DOWCO Products Group
A division of Safe Air of Illinois

EXTRUDED ALUMINUM LOUVER

Storm Resistant / Drainable Blade Louver in 9” thick frame design - Model SVD-09

Design Features – High Performance patented design allowing maximum airflow with minimum outside element or water penetration.

STANDARD CONSTRUCTION

ALL MATERIAL – Extruded alum. alloy (6063-T5), (6063-T6) or (6061-T6)

FRAME
09” (229) thick, is .081 (2.1) extruded alum. in style #8.

BLADES
04” (102) Exterior blades @ 3-1/2” (89) & Interior blades @ 2-1/2” (64) oc.

MAXIMUM SIZE
Unlimited, with mullions, structural bracing supplied by others

MAXIMUM FACTORY ASSEMBLY SIZE
120” w x 84 H” or 84” w x 120” H (3048 x 2124) or (2134 x 3048) (allows for best handling)
(Type of finish may limit maximum single section)

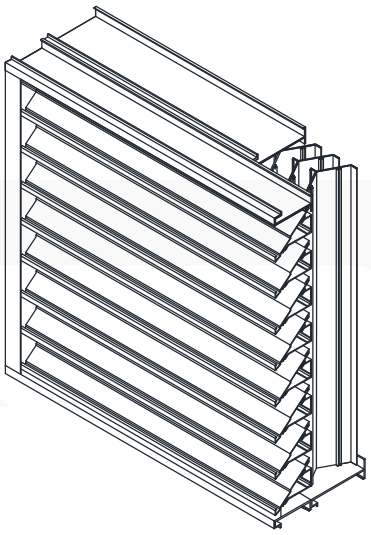
MULLION
Visible

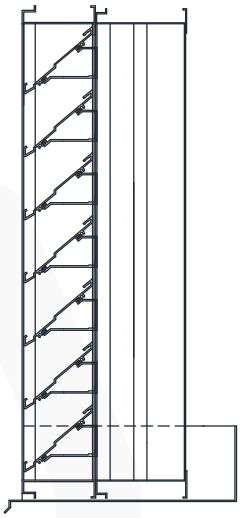
MINIMUM SIZE
12” w x 12” H (305 x 305)

UNDERSIZED
1/4” (6) under ordered size unless specified Exact or Actual

SCREEN
3/4” .051” (19 x 1.3) expanded aluminum bird screen no frame

FINISH
Mill

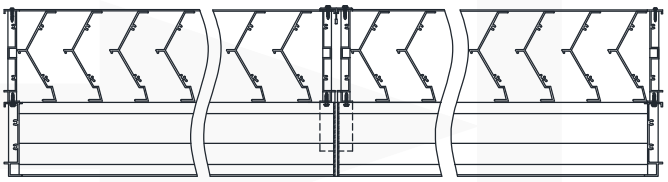




SECTION VIEW

OPTIONAL CONSTRUCTION

FRAME – Available in a heavier extrusion of .125” (3.2)
BLADES – Available in a heavier extrusion of .125” (3.2)
SCREEN - Many styles available please consult screen listing
FINISH – Air-dry primer, polyurethane, epoxy, or enamel.
Baked epoxy, powder coat Anodize or Kynar 500
MULLION – Visible for architectural preference



PLAN VIEW

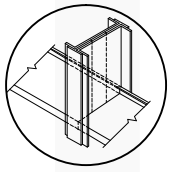
SPECIAL PURPOSE CONSTRUCTION

Special Shapes; Triangle, Trapezoid, etc.
Fully welded construction
Security bars
Filter racks
Hinged as walk through door or for swing out access
Sleeved for ductwork connection

PERFORMANCE

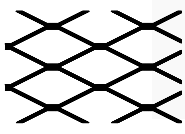
Point of
water penetration
1250 fpm (381)
Free area
48 x 48 section
59%

MULLION STYLES

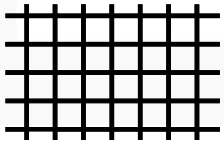


Visible

TYPICAL SCREEN STYLES

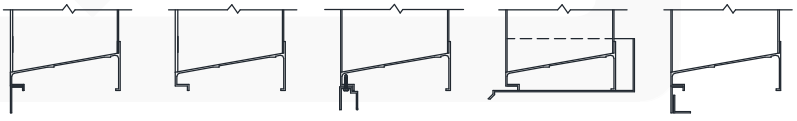


Expanded Aluminum Standard



Wire Mesh

FRAME STYLE



1- Flange (1.5”) | 3 – Box | 4 - Glazing Adapter | 8- Box with Sill Extension | 9 - Flange w/ Sub Frame

DATE	ARCHITECT/ENGINEER		CUSTOMER	
PROJECT				
ITEM	QTY	W	H	DESCRIPTION

DOWCO Products Group
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

DOWCO Products Group
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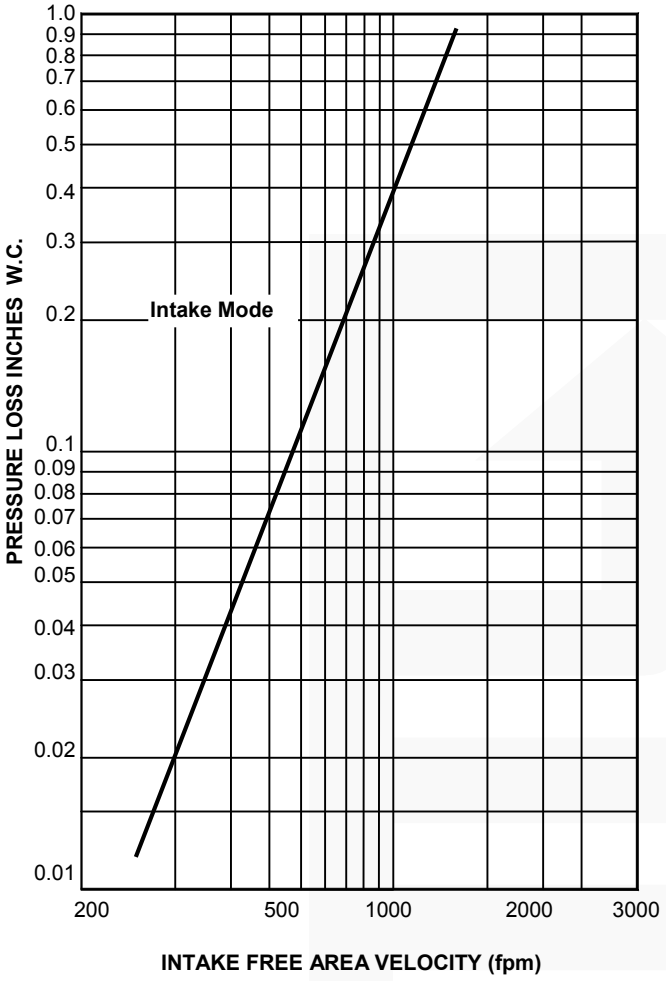
SVD-09 PERFORMANCE SPECIFICATIONS

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

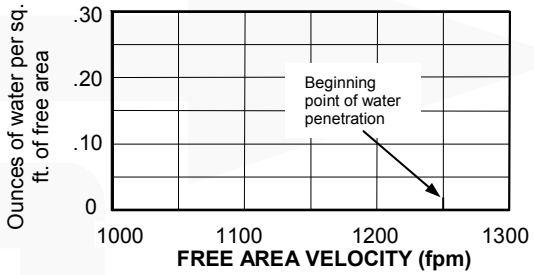
_____FPM (Free Area Velocity from "Air Performance" Graph)

_____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, 1250 fpm (381) 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	(H20)
	1250	n/a	n/a	n/a	n/a	n/a	(fpm)



1250 fpm (381) beginning of water penetration

Ventilation Air Velocity (m/s)	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Core Ventilation Rate (ft/min)	0	100	198	295	396	503	609	702	795	881	982
Free Area Ventilation Rate (ft/min)	0	156	302	455	609	776	904	1061	1250	1320	1501
Rating Effectiveness	A	A	A	A	A	A	A	A	A	A	A
Effectiveness Rating	A = 1 - 0.99			B = 0.989 - 0.95			C = 0.949 - 0.80			D = 0.80 - 0	

FREE AREA CALCULATIONS IN SQ. FT.

WIDTH

Inches	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
12	0.35	0.56	0.77	0.98	1.19	1.40	1.61	1.82	2.04	2.25	2.46	2.67	2.88	3.09	3.30	3.51	3.72	3.93	4.14
18	0.66	1.05	1.44	1.84	2.23	2.63	3.02	3.41	3.81	4.20	4.59	4.99	5.38	5.78	6.17	6.56	6.96	7.35	7.74
24	0.95	1.52	2.10	2.67	3.24	3.81	4.38	4.95	5.52	6.10	6.67	7.24	7.81	8.38	8.95	9.52	10.10	10.67	11.24
30	1.21	1.93	2.66	3.38	4.11	4.83	5.56	6.28	7.00	7.73	8.45	9.18	9.90	10.63	11.35	12.08	12.80	13.53	14.25
36	1.48	2.36	3.25	4.13	5.02	5.91	6.79	7.68	8.56	9.45	10.34	11.22	12.11	12.99	13.88	14.77	15.65	16.54	17.42
42	1.80	2.89	3.97	5.05	6.14	7.22	8.30	9.38	10.47	11.55	12.63	13.72	14.80	15.88	16.96	18.05	19.13	20.21	21.30
48	2.06	3.30	4.54	5.78	7.02	8.26	9.50	10.74	11.97	13.21	14.45	15.69	16.93	18.17	19.41	20.64	21.88	23.12	24.36
54	2.32	3.71	5.10	6.50	7.89	9.28	10.67	12.06	13.45	14.85	16.24	17.63	19.02	20.41	21.80	23.20	24.59	25.98	27.37
60	2.63	4.20	5.78	7.35	8.93	10.50	12.08	13.65	15.23	16.80	18.38	19.95	21.53	23.10	24.68	26.25	27.83	29.40	30.98
66	2.92	4.67	6.43	8.18	9.93	11.68	13.44	15.19	16.94	18.70	20.45	22.20	23.95	25.71	27.46	29.21	30.96	32.72	34.47
72	3.18	5.08	6.99	8.89	10.80	12.71	14.61	16.52	18.42	20.33	22.24	24.14	26.05	27.95	29.86	31.76	33.67	35.58	37.48
78	3.45	5.51	7.58	9.65	11.71	13.78	15.85	17.92	19.98	22.05	24.12	26.18	28.25	30.32	32.39	34.45	36.52	38.59	40.65
84	3.77	6.04	8.30	10.57	12.83	15.09	17.36	19.62	21.89	24.15	26.41	28.68	30.94	33.21	35.47	37.73	40.00	42.26	44.53
90	4.03	6.45	8.87	11.29	13.71	16.13	18.55	20.97	23.39	25.81	28.23	30.65	33.07	35.49	37.91	40.33	42.75	45.17	47.59
96	4.29	6.86	9.43	12.01	14.58	17.15	19.73	22.30	24.87	27.45	30.02	32.59	35.16	37.74	40.31	42.88	45.46	48.03	50.60

HEIGHT

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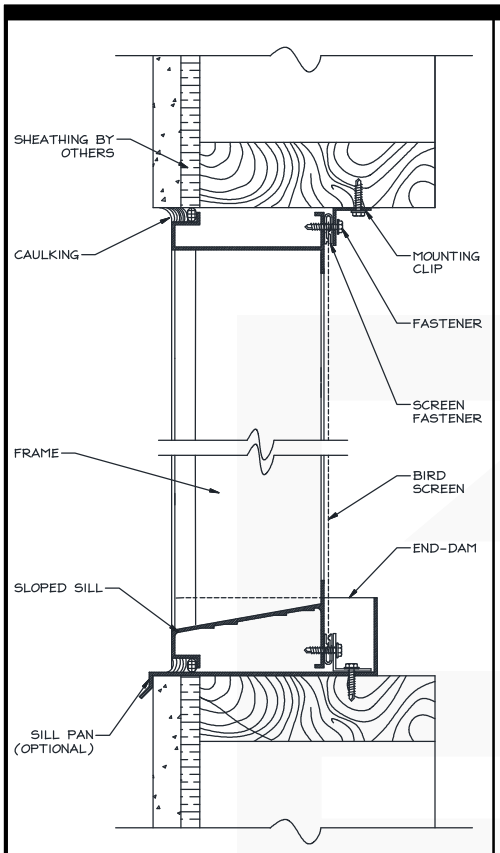
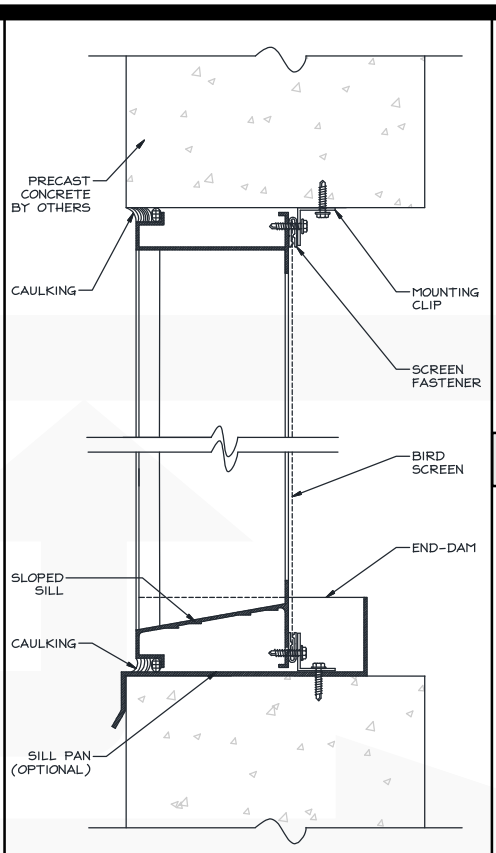
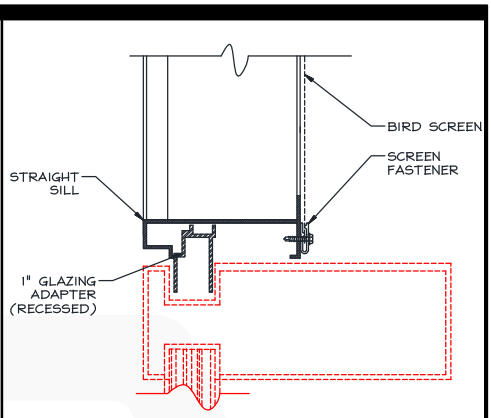
TYPICAL INSTALLATIONS



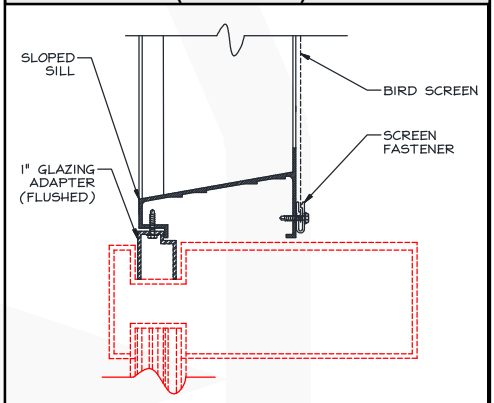
WOOD



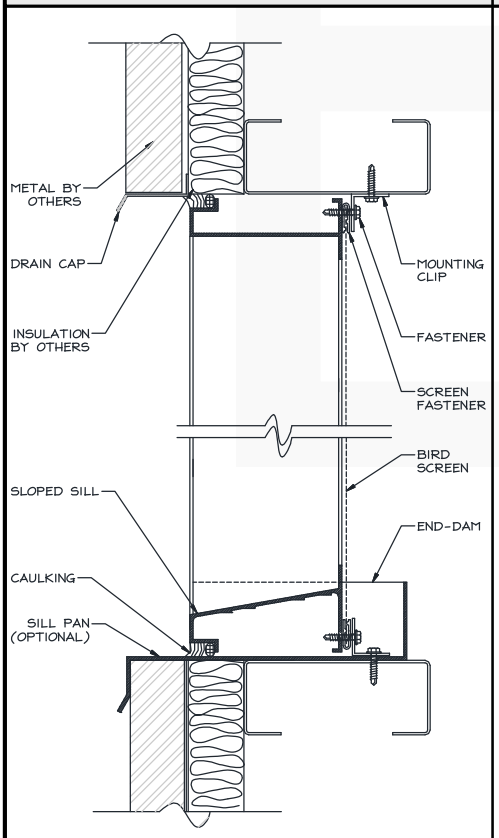
CONCRETE



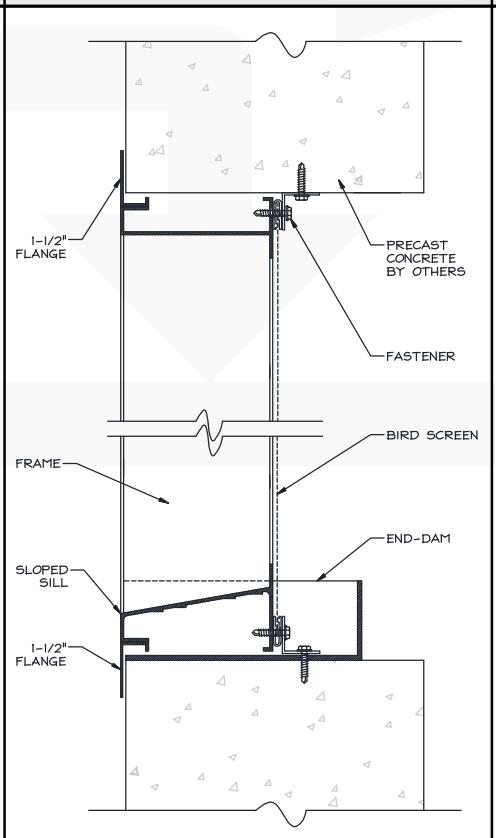
GLAZING ADAPTER (RECESSED)



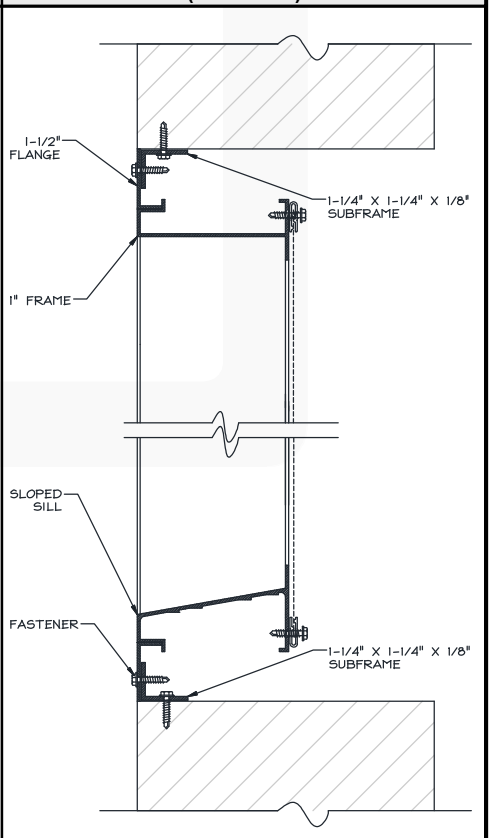
GLAZING ADAPTER (FLUSHED)



METAL PANEL WALL



FLANGE



FLANGE W/ SUBFRAME

SUGGESTED SPECIFICATIONS

LOUVER MODEL: SVD-09/ SERIES

GENERAL:

Furnish and install at locations where indicated on the drawings or as described in schedules with high performance weather-resistant drainable louver Model SVD-09/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) extruded aluminum alloy 6063-T5, T52 or T6. Blades shall be designed to collect and drain water to the jamb frames then down to the sill frame exterior at sill by means of channels in the jambs. 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 for both air performance and water penetration. The louvers shall have a minimum of 9.50 ft^2. (0.883 m^2) (59%) 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 1250 FPM (6.35 m/s) free area velocity based on a 15 minute test duration. The Static Pressure Loss shall not be more than 0.39 in. H^2O of water gauge (0.10 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.