

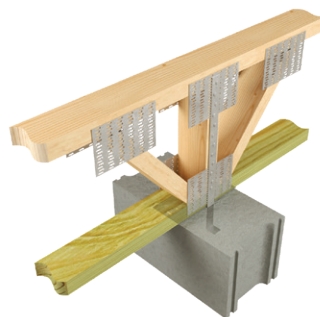
Moisture Barrier Plates protect the bottom chords of trusses from moisture damage caused by direct contact with concrete. These plates eliminate the need for more expensive treated wood plates.

Materials: See chart

Finish: G90 galvanizing

Installation:

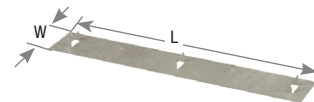
- Use all specified fasteners. See Product Notes, page 18.
- Pre-attach to truss bottom chord or rafter using pre-punched prongs and/or 6d common nails to prevent wood-to-concrete contact.



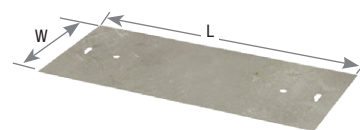
Typical NOP4 installation



NOP1



NOP2X



NOP4

Size	MiTek USP Stock No.	Ref. No.	Steel Gauge	Dimensions (in)		Fastener Schedule ¹		Code Ref.
				W	L	Qty	Type	
2x	NOP2X	TSS2, TBP8	26	1-7/16	8	--	--	--
	NOP1	--	22	1-1/2	8	2	6d	
4x	NOP4	TSS2-2	26	3-1/2	8	2	6d	

1) **NAILS:** 6d nails are 0.120" dia. x 2" long.

LPTA Embedded Truss Anchors

Low profile design attaches to 2x4 or larger bottom chords and provides uplift and lateral load resistance.

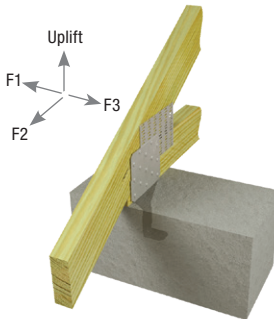
Materials: 18 gauge

Finish: G90 galvanizing

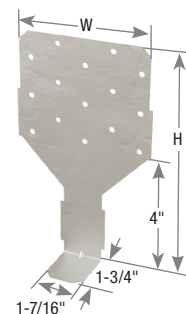
Codes: FL

Installation:

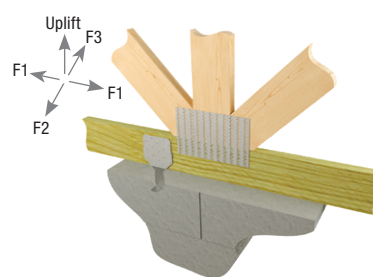
- Use all specified fasteners. See Product Notes, page 18.
- Embed LPTA 4" into concrete tie beam or masonry bond beam.
- Anchors should be spaced no closer than 8" center-to-center.
- **Moisture barrier may be required.**



Typical LPTA perpendicular installation



LPTA



Typical LPTA parallel installation

MiTek USP Stock No.	Ref. No.	Steel Gauge	Dimensions (in)		Load Direction to Wall Installation	Fastener Schedule ⁵		DF/SP Allowable Loads (Lbs.) ^{1,2}				S-P-F Allowable Loads (Lbs.) ^{1,2}				Code Ref.
			W	H		Min Qty ^{3,4}	Type	Uplift 160%	F1 160%	F2 160%	F3 160%	Uplift 160%	F1 160%	F2 160%	F3 160%	
LPTA	LTA2	18	5	8-1/4	Perpendicular	10	10d x 1-1/2	1510	335	745	345	1510	280	745	345	FL
					Parallel			1470	750	1085	335	1470	750	975	280	

1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
 2) Connector shall be installed to fully grouted and reinforced masonry units (CMU) type S or better mortar or reinforced concrete (f'c = 2,500 psi at 28 days).
 3) Minimum quantity of fasteners to be installed. Product may have additional nail holes not needed to meet published allowable load of product.
 4) The five nail holes nearest the embedment line must be filled to achieve the lateral loads listed in the table.
 5) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long.

The HLPTA75 is designed and tested to provide higher lateral capacity and net uplift. Offers greater pullout resistance and is compatible with bond beam reinforcing.

Materials: 18 gauge

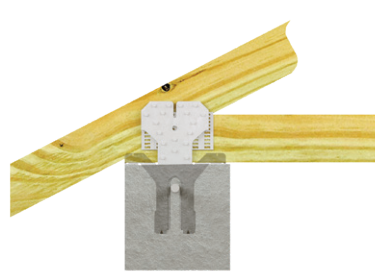
Finish: G90 galvanizing

Codes: See chart for code references

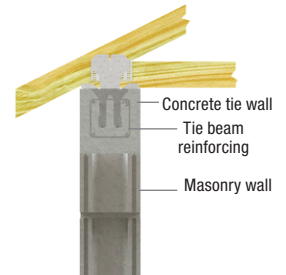
Patent: U.S. Patent No. 7,254,919

Installation:

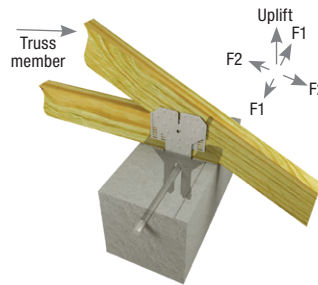
- Use all specified fasteners. See Product Notes, page 18.
- Embed in concrete tie beam or masonry bond beam until the seat is resting on the surface.
- Minimum of one #7 rebar or two #5 rebars through the theoretical shear cone is required.
- Minimum spacing between anchors is 10" to achieve full design load capacities on single anchors.
- When used in a double rebar installation, concrete tie beam stirrup should be sized to accommodate connector leg placement.
- Designer shall verify connector clearance when using in conjunction with stirrups and two rebar applications.
- Verify grout is not in contact with truss member.
Moisture barrier may be required.



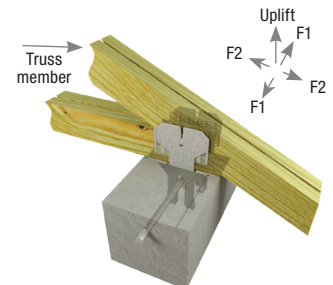
Typical HLPTA75 single rebar installation



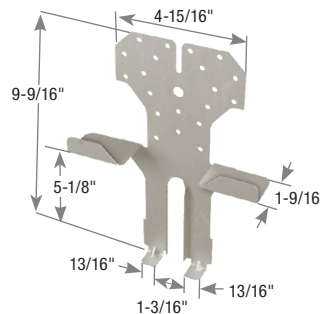
Typical HLPTA75 double rebar installation



Typical HLPTA75 single anchor installation



Typical HLPTA75 double anchor installation



HLPTA75

MiTek USP Stock No.	Ref. No.	Steel Gauge	Installation Type	Fastener Schedule ³				DF/SP Allowable Loads (Lbs.) ¹			S-P-F Allowable Loads (Lbs.) ¹			Code Ref.
				Seat Plate		Truss/Rafter		Uplift 160%	F1 160%	F2 160%	Uplift 160%	F1 160%	F2 160%	
				Qty	Type	Qty	Type							
HLPTA75	--	18	Single Anchor	2	10d x 1-1/2	20	10d x 1-1/2	2125	1860	1715	2125	1860	1160	FL
			Double Anchor	--	--	40	10d x 1-1/2	3500	2040	2100	3500	2040	2100	--

1) Allowable loads have been increased 60% for wind and seismic loads; no further increase shall be permitted.

2) Connector shall be installed to fully grouted and reinforced masonry units (CMU) type S or better mortar or reinforced concrete (f'c = 2,500 psi at 28 days).

3) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long.

HTA – 16 or 18 gauge

HTAR – 16 or 18 gauge with attached moisture barrier

HHTA – 14 gauge

Materials: See chart

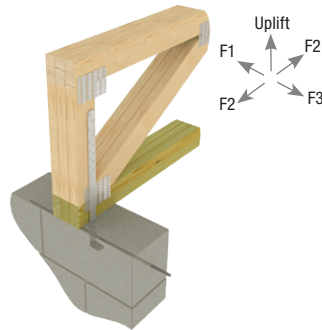
Finish: G90 galvanizing

Options: See chart for Corrosion Finish Options on page 247

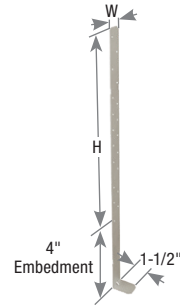
Codes: FL

Installation:

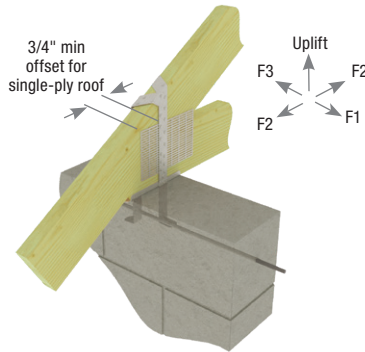
- Use all specified fasteners. See Product Notes, page 18.
- Embed 4" into concrete tie beam or masonry bond beam.
- **For double anchor installations:** anchors should be installed on opposite sides of wood member and offset a minimum 3/4" from each other in bond beam or concrete tie beam.
- Designer may specify alternative nailing schedules. Refer to Nail Specification table on page 23 for nail shear values, load values shall not exceed published allowable loads.
- When using alternative nailing schedules, lower-most holes in strap shall be filled progressing upward towards the top of the strap.
- Straps may be installed straight or wrapped over to achieve table loads.
- Moisture barrier will be required in HTA / HHTA unless another moisture remediation method is used.



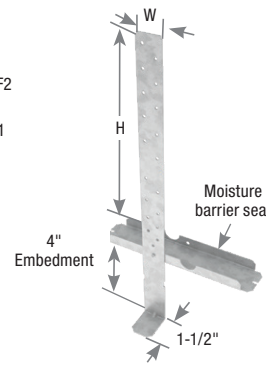
Typical HTA24-18 single anchor installation



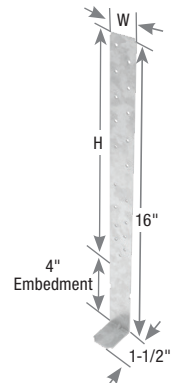
HTA24-18



Typical HTA16 double anchor installation



HTA16R

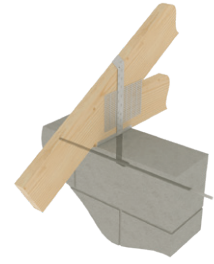
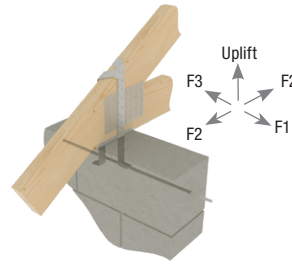
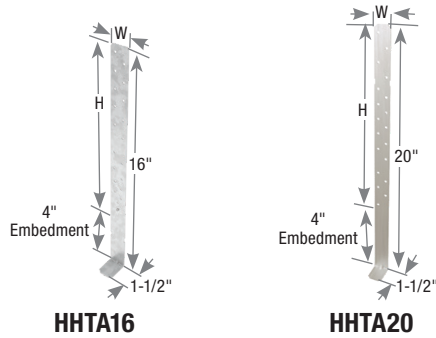


HHTA16

MiTek USP Stock No.	Ref. No.	GA	Dimensions (in)		Fastener Schedule		Installation Type ⁸	SP Allowable Loads (Lbs.) ^{1,2,3,4,5}						Code Ref.	
			W	H ⁷ (Out of Concrete)	Per Anchor			Masonry		Concrete		Lateral Loads			
					Min Qty. ⁶	Type ⁹		1 Ply	2 Ply	1 Ply	2 Ply	Masonry/Concrete (1 or 2 Ply)			
								Uplift 160%	Uplift 160%	Uplift 160%	Uplift 160%	F1 160%	F2 160%		F3 160%
HTA12	HETA12	16	1-1/4	8	9	10d x 1-1/2	Single Anchor	1870	1870	1870	1870	270	710	945	FL
							Double Anchor	2430	2430	2430	2430	1215	1310	1215	
HTA12R	HETA12-TSS2						Single Anchor	1870	1870	1870	1870	270	710	945	
							Double Anchor	2430	2430	2430	2430	1215	1310	1215	
HTA12-2R	HETA12-TSS2-2						Single Anchor	1870	1870	1870	1870	270	710	945	
							Double Anchor	2430	2430	2430	2430	1215	1310	1215	

1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
 2) Allowable loads are based on anchorage to masonry/uncracked concrete.
 3) DF Allowable Loads are identical to all SP Allowable Loads listed in the chart with the exception of the HTA single anchor installation type uplift allowable load which is limited to 1730 lbs. in both masonry and concrete.
 4) Minimum specified masonry or concrete compressive strength, f'm is 1,500 psi and f'c is 2,500 psi at 28 days respectively.
 5) Testing conducted and design values based on unreinforced masonry. Rebar in wall specified by others.
 6) Minimum quantity of fasteners to be installed. Product may have additional nail holes not needed to meet published allowable load of product.
 7) Height (H) is the distance the anchor extends out of concrete or masonry.
 8) Double anchor installation is permitted on 1-ply roof members when anchors are offset from each other a minimum of 3/4". Do not install anchors directly back-to-back or nails will interfere with each other.
 9) **NAILS:** 10d x 1-1/2" nails are 0.148" dia. x 1-1/2" long.

Continued on next page



Typical HHTA20 double roof-truss installation

Typical HHTA20 single roof-truss installation

MiTek USP Stock No.	Ref. No.	GA	Dimensions (in)		Fastener Schedule		Installation Type ⁸	SP Allowable Loads (Lbs.) ^{1,2,3,4,5}						Corrosion Finish	Code Ref.	
			W	H ⁷ (Out of Concrete)	Per Anchor			Masonry		Concrete		Lateral Loads				
					Min Qty. ⁶	Type ^{9,10}		1 Ply	2 Ply	1 Ply	2 Ply	Masonry/Concrete (1 or 2 Ply)				
												Uplift 160%	Uplift 160%			Uplift 160%
HTA16-18	META12, META16	18	1-1/4	12	9	10d x 1-1/2	Single Anchor	1625	1625	1625	1625	250	570	835		
HTA16-18R	META16-TSS2						Double Anchor	2430	2430	2430	2430	1085	1140	1085		
HTA16	HETA16	16	1-1/4	12	9	10d x 1-1/2	Single Anchor	1870	1870	1870	1870	270	710	945		
HTA16R	HETA16-TSS2						Double Anchor	2430	2430	2430	2430	1215	1310	1215		
HTA16-2R	HETA16-TSS2-2						Single Anchor	1870	1870	1870	1870	270	710	945		
							Double Anchor	2430	2430	2430	2430	1215	1310	1215		
HHTA16	HHETA16	14	1-1/4	12	11	10d x 1-1/2	Single Anchor	2375	2375	2375	2375	270	710	945		
							Double Anchor	2650	2650	2650	2770	1215	1310	1215		
HTA20-18	META18, META20	18	1-1/4	16	9	10d x 1-1/2	Single Anchor	1625	1625	1625	1625	250	570	835		
HTA20-18R	META20-TSS2						Double Anchor	2430	2430	2430	2430	1085	1140	1085		
HTA20	HETA20	16	1-1/4	16	9	10d x 1-1/2	Single Anchor	1870	1870	1870	1870	270	710	945		
HTA20R	HETA20-TSS2						Double Anchor	2430	2430	2430	2430	1215	1310	1215		
HTA20-2R	HETA20-TSS2-2						Single Anchor	1870	1870	1870	1870	270	710	945		
							Double Anchor	2430	2430	2430	2430	1215	1310	1215		
HHTA20	HHETA20	14	1-1/4	16	11	10d x 1-1/2	Single Anchor	2375	2375	2375	2375	270	710	945		
							Double Anchor	2650	2650	2650	2770	1215	1310	1215		
HTA24-18	META22, META24	18	1-1/4	20	9	10d x 1-1/2	Single Anchor	1625	1625	1625	1625	250	570	835		
HTA24-18R	META24-TSS2						Double Anchor	2430	2430	2430	2430	1085	1140	1085		
HTA24	HETA24	16	1-1/4	20	9	10d x 1-1/2	Single Anchor	1870	1870	1870	1870	270	710	945		
HTA24R	HETA24-TSS2						Double Anchor	2430	2430	2430	2430	1215	1310	1215		
HTA24-2R	HETA24-TSS2-2						Single Anchor	1870	1870	1870	1870	270	710	945		
							Double Anchor	2430	2430	2430	2430	1215	1310	1215		
HTA48R	--	16	1-1/4	42-1/2	9	10d x 1-1/2	Single Anchor	1870	1870	1870	1870	240	470	680		
HTA48-2R	HETA40-TSS2-2					10d x 1-1/2	Double Anchor	2430	2430	2430	2430	955	940	955		
							Single Anchor	1870	1870	1870	1870	240	470	680		
							Double Anchor	2430	2430	2430	2430	955	940	955		

- 1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
- 2) Allowable loads are based on anchorage to masonry/uncracked concrete.
- 3) DF Allowable Loads are identical to all SP Allowable Loads listed in the chart with the exception of the HTA single anchor installation type uplift allowable load which is limited to 1730 lbs. in both masonry and concrete.
- 4) Minimum specified masonry or concrete compressive strength, f'm is 1,500 psi and f'c is 2,500 psi at 28 days respectively.
- 5) Testing conducted and design values based on unreinforced masonry. Rebar in wall specified by others.
- 6) Minimum quantity of fasteners to be installed. Product may have additional nail holes not needed to meet published allowable load of product.
- 7) Height (H) is the distance the anchor extends out of concrete or masonry.
- 8) Double anchor installation is permitted on 1-ply roof members when anchors are offset from each other a minimum of 3/4". Do not install anchors directly back-to-back or nails will interfere with each other.
- 9) Stainless steel ring shank nails must be used with stainless steel connectors to achieve tabulated allowable loads.
- 10) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long.

Corrosion Finish

- Stainless Steel
- Gold Coat
- HDG
- Triple Zinc

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Truss & Rafter

The DHTA embedded truss anchor series offer high uplift capacity with a two-strap design. The straps are attached to MiTek's NOP style plate which ensures proper placement of straps while also providing a moisture barrier between the top of the wall and the truss.

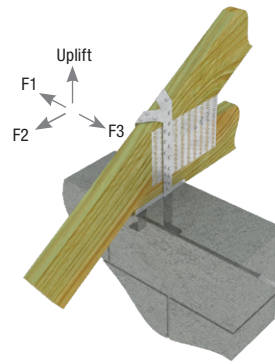
Materials: DHTAxx-18 – 18 gauge; DHTAxx – 16 gauge

Finish: G90 galvanizing

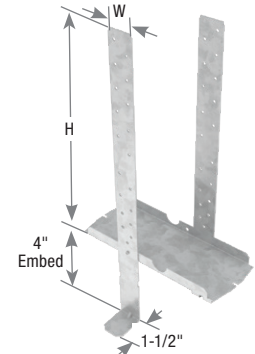
Codes: FL

Installation:

- Use all specified fasteners. See Product Notes, page 18.
- Embed 4" into concrete tie beam or masonry bond beam.
- Designer may specify alternative nailing schedules.
- When using alternative nailing schedules, lower-most holes in strap shall be filled progressing upward towards the top of the strap.
- Straps may be installed straight or wrapped over to achieve table loads.
- Moisture barrier plate may be under bent during shipping causing attached straps to be misaligned. Install straps vertically at 90° from the horizontal top surface of the wall.



Typical DHTA 1-Ply installation



DHTA



DHTA 1-Ply plan view
(DHTA 2-Ply application similar)

MiTek USP Stock No.	Ref. No.	Steel Gauge	Dimension (in)		Fastener Schedule		No. of Plies	SP Allowable Loads (Lbs.) ^{1,2,3,4}					Code Ref.
			W	H ⁸ (Out of Concrete)	Per Anchor			Uplift 160%		Lateral Loads ⁵			
					Min Qty. ⁶	Type ⁹		Masonry	Concrete	F1 160%	F2 160%	F3 160%	
DHTA16-18	--	18	1-1/4	12	8	10d x 1-1/2	1 Ply	2430	2430	1085	1140	1085	FL
							2 Ply	2770	2770				
DHTA16-18-2	--	18	1-1/4	12	8	10d x 1-1/2	1 Ply	2430	2430	1085	1140	1085	
							2 Ply	2770	2770				
DHTA20-18	--	18	1-1/4	16	8	10d x 1-1/2	1 Ply	2430	2430	1085	1140	1085	
							2 Ply	2770	2770				
DHTA20-18-2	--	18	1-1/4	16	8	10d x 1-1/2	1 Ply	2430	2430	1085	1140	1085	
							2 Ply	2770	2770				
DHTA24-18	--	18	1-1/4	20	8	10d x 1-1/2	1 Ply	2430	2430	1085	1140	1085	
							2 Ply	2770	2770				
DHTA24-18-2	--	18	1-1/4	20	8	10d x 1-1/2	1 Ply	2430	2430	1085	1140	1085	
							2 Ply	2770	2770				
DHTA12	--	16	1-1/4	8	8	10d x 1-1/2	1 Ply	2430	2430	1215	1310	1215	
							2 Ply	2770	2770				
DHTA12-2	--	16	1-1/4	8	8	10d x 1-1/2	1 Ply	2430	2430	1215	1310	1215	
							2 Ply	2770	2770				
DHTA16	--	16	1-1/4	12	8	10d x 1-1/2	1 Ply	2430	2430	1215	1310	1215	
							2 Ply	2770	2770				
DHTA16-2	--	16	1-1/4	12	8	10d x 1-1/2	1 Ply	2430	2430	1215	1310	1215	
							2 Ply	2770	2770				
DHTA20	DETAL20	16	1-1/4	16	8	10d x 1-1/2	1 Ply	2430	2430	1215	1310	1215	
							2 Ply	2770	2770				
DHTA20-2	--	16	1-1/4	16	8	10d x 1-1/2	1 Ply	2430	2430	1215	1310	1215	
							2 Ply	2770	2770				
DHTA24	--	16	1-1/4	20	8	10d x 1-1/2	1 Ply	2430	2430	1215	1310	1215	
							2 Ply	2770	2770				
DHTA24-2	--	16	1-1/4	20	8	10d x 1-1/2	1 Ply	2430	2430	1215	1310	1215	
							2 Ply	2770	2770				
DHTA48	--	16	1-1/4	43	8	10d x 1-1/2	1 Ply	2430	2430	955	940	955	
							2 Ply	2770	2770				
DHTA48-2	--	16	1-1/4	43	8	10d x 1-1/2	1 Ply	2430	2430	955	940	955	
							2 Ply	2770	2770				

1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
 2) Allowable loads are based on anchorage to masonry/uncracked concrete.
 3) DF lumber may be substituted for SP with no load reduction.
 4) Minimum specified masonry or concrete compressive strength, f'm is 1,500 psi and f'c is 2,500 psi at 28 days respectively.
 5) The five nail holes nearest the embedment line must be filled to achieve the lateral loads listed in the table.
 6) Minimum quantity of fasteners to be installed. Product may have additional nail holes not needed to meet published allowable load of product.
 7) Install (8) nails into each anchor for the DHTA installation.
 8) Height (H) is the distance the anchor extends out of concrete or masonry.
 9) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long.

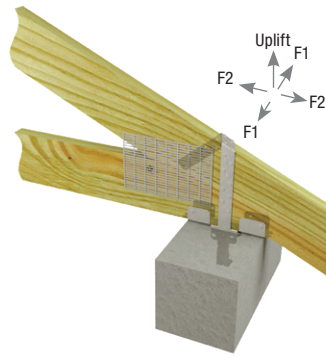
Truss & Rafter

The DTC series attaches trusses to concrete or masonry walls. Innovative seat design gives added lateral resistance while still providing a moisture barrier.

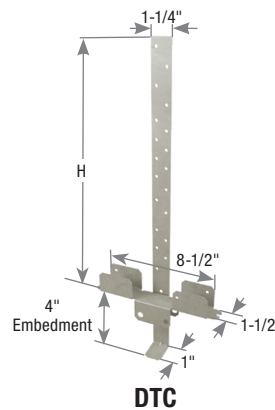
Materials: 16 gauge
Finish: G90 galvanizing
Codes: FL

Installation:

- Use all specified fasteners. See Product Notes, page 18.
- Embed 4" into concrete tie beam or masonry bond beam.
- Installations should be spaced no closer together than 8" center-to-center.
- Straps may be installed straight or wrapped over to achieve table loads.



Typical DTC installation



DTC

MiTek USP Stock No.	Ref. No.	Steel Gauge	H ⁴ (in) (Out of Concrete)	Fastener Schedule ⁵				DF/SP Allowable Loads (Lbs.) ^{1,2,3}				S-P-F Allowable Loads (Lbs.) ^{1,2,3}				Code Ref.
				Seat Plate		Truss/Rafter		Uplift 160%	F1 160%		F2 160%	Uplift 160%	F1 160%		F2 160%	
				Qty	Type	Qty	Type		Toward Strap	Away from Strap			Toward Strap	Away from Strap		
DTC	HETAL12, HETAL16, HETAL20	16	16	4	10d x 1-1/2	9	10d x 1-1/2	1825	840	1200	1290	1440	840	1200	1290	FL

1) Allowable loads have been increased 60% for wind and seismic loads; no further increase shall be permitted.
 2) Connector shall be installed to fully grouted and reinforced masonry units (CMU) type S or better mortar or reinforced concrete (f'c = 2,500 psi at 28 days).
 3) Allowable loads require a No. 5 rebar through the shear cones of the anchors.
 4) Height (H) is the distance the anchor extends out of concrete or masonry.
 5) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long.

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Truss & Rafter

TA – Anchors are rated for both uplift and lateral loads. They can be installed straight or field-bent around truss or rafter members. An embossed embedment line assures accurate embedment depth.

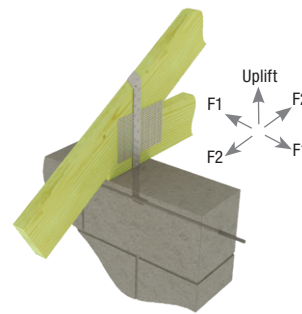
TAR – Riveted anchors provide a moisture barrier in addition to uplift and lateral resistance all in one product.

Materials: 14 gauge

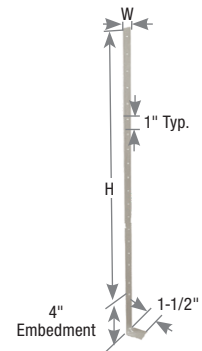
Finish: G90 galvanizing

Installation:

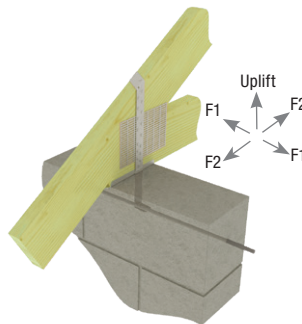
- Use all specified fasteners. See Product Notes, page 18.
- Embed 4" into concrete tie beam or masonry bond beam.
- **For double anchor installations:** anchors should be installed on opposite sides of wood member and offset a minimum 3/4" from each other in bond beam or concrete tie beam. See increased design values in chart below.
- Designer may specify alternative nailing schedules. Refer to [Nail Specification table on page 23](#) for nail shear values, load values shall not exceed published allowable loads.
- When using alternative nailing schedules, lower-most holes in strap shall be filled progressing upward towards the top of the strap.
- Straps may be installed straight or wrapped over to achieve table loads.
- Moisture barrier will be required in installations unless another moisture remediation method is used.



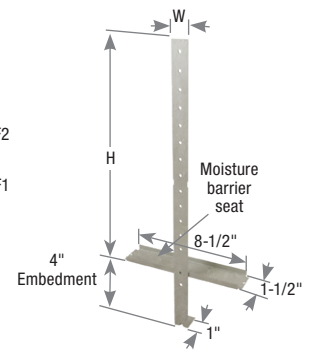
Typical TA18 installation



TA18



Typical TA16R installation



TA20R

MiTek USP Stock No. ⁶	Ref. No.	Steel Gauge	Dimensions (in)		Fastener Schedule		SP Allowable Loads (Lbs.) ^{1,2,3,4,5}						Code Ref.
			W	H ⁸ (Out of Concrete)	Per Anchor		Single Anchor			Double Anchor ⁹			
					Min Qty. ⁷	Type ¹¹	Uplift 160% ¹⁰	F1 160%	F2 160%	Uplift 160% ¹⁰	F1 160%	F2 160%	
TA12	--	14	1	6-3/4	5	10d x 1-1/2	990	245	335	1980	490	670	--
TA14	--	14	1	8-3/4	7	10d x 1-1/2	1205	245	335	2410	490	670	--
TA14R	--	14	1	8-3/4	7	10d x 1-1/2	1205	245	335	2410	490	670	--
TA16	--	14	1	10-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--
TA16R	--	14	1	10-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--
TA18	--	14	1	12-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--
TA18R	--	14	1	12-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--
TA20	--	14	1	14-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--
TA20R	--	14	1	14-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--
TA22	--	14	1	16-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--
TA22R	--	14	1	16-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--
TA24	--	14	1	18-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--
TA24R	--	14	1	18-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--
TA36	--	14	1	30-3/4	8	10d x 1-1/2	1205	245	335	2410	490	670	--

1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
 2) Allowable loads are based on anchorage to masonry/uncracked concrete.
 3) DF Allowable Loads are identical to all SP Allowable Loads listed in the chart.
 4) Minimum specified masonry or concrete compressive strength, f'm is 1,500 psi and f'c is 2,500 psi at 28 days respectively.
 5) Allowable loads require a No. 4 rebar through the shear cones of the anchors.
 6) "R" after TA models indicates truss anchors with riveted moisture barrier as in TA12R.
 7) Minimum quantity of fasteners to be installed. Product may have additional nail holes not needed to meet published allowable load of product.
 8) Height (H) is the distance the anchor extends out of concrete or masonry.
 9) Double anchor installation is permitted on 1-ply roof members when anchors are offset from each other a minimum of 3/4".
 Do not install anchors directly back-to-back or nails will interfere with each other.
 10) Allowable uplift capacity for TA models installed with (4) 10d x 1-1/2" nails is 780 lbs per anchor. Lateral loads do not apply.
 11) **NAILS:** 10d x 1-1/2" nails are 0.148" dia. x 1-1/2" long.