TDI | Texas Department of Insurance

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Product Evaluation

LVR22 | 0322

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-22

Effective Date: March 1, 2022
Re-evaluation Date: March 2026

Product Name: Model SP537DC Aluminum Louvers, Impact Resistant

Manufacturer: Industrial Louvers, Inc.
511 South 7th Street
Delano, Minnesota 55328
(763) 972-2981

General Description:
The louver model SP537DC must be utilized at air intake and exhaust locations or any area requiring missile impact resistance and/or water rejection. The model SP537DC has been tested in accordance with AMCA 540 (enhanced protection level E missile impact); protocols TAS-201 (large missile impact), TAS-202 (uniform static pressure), and TAS-203 (cyclic pressure); and AMCA 500-L for air performance, water performance, and wind driven rain.

Design Drawings:
The Industrial Louvers, Inc. drawing No. RD1089-1, Sheets 1-12 of 12, dated March 06, 2019; Revised January 10, 2022; signed, sealed, and dated January 18, 2022, by Chad C. Loritz, P.E. The stated drawing will be referred to as approved drawings in this evaluation report.

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

- Metal studs (minimum 16 gauge, Fy = 33 ksi)
- Concrete (minimum compressive strength 4,000 psi)
- Grout filled CMU (ASTM C90, Type II)
- Wood (minimum SG=0.55)
- Structural steel (minimum Fy = 46 ksi).

Refer to the approved drawings for specific substrate requirements.

It is the responsibility of the design engineer to verify the adequacy of the existing structure to support the loads from the louvers.

All fasteners must be corrosion resistant fasteners as specified in the IRC and the IBC.

The louvers must 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.

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

Maximum Width: The maximum width of a louver panel unit is 6'-0". Louver panel units may be placed side by side utilizing mullions to achieve an unlimited overall width.

Maximum Height: The maximum height of a louver panel unit is 12'-10". Louver panel units may be stacked to achieve an opening height. For such conditions, the maximum overall height is a function of design pressure, panel width, and mullion span. Refer to the approved drawings for the maximum allowable height.

Allowable Design Pressure: The allowable design pressure for the louvers is as specified in Table 1.

Table 1

Assembly	Maximum Single Section Width	Maximum Single Section Height	Allowable Design Pressure Rating
1	60"	108"	±120.0 psf
2	60"	135"	±120.0 psf
3	60"	154"	±120.0 psf
4	72"	60"	±100.0 psf
5	72"	Unlimited	±120.0 psf
6	72"	Unlimited	±120.0 psf

Product Identification: The louvers have a permanently mounted label that indicates the manufacturer (Industrial Louvers, Inc.); the name of the product (Model SP537DC); the missile Level (Level E); and compliance with AMCA 540, TAS-201, TAS-202, and TAS-203.

Compliance: The louver assemblies passed test criteria equivalent to ASTM E 330-14, ASTM E 1886-13a, ASTM E 1996-14a.

Impact Resistance: This louver assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. The assembly has passed a missile test equivalent to Missile Level E specified in ASTM E 1996-14a. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded

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.

Installation:

General Installation Requirements: The louvers must be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report. Copies of the approved drawings must be available on the jobsite during inspection of the louver assembly.

Anchorage: The louver must be anchored to the structure in accordance with the approved drawings. Anchorage of the louvers to the substrates specified in the approved drawings and this evaluation report must follow the mounting conditions, fastener options, and fastener placement specified on the approved drawings.

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.