IMPORTANT INFORMATION & GENERAL NOTES

WARNING

Simpson Strong-Tie Company Inc. structural connectors, anchors, and other products are designed and tested to provide specified design loads. To obtain optimal performance from Simpson Strong-Tie Company Inc. products and achieve maximum allowable design load, the products must be properly installed and used in accordance with the installation instructions and design limits provided by Simpson Strong-Tie Company Inc. To ensure proper installation and use, designers and installers must carefully read the following General Notes, General Instructions For The Installer and General Instructions For The Designer, as well as consult the applicable catalog pages for specific product installation instructions and notes.

Proper product installation requires careful attention to all notes and instructions, including these basic rules:

1. Be familiar with the application and correct use of the connector.
2. Follow all installation instructions provided in the applicable catalog, website, Pocket Installers Guide or any other Simpson publications.
3. Install all required fasteners per installation instructions provided by Strong-Tie Company Inc.: a) use proper fastener type; b) use proper fastener quantity; c) fill all fastener holes; d) do not overdrive or underdrive nails, including when using gun nailers; and e) ensure screws are completely driven.
4. Only bend products that are specifically designed to be bent. For those products that required bending, do not bend more than once.
5. Cut joists to the correct length, do not "short-cut". The gap between the end of the joist and the header material should be no greater than ⅛" unless otherwise noted.

In addition to following the basic rules provided above as well as all notes, warnings and instructions provided in the catalog, installers, designers, engineers and consumers should consult the Simpson Strong-Tie Company Inc. website at ***www.strongtie.com*** to obtain additional design and installation information, including:

- Instructional builder/contractor training kits containing an instructional video, an instructor guide and a student guide in both English and Spanish;
- Installer's Pocket Guide *(form S-INSTALL, contact Simpson Strong-Tie for more information)* which is designed specifically for installers and uses detailed graphics and minimal text in both English and Spanish to explain visually how to install many key products;
- Information on workshops Simpson conducts at various training centers throughout the country;
- Product specific installation videos;
- Specialty catalogs;
- Code reports;
- Technical fliers and bulletins;
- Master format specifications;
- Material safety data sheets;
- Corrosion information;
- Connector selection guides for engineered wood products *(by manufacturer)*;
- Simpson connector selector software;
- Simpson Autocad menu;
- Simpson Strong-Wall® Selector software;
- Simpson Anchor Tiedown System Selector and anchor related software; and
- Answers to frequently asked questions and technical topics.

Failure to follow fully all of the notes and instructions provided by Simpson Strong-Tie Company Inc. may result in improper installation of products. Improperly installed products may not perform to the specifications set forth in this catalog and may reduce a structure's ability to resist the movement, stress, and loading that occurs from gravity loads as well as impact events such as earthquakes and high velocity winds.

Simpson Strong-Tie Company Inc. does not guarantee the performance or safety of products that are modified, improperly installed or not used in accordance with the design and load limits set forth in this catalog.

These notes are provided to ensure proper installation of Simpson Strong-Tie® products and must be followed fully.

a. Simpson Strong-Tie Company Inc. reserves the right to change specifications, designs, and models without notice or liability for such changes.

b. Steel used for each Simpson product is individually selected based on the product's steel specifications, including strength, thickness, formability, finish, and weldability. Contact factory for steel information on specific products.

c. Unless otherwise noted, dimensions are in inches, loads are in pounds.

d. Unless otherwise noted, welds, bolts, screws and nails may not be combined to achieve highest load value.

e. Catalog loads are based on cold-formed steel members having a minimum yield strength of Fy=33 ksi and tensile strength of Fu=45 ksi for 43 mils (18 ga) and thinner, and a minimum yield strength of Fy=50 ksi and Fu=65 ksi for 54 mils (16 ga) and thicker.

f. Simpson Strong-Tie Company Inc. will manufacture non-catalog products provided prior approval is obtained and an engineering drawing is included with the order. Steel specified on the drawings as ⅛", 3⁄16", and ¼" will be 11 gauge (0.120"), 7 gauge (0.179"), and 3 gauge (0.239"), respectively. The minimum yield and tensile strengths are 33 ksi and 52 ksi, respectively.

g. RFB is A307, Grade C; SSTB is ASTM A36.

h. Unless otherwise noted, bending steel in the field may cause fractures at the bend line. Fractured steel will not carry load and must be replaced.

i. Top flange hangers may cause unevenness. Possible remedies should be evaluated by a professional and include using a face mount hanger or cutting the subfloor to accommodate the top flange thickness.

j. Built-up members *(multiple members)* must be fastened together to act as one unit to resist the applied load *(excluding the connector fasteners)*. This must be determined by the Designer/Engineer of Record.

k. Do Not Overload. Do not exceed catalog allowable loads, which would jeopardize the connection.

l. Some model configurations may differ from those shown in this catalog. Contact factory for details.

m. Some combinations of hanger options are not available. In some cases, combinations of these options may not be installable. Horizontal loads induced by sloped joists must be resisted by other members in the structural system. A qualified designer must always evaluate each connection, including carried and carrying member limitations, before specifying the product. Fill all fastener holes with fastener types specified in the tables, unless otherwise noted. Hanger configurations, height, and fastener schedules may vary from the tables depending on joist size, skew and slope. See the allowable table load for the non-modified hanger, and adjust as indicated. Material thickness may vary from that specified depending on the manufacturing process used. W hangers normally have single stirrups; occasionally, the seat may be welded. S/B, S/LBV, W and WP hangers for sloped seat installations are assumed backed.

n. Simpson will calculate the net height for a sloped seat. The customer must provide the H1 joist height before slope.

o. Do not weld products listed in this catalog unless this publication specifically identifies a product as acceptable for welding, or unless specific approval for welding is provided in writing by Simpson. Some steels have poor weldability and a tendency to crack when welded. Cracked steel will not carry load and must be replaced.

p. Steel for the framing members must meet ICC Acceptance Criteria. Material specification must comply with ASTM A 1003 Grade 33 minimum.

q. Screws and screw connections have been tested per AISI Standard Test Method TS-04. The tabulated allowable loads are based on the lower of the screw strength itself or the strength of the screw in the connected members per 2001 AISI NAS & 2004 NAS Supplement section E4. The screw strength is determined from the test value divided by the lesser of a safety factor of 3.0 or the safety factor determined from NAS section F multiplied by 1.25 as per the 2004 AISI NAS Supplement section E4.3.3. The strength of the screw in the connected members is determined from the test value divided by the lesser of a safety factor of 3.0 or the safety factor determined from NAS section F as per the 2001 AISI NAS section E4.3.3.

r. Consideration should be given to the screw head specified as this may affect the attached materials.

s. Do not add fastener holes or otherwise modify Simpson Strong-Tie Company Inc. products. The performance of modified products may be substantially weakened. Simpson will not warrant or guarantee the performance of such modified products.

Instructions to the Installer

a. All specified fasteners must be installed according to the instructions in this catalog. Incorrect fastener quantity, size, type, material, or finish may cause the connection to fail.

b. Holes for ½" diameter or greater bolts shall be no more than a maximum of 1⁄16" larger than the bolt diameter per 2001 American Iron and Steel Institute North American Specification for the Design of Cold-Formed Steel Structural Members, (AISI NAS) Section E3a.

c. Install all specified fasteners before loading the connection.

d. Some hardened fasteners may have premature failure if exposed to moisture. The fasteners are recommended to be used in dry interior applications.

e. Use proper safety equipment.

f. When installing a joist into a connector with a seat, the joist shall bear completely on the seat, if the connector has a seat. The gap between the end of the joist and the connector or header shall not exceed ⅛" per ICC-ES AC 261 and ASTM D1761 test standards.

g. For holdowns, anchor bolt nuts should be finger-tight plus ⅓ to ½ turn with a hand wrench. Care should be taken to not over-torque the nut, impact wrenches should not be used. This may preload the holdown.

h. All screws shall be installed in accordance with the screw manufacturer's recommendations. All screws shall penetrate and protrude through the attached materials a minimum of 3 full exposed threads per AISI Standard for Cold-Formed Steel Framing - General Provisions section D1.3.

i. Welding galvanized steel may produce harmful fumes; follow proper welding procedures and safety precautions. Welding should be in accordance with A.W.S. Standards. Unless otherwise noted Simpson connectors cannot be welded.

j. Temporary lateral support for members may be required during installation.