

Product Evaluation

SHU176 | 0521

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: SHU-176

Effective Date: May 1, 2021

Re-evaluation Date: May 2025

Product Name: Eyewall Armor (EA) 6.8 Accordion Shutters

Manufacturer: Town & Country Industries
400 West McNab Road
Fort Lauderdale, FL 33309
(561) 512-9702

General Description:

The 6.8 accordion shutters are manufactured of extruded aluminum and are assembled using 6.8 extruded aluminum interlocking slats/blades with dimensions of 4.603" wide x 0.054" thick. The shutter system features an offset screw boss that can be easily lubricated. The offset screw boss isolates the assembly screw from the hinging of the shutter blades to reduce corrosion.

The accordion shutter is a permanently mounted impact protection system. The shutters may be installed to substrates constructed of wood, concrete, hollow concrete block, or grout-filled concrete block.

Limitations:

Design Drawings:

"Eyewall Armor Hurricane Protection 6.8 Accordion Shutter;" manufactured by Town and Country Industries; Drawing No. 20-24244.4; Sheets 1-13 of 13; dated December 20, 2011; revised

November 10, 2020; signed, sealed, and dated April 1, 2020 by Frank L. Bennardo, P.E. The stated drawings will be referred to as approved drawings in this report.

Accordion Configurations: The accordion shutters are installed as single span units.

Mounting Conditions: The accordion shutters may be wall mounted, inside mounted, or built-out mounted. Refer to the approved drawings for specific mounting conditions.

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

- Pre-cast concrete, cast-in-place concrete (minimum compressive strength required specified in drawings)
- Grout-filled concrete masonry units (CMU)
- Hollow concrete masonry units (CMU).
- Wood (minimum Spruce-Pine-Fir dimension lumber, S.G. = 0.42).

Allowable Design Pressure: The allowable design pressure is a function of slat span, mounting condition, end strip schedule, anchors, and substrate. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is +/-200.0 psf.

Maximum Shutter Span: The maximum allowable shutter span is 156". Refer to the approved drawings for allowable shutter spans for specific configurations.

Maximum Width: The allowable shutter width is unlimited.

Minimum Separation from Glass: The shutter system is a non-porous impact protective system. There is no minimum separation of glazing. The shutters may not be installed on essential facilities as defined in the IBC.

Impact Resistance: This accordion shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. The assembly passed Missile Level D specified in ASTM E 1996-09. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded. The shutters may not be installed on essential facilities as defined in the IBC.

Product Identification: The shutter assembly has a permanent label that indicates the manufacturer (Town & Country Industries); the name of the product (6.8 Accordion Shutter); the missile level (9 lb Missile Level D); the test standards: ASTM E 330; ASTM E 1886, ASTM E 1996; and the TDI product evaluation report number (SHU-176).

Compliance: The shutters comply with ASTM E 330-14, ASTM E 1886-13a, and ASTM E 1996-14a.

Installation:

General Installation Requirements: The accordion shutters 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 shutter assembly.

Anchorage: The accordion shutters must be anchored to the structure in accordance with the approved drawings. Anchorage of the accordion shutters to concrete, grout-filled CMU, hollow CMU, and wood wall framing must follow the mounting conditions and fastener options 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.