

# MTSM/HTSM *Twist Straps*

The MTSM and HTSM offer high strength truss to masonry connections.

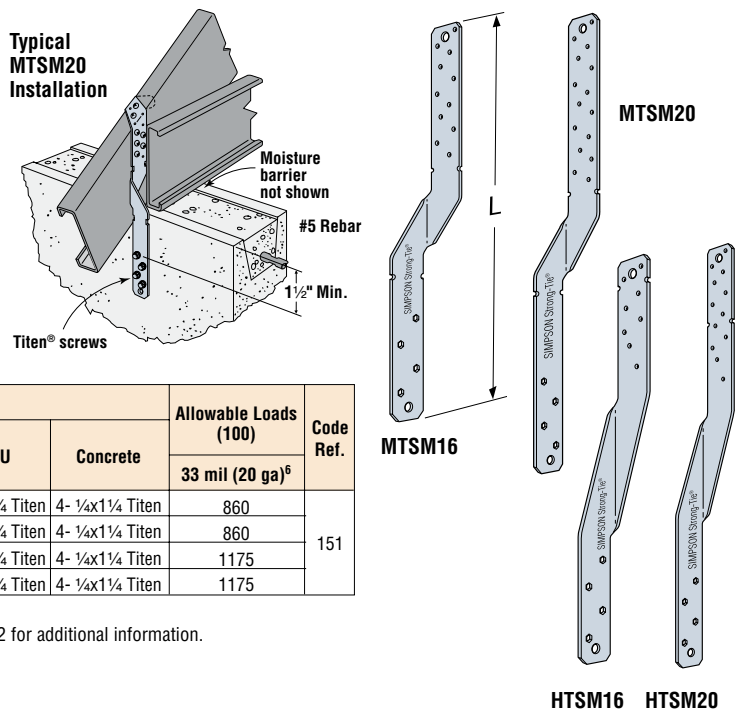
**MATERIAL:** See table

**FINISH:** Galvanized. Some products available in stainless steel and ZMAX<sup>®</sup>; see Corrosion Information, page 12-13.

**INSTALLATION:** • Use all specified fasteners. See General Notes.

- May be attached to either side of a grouted block wall.
- A minimum of one #5 horizontal rebar shall be installed in the top course of this wall.
- Grout minimum  $f'_c = 2500$  psi and maximum aggregate to be  $\frac{3}{8}$ ".

**CODES:** See page 8 for Code Listing Key Chart.



Model No.	Material Thk. mil (ga)	L	Fasteners					Allowable Loads (100)		Code Ref.
			Rafter/Stud/Joist Thickness			CMU	Concrete	33 mil (20 ga) <sup>6</sup>		
			33 mil (20 ga)	43 mil (18 ga)	54 mil (16 ga)			33 mil (20 ga) <sup>6</sup>	33 mil (20 ga) <sup>6</sup>	
MTSM16	54 (16 ga)	16	5- #10	4- #10	3- #10	4- 1/4x2 1/4 Titen	4- 1/4x1 1/4 Titen	860	151	
MTSM20		20	5- #10	4- #10	3- #10	4- 1/4x2 1/4 Titen	4- 1/4x1 1/4 Titen	860		
HTSM16	68 (14 ga)	16	7- #10	5- #10	3- #10	4- 1/4x2 1/4 Titen	4- 1/4x1 1/4 Titen	1175		
HTSM20		20	7- #10	5- #10	3- #10	4- 1/4x2 1/4 Titen	4- 1/4x1 1/4 Titen	1175		

1. All straps have additional fastener holes.
2. Tabulated loads are governed by tests and may not be increased. Refer to page 12 for additional information.
3. Twist straps do not have to be wrapped over the truss to achieve the wall.
4. Minimum edge distance in concrete block for Titen screw is 1 1/2".
5. May be installed on the inside face of the wall.
6. Loads are based on steel with 33 mil (20 ga) minimum.

# LTA1 & S/HGAM10 *Seismic & Hurricane Ties*

The LTA1 develops high uplift at a minimum heel height. Great in areas where a strap over the heel is not required. The side tab acts as a locator in the masonry grout.

The S/HGAM10 attaches to trusses and provides good uplift resistance.

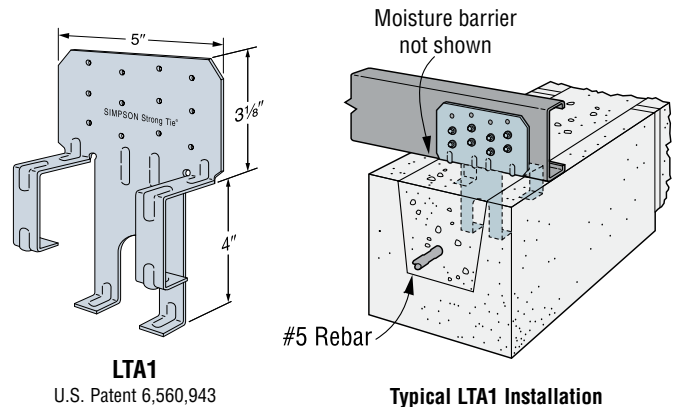
**MATERIAL:** See table

**FINISH:** Galvanized

**INSTALLATION:** • Use all specified fasteners. See General Notes.

- S/HGAM10 can be installed into grouted concrete block.
- Titen<sup>®</sup> screws are provided.
- Hurricane Ties do not replace solid blocking.
- Attached to grouted concrete block with a minimum one #5 rebar horizontal in the top lintel block.

**CODES:** See page 8 for Code Listing Key Chart



Model No.	Material Thickness mil (ga)	Fasteners			Allowable Uplift Loads				Code Ref.
		To Rafter / Truss	To CMU	To Concrete	33 mil (20 ga)		43 mil (18 ga)		
LTA1	43 (18 ga)	8- #10	—	—	1415 (100)	1420 (133)	1420 (100)	1420 (133)	170
S/HGAM10KT	68 (14 ga)	4- #14	4- 1/4" x 2 3/4" Titen	4- 1/4" x 1 3/4" Titen	810 (100)	850 (133)	850 (100)	850 (133)	151

1. Allowable loads are based on a minimum of 2500 psi grout strength.
2. Tabulated loads shown at (100) do not include steel stress increase. Tabulated loads shown at (133) includes a 1/3 stress increase on the steel. Refer to page 12 for additional information.
3. Minimum edge distance 1 1/2" using Titen screws.

