**FTC / FTCF** Floor Truss Clips

FTC clips slide easily onto the top or bottom chord and provides a guide to help position and support the second truss during assembly.

**FTCF** clips easily install after the trusses are installed.

**Materials:** 18 gauge  
**Finish:** G90 galvanizing  
**Codes:** IBC, FL, LA  
**Patents:** U.S. Patent No. 5,653,079

**Installation:**
- Use all specified fasteners. See Product Notes, page 18.
- The truss designer must determine the number of clips and spacing between units according to concentrated load conditions and uniform loading requirements.

### Concentrated Load Spacing Tips:
Divide half of the concentrated load by the clip capacity to find the number of clips required.

**Example:**  
Concentrated (point) load = 3000 lbs, FTC1 capacity (DF/SP) = 865 lbs  

\[
\frac{1}{2} \left( \frac{3000 \text{ lbs}}{865 \text{ lbs}} \right) = 1.73 \approx 2 \text{ clips}
\]

Place 2 clips near concentrated load.

### Uniform Load Spacing Tips:
Divide the clip capacity by half the required load per lineal foot.

**Example:**  
Uniform (distributed) load = 500 lbs/ft, FTC1 capacity (DF/SP) = 865 lbs

\[
\frac{865 \text{ lbs}}{1/2 \left( \frac{500 \text{ lbs}}{} \right)} = 3.46' \text{ spacing}
\]

Space clips at 3' 4" along length of truss.

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<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>FTC32</th>
<th>FTC1</th>
<th>FTC1F</th>
<th>FTC2</th>
<th>FTC2F</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1</td>
<td>2-1/16</td>
<td>3-1/16</td>
<td>3-1/16</td>
<td>3-1/16</td>
<td>3-1/16</td>
</tr>
<tr>
<td>W2</td>
<td>2-1/2</td>
<td>3-1/2</td>
<td>3-1/2</td>
<td>3-1/2</td>
<td>3-1/2</td>
</tr>
<tr>
<td>H</td>
<td>1-1/2</td>
<td>1-1/2</td>
<td>4-3/8</td>
<td>4-3/8</td>
<td>4-3/8</td>
</tr>
<tr>
<td>Qty</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Type</td>
<td>10d x 1-1/2</td>
<td>10d</td>
<td>10d</td>
<td>10d</td>
<td>10d</td>
</tr>
<tr>
<td>Code Ref.</td>
<td>IBC, FL, LA</td>
<td>IBC, FL, LA</td>
<td>IBC, FL, LA</td>
<td>IBC, FL, LA</td>
<td>IBC, FL, LA</td>
</tr>
</tbody>
</table>

1) Transfer loads are for 100% floor load, and shall not be increased for short term load duration.  
2) Truss designer shall determine the number of clips for concentrated loads and the spacing for uniform loads.  
3) NAILS: 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 10d nails are 0.148" dia. x 3" long.
VTT Valley Truss Tie

VTT Valley Truss Tie is designed to transfer loads from a valley truss into the supporting structure below. It also resists the sliding forces from downward loads when the valley truss is set upon a sloped lower roof. The ability to resist the sliding force eliminates the need for support wedges under the valley truss bottom chord or special order valley roof trusses with a bevel-cut bottom chord.

- Double-dimple nail holes assure the nails are driven in at the correct angle into the supporting member every time.
- Flat design requires no field bending to match the supporting roof pitch.
- 2-Ply steel with stiffening ribs provides a high resistance to sliding forces from downward loads.
- Prong teeth help hold the VTT in place while nailing.
- Accommodates supporting roof pitches from 0/12 to 12/12.
- Pitch guide embossments allow attachment to valley truss on ground.

Materials: 18 gauge
Finish: G90 galvanizing
Patents: U.S. Patent No. 9,920,514 B1

Installation:
- Mark the location of the supporting truss located below the lower roof sheathing.
- Place the VTT flat against the valley truss, centered over the top chord of the truss below. Tap the top edge down with a hammer to engage the prong teeth.
- Nail the VTT to the bottom chord of the valley truss using (3) 10d x 1-1/2” nails.
- Install (3) 10d common nails through the double-dimples and drive them through the sheathing into the top chord of the supporting truss below. One nail will be centered in the top chord below. The other two nails are driven in at preset angles guided by the dimple holes.

Alternate Installation for Ground/Pre-Placement of VTT
- Mark the location of the supporting truss located below the lower roof sheathing. Center VTT horizontally on that mark.
- Use pitch guide embossments on part to locate the vertical position of VTT. Pitch numbers on connector are the numerator in the pitch slope ratio. (i.e. “6” indicates a 6/12 pitch, “12” indicates a 12/12 pitch, etc.)
- Secure the VTT to valley truss with (3) 10d x 1-1/2” nails.
- When valley truss is hoisted into proper position on roof, install (3) 10d common nails through the double-dimples and drive them through the sheathing into the top chord of the supporting truss below. One nail will be centered in the top chord below. The other two nails are driven in at a preset angles guided by the dimple holes.

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>VTT</td>
<td>VTCR</td>
<td>18</td>
<td>2-3/4 x 3-1/4</td>
<td>Supporting Framing</td>
<td>Valley Truss</td>
<td>&lt; 4/12</td>
<td>4/12 to &lt; 8/12</td>
<td>8/12 to 12/12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>10d</td>
<td>3</td>
<td>10d x 1-1/2</td>
<td>115%, 125%, 160%</td>
</tr>
</tbody>
</table>

1) Uplift Loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
2) Uplift loads are based on installation over 7/16” or 15/32” sheathing.
3) Downloads have been increased for snow, construction and wind loads; no further increase shall be permitted.
4) NAILS: 10d x 1-1/2” nails are 0.148” dia. x 1-1/2” long. 10d nails are 0.148” dia. x 3” long.
The STC provides uplift resistance by securing trusses to top plates. Slotted nail holes allow for horizontal movement as scissor trusses deflect.

**Materials:** 12 gauge  
**Finish:** G90 galvanizing  
**Codes:** IBC, FL, LA

**Installation:**  
- Use all specified fasteners. See Product Notes, page 18.  
- When installing, do not fully set nails.  
- Locate nails into the center of slots to allow for horizontal movement.

<table>
<thead>
<tr>
<th>MiTek USP Stock No.</th>
<th>Ref. No.</th>
<th>Steel Gauge</th>
<th>Description</th>
<th>Dimensions (in)</th>
<th>Fastener Schedule 1</th>
<th>DF/SP Allowable Loads (Lbs.)</th>
<th>S-P-F Allowable Loads (Lbs.)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>W1</td>
<td>W2</td>
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<tr>
<td>STC24</td>
<td>TC24</td>
<td>12</td>
<td>2 x 4 top plate</td>
<td>3-9/16</td>
<td>1-5/8</td>
<td>5</td>
<td>10d x 1-1/2</td>
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<tr>
<td>STC26</td>
<td>TC26</td>
<td>12</td>
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<td>1-5/8</td>
<td>5</td>
<td>10d x 1-1/2</td>
</tr>
<tr>
<td>STC28</td>
<td>TC28</td>
<td>12</td>
<td>2 x 8 top plate</td>
<td>7-1/4</td>
<td>1-5/8</td>
<td>5</td>
<td>10d x 1-1/2</td>
</tr>
</tbody>
</table>

1) Uplift loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.  
2) **NAILS:** 10d x 1-1/2 nails are 0.148” dia. x 1-1/2” long.  
New products or updated product information are designated in **blue font**.

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**TR** Roof Truss Ties

Slotted design allows truss to deflect without imposing load on wall below.

**Materials:** See chart  
**Finish:** G90 galvanizing

**Installation:**  
- Use all specified fasteners. See Product Notes, page 18.  
- Do not fully set nails.  
- Locate nails into the center of slots.  
- **Due to the potential for squeaks, the TR series products are not recommended for floor applications.**

<table>
<thead>
<tr>
<th>MiTek USP Stock No.</th>
<th>Ref. No.</th>
<th>Steel Gauge</th>
<th>Description</th>
<th>Fastener Schedule 1</th>
<th>DF/SP Allowable Loads (Lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>W1</td>
<td>W2</td>
</tr>
<tr>
<td>TR1</td>
<td>STC</td>
<td>18</td>
<td>single slot</td>
<td>1</td>
<td>8d</td>
</tr>
<tr>
<td>TR1T</td>
<td>STCT</td>
<td>16</td>
<td>single slot</td>
<td>1</td>
<td>8d</td>
</tr>
<tr>
<td>TR2</td>
<td>DTC</td>
<td>18</td>
<td>double slot</td>
<td>2</td>
<td>8d</td>
</tr>
</tbody>
</table>

1) Loads have been increased for short-term loading; no further increase allowed.  
2) Truss must be bearing on top plate to achieve the allowable loads under “Without Gap”.  
3) Installed with maximum 1/4” space between rafter or truss and top plate under “With 1/4” Gap”. Space is not limited to 1/4”, where loads are not required.  
4) Installed with maximum 1/2” space between rafter or truss and top plate under “With 1/2” Gap”. Space is not limited to 1/2”, where loads are not required.  
5) To achieve F1 loads in both directions, clips must be installed on both sides of the truss and staggered to avoid nail interference.  
6) **NAILS:** 8d nails are 0.131” dia. x 2-1/2” long.
HTC  Heavy Truss Deflection Clip

Slotted design allows truss to deflect without imposing load on wall below.

**Materials:** 16 gauge  
**Finish:** G90 galvanizing  
**Codes:** IBC, FL, LA

**Installation:**  
- Use all specified fasteners. See Product Notes, page 18.  
- Do not fully set nails.

<table>
<thead>
<tr>
<th>HTC4</th>
<th>HTC4</th>
<th>16</th>
<th></th>
<th>3</th>
<th>10d x 1-1/2</th>
<th>255</th>
<th>525</th>
<th>55</th>
<th>295</th>
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</thead>
<tbody>
<tr>
<td>Ref.</td>
<td>Qty</td>
<td>Top Qty</td>
<td>Side Qty</td>
<td>Type</td>
<td>DF/SP Allowable Loads (Lbs.)</td>
<td>Without Gap</td>
<td>With 1-1/4&quot; Gap</td>
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<td></td>
</tr>
<tr>
<td>HTC4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>F1 160%</td>
<td>255</td>
<td>255</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>F2 160%</td>
<td>525</td>
<td>525</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F1 160%</td>
<td>55</td>
<td>55</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F2 160%</td>
<td>295</td>
<td>295</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.  
2) Truss/Rafter must be bearing on top plate to achieve the allowable loads under “Without Gap”.  
3) When installed with maximum 1-1/4" space between truss/rafter and top plate, use loads under “With 1-1/4" Gap”.  
4) To achieve F1 loads in both directions, clips must be installed on both sides of the truss and nails staggered to avoid nail interference.  
5) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long.

**ZC  Blocking Supports**

ZC clips secure blocking between joists or trusses which provides support for drywall or sheathing.

**Materials:** See chart  
**Finish:** G90 galvanizing

**Installation:**  
- Use all specified fasteners. See Product Notes, page 18.

<table>
<thead>
<tr>
<th>ZC2</th>
<th>ZC4</th>
<th>ZC24</th>
<th>ZC34</th>
</tr>
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<tbody>
<tr>
<td>22</td>
<td>24</td>
<td>228</td>
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<tr>
<td>20</td>
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<td>28</td>
<td>28</td>
</tr>
<tr>
<td>2-1/4</td>
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<td>2-9/32</td>
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<td>1-5/16</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>10d x 1-1/2</td>
<td>10d x 1-1/2</td>
<td>10d x 1-1/2</td>
<td>10d x 1-1/2</td>
</tr>
<tr>
<td>490</td>
<td>420</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

1) Allowable load shall not be increased for other load duration factors.  
2) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long.

**T  Hoist Plates**

Engineered with a reinforced collar around the hoist hole for added strength.

**Materials:** 14 gauge  
**Finish:** G90 galvanizing

**Installation:**  
- Fill all nail holes that align with wood.

| T10 | CHC | 14 | 10 | 8d common | 800 |

1) **NAILS:** 8d nails are 0.131" dia. x 2-1/2" long.

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