SIMPSON Strong-Tie®



# Strong-Drive® SD CONNECTOR Screw

*Simpson Strong-Tie® Connectors*

The Strong-Drive SD Connector screw is specifically designed to replace nails in certain Simpson Strong-Tie connectors, and is the only screw approved for that application. The load-rated SD screw has been tested and approved for use in many popular Simpson Strong-Tie products. In certain applications screws are easier and more convenient to install than nails, and the single-fastener load values achieved by the SD screw exceed those of typical 10d common or 16d common nails. In addition, the galvanized coating makes the SD screw ideal for both interior and most exterior conditions.

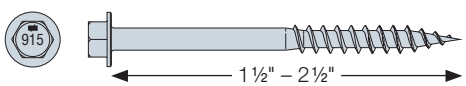
## Features:

- Specifically designed to replace nails in certain Simpson Strong-Tie connectors, and is the only screw approved for that application. The #9 and #10 SD screws replace 10d and 16d nails, respectively.
- Tested and approved for use in many of our most popular connectors for both interior and exterior applications.
- Ideal for use in connector applications where more control is desired or using a hammer is inconvenient.
- ¼" hex head with 0.37"-dia. integrated washer is stamped with the Simpson Strong-Tie "≠" sign and the fastener size for easy identification after installation.
- Shank is specifically designed to match the fastener holes in Simpson Strong-Tie connectors.
- Optimized heat treating for ductility and strength.
- The single-fastener load capacity of the SD9 exceeds the capacity of a 10d common nail, while the single-fastener load capacity of the SD10 exceeds that of the 16d common nail.
- Hex driver bit included.

*Mechanically-galvanized coating meets ASTM B695 Class 55, is recommended for use with certain preservative-treated woods and recognized as an alternate to hot-dip galvanized in ESR-3046; it is compliant with the 2015 and 2018 International Residential Code®.*

**Codes/Standards:** ICC-ES ESR-3046, State of Florida FL9589

**For Technical Data and Loads**, see Technical Supplement




## Mechanically-Galvanized Coating – Class 55

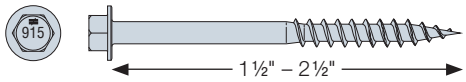
| Size | Length (in.) | Retail Pack | | | Contractor Pack | | | Mini Bulk | |
|---|---|---|---|---|---|---|---|---|---|
| | | Fasteners Per Pack | Packs Per Master Carton | Model No. | Fasteners Per Pack | Packs Per Master Carton | Model No. | Fasteners Per Pack | Model No. |
| #9 | 1½ | 100 | 10 | SD9112R100 | 500 | 3 | SD9112R500 | 3,000 | SD9112MB |
| #9 | 2½ | 100 | 6 | SD9212R100-R | 500 | 2 | SD9212R500 | 2,000 | SD9212MB |
| #10 | 1½ | 100 | 10 | SD10112R100 | 500 | 3 | SD10112R500 | 3,000 | SD10112MB |
| #10 | 2½ | 100 | 6 | SD10212R100-R | 500 | 2 | SD10212R500 | 2,000 | SD10212MB |

# Strong-Drive® SD CONNECTOR Screw

*Simpson Strong-Tie® Connectors, Indoor/Outdoor Projects*

**Codes/Standards:** ICC-ES ESR-3046, State of Florida FL 9589

**For more information,** see p. 61, C-F-2019 Fastening Systems Catalog




## SD — Allowable Shear Loads for Wood Connections

| Size (in.) | Model No. | Thread Length (in.) | Reference DFL/SP Allowable Shear Loads (lb.) | | | Reference SPF/HF Allowable Shear Loads (lb.) | | |
|---|---|---|---|---|---|---|---|---|
| | | | Wood Side Plate Thickness (in.) | | | Wood Side Plate Thickness (in.) | | |
| | | | 15/32 - ½ | 23/32 - ¾ | 1½ | 15/32 - ½ | 23/32 - ¾ | 1½ |
| #9 x 1½ | SD9112 | 1 | 105 | — | — | 93 | — | — |
| #9 x 2½ | SD9212 | 1 | 118 | 133 | 130 | 99 | 94 | 109 |
| #10 x 1½ | SD10112 | 1 | 127 | — | — | 102 | — | — |
| #10 x 2½ | SD10212 | 1 | 147 | 168 | 152 | 106 | 126 | 123 |

1. Allowable loads are shown at the wood load duration factor of $C_D$ = 1.00. Loads may be increased for load duration per the building code up to a $C_D$ = 1.60.
2. The 15/32" and 23/32" side members must be plywood or OSB with minimum equivalent specific gravities of 0.50 for DFL and SP design values, and 0.42 for SPF and HF design values. See NDS, Table 12.3.3B for specific WSP grades and associated equivalent specific gravities.
3. Loads are based on connections with main members of DFL/SP or SPF/HF and side members as shown and described in table note 2. Screws shall be installed normal to the surface of the wood members.

## SD — Allowable Withdrawal Loads — DFL, SP, SPF, HF Lumber

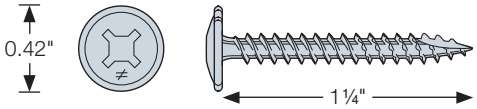
| Size (in.) | Model No. | Thread Length (in.) | Head Diameter (in.) | Reference Withdrawal Design Value, W (lb./in.) | |
|---|---|---|---|---|---|
| | | | | DFL and SP Main Member | SPF and HF Main Member |
| #9 x 1½ | SD9112 | 1.0 | 0.37 | 173 | 122 |
| #9 x 2½ | SD9212 | | | | |
| #10 x 1½ | SD10112 | | | 173 | 122 |
| #10 x 2½ | SD10212 | | | | |

1. The tabulated reference withdrawal design value, W, is in pounds per inch of the thread penetration into the side grain of the main member.
2. Tabulated reference withdrawal design value, W, must be multiplied by all applicable adjustment factors from the NDS as referenced in the IBC or IRC.
3. Embedded thread length is that portion held in the main member including the screw tip.
4. For connections with 15/32" thick plywood or OSB side members, reference withdrawal design values, W, must be limited by the head pull-through design value of 130 lb.

# Wafer-Head Screw

*General Wood-to-Wood, Metal-to-Wood Fastening*

**For more information,** see p. 87, C-F-2019 Fastening Systems Catalog




## Allowable Loads

| Size (in.) | Model No. | Reference Allowable Shear Loads (lb.) Steel Side Plate Thickness, in. (ga.) 0.054 – 0.25 (16-3) | | Reference Allowable Withdrawal Loads (lb.) | |
|---|---|---|---|---|---|
| | | DFL/SP | SPF/HF | DFL/SP | SPF/HF |
| #8 x 1¼ | SD8x1.25 | 50 | 45 | 82 | 58 |

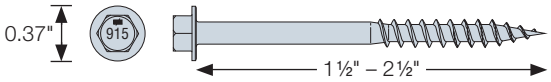
1. Allowable loads are shown at the wood load duration factor of $C_D$ = 1.00. Loads may be increased for load duration up to a $C_D$ = 1.60.
2. SD8x1.25 requires ¾" minimum penetration into the main member.
3. Do not use SD8x1.25 wood screws with structural connectors unless specified.
4. Warning: Industry studies show that hardened fasteners can experience performance problems in wet or corrosive environments. Accordingly, use this product in dry, interior, and noncorrosive environments only.

# Strong-Drive® SD CONNECTOR Screw

*Simpson Strong-Tie® Connectors*

**Codes/Standards:** ICC-ES ESR-3046, State of Florida FL 9589

**For more information,** see p. 61, C-F-2019 Fastening Systems Catalog




## SD — Allowable Shear Loads — Steel Side Plate

| Size (in.) | Model No. | Thread Length (in.) | Reference Allowable Shear Loads with Steel Side Plates (lb.) | |
|---|---|---|---|---|
| | | | DFL/SP | SPF/HF |
| #9 x 1½ | SD9112 | 1 | 171 | 112 |
| #9 x 2½ | SD9212 | 1 | 200 | 112 |
| #10 x 1½ | SD10112 | 1 | 173 | 138 |
| #10 x 2½ | SD10212 | 1 | 215 | 165 |

1. Loads are given for $C_D$ = 1.00 and may be increased for load duration per the building code to $C_D$ = 1.60.
2. Steel side-plate thickness is 33 to 100 mil (20 – 12 ga.).