

# LTS/MTS/HTS

## Twist Straps

Twist straps provide a tension connection between two wood members. They resist uplift at the heel of a truss economically. LTS/MTS have a 2"-bend section and HTS has a 3¾"-bend section that eliminates interference at the transition points between the two members.

**Material:** LTS — 18 gauge; MTS — 16 gauge; HTS — 14 gauge

**Finish:** Galvanized. Some products available in stainless steel or ZMAX® coating.

**Installation:**

- Use all specified fasteners, with half into each member being connected, to achieve the listed loads; see General Notes.
- LTS, MTS and HTS are available with the bend reversed. Specify "-REV" after the model number, such as MTS16-REV.

**Codes:** See p. 13 for Code Reference Key Chart

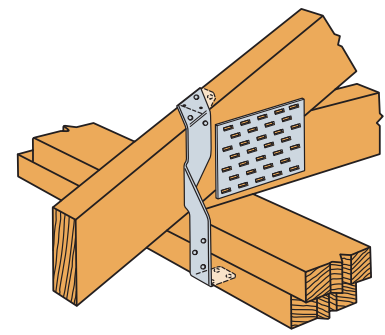
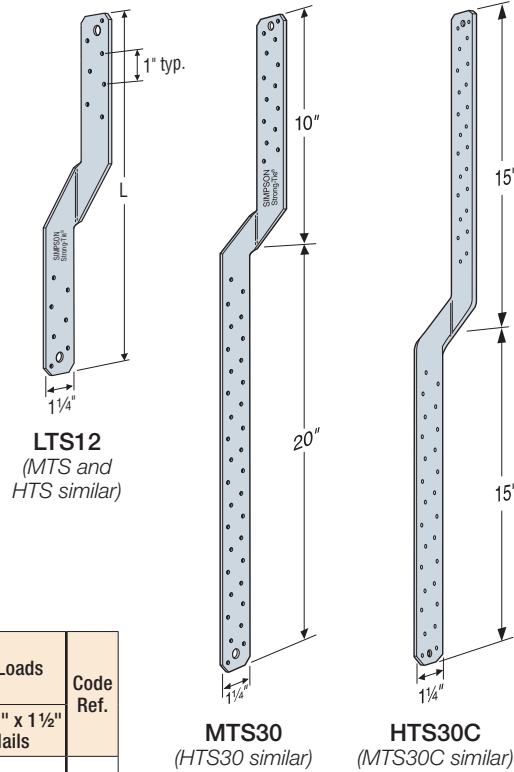
**Web Applications:** Visit [app.strongtie.com/rws](http://app.strongtie.com/rws) to access our Roof-to-Wall Selector web application.



These products are available with additional corrosion protection. For more information, see p. 16.

For stainless-steel fasteners, see p. 23.

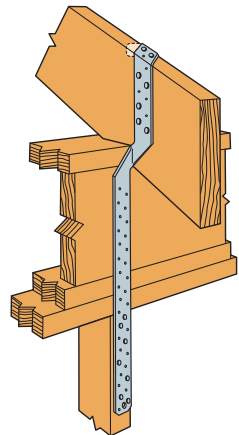
Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 362–366 for more information.



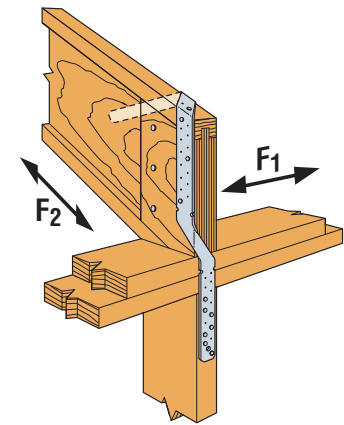
MTS Installation as a Truss-to-Top Plate Tie

Model No.	Strap Length (in.)	Total Quantity of Fasteners		DF/SP Allowable Uplift Loads (160)		SPF/HF Allowable Uplift Loads (160)		Code Ref.
		0.148" x 3" Nails	0.148" x 1½" Nails	0.148" x 3" Nails	0.148" x 1½" Nails	0.148" x 3" Nails	0.148" x 1½" Nails	
LTS12	12							
LTS16	16	12	12	660	645	570	515	
LTS20	20							
MTS12	12							
MTS16	16							
MTS20	20	14	14	990	990	850	850	
MTS24C	24							
MTS30	30							IBC®, FL, LA
MTS30C	30							
HTS16	16							
HTS20	20							
HTS24	24	16	16	1,415	1,415	1,215	1,215	
HTS30	30							
HTS30C	30							

1. See pp. 276–277 for Straps and Ties General Notes.
2. All LTS, MTS and HTS models (except for MTS12 and HTS16) have additional nail holes.
3. All straps except the MTS30 and HTS30 have the twist in the center of the strap.
4. Twist straps do not need to be wrapped over the truss to achieve the allowable load.
5. May be installed on the inside face of the stud.
6. Allowable lateral loads are  $F_1 = 75$  lb. and  $F_2 = 125$  lb. when the following installation requirements are met. The first seven nail holes on each side of the bend must be filled with 0.148" x 1½" minimum nails. All additional fasteners may be installed in any remaining strap holes.
7. For simultaneous loads in more than one direction, the connector must be evaluated using either the Unity Equation or the 75% Rule, as described in Straps and Ties General Notes on p. 277.
8. **Fasteners:** Nail dimensions are listed diameter by length. See pp. 23–24 for fastener information.
9. Using Strong-Drive® SD Connector (SD9112) screws for 0.148" x 1½" and 0.148" x 3" nails will get the same loads as using nails.



Typical MTS30 Installation



MTS30 Installation with I-Joist Rafter

# LTS/MTS/HTS Twist Straps

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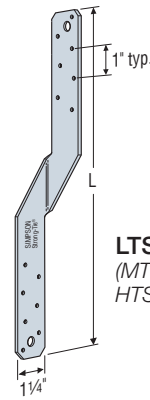
**Material:** See table

**Finish:** Galvanized (G90). Some products available in stainless steel and ZMAX®; see Corrosion Information, pp. 19–23.

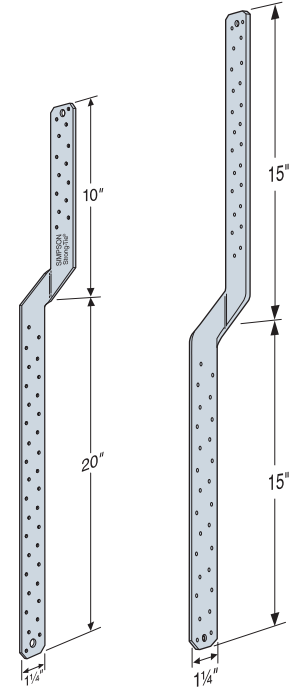
**Installation:**

- Use all specified fasteners; see General Notes.
- LTS, MTS and HTS are available with the bend reversed. Specify “-REV” after the model number, such as MTS16-REV.

**Codes:** See p. 13 for Code Reference Key Chart



**LTS12**  
(MTS and HTS similar)

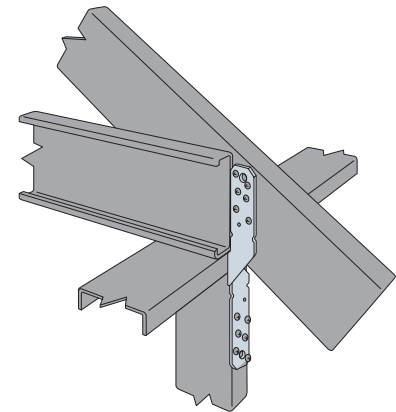


**MTS30**  
(HTS30 similar)

**MTS30C**  
(HTS30C similar)

These products are available with additional corrosion protection. Additional products on this page may also be available with this option. Check with Simpson Strong-Tie for details.

Model No.	Connector Material Thickness mil (ga.)	L (in.)	Fasteners <sup>6</sup> (Total)			Allowable Tension Load (lb.)	Code Ref.
			Rafter/Stud/Joist Thickness				
			33 mil (20 ga.)	43 mil (18 ga.)	54 mil (16 ga.)	33 mil (20 ga.)	
LTS12	43 (18)	12	(10) #10	(6) #10	(6) #10	775	IBC, FL, LA
LTS16		16	(10) #10	(6) #10	(6) #10	775	
LTS18		18	(10) #10	(6) #10	(6) #10	775	
LTS20		20	(10) #10	(6) #10	(6) #10	775	
MTS12	54 (16)	12	(12) #10	(8) #10	(6) #10	995	
MTS16		16	(12) #10	(8) #10	(6) #10	995	
MTS18		18	(12) #10	(8) #10	(6) #10	995	
MTS20		20	(12) #10	(8) #10	(6) #10	995	
MTS30	68 (14)	30	(12) #10	(8) #10	(6) #10	995	
MTS24C		24	(12) #10	(8) #10	(6) #10	995	
MTS30C		30	(12) #10	(8) #10	(6) #10	995	
HTS16		68 (14)	16	(16) #10	(12) #10	(6) #10	
HTS20	20		(18) #10	(12) #10	(6) #10	1,450	
HTS24	24		(18) #10	(12) #10	(6) #10	1,450	
HTS30	30		(18) #10	(12) #10	(6) #10	1,450	
HTS30C	30		(18) #10	(12) #10	(6) #10	1,450	



**Typical MTS Installation**  
Truss-to-Steel Studs

1. Not all fastener holes need to be filled, as additional fastener holes are provided. Install fasteners symmetrically.
2. Install half of the fasteners on each end of strap to achieve full loads.
3. All straps except the MTS30 and HTS30 have the twist in the center of the strap.
4. Twist straps do not have to be wrapped over the truss to achieve the load.
5. May be installed on the inside face of the stud.
6. See the current *Fastening Systems* catalog at [strongtie.com](http://strongtie.com) for more information on Simpson Strong-Tie fasteners.