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TRACHTE BUILDING SYSTEMS
TEST REPORT

SCOPE OF WORK
TESTING OF 12’ BY 7’ MODEL 988WL ROLLING STEEL DOOR PER ASTM E330/E330M-14 (2021) (PROCEDURE A)

REPORT NUMBER
105451854MID-001CR0

TEST DATE
11/21/23

ISSUE DATE
12/28/23

PAGES
10

DOCUMENT CONTROL NUMBER
RT-R-AMER-Test-2827 (09/09/21)
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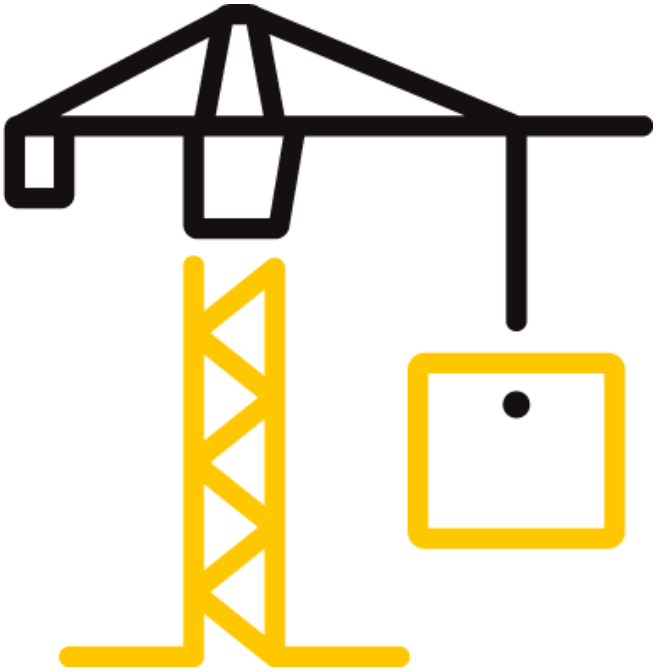

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TEST REPORT FOR TRACHTE BUILDING SYSTEMS

Report No.: 105451854MID-001CR0
Date: 12/28/23

REPORT ISSUED TO

TRACHTE BUILDING SYSTEMS
314 Wilburn Road
Sun Prairie, WI 53590

SECTION 1

SCOPE

Product: 12’ by 7’ Model 988WL Rolling Steel Door

Intertek Building & Construction (B&C) was contracted by Trachte Building Systems of Sun Prairie, WI to evaluate their 12’ by 7’ Model 988WL Rolling Steel Door in accordance with ASTM E330/E330M-14 (2021), *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference (Procedure A)*. Results obtained are tested values and were secured by using the designated test method. Testing was conducted at the Intertek B&C test facility in Middleton, Wisconsin.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called “Shared Risk approach,” of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

SECTION 2

SUMMARY OF TEST RESULTS

SAMPLE #	SUSTAINED UNIFORM LOAD
1	+60/-66 psf

For INTERTEK B&C:

COMPLETED BY:	Russ Burt	**REVIEWED BY:**	Andrew Holstein, Ph.D., P.E.
TITLE:	Senior Associate Engineer Intertek B&C	**TITLE:**	Manager Middleton Evaluation Services
SIGNATURE:	Russ Burt	**SIGNATURE:**	Andrew Holstein
DATE:	12/28/23	**DATE:**	12/28/23

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SECTION 3
TEST METHOD

The specimen was evaluated in accordance with the following:

> **ASTM E330/E330M-14 (2021)**, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference (Procedure A)*

SECTION 4
MATERIAL SOURCE

The sample for testing was not independently selected by an Intertek representative. The sample was received at the Intertek Middleton, WI facility on October 16, 2023 and labeled as MID2310161202-001. The rolling steel door assembly was installed into a lumber test buck by Trachte Building Systems representative Jeremy Beck. Refer to the product photos in Section 10 and drawing in Section 11.

SECTION 5
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Jeremy Beck	Trachte Building Systems
Russ Burt	Intertek B&C

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SECTION 6
TEST PROCEDURE

All conditioning of test specimens and test conditions were at standard laboratory conditions unless otherwise reported.

ASTM E330/E330M-14 (2021) Procedure A Uniform Structural Load
The samples were evaluated for uniform structural loading with each load step being maintained for ten seconds. Deflections were measured at three locations over a 142.5-inch span along a horizontal line 36" above the base of the sample. Net deflections/permanent sets were calculated as the average of the end movements subtracted from the midpoint movement. Loads were applied and measured with a structural control panel (ICN: 004821). Deflections were measured with linear transducers (ICN: 62692 and 64893) and tape measure (ICN: 1546).

SECTION 7
TEST SPECIMEN DESCRIPTION

General- The sample under evaluation was a live axle vertically rolling steel door- door axle rotates in bracket during operation. The finished opening size of the assembly was 12' wide by 7' high.

Curtain- Roll-formed 26 gauge Grade 80 galvanized steel

Door Guides- 14 gauge hot-dipped galvanized steel with 12 gauge steel windlock bars

Spring Assembly- Helical torsion

Axle- 1-5/16" O.D. structural steel tubing

Lock- Steel and zinc cast slide lock

Door Brackets- 10 gauge hot-dipped galvanized steel

Bottom Bar Assembly- 22 gauge galvalume

Door Bottom Backup Angle- 12 gauge hot-dipped galvanized steel

Drums- 18 gauge zinc-coated steel (9-5/8" diameter by 1-1/4" wide)

Door Stops- 12 gauge zinc-coated steel

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Mounting Fasteners- Door Brackets: 5/16" by 1-5/8" wood lag screws Door Guides: 5/16-18 by 4" through bolts

Wind Locks- 10 gauge hot rolled steel secured to door curtain with two 3/16" zinc rivets (24 used on 7' door)

Refer to the product photos in Section 10 and drawing in Section 11.

SECTION 8
TEST RESULTS

Deflections were measured at three locations over a 142.5-inch span along a horizontal line 36" above the base of the sample.

UNIFORM LOAD (psf)	DEFLECTION UNDER LOAD (inches)	PERMANENT SET (inches)
+40	9.71	0.02
+51	10.76	0.10
+60	11.60	0.10
-44	10.59	0.18
-60	11.58	0.36
-66	11.81	0.42

SECTION 9
CONCLUSION

After testing in accordance with Procedure A of ASTM E330/E330M-14 (2021), the samples exhibited the deflection behavior tabulated in Section 8 of this report.

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SECTION 10
PHOTOGRAPHS

Photo No. 1
Interior View of Test Sample

Photo No. 2
Windlocks

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Photo No. 3
Door Guide

Photo No. 4
Slide Lock

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SECTION 11
DRAWING

MODEL 988WL ROLLING CURTAIN DOOR

988WL,12'-0"

SPECIFICATIONS:

PART 1 – MATERIAL:

1.01 Door Guides: Door guides are to be manufactured from 14 gauge (0.070" min.) ASTM A-653 steel, hot dipped galvanized per ASTM A-924 (G-40). Edges covered with polypropylene runners for smooth operation. Guide windlock bars are to be manufactured from 12 gauge (0.100" min.) ASTM A-653 steel, hot dipped galvanized per ASTM A-924 (G-40).

1.02 Door Curtain: Door curtains are to be manufactured from 26 gauge Grade 80 steel per ASTM A-653, hot dipped galvanized per ASTM A-924 (G-40).

1.03 Door Bracket: Door brackets are to be manufactured from 10 gauge (0.134") ASTM A-653 steel, hot dipped galvanized per ASTM A-924.

1.04 Bottom Bar Assembly: Door bottom bar to be roll formed from 22 gauge (0.030" min.) ASTM A1011 galvalume, hot dipped, min. yield of 50 ksi. Door backup angle to be manufactured from 12 gauge ASTM A-653 steel, hot dipped galvanized per ASTM A-924 (G-40).

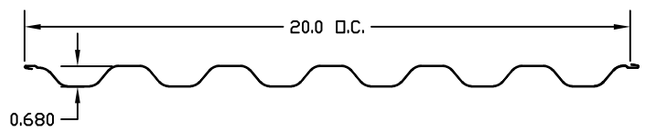
1.05 Door Curtain Windlock: 3 windlocks per door panel are located as required to meet specific windload & manufactured from 10 gauge HR P&O steel, with Zinc JS-500 coating capable of withstanding salt spray testing per ASTM B117 for a minimum of 500 hours. Each windlock secured to the door curtain with two 3/16" zinc rivets. (24 windlocks as tested on 7 ft. tall door)

PART 2 – TESTING:

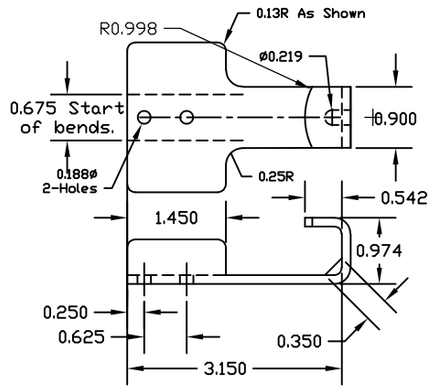
2.01 General: Structural Performance under Uniform Load per ASTM E 330 to safely resist a positive or negative wind load as noted. A test load of 1.5 x design load has been used. Design Load = +40/-44 PSF

PART 3 – EXECUTION:

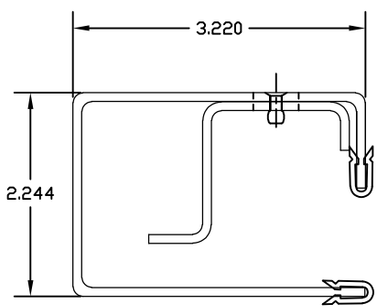
3.01 General: Trac-Rite rolling steel doors shall be installed following Trac-Rite assembly instructions.



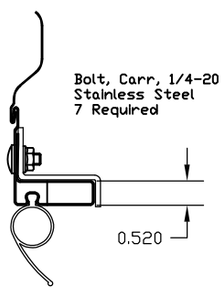
DOOR PANEL



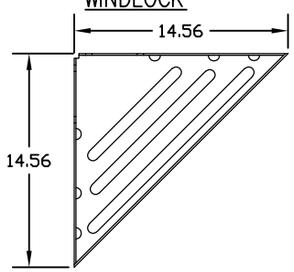
WINDLOCK



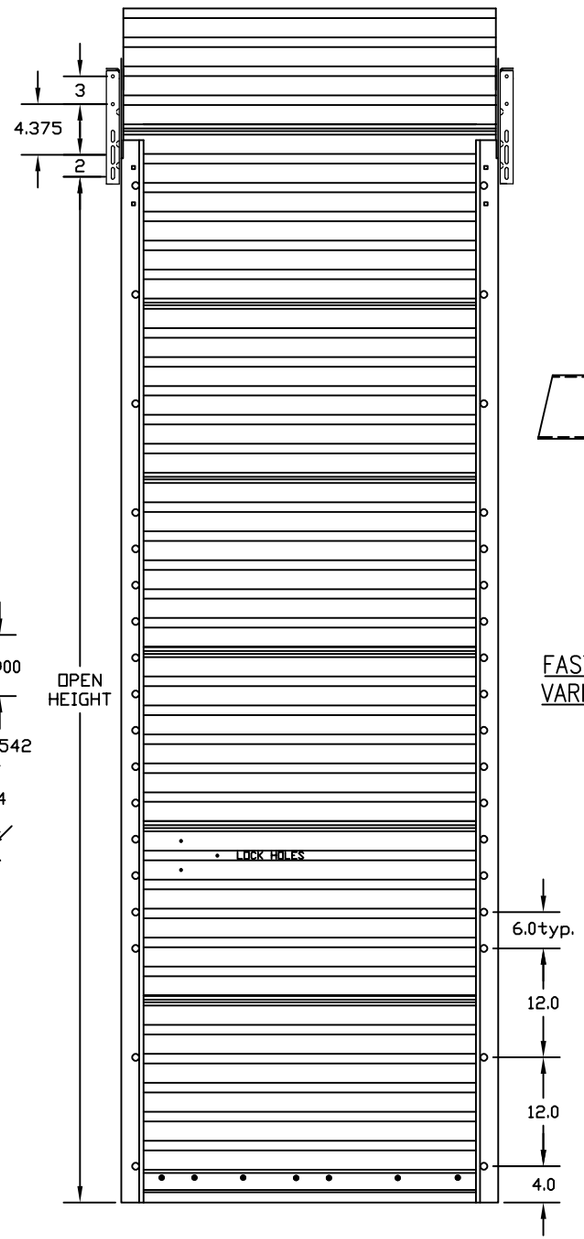
GUIDE DIMENSIONS – LH SHOWN

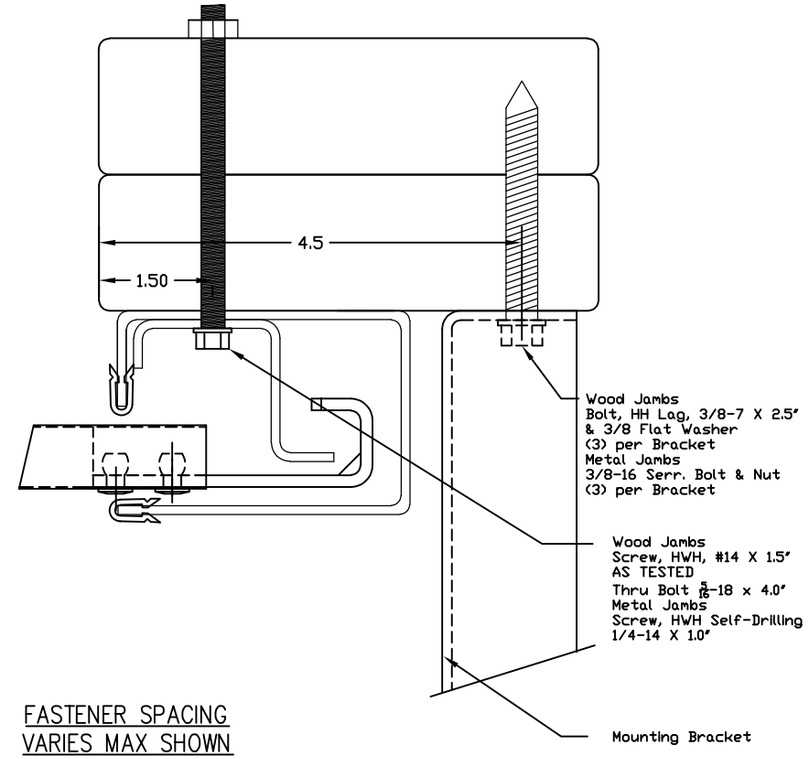


BOTTOM BAR ASSEMBLY



DOOR MOUNTING BRACKET





FASTENER SPACING VARIES MAX SHOWN

JAMB DETAIL

Design Load = +40/-44 PSF
Maximum door size 12'-0"wide X 16'-0"high.
As Tested 12'-0" x 7'-0"

Trac·Rite® Door Inc.
314 Wilburn Road, Sun Prairie, WI 53590
608-837-7899; TOLL FREE: 800-448-8979
FAX: 608-837-0251

DRAWN BY _____
CHECKED BY _____ SCALE: None
DATE _____ SHEET ____ OF ____
Trac-Rite Order# _____

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988WL-14A.DWG 9/11/23

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SECTION 12
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	12/28/23	N/A	Original Report Issue