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### Single Bottom Plate to Studs on 4" and 6" Walls

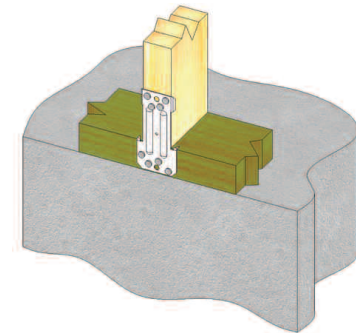
160% Uplift #	Qty	USP #	See Footnote	Fasteners (Total)		Cost Index 1=Lowest;10=Highest
				To Plates	To Studs	
410	1	RT4	---	(4) .131 x 1-1/2"	(4) .131 x 1-1/2"	1
470	1	RSPT4	---	(4) .131 x 1-1/2"	(4) .131 x 1-1/2"	2
515	1	HC520	---	(11) .131 x 1-1/2"	(6) .131 x 1-1/2"	10
540	1	HCPRS	---	(5) .131 x 1-1/2"	(6) .131 x 1-1/2"	8
610	1	RT3A	---	(4) .131 x 1-1/2"	(4) .131 x 1-1/2"	3
685	1	SPT22	---	(4) .148 x 3"	(4) .148 x 3"	9
775	1	RT8A	---	(5) .148 x 1-1/2"	(5) .148 x 1-1/2"	5
820	2	RT4	---	(8) .131 x 1-1/2"	(8) .131 x 1-1/2"	4
945	1	SPT4	#1	Not Required	(6) .148 x 1-1/2"	7
945	1	SPT6	#2	Not Required	(6) .148 x 1-1/2"	10
1220	2	RT3A	---	(8) .131 x 1-1/2"	(8) .131 x 1-1/2"	6
1290	1	SPTHW4	#3	Not Required	(12) .148 x 1-1/2"	10
1290	1	SPTHW6	#4	Not Required	(12) .148 x 1-1/2"	10
1730	1	SPTH4	#1	Not Required	(12) .148 x 1-1/2"	10
1730	1	SPTH6	#2	Not Required	(12) .148 x 1-1/2"	10

NOTE: Loads are for DF-L/SP lumber. Refer to Full Line Catalog for load reduction for SPF lumber.

- 1.) 2 x 4 Bottom Plate
- 2.) 2 x 6 Bottom Plate
- 3.) 2 x 4 Bottom Plate over 1/2" Sheathing
- 4.) 2 x 6 Bottom Plate over 1/2" Sheathing

Listed Fasteners are in Decimal Equivalents

(.131) = 8d  
(.148) = 10d



Typical *RSPT4* single plate installation

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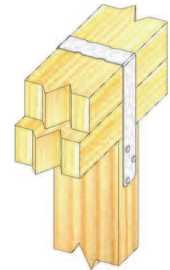
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### Double Top Plates to Studs 4" and 6" Walls

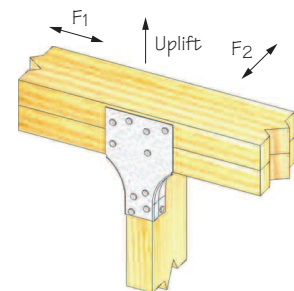
160% Uplift #	Qty	USP #	See Footnote	Fasteners (Total)		Cost Index 1=Lowest;10=Highest
				To Plates	To Studs	
470	1	RSPT4	-- --	(4) .131 x 1-1/2"	(4) .131 x 1-1/2"	1
540	1	RT5	-- --	(4) .131 x 1-1/2"	(4) .131 x 1-1/2"	2
585	1	RT7	-- --	(5) .131 x 1-1/2"	(5) .131 x 1-1/2"	3
670	1	RT7A	-- --	(5) .131 x 1-1/2"	(5) .131 x 1-1/2"	3
700	1	RSPT6	-- --	(4) .148 x 1-1/2"	(4) .148 x 1-1/2"	4
775	1	RT8A	-- --	(5) .148 x 1-1/2"	(5) .148 x 1-1/2"	5
775	1	LTW12	-- --	(6) .148 x 1-1/2"	(6) .148 x 1-1/2"	10
945	1	SPT4	#2	Not Required	(6) .148 x 1-1/2"	8
945	1	SPT6	#3	Not Required	(6) .148 x 1-1/2"	9
955	1	RSPT6-2	#1	(6) .148 x 1-1/2"	(8) .148 x 1-1/2"	10
1030	1	SPT24	-- --	(6) .148 x 3"	(6) .148 x 3"	10
1080	2	RT5	#6	(8) .131 x 1-1/2"	(8) .131 x 1-1/2"	6
1170	2	RT7	#6	(10) .131 x 1-1/2"	(10) .131 x 1-1/2"	7
1195	1	MTW12	-- --	(7) .148 x 1-1/2"	(7) .148 x 1-1/2"	10
1210	1	LFTA6	-- --	(8) .131 x 1-1/2"	(8) .131 x 1-1/2"	10
1340	2	RT7A	#6	(10) .131 x 1-1/2"	(10) .131 x 1-1/2"	7
1530	1	HTW20	-- --	(12) .148 x 1-1/2"	(12) .148 x 1-1/2"	10
1550	2	RT8A	#6	(10) .148 x 1-1/2"	(10) .148 x 1-1/2"	10
1550	2	LTW12	#6	(12) .148 x 1-1/2"	(12) .148 x 1-1/2"	10
1730	1	SPTH4	#2	Not Required	(12) .148 x 1-1/2"	9
1730	1	SPTH6	#3	Not Required	(12) .148 x 1-1/2"	10
2390	2	MTW12	-- --	(14) .148 x 1-1/2"	(14) .148 x 1-1/2"	10
3060	2	HTW20	-- --	(24) .148 x 1-1/2"	(24) .148 x 1-1/2"	10

- 1.) Stud Size is (2) 2X
- 2.) 2 x 4 Top Plate
- 3.) 2 x 6 Top Plate
- 4.) 2 x 4 Top Plate over 1/2" Sheathing
- 5.) 2 x 6 Top Plate over 1/2" Sheathing
- 6.) Install diagonally across plate from each other, to achieve full nail value. See detail

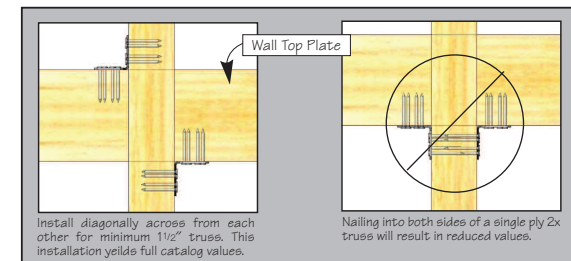
Listed Fasteners are in Decimal Equivalents  
(.131) = 8d  
(.148) = 10d



Typical *SPT4* installation



Typical *SPT24* installation



Install diagonally across from each other for minimum 1 1/2" truss. This installation yields full catalog values.

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)

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### Portal Frame and Alternate Braced Wall Panel Tie Down Device

160% Uplift #	Qty	USP #	See Footnote	Anchor Diameter	Fasteners To Studs	Cost Index 1=Lowest;10=Highest	Deflection
1100	1	LTS20B	#4 & #5	(1) 3/4" ATR	(10) .148 x 1-1/2"	7	0.128
2065	1	PAHD42	#1	Embed	(15) .162 x 3-1/2"	6	0.095
2225	1	LSTAD8	#2	Embed	(24) .148 x 3-1/4" Sinker	4	---
2225	1	LSTAD8RJ	#2 & #3	Embed	(24) .148 x 3-1/4" Sinker	10	---
2580	1	PA18	#4	Embed	(12) .148 x 3-1/4"	2	---
3035	1	PA18	#4	Embed	(12) .162 x 3-1/2"	2	---
3215	1	PHD2A	#4	(1) 5/8" ATR	(6) WS3	10	0.155
4465	1	HTT4	#4	(1) 5/8" ATR	(18) .162 x 2-1/2"	1	0.143
4685	1	STAD14	#2	Embed	(38) .148 x 3-1/4" Sinker	10	0.104
4685	1	STAD14RJ	#2 & #3	Embed	(38) .148 x 3-1/4" Sinker	10	0.104
4700	1	STAD8	#2	Embed	(24) .148 x 3-1/4" Sinker	3	0.115
4700	1	STAD10	#2	Embed	(28) .148 x 3-1/4" Sinker	5	0.115
4700	1	STAD8RJ	#2 & #3	Embed	(24) .148 x 3-1/4" Sinker	8	0.115
4700	1	STAD10RJ	#2 & #3	Embed	(28) .148 x 3-1/4" Sinker	9	0.115

- 1.) Min. 2500 psi concrete; Single Pour; 1/2 min from corner. For edge installation loads refer to USP's Professional Design Manual & Product Catalog 56th Edition.
- 2.) Refer to Full Line Catalog Complete Specification Details
- 3.) RJ = Rim Joist Application
- 4.) The designer must specify anchor bolt type, length, and embedment.
- 5.) Refer to Full Line Catalog for Min required Bolt End Distance

The loads represented are based on a 3" thick vertical member.

**ATR**= All thread rod or anchor bolt.

**WS3**= 3" Self drilling wood screw (included) with connector

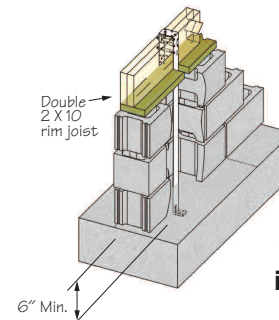
Listed Fasteners are in Decimal Equivalents

0.131	8d Common
0.148	10d Common or 16 Sinker
0.162	16d Common

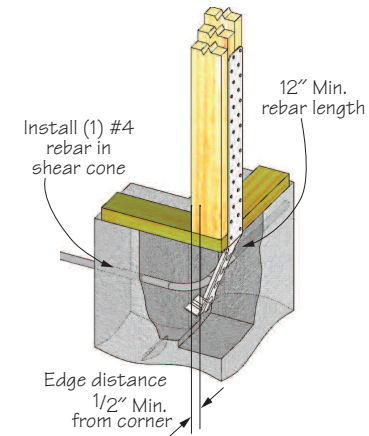
### Concrete Block Installation

160% Uplift #	Qty	USP #	See Footnote	Anchor Diameter	Fasteners To Rim Joist	Cost Index 1=Lowest;10=Highest	Rim Joist Size
2385	1	TA51	#1 & #2	Embed	(10) .162 x 2-1/2"	1	2x10
3230	1	TA51	#1 & #2	Embed	(14) .162 x 2-1/2"	1	2x12
3230	1	TA51	#1 & #2	Embed	(16) .162 x 2-1/2"	1	2x14
2385	1	TA71	#1 & #2	Embed	(10) .162 x 2-1/2"	2	2x10
3230	1	TA71	#1 & #2	Embed	(14) .162 x 2-1/2"	2	2x12
3230	1	TA71	#1 & #2	Embed	(16) .162 x 2-1/2"	2	2x14

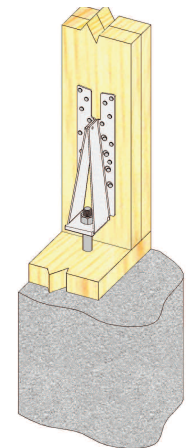
- 1.) 6" minimum embedment into concrete footings
- 2.) Minimum of (9) 16d nails per strap is required to meet IRC R 404.1.5.



Typical TA installation



Typical STAD10 corner installation



Typical HTT installation

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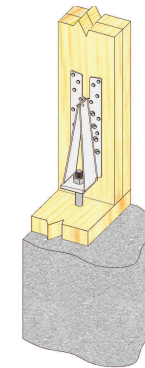
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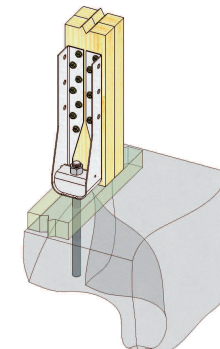
### Shear Wall Tie Down Device

160% Uplift #	Qty	USP #	See Footnote	Anchor Diameter	Fasteners To Studs	Cost Index 1=Lowest;10=Highest	Deflection
3215	1	PHD2A	#4	(1) 5/8" ATR	(6) WS3	7	0.155
3830	1	HPAHD22	#1	Embed	(23) .162 x 3-1/2"	3	0.118
4685	1	STAD14	#2	Embed	(38) .148 x 3-1/4" Sinker	5	0.104
4685	1	STAD14RJ	#2 & #3	Embed	(38) .148 x 3-1/4" Sinker	6	0.104
4745	1	HTT5	#4	(1) 5/8" ATR	(28) .148 x 3"	1	0.122
5215	1	PHD4A	#4	(1) 5/8" ATR	(10) WS3	8	0.137
6430	2	PHD2A	#4	(2) 5/8" ATR	(12) WS3	10	0.155
6525	1	PHD5A	#4	(1) 5/8" ATR	(14) WS3	9	0.135
8185	1	PHD8	#4	(1) 7/8" ATR	(24) WS3	10	0.062
8930	2	HTT4	#4	(2) 5/8" ATR	(36) .162 x 2-1/2"	2	0.143
9165	1	UPHD8	#4	(1) 7/8" ATR	(24) WS3	10	0.075
9490	2	HTT5	#4	(2) 5/8" ATR	(56) .148 x 3"	4	0.122
10430	2	PHD4A	#4	(2) 5/8" ATR	(20) WS3	10	0.137
13050	2	PHD5A	#4	(2) 5/8" ATR	(28) WS3	10	0.135
14395	1	UPHD11	#4	(1) 1" ATR	(24) WS3	10	0.077
16695	1	UPHD14	#4	(1) 1" ATR	(30) WS3	10	0.082
18330	2	UPHD8	#4	(2) 7/8" ATR	(48) WS3	10	0.075
28790	2	UPHD11	#4	(2) 1" ATR	(48) WS3	10	0.077
33390	2	UPHD14	#4	(2) 1" ATR	(60) WS3	10	0.082

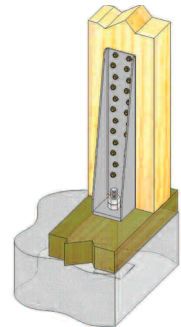
- 1.) Min. 2500 psi concrete; Single Pour; 1/2 min from corner. For edge installation loads refer to USP's Professional Design Manual & Product Catalog 56th Edition.
- 2.) Refer to Full Line Catalog Complete Specification Details
- 3.) RJ = Rim Joist Application
- 4.) The designer must specify anchor bolt type, length, and embedment



Typical *HTT* installation



Typical *PHD5A* installation



Typical *UPHD* installation

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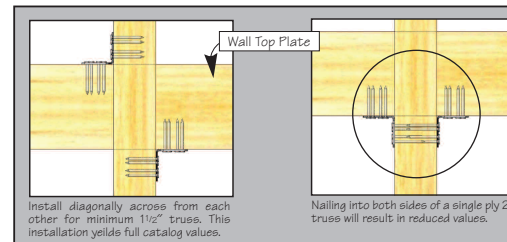
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### Truss/Rafter to Double Plate Installation

160% Uplift #	Qty	USP #	See Footnote	Fasteners (Total)		Cost Index 1=Lowest;10=Highest
				To Plates	To Truss/Rafter	
530	1	RT15	--	(5) .131 x 1-1/2"	(5) .131 x 1-1/2"	6
540	1	RT5	--	(4) .131 x 1-1/2"	(4) .131 x 1-1/2"	1
585	1	RT7	---	(5) .131 x 1-1/2"	(5) .131 x 1-1/2"	2
670	1	RT7A	--	(5) .131 x 1-1/2"	(5) .131 x 1-1/2"	2
775	1	RT8A	---	(5) .148 x 1-1/2"	(5) .148 x 1-1/2"	3
1080	2	RT5	#1	(8) .131 x 1-1/2"	(8) .131 x 1-1/2"	4
1160	1	RT16-2	#2	(8) .131 x 1-1/2"	(8) .131 x 1-1/2"	9
1170	2	RT7	#1	(10) .131 x 1-1/2"	(10) .131 x 1-1/2"	5
1340	2	RT7A	#1	(10) .131 x 1-1/2"	(10) .131 x 1-1/2"	5
1380	1	RT16A	#2	(8) .148 x 1-1/2"	(9) .148 x 1-1/2"	8
1550	2	RT8A	#1	(10) .148 x 1-1/2"	(10) .148 x 1-1/2"	7

- 1.) Install diagonally across plate from each other, to achieve full value. See detail.
- 2.) For 2 Ply Rafter or Truss



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

### Truss/Rafter to Double Plate Stud Installation

160% Uplift #	Qty	USP #	See Footnote	Fasteners (Total)			Cost Index 1=Lowest;10=Highest
				To Plates/Stud	To Truss/Rafter	Stud	
775	1	LTW12	#1	(6) .148 x 1-1/2"	(6) .148 x 1-1/2"	--	1
1195	1	MTW12	#1	(7) .148 x 1-1/2"	(7) .148 x 1-1/2"	--	2
1200	1	RT20	---	(9) .148 x 1-1/2"	(9) .148 x 1-1/2"	(4) .148 x 1-1/2"	7
1530	1	HTW20	#1	(12) .148 x 1-1/2"	(12) .148 x 1-1/2"	--	5
1550	2	LTW12	#1	(12) .148 x 1-1/2"	(12) .148 x 1-1/2"	--	3
2390	2	MTW12	#1	(14) .148 x 1-1/2"	(14) .148 x 1-1/2"	--	4
3060	2	HTW20	#1	(24) .148 x 1-1/2"	(24) .148 x 1-1/2"	--	6

- 1.) Fasteners shall be distributed equally on each end of connection

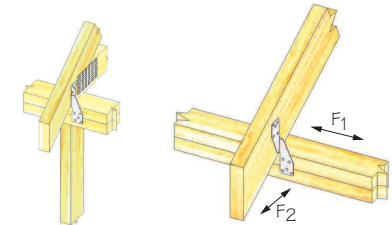
### Girder Tie Downs 2 Ply or >

160% Uplift #	Qty	USP #	See Footnote	Fasteners (Total)			Cost Index 1=Lowest;10=Highest
				To Plates	To Truss/Rafter	Stud	
2260	1	LUGT2	--	(2) .148 x 3"	(16) .148 x 3"	(14) .148 x 3"	1
4165	1	MUGT15	1	(1) 5/8" Threaded Rod	(22) .148 x 3"	--	2
6040	1 pair	RUSC	2 & 5	--	(16) WS3	(16) WS3	4
9790	1	HUGT2 2 Ply	4	(2) 5/8" Threaded Rod	(8) .148 x 3"	(2) HTT5	3
9860	1	HUGT 3 & 4 Ply	4	(2) 5/8" Threaded Rod	(8) .148 x 3"	(2) HTT5	5

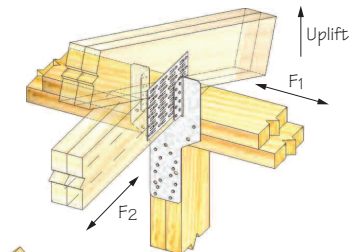
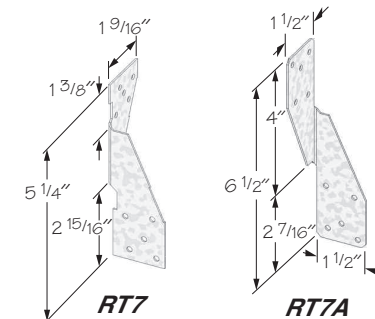
- 1.) For wood-to-wood install with PHD2A underside of top plate with 5/8" threaded rod
- 2.) Should be installed in Pairs
- 3.) Bolts shall conform to ASTM A 307 or better
- 4.) For wood-to-wood install with (2) HTT5 each side of stud
- 5.) WS3 is self drilling wood screw (included) with connector.

Listed Fasteners are in Decimal Equivalents (.131) = 8d  
(.148) = 10d

This publication is to be used in conjunction with USP 56th Edition Full Line Catalog



Typical **RT7** truss/rafter to double plate installation  
Typical **RT7A** truss/rafter to double plate installation



Typical **LUGT2** wood installation

Typical **RUSC** installation

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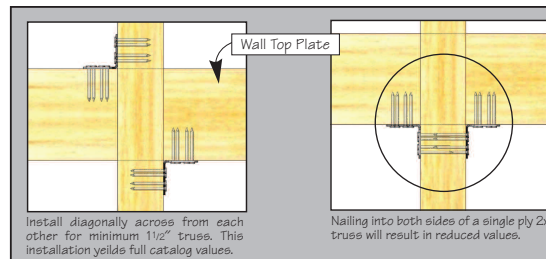
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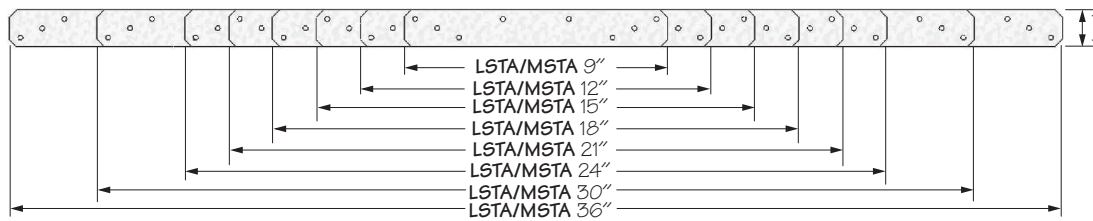
### Header to Studs

160% Uplift #	Qty	USP #	See Footnote	Min. Header	(Total) Fasteners	Cost Index 1=Lowest;10=Highest
930	1	LSTA12	---	7.25"	(10) .148 x 3"	1
935	1	MSTA12	---	7.25"	(10) .148 x 3"	2
1024	(1) 12" Piece	RS150	#1	7.25"	(8) .148 x 3"	10
1025	(1) 18" Piece	RS150	#1	9.25"	(10) .148 x 3"	10
1230	(1) 24" Piece	RS150	#1	11.25"	(12) .148 x 3"	10
1235	1	LSTA18	---	9.25"	(14) .148 x 3"	3
1235	1	LSTA21	---	11.25"	(16) .148 x 3"	4
1310	1	MSTA18	---	9.25"	(14) .148 x 3"	6
1500	1	MSTA21	---	11.25"	(16) .148 x 3"	7
1860	2	LSTA12	---	7.25"	(20) .148 x 3"	5
1870	2	MSTA12	---	7.25"	(20) .148 x 3"	8
2050	(2) 18" Pieces	RS150	#1, #2	9.25"	(20) .148 x 3"	10
2460	(2) 24" Pieces	RS150	#1, #2	11.25"	(24) .148 x 3"	10
2470	2	LSTA18	---	9.25"	(28) .148 x 3"	9
2470	2	LSTA21	---	11.25"	(32) .148 x 3"	10
2620	2	MSTA18	---	9.25"	(28) .148 x 3"	10
3000	2	MSTA21	---	11.25"	(32) .148 x 3"	10

- 1.) RS150 - 16 Gauge 150' Coil Strapping Length
- 2.) Install diagonally across plate from each other, to achieve full value. See detail.



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



LSTA/MSTA

