

Product Evaluation

LVR30 | 0123

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-30

Effective Date: January 1, 2023

Re-evaluation Date: January 2027

Product Name: Model EDV-545-MD Extruded Aluminum Louver, Impact Resistant

Manufacturer: Pottorff
5101 Blue Mount Road
Fort Worth, TX 76106
(817) 509-2300

General Description:

The EDV-545-MD louver design consists of two sets of 6005A-T6 aluminum blades fastened within a 5.375" deep perimeter frame made from 6005A-T6 aluminum channel. The front horizontal blades are 2.158" deep with 0.080" wall thickness, spaced a maximum of 1.917" apart, and mechanically fastened to the sides of the perimeter frame. The rear vertical blades are 2.739" deep with 0.050" wall thickness, spaced a maximum of 0.875" apart, and mechanically fastened to the top and bottom of the frame. This configuration provides the visual appearance of horizontal blades while retaining most of the performance benefits of a vertical blade design. Channel frame members have varying wall thickness from 0.081" up to 0.165". Frame components are butted together and mechanically fastened at the corners. The EDV-545-MD has a maximum single-section size of 60" x 96" and a minimum size of 11.5" x 11.5". A multi-section assembly may include an unlimited number of sections arranged side-by-side, but louver assemblies are limited to only one section high unless additional supporting structure is designed and installed.

Design Drawings:

"EDV-545-MD;" manufactured by Pottorff; Drawing No. EDV-545-MD TDI; Sheets 1–9 of 9; dated June 28, 2022; Rev 1 dated December 8, 2022; signed, sealed, and dated December 9, 2022, by Chad Loritz, P.E. The stated drawings will be referred to as approved drawings in this evaluation report.

Limitations:**Configurations:**

- Single Units
- Multiple Units Horizontally

Mounting Conditions:

- Trapped Mount

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

- Pre-cast concrete, cast-in-place concrete (minimum compressive strength 2,500 psi)
- Grout-filled concrete masonry units (CMU) (minimum compressive strength 1,500 psi)
- Wood (minimum Spruce-Pine-Fir dimension lumber, S.G. = 0.42)
- Steel (minimum 16-gauge thickness, minimum yield strength 36 ksi)
- Aluminum (minimum 1/8" thick; 6063-T6)

Allowable Design Pressure: The maximum allowable design pressure is +/-100.0 psf.

Maximum Width: The maximum width of a louver panel unit is 60". The minimum width of a louver panel unit is 11-1/2". 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 8'-0". The minimum height of a louver panel unit is 11-1/2".

Product Identification: The louvers must have a manufacturer-produced label that indicates the manufacturer: "Pottorff;" the name of the product: "EDV-545-MD;" compliance with TAS-201, TAS-202, and TAS-203 and AMCA 540; and the missile level (Missile level E; 80 FPS).

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

Impact Resistance: This louver assembly has been tested 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.

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 concrete, grout-filled concrete masonry units (CMU), wood wall framing, aluminum wall framing, and steel wall framing 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.