

C/S 5"(127.0 mm) STORM RESISTANT DADE COUNTY HURRICANE VERTICAL LOUVER

Construction Specialties Inc. certifies that the louver model DCV-5704 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, and Air Performance ratings.

APPLICATION AND DESIGN:

DCV-5704 is tested in accordance with AMCA 500-L Air Performance and Wind Driven Rain. DCV-5704 is tested in accordance with AMCA 540 Test Method for Louvers Impacted by Wind Borne Debris (Basic Protection, Missile Level D and Enhanced Protection, Missile Level E). Minimum louver section size to be 8" x 18".

AIRFLOW DATA:

For a 4 Foot by 4 Foot Unit. Tested with mill finish and no screen

- Free area = 7.32 ft² (0.680 m²)
- Percent free area = 45.7%

DESIGN DATA:

*To maintain a CLASS A (99%) effectiveness rating with a 29.1 mph wind speed and rainfall rate of 3 in/hr**

- Maximum intake core velocity 5.0 m/s (986 FPM)
- Maximum intake free area velocity 9.9 m/s (1,956 FPM)

*To maintain a CLASS A (99%) effectiveness rating with a 50 mph wind speed and rainfall rate of 8 in/hr**

- Maximum intake core velocity 5.0 m/s (980 FPM)
- Maximum intake free area velocity 10.49 m/s (2064 FPM)

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



DADE COUNTY PROTOCOLS:

- TAS-201:** Large and small missile impact
- TAS-202:** Criteria for testing impact and not impact resistant building Envelope components using static uniform air pressure
- TAS-203:** Criteria for testing products subject to cyclic wind pressure

N.O.A. #19-0305.01
Florida Product Approval #21969
Maximum Design Windload 150 PSF
TDI Approval No. #23

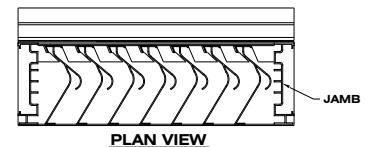
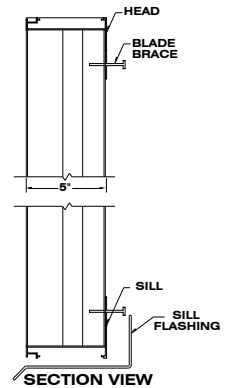
SUGGESTED SPECIFICATIONS:

GENERAL: : Furnish and install where indicated on the drawings C/S 5" (127.0 mm) STORM RESISTANT DADE COUNTY HURRICANE VERTICAL LOUVER **MODEL DCV-5704** as manufactured by Construction Specialties, Inc., Lebanon, 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 1/2" intercrimp aluminum mesh, 0.063" diameter wire removable aluminum bird screen in an aluminum frame.

STRUCTURAL DESIGN: Louvers must be tested in accordance with Dade County protocols TAS-201, TAS-202, TAS-203. Louvers shall be Dade County approved for open structure building envelope protection (including missile), for single unit sizes up to 12 feet wide by 6 1/2 feet high. To maintain Dade County product approval status, the louvers must be attached to a structural substrate in accordance with the Dade County Product Approval Drawings. In addition, the structural substrate to which the louvers are attached must be designed to withstand the point loads transferred by the louvers when subjected to the design wind loads.

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.



Discharge Coefficient

Intake Cd = 0.33 (Class 2)
 For a 48"x48" sized louver tested to figure 5.5. Data corrected to standard air density
AMCA certifies the coefficient class only



IMPACT RESISTANT LOUVER
Enhanced Protection

See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

Construction Specialties Inc. certifies that the louver model DCV-5704 shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program. The AMCA Listing Label applies to Wind Borne Debris Impact Louvers.

PERFORMANCE DATA MODEL DCV-5704

WIND DRIVEN RAIN PERFORMANCE:

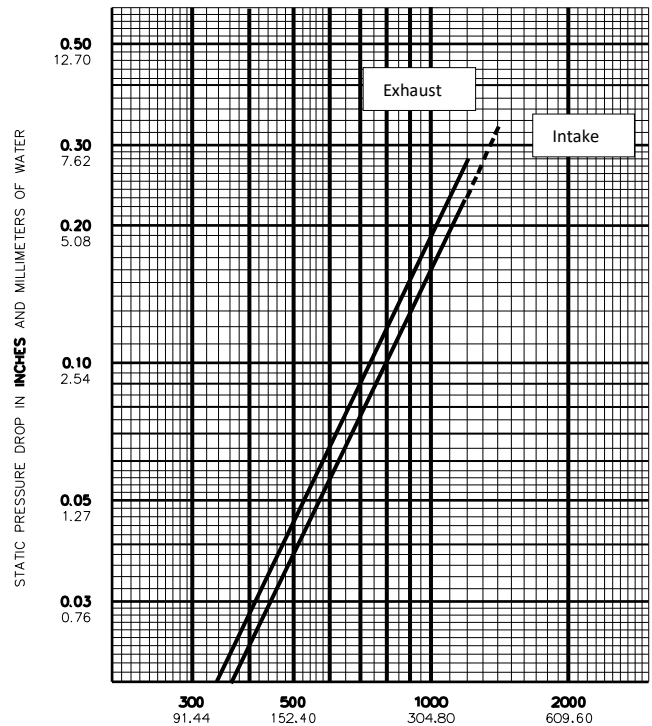
The louver test was based on a 39.370" (1.00 m) x 39.370" (1.00 m) core area unit tested at a rainfall rate of 3" per hour (75 mm/hr) and with a wind directed to the face of the louver at a velocity of 29.1-mph (13 m/s) as well as a rainfall rate of 8" per hour (203mm) and wind directed at the face of the louver at a velocity of 50.0 mph (22.3 m/s). The test data shall show the water penetration effectiveness rating at each corresponding ventilation rate.

Core Ventilation Rate (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 Ventilation Rate (ft/min) 29 & 3:	0	132	197	287	380	472	587	680	780	874	986
Free Area Velocity (ft/min) 29 & 3:	0	278	415	605	800	994	1236	1432	1643	1734	1956
Rating Effectiveness @ 29 & 3	A	A	A	A	A	A	A	A	A	A	A
Effectiveness Ratio @ 29 & 3 (%)										100	99.8
Core Ventilation Rate (ft/min) 50 & 8:	0	132	197	287	380	472	587	680	789	888	980
Free Area Velocity (ft/min) 50 & 8:	0	278	415	605	800	994	1236	1432	1662	1871	2064
Rating Effectiveness @ 50 & 8	A	A	A	A	A	A	A	A	A	A	A
Effectiveness Ratio @ 50 & 8 (%)									99.8	99.7	99.6
Effectiveness Rating:	A = 1 to 0.99		B = 0.989 to 0.95		C = 0.949 to 0.80		D = 0.799 to 0				

Width in Inches and Meters

	8	12	18	24	30	36	42	48	54	60
	0.20	0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52
18	0.23	0.46	0.81	1.15	1.50	1.84	2.19	2.53	2.88	3.23
	0.46	0.02	0.04	0.07	0.11	0.14	0.17	0.20	0.24	0.27
24	0.32	0.64	1.11	1.59	2.06	2.54	3.02	3.49	3.97	4.45
	0.61	0.03	0.06	0.10	0.15	0.19	0.24	0.28	0.32	0.37
30	0.40	0.81	1.42	2.02	2.63	3.24	3.84	4.45	5.06	5.66
	0.76	0.04	0.08	0.13	0.19	0.24	0.30	0.36	0.41	0.47
36	0.49	0.98	1.72	2.46	3.20	3.93	4.67	5.41	6.15	6.88
	0.91	0.05	0.09	0.16	0.23	0.30	0.37	0.43	0.50	0.57
42	0.58	1.16	2.03	2.89	3.76	4.63	5.50	6.37	7.23	8.10
	1.07	0.05	0.11	0.19	0.27	0.35	0.43	0.51	0.59	0.67
48	0.67	1.33	2.33	3.33	4.33	5.33	6.33	7.32	8.32	9.32
	1.22	0.06	0.12	0.22	0.31	0.40	0.49	0.59	0.68	0.77
54	0.75	1.51	2.64	3.76	4.89	6.02	7.15	8.28	9.41	10.54
	1.37	0.07	0.14	0.24	0.35	0.45	0.56	0.66	0.77	0.87
60	0.84	1.68	2.94	4.20	5.46	6.72	7.98	9.24	10.50	11.76
	1.52	0.08	0.16	0.27	0.39	0.51	0.62	0.74	0.86	0.98
66	0.93	1.85	3.25	4.64	6.03	7.42	8.81	10.20	11.59	12.98
	1.68	0.09	0.17	0.30	0.43	0.56	0.69	0.82	0.95	1.08
72	1.01	2.03	3.55	5.07	6.59	8.11	9.64	11.16	12.68	14.20
	1.83	0.09	0.19	0.33	0.47	0.61	0.75	0.90	1.04	1.18
78	1.10	2.20	3.85	5.51	7.16	8.81	10.46	12.11	13.77	15.42
	1.98	0.10	0.20	0.36	0.51	0.67	0.82	0.97	1.13	1.28
84	1.19	2.38	4.16	5.94	7.72	9.51	11.29	13.07	14.86	16.64
	2.13	0.11	0.22	0.39	0.55	0.72	0.88	1.05	1.21	1.38
90	1.28	2.55	4.46	6.38	8.29	10.20	12.12	14.03	15.94	17.86
	2.29	0.12	0.24	0.41	0.59	0.77	0.95	1.13	1.30	1.48
96	1.36	2.73	4.77	6.81	8.86	10.90	12.94	14.99	17.03	19.08
	2.44	0.13	0.25	0.44	0.63	0.82	1.01	1.20	1.39	1.58
102	1.45	2.90	5.07	7.25	9.42	11.60	13.77	15.95	18.12	20.30
	2.59	0.13	0.27	0.47	0.67	0.88	1.08	1.28	1.48	1.68
108	1.54	3.07	5.38	7.68	9.99	12.29	14.60	16.90	19.21	21.52
	2.74	0.14	0.29	0.50	0.71	0.93	1.14	1.36	1.57	1.78
114	1.62	3.25	5.68	8.12	10.56	12.99	15.43	17.86	20.30	22.73
	2.90	0.15	0.30	0.53	0.75	0.98	1.21	1.43	1.66	1.89
120	1.71	3.42	5.99	8.55	11.12	13.69	16.25	18.82	21.39	23.95
	3.05	0.16	0.32	0.56	0.79	1.03	1.27	1.51	1.75	1.99

Upper Numerals English Units/Lower Numerals Metric Units



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

Construction Specialties, Inc.
Manufacturing & Sales Location
www.c-sgroup.com

To download details and specifications visit www.c-sgroup.com

For assistance with overseas requirements,
call C/S International (908) 236-0800

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