



MODEL D-HV-4

HIGH PERFORMANCE FIXED LOUVER
with SNOW RESISTANCE

STANDARD CONSTRUCTION:

Frame: .081 Extruded Aluminum, 4.16" [105mm] Deep

Horizontal (front) Blade: .060 Extruded Aluminum on approximately 1.5" [37mm] centers

Vertical (rear) Blade: .060 Extruded Aluminum on approximately 0.75" [19mm] centers

Birdscreen: 0.75" [19mm] x .051" [1.29mm] Flattened Aluminum in removable frame. Screen is mounted as standard on inside (rear) as looking from exterior of building.

Finish: Mill Aluminum (Std.)

Minimum Size: 12" [305mm] x 12" [305mm]

Maximum Single Section: 120"w x 84"h or 84"w x 120"h
[3048mm] w x [2134mm] h or [2134mm] w x [3048mm] h

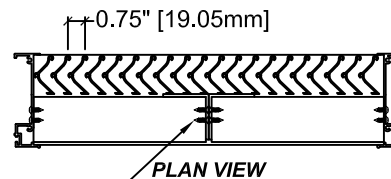
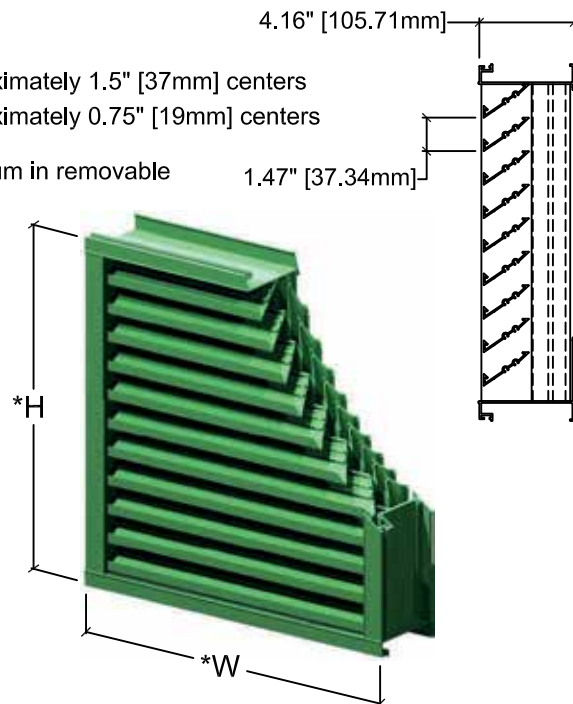
Note: Drainable blade louvers should be limited to 10' [3048mm] maximum section widths (no more than 10' [3048mm] between vertical downspouts) to enable the drainable design to function effectively.

OPTIONS:

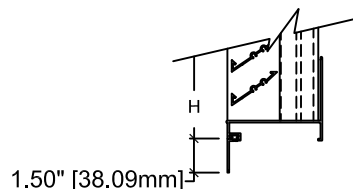
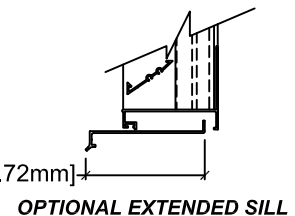
- ☐ Flanged Frame (1.50" [38mm] std.), (1" [25mm] std for shapes R_)
- ☐ Custom Flange (1", 2", or 3"), (1.5", 2", or 3" for shapes R_)
- ☐ [25mm, 51mm, or 76mm], [38mm, 51mm, or 76mm for shapes R_]
- ☐ Extended Sill
- ☐ Glazing Adapter (0.50" [13mm] or 0.75" [19mm])
- ☐ Insect Screen (Other Screens Available, See Screen Page)
- ☐ Filter Racks (no screen)
- ☐ Security Bars
- ☐ Hinged Sub Frame
- ☐ Welded Construction (Wind Load +/- 50 psf)
- ☐ Blank-off, Alum., non-insulated, no screen, non-removeable
- ☐ Blank-off, Alum., non-insulated, with bird screen or insect screen
- ☐ Blank-off, Alum., insulated double wall, with bird screen, removable
- ☐ Blank-off, Alum., insulated double wall, no screen, non-removeable

AVAILABLE FINISHES:

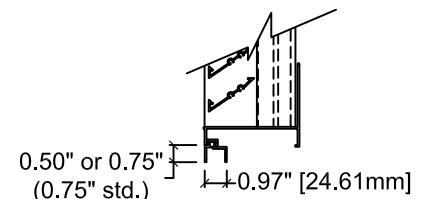
- ☐ **Powder Polyester TGIC** (2 coats) baked on at 410°F, 2.5 to 3.5 mils
- ☐ **Powder Super durable polyester** (2 coats) baked on at 410°F, 2.5 to 3.5 mils
- ☐ **Acrylic baked enamel** (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F, 0.8 to 1.2 mils dry
- ☐ **Kynar® (ALUM*A*STAR®)** 2 coats by AkzoNobel 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,
- ☐ **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,
- ☐ **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



Blade braces
placed 48"
[1219mm] max. o.c.



OPTIONAL FLANGE
(except R_ Shapes, 1" optional std)

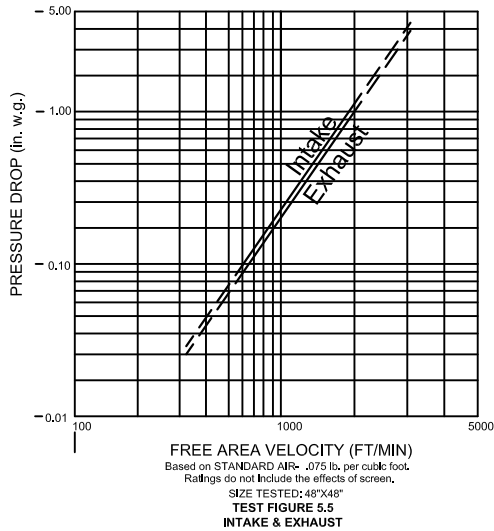


*Width and Height dimensions are approximately 1/4" under listed size.

MODEL D-HV-4
HIGH PERFORMANCE FIXED LOUVER
with SNOW RESISTANCE

Model D-HV-4 Louver Performance Data

Air Flow Resistance



Beginning point of **WATER PENETRATION** for
MODEL D-HV-4 lies above
1250 fpm
free area velocity at .01 oz. of water penetration
Test Duration: 15 minutes

D-HV-4 Specifications

Furnish and install louver as hereinafter specified where shown on plans or as described in schedules. Louver shall be stationary type with horizontal rain resistant style blades positioned on approximately 1.5" centers and vertical wind driven rain blades placed on approximately 0.75" both within 4.162" deep frame. Louver frame and blade materials to be .063" thick 6063-T5 extruded aluminum. Sections up to maximum of 84" w x 120" h shall withstand wind loading of 30 lbs/sq.ft. (110 mph wind equivalent). Consult factory for welded construction and higher wind speeds. Louver shall meet the performance requirements established by the AMCA 500L test procedure and shall be licensed to bear the AMCA certified rating seal for water penetration, air performance, and wind driven rain. Louver shall have a minimum free area of 7.75 sq. ft. based on the standard 48" w x 48" h test specimen. Louver shall have a maximum static pressure drop of 0.27" (exhaust) & 0.29" (intake) water gage based on 1000 FPM free area intake velocity. Louver shall carry a minimum Class A water penetration classification based on a ventilation core of 984 FPM at a rainfall rate of 3" per hour and a 29 mph simulated wind velocity. Louver shall also carry a minimum class A water penetration classification based on a ventilation core velocity of 974 FPM at a rainfall rate of 8" per hour and a 50 mph simulated wind velocity.

D-HV-4 FREE AREA IN SQ. FT.

Height - Inches	Louver Height Inches	Width - Inches																		Louver Height Inches	
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120		
	12	0.35	0.58	0.82	1.05	1.28	1.52	1.75	1.98	2.22	2.45	2.68	2.92	3.15	3.39	3.62	3.85	4.09	4.32	4.55	12
	18	0.56	0.93	1.30	1.67	2.04	2.41	2.78	3.15	3.52	3.89	4.26	4.63	5.00	5.37	5.74	6.11	6.48	6.85	7.22	18
	24	0.76	1.27	1.77	2.28	2.79	3.29	3.80	4.31	4.81	5.32	5.83	6.34	6.84	7.35	7.86	8.36	8.87	9.38	9.88	24
	30	0.97	1.61	2.25	2.90	3.54	4.18	4.83	5.47	6.11	6.76	7.40	8.04	8.69	9.33	9.97	10.62	11.26	11.90	12.55	30
	36	1.17	1.95	2.73	3.51	4.29	5.07	5.85	6.63	7.41	8.19	8.97	9.75	10.53	11.31	12.09	12.87	13.65	14.43	15.21	36
	42	1.38	2.29	3.21	4.13	5.04	5.96	6.88	7.79	8.71	9.63	10.54	11.46	12.38	13.29	14.21	15.13	16.04	16.96	17.88	42
	48	1.58	2.63	3.69	4.74	5.79	6.85	7.75	8.95	10.01	11.06	12.11	13.17	14.22	15.28	16.33	17.38	18.44	19.49	20.54	48
	54	1.79	2.98	4.17	5.36	6.55	7.74	8.93	10.12	11.31	12.50	13.69	14.88	16.07	17.26	18.45	19.64	20.83	22.02	23.21	54
	60	1.99	3.32	4.64	5.97	7.30	8.62	9.95	11.28	12.60	13.93	15.26	16.59	17.91	19.24	20.57	21.89	23.22	24.55	25.87	60
	66	2.20	3.66	5.12	6.59	8.05	9.51	10.98	12.44	13.90	15.37	16.83	18.29	19.76	21.22	22.68	24.15	25.61	27.07	28.54	66
	72	2.40	4.00	5.60	7.20	8.80	10.40	12.00	13.60	15.20	16.80	18.40	20.00	21.60	23.20	24.80	26.40	28.00	29.60	31.20	72
	78	2.61	4.34	6.08	7.82	9.55	11.29	13.03	14.76	16.50	18.24	19.97	21.71	23.45	25.18	26.92	28.66	30.39	32.13	33.87	78
	84	2.81	4.68	6.56	8.43	10.30	12.18	14.05	15.92	17.80	19.67	21.54	23.42	25.29	27.17	29.04	30.91	32.79	34.66	36.53	84
	90	3.02	5.03	7.04	9.05	11.06	13.07	15.08	17.09	19.10	21.11	23.12	25.13	27.14							90
	96	3.22	5.37	7.51	9.66	11.81	13.95	16.10	18.25	20.39	22.54	24.69	26.84	28.98							96
	102	3.43	5.71	7.99	10.28	12.56	14.84	17.13	19.41	21.69	23.98	26.26	28.54	30.83							102
	108	3.63	6.05	8.47	10.89	13.31	15.73	18.15	20.57	22.99	25.41	27.83	30.25	32.67							108
	114	3.84	6.39	8.95	11.51	14.06	16.62	19.18	21.73	24.29	26.85	29.40	31.96	34.52							114
120	4.04	6.73	9.43	12.12	14.81	17.51	20.20	22.89	25.59	28.28	30.97	33.67	36.36							120	

Wind Driven Rain Performance -AMCA 500-L-

Test size 1m x 1m (39.375"x39.375") core
41 5/8" w x 41 5/8" h Nominal

75 mm/h (3 in/h) Rainfall & 13 m/s (29 mph) Wind Velocity				
Core Velocity fpm (m/s)	Airflow cfm (m³/s)	Free Area Velocity fpm (m/s)	Effectiveness Ratio	AMCA Effectiveness Class
0 (0.0)	0 (0.00)	0 (0.0)	100.0	A
98 (0.5)	1055 (0.50)	184 (0.9)	100.0	A
197 (1.0)	2121 (1.00)	371 (1.9)	100.0	A
295 (1.5)	3175 (1.50)	555 (2.8)	100.0	A
394 (2.0)	4241 (2.00)	741 (3.8)	100.0	A
492 (2.5)	5296 (2.50)	926 (4.7)	100.0	A
591 (3.0)	6362 (3.00)	1112 (5.6)	100.0	A
689 (3.5)	7416 (3.50)	1297 (6.6)	100.0	A
787 (4.0)	8471 (4.00)	1481 (7.5)	100.0	A
886 (4.5)	9537 (4.50)	1667 (8.5)	100.0	A
984 (5.0)	10592 (5.00)	1852 (9.4)	100.0	A

202.4 mm/h (8 in/h) Rainfall & 22 m/s (50 mph) Wind Velocity				
Core Velocity fpm (m/s)	Airflow cfm (m³/s)	Free Area Velocity fpm (m/s)	Effectiveness Ratio	AMCA Effectiveness Class
0 (0.0)	0 (0.00)	0 (0.0)	100.0	A
96 (0.5)	1033 (0.49)	181 (0.9)	100.0	A
194 (1.0)	2088 (0.99)	365 (1.9)	100.0	A
284 (1.4)	3057 (1.44)	534 (2.7)	100.0	A
400 (2.0)	4306 (2.03)	753 (3.8)	100.0	A
496 (2.5)	5339 (2.52)	933 (4.7)	100.0	A
571 (2.9)	6146 (2.90)	1075 (5.5)	100.0	A
679 (3.4)	7309 (3.45)	1278 (6.5)	100.0	A
786 (4.0)	8461 (3.99)	1479 (7.5)	99.8	A
878 (4.5)	9451 (4.46)	1652 (8.4)	99.6	A
974 (4.9)	10484 (4.95)	1833 (9.3)	99.1	A

Class	Discharge Loss Coefficient
1	0.4 and above
2	0.3 to 0.399
3	0.2 to 0.299
4	.0199 and below

(the higher the coefficient, the less resistance to airflow.)

* Discharge Loss Intake	
Wind Velocity (mph)	Class
29	3
50	3

* Discharge loss coefficient is the theoretical air flow of an opening divided by the actual flow rate of a louver the same size.

Wind Driven Rain Penetration Classes	
Class	Effectiveness
A	1 to 0.99
B	0.989 to 0.95
C	0.949 to 0.80
D	Below 0.8