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

$$\frac{1/2\ (3000\ \text{lbs})}{865\ \text{lbs}} = 1.73 = 2\ \text{clips}$$

Place 2 clips near concentrated load.

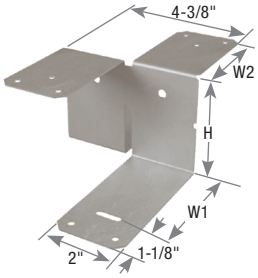
Uniform Load Spacing Tips:
Divide the clip capacity by half the required load per lineal foot.

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

$$\frac{865\ \text{lbs}}{1/2\ (500\ \text{lbs})} = 3.46'\ \text{spacing}$$

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

Typical FTC installation



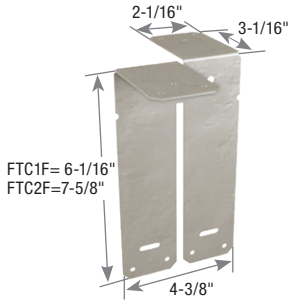
FTC

Typical FTC
2-ply metal web truss
installation

Step 1

Step 2

Typical FTC2F
retrofit installation



FTCF

Truss Size	MiTek USP Stock No.	Ref. No.	Steel Gauge	Dimensions (in)			Fastener Schedule[3]		DF/SP Maximum Transfer Loads[1,2]	S-P-F Maximum Transfer Loads[1,2]	Code Ref.
				W1	W2	H	Qty	Type			
3 x 2	FTC32	--	18	2-1/16	2-1/2	1-1/2	10	10d x 1-1/2	680	590	IBC, FL, LA
4 x 2	FTC1	--	18	3-1/2	3-1/16	1-1/2	10	10d	865	750	
	FTC1F	--	18	3-1/16	--	4-3/8	10	10d	865	750	
(2) 4 x 2	FTC2	--	18	3-1/2	3-1/16	3	10	10d	865	750	
	FTC2F	--	18	3-1/16	--	4-3/8	10	10d	865	750	

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

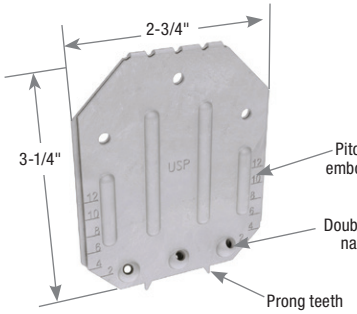
VTT Valley Truss Tie is designed to transfer loads from a valley truss into the supporting structure below. It also resists the sliding forces from downward loads when the valley truss is set upon a sloped lower roof. The ability to resist the sliding force eliminates the need for support wedges under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

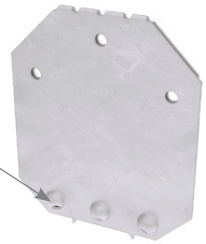
Materials: 18 gauge
Finish: G90 galvanizing
Patents: U.S. Patent No. 9,920,514 B1

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.

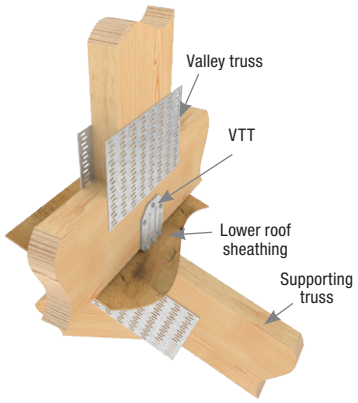
Alternate Installation for Ground/Pre-Placement of VTT
- Mark the location of the supporting truss located below the lower roof sheathing. Center VTT horizontally on that mark.
- Use pitch guide embossments on part to locate the vertical position of VTT. Pitch numbers on connector are the numerator in 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.



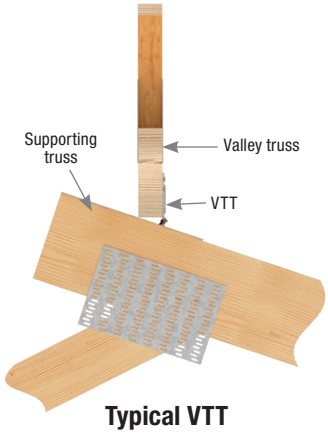
VTT Front View



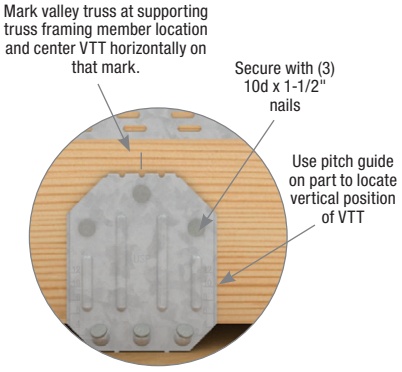
VTT Back View



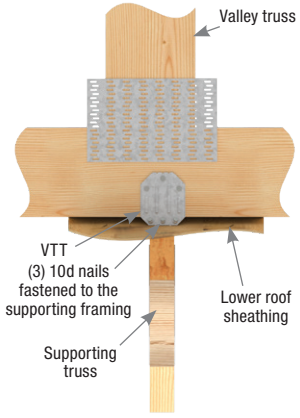
Typical VTT installation



Typical VTT side view installation



Alternate Installation for Ground / Pre-Placement installation



Typical VTT front view installation

MiTek USP Stock No.	Ref. No.	Steel Gauge	Dimensions (in)		Fastener Schedule[4]				Supporting Roof Pitch	DF/SP Allowable Loads (Lbs.)		S-P-F Allowable Loads (Lbs.)		Code Ref.
					Supporting Framing		Valley Truss			Download[3]	Uplift[1,2]	Download[3]	Uplift[1,2]	
			W	H	Qty	Type	Qty	Type		115%,125%,160%	160%	115%,125%,160%	160%	
VTT	VTCR	18	2-3/4	3-1/4	3	10d	3	10d x 1-1/2	< 4/12	840	375	685	270	--
									4/12 to < 8/12	840	445	685	325	
									8/12 to 12/12	840	480	685	400	

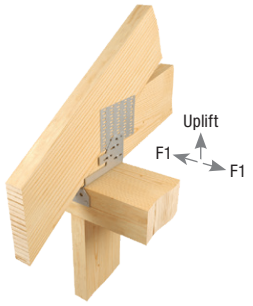
1) Uplift Loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
2) Uplift loads are based on installation over 7/16" or 15/32" sheathing.
3) Downloads have been increased for snow, construction and wind loads; no further increase shall be permitted.
4) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 10d nails are 0.148" dia. x 3" long.

STC Truss Clips

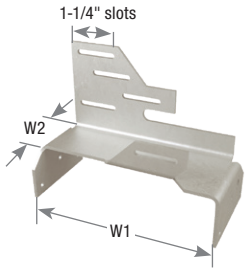
The STC provides uplift resistance by securing trusses to top plates. Slotted nail holes allow for horizontal movement as scissor trusses deflect.

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.



Typical STC installation



STC

MiTek USP Stock No.	Ref. No.	Steel Gauge	Description	Dimensions (in)		Fastener Schedule[2]				DF/SP Allowable Loads (Lbs.)		S-P-F Allowable Loads (Lbs.)		Code Ref.
						Truss		Plate						
				W1	W2	Qty	Type	Qty	Type	Uplift[1] 160%	F1 160%	Uplift[1] 160%	F1 160%	
STC24	TC24	12	2 x 4 top plate	3-9/16	1-5/8	5	10d x 1-1/2	6	10d x 1-1/2	465	605	410	470	IBC, FL, LA
STC26	TC26	12	2 x 6 top plate	5-1/2	1-5/8	5	10d x 1-1/2	6	10d x 1-1/2					
STC28	TC28	12	2 x 8 top plate	7-1/4	1-5/8	5	10d x 1-1/2	6	10d x 1-1/2					

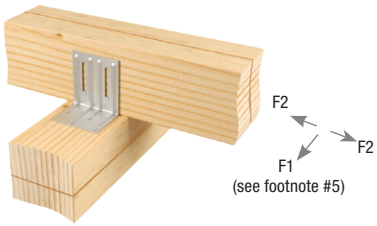
1) Uplift loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
2) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long.
New products or updated product information are designated in **blue font**.

TR Roof Truss Ties

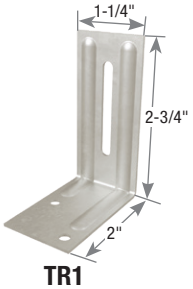
Slotted design allows truss to deflect without imposing load on wall below.

Materials: See chart
Finish: G90 galvanizing

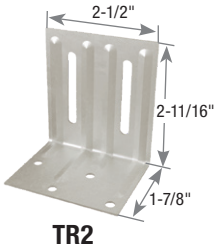
Installation:
- Use all specified fasteners. See Product Notes, page 18.
- Do not fully set nails.
- Locate nails into the center of slots.
- **Due to the potential for squeaks, the TR series products are not recommended for floor applications.**



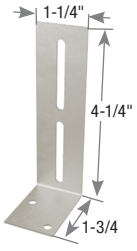
Typical TR2 installation



TR1



TR2



TR1T

MiTek USP Stock No.	Ref. No.	Steel Gauge	Description	Fastener Schedule[6]				DF/SP Allowable Loads (Lbs.)[1]						Code Ref.
				Truss		Plate		Without Gap[2]		With 1/4" Gap[3]		With 1/2" Gap[4]		
				Qty	Type	Qty	Type	F1[5] 160%	F2 160%	F1[5] 160%	F2 160%	F1[5] 160%	F2 160%	
TR1	STC	18	single slot	1	8d	2	8d	85	50	35	35	--	--	--
TR1T	STCT	16	single slot	1	8d	2	8d	240	--	130	--	80	--	
TR2	DTC	18	double slot	2	8d	4	8d	125	210	85	135	--	--	

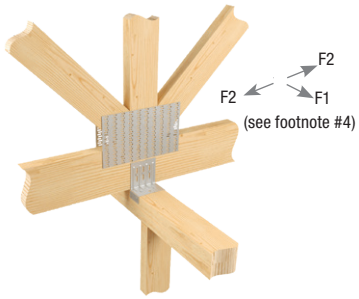
1) Loads have been increased for short-term loading; no further increase allowed.
2) Truss must be bearing on top plate to achieve the allowable loads under "Without Gap".
3) Installed with maximum 1/4" space between rafter or truss and top plate under "With 1/4" Gap". Space is not limited to 1/4", where 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

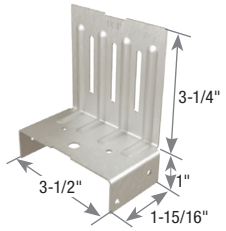
Slotted design allows truss to deflect without imposing load on wall below.

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.



Typical HTC4 installation



HTC4

MiTek USP Stock No.	Ref. No.	Steel Gauge	Fastener Schedule[4] Plate Top Qty	Plate Side Qty	Truss/Rafter Qty	Type	DF/SP Allowable Loads (Lbs.)[1] Without Gap[2] F1[5] 160%	Without Gap[2] F2 160%	With 1-1/4" Gap[3] F1[5] 160%	With 1-1/4" Gap[3] F2 160%	Code Ref.
HTC4	HTC4	16	2	4	3	10d x 1-1/2	255	525	55	295	IBC, FL, LA

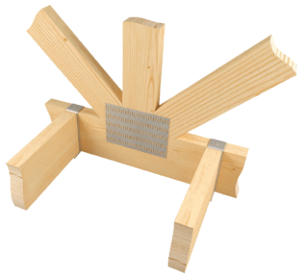
1) Loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
2) Truss/Rafter must be bearing on top plate to achieve the allowable loads under "Without Gap".
3) When installed with maximum 1-1/4" space between truss/rafter and top plate, use loads under "With 1-1/4" 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

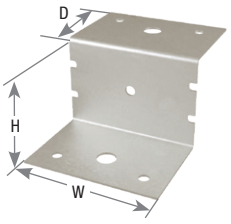
ZC clips secure blocking between joists or trusses which provides support for drywall or sheathing.

Materials: See chart
Finish: G90 galvanizing

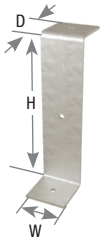
Installation:
- Use all specified fasteners. See Product Notes, page 18.



Typical ZC installation



ZC2



ZC4

MiTek USP Stock No.	Ref. No.	Steel Gauge	Dimensions (in) W	H	D	Fastener Schedule[1] Header Qty	Header Type	Blocking Qty	Blocking Type	DF/SP Allowable Loads (Lbs.)[2] Download 100%	Code Ref.
ZC2	Z2	20	2-1/4	1-9/16	1-1/2	2	10d x 1-1/2	2	10d x 1-1/2	490	--
ZC4	Z4	12	1-1/2	3-9/16	1-3/8	2	10d x 1-1/2	1	10d x 1-1/2	420	
ZC24	Z28	28	2-9/32	1-9/16	1-3/8	10d x 1-1/2		10d x 1-1/2		--	
ZC34	Z38	28	2-9/32	2-9/16	1-5/16	10d x 1-1/2		10d x 1-1/2		--	

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.

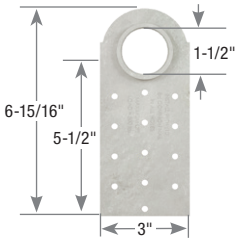
T Hoist Plates

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.

Typical T10 installation



T10

MiTek USP Stock No.	Ref. No.	Steel Gauge	Fastener Schedule[1] Min. Qty	Fastener Schedule[1] Type	Max Load (Lbs.)	Code Ref.
T10	CHC	14	10	8d common	800	--

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