MODEL D-HV-4

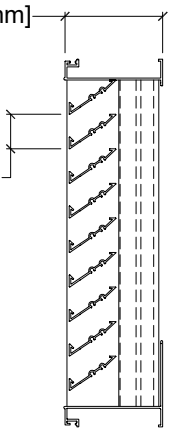
HIGH PERFORMANCE FIXED LOUVER
with SNOW RESISTANCE

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



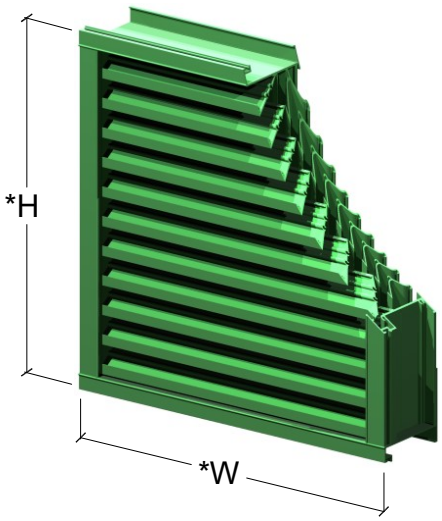
Birdscreen: 0.50" [12.70mm] x .050" [1.27mm] Flattened Aluminum in removable frame. Screen is mounted as standard on inside (rear) as looking from exterior of building.

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.



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WATER PENETRATION
AIR PERFORMANCE
WIND DRIVEN RAIN
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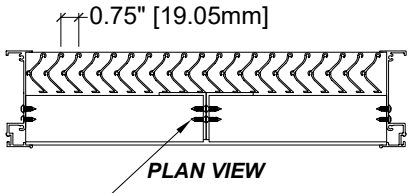
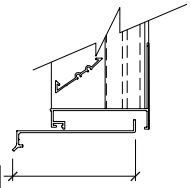
OPTIONS:

- ☐ 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-removable



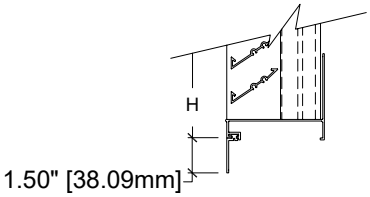
PLAN VIEW



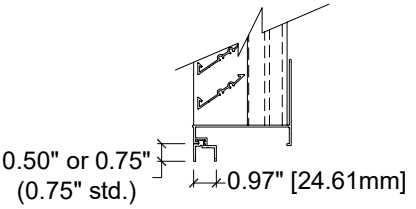
OPTIONAL EXTENDED SILL

AVAILABLE FINISHES:

- ☐ **Durable Polyester (AAMA 2604)**
- ☐ **70% PVDF Fluoropolymer (AAMA 2605)**
- ☐ **Yellow Primer**
- ☐ **Clear Anodize**
- ☐ **Dark Bronze Anodize**



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



OPTIONAL GLAZING ADAPTER

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

Due to continuing research, United Enertech reserves the right to change specifications without notice.

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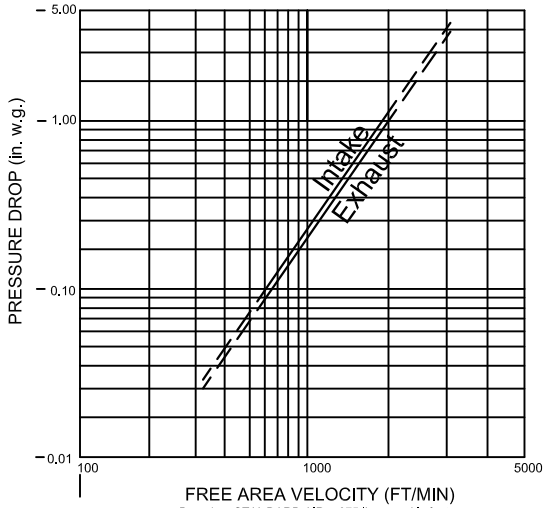
MODEL D-HV-4 (Dual Blade 4" Wind-Driven Rain Louver)

DRAWN BY:	DATE:	REV. DATE:	REV. NO.	APPROVED BY:	DWG. NO.:
CLJ	August 2013	March 2017	1	MD	**A-18a**

Model D-HV-4 Louver Performance Data

Air Flow Resistance



Based on STANDARD AIR- .075 lb. per cubic foot.
Ratings do not include the effects of screen.
SIZE TESTED: 48"X48"
TEST FIGURE 5.5
INTAKE & EXHAUST

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 \ Width - Inches	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
12	0.35	0.58	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
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
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
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
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
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
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
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
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
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
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
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
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
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						
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						
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						
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						
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						
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						

Wind Driven Rain Performance -AMCA 500-L-
Test size 1m x 1m (39.375"x39.375") core
41 5/8"w x 41 1/8"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
577 (2.9)	6211 (2.93)	1086 (5.5)	100.0	A
674 (3.4)	7255 (3.42)	1268 (6.4)	99.8	A
791 (4.0)	8514 (4.02)	1489 (7.6)	99.0	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

United Enertech Corporation certifies that the D-HV-4 is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Rating Seal applies to water penetration, air performance, and wind driven rain ratings.

March 2017