

A3 Angle Clip71-72, 210
AB Anchor Bolts35, 210
ABC Anchor Bolt Caps33
ABH Anchor Bolt Holders32
ABHS Anchor Bolt Holders
 & Spacers32
ABS12 Anchor Bolt Stabber33
ABSL Anchor Bolt Sleeves33
AC Angle Clips71-72, 210
ACR Adhesive (**CIA-EA**)30
Alternate Installations192
ANJ44S Heavy Angles76, 210
ANSI/TPI Allowable Loads193
B Bolts26
B Corner Reinforcements76
BL Corner Reinforcements76
BN Breakfast Nook Hangers181
BP Bearing Plates26, 210
BPH Beam & Purlin Hangers
 126, 130-131, 135-139, 142-146
BRN Bridging195
C Post Caps62, 210
CBE Column Bases60
CBS Column Bases59, 210
CBSQ Column Bases58, 210
CH Gazebo Hub Plates202
CLPBF Butterfly Hanger174
CMST Coiled Strapping78
CMSTC16 Coiled Strapping78
Corrosion Resistant Products ..210
CPB Composite Post Bases63
CSH Concealed Stringer Hanger ..201,
 210
D Post Anchors58, 210
DBC44 Post Anchor58
DBF44 Post Anchor58
DC1 Drywall Clip203
DC50 Deck Clip200, 210
DSC4 Drag Strut Connector191
DTC Truss Anchor160-161
DUC Ductile Undercut Anchors ...29
EBG44 Elevated Post Base ..57, 210
EPB Elevated Post Bases57, 210
EPCM End Post Caps61, 210
ERB24 Fence Bracket199, 210
EWP Hanger Selector Guide116
EWP Installation119-120
FA3 Foundation Anchors ..36-37, 210
FB Fence Brackets199, 210
FBS Form Board Spacer33
FH Formed Seat Hangers109
FHD Formed Seat Hangers109
FRB Fence Brackets199, 210
FS Truss Field Splice Kits189
FSS Truss Field Splice Kits189
FT Concrete Form Ties35
FTC Floor Truss Clips186
G Bridging195-196
GEL Adhesive (**CIA-GEL 7000**) ...31
GHF Glulam Face Mount Hangers .149,
 206-207, 210

GT Girder Truss Hangers183-184
GTD Girder Truss Hangers ...183-184
GTS Girder Truss Hangers ...183-184
GTU Girder Truss Hangers185
GTWS Girder Truss Hangers185
Hanger Selector Guide88
HBPS Bearing Plates26, 210
HC520 Hurricane/Seismic Anchor 167, 169
HCPRS Hurricane/Seismic Anchors
 167, 169
HD Face Mount Hangers93-100,
 121, 123-125, 206-207
HDO Top Mount Hangers .101, 103-105
 206, 208-209
HGA Hurricane Gusset Angles ...167
HH Header Hangers75
HHC Hip/Hip Connectors182
HHCP2 Hurricane/Seismic Anchor
 167-169, 210
HHDO Top Mount Hangers101,
 103-105, 206, 208-209
HJC Hip/Jack Connectors182
HJH Hip/Jack Connectors ...181, 210
HJHC Hip/Jack Connectors182
HL Light Gauge Purlin Hangers
 102-103
HLBH Beam Hangers ...127, 135-139,
 142-146, 206, 208-209
HLPTA75 Truss Anchor158
HPA Purlin Anchors51-52, 210
HPAHD Foundation Straps47-48
HTA Truss Anchors159-160, 210
HTHJ Hip/Jack Connectors182
HTT Tension Ties42-43
HTW Twist Straps83-84
HTWM Twist Straps85
HUGT Girder Tiedowns166
HUS Slant Nail Hangers ...92, 94-98,
 122-123, 174, 206-207, 210
HWUH Top Flange Hangers ..111-112,
 206, 208-209
ICPL Protection Plates196, 210
ID4 Protection Plate196
IS Insulation Supports203
J Ornamental Hangers100
JA Joist Angles71-72, 210
JDS Purlin Hangers110
JH Multi-Purpose Joist Hangers 105-106
JL Standard Joist Hangers ...91, 94-95
JN Power Nail Hangers205
JN(E) Power Nail Hangers205
JP Purlin Hangers110
JPF Purlin Hangers110
JR Standard Joist Hangers ...91, 94-95
JUS Slant Nail Joist Hangers92,
 94-99, 210
KAG Angle Gussets76
KB Beam & Purlin Hangers101,
 103-105, 206, 209
KCB Column Bases60, 210
KCBQ Column Bases59

KCC Column Caps65-66, 210
KCCC Column Caps65-66
KCCO Column Caps65-66
KCCOB Column Caps65-66
KCCQ Column Caps64
KCCT Column Caps65-66
KECC End Column Caps ..65-66, 210
KECCL End Column Caps65-66
KECCO End Column Caps65-66
KECCQ End Column Caps64
KEG Glulam Beam Hangers150,
 206, 208-209
KF Panel Hangers109
KFHA Strap Ties79-80
KFTA Floor Tie Straps83
KGB Glulam Hangers ...151, 206, 209
KGH Floor Girder Hangers ...39, 206,
 208-209
KGLB Laminated Beam Seats38
KGLBT Laminated Beam Seats ...38
KGLS Glulam Saddle Hangers ...155,
 206, 208-209
KGLST Glulam Saddle Hangers ...155,
 206, 208-209
KGLT Glulam Beam Hangers152,
 206, 208-209
KHB Beam & Purlin Hangers101,
 103-105, 206, 209
KHC Hinge Connectors153-154
KHCT Hinge Connectors153-154
KHCCT Hinge Connectors ...153-154
KHCST/KHCSTR Seismic
 Straps153-154
KHGB Glulam Hangers151, 206,
 209
KHGLB Laminated Beam Seats ...38
KHGLS Glulam Saddle Hangers ...155,
 206, 208-209
KHGLST Glulam Saddle
 Hangers ...155, 206, 208-209
KHGLT Glulam Beam Hangers ...152,
 206, 208-209
KHHB Beam & Purlin Hangers ...101,
 103-105, 206, 209
KHHB Glulam Hangers151, 206,
 209
KHL Heavy Angles75
KHSA Connector Straps86
KHST Strap Ties82
KHW Top Flange Hangers ...102-105,
 206, 208-209
KLB Beam & Purlin Hangers101,
 103, 206, 209
KLCC Lally Column Caps63-64
KLEG Glulam Beam Hangers150,
 206, 208-209
KLFTA Floor Tie Strap83
KMEG Glulam Beam Hangers ...150,
 206, 208-209

New Products

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KNS1 Protection Plate196
KRPS Strap Ties82, 210
KSA Connector Straps86
KSCT68 Corner Tie204
KST Strap Ties79-81
KSTI Strap Ties79-81
KTS Twist Straps83-84
KVB Knee Braces87
KVBI Knee Braces87
L Straps77, 210
LBH Beam Hangers127,135-146, 206, 208-209
LBP Bearing Plates26, 210
LBPS Bearing Plates26, 210
LDSC4 Drag Strut Connector191
LFTA6 Twist Strap83-84, 210
LH Straps77
LPTA Embedded Truss Anchors .. 157
LS Light Slope Hangers106
LSSH Slope/Skew Hangers148, 206-207, 210
LSTA Strap Ties79-80
LSTAD Foundation Straps49-50
LSTI Strap Ties79-80
LTS Tension Ties42-43
LTTI31 Tension Tie42-43
LTW Twist Straps83-84, 210
LUGT Girder Tiedowns164-165
MB16 Bridging195-196
MBG Bridging195-196
MP Framing Angles71-72, 210
MP34 Framing Angle69-70, 210
MPA1/MPA1F Framing Angles ..69-70, 210
MPAHD Foundation Strap47-48
MP_F Multi-Lateral Plate Ties ..69-70, 210
MPH Masonry Hangers113-114, 128-138, 140-146, 206, 208-209
MRT7 Power Nail Hanger205
MSH Strap Hangers175-178, 210
MSH213L/R Skewed Truss Hanger 178
MSSH217 Skewed Hanger179
MSTA Strap Ties79-80, 210
MSTC Strap Ties79-81
MTHF Power Nail Hangers205
MTS27B Tension Tie42-43
MTW Twist Straps83-84, 210
MUGT15 Girder Tiedown165
N Bridging194
N Nails20-21, 210
NFM Masonry Hangers115, 206, 208-209
NOP Moisture Barrier Plates157
NP Mending Plates204
NPA Mending Plates204
O Bridging194
Ornamental series77
PA Post Anchors55, 210
PA Purlin Anchors51-52, 210

PA(E) Post Anchors55, 210
PAHD42 Foundation Strap47-48
PAI Purlin Anchors51-52
PAT Purlin Anchors51-52
PATM25 Purlin Anchor51-52
PAU Post Anchors55, 210
PB Post Caps62, 210
PBC Post Beam Corner63, 210
PBES Post Caps62, 210
PBS Post Caps62, 210
PC Plywood Clips203
PCM Post Caps61, 210
PCP Plastic Post Caps201
PH Top Flange Hangers128-131, 137, 206, 208-209
PHD Predeflected Holdowns41
PHG Panel Hangers109
PHI I-Joist Top Flange Hangers128-139, 206, 208-209
PHM Top Flange Hangers128-146, 206, 208-209
PHX Top Flange Hangers128-129, 133-146, 206, 208-209
PHXU Top Flange Hangers ..128-131, 135-138, 142-146, 206, 208-209
PL4 Protection Plate196
PRPL Mending Plates204
PRT2 Pipe Rail Tie199, 210
PS Strap Ties82, 210
PWFS24 Wood Foundation Strap ..87
RFUS Uplift Girder Tie163
RP6 Retro Plate39
RS Coiled Strapping78, 210
RSPT Stud Plate Ties73, 210
RT Hurricane/Seismic Anchors167-169, 210
RT Strap Rafter Ties85, 210
RUSC Strap Connector162
RWB Wall Bracing197-198
S01 Holdown Framing Anchor74
S Plywood Clips203
S Wall Bracing197-198
SBP Bearing Plates187
SCA Stair Angles201, 210
SDJT14 Deck Post Tie200, 210
SDPT Deck Post Ties200, 210
SFA Foundation Anchors37
SFC Framing Clips74
SFJA Foundation Anchor37
SFP Fence Post Connectors198
SGP Strap Truss Tiedowns161
SHA Masonry Uplift Connectors ..166
SKH Skewed 45° Hangers ..107-108, 206-207, 210
SKHH Skewed 45° Hangers107-108, 206-207
SMP Fence Post Connectors198
SNP3 Skewed Nail Plate180
SP Speed Prong Hangers ..91, 94-95
Specialty Options206-209

Specification Tools211
SPT Stud Plate Ties73, 210
SPTH Stud Plate Ties73, 210
ST24H Truss Brace & Spacer190
ST Foundation Anchors ...36-37, 210
ST Strap Ties79-80
STAD Foundation Straps49-50
STB Anchor Bolts34-35, 210
STBL Anchor Bolts34-35, 210
STC Scissor Truss Clips186
STS Stud Shoes198
SUH Joist Hangers 91, 94-100, 206-207
SW Top Flange Hangers102-105, 206, 208-209
SWH Top Flange Hangers ...102-105, 206, 208-209
T Hoist Plates202
T Straps77, 210
TA Truss Anchors159-160, 210
TA Foundation Straps50, 210
TAPL Truss Anchors160-161
TAR Truss Anchors159-160
TD Holdowns44-45
TDL Concrete Angles53, 210
TDS Holdowns53
TDX Holdowns44-45, 210
TFI Top Mount Hangers ..126, 132-135, 138-139
TFL Top Mount Hangers .126, 131-134
TH Straps77
THD Face Mount Truss Hangers122-125, 172, 206-207, 210
THDH Face Mount Hangers ..122-125, 173, 206-207
THF Face Mount Hangers121, 123-125, 206-207
THO Top Mount Hangers .126, 130-143
TMP Rafter-To-Plate Connectors ..147
TMPH Rafter-To-Plate Connectors .147
TMU26 Light Slope Hanger ...106, 210
TPP Mending Plates204
TR Roof Truss Ties188
TS Truss Spacer191
TSX Truss Spacers191
UGTS Uplift Girder Ties162-163
UMH Universal Masonry Hangers ..114
UPHD8 Holdown46
USC Uplift Girder Ties162-163
WAS Wet Post Anchors56, 210
WB Wall Bracing197-198
WBC Wall Bracing197-198
WBT Wall Bracing197-198
WE Wet Post Anchors56, 210
WG Concrete Form Wedge35
WS Wood Screws22, 210
WS Wood Screw Applications ..23-25
WT22 Wall Ties202
WUSC Uplift Girder Ties163
ZC Blocking Supports188

New Products

Reference Number Index on next page

About the Reference Numbers

Reference numbers shown throughout the charts in this catalog are part numbers which may be more familiar to customers in various regions of the United States. These are included for the convenience of our new customers who have recently switched from a competitor's product line to USP.

The reference numbers in this catalog are for general application comparison only and should not be used as a substitution tool. The user is responsible to compare specific load values, fastener schedules, material specifications, and other factors to determine suitability of use for any particular product.

A Angle	.53, 71-72, 76
A34, A35 Anchor	.70
AB Post Base	.55
ABE Post Base	.55
ABU Post Base	.55
AC Post Cap	.62
ACE Post Cap	.62
AM Anchormate® Bolt Holder	.32
B Hanger	.103-105, 131, 137-138, 145-146
BC Base	.58
BC Cap	.62
BI Hanger	.135-145
BP Bearing Plate	.26
BT Brick Tie	.202
CB Column Base	.60
CBQ Column Base	.59
CBS Column Base	.59
CBSQ Column Base	.58
CC Column Cap	.65
CCQ Column Cap	.64
CMST Strap	.78
CMSTC Coiled Strap	.78
CPS Composite Standoff	.63
CS Strap	.78
CWB Wall Bracing	.198
DBTZ Deck Tie	.200
DJT Deck Tie	.200
DPT Deck Tie	.200
DS Drywall Stop	.203
DSC Drag Strut Connector	.191
DSP Double Stud Plate	.73
DTC Roof Truss Clip	.188
ECC Column Cap	.65
ECCQ Column Cap	.64
EG Hanger	.150
EPB Post Base	.57
EPC Post Cap	.61
F Hanger	.109
FA Foundation Anchor	.37
FB Fence Bracket	.199
FC Framing Clip	.74
FJA Anchor	.37
FTA Floor Tie Anchor	.83
GB Hanger	.151
GBC Gable Bracing	.169
GH Hanger	.39
GLB Beam Seat	.38
GLBT Beam Seat	.38
GLS Hanger	.155
GLT Hanger	.152
GLTV Hanger	.135-138, 140, 143-146
H Hurricane Ties	.84, 169
HB Hanger	.139
HCA Hinge Connector	.153
HCP Hip Corner Plate	.169
HCST Strap	.154

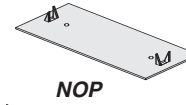
HDA Holdown	.45
HETA Truss Anchor	.160
HETAL Truss Anchor	.161
HFN Hanger	.109
HGA Gusset Angle	.167
HGAM Gusset Angle	.167
HGB Hanger	.151
HGLB Beam Seat	.38
HGLS Hanger	.155
HGLT Hanger	.152
HGLTV Hanger	.135-138, 143-146
HGT Girder Tiedown	.166
HGUS Hanger	.124-125, 173
HH Hanger	.75
HHB Hanger	.151
HHUS Hanger	.124-125, 172
HIT Hanger	.132-134, 139
HL Angle	.75
HL Tie	.76
HPA Purlin Anchor	.52
HPAHD Holdown	.48
HS Hurricane Tie	.169
HSA Strap	.86
HST Strap	.82
HSUR/HSUL Hanger	.108
HT Tie	.77
HTS Twist Strap	.84
HTSM Twist Strap	.85
HTT Tension Tie	.43
HU Hanger	.94-100, 123-125
HUS Hanger	.94-98, 123, 174
HUTF Hanger	.103-105
HW Hanger	.132-133, 136, 140-141, 144
HWI Hanger	.134, 136-139, 144-146
HWU Hanger	.135-138, 143-146
IS Insulation Support	.203
ITT Hanger	.130-134, 136-138
IUS Hanger	.123
IUT Hanger	.123-124
JB Hanger	.103
L Angle	.72
L Strap Tie	.77
LB Hanger	.103
LBOLT Anchor Bolt	.35
LBP Bearing Plate	.26
LBV Hanger	.139-140
LCB Column Base	.60
LCC Lally Column Cap	.64
LEG Hanger	.150
LFTA Floor Tie Anchor	.83
LGT Girder Tiedown	.165
LPC Post Cap	.62
LS Angle	.71
LSSU Hanger	.148
LSTA Strap Tie	.80
LSTHD Holdown	.49
LSTI Strap Tie	.80
LSU Hanger	.106
LTA Truss Anchor	.157
LTB Bridging	.194
LTP Framing Anchor	.70
LTS Twist Strap	.84
LTT/LTTI Tension Tie	.43
LU Hanger	.94-95
LUS Hanger	.94-99
MAB Mudsill Anchor	.37
MAS Mudsill Anchor	.37
MBHA Masonry Hanger	.115
MEG Hanger	.150
META Truss Anchor	.160
MGT Girder Tiedown	.165
MIT Hanger	.132-138, 140-141
MIU Hanger	.123-125
MMLU Hanger	.205

MP Mending Plate	.204
MST Strap Tie	.81
MSTA Strap Tie	.80
MSTC Strap Tie	.81
MSTI Strap Tie	.81
MTHM Hanger	.182
MTS Twist Strap	.84
MTT Tension Tie	.43
Nails	.20
NC Nailless Bridging	.195
NCA Nailless Bridging	.196
NS Nail Stopper	.196
O Ornamental	.77
PA Holdown	.50
PA/PATM Purlin Anchor	.52
PAHD Holdown	.48
PAI Purlin Anchor	.52
PAT Purlin Anchor	.52
PB Post Base	.56
PBS Post Base	.56
PC Post Cap	.61
PF Hanger	.110
PGT Pipe Tie	.199
PHD Holdown	.41
PS Strap	.82
PSCL Sheathing Clip	.203
PSPNZ Protective Plate	.196
RP Retro Plate	.39
RPS Strap Tie	.82
RSP Stud Plate Tie	.73
S/HD Holdown	.53
SA Strap	.86
SDS Screw	.22-25
SP Stud Plate Tie	.73
SPH Stud Plate Tie	.73
SSP Single Stud Plate	.73
SSTB Anchor Bolt	.35
ST Strap Tie	.80
STC Roof Truss Clip	.188
STHD Holdown	.49
SUR/SUL Hanger	.107-108
T Strap Tie	.77
TA Staircase Angle	.201
TB Tension Bridging	.194
TBE Truss Enhancer	.187
TC Truss Connector	.186
THA Hanger	.176-177
THAC Hanger	.176-177
THAI Hanger	.176-177
THGA Hanger	.183
THGB Hanger	.183
THGBH Hanger	.183
THMA Hanger	.184
TJC37 Truss Connector	.180
TP/TPA Tie Plate	.204
TS Twist Strap	.84
TSB Truss Spacer	.190
TSF Truss Spacer	.191
TSS Truss Seat	.157
TWB Wall Bracing	.198
U Hanger	.94-100, 125
VB Knee Brace	.87
W Hanger	.103-105, 130-131, 133-134, 136-139
W Wedge	.35
WB/WBC Wall Bracing	.198
WM Hanger	.113-114, 130-138, 140, 143-146
WNP Hanger	.103-105
WP Hanger	.130-134, 136-146
WPU Hanger	.131
WT Wedge Form Tie	.35
Z Clip	.188

MOISTURE BARRIER PLATESPAGE 157

- **NOP Series**

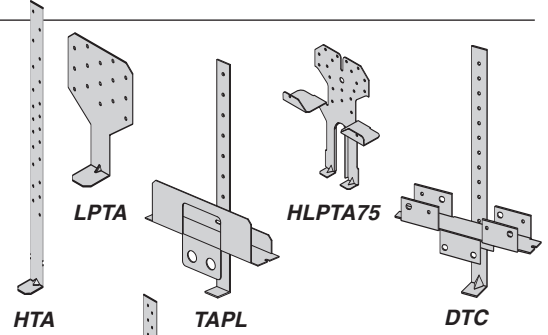
Protects bottom chord of trusses from moisture damage.



EMBEDDED TRUSS ANCHORS PAGES 157-161

- **LPTA Series & HLPTA75**

Low profile truss anchors provide uplift and lateral load resistance.



- **HTA, TA, & TAR Series**

Strap truss anchor provides uplift and lateral load resistance.

- **TAPL Series & DTC**

Strap truss anchor provides uplift and higher lateral load resistance.

STRAP TRUSS TIEDOWNSPAGE 161

- **SGP Series**

Strap truss anchor bolts to concrete or wood.



UPLIFT GIRDER TIESPAGES 162-164

- **RUSC**

Retrofit Strap Connector provides a wood-to-wood uplift connection with WS Wood Screws.

- **UGTS & USC Series**

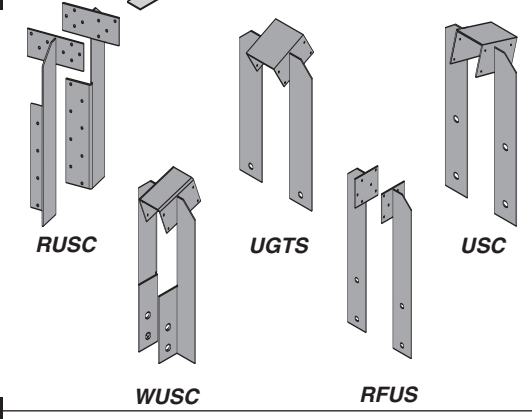
Wraparound truss anchor mechanically fastens into the face of masonry or concrete.

- **WUSC Series**

Wraparound truss anchor bolts to wall studs.

- **RFUS**

Retrofit truss anchor installed mechanically fastens into the face of masonry or concrete.



GIRDER TIEDOWNSPAGES 164-166

- **LUGT Series**

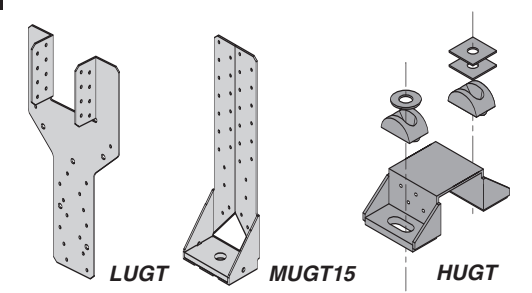
Light capacity girder truss anchor nails to the truss/rafter and the stud. Can also be used for masonry applications.

- **MUGT15**

Medium capacity girder truss anchor wraps over the top chord and bolts to the concrete or tension tie.

- **HUGT Series**

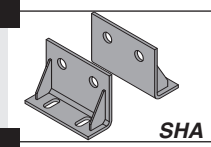
Heavy capacity girder truss anchor installs over the top chord and bolts to the concrete or tension tie.



MASONRY UPLIFT CONNECTORS . . .PAGE 166

- **SHA Series**

Heavy capacity uplift connector bolts both to the truss and masonry.



HURRICANE GUSSET ANGLESPAGES 167

- **HGA Series**

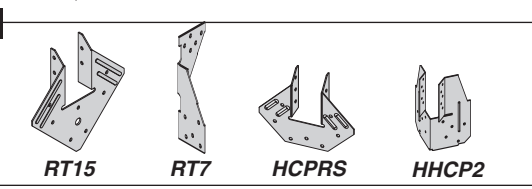
Connects gable trusses to top plates.



HURRICANE/SEISMIC ANCHORSPAGES 167-169

- **HC520, HCPRS, HHCP2, & RT Series**

Top plate to truss anchors.



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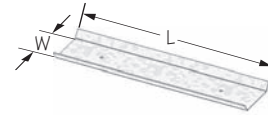
Moisture Barrier Plates protect the bottom chords of trusses from moisture damage caused by direct contact with concrete. These plates eliminate the need for more expensive treated wood plates.

Materials: See chart
Finish: G90 galvanizing

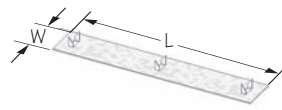
Installation:

- Use all specified fasteners. See Product Notes, page 16.
- Pre-attach to truss bottom chord or rafter using pre-punched prongs and/or 6d common nails to prevent wood-to-concrete contact.

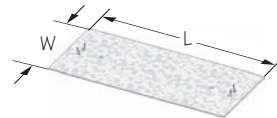
Size	USP Stock No.	Ref. No.	Steel Gauge	Dimensions		Fastener Schedule
				W	L	
2x	NOP2X	---	26	1-7/16	8	---
2x	NOP1	TSS2	22	1-1/2	8	(2) 6d
4x	NOP4	---	26	3-1/2	8	(2) 6d



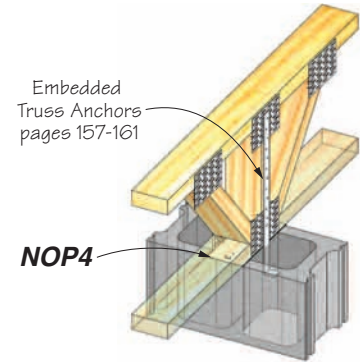
NOP1



NOP2X



NOP4



Typical NOP4 installation

EMBEDDED TRUSS ANCHORS – LPTA SERIES

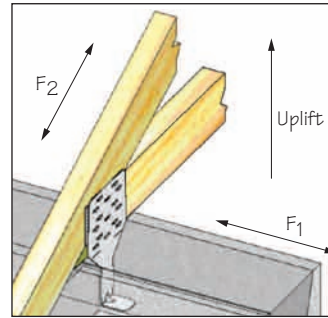
LPTA – Low profile design attaches to 2 x 4 or larger bottom chords and provides uplift and lateral load resistance.

LPTA-S – Features a slotted hole design which allows up to 3/4" horizontal movement when attaching to scissor trusses.

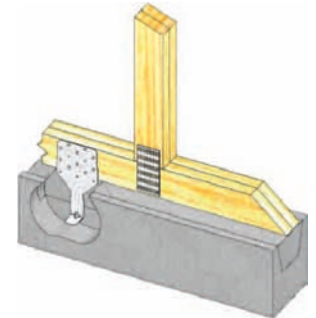
Materials: 18 gauge
Finish: G90 galvanizing
Codes: SBCCI 2031C, FL859-R1

Installation:

- Use all specified fasteners. See Product Notes, page 16.
- Embed LPTA & LPTA-S 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.**



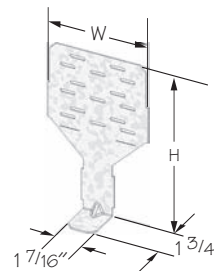
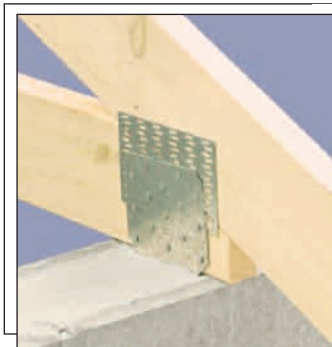
Typical LPTA-S installation



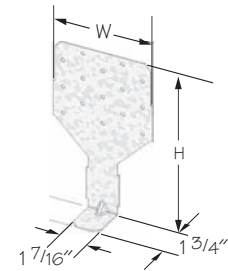
Typical LPTA installation

USP Stock No.	Ref. No.	Steel Gauge	Dimensions		Fastener Schedule ²	Allowable Loads (Lbs.)								
			W	H		Min Qty. ³	DF-L / SP		S-P-F		F1		F2	
							Uplift ¹		Uplift ¹		133%	160%	133%	160%
LPTA	LTA1	18	5	8-1/4	(10) 10d x 1-1/2	1250	1250	1250	1250	810	810	1500	1500	
LPTA-S	---	18	5	8-1/4	(11) 10d x 1-1/2	1250	1250	1250	1250	520	520	---	---	

1) Uplift loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
 2) 10d x 1-1/2 nails are 9 gauge (0.148" diameter) by 1-1/2" long.
 3) Minimum quantity of fasteners to be installed. Product may have additional nail holes not needed to meet published allowable load of product.



LPTA-S



LPTA

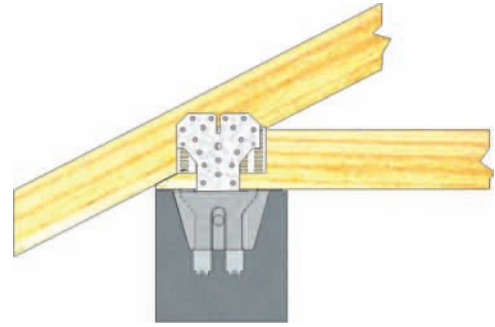
The HLPTA75 is designed and tested to provide higher lateral capacity and net uplift. Offers greater pullout resistance and is compatible with bond beam reinforcing.

- Materials:** 18 gauge
Finish: G90 galvanizing
Codes: Dade County, FL 03-0508.04, FL1247, FL2621R-1
Patent: Pending

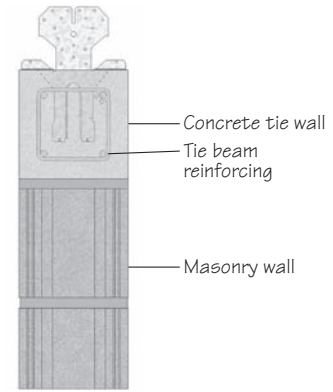
Installation:

- Use all specified fasteners. See Product Notes, page 16.
- 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.
- Grout or concrete compressive strength shall be 2,000 psi at 28 days.
- 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.

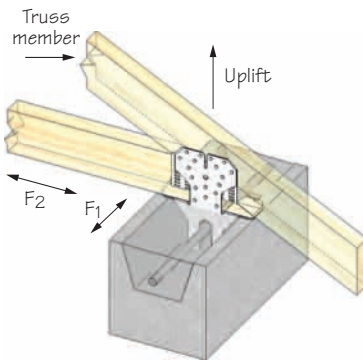
Truss & Rafter



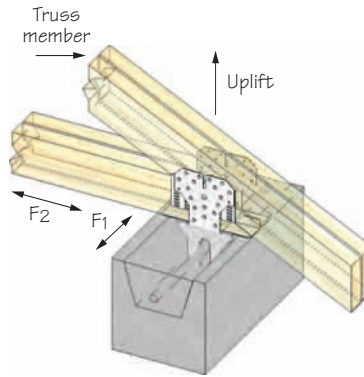
Typical HLPTA75 single rebar installation



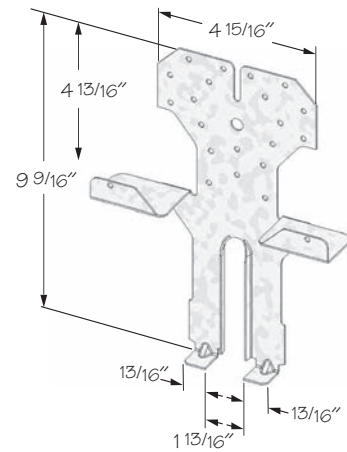
Typical HLPTA75 double rebar installation



Typical HLPTA75 single anchor installation



Typical HLPTA75 double anchor installation



HLPTA75

USP Stock No.	Ref. No.	Steel Gauge	Installation Type	Fastener Schedule ²		Allowable Loads (Lbs.) ¹							
				Seat Plate	Truss/Rafter	DF-L / SP				S-P-F			
						F1	F2	Uplift		F1	F2	Uplift	
						133%	133%	133%	160%	133%	133%	133%	160%
HLPTA75	--	18	Single Anchor	(2) 10d x 1-1/2	(20) 10d x 1-1/2	1860	1715	2125	2125	1860	1160	2105	2125
			Double Anchor	--	(40) 10d x 1-1/2	2040	2100	3500	3500	2040	2100	3500	3500

1) Allowable loads have been increased 33-1/3% or 60% for wind and seismic loads; no further increase shall be permitted.
 2) 10d x 1-1/2 nails are 9 gauge (0.148" diameter) by 1-1/2" long.

HTA – Offers a higher capacity alternative to the TA model with two rows of nails.

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: HTA-18 – 18 gauge; HTA – 16 gauge;
TA & TAR – 14 gauge

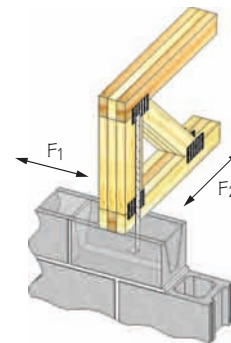
Finish: G90 galvanizing

Options: HTA20, HTA24, TA20, and TA24 are available in Triple Zinc. To order, add TZ to stock number, as in **HTA20-TZ**.

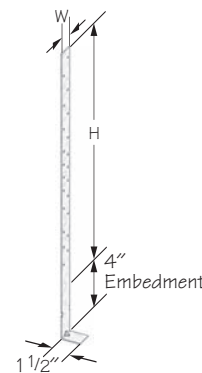
Codes: NER 608, SBCCI 2031C, FL572R-1, FL821, FL859R-1, Dade County, 01-0912.05 — TA & TAR series

Installation:

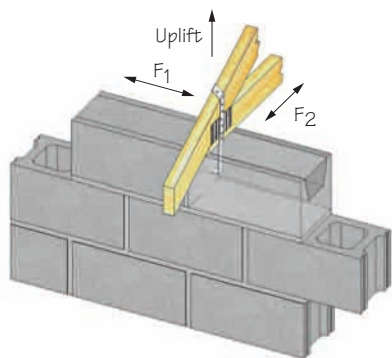
- Use all specified fasteners. See Product Notes, page 16.
- Embed 4" into concrete tie beam or masonry bond beam.
- **For double anchor installations:** anchors should be installed on opposite sides of wood member and centered in masonry bond beam.
- Designer may specify alternative nailing schedules. Refer to Nail Specification table on page 20 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.
- **Moisture barrier may be required for HTA and TA installations.**



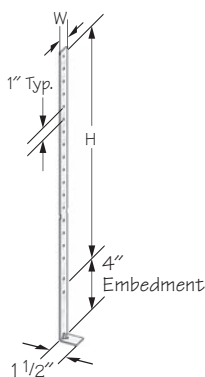
Typical HTA24-18 installation



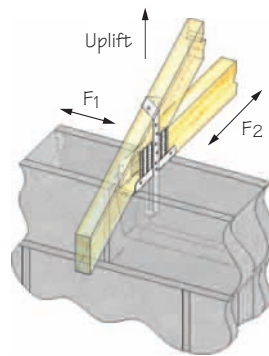
HTA24-18



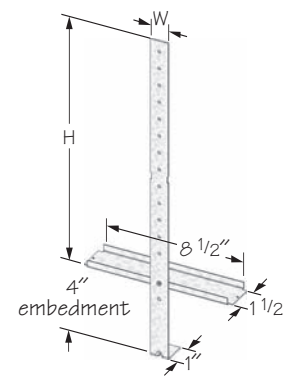
Typical TA18 installation



TA24



Typical TA16R installation



TA20R

continued on next page

USP Stock No. ⁵	Ref. No.	W	Out of Concrete H	Single Anchor									Double Anchor										
				Fastener Schedule ^{3,5}	Allowable Loads (Lbs.) ^{1,7}						Fastener Schedule ^{3,5}	Allowable Loads (Lbs.) ^{1,7}											
					Uplift			Lateral Loads				Uplift			Lateral Loads								
					Min Qty. ⁸	DF-L / SP	S-P-F	F1	F2	133%/160%		Min Qty. ⁸	DF-L / SP	S-P-F	F1	F2	133%/160%						
				Per Anchor	1 Ply		1 Ply		133%/160%	Per Anchor	1 Ply		2 Ply or >		1 Ply		2 Ply or >		133%/160%				
133%	160%	133%	160%		133%	160%	133%	160%			133%	160%											
HTA16-18	META16	1-1/4	12	(10) 10d x 1-1/2	1400	1400	1305	1400	395	395	325	(10) 10d x 1-1/2	2800	2800	2800	2800	2610	2800	2610	2800	790	790	650
HTA20-18	META20	1-1/4	16	(10) 10d x 1-1/2	1400	1400	1305	1400	395	395	325	(10) 10d x 1-1/2	2800	2800	2800	2800	2610	2800	2610	2800	790	790	650
HTA24-18	META24	1-1/4	20	(10) 10d x 1-1/2	1400	1400	1305	1400	395	395	325	(10) 10d x 1-1/2	2800	2800	2800	2800	2610	2800	2610	2800	790	790	650
HTA12	HETA12	1-1/4	8	(8) 10d x 1-1/2	1330	1600	1055	1265	590	590	660	(8) 10d x 1-1/2	2660	3200	2660	3200	2110	2530	2110	2530	1180	1180	1320
HTA16	HETA16	1-1/4	12	(10) 10d x 1-1/2	1615	1615	1315	1585	590	590	660	(10) 10d x 1-1/2	3230	3230	3230	3230	2630	3170	2630	3170	1180	1180	1320
HTA20	HETA20	1-1/4	16	(10) 10d x 1-1/2	1615	1615	1315	1585	590	590	660	(10) 10d x 1-1/2	3230	3230	3230	3230	2630	3170	2630	3170	1180	1180	1320
HTA24	HETA24	1-1/4	20	(10) 10d x 1-1/2	1615	1615	1315	1585	590	590	660	(10) 10d x 1-1/2	3230	3230	3230	3230	2630	3170	2630	3170	1180	1180	1320
HTA48	---	1-1/4	42-1/2	(10) 10d x 1-1/2	1615	1615	1315	1585	590	590	660	(10) 10d x 1-1/2	3230	3230	3230	3230	2630	3170	2630	3170	1180	1180	1320
TA12	---	1	6-3/4	(5) 10d x 1-1/2	825	990	660	790	245	245	335	(5) 10d x 1-1/2	1650	1980	1650	1980	1320	1580	1320	1580	490	490	670
TA14	---	1	8-3/4	(7) 10d x 1-1/2	1155	1205	920	1110	245	245	335	(7) 10d x 1-1/2	2310	2410	2310	2410	1840	2220	1840	2220	490	490	670
TA14R	---	1	8-3/4	(7) 10d x 1-1/2	1155	1205	920	1110	245	245	335	(7) 10d x 1-1/2	2310	2410	2310	2410	1840	2220	1840	2220	490	490	670
TA16	---	1	10-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670
TA16R	---	1	10-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670
TA18	---	1	12-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670
TA18R	---	1	12-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670
TA20	---	1	14-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670
TA20R	---	1	14-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670
TA22	---	1	16-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670
TA22R	---	1	16-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670
TA24	---	1	18-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670
TA24R	---	1	18-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670
TA36	---	1	30-3/4	(8) 10d x 1-1/2	1205	1205	1055	1205	245	245	335	(8) 10d x 1-1/2	2410	2410	2410	2410	2110	2410	2110	2410	490	490	670

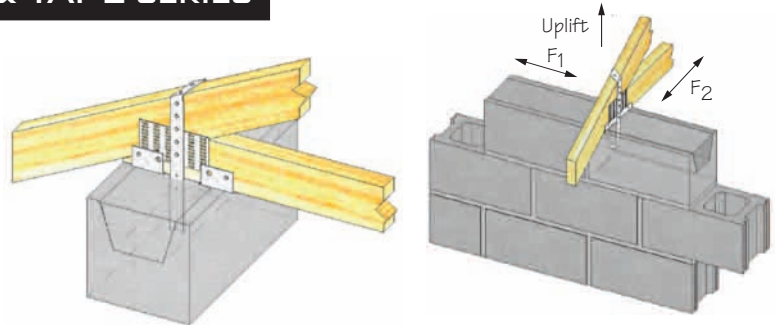
- 1) Allowable loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
 - 2) Anchors are installed on opposite sides of the wood member, centered in masonry bond beam.
 - 3) Minimum nail penetration shall be 1-1/2" for 10d nails.
 - 4) Grout or concrete compressive strength shall be 2500 psi or greater at 28 days.
 - 5) 10d x 1-1/2 nails are 9 gauge (0.148" diameter) by 1-1/2" long.
 - 6) "R" after TA models indicates riveted truss anchors as in TA12R.
 - 7) Allowable loads require a No. 4 rebar through the shear cones of the anchors.
 - 8) Minimum quantity of fasteners to be installed. Product may have additional nail holes not needed to meet published allowable load of product.
- New products or updated product information are designated in red.

EMBEDDED TRUSS ANCHORS – DTC & TAPL SERIES

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

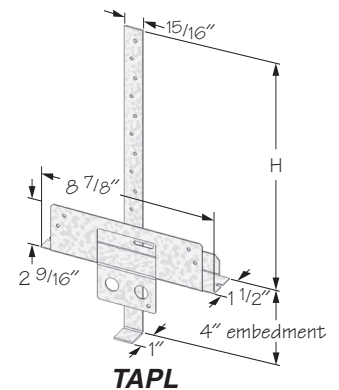
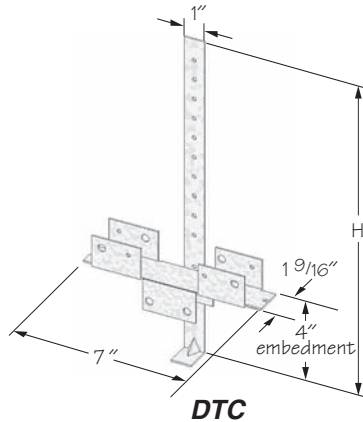
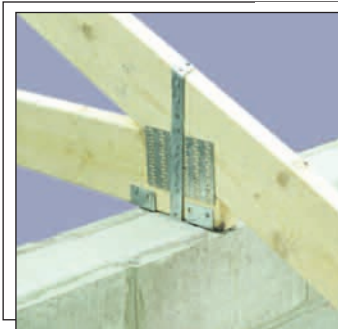
- Materials:** 14 gauge
Finish: G90 galvanizing
Codes: Dade County, FL 06-1026.07 – TAPL series, FL1777, Dade County, FL 06-0831.04 – DTC

- Installation:**
- Use all specified fasteners. See Product Notes, page 16.
 - Embed 4" into concrete tie beam or masonry bond beam.
 - Installations should be spaced no closer together than 8" center-to-center.



Typical DTC installation

Typical TAPL16 installation



continued on next page

USP Stock No.	Ref. No.	Steel Gauge	Dimensions		Fastener Schedule ^{2,3}		Allowable Loads (Lbs.) ¹						
			Out of Concrete	Seat Plate	Truss/Rafter	DF-L / SP				S-P-F			
						F1		F2		F1		F2	
			H			133%/160%	133%/160%	133%	160%	133%/160%	133%/160%	133%	160%
TAPL12	HETAL16	14	12	(6) 10d x 1-1/2	(11) 10d	595	880	1385	1385	595	880	1385	1385
TAPL16	HETAL20	14	16	(6) 10d x 1-1/2	(13) 10d	595	880	1385	1385	595	880	1385	1385
DTC	HETAL12	14	12-3/4	(4) 10d x 1-1/2	(9) 10d	680	1200	1410	1410	680	1200	1410	1410

- 1) Allowable loads have been increased 33-1/3% or 60% for wind and seismic loads; no further increase shall be permitted.
- 2) Minimum nail penetration shall be 1-1/2" for 10d nails.
- 3) 10d x 1-1/2 nails are 9 gauge (0.148" diameter) by 1-1/2" long.

STRAP TRUSS TIEDOWNS – SGP SERIES

SGP Strap Truss Tiedowns provide strong wood-to-wood or wood-to-masonry connections for retrofit or new construction. Ideal for anchoring trusses to foundations in seismic or high wind regions.

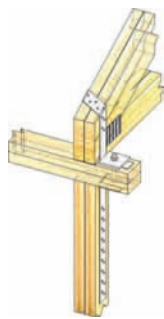
Materials: See chart

Finish: G90 galvanizing

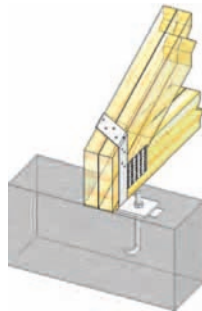
Codes: NER 510, Dade County, FL 06-1026.07, FL818, FL576R-1

Installation:

- Use all specified fasteners to attach the strap portion of the connector to the side of the stud, post, joist, purlin, or beam.
- Secure the base to the concrete or masonry wall with specified anchor bolt. A design professional shall specify the type, length, and embedment of the anchor bolt.
- Connectors must be mounted flush to the surface of the mudsill.
- SGP series include load transfer plates; no washers are required.
- Allowable loads are based on either nail or bolt fastening; nail and bolt values cannot be combined.
- Washers are not required on the transfer plate that fits over the anchor bolt.
- **Moisture barrier may be required.**



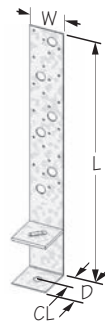
Typical SGP2 wood-to-wood installation



Typical SGP2 wood-to-masonry installation



SGP2



SGP3

USP Stock No.	Ref. No.	Steel Gauge		Dimensions				Fastener Schedule		Allowable Loads (Lbs.) ^{1,5}				
		Strap	Plate	W	L	D	CL	Anchor Bolts ⁴	Strap		DF-L / SP			
									Nails ²	Bolts ^{3,7}	Uplift			
											Nails		Bolts	
133%	160%	133%	160%											
SGP2	---	14	1/4	1-5/8	18-1/4	4	1-1/2	(1) 1/2	(14) 10d	---	1455	1455	---	---
									(14) 16d	---	1455	1455	---	---
SGP3	---	14	1/4	3	18	3	1-1/2	(1) 5/8	(24) 10d	(6) 1/2	2405	2405	2065	2065
									(24) 16d	(6) 1/2	2405	2405	2065	2065

- 1) Allowable loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
- 2) Minimum nail penetration shall be 1-1/2" for 10d and 1-5/8" for 16d nails.
- 3) Bolts require a minimum penetration of 1-1/2" for the listed loads.
- 4) The designer must specify anchor bolt type, length and embedment.
- 5) Allowable loads are based on the use of either nails or bolts; nail and bolt values cannot be combined.
- 6) SGP base shall be installed flush to the plate.
- 7) Bolts shall conform to ASTM A 307 or better.

Bolts must be ordered separately. See page 26 for available sizes.

The RUSC Retro Uplift Strap Connector provides a wood-to-wood uplift connection attaching trusses with a 2 x 4 bottom chord to a double stud in the wall below. WS3 Wood Screws are utilized for fast installation. The connector can be installed after roof sheathing has been installed.

Materials: 10 gauge
Finish: USP primer
Codes: FL6223

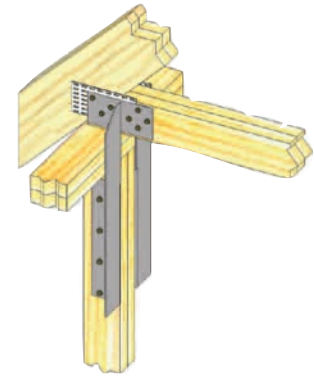
Installation:

- Use all specified fasteners. See Product Notes, page 16.
- **The RUSC should be installed in pairs.**
- Install on minimum 2 ply with equal wall studs centered directly below.
- Works with 2 x 4 bottom chord member and 2 x 4 wall studs.

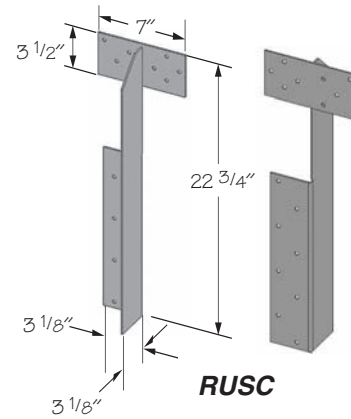
Truss & Rafter

USP Stock No.	Ref. No.	Steel Gauge	No. of Plys ⁶	Fastener Schedule ^{4,5}		Allowable Loads (Lbs.) ¹			
				Rafters/Truss	Stud	DF-L / SP		S-P-F	
						Uplift ^{2,3}		Uplift ^{2,3}	
						133%	160%	133%	160%
RUSC	--	10	2 Ply or greater	(16) WS3	(16) WS3	6040	6040	5225	5225

- 1) Allowable loads are based on the 1997 NDS® and are for a pair of RUSC devices.
- 2) Uplift loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
- 3) Designer must specify stud or post to resist published load values.
- 4) WS3 Wood Screws are 1/4" x 3" long and are included with RUSC connectors.
- 5) Fastener schedule is for two straps used together. The RUSC shall be installed in pairs with a minimum 2 ply truss and wall stud attachment.
- 6) Truss plys shall be fastened together to act as a unit.



Typical RUSC installation



RUSC

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UPLIFT GIRDER TIES – UGTS & USC SERIES

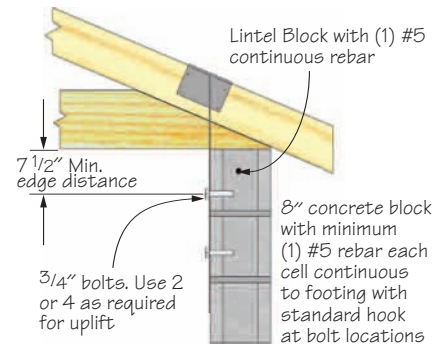
UGTS – 2-bolt shorter design when space is limited.

USC – 4-bolt high load design.

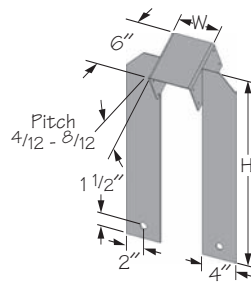
Materials: 10 gauge
Finish: USP primer
Codes: Dade County, FL 03-0219.02 – UGTS series, FL2033, FL2620

Installation:

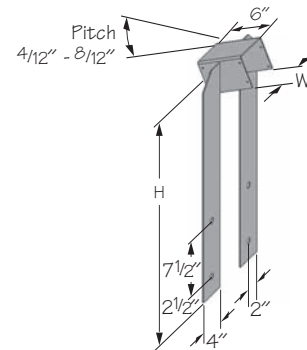
- Use all specified fasteners. See Product Notes, page 16.
- Bolts must be ordered separately.
- Place connector over truss or rafter and fasten with specified fasteners.
- Designer shall be responsible for design of masonry structure, including any required reinforcement.
- For 2 ply applications, add filler block.
- Works with heel heights up to 14".
- **Moisture barrier may be required.**



Typical USC53 installation UGTS similar



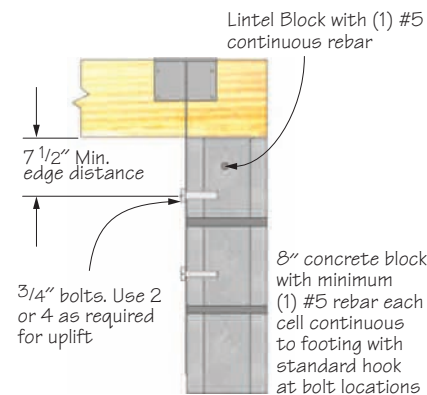
UGTS63



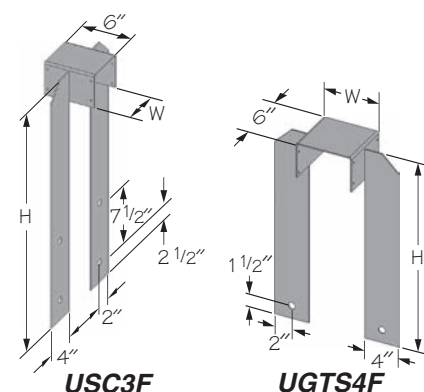
USC53

continued on next page

Description	USP Stock No.	Ref. No.	Steel Gauge	Dimensions		Fastener Schedule ^{2,3,4}		Allowable Loads (Lbs.)	
				W	H	Rafter/Truss ⁵	Concrete/Masonry Wall	DF-L / SP	
								Uplift ¹	
3 Ply Flat	UGTS3F	---	10	4-3/4	23	(8) 16d	(2) 3/4	6170	6170
	USC3F	---	10	4-3/4	30-1/2	(8) 16d	(2) 3/4	6170	6170
						(8) 16d	(4) 3/4	11150	11150
4 Ply Flat	UGTS4F	---	10	6-1/2	23	(8) 16d	(2) 3/4	6170	6170
	USC4F	---	10	6-1/2	30-1/2	(8) 16d	(2) 3/4	6170	6170
						(8) 16d	(4) 3/4	11150	11150
4/12 pitch	UGTS43	---	10	4-3/4	23	(8) 16d	(2) 3/4	6170	6170
	UGTS44	---	10	6-1/2	23	(8) 16d	(2) 3/4	6170	6170
	USC43	---	10	4-3/4	30-1/2	(8) 16d	(2) 3/4	6170	6170
						(8) 16d	(4) 3/4	11150	11150
USC44	---	10	6-1/2	30-1/2	(8) 16d	(2) 3/4	6170	6170	
					(8) 16d	(4) 3/4	11150	11150	
5/12 pitch	UGTS53	---	10	4-3/4	23	(8) 16d	(2) 3/4	6170	6170
	UGTS54	---	10	6-1/2	23	(8) 16d	(2) 3/4	6170	6170
	USC53	---	10	4-3/4	30-1/2	(8) 16d	(2) 3/4	6170	6170
						(8) 16d	(4) 3/4	11150	11150
USC54	---	10	6-1/2	30-1/2	(8) 16d	(2) 3/4	6170	6170	
					(8) 16d	(4) 3/4	11150	11150	
6/12 pitch	UGTS63	---	10	4-3/4	23	(8) 16d	(2) 3/4	6170	6170
	UGTS64	---	10	6-1/2	23	(8) 16d	(2) 3/4	6170	6170
	USC63	---	10	4-3/4	30-1/2	(8) 16d	(2) 3/4	6170	6170
						(8) 16d	(4) 3/4	11150	11150
USC64	---	10	6-1/2	30-1/2	(8) 16d	(2) 3/4	6170	6170	
					(8) 16d	(4) 3/4	11150	11150	
7/12 pitch	UGTS73	---	10	4-3/4	23	(8) 16d	(2) 3/4	6170	6170
	UGTS74	---	10	6-1/2	23	(8) 16d	(2) 3/4	6170	6170
	USC73	---	10	4-3/4	30-1/2	(8) 16d	(2) 3/4	6170	6170
						(8) 16d	(4) 3/4	11150	11150
USC74	---	10	6-1/2	30-1/2	(8) 16d	(2) 3/4	6170	6170	
					(8) 16d	(4) 3/4	11150	11150	
8/12 pitch	UGTS83	---	10	4-3/4	23	(8) 16d	(2) 3/4	6170	6170
	UGTS84	---	10	6-1/2	23	(8) 16d	(2) 3/4	6170	6170
	USC83	---	10	4-3/4	30-1/2	(8) 16d	(2) 3/4	6170	6170
						(8) 16d	(4) 3/4	11150	11150
USC84	---	10	6-1/2	30-1/2	(8) 16d	(2) 3/4	6170	6170	
					(8) 16d	(4) 3/4	11150	11150	



Typical **USC3F** installation
UGTS similar



Bolts must be ordered separately. See page 26 for available sizes.

UPLIFT GIRDER TIES – WUSC SERIES

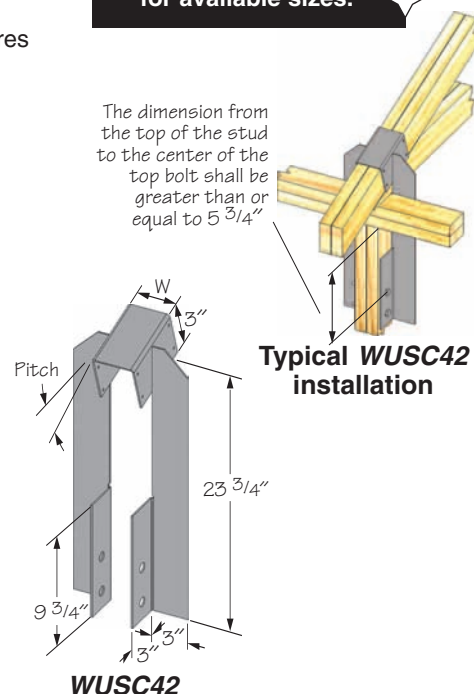
WUSC series provides designers a wood-to-wood uplift connection that secures trusses or rafters directly to wall studs. Works with heel heights up to 11".

Materials: See chart
Finish: USP primer

Installation:

- Use all specified fasteners. See Product Notes, page 16.

Description	USP Stock No.	Ref. No.	Steel Gauge	Dimensions		Fastener Schedule		Allowable Loads (Lbs.)	
				W	Rafter/Truss	Stud ³	DF-L / SP		
							Uplift ^{1,2}		
4/12 pitch	WUSC42	---	10	3-1/4	(8) 10d	(2) 3/4	8180	8520	
	WUSC43	---	10	4-3/4	(8) 10d	(2) 3/4	8180	9815	
	WUSC44	---	10	6-1/2	(8) 10d	(2) 3/4	8180	9815	
5/12 pitch	WUSC52	---	10	3-1/4	(8) 10d	(2) 3/4	8180	8520	
	WUSC53	---	10	4-3/4	(8) 10d	(2) 3/4	8180	9815	
	WUSC54	---	10	6-1/2	(8) 10d	(2) 3/4	8180	9815	
6/12 pitch	WUSC62	---	10	3-1/4	(8) 10d	(2) 3/4	8180	8520	
	WUSC63	---	10	4-3/4	(8) 10d	(2) 3/4	8180	9815	
	WUSC64	---	10	6-1/2	(8) 10d	(2) 3/4	8180	9815	
7/12 pitch	WUSC72	---	10	3-1/4	(8) 10d	(2) 3/4	8180	8520	
	WUSC73	---	10	4-3/4	(8) 10d	(2) 3/4	8180	9815	
	WUSC74	---	10	6-1/2	(8) 10d	(2) 3/4	8180	9815	
8/12 pitch	WUSC82	---	10	3-1/4	(8) 10d	(2) 3/4	8180	8520	
	WUSC83	---	10	4-3/4	(8) 10d	(2) 3/4	8180	9815	
	WUSC84	---	10	6-1/2	(8) 10d	(2) 3/4	8180	9815	



- 1) Uplift loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
- 2) Designer must specify stud or post to resist published load values.
- 3) Bolts shall conform to ASTM A 307 or better.
- 4) Minimum nail penetration shall be 1-1/2" for 10d nails.

The RFUS is a multi-purpose engineered solution for attaching trusses to concrete or masonry walls. Wedgebolt™ fastening eliminates mislocated cast-in-place anchor bolts and allows retrofit installations. Works with heel heights up to 14".

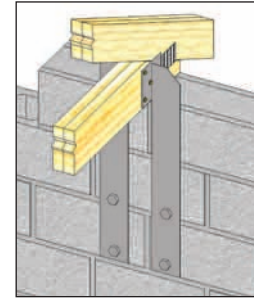
Materials: 10 gauge
Finish: USP primer
Codes: FL6223

Installation:

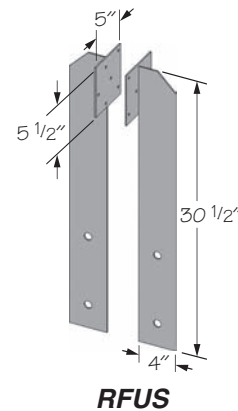
- Always install in pairs.
- Use all specified fasteners. See Product Notes, page 16.
- Designer shall be responsible for design of masonry structure, including any required reinforcement.
- For 1 ply applications, add filler block. Refer to page 192 for wood filler block installation.
- Moisture barrier may be required.

USP Stock No.	Ref. No.	Steel Gauge	No. of Plys ⁷	Fastener Schedule ^{4,6}		Allowable Loads (Lbs.) ¹	
				Rafter/ Truss ⁸	Concrete/ Masonry ^{3,5}	DF-L / SP	
						Uplift ²	
RFUS	-- --	10	2 Ply or greater	(12) WS3	(4) 3/4" x 6" Wedge Bolts	4950	5940

1) Allowable loads are based on the 1997 NDS®.
 2) Uplift loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
 3) Use Powers Fasteners 3/4" x 6" Wedge Bolts; or equal, installed in accordance with manufacturer's specifications.
 4) Fasteners shall be installed to fully grouted and reinforced concrete masonry or reinforced concrete (f'c = 2000 psi at 28 days).
 5) Bolts shall conform to ASTM A 307 or better.
 6) Fastener schedule is for two straps used together. The straps shall be installed in pairs.
 7) Truss plys shall be fastened together to act as a unit.
 8) WS3 Wood Screws are 1/4" x 3" long and are supplied with RFUS connector.



Typical RFUS installation



RFUS

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GIRDER TIEDOWNS – LUGT SERIES

Designed to provide light load alternatives for girder trusses in retrofit and new construction.

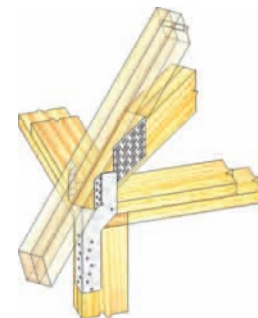
LUGT2 – Install on either the inside or outside of wall.

LUGTC2 – For corner hip applications.

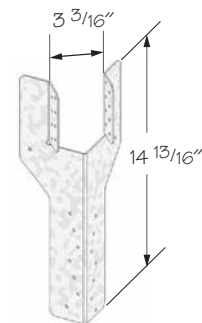
Materials: 14 gauge
Finish: G90 galvanizing
Codes: NER 564, FL817, Dade County, FL 03-0219.02 – LUGT2

Installation:

- Use all specified fasteners. See Product Notes, page 16.
- All nail holes must be filled with specified nails to achieve loads listed in chart. Large holes are for alternative masonry installation and do not need to be filled when used for girder-to-stud application.
- LUGT2 may be installed on either the inside or outside of wall.
- Moisture barrier may be required.

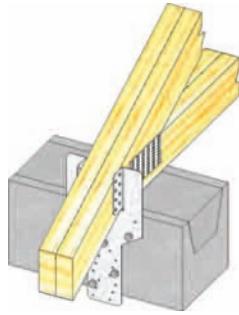


Typical LUGTC2 installation

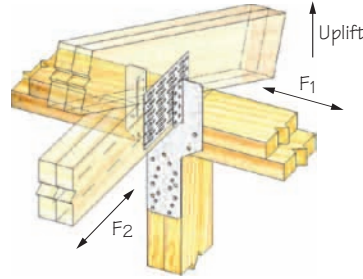


LUGTC2

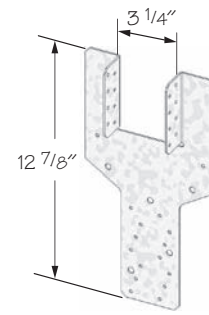
continued on next page



Typical LUGT2 masonry installation



Typical LUGT2 wood installation



LUGT2

USP Stock No.	Ref. No.	Steel Gauge	Fastener Schedule ³			Allowable Loads (Lbs.) ^{1,2}											
			Rafter/Truss	Plate	Stud ^{4,5,6}	DF-L / SP			S-P-F								
						F1	F2	Uplift	F1	F2	Uplift						
						133%	160%	133%	160%	133%	160%	133%	160%				
LUGT2	LGT2	14	(16) 10d	(2) 10d	(14) 10d	1015	1015	440	440	2260	2260	875	875	285	285	1945	1945
LUGTC2	---	14	(16) 10d	(2) 10d	(14) 10d	575	575	---	---	2260	2260	500	500	---	---	1945	1945
Masonry Application																	
LUGT2	LGT2	14	(16) 10d	---	(5) 1/4" x 3" Wedge Bolts	1220	1220	460	460	1850	1850	1220	1220	460	460	1850	1850

- 1) Allowable loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
- 2) Listed loads apply where roof pitch is between 3:12 and 8:12.
- 3) Additional anchorage products to be designed by others.
- 4) Use Powers Fasteners 1/4" x 3" Wedge-Bolt® or equal, installed in accordance with manufacturer's specifications.
- 5) Fasteners shall be installed to fully grouted and reinforced concrete masonry (f_m = 1500 psi at 28 days) or reinforced concrete (f_c = 2000 psi at 28 days).
- 6) Minimum nail penetration shall be 1-1/2" for 10d nails.

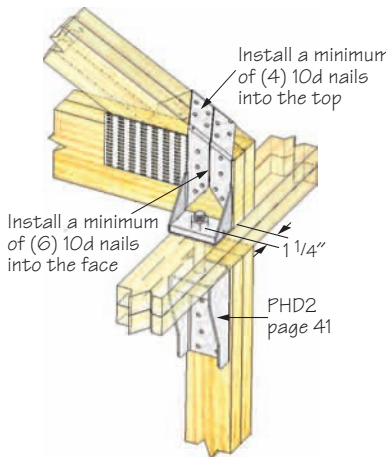
GIRDER TIEDOWN – MUGT 15

Designed for higher uplift resistance for wood frame and concrete block construction. The MUGT15 can accommodate variable truss bearing depths.

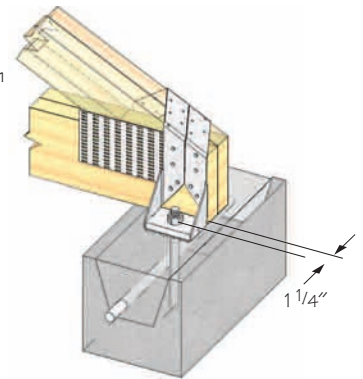
Materials: 12 gauge
Finish: G90 galvanizing
Codes: ICC-ES ESR-1178, FL3923R-1

Installation:

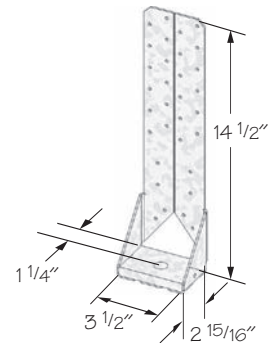
- Use all specified fasteners. See Product Notes, page 16.
- When straps are wrapped over the truss, install nails in backside of truss. See MUGT15 installation diagram for minimum nail requirements into the face and on top of the truss.
- If installed straight-up with no wrap over the top of the truss, fill all nail holes.
- **Moisture barrier may be required.**



Typical MUGT15 wood installation with PHD2



Typical MUGT15 concrete installation



MUGT15

USP Stock No.	Ref. No.	Steel Gauge	Installation Type	Fastener Schedule ^{2,3}		Allowable Loads (Lbs.) ¹			
				Threaded Rod	Girder ³	DF-L / SP		S-P-F	
						133%	160%	133%	160%
MUGT15	MGT	12	Wood	(1) 5/8	(22) 10d	4165	4165	3150	3335
			Concrete	(1) 5/8	(22) 10d	4165	4165	3150	3335

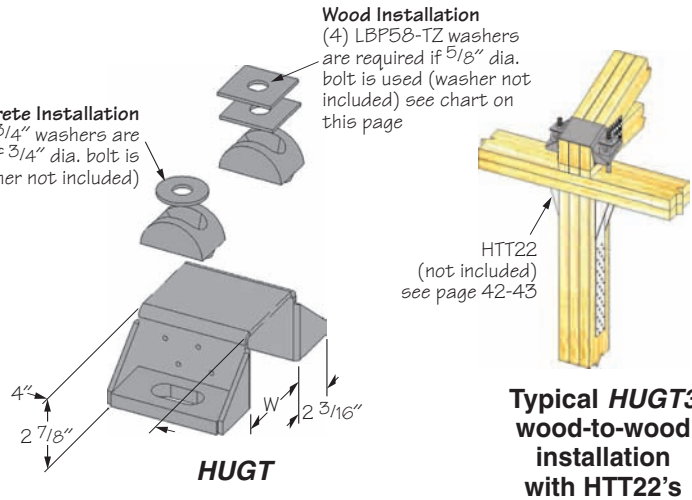
- 1) Allowable loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
- 2) Additional anchorage products to be designed by others.
- 3) Minimum nail penetration shall be 1-1/2" for 10d nails.
- 4) Designer must specify anchor bolt type, length, and embedment.

The HUGT series high uplift girder tiedowns can be installed on beams and top chords of trusses with slopes from 3:12 (14°) to 8:12 (33.7°).

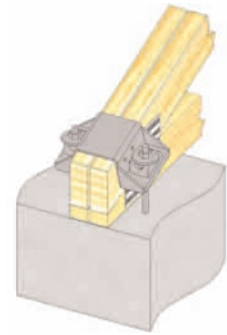
Materials: 7 gauge
Finish: USP primer
Codes: FL6223

Installation:

- Use all specified fasteners. See Product Notes, page 16.
- Install the HUGT over the beam or truss (see “W” dimension on chart for appropriate width).
- Install (4) LBP58-TZ washers if (2) 5/8” tension bolts are used (wood installation) or (2) 3/4” dia. washers if a 3/4” dia. anchor bolt is used (concrete installation).
- Attached members shall be designed to resist applied loads.
- **Moisture barrier may be required.**



Typical HUGT3 wood-to-wood installation with HTT22's



Typical HUGT2 wood-to-concrete installation

USP Stock No.	Ref. No.	Steel Gauge	W	O.C. Dim Between Anchors	Fastener Schedule ³			Allowable Loads (Lbs.) ^{1,2}				
					Installation Type	Anchor Washers	Threaded Rod	Girder ⁴	DF-L / SP		S-P-F	
									133%	160%	133%	160%
HUGT2	HGT-2	7	3-5/16	5-3/4	Wood	(4) LBP58-TZ	(2) 5/8	(8) 10d	9445	9790	6730	7020
					Concrete	---	(2) 3/4					
HUGT3	HGT-3	7	4-15/16	7-3/8	Wood	(4) LBP58-TZ	(2) 5/8	(8) 10d	9860	9860	9355	9650
					Concrete	---	(2) 3/4					
HUGT4	HGT-4	7	6-7/8	9	Wood	(4) LBP58-TZ	(2) 5/8	(8) 10d	9860	9860	9860	9860
					Concrete	---	(2) 3/4					

1) Allowable loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
2) Listed loads apply where roof pitch is between 3:12 and 8:12.
3) Additional anchorage products to be designed by others.
4) Minimum nail penetration shall be 1-1/2" for 10d nails.
5) Designer must specify anchor bolt type, length, and embedment.

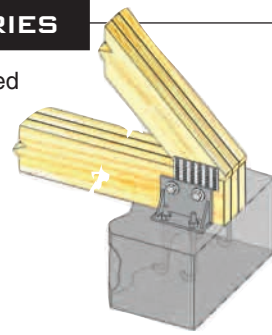
MASONRY UPLIFT CONNECTORS – SHA SERIES

Connects trusses directly to masonry or concrete and features slotted base holes to ease installation.

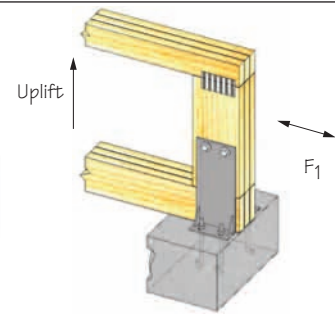
Materials: Angle – 3 gauge; Gussets – 10 gauge
Finish: USP primer
Codes: SBCCI 2031C, FL859R-1

Installation:

- Use all specified fasteners. See Product Notes, page 16.
- Install directly flush to masonry wall.
- **The SHA series connectors shall be installed in pairs.**
- **Moisture barrier may be required.**

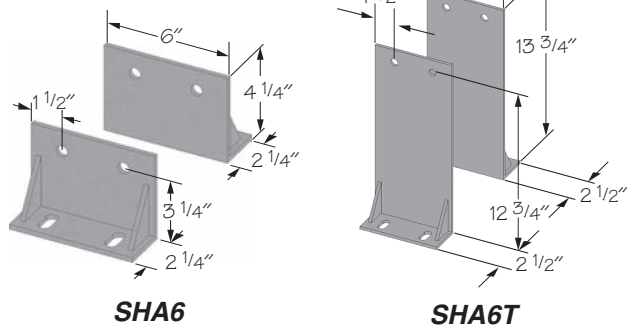


Typical SHA6 installation



Typical SHA6T installation

Bolts must be ordered separately. See page 26 for available sizes.



SHA6

SHA6T

USP Stock No.	Ref. No.	Fastener Schedule ³		No. of Plys ⁵	Allowable Loads (Lbs.) ^{1,2}			
		Concrete Wall Anchor Bolts ^{4,5,6}	Rafter/Truss ⁷		DF-L / SP		Uplift	
					F1	160%	133%	160%
SHA6	---	(4) 1/2	(2) 3/4	2 Ply	4005	4005	3120	3745
				3 Ply or greater	5565	5565	4680	5615
SHA6T	---	(4) 1/2	(2) 3/4	2 Ply	1590	1590	8370	8370
				3 Ply or greater	2190	2190		

1) Allowable loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
2) Allowable loads are for a pair of SHA devices. SHA's shall be installed in pairs.
3) Fastener schedule is for a pair of SHA devices.
4) 1/2" x 8" J-Bolts or equivalent.
5) Concrete compressive strength shall be 2500 psi or greater at 28 days.
6) Multiple ply truss shall be fastened together to act as a single unit.
7) Bolts shall conform to ASTM A 307 or better.
8) The designer must specify anchor bolt type, length, and embedment.

Designed for attaching gable end trusses to wood top plates and masonry walls.

HGA10 – Versatile wood-to-wood connector that satisfies high wind and seismic loading requirements.

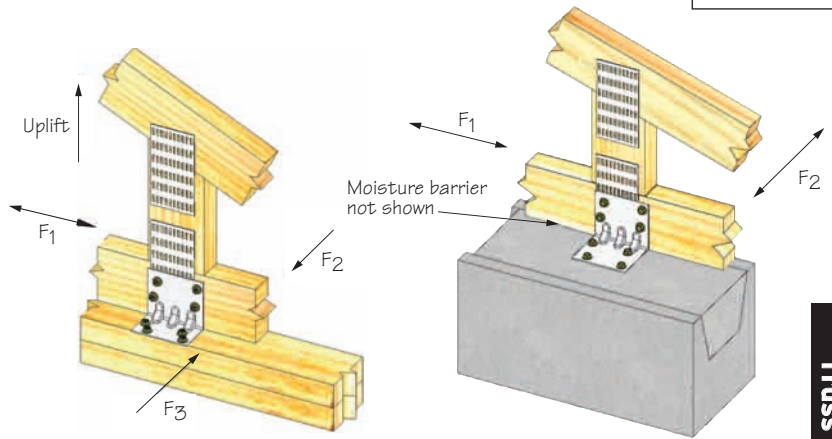
HGAM10 – For installation into grouted concrete tie beam or masonry bond beam. Provides lateral and uplift resistance.

Materials: 14 gauge
Finish: G90 galvanizing
Codes: NER-532, FL819

Installation:

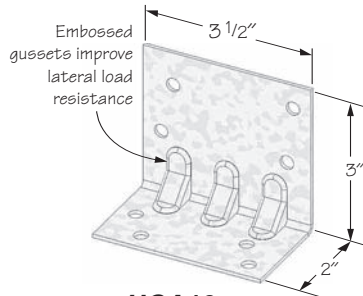
- Use all specified fasteners. See Product Notes, page 16.
- **HGAM10** – Install USP’s WS15 Wood Screws into the truss and drill holes for wedge bolts. Install wedge bolts into concrete block per manufacturer’s recommendation.
- **HGA10** – Install with USP’s WS3 Wood Screws into top plate, and WS15 Wood Screws into the truss.
- WS Wood Screws are included with **HGA10** angles.
- WS Wood Screws and Wedge bolts are included with **HGAM10** angles.

• Moisture barrier may be required.

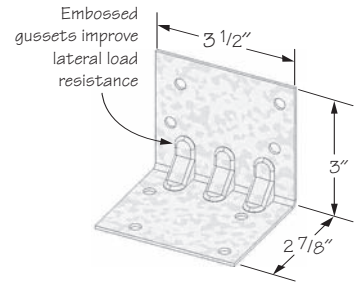


Typical **HGA10** installation

Typical **HGAM10** installation



HGA10



HGAM10

USP Stock No.	Ref. No.	Steel Gauge	Fastener Schedule ²		Allowable Loads (Lbs.) ^{1,2}															
			Rafter/Truss	Plate ⁴	DF-L / SP						S-P-F									
					F1	F2	F3	Uplift	F1	F2	F3	Uplift								
HGA10	HGA10	14	(4) WS15	(4) WS3	1320	1320	1565	1565	835	835	1285	1285	1110	1110	1315	1315	700	700	1080	1080
HGAM10	HGAM10	14	(4) WS15	(4) 1/4"	1365	1590	1675	1675	1310	1580	895	895	1170	1335	1675	1675	925	1115	895	895

1) Allowable loads are based on the 1997 NDS®.
 2) Allowable loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
 3) WS15 Wood Screws are 1/4" x 1-1/2" long and WS3 Wood Screws are 1/4" x 3" long.
 4) Use Powers Fasteners 1/4" x 1-3/4" Wedge-Bolt® (included); or equal. Drill hole in concrete or masonry with 1/4" masonry drill. Refer to manufacturer's literature for further information.

New products or updated product information are designated in red.

HURRICANE/SEISMIC ANCHORS – HC520, HCPRS, HHCP2, & RT SERIES

These anchors tie trusses and rafters to top plates and may be used to tie wood framing members to resist uplift and lateral forces.

Materials: See chart

Finish: G90 galvanizing; RT7A-GC & RT15-GC – Gold Coat

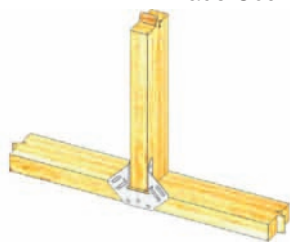
Options: HHCP2, RT3A, RT4, RT5, RT7, RT7A, RT10, RT15, RT16, RT16-2, and RT20 are available in Triple Zinc. To order, add TZ to stock number, as in RT10-TZ.

RT4, RT5, RT7, RT10, and RT16 are available in Stainless Steel. To order, add SS to stock number, as in RT7-SS.

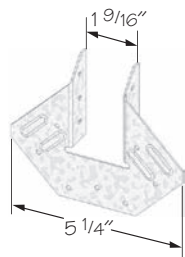
Codes: NER 505, NER 510, NER 564, ICBO 2039, SBCCI 2031C, L.A. City RR 23888 & RR 25303, FL565R-1, FL816, FL817, FL818, FL859R-1, FL3923R-1, Dade County, FL 05-0105.05 – RT7, RT10, RT15, RT16, RT20



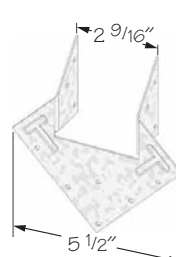
Typical **HC520** gable brace installation



Typical **HCPRS** stud to plate installation



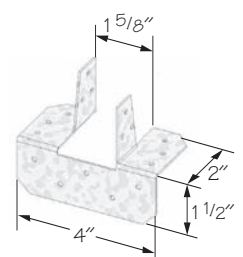
HCPRS



HCPRS3

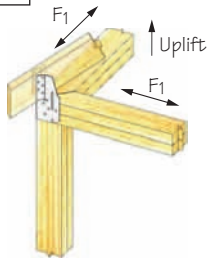


Typical **HC520** stud to plate installation

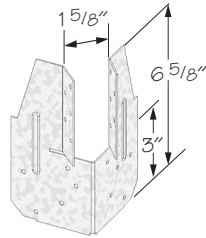


HC520

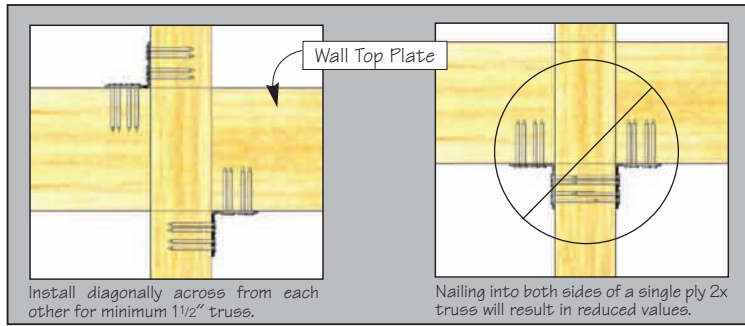
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Typical HHCP2 truss/rafter to double plate corner installation



HHCP2



Install diagonally across from each other for minimum 1 1/2" truss.

Nailing into both sides of a single ply 2x truss will result in reduced values.

Hurricane Anchor installation to achieve twice the load (Top View)

Truss & Rafter



Typical RT3A truss/rafter to plate installation



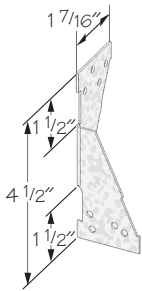
Typical RT4 truss/rafter to plate installation



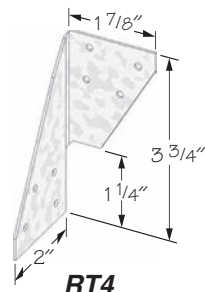
Typical RT5 truss/rafter to double plate installation



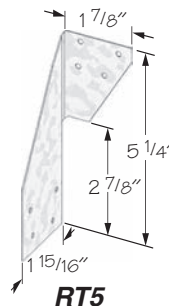
Typical RT6 truss/rafter to double plate installation



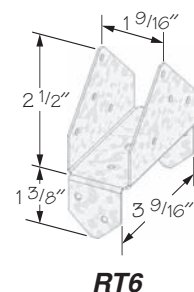
RT3A



RT4



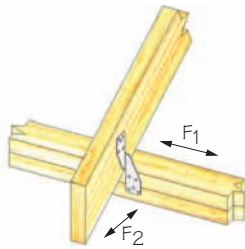
RT5



RT6



Typical RT7 truss/rafter to double plate installation



Typical RT7A truss/rafter to double plate installation



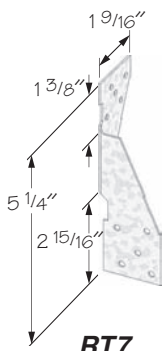
Typical RT8A stud to double plate installation



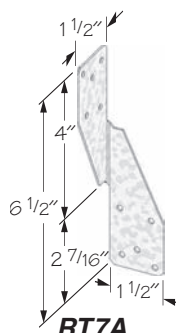
Typical RT10 truss/rafter to double plate to stud installation



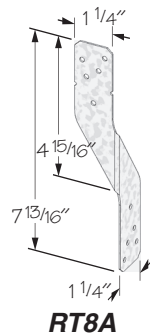
Typical RT12A truss/rafter to plate installation



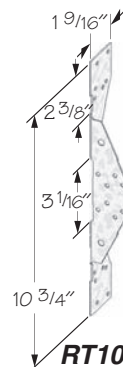
RT7



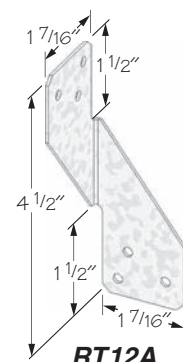
RT7A



RT8A

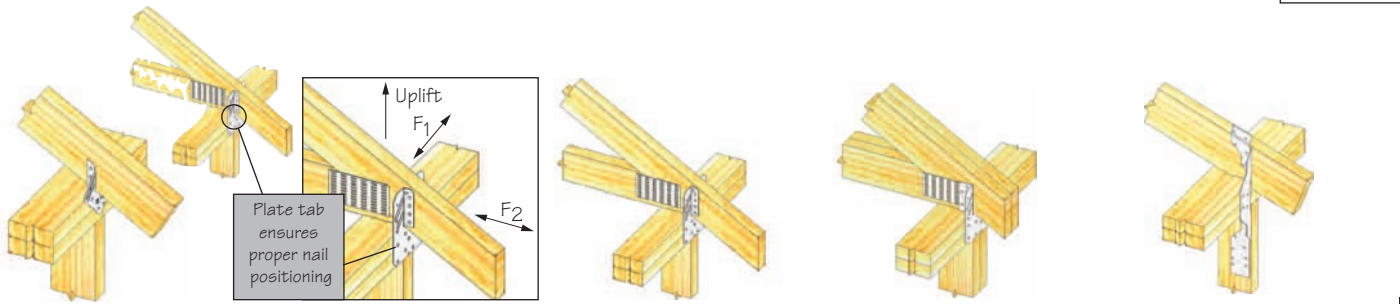


RT10



RT12A

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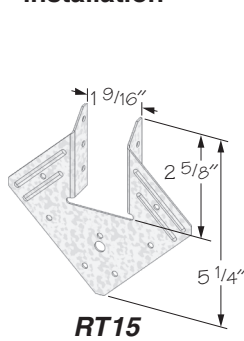
Typical RT15 truss/rafter to double plate installation

Typical RT16 truss/rafter to double plate installation

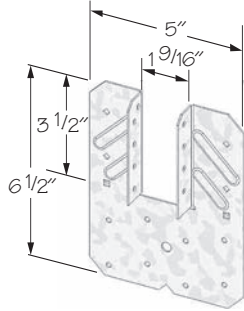
Typical RT16A truss/rafter to double plate installation

Typical RT16-2 truss/rafter to double plate installation

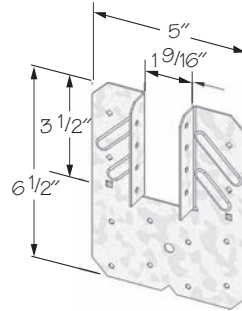
Typical RT20 truss/rafter to double plate to stud installation



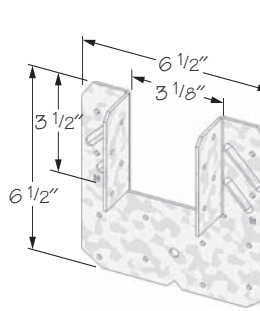
RT15



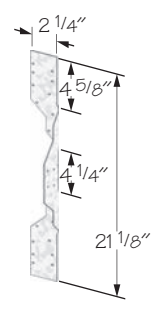
RT16A



RT16



RT16-2



RT20

Installation:

- Use all specified fasteners. See Product Notes, page 16.
- All nail holes must be filled with specified nails to achieve loads listed in the chart.
- Depending on pitch, birdsmouth notching may be required with some models to enable installers to fill all nail holes.
- Designer shall determine if solid blocking is required.

AVAILABLE IN
GOLD COAT

In some applications rafter ties are required by the codes to connect roof assemblies to the wall below.
IRC 802.10.5, IBC 2308.10.1, UBC 2337.5.8.

USP Stock No.	Ref. No.	Steel Gauge	Fastener Schedule ^{2,3,4,5}			Allowable Loads (Lbs.) ¹														
			Truss/Rafter	Plate	Stud	DF-L / SP						S-P-F								
						F1		F2		Uplift		F1		F2		Uplift				
						133%	160%	133% / 160%	133%	160%	133% / 160%	133%	160%	133% / 160%	133%	160%	133% / 160%			
RT3A	H3	18	(4) 8d	(4) 8d	--	135	135	135	505	610	505	610	135	135	135	430	520	430	520	
RT4	H4	18	(4) 8d	(4) 8d	--	215	215	215	410	410	410	410	215	215	215	410	410	410	410	
RT5	H5	18	(4) 8d	(4) 8d	--	260	260	260	505	540	505	540	260	260	260	165	430	520	430	520
RT6	HS24	18	(8) 10d x 1-1/2	(6) 10d x 1-1/2	--	800	800	800	665	665	665	665	690	690	690	575	575	575	575	575
RT7	H2.5	18	(5) 8d	(5) 8d	--	170	170	170	585	585	585	585	170	170	170	540	585	540	585	
RT7A	H2.5A	18	(5) 8d	(5) 8d	--	200	200	200	635	670	635	670	200	200	200	540	650	540	650	
RT7A-GC	---		(5) N8-GC	(5) N8-GC	--	200	200	200	635	670	635	670	200	200	200	540	650	540	650	
RT8A	H8	18	(5) 10d x 1-1/2	(5) 10d x 1-1/2	--	190	190	190	745	775	635	760	190	190	190	645	775	540	650	
RT10	H2	18	(6) 8d	(8) 8d	(6) 8d	170	170	170	585	585	585	585	170	170	170	540	585	540	585	
RT12A	--	18	(3) 8d	(3) 8d	--	140	140	140	380	455	380	455	140	140	125	325	390	325	390	
RT15	H1	18	(5) 8d x 1-1/2	(5) 8d	--	500	500	300	530	530	530	530	340	410	300	340	410	340	410	
RT15-GC	---		(5) N8-GC	(5) N8-GC	--	500	500	300	530	530	530	530	340	410	300	340	410	340	410	
RT16	H10	18	(8) 8d x 1-1/2	(8) 8d	--	645	645	650	1015	1030	1015	1030	545	645	650	865	1030	865	1030	
RT16A	H14	18	(9) 10d x 1-1/2	(8) 10d	--	800	800	800	1215	1380	1015	1030	800	800	800	1045	1255	865	1030	
RT16-2	H10-2	18	(8) 8d	(8) 8d	--	655	655	410	1015	1160	1015	1160	550	550	345	875	975	875	975	
HHCP2	HCP2	18	(10) 10d x 1-1/2	(10) 10d x 1-1/2	--	370	370	---	800	800	800	800	370	370	---	800	800	800	800	
HC520	GBC	18	---	(11) 8d	(6) 8d	410	410	410	450	515	515	515	355	355	390	445	445	445	445	
HCPRS	---	18	---	(5) 8d	(6) 8d	235	235	395	540	540	540	540	200	200	340	465	465	465	465	
HCPRS3	---	18	---	(6) 8d	(6) 8d	---	---	---	540	540	540	540	---	---	---	465	465	465	465	
RT20	H7	16	(9) 10d x 1-1/2	(4) 10d	(9) 10d x 1-1/2	---	---	---	1200	1200	1140	1200	---	---	---	950	1140	890	1065	

1) Allowable loads have been increased 33-1/3% or 60% for wind or seismic loads; no further increase shall be permitted.
 2) 8d common nails may be substituted for 8d x 1-1/2 nails, and 10d common nails may be substituted for 10d x 1-1/2 nails.
 3) 8d x 1-1/2 nails are 11 gauge (0.131" diameter) by 1-1/2" long.
 4) 10d x 1-1/2 nails are 9 gauge (0.148" diameter) by 1-1/2" long.
 5) Minimum nail penetration shall be 1-5/16" for 8d nails and 1-1/2" for 10d nails.

New products or updated product information are designated in red.