





# **Product Evaluation**

GDR45 | 0318

**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:** GDR-45 **Effective Date:** March 1, 2018

**Re-evaluation Date:** March 2022

**Product Name:** Series 3400 Steel Roll Up Doors, Impact Resistant

Manufacturer: Janus International Corporation

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### **General Description:**

This evaluation report is for the Series 3400 steel roll up doors. The steel roll-up doors consist of a corrugated steel curtain that is suspended from a barrel. Coil springs, located within the barrel, raise and lower the curtain, which wraps around the barrel. The steel curtain is raised by push-up, hand chain, or electric operation. The sides of the curtain are constrained from lateral movement along their vertical edges by steel guides that are attached to the structure. The steel roll up doors specified in this evaluation report are impact resistant. This evaluation report includes the following doors:

System	Description	Maximum Width	Maximum Height
1	24 Gauge Series 3400 Roll Up Doors; Single Curtain; Windlocks	12'-0"	20'-0"

The steel roll up doors specified in this evaluation report consist of the following components:

- **Curtain:** 24-gauge corrugated steel that is roll-formed from ASTM A 653 grade 80 steel. The corrugated sheets are galvanized and pre-painted with silicone polyester paint. The corrugated sheets are interlocked mechanically to form the curtain.
- **Guides:** 12-gauge galvanized steel roll-formed from ASTM A 653 steel. The dimensions of the guide are 2" x 4" x 0.105" x full length.

- Wind Bar: 12-gauge galvanized steel roll-formed from ASTM A 653 steel. The dimensions of the guide are 1.188" x 0.984" x 0.188" x 0.105" x full length of guide. The wind bar is secured to the guide with anchors for cast-in-place or pre-cast concrete substrate and welded in place for steel substrate.
- **Bottom Bar:** One 24-gauge galvanized steel bottom bar full length of curtain. One roll-formed steel angle, 2" x 1-1/2" x 0.105" x full length of curtain. The steel angle is attached to the steel bottom bar with 1/4" diameter thru bolts and lock nuts. Two bolts are located at each end and two bolts are located at the center. One bolt is located 12" on center. A continuous vinyl bulb astragal is attached to the bottom of the steel bottom bar.
- Windlocks: 11-gauge galvanized steel. The dimensions of the windlock are 1.13" x 3.04" x 0.112". The windlock is attached to each side of the curtain at every other corrugation. Each windlock is attached to the curtain with two 3/16" diameter zinc coated rivets.
- **Hardware:** One commercial slide lock located at the end of each bottom bar. Each is attached with two 1/4" diameter bolts and lock nuts.

**Product Identification:** A label will be affixed to the bottom bar of the steel roll up door. The label must include the manufacturer's name, series number of door, the allowable design pressure rating, the design drawing number, and compliant with TAS 201, 202 & 203, ANSI/DASMA 108 & 115.

#### **Limitations:**

System	Maximum Width	Maximum Height	Drawing	Design Pressure Rating (psf)
1	12'-0"	20'-0"	T11011	+77.4, -86.4

- Glazing: None
- Impact Resistance: The doors listed in this report satisfy TDI's criteria for protection from windborne
  debris in the Inland I zone and the Seaward zone. The door assemblies passed the equivalent of
  Missile Level D as specified in ASTM E 1996-04. The door assemblies will not need to be protected
  with an impact protective system when installed in areas where windborne debris protection is
  required.
- **Acceptance of Smaller Assemblies:** Door assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.
- Drawings (The drawing listed below must be available at the job site):
  - System 1: Janus International Corporation; Dade County Commercial Door Series 3400 Max Size 12'-0" x 20'-0"; Drawing No. T1011, Sheet 1 and 2 of 2; signed, sealed, and dated May 17, 2013, by Joseph H. Dixon, P.E., dated February 28, 2014.

#### **Installation Instructions:**

Install the steel roll up doors to the substrate using one of the following methods (refer to the design drawings referenced above for further guidance):

## Bolted to cast-in-place, pre-cast concrete, or grout-filled CMU substrate:

• System 1: Guide Mounting: Each guide and wind bar must be anchored to the substrate with minimum 3/8" x 4" Powers Wedge-Bolt anchors. The anchors must be placed through the wind bar, through the interior of the guide, and into the substrate. The anchors must be spaced a maximum of 4" from the floor and 12" on center for cast-in-place or pre-cast concrete substrate and 6-1/2" on center for grout filled CMU substrate, along the length of the guide. The anchors must penetrate a minimum of 3-1/2" into the substrate. If the bolt must penetrate through a wall

covering, then the bolt length must be increased by the thickness of the wall covering material. The anchors must be located a minimum of 4-1/2" from the edge of the door opening. Grout must be minimum 2,500 psi.

### **Bolted to steel substrate:**

• **System 1: Guide Mounting:** The steel substrate must be minimum 1/8" thick A36 steel. Each guide must be anchored to the substrate with minimum 1/4-14 x 1" ITW Buildex self-drilling TEKS screws. The screws must be placed through the wind bar, through the toe of the guide, and into the substrate. The screws must be spaced a maximum of 4" from the floor and 3-3/4" on center along the length of the guide through the pre-drilled holes in the guide. If the screws must penetrate through a wall covering, then the bolt length must be increased by the thickness of the wall covering material.

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