General Instructions for the Installer

These general instructions for the installer are provided to ensure proper selection and installation of Simpson Strong-Tie Company Inc. products and must be followed carefully. These general instructions are in addition to the specific installation instructions and notes provided for each particular product, all of which should be consulted prior to and during installation of Simpson Strong-Tie Company Inc. products.

a. All specified fasteners must be installed according to the instructions in this catalog. Incorrect fastener quantity, size, placement, type, material, or finish may cause the connection to fail. Prior to using a particular fastener, please consult Connector Fastener types on pp. 21–22.

- Larger-diameter fasteners may be substituted for smaller-diameter fasteners in connectors provided the larger fastener does not cause splitting in the wood member and the connector holes are not enlarged.

- Simpson Strong-Tie Strong Drive® SD Connector screws are available for use with our connectors. These are designed to replace nails in certain products. See pp. 335–337 for information. Screws not manufactured by Simpson Strong-Tie are not supported in our products.

b. Fill all fastener holes as specified in the installation instructions for that product. Refer to p. 20 for the requirements of the various shapes of fastener hole.

c. Do not overdrive nails. Overdriven nails reduce shear capacity.

d. Products shall be installed for the use specified. Use the materials specified in the installation instructions. Substitution of or failure to use specified materials may cause the connection to fail. Do not alter installation procedures from those set forth in this catalog. See Terms and Conditions of Sale.

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

f. The proper use of certain products requires that the product be bent. For those products, installers must not bend the product more than one time (one full cycle).

g. Bolt holes shall be at least a minimum of 12" and no more than a maximum of 3/4" larger than the bolt diameter (per the 2015/2018 NDS, Section 12.1.3.2 and AISI S100, Table E3a if applicable).

h. Install all specified fasteners before loading the connection.

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

j. Use proper safety equipment.

k. Welding galvanized steel may produce harmful fumes; follow proper welding procedures and safety precautions. Welding should be in accordance with A.W.S. (American Welding Society) standards. Unless otherwise noted Simpson Strong-Tie® connectors cannot be welded.

l. Pneumatic or powder-actuated fasteners may defect and injure the operator or others. Pneumatic nail tools may be used to install connectors, provided the correct quantity and type of nails (length and diameter) are properly installed in the nail holes. Connectors with tool embossments or tools with nail hole-locating mechanisms should be used. CSHP coiled strap works with several manufacturers’ pneumatic framing tools. Visit strongtie.com/csphp for additional information. Follow the manufacturer’s instructions and use the appropriate safety equipment. Contact Simpson Strong-Tie. Powder-actuated fasteners should not be used to install connectors, unless noted otherwise. Reference pp. 161 and 163 for top-fange hanger installation with powder-actuated fasteners.

m. Joist shall bear completely on the connector seat, and the gap between the joist end and the header shall not exceed 1" per ICC-ES AC13, ASTM D1761 and ASTM D7147 test standards (unless specifically noted otherwise).

n. Fasteners are permitted to be installed through metal truss plates when approved by the Truss Designer in accordance with ANSI/TPI 1-2014, Section 7.5.3.4 and 8.9.2. Installation of Simpson Strong-Tie® Strong-Drive® SDS Heavy-Duty Connector screws through metal connector plates requires the plates to be pre-drilled using a maximum of a 5/32" bit. Do not drive nails through the truss plate on the opposite side of single-ply trusses which could force the plate off the truss.

o. Nuts shall be installed such that the end of the threaded rod or bolt is at least flush with the top of the nut.

p. When installing hurricane ties on the inside of the wall special considerations must be taken to prevent condensation on the inside of the completed structure in cold climates.

q. Unless otherwise noted, connectors shown in this catalog have been designed to be installed at the time the framing members are installed. Contact Simpson Strong-Tie for retrofit suitability of specific connectors including those manufactured in accordance with the hanger options section of this catalog.