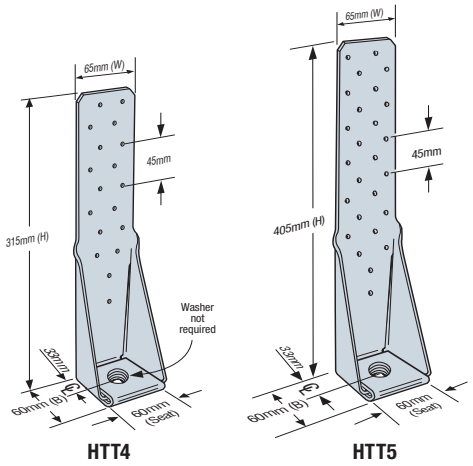
HTT — Tension Tie & Holdown

Material: Carbon Steel 3.1mm thick

Finish: Z275 Galvanised

Corrosion Resistance Level
LOW

Size: See illustration on the right



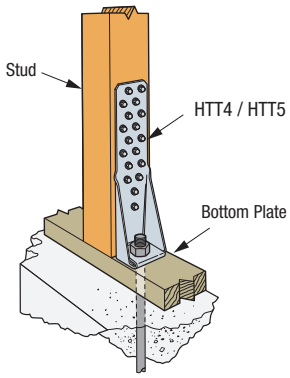
Features & Benefits

- A single piece folded and no weak point of welding, provide ultimate strength tension tile
- Unique nailing pattern that provides better results with less deflection
- Stronger and safer than typical through-bolt installations for deck post connections
- Uses Strong-Drive® Connector screws which install easily, reduce fastener slip and provide a greater net section area of the post compared to bolts
- Suitable for heavy duty holdown applications on single or double studs
- Helps prevent a common type of deck failure
- 17mm diameter anchor hole can accommodate Simpson Strong-Tie M12 Titen HD Screw Anchor or any M16 threaded rods
- HTT5 is suitable for steel frame holdown connections

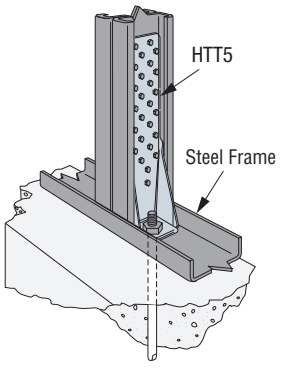
Installation

- Use all specified fasteners
- The HTT requires no additional washer
- Strong-Drive® SD Connector screws install best with a low speed high torque drill with a ⅜" hex head driver

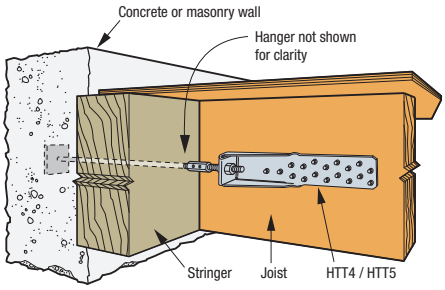
Construction Details



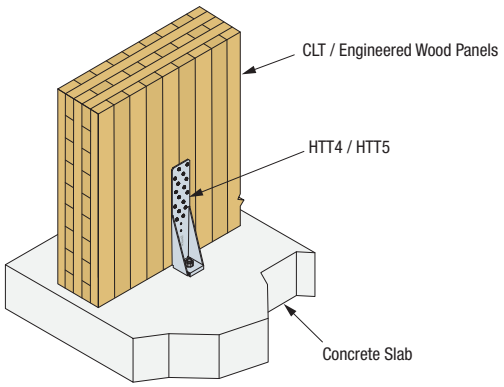
HTT4/HTT5 Holddown



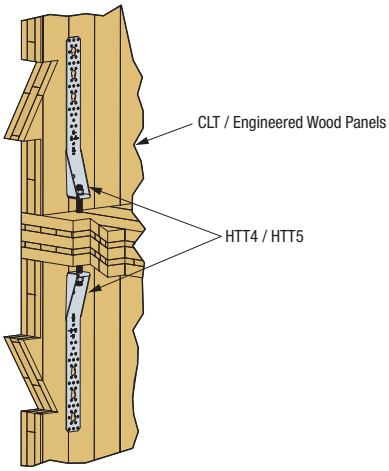
HTT5 Holddown - Steel Frame



HTT4/HTT5 Horizontal Tension Tie Installation



HTT4/HTT5 Holddown - CLT



HTT4/HTT5 Holddown - CLT Mid-Floor Connection

Simpson Strong-Tie® Australia Pty Ltd
Call **1300 STRONGTIE** (1300 787664)
www.strongtie.com.au

HTT — Tension Tie & Holdown

HTT4 HTT5 Technical Data

Model No.	Dimensions (mm)					Fasteners		Minimum Timber Member Size (Depth x Breadth, mm)	Country	Design Tension Capacity (kN)
	Strap Thickness	W	H	B	CL	Anchor Bolt Dia (mm)	Post (Nails: No. - Length x Dia., Screws: No. - Dia. x Length, mm)			
HTT4	3.1	65	315	60	33	16	18 – 38 x 3.75	140 x 38	AU	k_1 = 1.14 **15.30**
									NZ	k_1 = 1.0 **14.40**
								90 x 75	AU	k_1 = 1.14 **18.38**
									NZ	k_1 = 1.0 **17.05**
							18 – SD#10 x 38	140 x 38 or 90 x 75	AU	k_1 = 1.14 **23.04**
									NZ	k_1 = 1.0 **18.97**
HTT5	3.1	65	405	60	33	16	26 - 38 x 3.75	90 x 75	AU	k_1 = 1.14 **20.44**
									NZ	k_1 = 1.0 **17.05**
							26 - SD#10 x 38	140 x 38	AU	k_1 = 1.14 **28.91**
									NZ	k_1 = 1.0 **21.31**

1. Design Capacity is the lesser of (1) the Characteristic Capacity multiplied by the Australian Capacity Factor, or the NZ Strength Reduction Factor (ϕ), and applicable the k modification factors following AS 1720.1 and NZS 3603 and (2) the Serviceability Capacity which is the load at 6.4mm joint slip, which includes fastener slip, anchor elongation and holdown deformation. Design Capacity is the minimum of test data and structural joint calculation.
2. For Australia, the Capacity Factor (ϕ) is 0.85 for nails and screws for structural joints in a Category 1 application. Reduce tabulated values where other Category applications govern. For NZ, the Strength Reduction Factor (ϕ) is 0.80 for nails in lateral load and 0.70 for other fasteners.
3. Duration of Load Factor (k_1) is as shown. Reduce Duration of Load Factor where applicable. Capacities may not be increased.
4. Timber species for joint design is seasoned Radiata Pine, which is Australia Joint Group JD4 per AS 1720.1 Table H2.4 and New Zealand Joint Group J5 per NZS 3603 Table 4.1.
5. The Designer must specify anchor bolt type, length and embedment. Fasteners for the HTT4 are sold separately.
6. Anchor bolt nut should be finger tight plus ⅓ to ½ turn with a hand wrench. Care should be taken not to over-tighten the nut.
7. Post or beam design by Designer. Posts may consist of multiple members provided they are connected independently of the holdown fasteners.
8. Structural composite timber columns have sides that either show the wide face or the edges of the timber strands/veneers, known as the narrow face.
9. Simpson Strong-Tie stainless-steel connectors require stainless-steel fasteners. Values in the table reflect installation into the wide face.
10. Holdowns and tension ties are for use in vertical or horizontal applications.
11. Holdowns and tension ties may be installed raised up to 460mm above the top of the concrete with no load reduction, provided that additional elongation of the anchor rod is taked into account.

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This flyer reflects information available as of September 22 2021 and may be updated periodically.
Simpson Strong-Tie Limited Warranty: For the Limited Warranty that applies to Simpson Strong-Tie products, please consult www.strongtie.com.au/warranty. To obtain a copy of the Limited Warranty, contact us at info.au@strongtie.com, or at the number provided here. The Limited Warranty contains important disclaimers, limitations and exclusions, and applies only if the products have been properly specified, installed, maintained, and used in accordance with the design limits and the structural, technical, and environmental specifications in the Simpson Strong-Tie Documentation. All future purchases of Simpson Strong-Tie products are subject to the terms of the Limited Warranty in effect as of the purchase date.

