

Sammys® Screws or Lag Screws in RFPI®-Joist Flanges

Sammys screws are essentially lag screws with a special head that accepts threaded rod which is then used to support other loads. Often, Sammys screws are used to support sprinkler systems from roof or floor framing members, including pre-fabricated wood I-joists. Sammys screws (or lag screws) can be used with Roseburg RFPI-Joists with the following limitations prescribed by Roseburg.

Vertical installation of Sammys screws or lag screws into the bottom flange of the I-joist is acceptable with the following considerations and recommendations:

- Sammys or lag screws may be placed in the center of the bottom flange and extend up into the OSB web of the I-joist.
- Roseburg recommends using only the threaded portion of the screw within the thickness of the bottom flange for withdrawal calculations. Any screw embedment length into the OSB web above the flange should be neglected for withdrawal calculations.
- If the required thread embedment length (either prescribed or calculated) exceeds the thickness of the bottom flange, the screw will need to be located approximately 1/2" away from the center of the flange and a No.2 Spruce-Pine-Fir or better wood filler block of appropriate dimensions must be placed on top of the bottom flange and attached to the side of the web to allow full required penetration of the screw.
- For 1-3/4" wide flanges, the maximum lag screw diameter is 1/4". A 3/8" diameter lag screw is allowed for flanges wider than 1-3/4".
- Holes must be pre-drilled with a drill bit approximately one-half of the nominal diameter of the lag screw.

Horizontal installation of Sammys screws or lag screws into the side of the I-joist flange is not allowed by Roseburg.

For connection design in RFPI-Joist flanges, a maximum equivalent specific gravity of 0.5 may be used for laminated veneer lumber (LVL) flanges and 0.42 for solid sawn flanges.

Refer to APA publication J745 and supplement for additional information regarding the proper installation of sprinkler system supports when using prefabricated wood I-joists (apawood.org).

* Sammys® fasteners are a registered trademark of Illinois Tool Works, Inc. The recommendations in this document apply to Sammys screws as well as generic products with screw threads similar to lag screw dimensions specified in ANSI/ASME B18.2.1, which are also presented in Table L2 of the 2018 NDS - National Design Specification for Wood Construction, American Wood Council.