

AS7D99HS

STANDARD MATERIALS AND CONSTRUCTION

FRAME: .081" thick (nominal) extruded aluminum, 6063-T52/T6 alloy.

BLADE: .081" thick (nominal) extruded aluminum, 6063-T52/T6 alloy.
Blades approximately 2¼" on centers.

LOUVER FACE: Head and blades are contained within jambs, sill contains jambs.

EXTENDED SILL: .060" thick (nominal) formed aluminum.

SCREEN: (When indicated, in a removable frame.)

½" flattened aluminum (.051" thick),

-or- ½" sq. mesh, intermediate double-crimped aluminum wire, .063" dia.,

-or- 1¼" mesh, .011" dia. aluminum wire, insect screen.

FINISH: Mill

OPTIONS

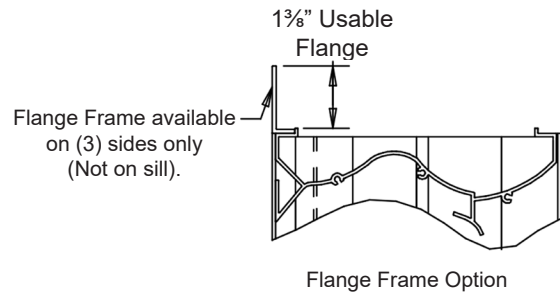
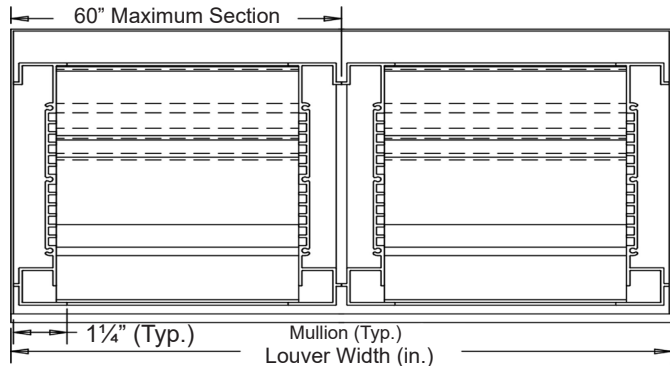
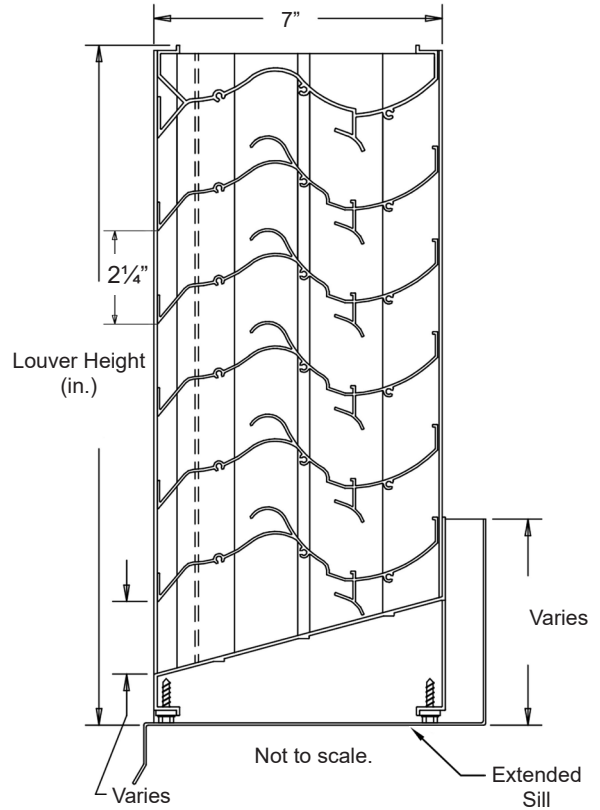
Finish - Baked Enamel, Kynar, Anodize

NOTES


1. ½" nominal deduction will be made to the opening size given.
2. Louvers larger than the maximum factory assembled size will require field assembly of smaller louver sections.
3. Approximate shipping weight is 9.0 lbs./sq.ft.

LOUVER SIZES

Min Panel	Max Single Panel
12"W x 12"H	30 sq.ft.



In the interest of product development, Airline Louvers reserves the right to make changes without notice.

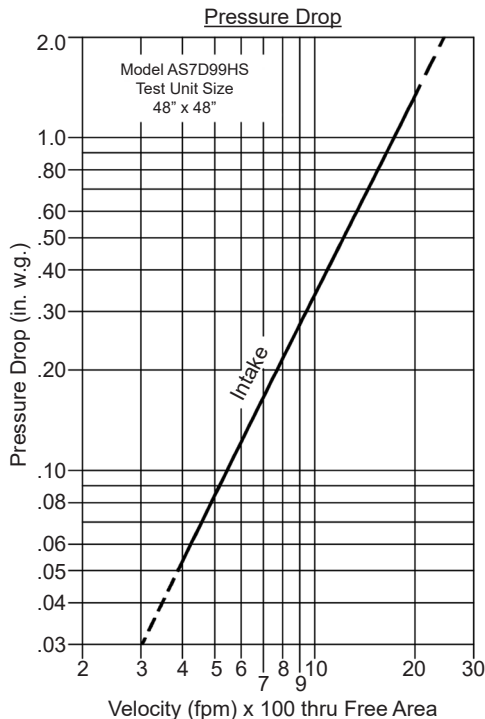
											
Item #	Qty	Width	Height	Width	Height	Mullion	Type	Location			
		Opening Size		Louver Size			Screens				Union Made
Arch. / Eng. :						EDR:		ECN:		Job:	
Contractor:											
Project:						Date:		DWN:		DWG:	

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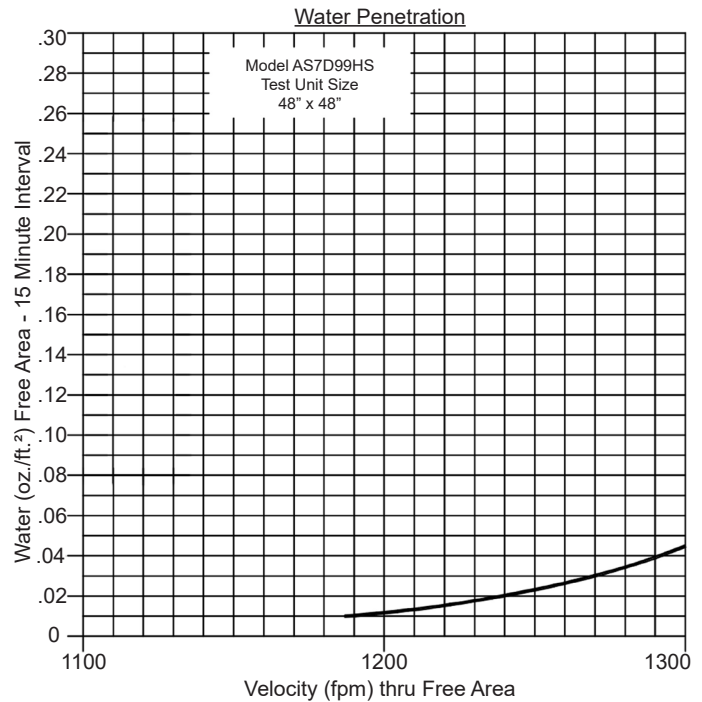
PERFORMANCE DATA

Pressure Drop: .34 in. w.g. at 1000 fpm (intake)
 Free Area: 7.22 sq.ft. = 45.1% for 48"W x 48"H sample tested in accordance with AMCA Standard 500-L.
 Beginning Point of Water Penetration: 1187 fpm (8570 cfm)
 Class "A" Rating with 99.3% efficiency at 3 in. rain fall at intake velocity of 1338 fpm (7,076 cfm) at wind speed of 29 mph.
 Class "A" Rating with 99.0% efficiency at 8 in. rain fall at intake velocity of 1177 fpm (6,227 cfm) at wind speed of 50 mph.
 Testing based on 48" x 48" based on AMCA Standard 500-L.

Ratings do not include effects of a screen.



Intake air converted to standard air density.
Tested to AMCA Standard 500-L, Figure 5.5.



1187 (FPM) Beginning Point of Water Penetration

		Free Area (sq.ft.)									
		Width (in.)									
Height (in.)		12"	24"	36"	48"	60"	72"	84"	96"	108"	120"
		12"	.24	.55	.86	1.17	1.48	1.79	2.10	2.41	2.72
24"	.63	1.44	2.25	3.06	3.87	4.68	5.49	6.30	7.11	7.92	
36"	1.02	2.33	3.65	4.96	6.27	7.58	8.89	10.20	11.51	12.82	
48"	1.49	3.40	5.32	7.22	9.14	11.05	12.96	14.87	16.78	18.69	
60"	1.89	4.30	6.71	9.12	11.53	13.94	16.35	18.77	21.18	23.59	
72"	2.28	5.19	8.10	11.01	13.92	16.84	19.75	22.66	25.57	28.49	
84"	2.75	6.26	9.77	13.28	16.80	20.31	23.82	27.33	30.85	34.36	
96"	3.14	7.15	11.16	15.18	19.19	23.20	27.22	31.23	35.24	39.26	
108"	3.53	8.04	12.56	17.07	21.58	26.10	30.61	35.12	39.64	44.15	
120"	4.00	9.11	14.23	19.34	24.46	29.57	34.68	39.80	44.91	50.03	

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Wind Driven Rainwater Penetration Test
Conducted to AMCA Standard 500-L.

Test size 1m x 1m (39.7" x 39.7") core area, 41.87" x 42.86" HG nominal.
Louver Free Area 5.29 square feet.

Core Ventilation (m/s)	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	Rain Fall / MPH
FPM	0	0	0	0	0	492	591	689	787	886	984	3 in. / hr. rain fall and 29 mph Velocity
Free Area Ventilation (cfm)	-	-	-	-	-	5,195	6,126	7,076	8,086	9,306	10,519	
Free Area Velocity (fpm)	-	-	-	-	-	982	1,158	1,338	1,529	1,759	1,988	
Effective Rating Class	A	A	A	A	A	A	A	A	C	C	C	
Effective Ratio %	-	-	-	-	-	100	99.9	97.6	94.6	92.0	87.8	8 in. / hr. rain fall and 50 mph Velocity
FPM	0	0	0	0	0	492	591	689	787	886	984	
Free Area Ventilation (cfm)	-	-	-	-	-	5,189	6,227	7,096	8,210	9,115	10,483	
Free Area Velocity (fpm)	-	-	-	-	-	981	1,177	1,341	1,552	1,723	1,982	
Effective Rating Class	A	A	A	A	A	A	A	B	C	C	C	
Effective Ratio %	-	-	-	-	-	99.1	98.5	96.7	92.2	89.3	82.2	

Wind Driven Rain Penetration Classifications

Class	Effectiveness %
A	100 to 99%
B	98.9% to 95%
C	94.9% to 80%
D	Below 80%

Discharge Loss Coefficient Classifications

Class	Discharge Loss Coefficient
1	0.4 and above
2	0.3 to 0.399
3	0.2 to 0.299
4	0.199 and below

Discharge Coefficient

Intake Cd= 0.22 (Class 3)

Class 1 Loss Coefficient has the least resistance to airflow.

1. Core area is the front opening of a louver assembly with the blades removed.
2. Core area velocity is the airflow rate through the louver divided by the core area (39.37" x 39.37").
3. Free area is the minimum area through which air can pass. It is determined by multiplying the sum of the minimum distance between intermediate blades, top blade and head, bottom blade and sill, by the minimum distance between jambs.
4. Discharge loss coefficient is calculated by dividing a louver actual airflow rate vs. a theoretical airflow for the opening, providing an indication of the louver air flow characteristics.



Airline Louvers certifies that the Model AS7D99HS shown herein 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 Ratings Seal applies to Water Penetration, Air Performance, and Wind Driven Rain Ratings only.