QuikStik™
Rafter and Truss Fastening System

SIMPSON Strong-Tie®

Raising the Bar on Overhead Fastening

(800) 999-5099
strongtie.com

Raising the Bar on Overhead Fastening

Introducing the new standard for overhead assembly installations of rafter and truss connections. The Simpson Strong-Tie® Quik Stik installation tool provides contractors with a versatile solution that makes fastening rafter and truss connections fast, safe and easy.

- Fast installation: Drive screws overhead from a standing position with no ladders
- Safe on the jobsite: Designed for use inside the structure — no need to work outside the building
- Easy to operate — less-experienced users can work quickly and efficiently
- Proven fastener solution: Tested and code-listed
- Precise: Bright orange guidelines facilitate proper alignment for each of the approved installations
- Special purpose: Designed specifically for use with the Strong-Drive® SDWC Truss screw for rafter/truss connections

No Ladders

No Compressor Lines

No Power Nailers

Quik Stik and Strong-Drive SDWC Truss screws are designed to work together for a safe, reliable solution from the leader in structural fastening.

Features

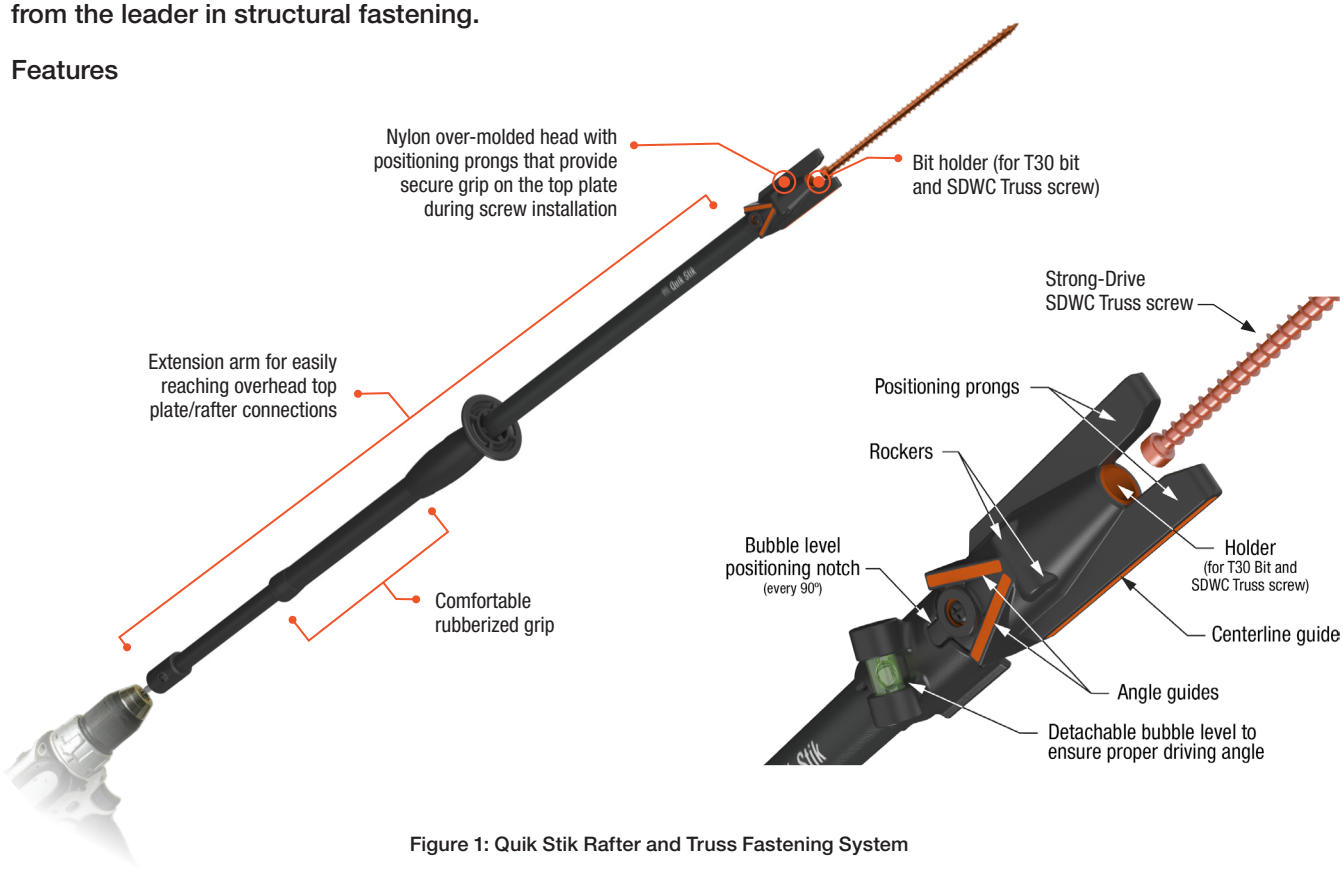


Figure 1: Quik Stik Rafter and Truss Fastening System

Raising the Bar on Overhead Fastening

Easy to Install

Attach to any drill or impact driver— even cordless.

Load SDWC Truss screw into Quik Stik head.

Drive screw quickly, accurately and easily.

Efficiently Installs a Variety of Top-Plate-to-Rafter/Truss Assemblies

Narrow-face stud to top plate.

Wide-face stud to top plate.

Truss rafter offset from stud.

Instantly Positions Fastener at the Optimal Installation Angle

In this type of installation, when the angle guideline is vertical (or if bubble is visible in level), the SDWC screw is at the optimal angle for top plate to rafter/truss connections.

In this type of installation, when the centerline guide is vertical, the screw is at the optimal 90° angle for vertical connections into an offset rafter/truss assembly.

In this type of installation, when the centerline guide points to the middle of the rafter/truss and the angle guideline is vertical (or if the bubble is visible in the level), the SDWC Truss screw is at the optimal compound angle.

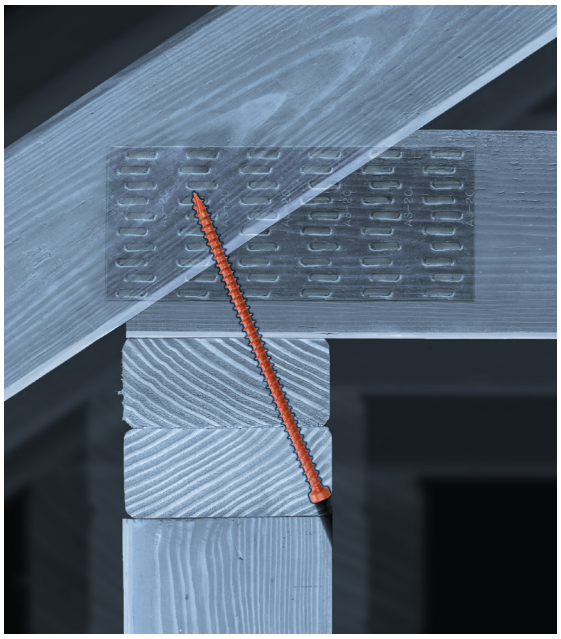
Raising the Bar on Overhead Fastening

A Proven Connection

The Quik Stik system was designed for installing the Strong-Drive® SDWC Truss screw (sold separately). The Strong-Drive SDWC Truss screw provides a connection that fastens rafters and trusses to top plates.

Strong-Drive SDWC Truss screw features:

- The fully threaded shank engages the entire length of the fastener, providing a secure connection
- 6-lobe drive recess provides a secure connection between the driver bit and the SDWC cap head for consistent drive performance
- Drives easily without splitting wood
- Orange topcoat for easy inspection of code-listed 6" truss screws
- The SDWC is tested in accordance with ICC-ES AC233 (screw) and AC13 (wall assembly and roof-to-wall assembly) for uplift and lateral loads between wall plates and vertical wall framing and between the top plate and the roof rafters or trusses
- Codes/Standards: IAPMO UES ER-262



SDWC15600-KT contains:

- (50) Strong-Drive SDWC screws
- (1) Matched-tolerance driver bit (Part no. BIT30T-RT1; also sold separately)

SDWC15600B-KT contains:

- (500) Strong-Drive SDWC screws
- (2) Matched-tolerance driver bits (Part no. BIT30T-RT1; also sold separately)

Rafter/Truss-to-Top-Plate Connections

These instructions apply to rafter/truss-to-top-plate connections. Allowable loads for Installations 1–5 are shown below.

Note: SDWC screws install best with a minimum 18V (if cordless) drill using the matched-tolerance bit included in the SDWC15600KT or Quik Stik system using the included bit.

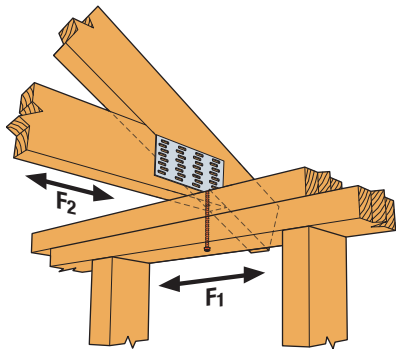
Allowable Roof-to-Wall Connection Loads — DFL, SP, SPF, HF

Model No.	Minor Diameter (in.)	Length (in.)	Thread Length (in.)	Allowable Loads (lb.)					
				DF/SP			SPF/HF		
				Uplift	F_1	F_2	Uplift	F_1	F_2
SDWC15600	0.152	6	5¾	615	130	225	485	115	190

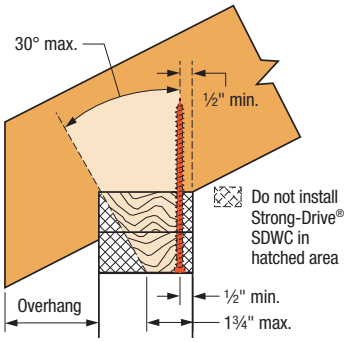
1. Loads have been increased for wind and earthquake loading (C_D = 1.6), no further increases allowed; reduce where other loads govern.
2. Allowable loads are for SDWC installed per the installation instructions. SDWC screws are shown installed on the interior side of the wall. Installation on the exterior side of the wall is also acceptable.
3. An SDWC screw may be used in each ply of two- or three-ply rafters or trusses. The allowable uplift load for each screw shall be multiplied by 0.90, but may be limited by the capacity of the plate or the connection between the top plate to the framing below. SDWC screws in multi-ply assemblies must be spaced a minimum of 1½" o.c.
4. Loads assume a minimum overhang of 3½".
5. For uplift connection load path, the Designer shall verify complete continuity of the uplift path.
6. When the screw is loaded simultaneously in more than one direction, the allowable load must be evaluated using the following unity equation: (Design Uplift ÷ Allowable Uplift) + (Design F_2 ÷ Allowable F_2) ≤ 1.0
7. Top plate, stud and top plate splice fastened per applicable Building Code.
8. Table loads do not apply to trusses with end-grain bearing.

Installation 1 Instructions — Rafter/Truss Offset from Stud: Fasten Straight up Through Double Top Plate

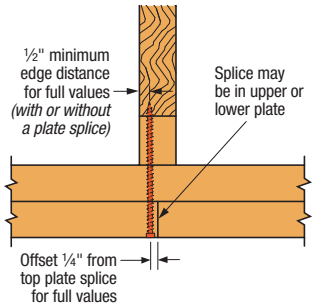
These instructions apply only if the rafter/truss is offset from the stud below.



Optional SDWC Installation — Truss Offset from Stud
(rafter offset from stud similar)



Allowable Installation Range
(rafter/truss offset from stud only)



Min. Edge Distance for Top Plate Splice

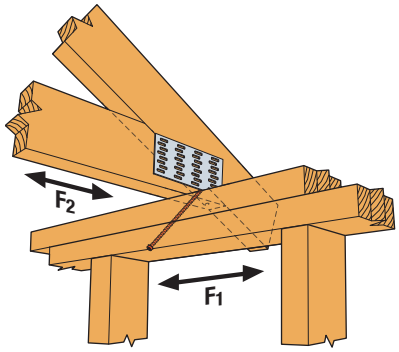
Installation Steps: Position the Quik Stik head directly under the top plate so that the screw is pointing toward the centerline of the rafter/truss.

Ensure the Quik Stik centerline guide is vertically perpendicular to the top plate.

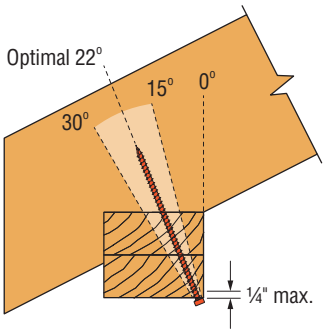
Drive the SDWC Truss screw straight up through the top plates and into the rafter/truss until the head is flush with the board's surface.

Installation 2 — Rafter/Truss Offset from Stud: Fasten from Front-Bottom Corner of Double Top Plate

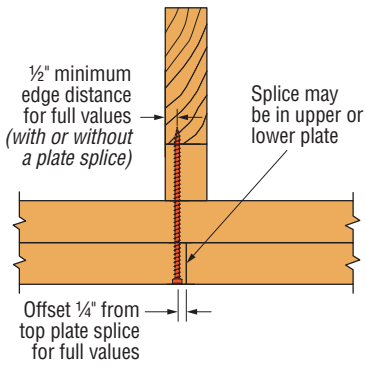
These instructions apply only if the rafter/truss is offset from the stud below and the installation of the screw is from the corner of the top plate.



Optional SDWC Installation — Truss Offset from Stud



Installation Angle Limit



Mininum Edge Distance for Top-Plate Splice

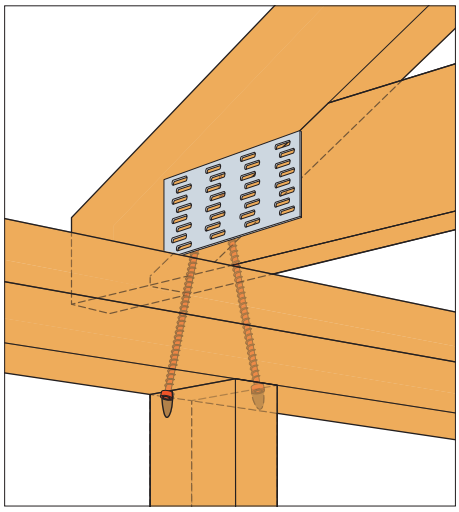
Installation Steps: Position Quik Stik so that the positioning prongs straddle the bottom edge of the double top plate and with the SDWC screw set to enter the bottom member along its edge.

Ensure the Quik Stik centerline guide points to the center of the rafter/truss and that the orange angle guide is perpendicular to the top plate (alternatively, check to ensure that the bubble is visible in the level window).

Drive SDWC screw through the top plates and into the rafter/truss.

Installation 3 Instructions — Rafter/Truss Aligned with Stud: Fasten from Wide Face of Stud

These instructions apply to rafter/truss-to-top-plate connections utilizing one or two screws when installed from the underside of the top plate and from the wide face of the rafter/truss.



Optional SDWC Installation — Two-Screw Wide-Face Installation Shown

Installation Steps: Position the Quik Stik head so that its positioning prongs are in contact with the framing where the top plate meets the wide face of the stud.

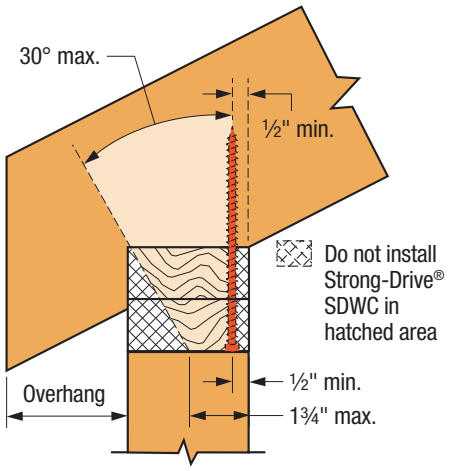
Sight along the Quik Stik centerline guide to align the tool with the centerline of the rafter/truss. If the rafter/truss is offset from the stud, be sure to install the screw on the overhanging side.

Adjust the installation angle of the head to align with the rafter/truss centerline.

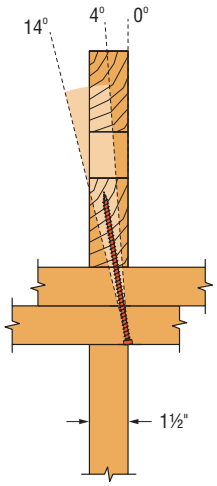
For a one screw installation: position the screw in the central one third of the wide face.

For a two-screw installation: see Configuration A on p. 10 for screw locations and edge distances.

Drive the SDWC Truss screw through the top plates and into the rafter/truss.



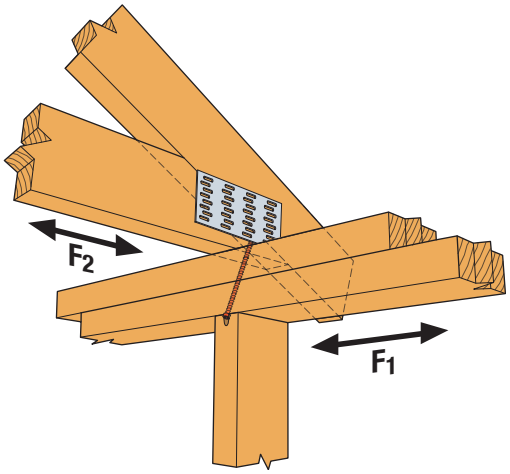
Allowable Installation Range
(rafter/truss offset from stud only)



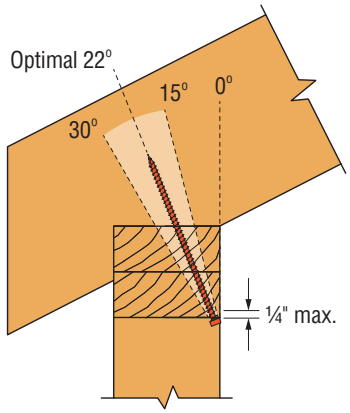
Allowable Installation Range
(front view)

Installation 4 Instructions— Rafter/Truss Aligned with Stud: Fasten from Narrow Face of Stud

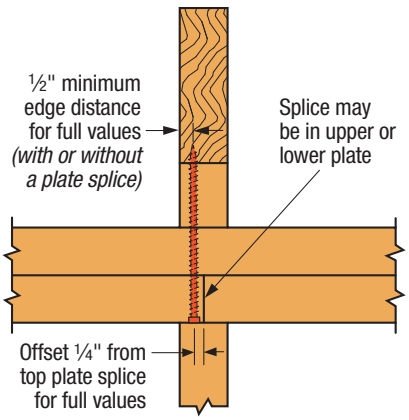
These instructions apply if the rafter/truss is aligned with the stud below or if there is blocking directly below the top plate.



Optional SDWC Truss Screw Installation — Truss Aligned with Stud
(rafter aligned with stud similar)



Installation Angle Limit



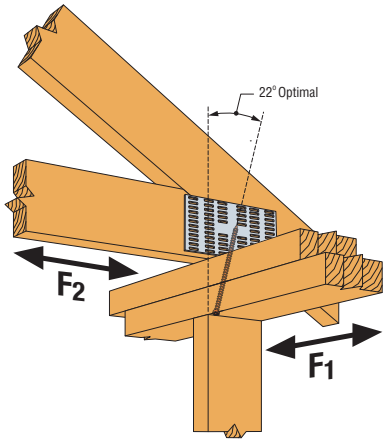
Minimum Edge Distance for Top-Plate Splice

Installation Steps: Put the point of the screw in the seam between the top plate and stud — or on the desired spot for installation — and pivot the whole tool up past 45°.

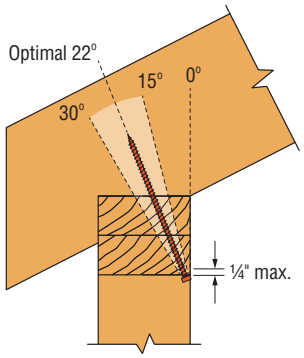
Drive the SDWC Truss screw point into the wood surface so that the first two screw threads embed into the wood. Pivot the tool downward until the bubble appears in the level window, and continue to drive the SDWC Truss screw through the top plates and into the rafter/truss.

Installation 5 — Rafter/Truss Aligned with Stud: Fasten from Corner of Stud

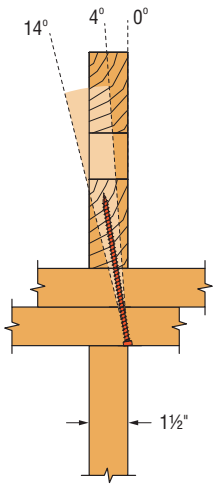
These instructions apply if the rafter/truss is aligned with the stud below, and the installation of the screw is from the corner where the stud meets the top plate below the rafter/truss. The configuration would be similar to that of Installations 2 and 3.



Optional SDWC Truss Screw Installation — Truss Aligned with Stud
(rafter aligned with stud similar)



Installation Angle Limit
(side view)



Installation Angle Limit
(front view)

Installation Steps: Position Quik Stik so the positioning prongs straddle the front corner where the stud meets the top plate. Ensure the centerline guide is pointed at the center of the rafter/truss.

Align the angle guide with the vertical edge of the stud (or if using the bubble level, the bubble should appear in the level's window).

Drive the SDWC Truss screw through the top plates and into the rafter/truss until the screw head is flush with the bottom of the top plate.

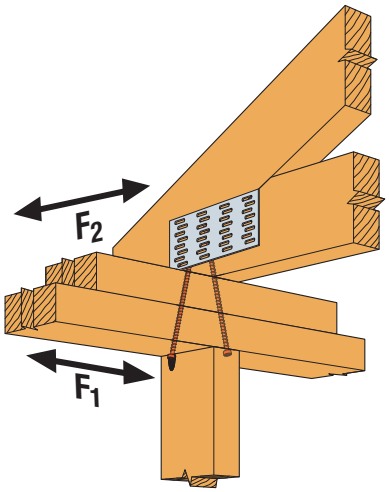
Rafter/Truss-to-Top-Plate Connections — Two-Screw Configurations

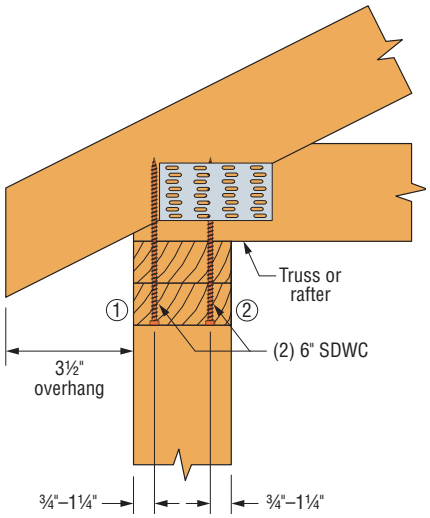
These illustrations apply to rafter/truss-to-top-plate connections utilizing two-screw configurations. Allow loads using a two-screw configuration per the detail configurations shown on the following pages.

Allowable Loads for Rafter/Truss-to-Top-Plate Two-Screw Connections

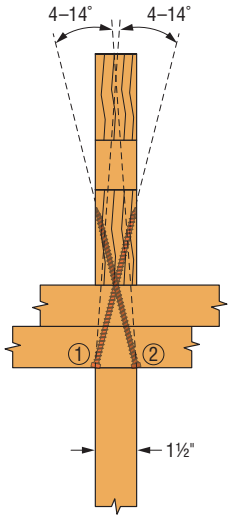
Configuration	Model No.	Minor Diameter (in.)	Length (in.)	Thread Length (in.)	Quantity Required	Allowable Loads (lb.)					
						DF/SP			SPF/HF		
						Uplift	F_1	F_2	Uplift	F_1	F_2
A	SDWC15600	0.152	6	5¾	2	1,200	685	995	1,045	495	670
B						1,195	680	925	1,195	405	680
C						905	535	790	850	330	595

1. Loads have been increased for wind and earthquake loading (C_D=1.6) with no further increase allowed; reduce where other loads govern.
2. For Uplift Connection Load Path, the Designer shall verify complete continuity of the uplift load path.
3. When cross-grain tension cannot be avoided, supplemental reinforcement shall be considered by the Designer.
4. Proper installation angles for all configurations are the responsibility of the installer.
5. SDWC screws must be offset min. ¼" from top plate splices for full values.
6. Loads assume minimum overhang of 3½".
7. When a screw is loaded simultaneously in more than one direction, the allowable load must be evaluated using the unity equation: (Design Uplift ÷ Allowable Uplift) + (Design F_1 ÷ Allowable F_1) + (Design F_2 ÷ Allowable F_2) ≤ 1.0. The three terms in the unity equation represent the possible generated force directions. The number of terms that must be considered for simultaneous loading is the sole discretion of the Designer and depends on the method of calculating wind forces and the utilization of the screws within the structural system.
8. An SDWC screw may be used in each ply of two- or three-ply rafters or trusses. The allowable uplift load for each screw shall be multiplied by 0.90, but may be limited by the capacity of the plate or the connection between the top plate to the framing below. SDWC screws in multi-ply assemblies must be spaced a minimum of 1½" o.c.





Minimum Edge Distances



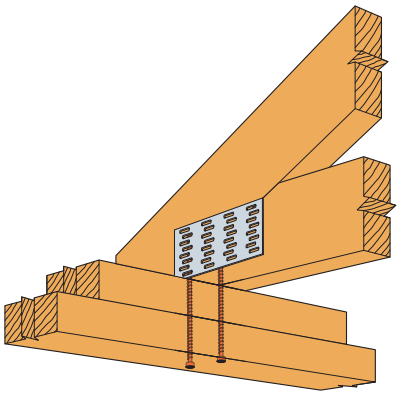
Installation Angle Range

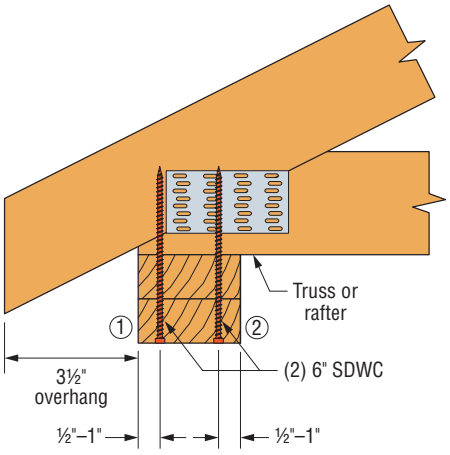
Configuration A: Using Quik Stik Installation 3

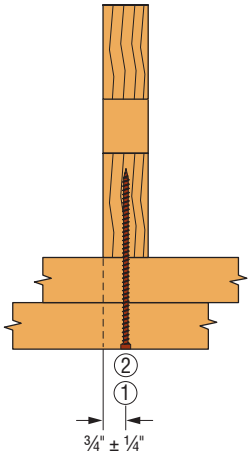
Truss Aligned with Stud — Install through Top Plate into Rafter/Truss

Both screws installed at a 4°–14° angle, offset ¾"–1¼" from opposite edges of the top plate.

Rafter/Truss-to-Top-Plate Connections — Two-Screw Configurations





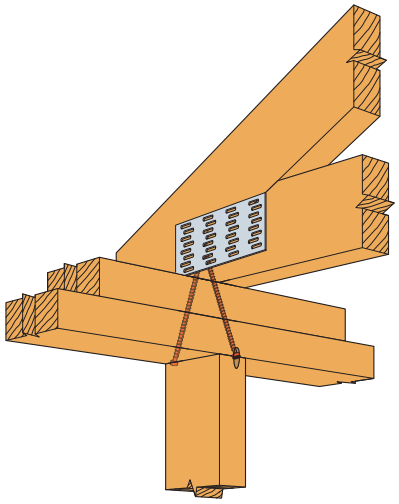


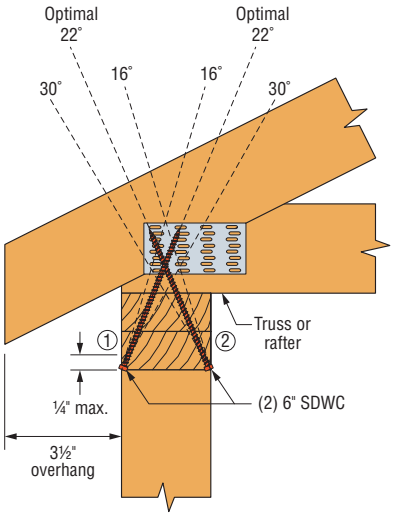
Minimum Edge Distances

Configuration B:
Using Quik Stik Installation 1

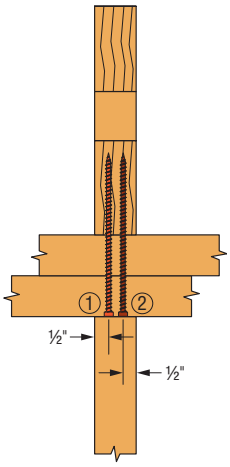
Truss Offset from Stud — Install through Top Plate into Rafter/Truss

Both screws installed vertically ±5° into the center of the rafter/truss from the underside of the top plate, ½"–1" from opposite edges of the top plate.





Installation Angle Range



Minimum Edge Distances

Configuration C:
Using Quik Stik Installation 4

Install through Top Plate into Rafter/Truss

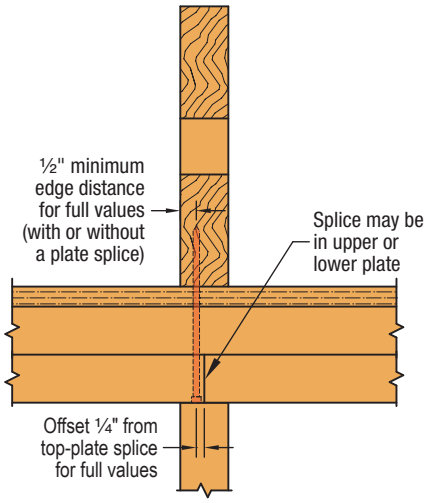
Both screws installed at a 16°–30° angle, offset ½" from the opposite edges of rafter/truss.

Top-of-Wall Assemblies for Factory-Built Structures

SDWC—Allowable Uplift Loads for Factory-Built Structures

Model No.	Minor Diameter (in.)	Length (in.)	Thread Length (in.)	Allowable Uplift SPF/DF/SP (lb.) (160)	
				With Overhang	Without Overhang
SDWC15600	0.152	6	5¾	415	370

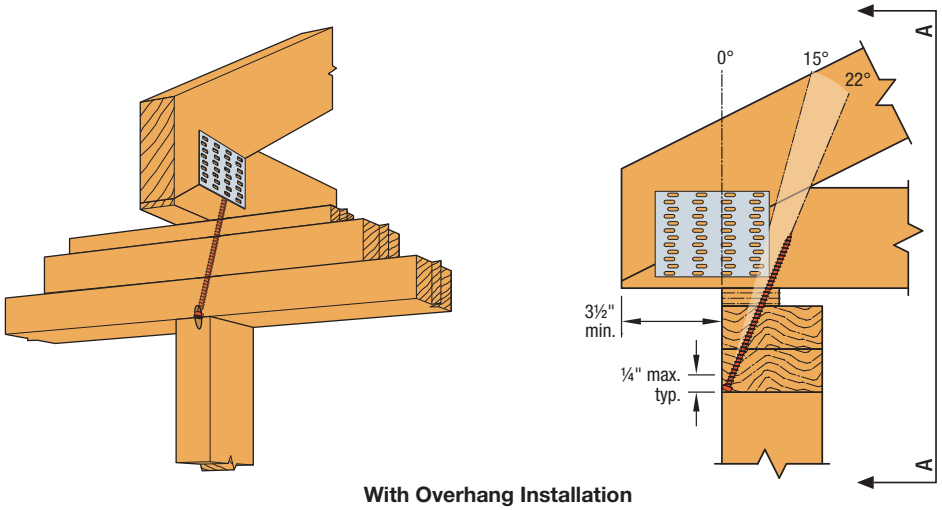
1. Loads have been increased for wind or earthquake (C_D=1.6); no further increase allowed; reduce where other loads govern.
2. Allowable loads apply to spruce-pine-fir, hem-fir, Douglas fir–Larch and southern pine.
3. Allowable loads are for an SDWC installed per the "With Overhang" or "Without Overhang" installation details.
4. SDWC must be installed on the exterior side of the wall.
5. SDWC must be installed at an angle between 15° and 22°. Guide provided with screws is at 22°.
6. For Uplift Continuous Load Path, top plate to stud connections must be located on the exterior side of the wall.
7. Table loads do not apply to trusses with end-grain bearing.
8. Top plate, stud and top-plate splice fastened per applicable building code.



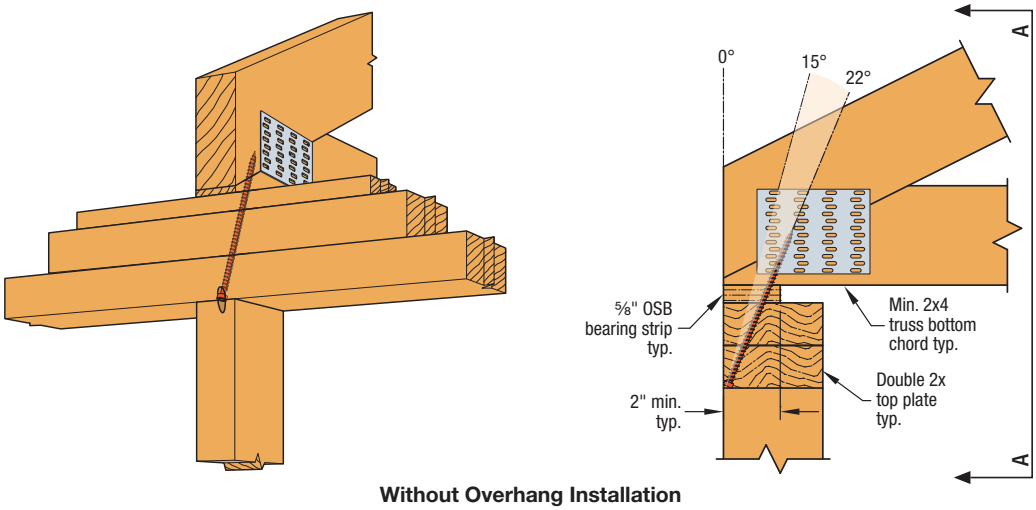
Section A-A
Min. Edge Distance for Top Plate Splice

Use Quik Stik Installation 4

The allowable uplift loads are provided for the Strong-Drive® SDWC Truss screw (SDWC15600) installed with a ⅝" OSB bearing strip between the truss and the top plate.



With Overhang Installation



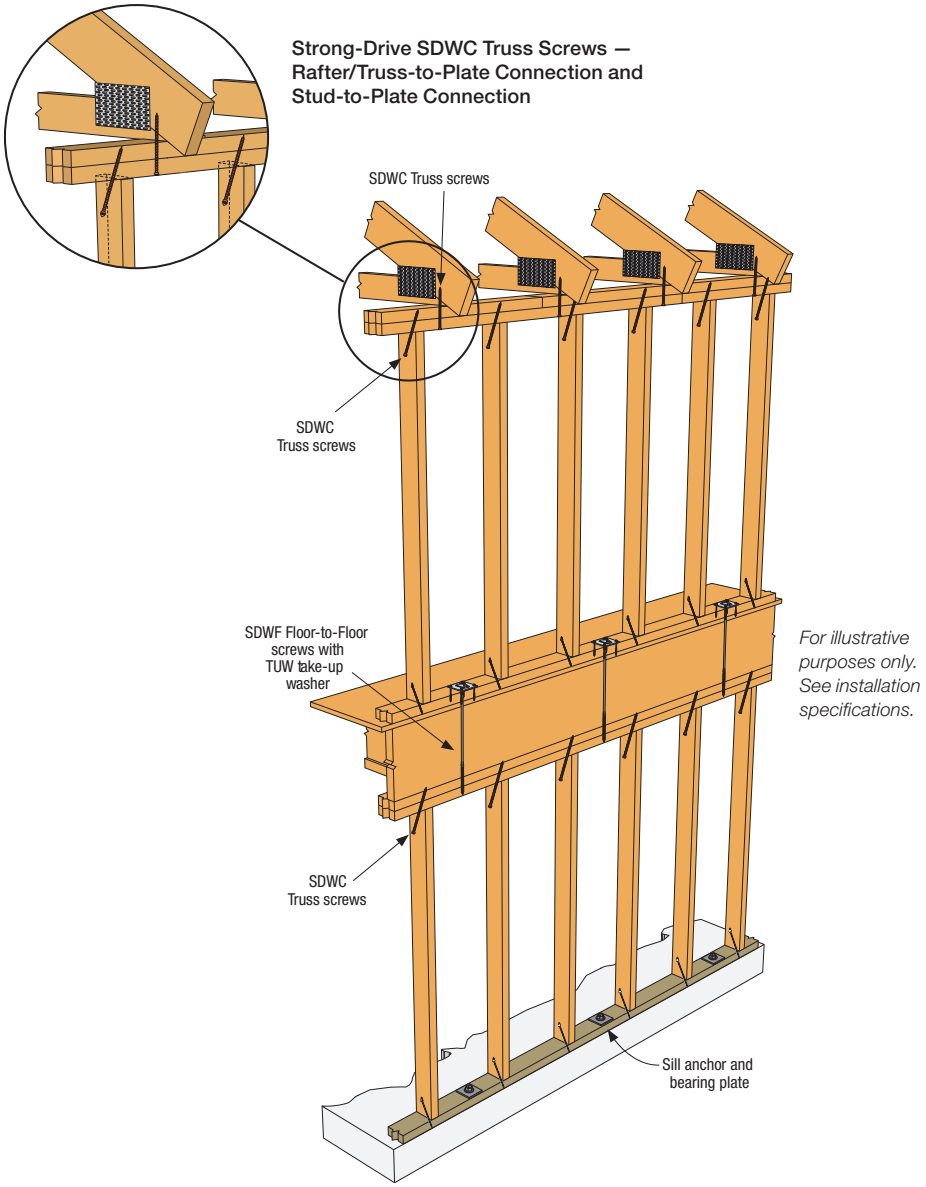
Without Overhang Installation

Installations with the Strong-Drive® SDWC **TRUSS** Screw

Building codes require structures to be designed to create a continuous load path. Forces must be transferred from their point of origin to the building elements that are designed to resist them. When uplift forces act on a roof, the roof must be tied to the wall below it; and the wall must be tied down to the foundation or wall below.

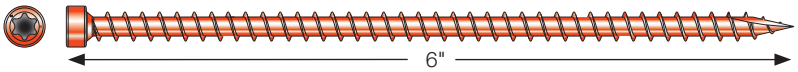
Like hurricane ties, the SDWC truss screw fastens the rafter or truss directly to the top plate of the wall. See pp. 5–15 of this guide for installation requirements and load transfer capacities. The wall top plate alone does not offer sufficient resistance to roof uplift forces, and therefore must be tied to the studs or framing below. The Simpson Strong-Tie Quik Stik allows for fast, easy overhead installation of SDWC Truss screws in rafter and truss assemblies.

Note: In the following pages, truss plate applications have been simplified to improve illustration clarity. Fastener installations are not intended to replace diaphragm boundary members. Designed details to prevent cross-grain bending and cross-grain tension may be necessary.



Strong-Drive SDWC Screws — Stud-to-Plate Connection

Strong-Drive® SDWC **TRUSS** Screw



Clear Zinc Coating (with Orange Topcoat)

Size	Thread Length (in.)	Retail Pack			Mini-Bulk Bucket	
		Fasteners Per Pack	Retail Per Master Carton	Model No.	Fasteners Per Bucket	Model No.
0.152 x 6	5 ¾	50	6	SDWC15600-KT	500	SDWC15600B-KT

Allowable Shear Loads — DFL, SP, SPF

Model No.	Fastener Length (in.)	Thread Length (in.)	Side Member	Main Member	Allowable Shear Loads (lb.)					
					Z_{para}			Z_{perp}		
					SP	DFL	SPF	SP	DFL	SPF
SDWC15600	6	5¾	(2)2x (Face)	2x (Edge)	245	240	180	240	240	240
			2x (Face)	2x (End Grain)	—	—	—	225	205	190
			(2)2x (Face)	2x (End Grain)	—	—	—	225	225	190

1. Allowable loads are shown at the wood load duration factor of C_D = 1.0. Loads may be increased for load duation up to a C_D = 1.6.
2. Tabulated values must be multiplied by all applicable adjustment factors per the NDS.
3. The main and side members shall be sawn lumber or structural composite lumber with a specific gravity or equivalent specific gravity 0.42 to 0.55.
4. Z_{para} — Parallel-to-grain loading in the side member and perpendicular-to-grain loading in the main member.
5. Z_{perp} — Perpendicular-to-grain loading in the side member and perpendicular-to-grain loading in the main member, except for 2x (edge) where main member is loaded parallel to grain.
6. The connection conditions of this table are for specific intended applications. Reference lateral design values for all other shear connections are calculated following the NDS.

Allowable Withdrawal and Pull-Through Loads — DFL, SP, SPF

Model No.	Screw Length (in.)	Thread Length (in.)	Main Member	Allowable Withdrawal Loads (lb./in.)			Allowable Pull-Through Loads (lb./in.)		
				SP	DFL	SPF	SP	DFL	SPF
SDWC15600	6	5¾	2x (Face)	210	180	120	255	195	160
			(2) 2x (Face)	220	200	160	240	225	190

1. Allowable loads are shown at the wood load duration factor of C_D = 1.0. Loads may be increased for load duration up to a C_D = 1.6.
2. Tabulated values must be multiplied by all applicable adjustment factors per the NDS.
3. The reference withdrawal and pull-through values are in pounds per inch of the thread penetration into the main member and a minimum 1½"-thick side member, respectively.

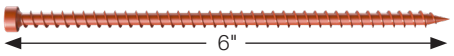
Quik Stik Rafter and Truss Fastening System Includes:

- Quik Stik fastening tool
- Sturdy carrying case (optional and also sold separately)
- Detachable/adjustable bubble level
- T30 6-lobe driver bit (replacement driver bit: BIT30TU-2-RC3)
- Limited lifetime warranty

(Strong-Drive® SDWC Truss screws sold separately)

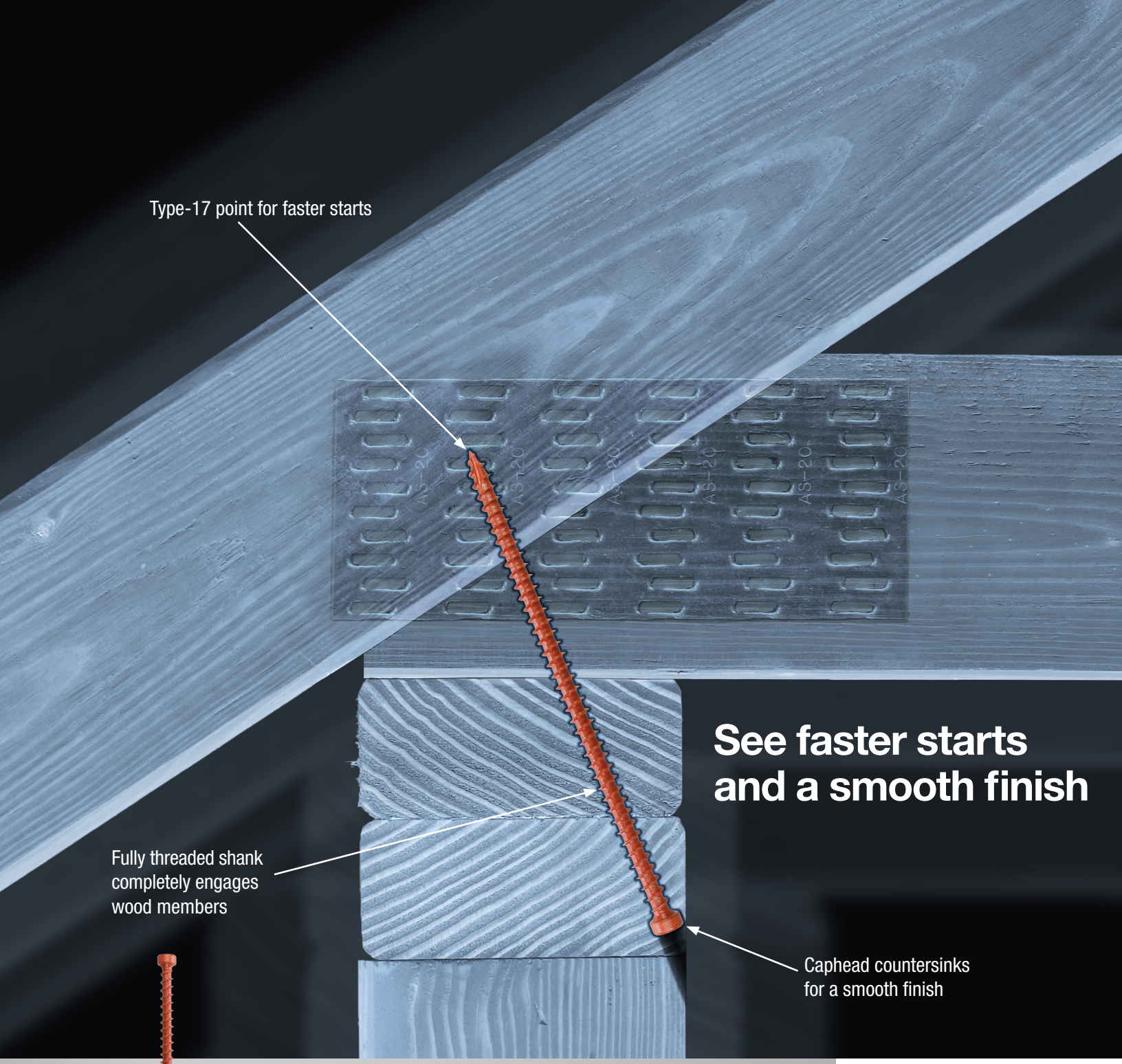
Quik Stik System

Product	Model No.
Quik Stik Rafter and Truss Fastening System	QUIKSTIK
Quik Stik Rafter and Truss Fastening System Case	QSCASE



Strong-Drive® SDWC Truss Screw

Size (in.)	Thread Length (in.)		Retail Pack			Mini-Bulk	
		Coating	Fasteners per Pack	Retail per Master Carton	Model No.	Fasteners per Bucket	Model No.
0.15 x 6	5¾	Clear zinc with orange topcoat	50	6	SDWC15600	500	SDWC15600B-KT



See faster starts and a smooth finish

The results are in: the new Strong-Drive® SDWC TRUSS Screw is another clear solution for fastening trusses and rafters to wall top plates. Featuring a fully threaded shank, the SDWC screw requires no predrilling, has a sharp tip for faster starts and countersinks flush for a smooth finish. The screw can be installed before or after sheathing is applied from inside the structure, which eliminates exterior work on the upper stories and increases job safety. SDWC Truss screws are sold with a matched-tolerance driver bit.

SIMPSON Strong-Tie®

This flier is effective until December 31, 2020, and reflects information available as of October 1, 2018. This information is updated periodically and should not be relied upon after December 31, 2020. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

(800) 999-5099
strongtie.com

F-F-QUIKSTIK18 11/18 exp. 12/20