



# Product Evaluation

GDR41 | 1214

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-41

**Effective Date:** December 1, 2014

**Re-evaluation Date:** December 2018

**Product Name:** Series 3100 Steel Roll Up Doors, Non-Impact Resistant

**Manufacturer:** Janus International Corporation  
135 East Luke Road  
Temple, GA 30179-4435  
(866) 562-2580  
[www.janusintl.com](http://www.janusintl.com)

### General Description:

This evaluation report is for the Series 3100 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 rolls up doors specified in this evaluation report are non-impact resistant. This evaluation report includes the following doors:

System	Description	Maximum Width	Maximum Height
1	26 Gauge Series 3100 Roll Up Doors; Single Curtain; Windlocks	16'-0"	20'-0"
2	26 Gauge Series 3100 Roll Up Doors; Single Curtain; Windlocks	20'-0"	20'-0"

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

- **Curtain:** 26-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.
- **Bottom Bar (System 1):** 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.
- **Bottom Bar (System 2):** One 24-gauge galvanized steel bottom bar full length of curtain. Two roll-formed steel angles, 2" x 1-1/2" x 0.105" x full length of curtain. Along the vertical leg, the steel angles are 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. Along the horizontal leg, the steel angles are attached to each other with 1/4" diameter thru bolts and lock nuts. Two bolts are located at the center. One bolt is located 12" from the double bolts and one bolt is located 24" on center thereafter. A single bolt is located inboard of the step plate. A continuous vinyl bulb astragal is attached to the bottom of the bottom bar.
- **Windlocks (System 1):** 11-gauge galvanized steel. The dimensions of the windlock are 1.125" x 3.036". 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.
- **Windlocks (System 2):** 11-gauge galvanized steel. The dimensions of the windlock are 1.130" x 3.040". The windlock is attached to each side of the curtain at every corrugation except at the seamed corrugations. Each windlock is attached to the curtain with two 3/16" diameter zinc coated rivets.
- **Hardware:** None.

**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, and the design drawing number.

**Limitations:**

System	Maximum Width	Maximum Height	Drawing	Design Pressure Rating (psf)
1	8'-0"	20'-0"	T1004 Rev E	+77.4, -86.4
	9'-0"			+61.3, -68.9
	10'-0"			+50.2, -56.7
	11'-0"			+42.1, -47.7
	12'-0"			+36.0, -41.0
	13'-0"			+31.3, -35.8
	14'-0"			+27.5, -31.6
	15'-0"			+24.5, -28.1
	16'-0"			+22, -25.3

**Limitations (continued):**

System	Maximum Width	Maximum Height	Drawing	Design Pressure Rating (psf)
2	12'-0"	20'-0"	T1005 Rev G	+56.4, -61.0
	13'-0"			+49.3; -53.3
	14'-0"			+43.5; -47.2
	15'-0"			+38.8, -42.2
	16'-0"			+35.0, -38.0
	17'-0"			+31.8; -34.5
	18'-0"			+29.0; -31.5
	19'-0"			+26.6; -28.9
	20'-0"			+24.5; -26.7

- **Glazing:** None
- **Impact Resistance:** The doors listed in this report do not satisfy TDI's criteria for protection from windborne debris. Protect the door assemblies with an impact protective system when installing the product in areas that require windborne debris protection.
- **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 shall be available at the job site):**
  - **System 1:** Janus International Corporation; Certified Wind Load Rated 26 GA. Series 3100 Door Assembly Max. Size 16'-0" x 20'-0"; Drawing No. T1004, Rev E; Sheet 1 and 2 of 2; revised 2-28-14; sealed by Joseph H. Dixon, P.E., dated 2-28-14.
  - **System 2:** Janus International Corporation; Certified Wind Load Rated 26 GA. Series 3100 Door Assembly Max. Size 20'-0" x 20'-0"; Drawing No. T1005, Rev G; Sheet 1 and 2 of 2; revised 5-22-2013; signed, sealed, and dated 5-22-2013, by Joseph H. Dixon, P.E.

**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:** Anchor each guide and wind bar to the substrate with minimum 3/8" x 4" Powers Wedge-Bolt anchors. Place the anchors through the interior of the guide, through the wind bar, and into the substrate. Space the anchors a maximum of 12" on center 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 increase the bolt length by the thickness of the wall covering material. Locate the anchors a minimum of 3.448" from the edge of the door opening. Grout shall be minimum 2,500 psi.
- **System 1: Tensioner Bracket Mounting:** Each bracket shall be anchored to the substrate with three (3) minimum 3/8" diameter Powers Wedge-Bolt anchors with a minimum 1-1/2" embedment. If the bolts must penetrate through a wall covering, then increase the bolt length by the thickness of the wall covering material.
- **System 2: Guide Mounting:** Anchor each guide and wind bar to the substrate with minimum 3/8" x 4" Powers Wedge-Bolt anchors. Place the anchors through the interior of the guide, through the wind bar, and into the substrate. Space the anchors a maximum of 9" on center 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 increase the bolt length by

the thickness of the wall covering material. Locate the anchors a minimum of 3.448" from the edge of the door opening. Grout must be minimum 2,500 psi.

- **System 2: Tensioner Bracket Mounting:** Anchor each bracket to the substrate with three minimum 3/8" diameter Powers Wedge-Bolt anchors with a minimum 1-1/2" embedment. If the bolts must penetrate through a wall covering, then increase the bolt length by the thickness of the wall covering material.

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

**System 1: Guide Mounting:** The steel substrate must be minimum 1/8" thick A36 steel. Mount each guide and wind bar using one of the following options:

- **Option 1:** The wind bar is welded to the guide with a 7/16" plug weld located 12" on center. Anchor the guide to the substrate with one minimum 1/4-14 x 1" self-drilling TEKS screw located at the toe of the guide. Space the screws a maximum of 12" on center along the length of the guide.
- **Option 2:** Anchor the guide and wind bar to the substrate with one minimum 1/4-14 x 1" self-drilling TEKS screw. Place the screws through the interior of the guide, through the wind bar, and into the substrate. Space the screws a maximum of 12" on center along the length of the guide.
- **Option 3:** Anchor the guide and wind bar to the substrate with one minimum 1/4-14 x 1" self-drilling TEKS screw. Place the screws through the interior of the guide, through the wind bar, and into the substrate. Anchor the toe of the guide to the substrate with one minimum 1/4-14 x 1" self-drilling TEKS screw. Space the screws a maximum of 12" on center along the length of the guide.

**System 1: Tensioner Bracket Mounting:** Anchor each bracket to the substrate with three minimum 3/8" steel thru bolts into minimum 1/8" steel. If the bolts must penetrate through a wall covering, then increase the bolt length by the thickness of the wall covering material.

**System 2: Guide Mounting:** The steel substrate must be minimum 1/8" thick A36 steel. Mount each guide and wind bar using one of the following options:

- **Option 1:** The wind bar is welded to the guide with a 7/16" plug weld located 9" on center. Anchor the guide to the substrate with one minimum 1/4-14 x 1" self-drilling TEKS screw located at the toe of the guide. Space the screws a maximum of 9" on center along the length of the guide.
- **Option 2:** Anchor the guide and wind bar to the substrate with one minimum 1/4-14 x 1" self-drilling TEKS screw. Place the screws through the interior of the guide, through the wind bar, and into the substrate. Space the screws a maximum of 9" on center along the length of the guide.
- **Option 3:** Anchor the guide and wind bar to the substrate with one minimum 1/4-14 x 1" self-drilling TEKS screw. Place the screws through the interior of the guide, through the wind bar, and into the substrate. Anchor the toe of the guide to the substrate with one minimum 1/4-14 x 1" self-drilling TEKS screw. Space the screws a maximum of 12" on center along the length of the guide.

**System 2: Tensioner Bracket Mounting:** Anchor each bracket to the substrate with three minimum 3/8" steel thru bolts into minimum 1/8" steel. If the bolts must penetrate through a wall covering, then increase the bolt length by the thickness of the wall covering material.

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