

Construction Specialties Inc. certifies that the louver model B-7505 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 air performance ratings and water penetration ratings. The AMCA Certified Ratings Seal applies to Wind Driven Rain ratings, Water Penetration Ratings and Air Performance ratings



DESIGN DATA:

- To maintain a CLASS A (99%) effectiveness rating with a 29.1 mph wind speed an rainfall rate of 3 in/hr
 - Maximum intake core velocity 3.5 m/s (674 FPM)
 - Maximum intake free area velocity 6.7 m/s (1,321 FPM)
 - Intake pressure drop 64.64 Pa (0.26 in. H₂O)
 - Intake capacity 3.5 m³/s (7,252 CFM)
- To maintain a CLASS A (99%) effectiveness rating with a 50 mph wind speed an rainfall rate of 8 in/hr
 - Maximum intake core velocity 1.0 m/s (174 FPM)
 - Maximum intake free area velocity 1.7 m/s (341 FPM)
 - Intake pressure drop 4.2 Pa (0.02 in. H₂O)
 - Intake capacity 1.5 m³/s (1,872 CFM)

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

AIRFLOW DATA:

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) = 1,250 FPM (6.35 m/s)
- Maximum recommended air intake velocity = 1,050 FPM (5.33 m/s), Air volume @ 1,050 FPM free area velocity = 7,686 CFM (3.6 m³/s), Pressure drop @ 1,050 FPM intake velocity = 0.17 in. H₂O (41.5 Pa)
- Maximum recommended air exhaust velocity = 1,573 FPM (8.0 m/s), Air Volume @ 1,573 FPM free area velocity = 11,514 CFM (5.4 m³/s), Pressure drop @ 1,573 FPM free area velocity = 0.50 in. H₂O (124.2 Pa)

SUGGESTED SPECIFICATIONS:

GENERAL: Furnish and install where indicated on the drawings C/S 7 3/8" (187.3 mm) BOLD LINE STORM RESISTANT LOUVER MODEL B-7505 as manufactured by Construction Specialties, Inc., Cranford, NJ. Complete details shall be submitted to the architect for approval prior to fabrication.

MATERIAL: Frames and blades to be fabricated from 6063-T6 aluminum alloy. Blades to be minimum 0.060" (1.52mm) thick and frames to be minimum 0.075" (1.91 mm) thick. Louver to be mechanically fastened using stainless steel or aluminum fasteners. Louvers to be supplied with 4" (101.6 mm) high by full depth sill flashing formed from minimum 0.050" (1.27 mm) thick aluminum. Sill flashing to have welded side panels. Louvers and sill flashing to be installed in accordance with the manufacturer's recommended procedures to ensure complete water integrity performance of louver system. All louvers to be furnished with 5/8" (15.87 mm) flattened expanded mesh, aluminum bird screen with a .055" (1.4 mm) thick extruded aluminum frame.

STRUCTURAL DESIGN: Structural supports shall be designed and furnished by the louver manufacturer to carry a wind load of not less than ____ psf. (kPa). (Note: If this paragraph is omitted or if the design wind load is not specified, the louvers will be manufactured in self supporting units up to a maximum of 5' (1524 mm) wide by 8' (2438 mm) high. Any additional structural supports required to adequately secure these units within the opening shall be the responsibility of others.)

FINISH: All louvers shall be finished with C/S Powder Coat, a coating to be 1.5 to 3 mil. thick full strength **100% resin Fluoropolymer coating. Finish to allow zero VOCs** to be emitted into facility of application. Finish to adhere to a 4H Hardness rating. All finishing procedures shall be one continuous operation in the plant of the manufacturer. **The coating shall meet or exceed all requirements of AAMA specification 2605** "Voluntary Specification for High Performance Organic Coatings on Architectural extrusions and Panels." The louver manufacturer shall supply an industry standard **20-year limited warranty against failure or excessive fading** of the Fluoropolymer Powder Coat finish. This limited warranty shall begin on the date of material shipment.

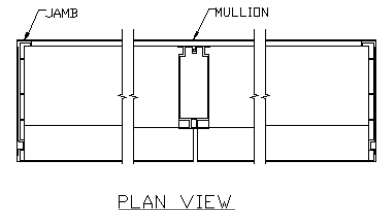
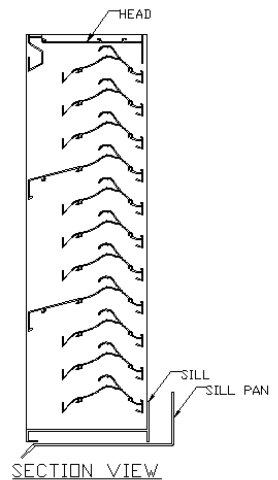
WIND DRIVEN RAIN PERFORMANCE:

The louver test was based on a 39.370" (1.00 m) x 39.370" (1.00 m) core area unit tested at a rainfall rate of 3" per hour (75 mm/hr) and with a wind directed to the face of the louver at a velocity 29.1-mph (13 m/s) as well as a rainfall rate of 8" per hour (203 mm) and a wind of 50 mph (23.3 m/s). The test data shall show the water penetration effectiveness rating at each corresponding ventilation rate.

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):						467	580	674	767	856	993
Free Area Velocity (ft/min):						915	1137	1321	1503	1678	1946
Rating Effectiveness:	A	A	A	A	A	A	A	A	B	B	C
Effectiveness Ratio (%):						100	99.9	99.8	97.8	95.4	87.2

50 mph & 8" 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	106	174	284	401	481	563	683	785	872	967
Free Area Velocity (ft/min):	0	208	341	557	786	943	1103	1339	1539	1709	1895
Rating Effectiveness @:	A	A	A	B	B	B	B	B	C	C	D
Effectiveness Ratio (%):	99.5	99.2	99.2	98.9	98.5	98.0	97.8	95.8	92.2	87.5	79.3

Effectiveness Rating:	A = 1 to 0.99	B = 0.989 to 0.95	C = 0.949 to 0.80	D = 0.799 to 0
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PERFORMANCE DATA MODEL B-7505

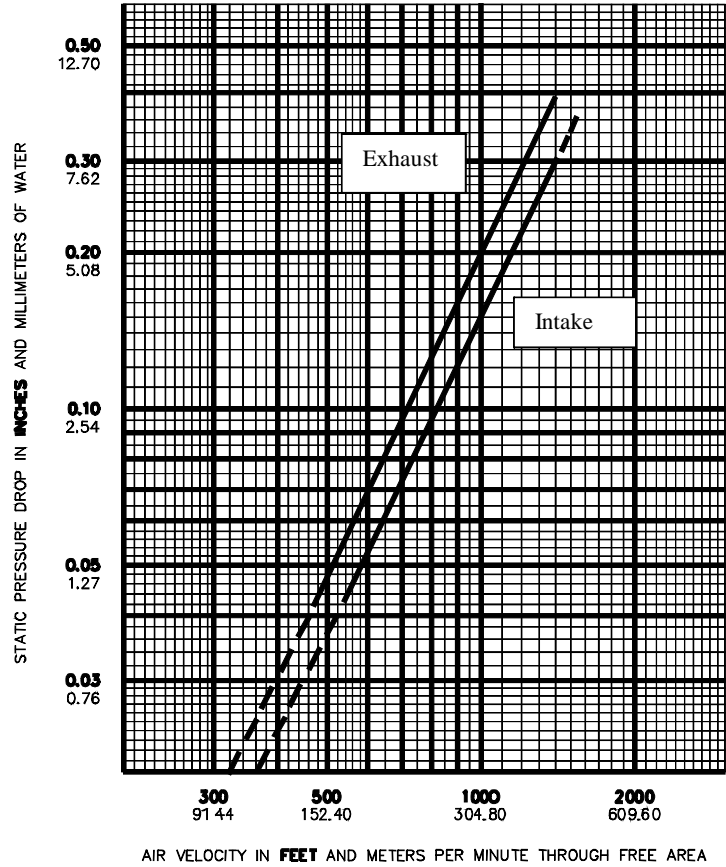
Water Penetration Statement

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.

Width in Inches and Meters

	18	24	30	36	42	48	54	60	66	72	78	84	90
	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52	1.68	1.83	1.98	2.13	2.29
18	0.81	1.11	1.42	1.72	2.03	2.33	2.64	2.94	3.25	3.55	3.85	4.16	4.46
0.46	0.07	0.10	0.13	0.16	0.19	0.22	0.24	0.27	0.30	0.33	0.36	0.39	0.41
24	1.15	1.59	2.02	2.46	2.89	3.33	3.76	4.20	4.64	5.07	5.51	5.94	6.38
0.61	0.11	0.15	0.19	0.23	0.27	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59
30	1.50	2.06	2.63	3.20	3.76	4.33	4.89	5.46	6.03	6.59	7.16	7.72	8.29
0.76	0.14	0.19	0.24	0.30	0.35	0.40	0.45	0.51	0.56	0.61	0.67	0.72	0.77
36	1.84	2.54	3.24	3.93	4.63	5.33	6.02	6.72	7.42	8.11	8.81	9.51	10.20
0.91	0.17	0.24	0.30	0.37	0.43	0.49	0.56	0.62	0.69	0.75	0.82	0.88	0.95
42	2.19	3.02	3.84	4.67	5.50	6.33	7.15	7.98	8.81	9.64	10.46	11.29	12.12
1.07	0.20	0.28	0.36	0.43	0.51	0.59	0.66	0.74	0.82	0.90	0.97	1.05	1.13
48	2.53	3.49	4.45	5.41	6.37	7.32	8.28	9.24	10.20	11.16	12.11	13.07	14.03
1.22	0.24	0.32	0.41	0.50	0.59	0.68	0.77	0.86	0.95	1.04	1.13	1.21	1.30
54	2.88	3.97	5.06	6.15	7.23	8.32	9.41	10.50	11.59	12.68	13.77	14.86	15.94
1.37	0.27	0.37	0.47	0.57	0.67	0.77	0.87	0.98	1.08	1.18	1.28	1.38	1.48
60	3.23	4.45	5.66	6.88	8.10	9.32	10.54	11.76	12.98	14.20	15.42	16.64	17.86
1.52	0.30	0.41	0.53	0.64	0.75	0.87	0.98	1.09	1.21	1.32	1.43	1.55	1.66
66	3.57	4.92	6.27	7.62	8.97	10.32	11.67	13.02	14.37	15.72	17.07	18.42	19.77
1.68	0.33	0.46	0.58	0.71	0.83	0.96	1.08	1.21	1.34	1.46	1.59	1.71	1.84
72	3.92	5.40	6.88	8.36	9.84	11.32	12.80	14.28	15.76	17.24	18.72	20.20	21.68
1.83	0.36	0.50	0.64	0.78	0.91	1.05	1.19	1.33	1.46	1.60	1.74	1.88	2.01
78	4.26	5.87	7.49	9.10	10.71	12.32	13.93	15.54	17.15	18.76	20.37	21.99	23.60
1.98	0.40	0.55	0.70	0.85	0.99	1.14	1.29	1.44	1.59	1.74	1.89	2.04	2.19
84	4.61	6.35	8.09	9.83	11.58	13.32	15.06	16.80	18.54	20.29	22.03	23.77	25.51
2.13	0.43	0.59	0.75	0.91	1.08	1.24	1.40	1.56	1.72	1.88	2.05	2.21	2.37
90	4.95	6.83	8.70	10.57	12.44	14.32	16.19	18.06	19.93	21.81	23.68	25.55	27.42
2.29	0.46	0.63	0.81	0.98	1.16	1.33	1.50	1.68	1.85	2.03	2.20	2.37	2.55
96	5.30	7.30	9.31	11.31	13.31	15.32	17.32	19.32	21.32	23.33	25.33	27.33	29.34
2.44	0.49	0.68	0.86	1.05	1.24	1.42	1.61	1.80	1.98	2.17	2.35	2.54	2.73
102	5.65	7.78	9.91	12.05	14.18	16.31	18.45	20.58	22.72	24.85	26.98	29.12	31.25
2.59	0.52	0.72	0.92	1.12	1.32	1.52	1.71	1.91	2.11	2.31	2.51	2.71	2.90
108	5.99	8.26	10.52	12.78	15.05	17.31	19.58	21.84	24.11	26.37	28.64	30.90	33.16
2.74	0.56	0.77	0.98	1.19	1.40	1.61	1.82	2.03	2.24	2.45	2.66	2.87	3.08
114	6.34	8.73	11.13	13.52	15.92	18.31	20.71	23.10	25.50	27.89	30.29	32.68	35.08
2.90	0.59	0.81	1.03	1.26	1.48	1.70	1.92	2.15	2.37	2.59	2.81	3.04	3.26
120	6.68	9.21	11.73	14.26	16.79	19.31	21.84	24.36	26.89	29.41	31.94	34.46	36.99
3.05	0.62	0.86	1.09	1.32	1.56	1.79	2.03	2.26	2.50	2.73	2.97	3.20	3.44
126	7.03	9.68	12.34	15.00	17.65	20.31	22.97	25.62	28.28	30.93	33.59	36.25	38.90
3.20	0.65	0.90	1.15	1.39	1.64	1.89	2.13	2.38	2.63	2.87	3.12	3.37	3.61
132	7.37	10.16	12.95	15.73	18.52	21.31	24.10	26.88	29.67	32.46	35.24	38.03	40.82
3.35	0.69	0.94	1.20	1.46	1.72	1.98	2.24	2.50	2.76	3.02	3.27	3.53	3.79
138	7.72	10.64	13.55	16.47	19.39	22.31	25.22	28.14	31.06	33.98	36.90	39.81	42.73
3.51	0.72	0.99	1.26	1.53	1.80	2.07	2.34	2.61	2.89	3.16	3.43	3.70	3.97
144	8.07	11.11	14.16	17.21	20.26	23.31	26.35	29.40	32.45	35.50	38.55	41.60	44.64
3.66	0.75	1.03	1.32	1.60	1.88	2.17	2.45	2.73	3.01	3.30	3.58	3.86	4.15
150	8.41	11.59	14.77	17.95	21.13	24.30	27.48	30.66	33.84	37.02	40.20	43.38	46.56
3.81	0.78	1.08	1.37	1.67	1.96	2.26	2.55	2.85	3.14	3.44	3.73	4.03	4.33
156	8.76	12.07	15.38	18.68	21.99	25.30	28.61	31.92	35.23	38.54	41.85	45.16	48.47
3.96	0.81	1.12	1.43	1.74	2.04	2.35	2.66	2.97	3.27	3.58	3.89	4.20	4.50
162	9.10	12.54	15.98	19.42	22.86	26.30	29.74	33.18	36.62	40.06	43.50	46.94	50.38
4.11	0.85	1.17	1.48	1.80	2.12	2.44	2.76	3.08	3.40	3.72	4.04	4.36	4.68
168	9.45	13.02	16.59	20.16	23.73	27.30	30.87	34.44	38.01	41.58	45.16	48.73	52.30
4.27	0.88	1.21	1.54	1.87	2.20	2.54	2.87	3.20	3.53	3.86	4.20	4.53	4.86
174	9.79	13.49	17.20	20.90	24.60	28.30	32.00	35.70	39.40	43.11	46.81	50.51	54.21
4.42	0.91	1.25	1.60	1.94	2.29	2.63	2.97	3.32	3.66	4.00	4.35	4.69	5.04
180	10.14	13.97	17.80	21.64	25.47	29.30	33.13	36.96	40.80	44.63	48.46	52.29	56.12
4.57	0.94	1.30	1.65	2.01	2.37	2.72	3.08	3.43	3.79	4.15	4.50	4.86	5.21
186	10.48	14.45	18.41	22.37	26.34	30.30	34.26	38.22	42.19	46.15	50.11	54.07	58.04
4.72	0.97	1.34	1.71	2.08	2.45	2.81	3.18	3.55	3.92	4.29	4.66	5.02	5.39

Height in Inches and Meters



AIR VELOCITY IN FEET AND METERS PER MINUTE THROUGH FREE AREA

For a 48" X 48" sized louver tested to figure 5.5
Data corrected to standard air density

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For assistance with overseas requirements,
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Upper Numerals English Units/Lower Numerals Metric Units