

## Product Evaluation

LVR23 | 0422

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

**Evaluation ID:** LVR-23

**Effective Date:** April 1, 2022

**Re-evaluation Date:** April 2026

**Product Name:** Model DC-5704 Aluminum Louvers, Impact Resistant

**Manufacturer:** Construction Specialties, Inc.  
49 Meeker Avenue  
Cranford, NJ 07016  
(800) 526-6930

### General Description:

**Model DCH-5704 (Horizontal):** The frame is constructed of extruded aluminum. The head is square-cut and butted to the jambs, secured with two (2) #10 x 1-1/2" pan head screws. At the sill, the jambs are square-cut and butted onto the sill, secured with two (2) #10 x 1-1/2" long pan head screws. The louver assembly consisted of thirty-eight (38) 144" wide by 2-5/16" high, 0.060" thick, extruded aluminum blades. The blades are attached to vertical jambs with two (2) #10 x 1-1/2" long pan head screws at each blade end.

**Model DCV-5704 (Vertical):** The frame is constructed of extruded aluminum. The head is square-cut and the jambs are butted onto the head, secured with two (2) #10 x 1-1/2" pan head screws. The sills are square-cut, and the jambs are butted onto the sill, secured with two (2) #10 x 1/12" long pan head screws. The louver assembly consist of thirty-eight (38) 144" wide by 2-5/16" high, 0.060" thick, extruded aluminum blades. The blades are attached to the head and sill with two (2) #10 x 1-1/2" long pan head screws at each blade end.

**Design Drawings:**

Construction Specialties; drawing No. RD-1075; Sheets 1-8 of 8; dated October 02, 2008; Revision 2 dated January 08, 2022; signed, sealed, and dated March 15, 2022, by Chad C. Loritz, P.E. The stated drawing will be referred to as approved drawings in this report.

**Limitations:**

**Wall Construction:** The louvers may be mounted to the following types of wall framing:

- Metal studs (minimum 16 gauge,  $F_y = 50$  ksi)
- Concrete (minimum compressive strength 2,500 psi)
- Structural steel (minimum 3/16" thick,  $F_y = 36$  ksi).
- Aluminum (minimum 6063-T5, 1/8" thick)
- Wood (minimum SPF; S.G. = 0.42)

The louver is to be installed in a location where the room behind the louver is designed to drain water penetrating the room and the room will house waterproof or water-resistant equipment, components, or supplies.

Jamb clip spacing may not be altered. Each clip and fastener used must be detailed on the drawing.

Separation of unpainted aluminum and dissimilar materials to be maintained by the installer.

**Panel Size:** Maximum single panel size:

- DCH-5704: 144" w x 78" h
- DCV-5704: 78" w x 144" h.

**Maximum Width:** Panels may be stacked horizontally or vertically. Refer to the notes on Sheet 1 of the drawings.

**Maximum Height:** Panels may be stacked horizontally or vertically. Refer to the notes on Sheet 1 of the drawings.

**Blade Support:** Refer to the design drawings for requirements on blade support.

**Acceptance of Smaller Assemblies:** Louver assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

**Product Identification:** The louvers must have a manufacturer-produced label that indicates the manufacturer (Construction Specialties, Inc); the name of the product (DC-5704 Aluminum Louvers); and compliance with TAS-201, TAS-202, TAS-203 and AMCA 540.

**Compliance:** The louvers assemblies have passed test criteria equivalent to ASTM E 330-14, ASTM E 1886-13a, and ASTM e 1996-14a. The louver assemblies have been tested to AMCA 540.

**Impact Resistance:** These louver assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris. The louver assemblies passed an impact standard equivalent to Missile Level D specified in ASTM E 1996-14a. The louvers may be installed at any height on the structure if the design pressure rating for the assemblies is not exceeded.

**Allowable Design Pressure:** Refer to Table 1 and Table 2 and the approved drawings for the allowable design pressure.

**Table 1.**

Specimen	Maximum Single Section Width	Maximum Single Section Height	Allowable Design Pressure Rating
#1	12'-0"	6'-8"	±130.0 psf
#2	6'-8"	12'-0"	±130.0 psf
#3	6'-0"	12'-0"	±150.0 psf
#4	8'-0"	10'-0"	±150.0 psf

**Table 2.**

Louver Size versus Windload Table			
Louver Dimension (parallel to blade length)	Maximum Windload (psf)	Assembly	Number of Intermediate Blade Stiffeners
6'-0" or less	+/-150	#3	0
6'-1/16" to 8'-0"	+/-150	#4	1
8'-1/16" to 12'-0"	+/-130	#1 & #2	2

**Installation:**

**General:**

All requirements specified in the IRC and the IBC must be satisfied and manufacturer's installation instructions followed, unless otherwise specified by this product evaluation.

It is the responsibility of the structural engineer of record to verify the capacity of the structure to support the correct steel and concrete thickness.

**Anchorage:** The aluminum louvers must be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation. A copy of the approved drawings must be available at the job site.

**Note:** Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.