

ICC-ES Evaluation Report

ESR-2362

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DIVISION: 06 00 00—WOOD, PLASTIC AND COMPOSITES
Section: 06 05 23—Wood and Plastic Fastenings

REPORT HOLDER:

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EVALUATION SUBJECT:
MITEK STABILIZER™
1.0 EVALUATION SCOPE
Compliance with the following codes:

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)
- Other Codes (see Section 8.0)

Property evaluated:

Structural

2.0 USES

The Stabilizer™ provides lateral support to wood trusses and spaces wood trusses at 24 inches (610 mm) on center for trusses having nominally 2-inch-wide (51 mm) members.

3.0 DESCRIPTION

The Stabilizer™ is an upside-down U-shaped member formed using steel with a base-metal thickness of 0.036 inch (0.91 mm) that conforms to ASTM A 653 SS Grade 40. The steel has a G60 galvanized coating complying with ASTM A 653. Each side flange of the U-shaped connector is 1 inch (25 mm) wide, and the center web is 1½ inches (38 mm) wide. Each end of the connector has two flange tabs that are formed at approximately 71 degrees to the side flanges. These flange tabs create the location points used to establish truss spacing. Each flange tab has a set of integral teeth that are stamped and formed at right angles to the parent metal. Each set of integral teeth is fabricated by punching two teeth into the flange tab with each tooth forming a slot 0.45 inch (11 mm) long and 0.125 inch (3 mm) wide. When the flange tabs are formed, the remaining steel produces a web tab that laps over the member being braced. Four series of teeth are stamped

and formed at right angles to the parent metal into the web tab. The teeth are identical to the teeth formed into the flange tabs. The longitudinal centerlines of the adjacent slots are staggered 0.25 inch (6 mm) in the transverse direction. The transverse centerlines of the slots are staggered 0.15 inch (4 mm) in the longitudinal direction. Each slot has a 0.33-inch-long (8 mm) tooth at each end. Each tooth is additionally shaped into an approximate 22-degree twist at its end. This process of forming flange tabs, web tabs and integral teeth is applied at both ends of the Stabilizer™. See Figure 1.

4.0 DESIGN AND INSTALLATION
4.1 Design:

The maximum allowable axial load capacity of the Stabilizer™ is as shown in Table 1. The wood framing, having nominally 2-inch-wide (51mm) members to which the Stabilizer™ is attached, must have a minimum specific gravity of 0.42. Lateral bracing design, details and locations must comply with the requirements of IBC Section 230 3.4.1.5 or IRC Section R802.10.3.

4.2 Installation:

The Stabilizer™ is installed by driving the teeth on the web tab of the Stabilizer™ down into the narrow edge of the truss member using a hammer. The flange tabs must then be secured by driving the teeth of each flange tab into the face of the truss member. The Stabilizer™ is properly installed when the web tab and flange tabs are flush with the truss member, with the teeth fully embedded into the truss member. The allowable axial load in tension may be increased to the value specified in Table 1 when one 8d or 10d common wire nail is installed through one of the tooth slots of each web tab into the truss member, as illustrated in Figure 2. The Stabilizer™ must be staggered in adjacent truss bays with the web tabs in side-to-side contact.

5.0 CONDITIONS OF USE

The Stabilizer™ described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** The devices are located where there are no wood defects, such as knots.
- 5.2** The devices are limited to use with untreated lumber.
- 5.3** The device locations must be on the truss design drawings in accordance with Section 2303.4.1.2 (18) of the IBC.

6.0 EVIDENCE SUBMITTED

- 6.1 Test reports on compression, tension and moment capacity.
- 6.2 A quality control manual.

7.0 IDENTIFICATION

The Stabilizer™ itself or the packaging must be labeled with the manufacturer’s name (MiTek), manufacturing location, the product name (Stabilizer™) and the evaluation report number (ESR-2362).

8.0 OTHER CODES

8.1 Evaluation Scope:

In addition to the codes referenced in Section 1.0, the product was evaluated for compliance with the requirements of the 1997 *Uniform Building Code* (UBC). The product described in this report complies with, or is a suitable alternative to what is specified in, the UBC, subject to the provisions of Sections 8.2 through 8.7.

8.2 Uses:

See Section 2.0.

8.3 Description:

See Section 3.0.

8.4 Installation and Design:

See Section 4.0.

8.5 Conditions of Use:

See Section 5.0.

8.6 Evidence Submitted:

See Section 6.0.

8.7 Identification:

See Section 7.0.

TABLE 1—ALLOWABLE AXIAL LOAD

TYPE OF LOAD	CAPACITY ^{1,2} (lbs)
Tension	105
Tension (with fastener ²)	155
Compression	420

For **SI**: 1 pound = 4.448 N.

¹Wood framing must have a minimum specific gravity of 0.42.

²Fastener must be one 8d or 10d common wire nail installed through one of the slots in the web tab. (See Figure 2.)

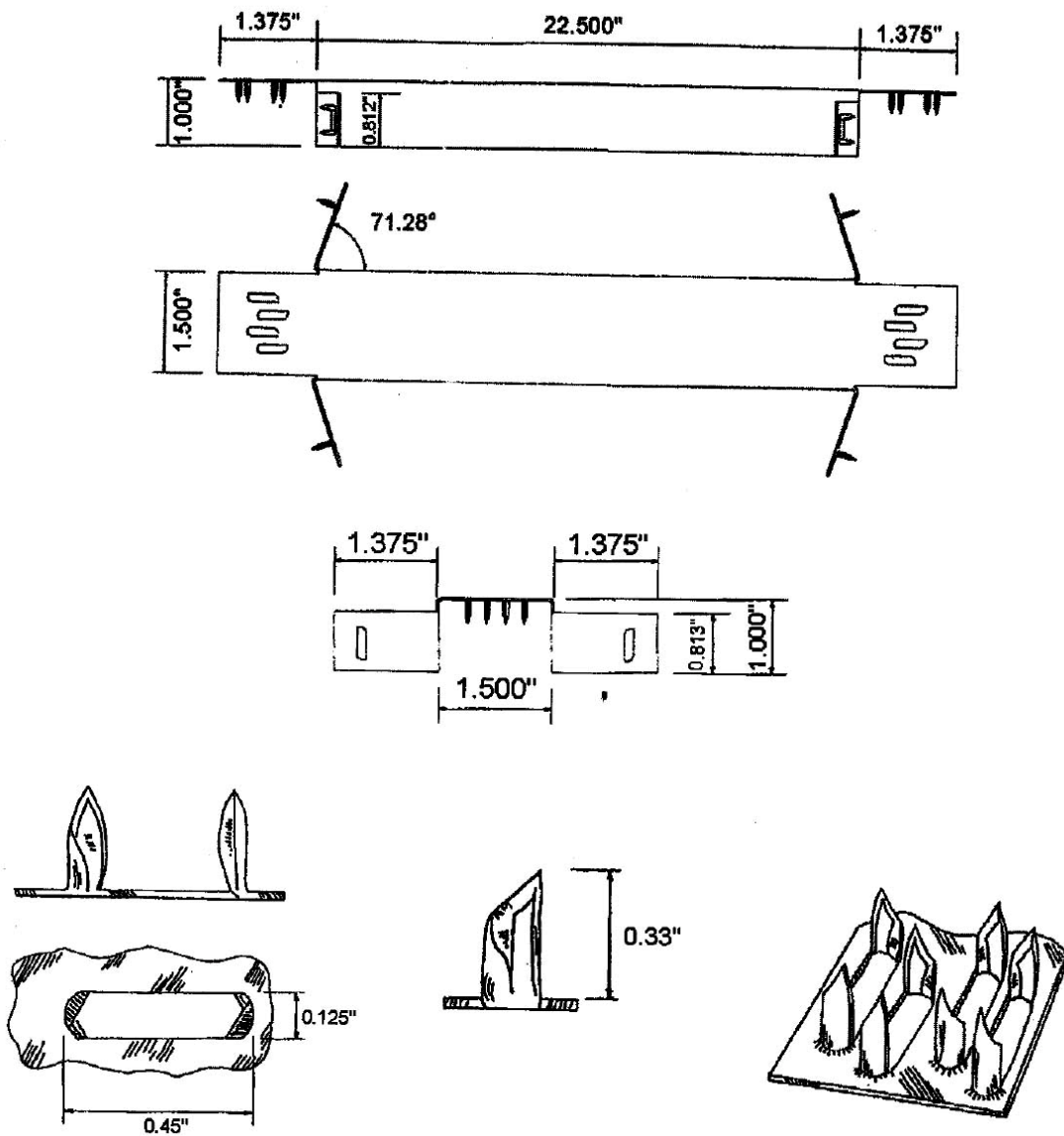


FIGURE 1—STABILIZER™

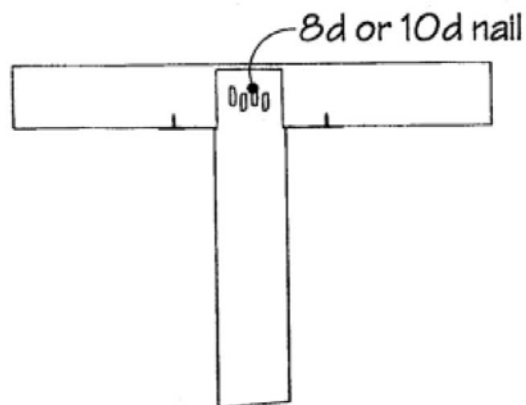


FIGURE 2—FASTENER INSTALLATION