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Get Your Deck
Up to Code

New DTT1Z
Deck Tension Tie

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New DTT1Z Deck Tension Tie Provides Alternate Approach to Attaching Decks to Homes

The new DTT1Z deck tension tie provides a less invasive approach for attaching a new deck to a home or retrofitting an existing deck to current code standards. This tension tie addresses a 2015 International Residential Code provision (section R507.2.4) that now allows four 750 lb. lateral connectors to be fastened to framing in the house with a lag screw. This provision is an alternative to using two 1,500 lb. lateral connections from the deck to the floor joists within the house.

The DTT1Z is specifically designed to comply with this new code detail that permits the lateral connection from the deck joists to be made to top plates, studs, or headers within the supporting structure. This eliminates the need to access the floor joists inside the house.

The DTT1Z fastens to the narrow or wide face of a single 2x with Strong-Drive® SD Connector screws. The new Strong-Drive® SDWH Timber-Hex HDG screw with an integral washer attaches the tension tie to the supporting structure.

Additional Features

- ZMAX® coating offers additional corrosion protection for exterior and preservative-treated wood applications
- DTT1Z offered as an individual part or as part of a retail pack with Strong-Drive® SD Connector Screws and SDWH Timber-Hex HDG Screws

Additional Fastening Options

To Joist:

- #9x1½" Strong-Drive® SD Connector Screw
- 10dx1½" HDG nail

To Structure:

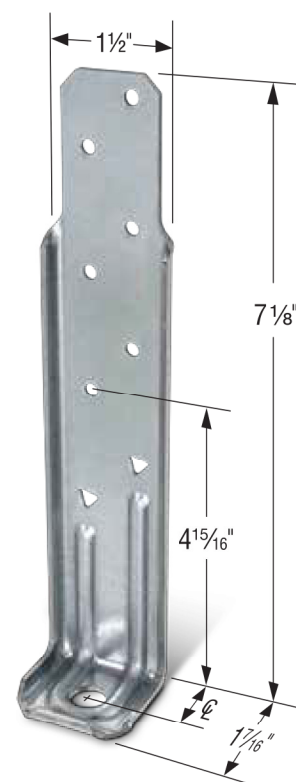
- Strong-Drive® SDWH Timber-Hex HDG Screw (available in 4"-12" lengths)
- ¾" machine bolt, anchor bolt or lag screw (washer required)
- ¾" Titen® HD Heavy Duty screw anchor (interior dry holdown applications only, see page 4)

Model No.	C	Anchor Dia. or Type	Fasteners	Allowable Tension Loads (lbs.) (160)				Deflection at Allowable Load (in.)
				Dry		Wet		
				DF/SP	SPF/HF	DF/SP	SPF/HF	
DTT1Z	¾"	⅜" ⁵ or SDWHG ⁶	6-SD #9x1½"	840	840	840	755	0.170
			6-10dx1½"	910	640 ⁴	795	640 ⁴	0.167
			8-10dx1½"	910	850	910	850	0.167

1. Allowable loads have been increased 60% for wind or earthquake loading with no further increase allowed.
2. Dry values are applicable to installations into wood with a moisture content that does not exceed 19%.
3. Wet values are applicable to installations into wood with a moisture content greater than 19% at time of installation or in service. Values include a NDS wet service factor for the fasteners.
4. DTT1Z installations with allowable loads of less than 750 lbs. do not satisfy the 2015 IRC requirements for deck-to-house lateral load connections.
5. A standard ⅜" cut washer is required when using a ¾" machine bolt, anchor bolt or lag screw.
6. The Strong-Drive® SDWH Timber-Hex HDG screw with a min. of 3" of thread penetration into dry lumber has an allowable withdrawal load (160) of 1380 lbs. into SP, 1225 lbs. into DF and 1020 lbs. into SPF/HF.
7. Load values are valid if the product is flush with the end of the framing member or installed away from the end.
8. FASTENERS: SD #9x1½" (model SD9112) = 0.131" dia. x 1½" long, 10dx1½" = 0.148" dia. x 1½" long.

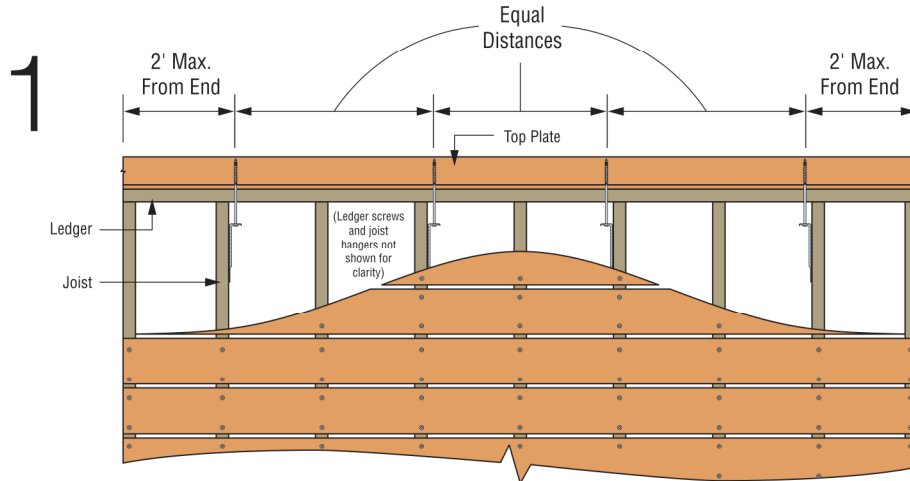


The DTT1Z deck tension tie with the Strong Drive® SDWH TIMBER-HEX HDG screw accommodates most installation conditions regardless of the siding type or ledger thickness.



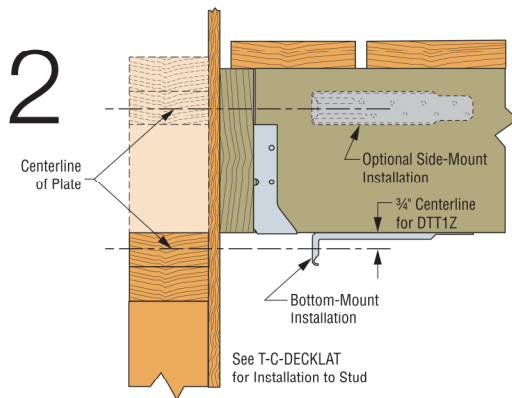
DTT1Z Deck Tension Tie
U.S. Patent Pending

DTT1Z Installation Instructions for Deck Applications



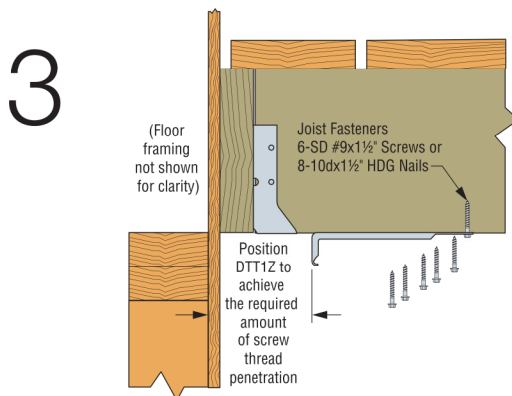
Layout:

Determine the horizontal locations of the installations. A minimum of four DTT1Z deck tension ties must be evenly distributed along the deck with one DTT1Z within two feet of each end of the ledger.



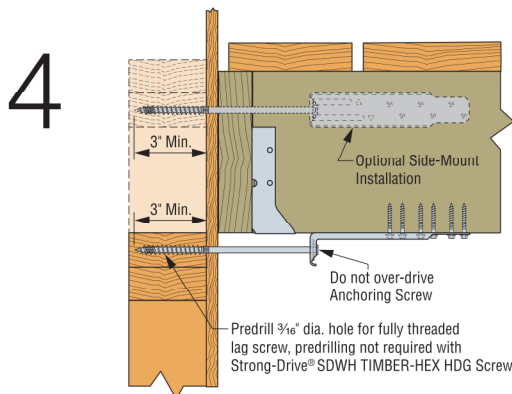
Location:

Determine the vertical locations of the installations. The DTT1Z tension tie must be fastened into the center of the top plate, studs or header (siding may need to be removed and exploratory holes may be needed). Ensure location is free of piping, wiring, ductwork, or other obstructions. In some cases, structural blocking fastened to the deck joists may be required to position the DTT1Z in the proper location. For additional information, refer to the technical bulletin T-C-DECKLAT at www.strongtie.com.



Joist Fasteners:

Position the DTT1Z on the deck joist in a location that provides a minimum of 3" of thread penetration of the anchoring screw into the top plate, studs or header. Using a low-torque wrench, fasten the DTT1Z to the deck joist with the required fasteners (6 - #9x1 1/2" Strong-Drive® SD Connector screws or 8-10dx1 1/2" HDG nails).



Anchoring Screw:

Install anchoring screw through the hole of the DTT1Z and into the center of the top plate, studs or header with a minimum of 3" of thread penetration and snug to the base of DTT1Z. Do not over-drive. Simpson Strong-Tie Strong-Drive® SDWH Timber-Hex HDG screws do not require predrilling or a washer. A 3/8" lag screw anchor can also be used but requires predrilled holes and a standard 3/8" washer.

Note: The details above are applicable where floor joists are parallel to deck joists per IRC figure R507.2.3 (2).

Wall Bracing and Shearwalls

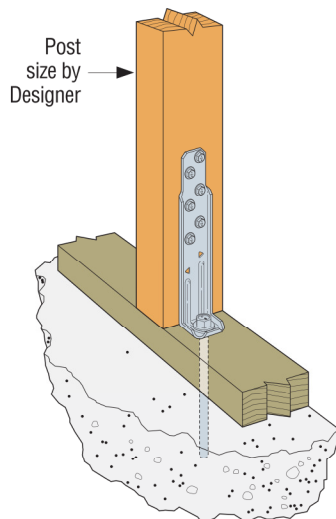
SIMPSON

Strong-Tie

DTT1Z as a Holdown

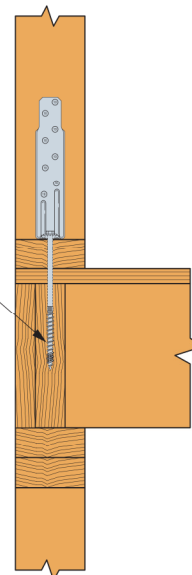
The 14-gauge DTT1Z has the versatility to be installed and load-rated as a holdown for light-duty shearwalls and may satisfy the 800 lbs. holdown requirement for some braced wall-panel applications.

For additional information about the DTT1Z in a wall-bracing application, refer to the technical bulletin T-WALLBRACE at www.strongtie.com.



DTT1Z installed with a Titen HD® screw anchor through a sill plate. (6) Strong-Drive® SD Connector screws are attached to the stud.

SDWH TIMBER-HEX HDG screw with a Minimum 3" of Thread Penetration into Center of Solid Sawn 2x Rim Joist or Blocking



Note: Joist hanger and connections to wall not shown for clarity

DTT1Z shown with a Strong-Drive® SDWH Timber-Hex HDG screw to floor framing below (wall bracing application only).

Know What You Need for Decks



Our Deck Connection and Fastening Guide

When building or remodeling your deck, make sure it's done right. You'll need special hardware (connectors, nails and screws) that meets your local building code and is rated for outdoor use. Look to Simpson Strong-Tie for all your deck and outdoor hardware solutions. Take the time to learn how to make your deck safe and strong. To download our free *Deck Connection and Fastening Guide*, visit www.strongtie.com/deckcenter, or use our free Literature Library mobile app at the Apple App Store or Google Play!

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