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

REPORT HOLDER:
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REPORT SUBJECT:
MTWDeck Bracket

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021, 2018, 2015 *International Building Code*® (IBC)
- 2021, 2018, 2015 *International Residential Code*® (IRC)

NOTE: This product references 2021 Code section with [2021, 2015] Code sections shown in brackets where they differ.

1.2 MTWDeck Bracket has been evaluated for the following properties (see Table 1):

- Structural Performance

1.3 MTWDeck Bracket has been evaluated for the following uses (see Table 1):

- Supporting wood framing members for exterior deck construction in accordance with IBC Section 2304.10.3, where the veneer of the building structure is masonry. See Figure 2.

2.0 STATEMENT OF COMPLIANCE

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.

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 IBC 2303.5 are presented in Table 2. 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 General:

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 2 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 R507.9.2 [2015IRC Section 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 R507.9.2 [2015 IRC Section 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 Testing Services NA, Inc.

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 7147-11(2018) [-11], 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 October 2018.

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-2018 [2015], 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 Elco Construction Products, 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 OTHER CODES

This section is not applicable.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 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.

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

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





TABLE 1 - PROPERTIES EVALUATED

Property	2021, 2018 IBC	2021, 2018 IRC	2015 IBC	2015 IRC
Structural	Section 2303.5	n/a	Section 2303.5	n/a

TABLE 2 – 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 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.

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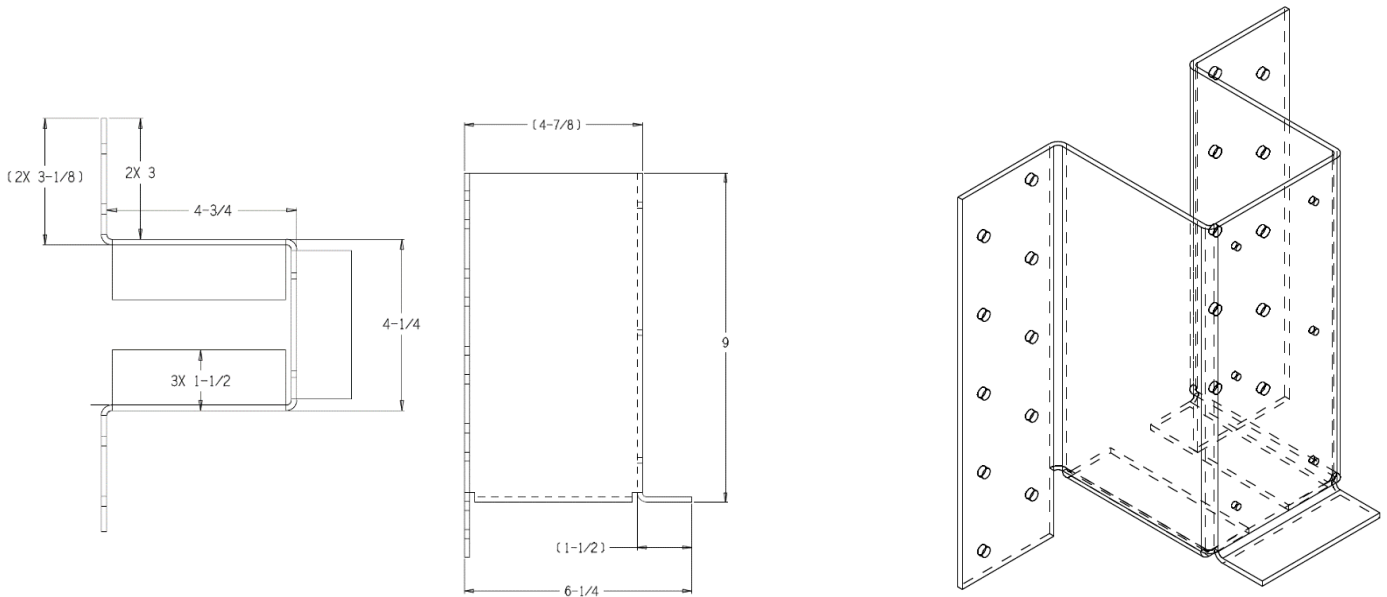


FIGURE 1 – MTWDeck Bracket

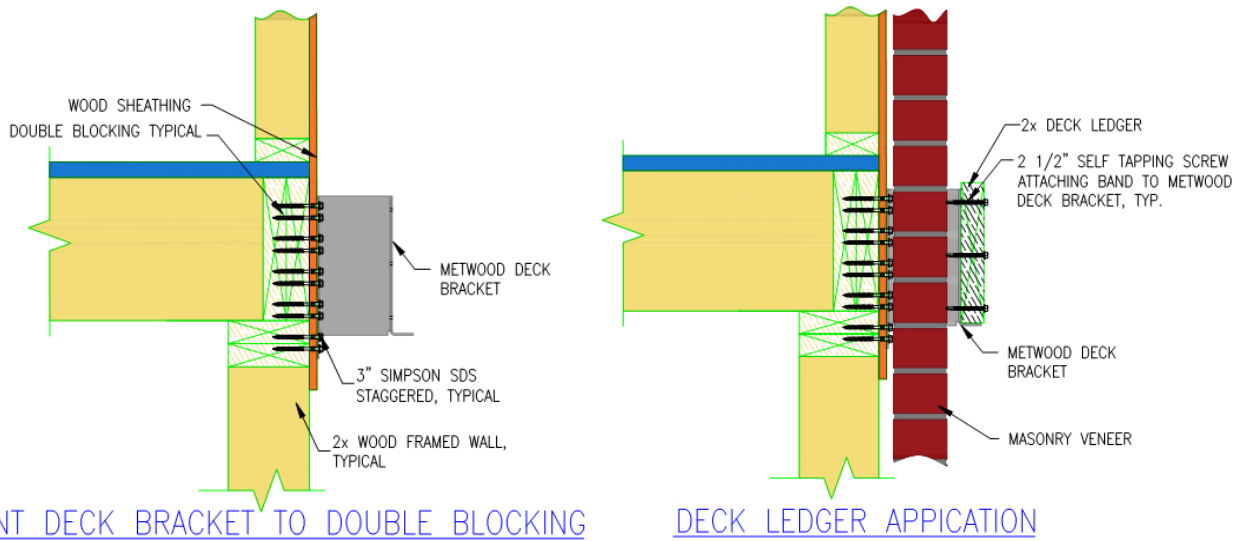


FIGURE 2 – Installation Diagram

