

March 24, 2014

EVALUATION REPORT No.:

ER-14-0001

Reference No.: 29018_32003_32041_34012

Product: Exterior Doors - Rolling Overhead Doors
Series 3100

Manufacturer: Janus International Corporation
135 Janus International Blvd.
Tempe, GA 30179-4435

Statement of Compliance:

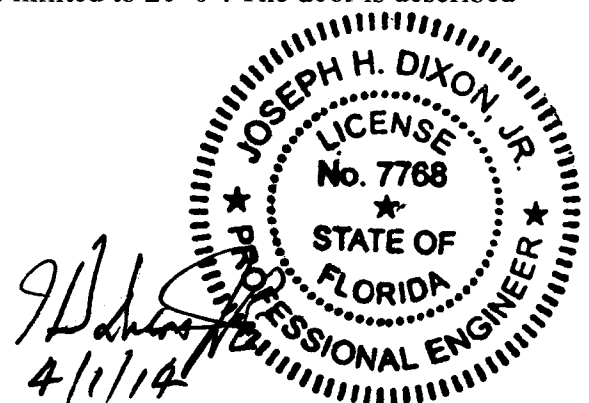
The Rolling Doors Series 3100 described in this report were evaluated to be in compliance with the 2010 Florida Building Code. The doors are, for the purpose intended, at least equivalent to that required by the Code when manufactured and installed as described below.

Description of the Product:

All doors consist of a corrugated steel sheet curtain suspended from a drum roller. The curtain on all models is suspended from a drum roller. Coiling around the drum raises the curtain. The sides of the curtain are constrained from lateral movement along their vertical edges by steel guides that are attached to the door jambs. This constraint provides resistance to lateral wind forces. Various guide configurations are used for the different door styles included in this report. The lateral wind forces are transferred from the curtain to the guides and then through the attachment elements to the door jamb. The door jambs are part of the main wind frame resisting system and usually are constructed of steel, concrete, or concrete masonry units.

Series 3100 (Commercial Door)

Door curtains have a thickness of 26 gage (min. 0.017 in.) and are made of ASTM A653 structural steel, grade 80, pre-painted, galvanized steel with a full coat of primer and baked siliconized polyester finish coat. The corrugated sheets are interlocked mechanically to form the curtain. Lap splices are at approximately 20 inches on center vertically in the installed door. The corrugation height is approximately 5/8 inches and the corrugation pitch is 3.25 in. Style variations include door width, and wind load rating. Maximum door height is limited to 20'-0". The door is described in detail on drawing T1004 Rev E, dated 2/28/14.



Two complete tests were conducted on a 12'-0" wide door. One test used the Option 1 Guide and the other used the Option 2 Guide for attachment to the steel jamb. Maximum allowable design wind pressures for door widths 8'-0" through 11'-0" and 13'-0" through 16'-0" were calculated using a comparative analysis maintaining a constant catenary force on the guides. Doors widths less than 8'-0" may be used for the same design wind pressure as the 8'-0" wide door provided all other requirements on drawing T1004 Rev E remain unchanged. Design wind pressures for door widths of 8'-0" through 16'-0" are shown in Table 1 of this report. All doors shown on drawings T1004 Rev E have windlocks.

Drawings

The Door Series covered by this report is described in detail on the following Janus International Corporation drawings:

Drawing T1004 Rev E: 16'-0" wide max. by 20'-0" high max., shts 1 and 2 of 2, revised 02/28/14

Technical Documentation:

All testing was done at Certified Testing Laboratories, Orlando, Florida. The tests were conducted following the procedures of ASTM E330, Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference. The following test reports, signed and sealed by R. Patel, P.E. cover the Series 3100 doors contained in this report:

- Test Report No.: CTLA-1024W, date: February 20, 2003, (Series 3100, T1004)
12'-0" wide x 8'-0" high, +36.0 / -41.0 psf design pressure
- Test Report No.: CTLA-1194W, date: December 2, 2003, (Series 3100, T1004)
12'-0" wide x 8'-0" high, +36.0 / -41.0 psf design pressure, (Option 1 guide for steel)

Calculations prepared by Joseph H. Dixon, Jr. P.E.:

- Series 3100, dwg. T1004, attachment of guide, Option 3, to 14 gage minimum steel jamb thickness, 6 pages dated 6/18/09, plus drawing JI-3100G1-2SP dated 040704, and drawing JI-3100G1-2SN, dated 09/12/13
- Series 3100, Rolling Sheet Door Test, Calibration Calculations, dated 02/09/14, 2 pages
- Series 3100, dwg. T1004, rev E, Summary of Catenary Forces for alternative doors, Model 3100, 8'-0" to 16'-0" wide, dated 02/09/14

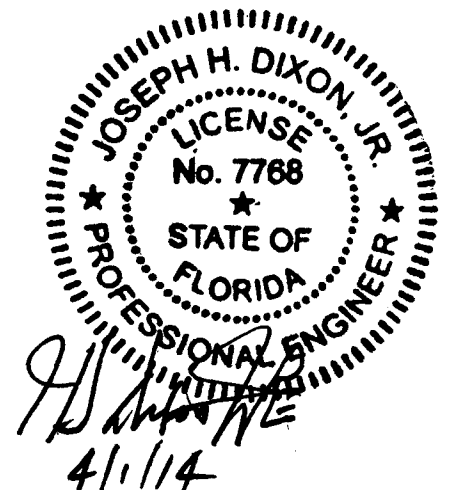


TABLE 1
Allowable Transverse Design Wind Loads (psf)

Series	Max. Door Width	Max. Door Height	Drawing Number	Design Load Positive	Design Load Negative
3100	< 8'-0"	20'-0"	T1004 E	77.4	86.4
3100	8'-0"	20'-0"	T1004 E	77.4	86.4
3100	9'-0"	20'-0"	T1004 E	61.3	68.9
3100	10'-0"	20'-0"	T1004 E	50.2	56.7
3100	11'-0"	20'-0"	T1004 E	42.1	47.7
3100	12'-0"	20'-0"	T1004 E	36.0	41.0
3100	13'-0"	20'-0"	T1004 E	31.3	35.8
3100	14'-0"	20'-0"	T1004 E	27.5	31.6
3100	15'-0"	20'-0"	T1004 E	24.5	28.1
3100	16'-0"	20'-0"	T1004 E	22.0	25.3

Design values used for the tests are shown in the boxed shaded values.

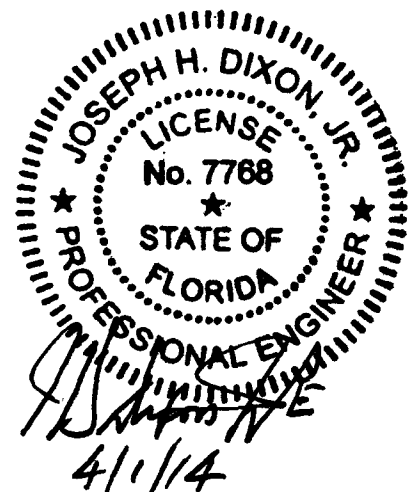
Maximum test load was 150% of design load.

Unshaded design wind loads were determined by comparative analyses using test results

Installation Requirements:

Installation requirements are described in the Janus International Corporation Installation Instructions as follows:

- Series 3100: 8 pages, Commercial Door Installation Instructions Series 3100



Limitations and Conditions of use:

The use of any door is limited to buildings for which the design wind loads for wall components and cladding, determined in accordance with Section 1609 of the 2010 Florida Building Code, do not exceed the rated design wind loads of the door as shown in Table 1.

The maximum width and height limitations are shown in Table 1.

Doors are to be assembled as shown on the appropriate drawing referenced above, and the doors are to be installed in accordance with the installation instructions referenced above.

Door manufacturing is limited to those plants that have met the 2010 Florida Building Code Product Approval quality assurance requirements.

The doors covered by this report are not for use in the Florida High-Velocity Hurricane Zone.

Certification of Independence:

I, Joseph H. Dixon, Jr., certify that I am self-employed and operate as an independent contractor providing professional engineering services. I have no financial interest in nor will I acquire any financial interest in any company manufacturing or distributing products for which evaluation or validation reports have been issued by me.

Likewise, I have no financial interest in nor will I acquire any financial interest in any other entity involved in the approval process of those products for which I have issued reports.



Joseph H. Dixon, Jr. P.E.

