

Stronger than ever. New HDUE™ holdowns.

SIMPSON
Strong-Tie

A close-up photograph showing a hand holding a black and grey power drill. The drill is positioned to install a metal holdown into a wooden beam. The holdown is a long, silver-colored metal plate with several pre-drilled holes and a larger circular hole at the bottom. It is being attached to a vertical wooden post. The background is a blurred construction site with wooden framing.

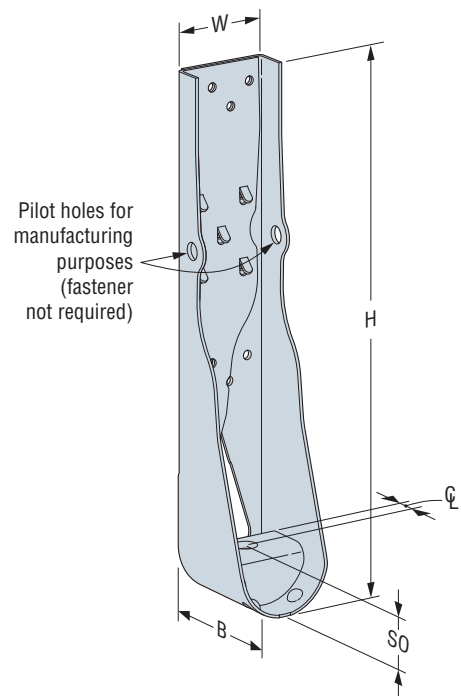
**New design
delivers higher
loads, faster
installation**

Angled fastening in larger sizes achieves higher allowable loads with fewer fasteners.

Engineered for higher load capacity, our new patent-pending HDUE holdown is ideal for meeting the higher design demands of today's residential wood structures, such as three-story homes with more windows and reduced area for shearwalls. With higher load capacities than existing models, HDUE is an easy one-to-one replacement for our industry-leading HDU. The HDUE provides exceptional overturning resistance for shearwalls, braced wall panels and other lateral force-resisting applications in wood construction. The HDUE is available in six sizes to meet a wide range of load requirements.

The HDUE has an extruded seat and overlapping back plate for added strength. Tested per ICC-ES AC155, higher capacity models uniquely combine fasteners in both shear and tension, while reducing the number of screws required. Plus, teardrop-shaped holes allow greater and more even distribution of load. The HDUE is fast and easy to install using Strong-Drive® SDS Heavy-Duty Connector screws, which reduce fastener slip and allow wood posts to maintain a greater net section than bolts. The HDUE17 features a patent-pending solid aluminum washer which enables it to achieve 22% higher loads than the HDU14.

The HDUE is widely available in a range of sizes and backed by our expert service and support.



Key Features:

- Predeflected seat eliminates deflection under load
- Angled fastening in the four larger sizes engages the screws in tension for higher load capacity, reducing the number of screws required
- Angled fastening tabs help drive fastener at a 45° angle and offset holes on the second back plate block the fastener from being driven straight
- Overlapping back plate increases fastener strength and shear values, helping prevent post splitting
- Optimized screw patterns reduce splitting at the end of the post and maximize individual fastener capacity
- Installs with Strong-Drive SDS Heavy-Duty Connector screws

Material: HDUE3/HDUE5/HDUE7 – 14 ga.; HDUE9/HDUE13 – 12 ga.; HDUE17 – 10 ga.

Finish: G90 and HDG

Codes: ESR-2330, LABC and LARC Supplement, and FL10441



HDUE3-SDS3



HDUE5-SDS3



HDUE7-SDS3



HDUE9-SDS3.5



HDUE13-SDS3.5



HDUE17-SDS4.5

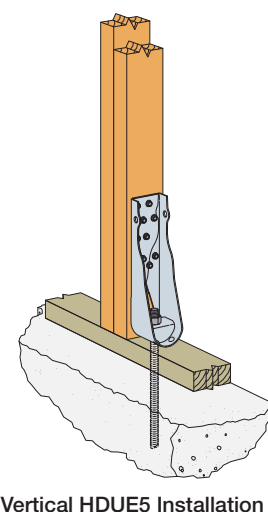
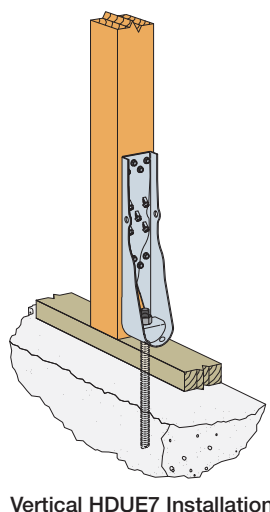
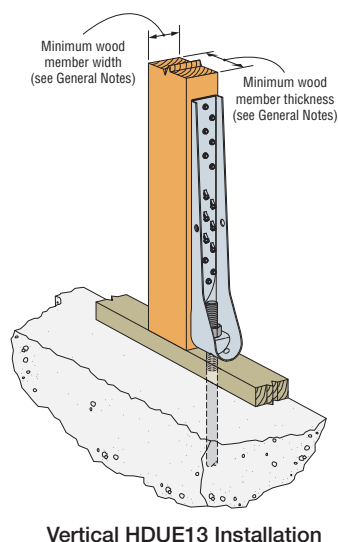
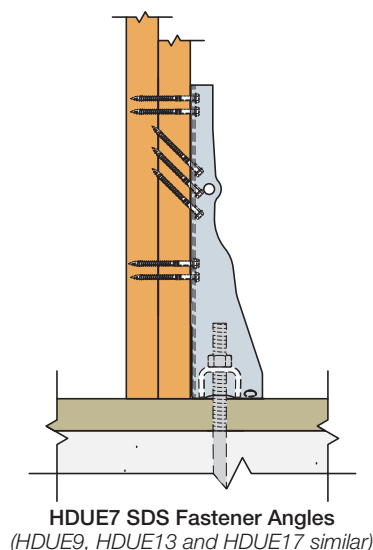
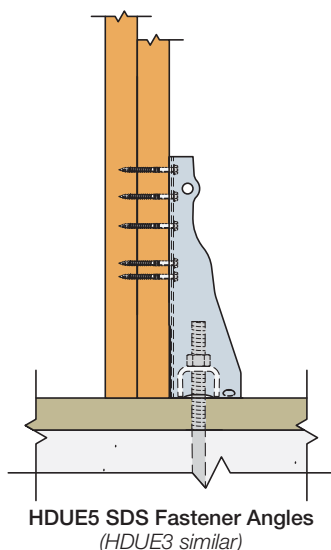
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Allowable Loads (lb.)

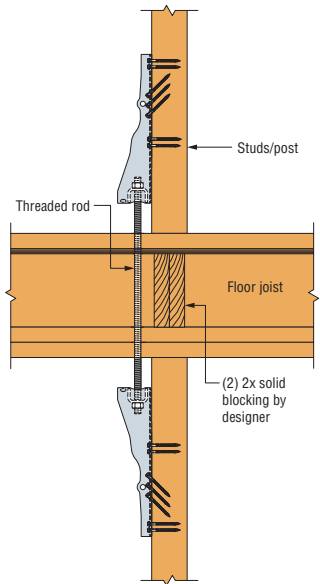
Model No.	Ga.	Dimensions (in.)					Fasteners (in.)		Minimum Wood Member Size Thickness x Width (in.)	Allowable Tension Loads (160)		
		W	H	B	℄	S0	Anchor Bolt Dia.	Wood Fasteners		DF/SP	SPF/HF	Deflection at Allowable Load (in.)
HDUE3-SDS3	14	2 ⁷ / ₈	8 ¹ / ₁₆	3 ³ / ₈	1 ¹ / ₄	1 ¹ / ₂	5 ⁸ / ₁₆	(7) ¼ x 3 SDS	3 x 3½	3,790	3,340	0.127
HDUE5-SDS3	14	2 ⁷ / ₈	11 ⁵ / ₁₆	3 ³ / ₈	1 ¹ / ₄	1 ¹ / ₂	5 ⁸ / ₁₆	(10) ¼ x 3 SDS	3 x 3½	5,375	4,700	0.146
HDUE7-SDS3	14	2 ⁷ / ₈	14 ¹ / ₁₆	3 ³ / ₈	1 ¹ / ₄	1 ¹ / ₂	5 ⁸ / ₁₆	(13) ¼ x 3 SDS	3 x 3½	7,015	6,030	0.154
HDUE9-SDS3.5	12	3	17 ³ / ₈	4 ⁵ / ₁₆	1 ¹ / ₄	1 ¹ / ₂	7 ⁸ / ₁₆	(16) ¼ x 3½ SDS	3½ x 3½	8,425	7,305	0.159
									4½ x 3½	9,390	7,995	0.134
HDUE13-SDS3.5	12	3	23 ¹ / ₁₆	4 ⁵ / ₁₆	1 ¹ / ₄	1 ¹ / ₂	1	(23) ¼ x 3½ SDS	5½ x 3½	11,900	10,215	0.164
									7¼ x 3½	12,950	11,030	0.145
HDUE17-SDS4.5	10	3	27 ⁷ / ₈	5 ³ / ₁₆	1 ³ / ₄	1 ¹ / ₂	1	(28) ¼ x 4½ SDS	5½ x 3½	16,040	13,545	0.094
									5½ x 5½	17,685	14,775	0.111

1. Allowable loads have been increased for wind or earthquake loading with no further increase allowed. Reduce where other loads govern.
2. To obtain LRFD values for holdowns, multiply allowable loads by 1.4. See evaluation report for LRFD deflections.
3. Use all specified fasteners.
4. The designer must specify anchor bolt type, length and embedment. Some of the tabulated holdown tension loads exceed the tensile strength for standard Grade 36 anchor bolts.
5. HDUE13 requires heavy-hex anchor nut to achieve tabulated loads (supplied with holdown).

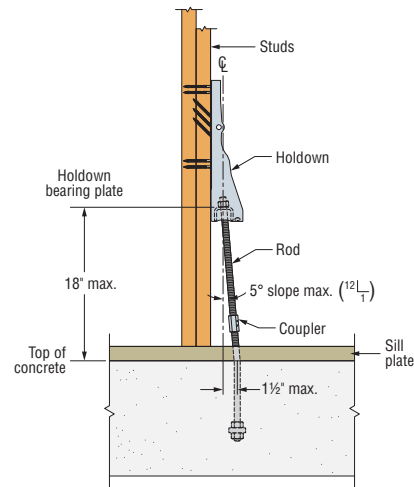
6. Tabulated loads for holdowns may be doubled when holdowns are installed on opposite sides of the wood member. The member must meet the minimum wood thickness as shown in the table for each holdown to prevent opposing holdown fastener interference or the holdowns must be offset to eliminate fastener interference. Designer must evaluate the allowable load of the wood member and the anchorage.
7. Strong-Drive SDS Heavy-Duty Connector screws are supplied with the holdowns to ensure proper fasteners are used.
8. For additional information, see General Information and Notes in *Wood Construction Connectors* catalog on strongtie.com.



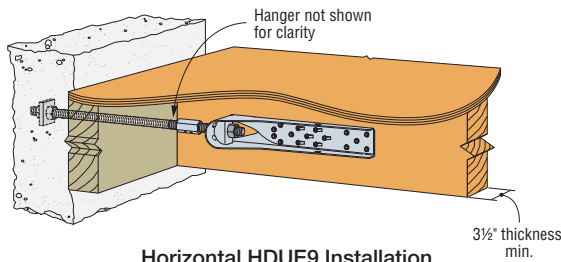
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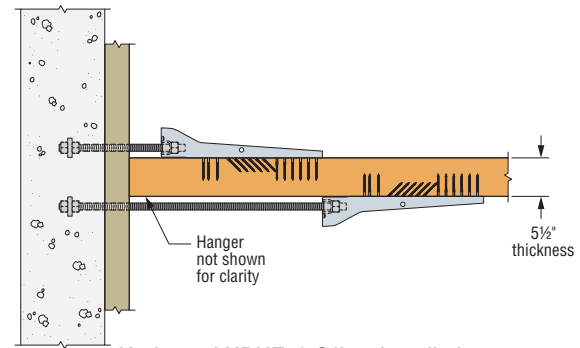
Typical HDUE Tie Between Floors



HDUE Raised Off Sill Plate



Horizontal HDUE9 Installation



Horizontal HDUE13 Offset Installation
(plan view)

HDU to HDUE Conversion Table

Existing HDU Holdown						New HDUE Holdown							
Model No.	Fasteners (in.)		Minimum Wood Member Size Thickness x Width (in.)	Allowable Tension Loads (160)		Model No.	Fasteners (in.)		Minimum Wood Member Size Thickness x Width (in.)	Allowable Tension Loads (160)		Percent Higher of DF/SP (%)	Percent Higher of SPF/HF (%)
	Anchor Bolt Dia.	Wood Fasteners		DF/SP	SPF/HF		Anchor Bolt Dia.	Wood Fasteners		DF/SP	SPF/HF		
HDU2-SDS2.5	5/8	(6) 1/4 x 2 1/2 SDS	3 x 3 1/2	3,075	2,215	HDUE3-SDS3	5/8	(7) 1/4 x 3 SDS	3 x 3 1/2	3,790	3,340	23%	51%
HDU4-SDS2.5	5/8	(10) 1/4 x 2 1/2 SDS	3 x 3 1/2	4,565	3,285	HDUE5-SDS3	5/8	(10) 1/4 x 3 SDS	3 x 3 1/2	5,375	4,700	18%	43%
HDU5-SDS2.5	5/8	(14) 1/4 x 2 1/2 SDS	3 x 3 1/2	5,645	4,340	HDUE7-SDS3	5/8	(13) 1/4 x 3 SDS	3 x 3 1/2	7,015	6,030	24%	39%
HDU8-SDS2.5 ¹	7/8	(20) 1/4 x 2 1/2 SDS	3 x 3 1/2	6,765	5,820	HDUE7-SDS3	5/8	(13) 1/4 x 3 SDS	3 x 3 1/2	7,015	6,030	4%	4%
HDU8-SDS2.5 ¹	7/8	(20) 1/4 x 2 1/2 SDS	3 1/2 x 3 1/2	6,970	5,995	HDUE7-SDS3	5/8	(13) 1/4 x 3 SDS	3 1/2 x 3 1/2	7,015	6,030	1%	1%
HDU8-SDS2.5	7/8	(20) 1/4 x 2 1/2 SDS	3 1/2 x 3 1/2	6,970	5,995	HDUE9-SDS3.5	7/8	(16) 1/4 x 3 1/2 SDS	3 1/2 x 3 1/2	8,425	7,305	21%	22%
HDU8-SDS2.5	7/8	(20) 1/4 x 2 1/2 SDS	4 1/2 x 3 1/2	7,870	6,580	HDUE9-SDS3.5	7/8	(16) 1/4 x 3 1/2 SDS	4 1/2 x 3 1/2	9,390	7,995	19%	22%
HDU11-SDS2.5	1	(30) 1/4 x 2 1/2 SDS	5 1/2 x 3 1/2	9,535	8,030	HDUE13-SDS3.5	1	(23) 1/4 x 3 1/2 SDS	5 1/2 x 3 1/2	11,900	10,215	25%	27%
HDU11-SDS2.5	1	(30) 1/4 x 2 1/2 SDS	7 1/4 x 3 1/2	11,175	9,610	HDUE13-SDS3.5	1	(23) 1/4 x 3 1/2 SDS	7 1/4 x 3 1/2	12,950	11,030	16%	15%
HDU14-SDS2.5	1	(36) 1/4 x 2 1/2 SDS	5 1/2 x 3 1/2	10,770	9,260	HDUE13-SDS3.5	1	(23) 1/4 x 3 1/2 SDS	5 1/2 x 3 1/2	11,900	10,215	10%	10%
HDU14-SDS2.5	1	(36) 1/4 x 2 1/2 SDS	5 1/2 x 3 1/2	10,770	9,260	HDUE17-SDS4.5	1	(28) 1/4 x 4 1/2 SDS	5 1/2 x 3 1/2	16,040	13,545	49%	46%
HDU14-SDS2.5	1	(36) 1/4 x 2 1/2 SDS	7 1/4 x 3 1/2	14,390	12,375	HDUE17-SDS4.5	1	(28) 1/4 x 4 1/2 SDS	7 1/4 x 3 1/2	16,040	13,545	11%	9%
HDU14-SDS2.5	1	(36) 1/4 x 2 1/2 SDS	5 1/2 x 5 1/2	14,445	12,425	HDUE17-SDS4.5	1	(28) 1/4 x 4 1/2 SDS	5 1/2 x 5 1/2	17,685	14,775	22%	19%

1. HDU8-SDS2.5 using 3" x 3 1/2" post can be replaced with HDUE7-SDS3 except the anchor now is 5/8" diameter instead of 7/8" diameter.