

Product Evaluation

SHU214 | 0421

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-214

Effective Date: April 1, 2021

Re-evaluation Date: April 2025

Product Name: MS 56mm Aluminum Roll-Up Shutters

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

General Description:

The roll-up shutters are manufactured of extruded aluminum and are assembled using extruded aluminum interlocking slats. Shutters may be constructed with storm bars or with mullions to increase the overall width of the shutter. The shutters may be wall mounted, interior mounted, or built-out mounted. Install the shutters in accordance with design drawings referenced in this evaluation report.

Limitations:

Design Drawings:

- Maestrosshield Aluminum Roll-Up Shutter with End Retention or Non-End Retention Slats and Rails; Town and Country Industries; Drawing No. 20-24244.8a; Sheets 1–17 of 17; dated November 03, 2010, revised June 30, 2020; signed, sealed, and dated November 23, 2020, by Frank L. Bennardo, P.E. The stated drawings will be referred to as approved drawings in this report.

- Aluminum Storm Bars, Headers and Mullions Addendum Installation Instructions for Maestrosshield Roll-Up Shutter; Town and Country Industries; Drawing No. 20-24244.8b; Sheets 1–15 of 15; dated April 25, 2014, revised June 30, 2020; signed, sealed, and dated November 23, 2020 by Frank L. Bennardo, P.E. The stated drawings will be referred to as approved drawings in this report.

Roll-up Shutter Configurations: The roll-up shutters may be installed as single span units or as multi-span assemblies using storm bars and mullions. Refer to the approved drawings for the specific types of configurations.

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

Wall Construction: The roll-up shutters may be mounted to the following types of wall framing:

- Pre-cast concrete, cast-in-place concrete)
- Grout-filled concrete masonry units (CMU)
- Hollow concrete masonry units (CMU)
- Wood (minimum Spruce-Pine-Fir dimension lumber).

Allowable Design Pressure: The allowable design pressure is a function of slat span, end retention, mounting condition, anchors, storm bars, and mullions. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is ± 120 psf.

Anchorage: The roll-up shutters shall be anchored to the structure in accordance with the approved drawings. Anchorage of the roll-up shutters to concrete, grout-filled concrete masonry units (CMU), hollow block CMU, and wood framing shall follow the mounting conditions and fastener options specified on the approved drawings.

Maximum Span:

- The maximum allowable slat span for non-end retention shutters without storm bars is 82.1”.
- The maximum allowable slat span for end retention shutters without storm bars is 256.5”.
- The maximum allowable slat span for double span and triple span assemblies using storm bars and mullions is 82.1”.

Note: Refer to the approved drawings for allowable slat spans for specific configurations.

Maximum Height: The maximum allowable assembly height is 252”.

Minimum Separation from Glass: The minimum glazing separation is specified in Table 3 and Table 4 on sheet 1 of 17 of approved drawing 20-24244.8a. The shutters may not be installed on essential facilities as defined in the IBC.

Product Identification: The roll-up shutter assemblies have a permanent label that identifies the manufacturer (Town & Country Industries), the name of the product (MS 56mm Roll Shutter 9LB

Missile Level D), the test standards (ASTM E 330, ASTM E 1886, and ASTM E 1996) and the TDI evaluation report number (SHU-214).

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

Impact Resistance: This roll-up shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. The assembly passed Missile Level D as 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 Instructions:

General Installation Requirements: Install the roll-up shutters 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.

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

- Pre-cast concrete, cast-in-place concrete)
- Grout-filled concrete masonry units (CMU)
- Hollow concrete masonry units (CMU)
- Wood (minimum Spruce-Pine-Fir dimension lumber).

Anchorage: Anchor the roll-up shutters to the structure in accordance with the approved drawings. Anchorage of the roll-up shutters to concrete, grout-filled concrete masonry units (CMU), hollow block CMU, and wood framing must follow the mounting conditions and fastener options specified on the approved drawings.

Storm Bars and Mullions: Anchorage and installation requirements for storm bars and for mullions must be as specified on the approved drawings.

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