

Secures multi-ply studs or posts to mudsills or foundation. Nail fastening makes for a convenient connection to studs or posts in cramped retrofit installations.

Materials: See chart

Finish: G90 galvanizing

Codes: See chart for code references

Installation:

- Use all specified fasteners to attach the strap portion of the connector to the side of stud, post, joist, purlin, or beam. Secure the base to the concrete or masonry wall with specified anchor bolt. A design professional shall specify the type, length, and embedment of the anchor bolt.
- HTT45 Max – Fill all round and diamond nail holes.
- Washers are not required on transfer plates that fit over the anchor bolt.
- Tighten anchor bolt nuts finger tight to base plus 1/3 to 1/2 additional turns with a wrench.
- LL930 (#9 X 2-7/8" long) LumberLok Screws are included with HTT45KT.



Typical HTT16 installation



Typical HTT45 max installation



HTT16



HTT45

MiTek USP Stock No.	Ref. No.	Steel Gauge	Dimensions (in)				Nail Spacing	Fastener Schedule				DF/SP		Code Ref.	
			W	L	D	CL		Min/Max	Anchor Bolt ³		Strap ^{2,3,7}		Allowable Tension Loads (Lbs.) ¹		
									Qty	Dia.	Qty	Type	160%		Δ (in) ^{4,5}
HTT16	HTT4	10	2-1/2	16	2	1-3/8	1-3/4	--	1	5/8	18	10d	3610	0.142	IBC, FL, LA
HTT45	HTT4, HTT5	10	2-1/2	16	2	1-3/8	1-3/4	Min	1	5/8	18	10d	4215	0.115	
								Max	1	5/8	26	16d x 2-1/2	4160	0.108	
HTT45KT ⁶	HTT5KT	10	2-1/2	16	2	1-3/8	1-3/4	--	1	5/8	26	LL930	5795	0.101	
													5005		

- 1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
- 2) 16d sinkers may be substituted for the specified 10d common nails with no load reduction.
16d common nails may be substituted for the specified 16d x 2-1/2" nails with no load reduction.
- 3) The designer must specify anchor bolt type, length and embedment depth.
- 4) Deflections are derived from static, monotonic load tests of devices connected to DF wood members with specified fasteners.
- 5) HTT holdowns raised off of the sill plate may have higher deflection values.
- 6) HTT45KT is sold as a kit and includes (1) HTT45 and (26) LL930 screws.
- 7) **NAILS:** 10d nails are 0.148" dia. x 3" long, 16d x 2-1/2" nails are 0.162" dia. x 2-1/2" long.

LTS series – The LTS19 is designed for nail-on installation to 2x joists or studs, and the LTS20B provides a nail or bolt fastening option. The LTS20B will accommodate wood I-Joists if 10d (0.148") x 1-1/2" nails are used instead of the specified 16d nails.

LTTI31 – An open web joist tension tie designed for use with masonry or concrete construction.

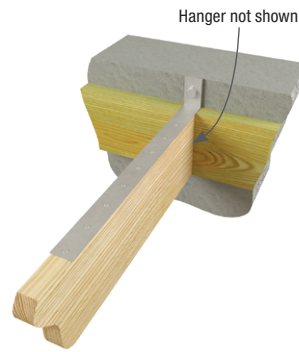
Materials: See chart

Finish: G90 galvanizing; LTS19-TZ – G-185 galvanizing

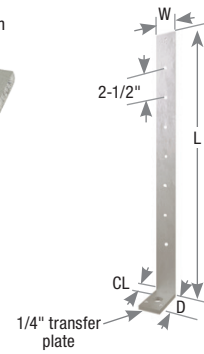
Codes: IBC, FL

Installation:

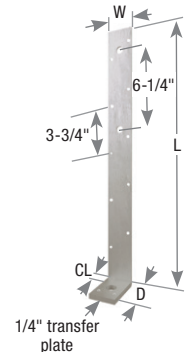
- Use all specified fasteners to attach the strap portion of the connector to the side of stud, post, joist, purlin, or beam. Secure the base to the concrete or masonry wall with specified anchor bolt. A design professional shall specify the type, length, and embedment of the anchor bolt.
- Washers are not required on transfer plates that fit over the anchor bolt.
- LTTI31 and LTS connectors must be mounted flush to the mudsill.
- Allowable loads are based on either nail or bolt fastening; nail and bolt values cannot be combined.
- Tighten anchor bolt nuts finger tight to base plus 1/3 to 1/2 additional turns with a wrench.
- Refer to MiTek's LTS19-TZ Deck Lateral Load Connector Technical Bulletin for deck rail reinforcement at MiTek-US.com.



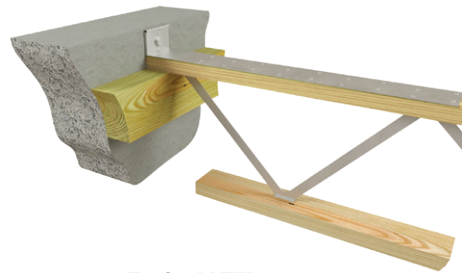
Typical LTS installation



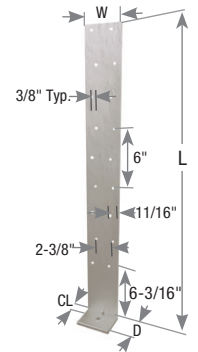
LTS19-TZ



LTS20B



Typical LTTI31 installation



LTTI31

Holdowns

MiTek USP Stock No. ⁶	Ref. No.	Steel Gauge		Dimensions (in)				Nail Spacing	Fastener Schedule				DF/SP Allowable Tension Loads (Lbs.) ¹		Corrosion Finish	Code Ref.
		Strap	Plate	W	L	D	CL		Anchor Bolt ⁴	Strap ^{2,3,7}		160%	Δ (in) ⁵			
										Qty	Dia.			Qty		
LTTI31	LTTI31	18	3	3-3/4	31	2-5/8	1-3/8	3	1	5/8	18	10d x 1-1/2	2805	0.175		IBC, FL
LTS19-TZ	LTT19	16	3	1-3/4	22-1/4	3	1-1/2	2-1/2	1	3/4	8	10d HDG	1205	0.132		
LTS20B	LTT20B	12	3	2	20	3	1-1/2	3-3/4	1	3/4	10	10d x 1-1/2	1100	0.128		
											10	16d	1105	0.128		
											2	1/2 Bolt	1175	0.128		

1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
 2) LTS20B bolted installation requires a minimum 1-1/2" wood member thickness.
 3) 16d sinkers may be substituted for the specified 10d common nails with no load reduction.
 4) The designer must specify anchor bolt type, length and embedment depth.
 5) Deflections are derived from static, monotonic load tests of devices connected to DF wood members with specified fasteners.
 6) LTTI and LTS holdowns shall be installed tight to the sill plate.
 7) **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, 16d nails are 0.162" dia. x 3-1/2" long.

Corrosion Finish ■ Stainless Steel ■ Gold Coat ■ HDG ■ Triple Zinc