

H/TSP

Seismic and Hurricane Ties

Simpson Strong-Tie hurricane ties provide a positive connection between truss/rafter and the wall of the structure to resist wind and seismic forces.

Material: See table

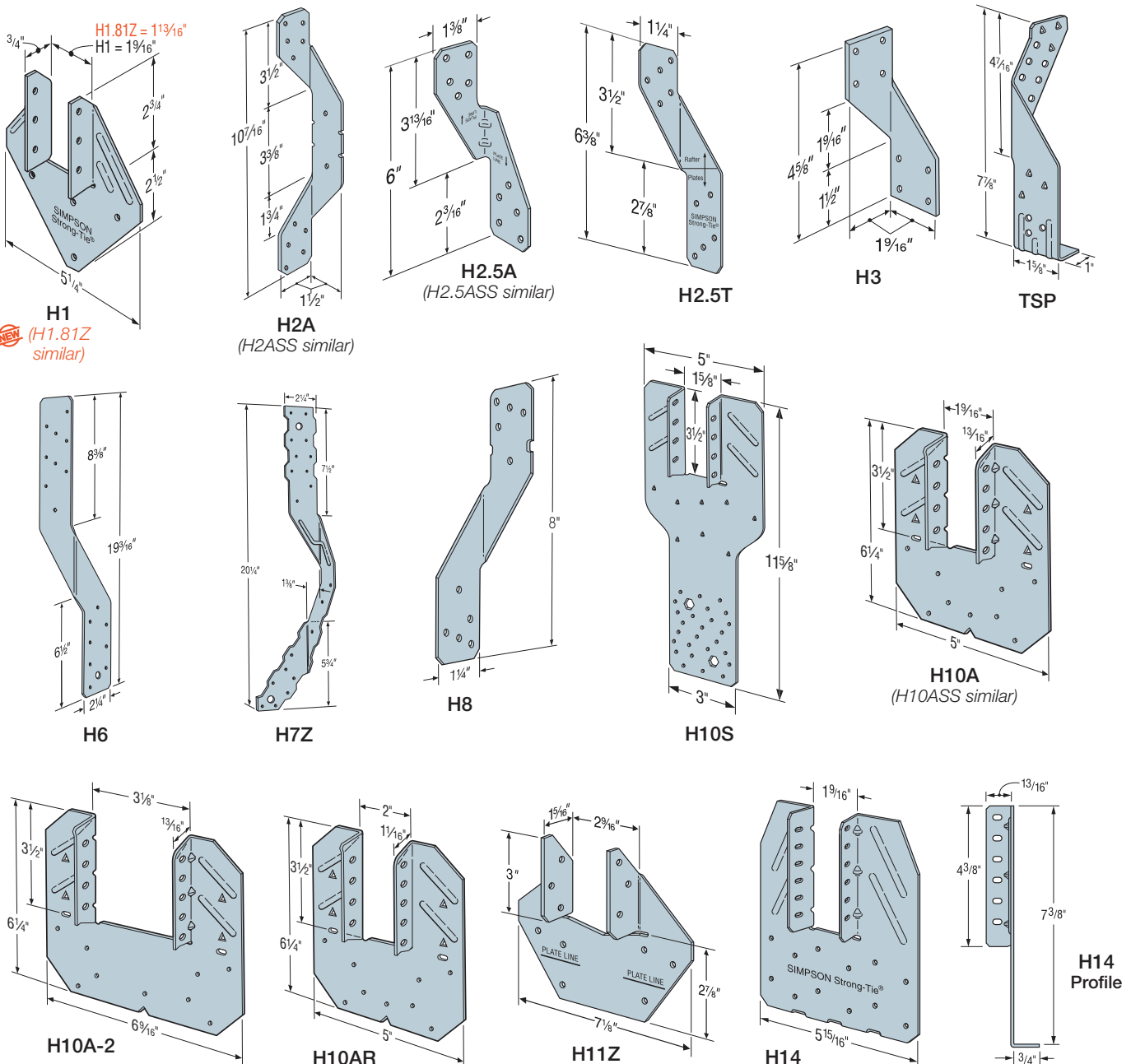
Finish: Galvanized. H1.81Z, H7Z and H11Z — ZMAX® coating. Some models available in stainless steel or ZMAX; see Corrosion Information, pp. 13–15 or visit strongtie.com.

Installation:

- Use all specified fasteners; see General Notes.
- Hurricane ties can be installed with flanges facing inward or outward.

- H2.5T, H3 and H6 ties are shipped in equal quantities of right and left versions (right versions shown).
- Hurricane ties do not replace solid blocking.
- When installing ties on plated trusses (on the side opposite the truss plate) do not fasten through the truss plate from behind. This can force the truss plate off of the truss and compromise truss performance.
- H10A optional nailing to connect shear blocking, use 8d nails. Slots allow maximum field bending up to a pitch of 6:12; use H10A sloped loads for field-bent installation.

Codes: See p. 12 for Code Reference Key Chart



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Seismic and Hurricane Ties (cont.)

These products are available with additional corrosion protection. For more information, see p. 15.

SS For stainless-steel fasteners, see p. 21.

SD Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 335–337 for more information.

Model No.	Ga.	Fasteners (in.)			DF/SP Allowable Loads			Uplift with 0.131" x 1 1/2" Nails (160)	SPF/HF Allowable Loads			Uplift with 0.131" x 1 1/2" Nails (160)	Code Ref.
		To Rafters/Truss	To Plates	To Studs	Uplift (160)	F ₁	F ₂		Uplift (160)	F ₁	F ₂		
H1	18	(6) 0.131 x 1 1/2	(4) 0.131 x 2 1/2	—	480	510	190	455	425	440	165	370	IBC, FL, LA
H1.81Z	18	(6) 0.131 x 1 1/2	(4) 0.131 x 2 1/2	—	350	335	195	330	300	290	150	260	—
H2A	18	(5) 0.131 x 1 1/2	(2) 0.131 x 1 1/2	(5) 0.131 x 1 1/2	525	130	55	—	495	130	55	—	IBC, FL, LA
SS H2ASS	18	(5) 0.131 x 1 1/2	(2) 0.131 x 1 1/2	(5) 0.131 x 1 1/2	400	130	55	400	345	130	55	345	—
H2.5A	18	(5) 0.131 x 2 1/2	(5) 0.131 x 2 1/2	—	565	110	110	575	535	110	110	495	IBC, FL, LA
SS H2.5ASS	18	(5) 0.131 x 2 1/2	(5) 0.131 x 2 1/2	—	440	75	70	365	380	75	70	310	—
H2.5T	18	(5) 0.131 x 2 1/2	(5) 0.131 x 2 1/2	—	495	135	145	420	495	135	145	420	IBC, FL, LA
SS H3	18	(4) 0.131 x 2 1/2	(4) 0.131 x 2 1/2	—	400	210	170	415	365	180	145	290	
H6	16	—	(8) 0.131 x 2 1/2	(8) 0.131 x 2 1/2	1,230	—	—	—	1,055	—	—	—	IBC, FL
H7Z	16	(4) 0.131 x 2 1/2	(2) 0.131 x 1 1/2	(8) 0.131 x 2 1/2	830	410	—	—	715	355	—	—	
SS H8	18	(5) 0.148 x 1 1/2	(5) 0.148 x 1 1/2	—	780	95	90	630	710	95	90	510	IBC, FL, LA
H10A Field Bent	18	(9) 0.148 x 1 1/2	(9) 0.148 x 1 1/2	—	855	590	285	—	760	505	285	—	
H10A	18	(9) 0.148 x 1 1/2	(9) 0.148 x 1 1/2	—	1,040	565	285	—	1,015	485	285	—	—
SS H10ASS	18	(9) 0.148 x 1 1/2	(9) 0.148 x 1 1/2	—	970	565	170	—	835	485	170	—	
H10AR	18	(9) 0.148 x 1 1/2	(9) 0.148 x 1 1/2	—	1,050	490	285	—	905	420	285	—	IBC, FL, LA
H10S	18	(8) 0.131 x 1 1/2	(8) 0.131 x 1 1/2	(8) 0.131 x 2 1/2	910	660	215	550	785	570	185	475	
H10A-2	18	(9) 0.148 x 1 1/2	(9) 0.148 x 1 1/2	—	1,080	680	260	—	930	585	225	—	—
H11Z	18	(6) 0.162 x 2 1/2	(6) 0.162 x 2 1/2	—	830	525	760	—	715	450	655	—	
H14	18	(12) 0.131 x 1 1/2	(13) 0.131 x 2 1/2	—	1,275	725	285	—	1,050	480	245	—	IBC, FL, LA
		(12) 0.131 x 1 1/2	(15) 0.131 x 2 1/2	—	1,340	670	230	—	1,050	480	245	—	
TSP	16	(9) 0.148 x 1 1/2	(6) 0.148 x 1 1/2	—	755	310	190	—	650	265	160	—	FL
		(9) 0.148 x 1 1/2	(6) 0.148 x 3	—	1,015	310	190	—	875	265	160	—	

1. See pp. 260–261 for Straps and Ties General Notes.

2. Allowable loads are for one anchor. A minimum rafter thickness of 2 1/2" must be used when framing anchors are used on each side of the joist and on the same side of the plate (exception: connectors installed such that nails on opposite side don't interfere).

3. Allowable DF/SP uplift load for stud-to-bottom plate installation (see detail 15) is 390 lb. (H2.5A); 265 lb. (H2.5ASS); and 310 lb. (H8). For SPF/HF values, multiply these values by 0.86.

4. Allowable loads in the F₁ direction are not intended to replace diaphragm boundary members or cross-grain bending of the truss or rafter members.

5. When cross-grain bending or cross-grain tension cannot be avoided in the members, mechanical reinforcement to resist such forces shall be considered by the Designer.

6. Hurricane ties are shown on the outside of the wall for clarity and assume a minimum overhang of 3 1/2". Installation on the inside of the wall is acceptable (see General Instructions for the Installer, note "s" on p. 18). For uplift continuous load path, install connectors in the same area (e.g., truss-to-plate connector and plate-to-stud connector) on the same side of the wall, unless detailed by designer. See technical bulletin T-C-HTIECON at strongtie.com for more information.

7. Southern pine allowable uplift loads for H10A = 1,340 lb. and for the H14 = 1,465 lb.

8. Refer to Simpson Strong-Tie® technical bulletin T-C-HTIEBEAR at strongtie.com for allowable bearing enhancement loads.

9. H10S can have the stud offset a maximum of 1" from the rafter (center to center) for a reduced uplift of 890 lb. (DF/SP) and 765 lb. (SPF).

10. H10S nails to plates are optional for uplift but required for lateral loads.

11. Some load values for the stainless-steel connectors shown here are lower than those for the carbon-steel versions. Ongoing test programs have shown this also to be the case with other stainless-steel connectors in the product line that are installed with nails. Visit strongtie.com/corrosion for updated information.

12. The allowable loads of stainless-steel connectors match carbon-steel connectors when installed with stainless-steel Strong-Drive® SCNR Ring-Shank Connector nails. For more information, refer to engineering letter L-F-SSNAILS at strongtie.com.

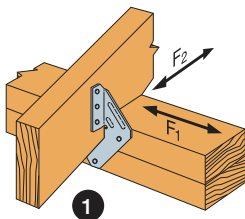
13. Allowable DF/SP/SPF uplift load for the H2.25A fastened to a 2x4 truss bottom chord and double top plates using (5) 0.131" x 1 1/2" nails in the top plates and (3) 0.131" x 1 1/2" nails in the lowest three flange holes into the truss bottom chord is 260 lb. (160).

14. For TSP installed stud to single plate see p. 276.

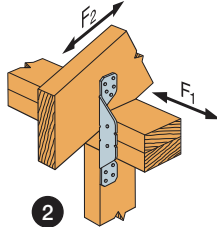
15. **Fasteners:** Nail dimensions in the table are listed diameter by length. See pp. 21–22 for fastener information.

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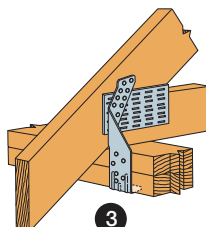
Seismic and Hurricane Ties (cont.)



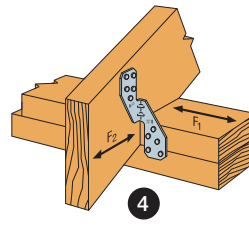
1
H1 Installation
(H1.81Z similar)



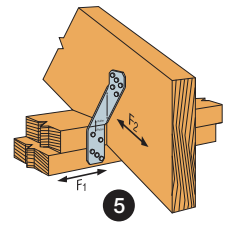
2
H2A Installation



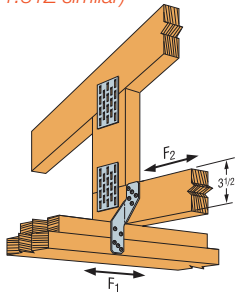
3
TSP Installation



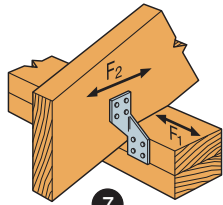
4
H2.5A Installation
(nails into both top plates)



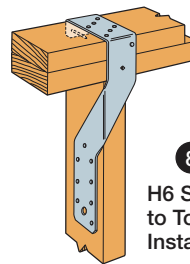
5
H2.5T Installation
(nails into both top plates)



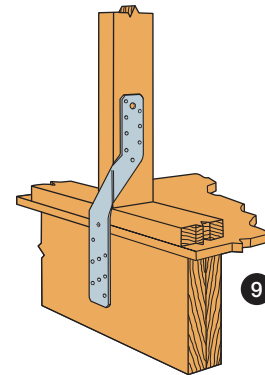
6 **H2.5T Installation**



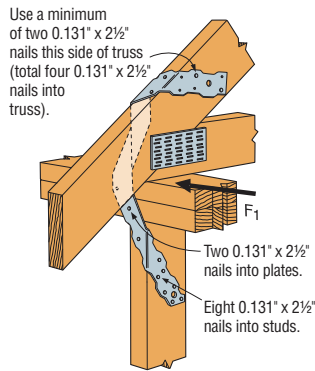
7
H3 Installation
(nails into upper top plate)



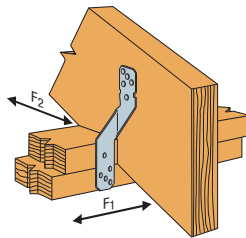
8
H6 Stud to Top Plate Installation



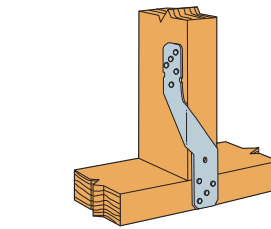
9 **H6 Stud to Rim Board Installation**



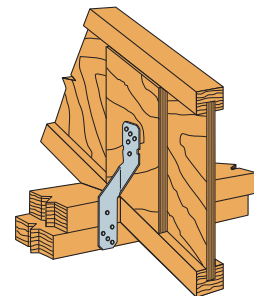
10 **H7Z Installation**



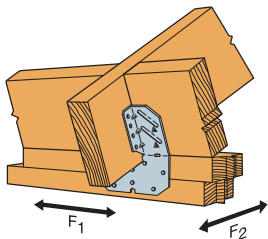
11 **H8 Attaching Rafter to Double Top Plates**



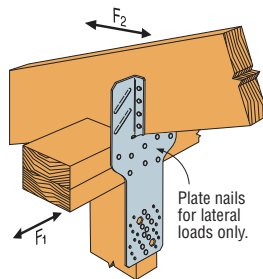
12 **H8 attaching Stud to Sill**
((4) 0.131" x 2½" nails into plate, (5) 0.131" x 2½" nails into stud, refer to footnote 3 for loads)



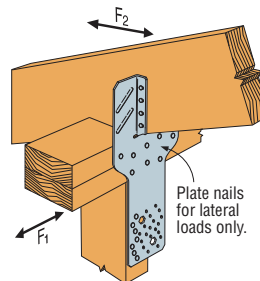
13 **H8 attaching I-Joist to Double Top Plates**



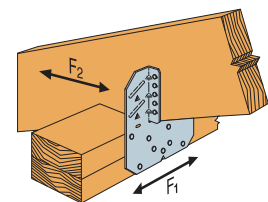
14 **H10A Field-Bent Installation**



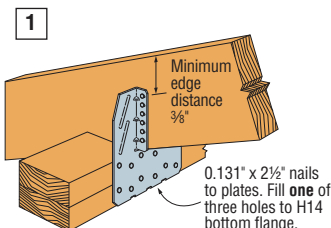
15 **H10S Installation**



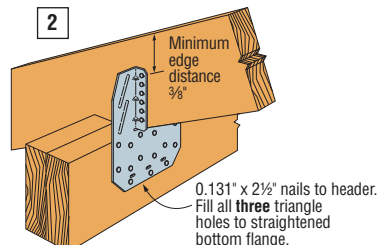
16 **H10S Installation with Stud Offset**



17 **H10A Installation**



18 **H14 Installation to Double Top Plates**



19 **H14 Installation to Double 2x Header**

H10A optional nailing connects shear blocking to rafter. Use 0.131" x 2½" nails. Slot allows maximum field-bending up to a pitch of 6/12, use 75% of the table uplift load; bend one time only.