

STRONG-DRIVE® SCREW INSTALLATION FOR LVL, PSL and LSL

Simpson Strong-Tie® Strong-Drive screws (SDS) are an easy to install method for joining multiple SCL members to make a beam.

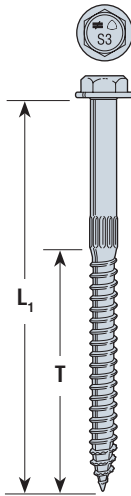
INSTALLATION:

- No pre-drilling required.
- See illustrations for SDS positioning on different assemblies.
- SDS screws install best with a low speed ½" drill with a ⅜" hex head driver.
- Do not over-drive the SDS screws.

DESIGN:

- SDS allowable load values are from ICC ESR-2236. The Designer shall apply adjustment factors per the NDS. Loads shown are $C_D = 1.0$. Increase as allowed per code to a maximum $C_D = 1.60$.
- This document uses Douglas Fir-Larch values ($G = 0.5$), as per the LVL, PSL and LSL manufacturer's instructions.
- The Designer shall specify the location of all screws (*stagger screws on opposite faces*). Minimum recommended spacing—Wide Face: end distance 4", edge distance 1½", spacing parallel to grain 4", spacing perpendicular to grain 2".
- Uniform loads in the table below are based on the capacity of the fasteners to transfer loads between plies. The capacity of the LVL beam may be less and should be checked by a qualified Designer or with the manufacturer's literature.
- **LSL applications that require 4½" and 6" screws (Assembly B2, C and F) are limited to interior-dry use only.**

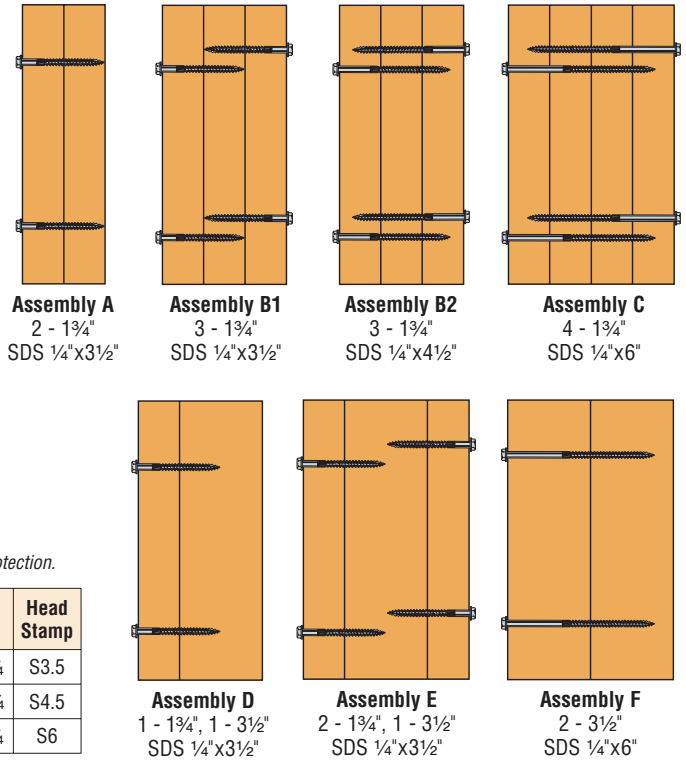
For more information, refer to technical bulletin T-SDSCREWAPPS (see page 191 for details). Also see Connector Selector Software page 194.



Simpson Strong-Tie Strong-Drive Screw

These products feature additional corrosion protection.

| Model No. | L ₁ | T | Head Stamp |
|-----------|----------------|-----|------------|
| SDS25312 | 3½" | 2¼" | S3.5 |
| SDS25412 | 4½" | 2¾" | S4.5 |
| SDS25600 | 6" | 3¼" | S6 |



| MAXIMUM ALLOWABLE UNIFORM LOAD (LBS PER LINEAL FT) | | | | | | | |
|--|----------------------------|--------------------|--------|--------------------|--------|--------------------|--------|
| Multiple Members | | SDS Screws, 12" OC | | SDS Screws, 16" OC | | SDS Screws, 24" OC | |
| Assembly | Components | 2 Rows | 3 Rows | 2 Rows | 3 Rows | 2 Rows | 3 Rows |
| A | 2 pieces (all 1¾") | 1360 | 2040 | 1020 | 1530 | 680 | 1020 |
| B1 | 3 pieces (all 1¾") | 1020 | 1530 | 765 | 1150 | 510 | 765 |
| B2 ⁴ | 3 pieces (all 1¾") | 1290 | 1935 | 970 | 1450 | 645 | 970 |
| C ⁴ | 4 pieces (all 1¾") | 1110 | 1665 | 835 | 1250 | 555 | 835 |
| D | 2 pieces (1¾" - 3½") | 1020 | 1530 | 765 | 1150 | 510 | 765 |
| E | 3 pieces (1¾" - 3½" - 1¾") | 905 | 1360 | 680 | 1020 | 455 | 680 |
| F ⁴ | 2 pieces (3½" - 3½") | 1360 | 2040 | 1020 | 1530 | 680 | 1020 |

1. If 7" wide beams are not equally loaded on each side, the plf load from the lesser side should be at least 25% of the opposite side.
2. Quantity and spacing of screws in table are for each screw head side of the assembly as shown in the Assembly figures above.
3. The design professional shall ensure that adequate lateral bracing is provided to prevent displacement of the beam due to the torsion created by the structural members framing into the side of the beam assembly.
4. **LSL applications involving Assemblies B2, C and F are limited to interior-dry use only.**

CSC Ceiling Support Clip /FSS Furring Stabilizer Strap

Provides 1" separation between the furring channel and joist to allow for the use of Thermafiber® insulation and the attachment of the furring channel to all joists. Provides an efficient sound barrier, and a one hour U.L. listed fire rating.

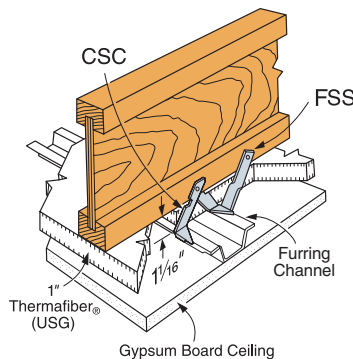
- UL Listed. See Underwriters Laboratory, Inc. Design No. L530 for USG gypsum board and Weyerhaeuser/TJI® joists.
- Check ICC-ES reports for individual I-joist manufacturer approvals.

MATERIAL: 24 gauge (minimum)

FINISH: Galvanized

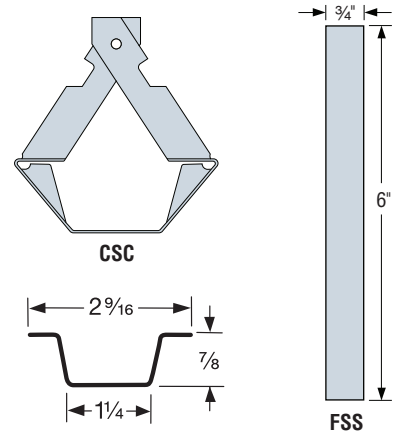
INSTALLATION: • For CSC use 1-8dx1½ nail.

- For FSS use #8 self-tapping steel screw (*not provided*) into channel, twist 90°, bend upward and fasten to the side of joist bottom flange with screw or nail.



Typical CSC and FSS Installation

Thermafiber® and TJI® are registered trademarks of US Gypsum Company and Weyerhaeuser, respectively.



Furring Channel Detail

(See Installation Notes)