

Model BLH-5709
5" (127.0 mm) Blast Resistant Horizontal Storm Resistant Louver

Material:

Material:	6063-T6 Alloy
Nominal Thickness (heads, sills, jamba, & mullions):	0.080" (2.03 mm)
Nominal Blade Thickness:	0.060" (1.52 mm)
Furnished With:	Birdscreen: ½" intercrimp aluminum mesh, 0.063" diameter wire removeable aluminum bird screen in an aluminum frame
Additional Options (at additional cost):	Insect screen (in lieu of bird screen), Continuous clip angles for attachment Sheet blank off, Insulated blank off Sill pans, Flange frames Integrated glazing frames

Test Summary:

For a 4 Foot by 4 Foot Unit.

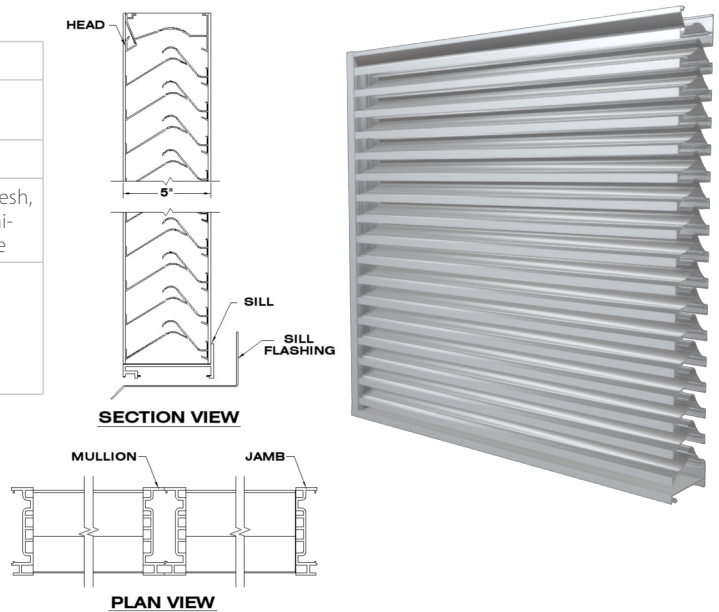
Tested with mill finish and no screen

- Free area = 7.32 ft² (0.681 m²)
- Percent free area = 45.8%
- Free area velocity at the point of beginning water penetration (@ 0.01oz. / ft² of free area based on a 15 minute interval test) = 1250 FPM (6.35 m/s)
- To maintain a CLASS A (99%) effectiveness rating* with:
 - a 29.1 mph wind speed and rainfall rate of 3 in/hr
 - Max. intake core velocity 4.0 m/s (763 FPM)
 - Max. intake free area velocity 7.7 m/s (1,514FPM)
- To maintain a CLASS B (95%) effectiveness rating* with:
 - a 50 mph wind speed and rainfall rate of 8 in/hr
 - Max. intake core velocity 4.0 m/s (788 FPM)
 - Max. intake free area velocity 7.9 m/s (1,563 FPM)

*Tested with 1m² core area, mill finish and no screen**

Construction Specialties Inc. certifies that the louver model BLH-5709 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 Wind Driven Rain ratings, Water Penetration Ratings and Air Performance ratings.



Discharge Coefficient
 Intake Cd = 0.32 (Class 2)
 AMCA certifies the coefficient class only

Blast Data:

Model BLH-5709 is designed to withstand up to an 12.6 psi blast pressure at an impulse of 77.8 psi-msec.

Typical Blast Requirements:

Pressure	4.0 psi	6.0 psi	8.0 psi	12.6 psi
Impulse	28.0 psi-msec	42.0 psi-msec	59.0 psi-msec	77.8 psi-msec

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Wind Driven Rain Performance: Tested with 1m² core area, mill finish and no screen

29.1 mph (13 m/s) & 3" (75 mm) rain per hour

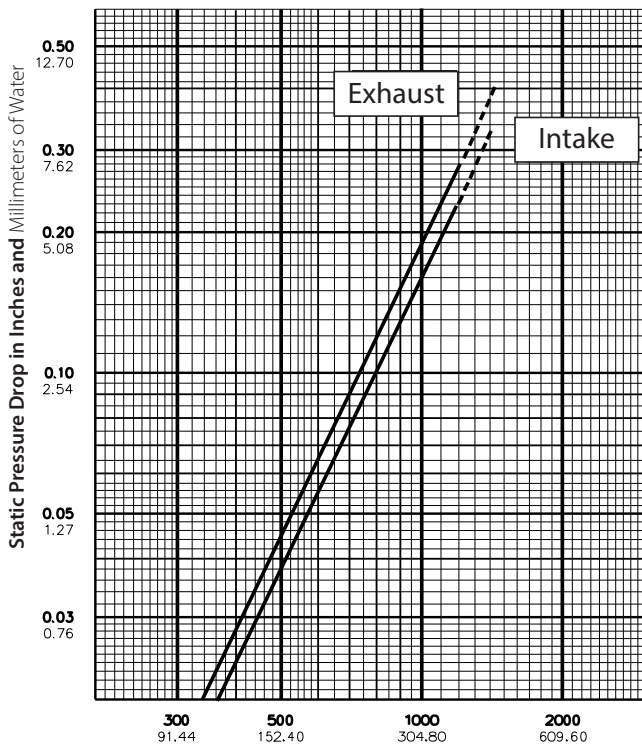
Core Velocity Through Cal. Plate (m/s):	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Core Velocity Through Louver (ft/min):	0	132	197	287	380	472	585	688	763	883	989
Free Area Velocity (ft/min):	0	262	391	570	754	937	1161	1365	1514	1752	1966
Rating Effectiveness:	A	A	A	A	A	A	A	A	A	B	C
Effectiveness Ratio (%):							99.9	99.5	99.4	98.1	94.9

50 mph (22.3 m/s) & 8" (203 mm) rain per hour

Core Velocity Through Cal. Plate (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 Velocity Through Louver (ft/min):	0	100	177	285	397	479	565	687	788	876	944
Free Area Velocity (ft/min):	0	198	351	565	788	950	1121	1363	1563	1738	1873
Rating Effectiveness:	A	A	A	A	B	B	B	B	B	C	C
Effectiveness Ratio (%):		99.4	99.3	99.2	98.9	98.6	98.2	97.3	96.0	92.9	87.9
Effectiveness Rating:	A = 1 to 0.99			B = 0.989 to 0.95			C = 0.949 to 0.80			D = Below 0.80	

Water Penetration Statement

AMCA defines the point of beginning water penetration as the free area velocity at which the AMCA water test has yielded 0.01 or less ounces of water per square foot of louver free area during a 15-minute test period.



Air Velocity in Feet and Meters per Minute Through Free Area

Data corrected to standard air density.
 48" x 48" louver tested to figure 5.5.

Free Area Table (Free area in sq. feet and sq. meters)

For additional sizes, please visit:

<https://www.c-sgroup.com/architectural-louvers/louvers-airflow-tool>

	Width in Inches and Meters										
	18	24	30	36	42	48	54	60	66	72	
	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52	1.68	1.83	
18	0.81	1.11	1.42	1.72	2.03	2.33	2.64	2.94	3.25	3.55	
0.46	0.07	0.10	0.13	0.16	0.19	0.22	0.24	0.27	0.30	0.33	
24	1.15	1.59	2.02	2.46	2.89	3.33	3.76	4.20	4.64	5.07	
0.61	0.11	0.15	0.19	0.23	0.27	0.31	0.35	0.39	0.43	0.47	
30	1.50	2.06	2.63	3.20	3.76	4.33	4.89	5.46	6.03	6.59	
0.76	0.14	0.19	0.24	0.30	0.35	0.40	0.45	0.51	0.56	0.61	
36	1.84	2.54	3.24	3.93	4.63	5.33	6.02	6.72	7.42	8.11	
0.91	0.17	0.24	0.30	0.37	0.43	0.49	0.56	0.62	0.69	0.75	
42	2.19	3.02	3.84	4.67	5.50	6.33	7.15	7.98	8.81	9.64	
1.07	0.20	0.28	0.36	0.43	0.51	0.59	0.66	0.74	0.82	0.90	
48	2.53	3.49	4.45	5.41	6.37	7.32	8.28	9.24	10.20	11.16	
1.22	0.24	0.32	0.41	0.50	0.59	0.68	0.77	0.86	0.95	1.04	
54	2.88	3.97	5.06	6.15	7.23	8.32	9.41	10.50	11.59	12.68	
1.37	0.27	0.37	0.47	0.57	0.67	0.77	0.87	0.98	1.08	1.18	
60	3.23	4.45	5.66	6.88	8.10	9.32	10.54	11.76	12.98	14.20	
1.52	0.30	0.41	0.53	0.64	0.75	0.87	0.98	1.09	1.21	1.32	
66	3.57	4.92	6.27	7.62	8.97	10.32	11.67	13.02	14.37	15.72	
1.68	0.33	0.46	0.58	0.71	0.83	0.96	1.08	1.21	1.34	1.46	
72	3.92	5.40	6.88	8.36	9.84	11.32	12.80	14.28	15.76	17.24	
1.83	0.36	0.50	0.64	0.78	0.91	1.05	1.19	1.33	1.46	1.60	
78	4.26	5.87	7.49	9.10	10.71	12.32	13.93	15.54	17.15	18.76	
1.98	0.40	0.55	0.70	0.85	0.99	1.14	1.29	1.44	1.59	1.74	
84	4.61	6.35	8.09	9.83	11.58	13.32	15.06	16.80	18.54	20.29	
2.13	0.43	0.59	0.75	0.91	1.08	1.24	1.40	1.56	1.72	1.88	
90	4.95	6.83	8.70	10.57	12.44	14.32	16.19	18.06	19.93	21.81	
2.29	0.46	0.63	0.81	0.98	1.16	1.33	1.50	1.68	1.85	2.03	
96	5.30	7.30	9.31	11.31	13.31	15.32	17.32	19.32	21.32	23.33	
2.44	0.49	0.68	0.86	1.05	1.24	1.42	1.61	1.80	1.98	2.17	
102	5.65	7.78	9.91	12.05	14.18	16.31	18.45	20.58	22.72	24.85	
2.59	0.52	0.72	0.92	1.12	1.32	1.52	1.71	1.91	2.11	2.31	
108	5.99	8.26	10.52	12.78	15.05	17.31	19.58	21.84	24.11	26.37	
2.74	0.56	0.77	0.98	1.19	1.40	1.61	1.82	2.03	2.24	2.45	
114	6.34	8.73	11.13	13.52	15.92	18.31	20.71	23.10	25.50	27.89	
2.90	0.59	0.81	1.03	1.26	1.48	1.70	1.92	2.15	2.37	2.59	
120	6.68	9.21	11.73	14.26	16.79	19.31	21.84	24.36	26.89	29.41	
3.05	0.62	0.86	1.09	1.32	1.56	1.79	2.03	2.26	2.50	2.73	
126	7.03	9.68	12.34	15.00	17.65	20.31	22.97	25.62	28.28	30.93	
3.20	0.65	0.90	1.15	1.39	1.64	1.89	2.13	2.38	2.63	2.87	
132	7.37	10.16	12.95	15.73	18.52	21.31	24.10	26.88	29.67	32.46	
3.35	0.69	0.94	1.20	1.46	1.72	1.98	2.24	2.50	2.76	3.02	
138	7.72	10.64	13.55	16.47	19.39	22.31	25.22	28.14	31.06	33.98	
3.51	0.72	0.99	1.26	1.53	1.80	2.07	2.34	2.61	2.89	3.16	
144	8.07	11.11	14.16	17.21	20.26	23.31	26.35	29.40	32.45	35.50	
3.66	0.75	1.03	1.32	1.60	1.88	2.17	2.45	2.73	3.01	3.30	

Upper Numerals English Units/Lower Numerals Metric Units