

## SEISMIC & HURRICANE TIE (S/H)



Designed to provide seismic and wind ties for trusses or joists, this versatile line may be used for general tie purposes, strongback attachments, and as all-purpose ties where one member crosses another.

**MATERIAL:** 18 ga (43 mil) 33ksi

**FINISH:** Galvanized – G90

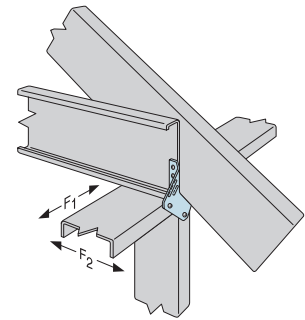
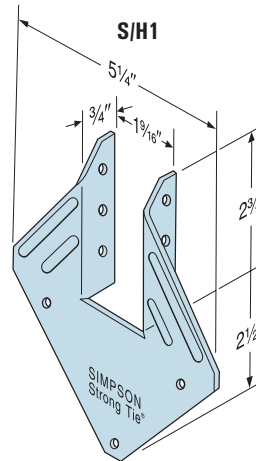
**INSTALLATION:**

- Use all specified fasteners.
- The S/H1 can be installed with flanges facing outward (reverse of illustration) when installed inside a wall for truss applications.
- Hurricane Ties do not replace solid blocking
- S/H2.5 ties are only shipped in equal quantities of rights and lefts.

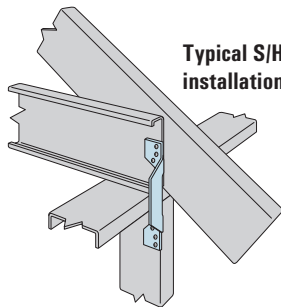
Model No.	Fasteners			Truss Thickness (mil/ga)	Allowable Tension Loads (100 & 133)		
	Rafter	Plate	Stud		Lateral		
					Uplift	F1	F2
S/H1	3-#10	2-#10	1-#10	43 (18 ga)	265	100	115
S/H2	3-#10	–	3-#10	43 (18 ga)	315	–	–
S/H2.5	4-#10	–	4-#10	43 (18 ga)	415	90	125

**Notes:**

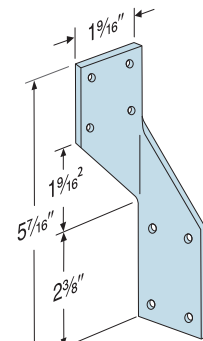
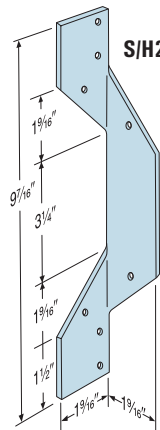
1. Load at (100), no reduction is necessary. Load at (133) for 1/3 increase, no further increase allowed.
2. Loads are based on attachment of cold-formed steel members having a minimum thickness of 33 mil (20 ga).
3. Hurricane Ties are shown installed on the outside of wall for clarity. Installation inside of wall is acceptable. For Continuous Load Path, connections must be on same side of wall.



Typical S/H1 installation



Typical S/H2 installation



S/H2.5

## TWIST STRAP (MTS)



Twist straps provide a tension connection between two members. They resist uplift at the heel of a truss economically. The 3" bend section eliminates interference at the transition points between steel members.

**MATERIAL:** 16 ga (54 mil) 50ksi

**FINISH:** Galvanized – G90

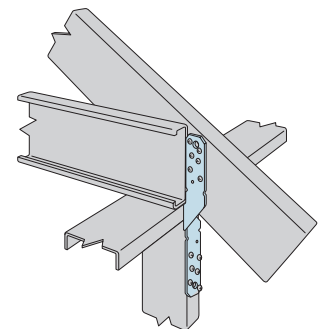
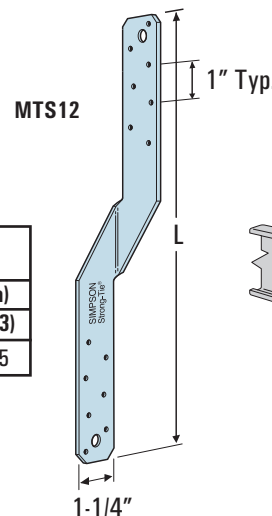
**INSTALLATION:**

- Use all specified fasteners.

Model No.	Material Thickness (mil/ga)	Length	Fasteners (Total)			Allowable Tension Loads			
			Rafter/Stud/Joist Thickness						
			33 mil (20ga)	43 mil (18ga)	54 mil (16ga)	33 mil (20ga)		43 mil (18ga)	
MTS12	54 (16ga)	12"	12-#10	8-#10	5-#10	(100)	(133)	(100)	(133)
						995	995	995	995

**Notes:**

1. All straps have additional fastener holes.
2. Install half of the fasteners on each end of strap to achieve full loads.
3. Load at (100), no reduction necessary. Load at (133) for 1/3 increase, no further increase allowed.
4. All straps have the twist in the center of the strap.
5. Twist straps do not have to be wrapped over the truss to achieve the load.
6. May be installed on the inside face of the stud.
7. Loads are based on steel with 43 mil (18 ga) minimum.
8. Not all fastener holes need to be filled as additional fastener holes provided. Install fasteners symmetrically.



Typical installation truss to steel studs

**GUSSET PLATE (UNPUNCHED) (GP)**

Designed for a variety of construction connections. Used for conditions such as roof, wall and floor framing connections. GPU Plate is used for in plane truss chord connections, header to jamb connections and tension strap connections. Adapts to varying construction tolerances.

**MATERIAL:** See Table, 50ksi

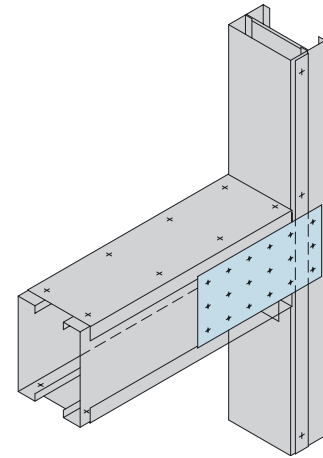
**FINISH:** Galvanized coating weight as requested.

**INSTALLATION:**

- As specified by design.
- 16 Gauge (54 mils) .0566" Design Thickness
- 12 Gauge (97 mils) .1017" Design Thickness
- Custom sizes available upon request.



Gusset Plate (Unpunched)



Model No.	Gauge	Size
GPU66-16	16	6"x6"
GPU612-16	16	6"x12"
GPU1212-16	16	12"x12"
GPU66-12	12	6"x6"
GPU612-12	12	6"x12"
GPU1212-12	12	12"x12"

**STRAP TIE (ST/LSTA/MST/MSTA)**



Straps are load rated and provide the correct thickness and number of fasteners the specifier is looking for compared with the field fabricated straps.

Install Strap Ties where top or bottom plates are cut, at wall intersections, and as ridge ties. LSTA and MSTA straps are engineered for use on members with a minimum width of 1-1/2". Reduce the allowable load based on the size and quantity of fasteners used.

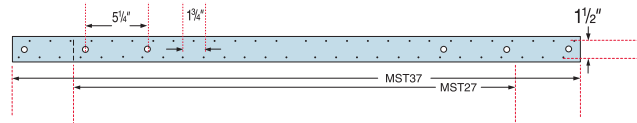
Refer to applicable code for minimum edge and end distances.

**FINISH:** Galvanized – G90

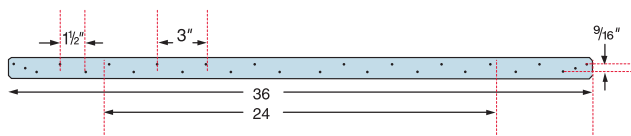
**INSTALLATION:**

- Use all specified fasteners.

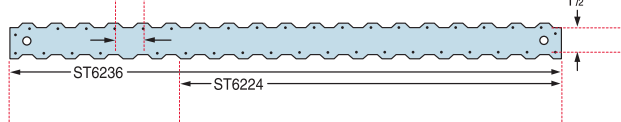
**S/MST**



**LSTA and MSTA**



**ST**



Model No.	Material Thickness mil (ga)	Dimensions		Fasteners (Total)			Allowable Tension Loads					
				Rafter/Stud/Joist Thickness			33 mil (20 ga)		43 mil (18 ga)		54 mil (16 ga)	
		W	L	33 mil (20 ga)	43 mil (18 ga)	54 mil (16 ga)	(100)	(133)	(100)	(133)	(100)	(133)
LSTA24	33 (20 ga)	1-1/4	24	14-#10	12-#10	10-#10	1190	1590	1190	1590	1190	1590
LSTA36	43 (18 ga)	1-1/4	36	18-#10	16-#10	14-#10	1555	2070	1555	2070	1555	2070
MSTA24	43 (18 ga)	1-1/4	24	18-#10	12-#10	10-#10	1555	2070	1555	2070	1555	2070
MSTA36	54 (16 ga)	1-1/4	36	24-#10	18-#10	16-#10	1950	2600	1950	2600	1950	2600
ST6224	54 (16 ga)	2-1/16	23-5/16	28-#10	20-#10	12-#10	2455	3275	2455	3275	2455	3275
ST6236	68 (14 ga)	2-1/16	33-13/16	40-#10	30-#10	18-#10	3535	4715	3760	5015	3760	5015
MST27	97 (12 ga)	2-1/16	27	30-#10	30-#10	22-#10	2650	3535	3945	5260	5025	6700
MST37	97 (12 ga)	2-1/16	37-1/2	42-#10	40-#10	22-#10	3710	4950	5025	6700	5025	6700

Notes:

1. Use half of the fasteners in each member being connected to achieve the listed loads.
2. Loads are based on lesser of steel capacity and fastener calculation.
3. Tabulated loads shown at (100) do not include steel stress increase.  
Tabulated loads shown at (133) include a 1/3 stress increase on the steel.