

Product Evaluation

SHU232 | 1019

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-232

Effective Date: October 1, 2019

Re-evaluation Date: October 2023

Product Name: 55mm End Retention Bertha Roll-Up Shutters

Manufacturer: American Shutter Systems Association and Eastern Metal Supply
4268 Westroads Drive 9400 Telge Road
West Palm Beach, FL 33407 Houston, TX 77095
(800) 432-2204 (800) 996-6061

General Description:

The 55 mm End Retention (ER) roll-up shutters are manufactured of 6063-T6 extruded aluminum. The shutter consists of 55 mm extruded aluminum slats. The shutters are a permanently mounted impact protective system.

The shutters may be mounted as single units or multiple units. Mounting conditions consist of wall mount, build out, or inset mount.

The shutters must be installed in accordance with design drawings referenced in this evaluation report.

Limitations:

Design Drawings:

"55 MMER Roll Shutter Missile Level E Impact Rated;" manufactured by American Shutter Systems Association; Drawing No. EMS006; Sheets 1-19 of 19, dated March 7, 2018; signed, sealed, and

dated September 12, 2019 by Hermes F. Norero, P.E. The stated drawings will be referred to as approved drawings in this report.

Roll-Up Configurations: The roll-up shutters are installed as single span units or multiple span units.

Mounting Conditions: The roll-up shutters may be wall mounted, inset mounted, or build 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 (minimum compressive strength required specified in drawings)
- Grout-filled concrete masonry units (CMU); (minimum compressive strength required specified in drawings)
- Wood (minimum Southern Yellow Pine dimension lumber, S.G. = 0.55)
- Steel (minimum A36, 3/16" thickness)
- Aluminum (minimum 6063-T6, 1/4" thickness)

Allowable Design Pressure: The allowable design pressure is a function of track to track width, mullion span, mounting condition, 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 track to track width is 286-1/2". Refer to the approved drawings for allowable track to track widths for specific configurations.

Maximum Width: Unlimited shutter modules for multiple units may be used. Refer to Sheet 3 of 19 of the approved drawings for multiple units elevations.

Minimum Separation from Glass: The minimum glazing separation as a function of track to track width is specified in Table 2 on Sheet 2 of 19 of the approved drawing. **NOTE:** The minimum glazing separation is only required when the roll-up shutters are used in essential facilities as defined in ASCE 7 except as noted in the footnotes of Table 2 of the approved drawing.

Product Identification: The roll-up shutter assemblies must have a manufacturer-produced label that indicates the manufacturer (American Shutter Systems Association, Inc., West Palm Beach, FL); the name of the product (55 mmER Bertha Roll Shutter System); the missile level (Missile Level E); and compliance with ASTM E 330-02, ASTM E 1886-04, and ASTM E 1996-04.

Impact Resistance: This roll-up shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne. The assembly passed Missile Level E specified in ASTM E 1996-04. 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: The roll-up 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 roll-up shutters must be anchored to the structure in accordance with the approved drawings. Anchorage of the roll-up 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, the IBC, and the Texas Revisions.