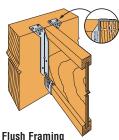
Engineered Wood & Structural Composite Lumber Connectors

GENERAL CONNECTOR INSTALLATION

TOP FLANGE HANGERS



Top flange configuration and thickness of top flange need to be considered for flush frame conditions.



Hanger Over-Spread

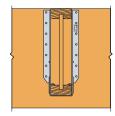
If the hanger is over-spread, it can raise the I-joist above the header and may cause uneven surfaces and squeaky floors.



A hanger "kicked-out" from the header can cause uneven surfaces and squeaky floors.

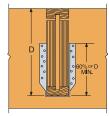
PREVENT ROTATION

Hangers provide some joist rotation resistance; however, additional lateral restraint may be required for deep joists.



No Web Stiffener Installed

Hanger side flange supports joist top flange.

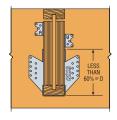


Web Stiffener Required

SIMPSON

Strong-Tie

Hanger side flange should be at least 60% of joist depth or potential joist rotation must be addressed.



Rotation Resistance

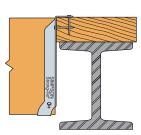
If non-skewed hanger side flange is less than 60% of joist depth, attach staggered A34 framing anchors above the hanger.



No Web Stiffener Results in Rotation

Hanger side flange is below the joist top flange. No web stiffener results in rotation, unless restrained by other means.

WOOD NAILERS



Correct Attachment



Nailer Too Wide

The loading may cause cross-grain bending. As a general rule, the maximum allowable overhang is 1/4", depending on nailer thickness.



Nailer Too Narrow

A maximum mismatch of 1/8" for normal installations is allowed.



Nailer Too Thin or the wrong hanger for the application.

TOE-NAILING



Toe nailing causes squeaks and improper hanger installations. Do not toe nail I-joists before installing top flange or face mount hangers.

WOOD I-JOISTS

SLOPED JOISTS

For sloped joists up to 1/4:12 there is no reduction. For slopes greater than 1/4:12 see individual product pages or refer to technical bulletin T-SLOPEJST (see page 191 for details).

MULTIPLE JOISTS

Multiple joists should be adequately connected together to act as one unit.

FASTENERS

Use the correct nails. Wood may split if the nails are too large. Hanger nails into flanges should not exceed 10d common (0.148 dia.), no longer than 1½". Nails into web stiffeners should not exceed 16d commons (0.162 dia.)

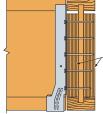
ECCENTRICALLY-LOADED I-JOISTS

Supporting a top flange hanger may require bottom flange restraining straps, blocking or directly-applied ceiling systems to prevent rotation at the hanger location.

SKEWED JOISTS

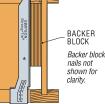
Joists may be skewed up to 2½ degrees in a non-skewed hanger without any load reduction. Refer to individual hanger descriptions for information allowing any further skew applications.

I-JOIST AS A HEADER INSTALLATIONS



Face Mount Hanger

RACKER BLOCK EACH SIDE Backer block nails not shown for clarity.



Top Flange Hanger

When face mount hangers are attached to I-joist headers. backer blocks must be installed to provide a nailing surface for the hanger nails. The backer blocks should be installed on both sides of the web and attached together with a minimum of 10-10d nails. The hanger nails should extend through the web. Contact the I-Joist manufacturer for additional design considerations.

When top flange hangers are attached to I-joist headers, a backer block must be installed to prevent the top flange from rotating under load. The backer blocks should be installed with a minimum of 10-10d nails clinched. Check with the joist manufacturer for additional design considerations.

POSITIVE ANGLE NAILING



Correct Nailing Approx. 45° angle



Nail too long



Nail at wrong angle