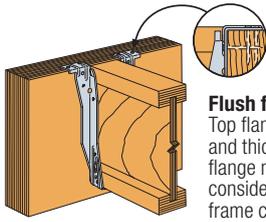
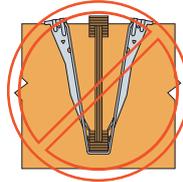


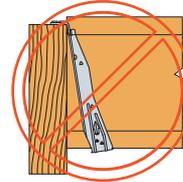
Top-flange hangers



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



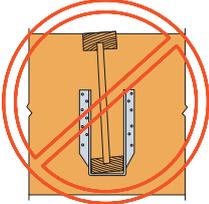
Hanger over-spread
If the hanger is over-spread, it can raise the I-joint above the header and may cause uneven surfaces and squeaky floors.



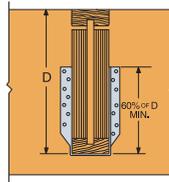
Hanger not plumb
A hanger "kicked-out" from the header can cause uneven surfaces and squeaky floors.

Prevent rotation

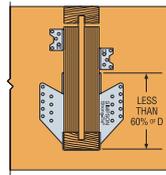
Hangers provide some joist rotation resistance; however, additional lateral restraint may be required for deep joists.



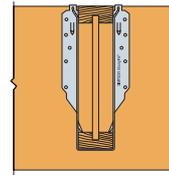
No rotation resistance
Lack of web stiffeners combined with short hanger allows unwanted rotation.



Rotation prevented by web stiffeners
Hanger height should be at least 60% of the joist height.

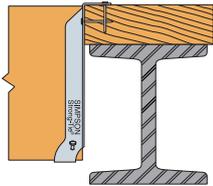


Rotation prevented by web stiffeners
If hanger height is less than 60% of the joist height, add clips or blocking near the top.

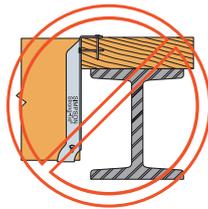


Rotation prevented by lateral flange support
Sides of hanger laterally support the top flange of the I-joint. No web stiffeners required!

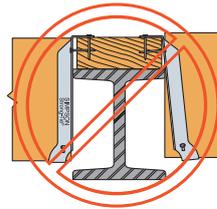
Timber nailers



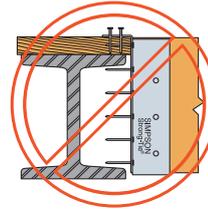
Correct attachment



Nailer too wide
The loading may cause cross-grain bending. As a general rule, the maximum allowable overhang is 6mm, depending on nailer thickness.



Nailer too narrow
Nailer should be full width.



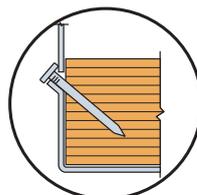
Nailer too thin
or the wrong hanger for the application.

Toenailing



Toenailing causes squeaks and improper hanger installations. Do not toenail I-joists before installing top flange or face mount hangers.

Positive angle nailing



Correct Nailing
Approx. 45° angle



Nail too long



Nail at wrong angle

Timber 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.

Multiple Joists

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

Fasteners

Use the correct nails. Timber may split if the nails are too large. Hanger nails into flanges should not exceed 3.75mm, no longer than 40mm. Nails into web stiffeners should not exceed 90 x 40mm.

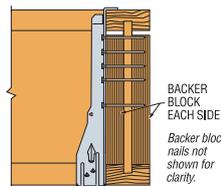
Eccentrically-Loaded I-Joists

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

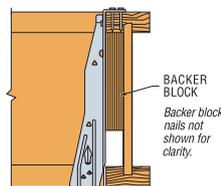
Joists may be skewed up to 2 1/2 degrees in a non-skewed hanger without any load reduction. Refer to individual hanger descriptions for information allowing any further skew applications.

I-joint as a header installations



Face mount hanger

When face mount hangers are attached to I-joint 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 – 40mm x 3.75mm nails. The hanger nails should extend through the web. Contact the I-Joint manufacturer for additional design considerations.



Top flange hanger

When top flange hangers are attached to I-joint 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 – 40mm x 3.75mm nails clinched. Check with the joist manufacturer for additional design considerations.