

Issued: 11-02-2017

Renewal Due: 11-02-2018

Revised: 11-07-2017

DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES
Section: 06 05 23 – Wood, Plastic, and Composite Fastenings

REPORT HOLDER:
METWOOD, INC.
819 Naff Road
Boones Mill, VA 24065
540-334-4294
www.metwood.com

REPORT SUBJECT:
MTWDeck Bracket

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2015 and 2012 *International Building Code*® (IBC)
- 2015 and 2012 *International Residential Code*® (IRC)

1.2 MTWDeck Bracket has been evaluated for the following properties:

- Structural Performance

1.3 The MTWDeck Bracket described in this report are used for supporting wood framing members for exterior deck construction in accordance with 2015 IBC Section 2304.10.3 (2012 IBC Section 2304.9.3), where the veneer of the building structure is masonry. See Figure 2.

2.0 STATEMENT OF COMPLIANCE

The MTWDeck Bracket complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1 The MTWDeck Bracket is cold-formed from 10 gage (0.013") steel with a protective coating conforming to Specification ASTM A653-G90, and is prefabricated with

twenty 1/4" dia. holes for fastening through and into the rim joist, and six 5/32" dia. holes for receiving self-drilling screws where the deck ledger is fastened to the bracket. See Figure 1 for overall dimensions.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Tabulated allowable loads determined in accordance with 2015 IBC 2303.5 (2012 IBC Section 1711.1) are presented in Table 1. Values are based on allowable stress design (ASD) and include adjustment factors in accordance with the National Design Specification (NDS).

4.1.1 Wood members in the supporting structure for anchorage of the MTWDeck Bracket shall be a minimum two boards of 2 inch nominal thickness each.

4.1.2 Wood members in the deck structure for the anchorage of the deck ledger shall be a minimum of 2 inch nominal thickness.

5.0 INSTALLATION

5.1 The MTWDeck Bracket must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.2 The MTWDeck Bracket fastens the deck ledger to the adjacent building's rim joists. See Table 1 for fastening schedule and Figure 2 for installation diagram. Masonry veneer is installed around the MTWDeck Bracket.

5.3 Deck framing anchorage to the primary structure is not within the scope of this report, and shall comply with IRC Sections R507.1 and R507.2.4, and IBC Section 1604.8.3 for lateral load. See paragraph 6.2.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the



applicable Code. In the event of a conflict, this report governs.

6.2 Additional design and construction are required for anchorage of lateral loads to the primary building structure in accordance with Sections R507.1 and R507.2.4 of the IRC and Section 1604.8.3 of the IBC.

6.3 The MTWDeck Bracket is manufactured under a quality control program with inspections by Intertek.

7.0 SUPPORTING EVIDENCE

7.1 Manufacturer's drawings and installation instructions.

7.2 Reports of vertical (downward) and uplift testing demonstrating compliance with ASTM D 7147-05, Standard Specification for Testing and Establishing Allowable Loads of Joist Hangers.

7.3 Reports of testing demonstrating compliance with ICC-ES AC13, Acceptance Criteria for Joist Hangers and Similar Devices, approved February 2017.

7.4 Engineering analysis of the fastening in accordance with the National Design Specification for Wood Construction and Supplement, American Forest & Paper Association (ANSI/AF&PA NDS-2015 and NDS-2012), signed and sealed by a professional engineer.

7.5 ICC-ES Evaluation Report, ESR-2236 for Simpson Strong-Tie Company, Inc., Simpson Strong-Drive SDS Wood Screws.

7.6 ICC-ES Evaluation Report, ESR-3332 for Infastech Decorah, LLC, Dril-Flex® Self-Drilling Structural Fasteners.

7.7 Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

8.0 IDENTIFICATION

The MTWDeck Bracket produced in accordance with this report shall be identified by the following information:

8.1 An imprint on the bracket identifying the name and/or trademark of manufacturer on the product, and text "Intertek CCRR-0261".

8.2 Packaging with a label with the Intertek Compliance Research Report mark and number (CCRR-0261).



9.0 CODE COMPLIANCE RESEARCH REPORT USE

9.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

9.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

9.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.





TABLE 1 – ALLOWABLE LOADS FOR MTWDECK BRACKET

Fastening					Allowable Design Loads ⁽⁴⁾			
Bracket to Wood Rim Joists ⁽¹⁾		Wood Deck Ledger to Bracket ⁽²⁾		Wood Members Specific Gravity ⁽³⁾	Wind Uplift $C_D = 1.6$	Vertical (Downward)		
Qty.	Type	Qty.	Type			Live Load $C_D = 1.0$	Snow Load $C_D = 1.15$	Construction Load $C_D = 1.25$
20	Simpson Strong-Tie, 1/4" x 3" Strong-Drive SDS screw (ICC-ES ESR-2236)	6	Type 7, 1/4-20 x 2-1/2" Dril-Flex Self-Drilling Structural Fastener (ICC-ES ESR-3332)	0.55	2,133 lbs	2,600 lbs	2,990 lbs	3,250 lbs

⁽¹⁾ Wood rim joists must consist of double blocked 2x members, with sufficient width to mount the MTWDeck Brackets.

⁽²⁾ Self-drilling screws must penetrate through the steel bracket, at the designated pre-drilled holes in the MTWDeck Bracket, with a minimum of three threads protruding past the wall thickness of the bracket.

⁽³⁾ Installation using wood members of lesser specific gravity may result in lower allowable design loads.

⁽⁴⁾ Allowable loads are apply to connection of wood members with an installed or in-service moisture content of 19% or less, and wood members that will experience sustained exposure to elevated temperatures up to 100°F.

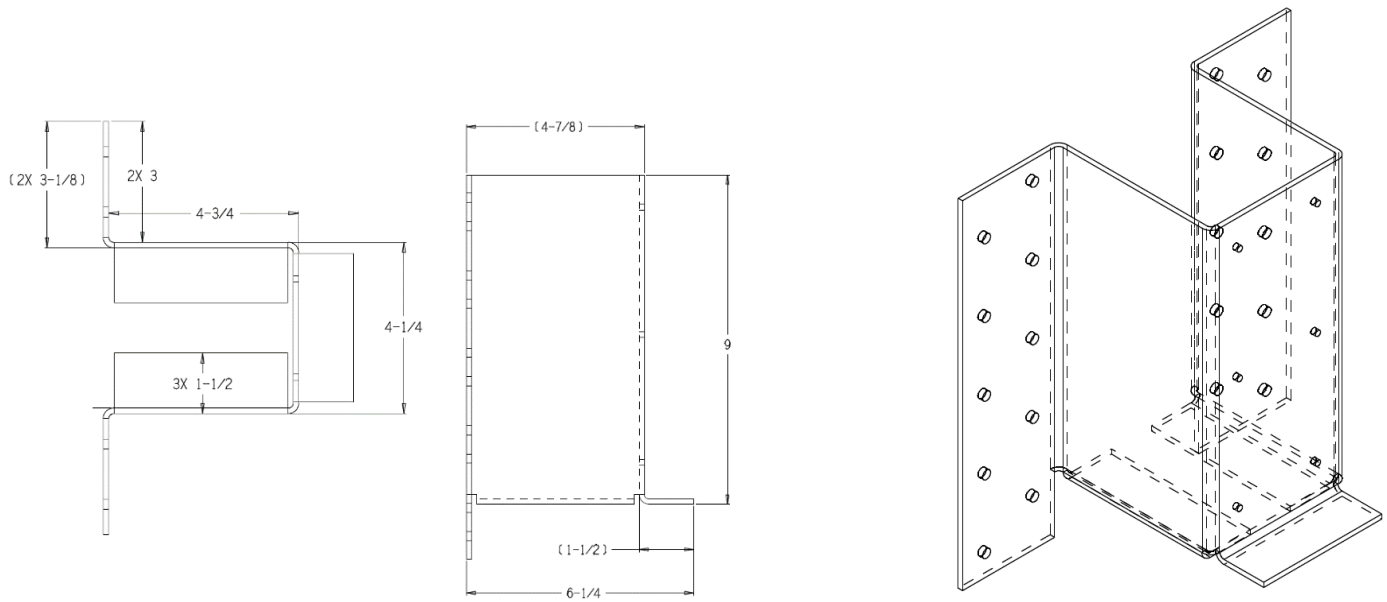


FIGURE 1 – MTWDeck Bracket

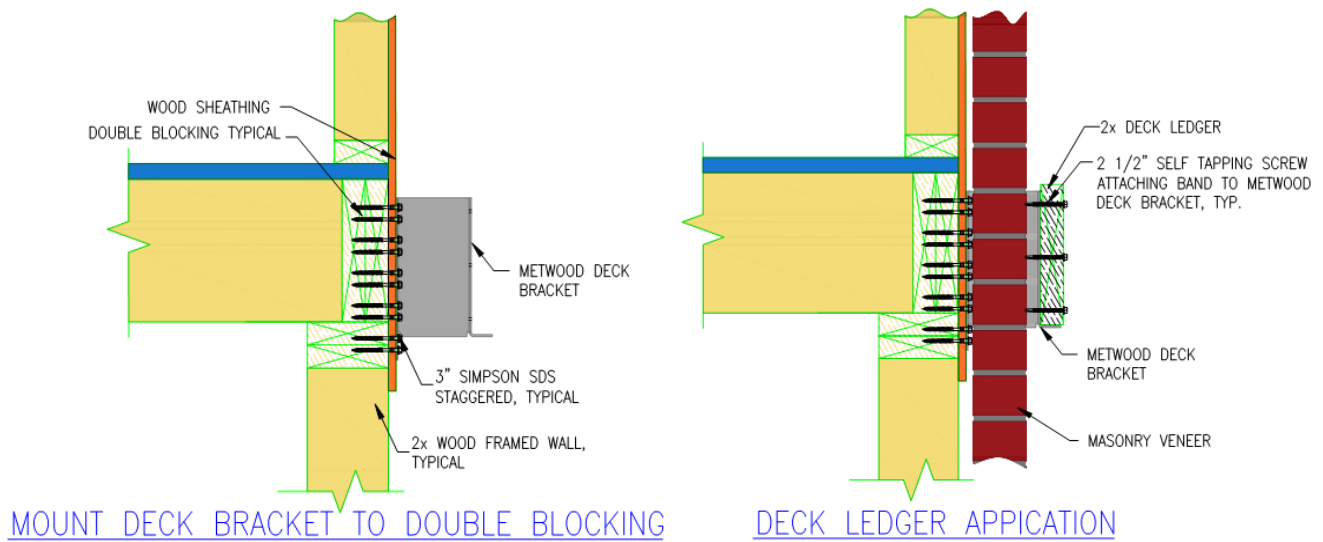


FIGURE 2 – Installation Diagram