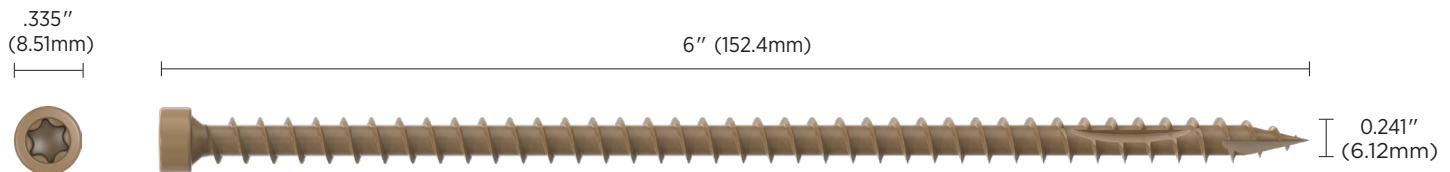


## 6 IN. Truss Structural Screws

**TRUSS/RAFTER/JOIST  
TO TOP PLATE CONNECTIONS**

**#14 x 6" T-30 Star Truss Screw**  
PROTECH Ultra 4 coated

CAMO #14 x 6" Structural Truss Screws have been tested for use in the attachment of minimum 1-1/2" thick wood trusses, rafters, or floor joists to the tops of walls to provide uplift and lateral resistance. When installed following the instructions in this bulletin, our Truss Screws can be used for these connections according to IBC section 2308 and IRC section R602.

**CORROSION STATEMENT**

Our proprietary PROTECH™ Ultra 4 four-layer coating system applied to our Ledger Screws has been tested in accordance with ASTM G198 and offers the same level of protection as code-approved hot-dip galvanized (ASTM A153, Class D) in ground contact general use pressure treated lumber (AWPA UC1-UC4A). Our Truss screws with PROTECH Ultra 4 coating are recognized for use in untreated lumber, ground contact general use pressure-treated lumber, and fire retardant treated (FRT) lumber. A statement of compliance can be found in our DrJ TER reports.

**PRODUCT FEATURES**

- Code listed per DrJ TER 2102-03 for truss screw used in wall connections
- Code listed per DrJ TER 2102-01 for structural wood screw properties
- Cylinder head with T-30 star drive
- No pre-drilling necessary
- Included Truss Guide for 22.5 degree installations



**INSTALLATION INSTRUCTIONS**

- 1) Use a ½” (12.7mm) low rpm/high torque electric drill (450 rpm) and the driver bit supplied with the screws.
- 2) Install the screws upward through the wall top plates or wood structural framing member at the bottom corner of the top plate(s) and into the center of the wood truss or rafter.
  - a. The screw should be installed at an upward angle from the vertical of 20 degrees to 30 degrees (Figure 1) and should penetrate the wood truss, rafter, or joist within ¼” of the centerline.
  - b. Screws located between studs may be installed at a 0 degree angle (Figure 2).
  - c. If the wood truss, rafter, or floor joist is located directly over a top plate splice, offset the fastener ¼” to one side of the splice.
- 3) Follow the minimum requirements for fastener spacing, edge distance, and end distance in Table 2
- 4) Minimum penetration for truss / rafter / joist to top plate connections is 2-1/2”.
- 5) Drive the screws until the topside of the head is flush to the surface of the wood. Do not overdrive.

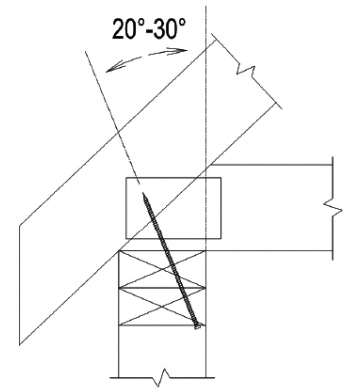


FIGURE 1

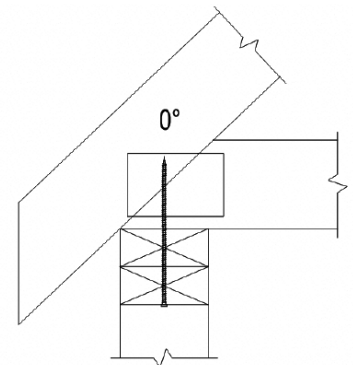


FIGURE 2

**ALLOWABLE DESIGN LOADS**

Allowable design loads for uplift and lateral resistance for truss, rafter, and joist to top plate connections are provided in Table 1. These loads are applicable to Truss Screws installed in accordance with the instructions in this bulletin.

Loads parallel to the wall are labeled F1 and loads perpendicular to the wall are labeled F2 (See Figure3).

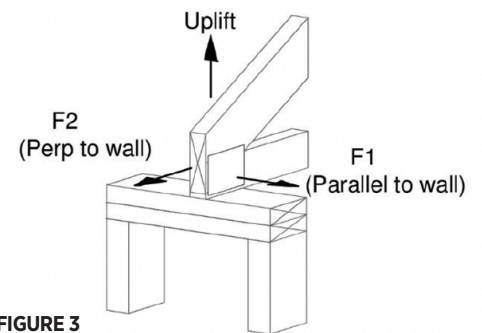


FIGURE 3

**TABLE 1: ALLOWABLE UPLIFT & LATERAL LOADS FOR FASTENERS IN TRUSS/RAFTER/JOIST TO TOP PLATE CONNECTIONS**

FASTENER DESIGNATION <sup>2,3</sup>	MIN. PENETRATION INTO TRUSS/RAFTER/JOIST <sup>1</sup> (IN)	TOP PLATE(S)	FASTENER ANGLE TO VERTICAL <sup>7</sup>	ALLOWABLE LOADS <sup>2,3,4,5,6</sup> (LB)								
				HF/SPF (0.42)			DF-L (0.50)			SP (0.55)		
				UPLIFT	F1	F2	UPLIFT	F1	F2	UPLIFT	F1	F2
#14 X 6”	2½	Double	22.5°	790	255	255	1175	305	305	1175	330	330
			0°	1175	255	255	1175	305	305	1175	330	330

SI: 1 in = 25.4 mm, 1 lb = 4.45 N

1. Wood truss, rafter, or floor joist members shall be a minimum of 2 nominal thickness. Design of truss, rafter, or floor joist is by others.
2. Equivalent specific gravity of structural composite lumber (SCL) shall be equal to or greater than the specific gravities provided in this table. Refer to product information from SCL manufacturer.
3. For wood species with an assigned specific gravity between 0.42 and 0.50, use the tabulated values for a specific gravity of 0.42. For wood species with an assigned specific gravity between 0.50 and 0.55, use the tabulated values for a specific gravity of 0.50. For wood species with an assigned specific gravity greater than 0.55, use the tabulated values for a specific gravity of 0.55.
4. For applications involving members with different specific gravities, use the allowable load corresponding to the lowest specific gravity.
5. Includes 1.6 duration of load increase for wind and seismic. No further duration of load increases permitted. Reduce design values for other load durations as applicable. Ledger materials tested in the wet service condition.
6. See Figure 2 for load directions. See Figure 3 and Figure 4 installation details
7. Minimum band joist requirements: SPF (specific gravity of 0.42) solid-sawn lumber 1½” thick and 7¼” depth; OSB 1” thick and 7½” depth.
8. Install fastener at an upward angle from the vertical of 20° to 30° (22.5° is optimal) or 0° (See Figure 3 and Figure 4). For installation between 20° and 30°, design values for 22.5° may be used.

**SPACING REQUIREMENTS**

Minimum requirements for fastener spacing, edge distance, and end distance shall be in accordance with Table 2.

**TABLE 2:** MINIMUM SPACING, EDGE DISTANCE, AND END DISTANCE REQUIREMENTS

CONNECTION GEOMETRY	MINIMUM SPACING/DISTANCE (IN)
Edge Distance – Load in any direction	$\frac{1}{2}$
End Distance – Load parallel to grain, towards end	$2\frac{1}{2}$
End Distance – Load parallel to grain, away from end	$1\frac{5}{8}$
End Distance – Load perpendicular to grain $15/8$	$1\frac{5}{8}$
Spacing between Fasteners in a Row – Parallel to grain	$2\frac{1}{2}$
Spacing between Fasteners in a Row – Perpendicular to grain	$1\frac{5}{8}$
Spacing between Rows of Fasteners – In-line	$\frac{7}{8}$
Spacing between Rows of Fasteners – Staggered	$\frac{1}{2}$

SI: 1 in = 25.4 mm

1. Edge distances, end distances, and spacing of fasteners shall be sufficient to prevent splitting of the wood or as shown in this table, whichever is the more restrictive.
2. Values for "Spacing between Rows of Fasteners – Staggered" apply where the fasteners in adjacent rows are offset by one half of the "Spacing between Fasteners in a Row".