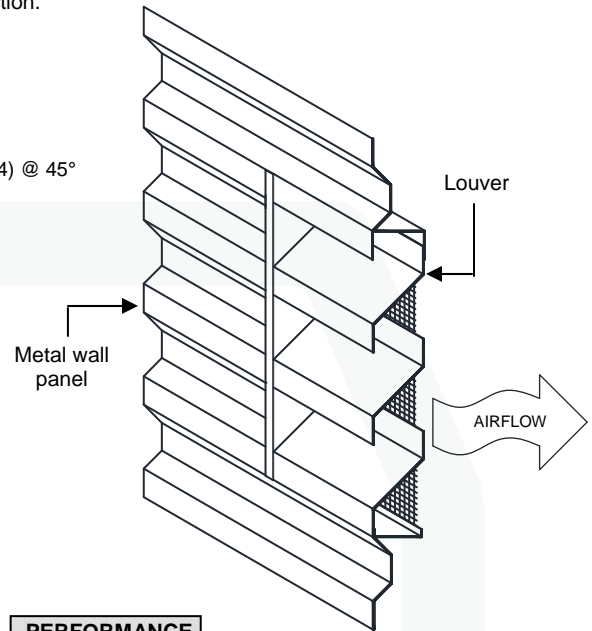
3/8" (10) under ordered size unless specified Exact or Actual

SCREEN

1/2" (13) x .063 aluminum wire bird screen in frame

FINISH

Mill



PERFORMANCE

Point of
water penetration
 700 fpm (213)
 Free area
48 x 48 section
 42%

OPTIONAL CONSTRUCTION

FRAME – Available in a heavier construction up to 10 gauge (3.5)

BLADES - Available in a heavier construction up to 12 gauge (2.7)

SPECIFIED MATERIAL – Galvanized, Stainless steel or as requested

SCREENS - Many styles available please consult screen listing

MULLIONS – Invisible for enhanced architectural appearance.

FINISH – Air-dry primer, polyurethane, epoxy, or enamel. Baked epoxy or enamel. Kynar (Kynar limitations on steel.)

SPECIAL PURPOSE CONSTRUCTION

Special shapes; Round, Triangle, Trapezoid, Octagon, etc.

Fully welded assembly

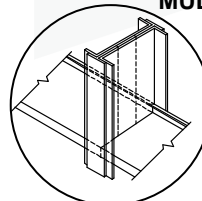
Security bars

Filter racks

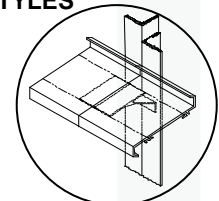
Hinged as walk through door or for swing out access

Sleeved for ductwork connection

MULLION STYLES

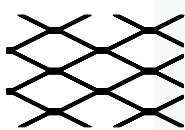


Visible

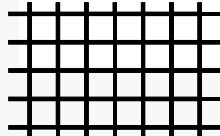


Invisible

TYPICAL SCREEN STYLES

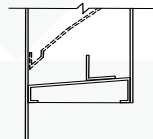


Expanded Aluminum
 Standard

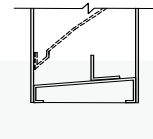


Wire Mesh

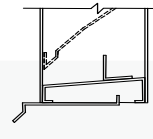
FRAME STYLE



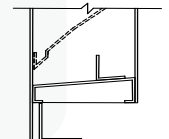
1- Flange (1.5")



2 - Channel



7- Channel with
 Sill Extension



9 - Flange
 with Sub Frame

DATE	ARCHITECT/ENGINEER				CUSTOMER
PROJECT					
ITEM	QTY	W	H	DESCRIPTION	



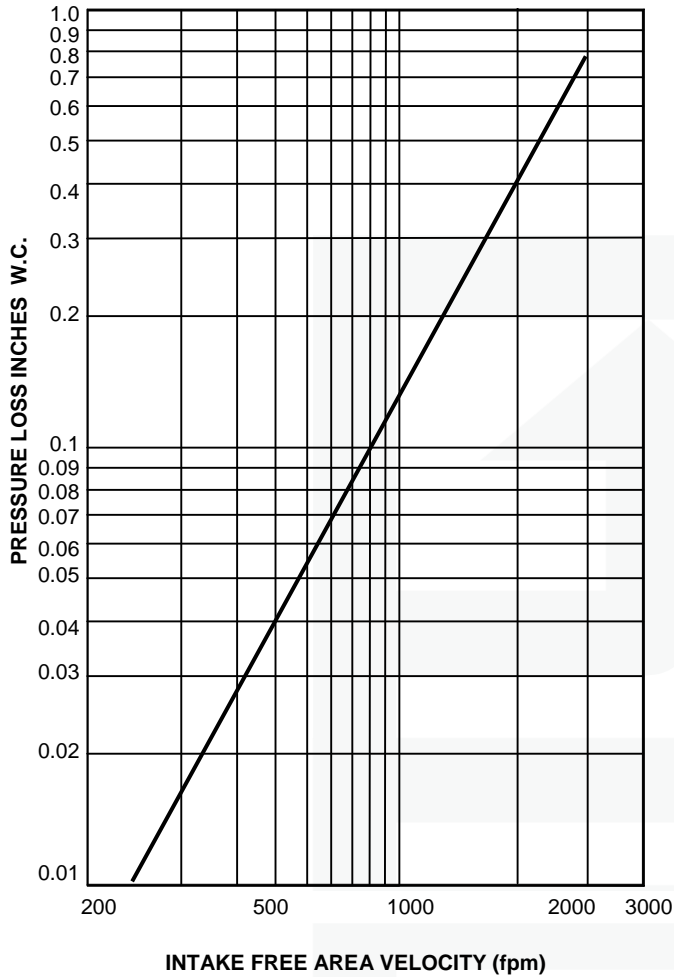
A division of Safe Air of Illinois
 DEPENDABLE PRODUCTS SINCE 1955
DOWCO PRODUCTS GROUP

Engineering and General Offices
 1855 South 54th Avenue, Cicero, Illinois 60804
 Phone 708-652-9100 FAX 708-652-9158

S-LFC-04 PERFORMANCE SPECIFICATIONS

All tests performed at an independent laboratory and based on AMCA standard 511 – 91 for air performance and water penetration.

AIR PERFORMANCE



CALCULATING PRESSURE LOSS

Based upon a given flow rate (in CFM), the flowing pressure loss may be determined from the "air performance" graph, knowing the sq. ft. of free area of the louver. Alternately, the free area may be determined based upon a volumetric flow rate and a maximum pressure loss utilizing the "air performance" graph.

_____ in. W.C. Max. Pressure Loss Intake or Exhaust
 _____ FPM (Free Area Velocity From "Air Performance" Graph)
 _____ CFM / _____ FPM Free Area Velocity = _____ Sq. Ft. Free Area

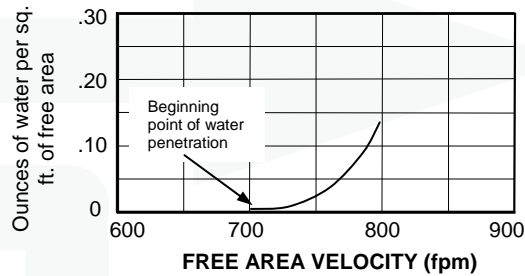
CALCULATING MAXIMUM AIRFLOW BEFORE WATER PENETRATION

The "free area flow rate" at which water penetration commences (.01 oz. of water) is established at, 700 fpm (213), and will vary depending upon actual weather conditions. The "water penetration" graph illustrates the results of actual laboratory test on a 48" x 48" (1219 x 1219) test sample subjected to hypothetical rainfall conditions. To determine the free area (in sq. ft.) based on upon a known volumetric flow rate in CFM;

_____ CFM / _____ FPM = _____ SQ. FT. FREE AREA
 (System Requirements)

Water Penetration Graph
 in oz. of water per sq. ft. of free area over a 15 min. test period

	.01	.02	.05	.1	.2	.3 (H2O)
	700	744	773	788	N/A	N/A (fpm)



700 fpm (213) beginning of water penetration

FREE AREA CALCULATIONS IN SQ. FT.

Inches	WIDTH																		HEIGHT	
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114		120
12	-0.04	-0.06	-0.08	-0.10	-0.12	-0.14	-0.16	-0.19	-0.21	-0.23	-0.25	-0.27	-0.29	-0.31	-0.34	-0.36	-0.38	-0.40	-0.42	
18	0.39	0.63	0.87	1.10	1.34	1.57	1.81	2.05	2.28	2.52	2.75	2.99	3.23	3.46	3.70	3.93	4.17	4.41	4.64	
24	0.56	0.90	1.24	1.58	1.91	2.25	2.59	2.93	3.26	3.60	3.94	4.28	4.61	4.95	5.29	5.63	5.96	6.30	6.64	
30	0.81	1.30	1.79	2.27	2.76	3.25	3.74	4.22	4.71	5.20	5.69	6.17	6.66	7.15	7.63	8.12	8.61	9.10	9.58	
36	1.06	1.70	2.34	2.97	3.61	4.25	4.88	5.52	6.16	6.80	7.43	8.07	8.71	9.34	9.98	10.62	11.26	11.89	12.53	
42	1.30	2.09	2.87	3.65	4.43	5.21	5.99	6.78	7.56	8.34	9.12	9.90	10.69	11.47	12.25	13.03	13.81	14.60	15.38	
48	1.46	2.34	3.22	4.10	4.98	5.85	6.73	7.61	8.49	9.37	10.24	11.12	12.00	12.88	13.76	14.63	15.51	16.39	17.27	
54	1.62	2.60	3.57	4.55	5.52	6.49	7.47	8.44	9.42	10.39	11.37	12.34	13.31	14.29	15.26	16.24	17.21	18.19	19.16	
60	1.81	2.90	3.98	5.07	6.16	7.24	8.33	9.42	10.50	11.59	12.68	13.76	14.85	15.93	17.02	18.11	19.19	20.28	21.37	
66	2.06	3.30	4.53	5.77	7.01	8.24	9.48	10.71	11.95	13.19	14.42	15.66	16.89	18.13	19.37	20.60	21.84	23.08	24.31	
72	2.31	3.70	5.08	6.47	7.85	9.24	10.63	12.01	13.40	14.78	16.17	17.56	18.94	20.33	21.71	23.10	24.49	25.87	27.26	
78	2.53	4.05	5.57	7.09	8.61	10.13	11.65	13.17	14.69	16.21	17.73	19.25	20.77	22.29	23.82	25.34	26.86	28.38	29.90	
84	2.69	4.31	5.93	7.54	9.16	10.77	12.39	14.01	15.62	17.24	18.86	20.47	22.09	23.70	25.32	26.94	28.55	30.17	31.79	

SUGGESTED SPECIFICATIONS

LOUVER MODEL: S-LFC-04/ SERIES

GENERAL:

Furnish and install at locations where indicated on the drawings or as described in schedules with high performance weather-protective louver Model S-LFC-04/series as manufactured by DOWCO Products Group, 1855 South 54th Ave., Cicero, IL. 60804. Tel. 708-652-9100, Fax 708-652-9158 (www.safeair-dowco.com/contact.asp). All louvers shall manufactured under ARRA – American Recovery Reinvestment Act, “Buy American Stimulus Provision” and shall have a factory certified Union Label. Submit complete submittals or shop drawings to the architect/engineer for approval. All opening sizes shall be field verified prior to fabrication.

MATERIAL:

Frames and blades thickness shall be .081" (2.96mm) formed aluminum. Blades shall be designed to permit airflow and provide weather protection. Sill and jamb frames shall be caulked to prevent water penetration to interior wall construction. Blades are attached to jamb frames by means of plated steel screws. All fasteners to be aluminum, plated carbon steel, or stainless steel. Frames shall have integral caulking slot and retaining beads. Stationary louvers shall be furnished with bird and / or insect screens, supports and finishes as specified and as required for a complete installation.

PERFORMANCE:

Louvers shall be tested in accordance with AMCA Standard 500-L and licensed under the AMCA Certified Ratings Seal for both air performance and water penetration. The louvers shall have a minimum of 6.73 ft². (0.625 m²) (42%) free area on a 48 inch x 48 inch (1219 x 1219) louver. The rating shall show a maximum water penetration of .01 oz. at an air flow of 700 FPM (3.56 m/s) free area velocity based on a 15 minutes test duration. The Static Pressure Loss shall not be more than 0.11 in. H²O of water gauge (0.03 kPa) at an air flow of 1000 FPM (5.08 m/s) free area velocity.

STRUCTURAL DESIGN CRITERIA:

Louvers shall be designed and furnished with all the supports required to withstand a negative and positive wind load of 25 psf (1.20 kPa) @ delta L/180 deflection based on the maximum single section of 120 x 84 (3048 x 2135) or 84 x 120 (2135 x 3048). Larger sizes and higher wind loads require additional structural supports. Due to the variation of job requirements and local building codes, structural supports shall be analyzed on a job to job basis.

FINISH:

All louvers shall be finished with DOWCO's Kynar 500 with 100% resin Fluoropolymer coating. Finish to adhere to a 4H hardness rating. All finishing procedures shall be one continuous operation and the coating shall meet or exceed all requirements of AAMA Specification 2605-05 “*Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels.*” Manufacturer shall supply a standard 5-year limited warranty against failure and excessive fading or upon request a 20-year limited warranty against failure and excessive fading.