

MTSM/HTSM *Twist Straps*

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

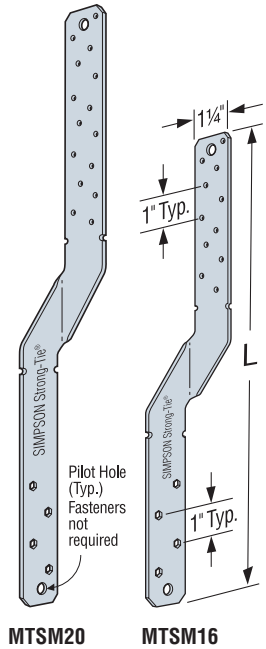
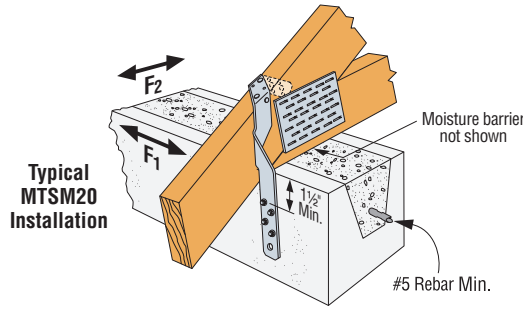
MATERIAL: MTSM—16 gauge; HTSM—14 gauge

FINISH: Galvanized. See Corrosion Information, page 10-11.

INSTALLATION:

- Use all specified fasteners. See General Notes.
- Installs with hex head Titen® screws.
- Attach to either side of grouted concrete block with a minimum one #5 rebar horizontal.

CODES: See page 12 for Code Reference Key Chart.



Model No.	L	Fasteners ²			DF/SP Allowable Uplift Loads ¹		SPF/HF Allowable Uplift Loads ¹		Allowable Lateral Loads (DF/SP/SPF/HF)		Code Ref.
		Truss	CMU	Concrete	10d	10dx1½	10d	10dx1½	F1	F2	
MTSM16	16	7-10d	4-¼x2¼ Titen	4-¼x1¼ Titen	860	860	750	750	285 ^a	385 ^a	F27
MTSM20	20	7-10d	4-¼x2¼ Titen	4-¼x1¼ Titen	860	860	750	750			
HTSM16	16	8-10d	4-¼x2¼ Titen	4-¼x1¼ Titen	1175	1175	1020	1020			
HTSM20	20	10-10d	4-¼x2¼ Titen	4-¼x1¼ Titen	1175	1175	1020	1020			

1. Loads have been increased 60% for wind or earthquake loading with no further increase allowed; reduce where other loads govern.
2. Twist straps do not have to be wrapped over the truss to achieve the allowable load.
3. Minimum edge distance for Titen screw is 1½".
4. See page 139 for Titen screw information.
5. Table allowable loads were determined using test ultimate/3 or fastener calculation values.
6. Products shall be installed such that the Titen screws are not exposed to the weather.
7. Minimum f_m = 1500 psi and f_c = 2500 psi.
8. Lateral loads apply when on the wall side Titen screws are installed into the first four hexagonal holes from the bend line and on the truss/rafter the first seven nail holes near the bend line are filled. Any other fasteners required can be installed in any open hole.
9. **NAILS:** 10d = 0.148" dia. x 3" long, 10dx1½ = 0.148" dia. x 1½" long. See page 16-17 for other nail sizes and information.

MGT/HGT *Girder Tiedowns*

The MGT and HGT series are girder tie downs for moderate to high load applications that are typically installed prior to roof sheathing. The MGT wraps over the heel and is anchored on one side of the truss. The HGT straddles the heel and anchors on both sides of the truss. The HGT is field adjustable, making it suitable for trusses with top chord slopes up to 8:12. The HGT is available in sizes for 2-, 3- and 4-ply widths.

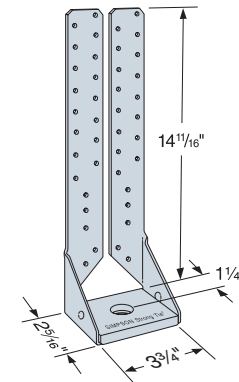
MATERIAL: MGT—12 gauge; HGT—7 gauge

FINISH: MGT—Galvanized; HGT—Simpson Strong-Tie® gray paint

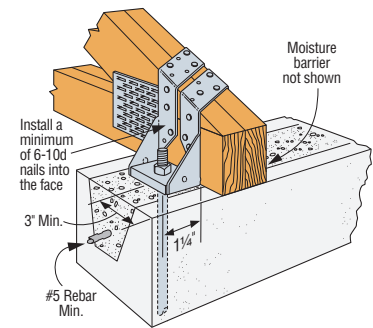
INSTALLATION: • Use all specified fasteners. See General Notes.

- When the HGT-3 is used with a 2-ply girder or beam, shimming is required and must be fastened to act as one unit.
- Attach to grouted concrete block with a minimum one #5 rebar horizontal in the top lintel block.
- See page 160 for wood applications.

CODES: See page 12 for Code Reference Key Chart.



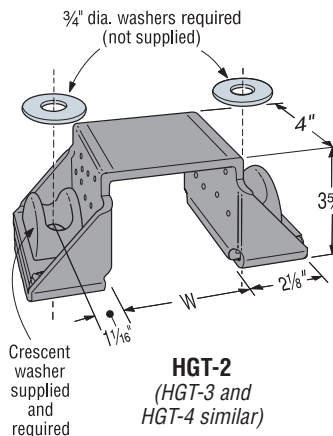
MGT



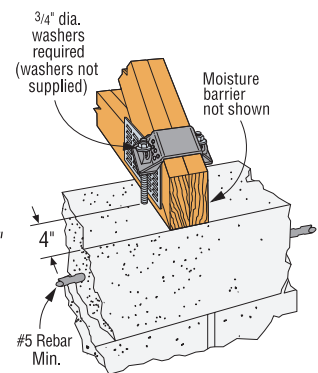
Typical MGT Installation

Model No.	W	O.C. Dim Between Anchors	Fasteners		DF/SP Allowable Uplift Loads (160)	SPF/HF Allowable Uplift Loads (160)	Code Ref.
			Concrete/CMU	Girder			
MGT	3¾	—	1-5/8	22-10d	3965	3330	F26
HGT-2	35/16	5¾	2-¾	16-10d	10980	6485	I20, F19
HGT-3	415/16	7¾	2-¾	16-10d	10530	9035	
HGT-4	69/16	9	2-¾	16-10d	9250	9250	

1. Attached members must be designed to resist applied loads.
2. Minimum f_m = 1500 psi and f_c = 2500 psi.
3. To achieve the loads listed for the MGT and HGT, anchorage into a 8" wide concrete tie-beam or grouted and reinforced CMU tie-beam can be made using Simpson Strong-Tie® SET Epoxy-Tie® adhesive with a minimum embedment depth of 12". Vertical reinforcement may be required to transfer the loads per Designer.
4. Allowable loads have been increased 60% for wind or earthquake loading with no further increase allowed; reduce where other loads govern.
5. The MGT can be installed with straps vertical for full table load provided all specified nails are installed to either a solid header or minimum double 2x6 web.
6. Table allowable loads were determined using tested lowest ultimate/3 or fastener calculation values.
7. **NAILS:** 10d = 0.148" dia. x 3" long. See page 16-17 for other nail sizes and information.



HGT-2
(HGT-3 and HGT-4 similar)



Typical HGT-2 Installation into Concrete