

Construction Specialties Inc. certifies that the louver model DCH-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, Water Penetration Ratings and Air Performance ratings.

### APPLICATION AND DESIGN:

DCH-5704 is tested in accordance with AMCA 500-L Air Performance and Wind Driven Rain. DCH-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".

### DESIGN DATA:

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

- Maximum intake core velocity 4.0 m/s (763 FPM)
- Maximum intake free area velocity 7.7 m/s (1,514 FPM)

To maintain a **CLASS B (95%) effectiveness** rating with a 50 mph wind speed and a rainfall rate of 8 in/hr.

- Maximum intake core velocity 4.0 m/s (779 FPM)
- Maximum intake free area velocity 7.9 m/s (1,546 FPM)

\*louver tested with 1m<sup>2</sup> core area, mill finish and no screen

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

### AIRFLOW DATA:

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

- Free area = 7.32 ft<sup>2</sup> (0.681 m<sup>2</sup>)
- Percent free area = 45.8%
- Free area velocity at the point of beginning water penetration (@0.01oz. /ft<sup>2</sup> of free area based on a 15 minute interval test) = 1,169 FPM (5.94 m/s)
- Maximum recommended air intake velocity = 969 FPM (4.9 m/s) Air volume @ 969 FPM free area velocity = 7093 CFM (3.3 m<sup>3</sup>/s) Pressure drop @ 969 FPM intake velocity = 0.15 in. H<sub>2</sub>O (36.5 Pa)
- Maximum recommended air exhaust velocity = 1,606 FPM (8.2 m/s) Air Volume @ 1,606 FPM free area velocity = 11,755 CFM (5.5 m<sup>3</sup>/s) Pressure drop @ 1,606 FPM free area velocity = 0.50 in. H<sub>2</sub>O (124.2 Pa)

### 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

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

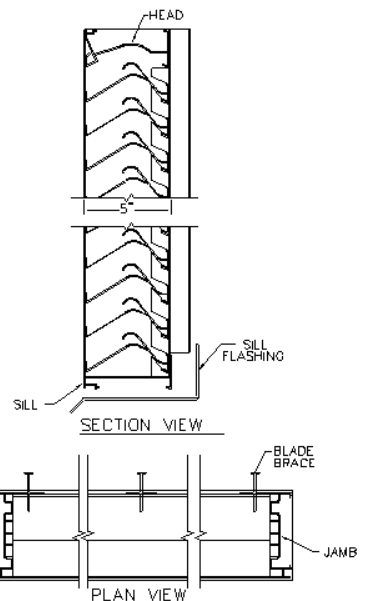
### SUGGESTED SPECIFICATIONS:

**GENERAL:** Furnish and install where indicated on the drawings C/S 5" (127.0 mm) STORM RESISTANT DADE COUNTY HURRICANE LOUVER **MODEL DCH-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.



**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 DCH-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 DCH-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 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 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	585	688	763	883	989
Free Area Velocity (ft/min) @ 29 & 3:	0	262	391	570	754	937	1161	1365	1514	1752	1966
Rating Effectiveness @ 29 & 3	A	A	A	A	A	A	A	A	A	B	C
Effectiveness Ratio @ 29 & 3 (%)							99.9	99.5	99.4	98.1	94.9
Core Ventilation Rate (ft/min) @ 50 & 8:	0	100	177	285	397	479	565	687	788	876	944
Free Area Velocity (ft/min) @ 50 & 8:	0	198	351	565	788	950	1121	1363	1563	1738	1873
Rating Effectiveness @ 50 & 8	A	A	A	A	B	B	B	B	B	C	C
Effectiveness Ratio @ 50 & 8 (%)		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 = 0.799 to 0				

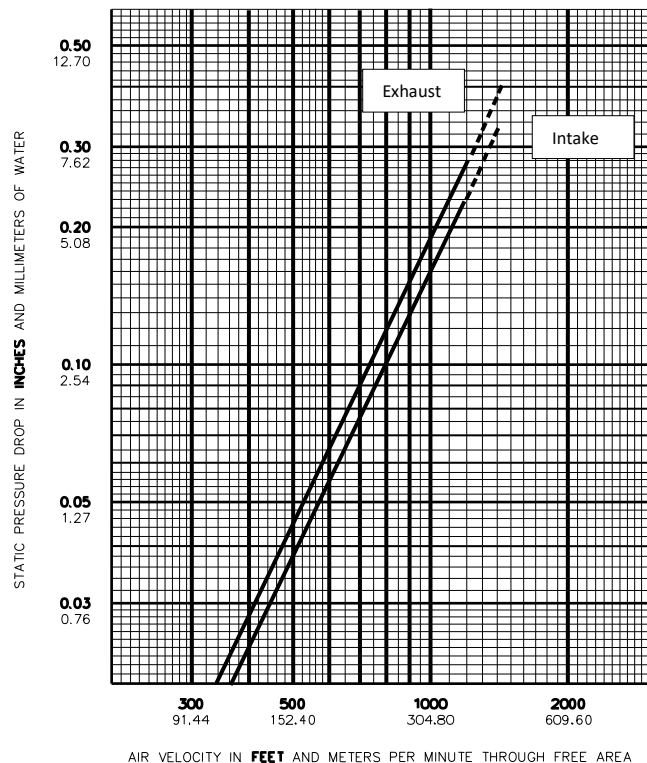
### Water Penetration Statement

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

	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
<b>18</b>	<b>0.30</b>	<b>0.50</b>	<b>0.81</b>	<b>1.11</b>	<b>1.42</b>	<b>1.72</b>	<b>2.03</b>	<b>2.33</b>	<b>2.64</b>	<b>2.94</b>
	0.46	0.03	0.05	0.07	0.10	0.13	0.16	0.19	0.22	0.27
<b>24</b>	<b>0.43</b>	<b>0.72</b>	<b>1.15</b>	<b>1.59</b>	<b>2.02</b>	<b>2.46</b>	<b>2.89</b>	<b>3.33</b>	<b>3.76</b>	<b>4.20</b>
	0.61	0.04	0.07	0.11	0.15	0.19	0.23	0.27	0.31	0.39
<b>30</b>	<b>0.55</b>	<b>0.93</b>	<b>1.50</b>	<b>2.06</b>	<b>2.63</b>	<b>3.20</b>	<b>3.76</b>	<b>4.33</b>	<b>4.89</b>	<b>5.46</b>
	0.76	0.05	0.09	0.14	0.19	0.24	0.30	0.35	0.40	0.51
<b>36</b>	<b>0.68</b>	<b>1.15</b>	<b>1.84</b>	<b>2.54</b>	<b>3.24</b>	<b>3.93</b>	<b>4.63</b>	<b>5.33</b>	<b>6.02</b>	<b>6.72</b>
	0.91	0.06	0.11	0.17	0.24	0.30	0.37	0.43	0.49	0.56
<b>42</b>	<b>0.81</b>	<b>1.36</b>	<b>2.19</b>	<b>3.02</b>	<b>3.84</b>	<b>4.67</b>	<b>5.50</b>	<b>6.33</b>	<b>7.15</b>	<b>7.98</b>
	1.07	0.08	0.13	0.20	0.28	0.36	0.43	0.51	0.59	0.66
<b>48</b>	<b>0.94</b>	<b>1.58</b>	<b>2.53</b>	<b>3.49</b>	<b>4.45</b>	<b>5.41</b>	<b>6.37</b>	<b>7.32</b>	<b>8.28</b>	<b>9.24</b>
	1.22	0.09	0.15	0.24	0.32	0.41	0.50	0.59	0.68	0.77
<b>54</b>	<b>1.07</b>	<b>1.79</b>	<b>2.88</b>	<b>3.97</b>	<b>5.06</b>	<b>6.15</b>	<b>7.23</b>	<b>8.32</b>	<b>9.41</b>	<b>10.50</b>
	1.37	0.10	0.17	0.27	0.37	0.47	0.57	0.67	0.77	0.87
<b>60</b>	<b>1.19</b>	<b>2.01</b>	<b>3.23</b>	<b>4.45</b>	<b>5.66</b>	<b>6.88</b>	<b>8.10</b>	<b>9.32</b>	<b>10.54</b>	<b>11.76</b>
	1.52	0.11	0.19	0.30	0.41	0.53	0.64	0.75	0.87	0.98
<b>66</b>	<b>1.32</b>	<b>2.22</b>	<b>3.57</b>	<b>4.92</b>	<b>6.27</b>	<b>7.62</b>	<b>8.97</b>	<b>10.32</b>	<b>11.67</b>	<b>13.02</b>
	1.68	0.12	0.21	0.33	0.46	0.58	0.71	0.83	0.96	1.08
<b>72</b>	<b>1.45</b>	<b>2.44</b>	<b>3.92</b>	<b>5.40</b>	<b>6.88</b>	<b>8.36</b>	<b>9.84</b>	<b>11.32</b>	<b>12.80</b>	<b>14.28</b>
	1.83	0.13	0.23	0.36	0.50	0.64	0.78	0.91	1.05	1.19
<b>78</b>	<b>1.58</b>	<b>2.65</b>	<b>4.26</b>	<b>5.87</b>	<b>7.49</b>	<b>9.10</b>	<b>10.71</b>	<b>12.32</b>	<b>13.93</b>	<b>15.54</b>
	1.98	0.15	0.25	0.40	0.55	0.70	0.85	0.99	1.14	1.29
<b>84</b>	<b>1.71</b>	<b>2.87</b>	<b>4.61</b>	<b>6.35</b>	<b>8.09</b>	<b>9.83</b>	<b>11.58</b>	<b>13.32</b>	<b>15.06</b>	<b>16.80</b>
	2.13	0.16	0.27	0.43	0.59	0.75	0.91	1.08	1.24	1.40
<b>90</b>	<b>1.83</b>	<b>3.08</b>	<b>4.95</b>	<b>6.83</b>	<b>8.70</b>	<b>10.57</b>	<b>12.44</b>	<b>14.32</b>	<b>16.19</b>	<b>18.06</b>
	2.29	0.17	0.29	0.46	0.63	0.81	0.98	1.16	1.33	1.50
<b>96</b>	<b>1.96</b>	<b>3.30</b>	<b>5.30</b>	<b>7.30</b>	<b>9.31</b>	<b>11.31</b>	<b>13.31</b>	<b>15.32</b>	<b>17.32</b>	<b>19.32</b>
	2.44	0.18	0.31	0.49	0.68	0.86	1.05	1.24	1.42	1.61
<b>102</b>	<b>2.09</b>	<b>3.51</b>	<b>5.65</b>	<b>7.78</b>	<b>9.91</b>	<b>12.05</b>	<b>14.18</b>	<b>16.31</b>	<b>18.45</b>	<b>20.58</b>
	2.59	0.19	0.33	0.52	0.72	0.92	1.12	1.32	1.52	1.71
<b>108</b>	<b>2.22</b>	<b>3.73</b>	<b>5.99</b>	<b>8.26</b>	<b>10.52</b>	<b>12.78</b>	<b>15.05</b>	<b>17.31</b>	<b>19.58</b>	<b>21.84</b>
	2.74	0.21	0.35	0.56	0.77	0.98	1.19	1.40	1.61	1.82
<b>114</b>	<b>2.35</b>	<b>3.94</b>	<b>6.34</b>	<b>8.73</b>	<b>11.13</b>	<b>13.52</b>	<b>15.92</b>	<b>18.31</b>	<b>20.71</b>	<b>23.10</b>
	2.90	0.22	0.37	0.59	0.81	1.03	1.26	1.48	1.70	1.92
<b>120</b>	<b>2.47</b>	<b>4.16</b>	<b>6.68</b>	<b>9.21</b>	<b>11.73</b>	<b>14.26</b>	<b>16.79</b>	<b>19.31</b>	<b>21.84</b>	<b>24.36</b>
	3.05	0.23	0.39	0.62	0.86	1.09	1.32	1.56	1.79	2.03

Height in Inches and Meters



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](http://www.c-sgroup.com)

To download details and specifications visit [www.c-sgroup.com](http://www.c-sgroup.com)

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

Upper Numerals English Units/Lower Numerals Metric Units