



Residential North America

## Product Evaluation Report

MiTek Inc.

DTC, NFM, NFMU

Florida Product Approval **FL 578**

Florida Building Code

Per Rule 61G20-3

Method 2-b

Category: Structural Components

Subcategory: Wood Connector

Compliance Method: 61G20-3.005(2)(b)

HVHZ

### Product Manufacturer:

MiTek Inc.

16023 Swingley Ridge Rd

Chesterfield, MO 63017

### Engineer Evaluator:

Todd Grevious, P.E.

FL P.E. #88918

### Validator:

Johnathan Green, P.E.

FL P.E. #88223

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MiTek Inc.

16023 Swingley Ridge Road

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**Compliance Statement:**

The product as described in this report has demonstrated compliance with the 2026 Florida Building Code, Sections 2303.5, 2304.10.3, 2321.5, and 2321.7.

**Product Description:**

**DTC Embedded Truss Anchor:** The DTC embedded truss anchor consists of a steel strap to connect a wood member to a masonry wall. The straps are used to transfer load between wood members and masonry walls.

**NFM Narrow Flange Masonry Hanger:** The Narrow Flange Masonry Hanger series (NFM) consists of a steel hanger to connect wood member(s) to a masonry wall. The hangers are used to transfer load between wood members and masonry walls.

**NFMU Narrow Flange Masonry Hanger:** The Narrow Flange Masonry Hanger series with uplift bolt connection (NFMU) consists of a steel hanger to connect a wood member to a masonry wall. The hangers are used to transfer load between wood members and masonry walls.

**Product Material:****DTC:**

Strap: 16 Ga. steel ASTM A653 Gr50 G90 Galvanized

Seat: 20 Ga. steel ASTM A653 Gr40 G90 Galvanized

**NFM and NFMU:**

Angle: 6"x4"x3/8" thick steel ASTM A36

U-Strap: 7 Ga. steel ASTM A1011 Gr40

**Materials:****Wood**

Wood members must be Southern Pine with a minimum specific gravity (G) of 0.55, or an approved member with an equivalent specific gravity (G) of 0.55. Wood members shall have a moisture content not exceeding 19 percent (16 percent for structural engineered lumber). Wood members must be used under continuously dry conditions and where sustained temperatures are limited to 100° F.

**Preservative and Fire-Retardant-treated Wood**

Connectors or fasteners used in contact with preservative-treated and fire-retardant-treated wood shall be in accordance with the 2026 FBC Section 2304.10.5.

**Nail**

Nails shall meet the requirements in Table and the Requirements specified in ASTM F 1667.

**Fasteners**

Required fastener types and sizes are specified in the Table.

**Masonry**

Material and quality of masonry construction must comply with the applicable sections of the 2026 FBC. Minimum concrete or grout compressive strength shall be 2500 psi.

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**Design Procedure:**

The allowable loads shown in the Table are based on allowable stress design and include a 60% increase for wind and seismic load conditions per Section 11.3.2 of the NDS. No further increases are permitted.

The allowable loads are based on wood members with a moisture content not exceeding 19 percent (16 percent for structural engineered lumber). If moisture content exceeds this value, a wet service factor,  $C_m$ , must be applied per Section 11.3.3 of the NDS. The allowable loads are based on wood members under continuously dry conditions and where sustained temperatures are limited to 100° F. Wood members that will experience sustained exposure to temperatures exceeding 100°F shall be adjusted by the temperature factor,  $C_t$ , per Section 11.3.4 of the NDS.

Wood members to which the anchor is attached must be designed by a registered design professional per the 2026 FBC. Masonry constructions must be a minimum of fully grouted and reinforced masonry units (CMU) type S or better mortar or reinforced concrete ( $f'_c = 2,500$  psi at 28 days), designed by a registered design professional per the 2026 FBC.

**Installation:**

Install the connector in accordance with this evaluation report and the manufacturer's installation instructions.

For use within 3,000 feet of a saltwater coastline, fasteners and connectors must comply with Section 1711 and Table 1711.1 of the 2026 Florida Building Code - Building or Section R332 and Table R332.1 of the 2026 Florida Building Code - Residential, as applicable.

**Testing and Specification:**

1. ASTM D1761-88 Standard Test Methods for Mechanical Fasteners in Wood.
2. ANSI/AWC National Design Specifications for Wood Construction (NDS) 2024
3. Test Report No.07-6300 dated 08/27/2007 by Product Testing Inc.
4. Test Report No.07-6319 dated 09/24/2007 by Product Testing Inc.

The 2026 Florida Building Code refers to ASTM D1761-06, ASTM D7147-21, and ANSI / AWC NDS 2024.

Based on my previous experience with these standards, a careful review of the existing literature, and a review of the revisions between ASTM D1761-20 and its previous editions, as well as ASTM D7147-21 and its previous editions, I can state that the results gathered from testing conducted in accordance with ASTM D1761-88(2000), ASTM D1761-06, ASTM D7147-05, and ASTM D7147-11 remain applicable to evaluations performed in accordance with ASTM D1761-20 and ASTM D7147-21.

As such, the results gathered from testing to ASTM D1761-88(2000), ASTM D1761-06, ASTM D7147-05, and ASTM D7147-11 can be applied to the analysis described in ASTM D1761-20 and ASTM D7147-21 when determining the allowable load capacity for the products covered by this evaluation.

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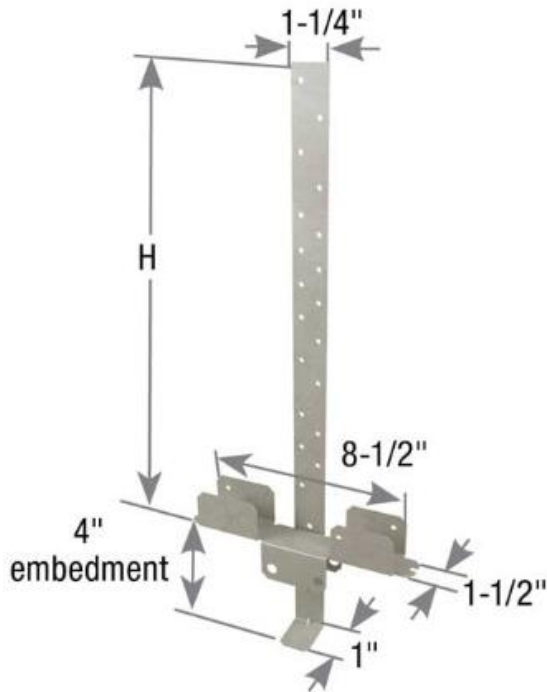
ASTM D1761-88(2000), "Standard Test Methods for Mechanical Fasteners in Wood," was updated in 2006 by removing the portion pertaining to joist hanger tests and using that as a basis for a separate ASTM standard, ASTM D7147-05, "Standard Specification for Testing and Establishing Allowable Loads of Joist Hangers." The remainder of ASTM D1761-88(2000) was reissued as ASTM D1761-06, with subsequent revisions published as ASTM D1761-12 and ASTM D1761-20.

**Quality Assurance Entity:**

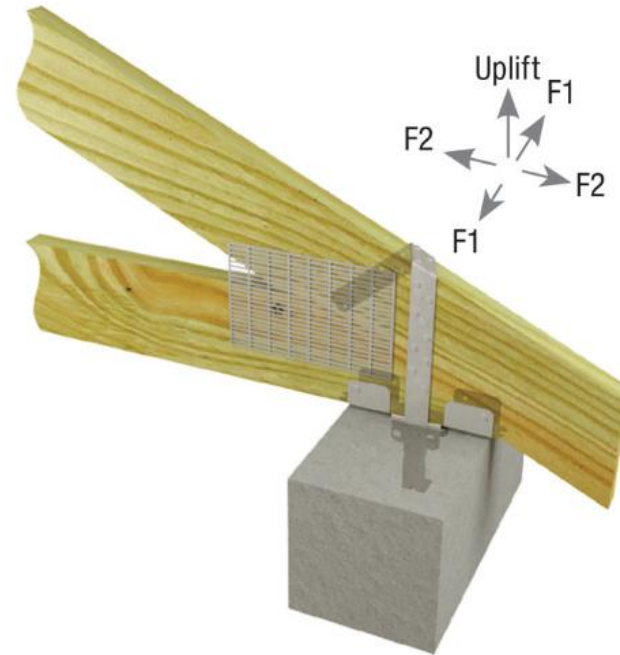
The manufacturer has established compliance in accordance with the 2026 Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.

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**DTC Embedded Truss Anchor**



**Typical DTC installation**

| STOCK NO. | STEEL GAGE <sup>1,2</sup> |      | H (in)<br>(Out of Concrete) | FASTENER SCHEDULE <sup>3</sup> |             |       |             | SP ALLOWABLE LOADS (lbs.) <sup>4,5,6,7,8</sup> |              |                 |      |
|-----------|---------------------------|------|-----------------------------|--------------------------------|-------------|-------|-------------|------------------------------------------------|--------------|-----------------|------|
|           |                           |      |                             | Strap                          |             | Seat  |             | Uplift                                         | F1           |                 | F2   |
|           |                           |      |                             | Nails                          |             | Nails |             |                                                | Toward Strap | Away from Strap |      |
|           | Strap                     | Seat |                             | Qty                            | Size        | Qty   | Size        |                                                | 160%         | 160%            | 160% |
| DTC       | 16                        | 20   | 16                          | 9                              | 10d x 1-1/2 | 4     | 10d x 1-1/2 | 1825                                           | 840          | 1200            | 1290 |

- 1) Strap steel conforms to ASTM A653 Gr50 standards.
- 2) Seat steel conforms to ASTM A653 Gr40 standards.
- 3) A 10d x 1-1/2 nail is 0.148" dia. X 1-1/2" long.
- 4) Allowable loads have been increased 60% for wind and seismic loads.

No further increase is permitted.

- 5) Embed connector 4" into concrete tie beam or masonry bond beam.
- 6) Connector shall be installed to fully grouted and reinforced concrete masonry units (CMU) type S or better mortar or reinforced concrete ( $f'c = 2,500$  psi at 28 days).
- 7) Installations should be spaced no closer together than 8" center-to-center to achieve tabulated allowable loads.
- 8) Straps may be installed straight or wrapped over truss to achieve table loads.



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Name: DTC Embedded Truss Anchor

Date:

09/04/2026

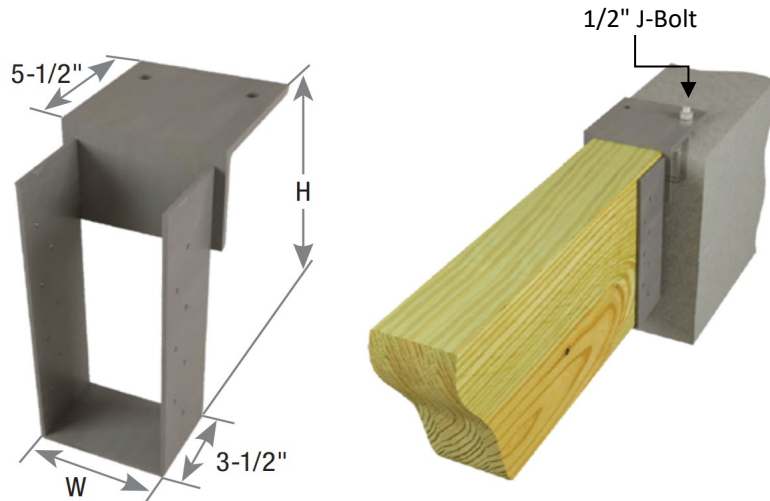
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PROFESSIONAL ENGINEER  
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# NFM Narrow Flange Masonry Hanger Allowable Loads

| STOCK NUMBER | STEEL GAUGE |         | DIMENSIONS (inches) |        |       | FASTENER SCHEDULE <sup>3,4,5</sup> |             |       |            | DF/SP                                  |        |
|--------------|-------------|---------|---------------------|--------|-------|------------------------------------|-------------|-------|------------|----------------------------------------|--------|
|              | TOP FLANGE  | U-STRAP |                     |        |       | Top Flange                         |             | Joist |            | ALLOWABLE LOADS (lbs) <sup>1,2,6</sup> |        |
|              |             |         |                     |        |       | Qty                                | Bolt        | Qty   | Type       | Download                               | Uplift |
|              |             |         | 100%, 115%, 125%    | 160%   |       |                                    |             |       |            |                                        |        |
| NFM3X8       | 3/8"        | 7       | 3-1/8               | 7-1/4  | 3-1/2 | 1                                  | 1/2" J-Bolt | 10    | 10d Common | 6720                                   | 1415   |
| NFM3X10      |             |         | 3-1/8               | 9-1/4  | 3-1/2 |                                    |             | 12    | 10d Common | 6720                                   | 1415   |
| NFM3X12      |             |         | 3-1/8               | 11-1/4 | 3-1/2 |                                    |             | 14    | 10d Common | 6720                                   | 1415   |
| NFM3         |             |         | 3-3/8               | 11-3/4 | 3-1/2 |                                    |             | 14    | 10d Common | 7510                                   | 1415   |
| NFM35X8      |             |         | 3-5/8               | 7-1/4  | 3-1/2 |                                    |             | 10    | 10d Common | 7510                                   | 1415   |
| NFM35X10     |             |         | 3-5/8               | 9-1/4  | 3-1/2 |                                    |             | 12    | 10d Common | 7510                                   | 1415   |
| NFM35X12     |             |         | 3-5/8               | 11-1/4 | 3-1/2 |                                    |             | 14    | 10d Common | 7510                                   | 1415   |
| NFM35X1178   |             |         | 3-5/8               | 11-7/8 | 3-1/2 |                                    |             | 14    | 10d Common | 7510                                   | 1415   |
| NFM35X16     |             |         | 3-5/8               | 16     | 3-1/2 |                                    |             | 14    | 10d Common | 7510                                   | 1415   |
| NFM35X18     |             |         | 3-5/8               | 18     | 3-1/2 |                                    |             | 14    | 10d Common | 7510                                   | 1415   |
| NFM45        |             |         | 4-3/4               | 11-3/4 | 3-1/2 |                                    |             | 14    | 10d Common | 7510                                   | 1415   |
| NFM6X1178    |             |         | 5-5/8               | 11-7/8 | 3-1/2 |                                    |             | 14    | 10d Common | 7510                                   | 1415   |
| NFM6X16      |             |         | 5-5/8               | 16     | 3-1/2 |                                    |             | 14    | 10d Common | 7510                                   | 1415   |
| NFM6X18      |             |         | 5-5/8               | 18     | 3-1/2 |                                    |             | 14    | 10d Common | 7510                                   | 1415   |

For SI: 1 inch = 25.4 mm, 1 psi = 6.89 kPa, 1 lbf = 4.45 N

- 1) Allowable loads are based on 2,500 psi concrete or masonry.
- 2) Design loads are governed by test ultimate loads with a safety factor of three.
- 3) J-Bolts are 1/2" diameter ASTM A307 or better.
- 4) J-Bolt shall be cast-in-place and have a minimum 6" embedment and spaced not less than 4" from the edge of the concrete.
- 5) 10d Common nails are 0.148" dia. X 3" long.
- 6) Uplift loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.



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Name: NFM NARROW FLANGE  
MASONRY HANGER

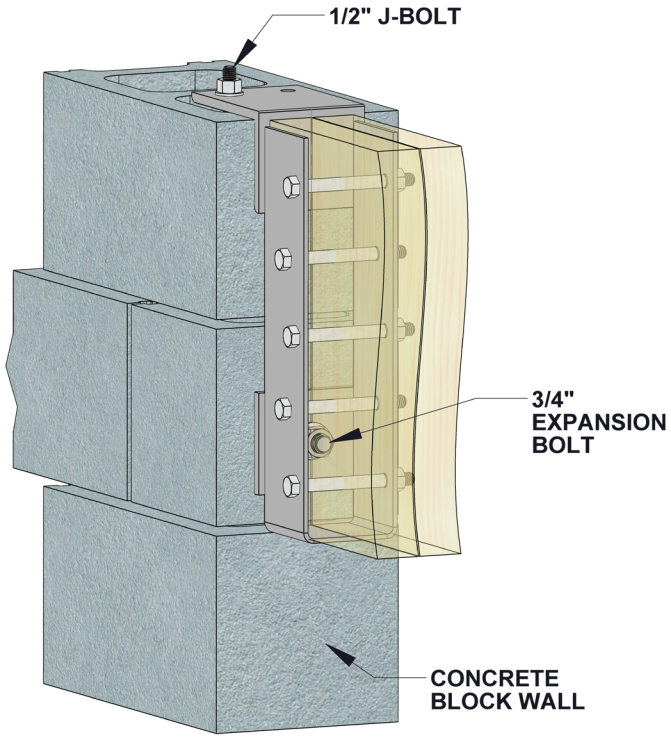
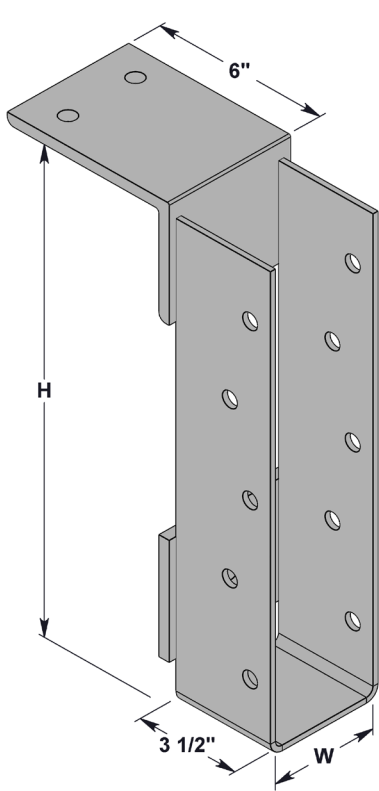
Date: 09/04/2026

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NFMU NARROW FLANGE HIGH UPLIFT MASONRY HANGER ALLOWABLE LOADS

| STOCK NUMBER | STEEL GAUGE |         | DIMENSIONS (inches) |        |       | FASTENER SCHEDULE <sup>3,4,5</sup> |             |            |                     |       |           | DF/SP<br>ALLOWABLE LOADS (lbs) 1,2,6 |        |
|--------------|-------------|---------|---------------------|--------|-------|------------------------------------|-------------|------------|---------------------|-------|-----------|--------------------------------------|--------|
|              | TOP FLANGE  | U-STRAP |                     |        |       | Top Flange                         |             | Back Plate |                     | Joist |           | Download                             | Uplift |
|              |             |         | W                   | H      | D     | Qty                                | Bolt        | Qty        | Bolt                | Qty   | Type      | 100%, 115%, 125%                     | 160%   |
| NFM3X8U      | 3/8"        | 7       | 3 1/8               | 7 1/4  | 3 1/2 | 1                                  | 1/2" J-Bolt | 1          | 3/4" Expansion Bolt | 3     | 1/2" Bolt | 7130                                 | 2580   |
| NFM3X10U     |             |         | 3 1/8               | 9 1/4  | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 7130                                 | 2580   |
| NFM3X12U     |             |         | 3 1/8               | 11 1/4 | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 7130                                 | 2580   |
| NFM3U        |             |         | 3 3/8               | 11 3/4 | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 7130                                 | 3170   |
| NFM35X8U     |             |         | 3 5/8               | 7 1/4  | 3 1/2 |                                    |             |            |                     | 3     | 1/2" Bolt | 7130                                 | 2580   |
| NFM35X10U    |             |         | 3 5/8               | 9 1/4  | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 7130                                 | 2580   |
| NFM35X12U    |             |         | 3 5/8               | 11 1/4 | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 7130                                 | 2580   |
| NFM35X1178U  |             |         | 3 5/8               | 11 7/8 | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 7130                                 | 2580   |
| NFM35X14U    |             |         | 3 5/8               | 14     | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 7130                                 | 2580   |
| NFM35X16U    |             |         | 3 5/8               | 16     | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 7130                                 | 2580   |
| NFM35X18U    |             |         | 3 5/8               | 18     | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 7130                                 | 2580   |
| NFM45U       |             |         | 4 3/4               | 11 3/4 | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 10310                                | 3070   |
| NFM6X8U      |             |         | 5 5/8               | 7 1/4  | 3 1/2 |                                    |             |            |                     | 3     | 1/2" Bolt | 10310                                | 2580   |
| NFM6X10U     |             |         | 5 5/8               | 9 1/4  | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 10310                                | 2580   |
| NFM6X12U     |             |         | 5 5/8               | 11 1/4 | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 10310                                | 2580   |
| NFM6X1178U   |             |         | 5 5/8               | 11 7/8 | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 10310                                | 2580   |
| NFM6X14U     |             |         | 5 5/8               | 14     | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 10310                                | 2580   |
| NFM6X16U     |             |         | 5 5/8               | 16     | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 10310                                | 2580   |
| NFM6X18U     |             |         | 5 5/8               | 18     | 3 1/2 |                                    |             |            |                     | 5     | 1/2" Bolt | 10310                                | 2580   |

- 1) Allowable loads are based on 2,500 psi concrete or masonry.
- 2) Design loads are governed by test ultimate loads with a safety factor of three.
- 3) J-Bolts are 1/2" diameter ASTM A307 or better.
- 4) J-Bolt shall be cast-in-place and have a minimum 6" embedment and spaced not less than 4" from the edge of the concrete.
- 5) A 3/4" ITW Ramset/Redhead Dyna Bolt sleeve anchor or equal with minimum 5" embedment depth installed in the face. Bolt shall be installed in accordance with the installation specifications provided by ITW Ramset.
- 6) Uplift loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.



TYPICAL NFMU INSTALLATION



|                                                                                                 |                                                                  |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| MiTek Inc.<br>16023 Swingley Ridge Road<br>Chesterfield, MO 63017 800-328-5934<br>mittek-us.com |                                                                  |
| Name: NFMU NARROW FLANGE<br>MASONRY HANGER                                                      |                                                                  |
| Date: 09/04/2026                                                                                | Todd Grevious, P.E.<br>PROFESSIONAL ENGINEER<br>License #: 88918 |