

Fastening LP SolidStart LSL

LP SolidStart LSL can be fastened using nails, screws and bolts. The density of LSL is greater than other engineered wood products, so framers may need to make adjustments to their equipment for acceptable results. Note that products referenced in this Tech Note are provided as examples and are not specifically endorsed or promoted by LP Building Products.

Screws:

There are several manufacturers that promote the use of their screw products for LSL applications.

FastenMaster® TrussLOK® Engineered Wood Fastener and the Simpson Strong-Tie® SDW Strong-Drive® Structural Wood Screws can be used to connect up to (4) plies of 1-3/4" LSL together. The lateral capacity of the fastener is similar to 1/2" bolts, refer to FastenMaster and Simpson Strong-Tie literature for specific details. FastenMaster and Simpson Strong-Tie literature indicates the screws can be installed from one side to draw multiple members together.



Simpson Strong-Tie® SDW Strong-Drive® Structural Wood Screws



FastenMaster® TrussLOK® Engineered Wood Fastener

Nails:

It is possible that framing nailers adjusted for nailing into lumber may not fully drive nails into LSL. Some simple adjustments can be made to facilitate nailing.

These include:

- Increasing air pressure so it is at least 110 psi at the nail gun. (Do not exceed manufacturer's recommendations for equipment.)
- Limit the number of air guns drawing off of an air line
- Use nails specially designed for higher density material, such as the Paslode Engineered Lumber Nail



Typical quick connects on air hoses limit air flow. Replace them with quick connects that have a larger opening for better air flow performance.

- Use 0.120" x 3" power-driven nails, conforming to ICC-ES report ESR-1539. Note that increased nail schedules may be required for side loaded beams, depending on load transfer requirements; eg. 9" o.c. instead of 12" o.c., or (3) rows of nails instead of (2)
- Use larger air hoses (e.g. 3/8") to deliver more air volume, or replace quick connects on 1/4" hoses with larger diameter as shown in the picture at right

Additional equipment enhancements include:

- Using a nail gun with full-round striker feature, typically found in coil fed nail guns and high performance strip fed nail guns
- Using a nail gun with higher impact energy, such as the Paslode PF350.
- Maintaining proper lubrication and maintenance on nail guns

Please refer to the LP SolidStart LSL Beam and Header Technical Guide and the LP Installation Detail sheet for additional information on fasteners and fastener spacing. For further questions, contact your LP Representative or visit us at LPCorp.com.