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2nd Revised Summary Test Report--3573-14-09 (A1)

Joto Techno Co., Ltd
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Introduction:

This test report has been revised to clarify the conclusion found in the graph presented below & the typo found in the load from 1250 lbf to 12,500 lbf

In accordance with the client's request, Ramtech Laboratories performed a Compressive-Strength Test on the Joto Vent as described in Appendix 1 of this Report

Purpose:

The purpose of this test program was to determine the amount of measurable crushing & compression in the Joto Vent when subjected to a vertical load as described in Appendix 1 of this report

Summary of Results:

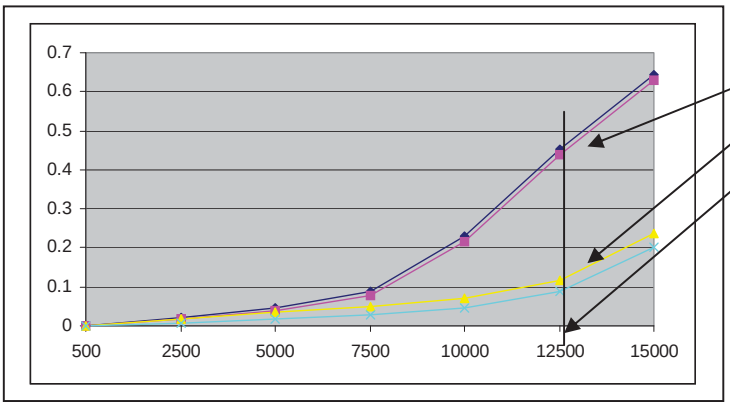
A summary of the results is presented below along with photos in Appendix 1:

2" x 6" Sill-Plate

Test No.	Cross-Head Movement @ 12,500 lbf	Sill-Plate Compression@ 12,500 lbf	Joto Vent Crushing@ 12,500 lbf
1	0.47 Inches	0.45 Inches	0.001 Inches
2	0.48 Inches	0.46 Inches	0.001 Inches
3	0.47 Inches	0.45 Inches	0.001 Inches
Average	**0.47 inches**	**0.45 inches**	**0.001 inches**

3" x 6" Sill-Plate

Test No.	Cross-Head Movement@ 12,500 lbf	Sill-Plate Compression@ 12,500 lbf	Joto Vent Crushing@ 12,500 lbf
1	0.43 Inches	0.10 Inches	0.001 Inches
2	0.14 Inches	0.11 Inches	0.001 Inches
3	0.13 Inches	0.10 Inches	0.001 Inches
Average	**0.13 inches**	**0.10 inches**	**0.001 inches**



Graph Showing:

1. Crushing of the 2" x 6" Sill Plate at 12,500 lbf (0.45-in)
2. Crushing of the 3" x 6" Sill Plate at 12,500 lbf (0.10-in)
3. Crushing of the Joto Vent at 12,500 lbf (0.001-in)

Conclusion:

A. At a load of 12,500 lbf, the Joto Vent deflected and crushed less than 0.001 inches.
B. All of the measurable crushing and deflection was taken in the Douglas Fir Sill-Plate

Note: See Appendix 1 for procedure & Photos

Reported By:
Steven Berggren Steven Berggren

Digitally signed by Steven Berggren
DN: CN = Steven Berggren, C = US, O = Ramtech Laboratories
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APPENDIX 1

Test Protocol

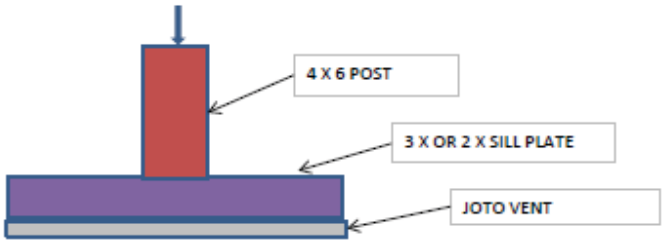
THIS PROPOSAL IS TO PROVIDE A TEST PROTOCOL TO CONDUCT SIMULATED COLUMN LOAD TEST ON A SECTION OF JOTO VENT WITH A 3 X WOOD SILL PLATE AND A 2 X WOOD SILL PLATE. THE PROTOCOL WILL ATTEMPT TO SIMULATE A COLUMN LOAD APPLIED TO THE SURFACE OF THE WOOD SILL PLATE WHICH WILL BE SITTING ON TOP OF THE JOTO VENT.

THE VENT TO BE TESTED IS THE JOTO KP-L150 U WHICH ACCOMODATES SILL PLATES UP TO NOMINAL 6 INCHES. THE TEST PROTOCOL WILL BE TO USE A COLUMN POST, 4 X 6, ATTACHED TO THE WOOD SILL PLATE WITH EITHER 16D TOE NAIL OR A PROPRIETARY L WITH EITHER 16D TOE NAIL OR A PROPRIETARY L BRACKET AVAILABLE FROM AN APPROVED SUPPLIER.
THE 4 X6 POST WILL BE APPROXIMATELY 12 INCHES IN LENGTH. THE SET UP WILL BE SUCH THAT A LENGTH OF JOTO VENT 18 INCHES IN LENGTH WILL BE LAYED FLAT ON THE TEST MACHINE BED WITH THE WOOD SILL PLATE LAYED OVER THE JOTO VENT. THE 4 X 6 POST WILL BE CENTERED BRACKET AVAILABLE FROM TO USE A COLUMN POST, 4 X 6, ATTACHED TO THE WOOD SILL PLATE OVER THE MOST OPEN AREA OF THE JOTO VENT.

THE LOAD WILL BE APPLIED TO THE TOP OF THE 4 X 6 POST IN INCREMENTS OF 500 LBS. DIAL INDICATORS WILL BE PLACED ON THE POST TO MONITOR THE DEFLECTION OR MOVEMENT OF THE WOOD SILL PLATE SURFACE. THE ANTICIPATED DESIGN LOAD AT A DEFORMATION OF 0.04 OF THE SILL PLATE IS EXPECTED TO BE 625 PSI X 3.5 X 5.5 = 12031 LBS BASED ON THE SILL PLATE BEING DF. DEFLECTION READINGS WILL BE MONITORED ON THE SILL PLATE TO CHECK THE DEFORMATION OF THE JOTO VENT. ASSUMING DEFORMATION OF THE SILL PLATE SURFACE DOES NOT EXCEED 0.04 INCH, THE LOADING WILL CONTINUE UNTIL THE DEFORMATION EXCEEDS 0.04 OR FAILURE OF THE SILL PLATE OR THE JOTO VENT OCCURS.

A TOTAL OF THREE REPLACATION OF THE ABOVE LOAD WILL BE TESTED USING A 3 X SILL PLATE AND ANOTHER THREE REPLACATION WILL BE MADE USING A 2 X SILL PLATE.

PRIOR TO TESTING, THE WOOD SILL PLATES WILL BE TESTED TO MAKE SURE THE MOISTURE CONTENT IS LESS THAN 19 PERCENT AND THE DENSITY IS RECORDED AS WELL AS THE WOOD SPECIES AND GRADE MARK AND GRADE OF THE WOOD.



Photographs showing no visible or measurable crushing of the Joto Vent while the 4” x 6” Douglas Fir Post is crushing into the Douglas Fir Sill Plate under load