

CONNECTOR SELECTION GUIDE

SIMPSON
Strong-Tie
®

FOR USE WITH PRODUCTS
MANUFACTURED BY:

 **Joist**
ALPA FLOOR SYSTEM INC.



This guide lists popular options for Simpson Strong-Tie hangers used with engineered wood products. Not all available hanger and installation combinations are listed. Use in conjunction with the current Simpson Strong-Tie Canadian **Wood Construction Connectors** catalogue for detailed hanger information.



**LIMIT
STATES
DESIGN**

DISTRIBUTED BY:

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SINGLE I-JOISTS – Canadian/Factored Resistance (lbs)

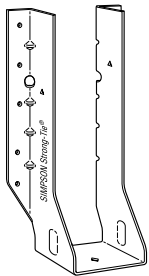


Joist Height	Top Flange							Snap In Face Mount						Face Mount							
	Model	B Dim	Fastener Type		Uplift (115)	Download		Model	B Dim	Fastener Type		Uplift (115)	Download		Model	B Dim	Fastener Type		Uplift (115)	Download	
			Header	Joist		DF	SPF			Header	Joist		DF	SPF			Header	Joist		DF	SPF
A310E, B310E											Joist Width = 2½"										
9½	LT259	2	6-10d	1-#8x1¼ WS	100	2620	1725	IUS2.56/9.5	2	8-10d	—	105	2385	1700	LF259	2	10-10d	1-#8x1¼ WS	100	2525	2155
A312E, B312E											Joist Width = 2½"										
11⅞	LT251188	2	6-10d	1-#8x1¼ WS	100	2620	1725	IUS2.56/11.88	2	10-10d	—	105	2565	1835	LF2511	2	12-10d	1-#8x1¼ WS	100	2880	2270
A314E, A314M, B314E											Joist Width = 2½"										
14	LT2514	2	6-10d	1-#8x1¼ WS	100	2620	1725	IUS2.56/14	2	12-10d	—	105	2565	1835	LF2514	2	14-10d	1-#8x1¼ WS	100	3235	2385

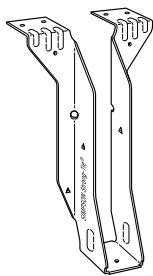
Joist Height	45° SKEW							Adjustable Height						Field Slope and Skew							
	Model	B Dim	Fastener Type		Uplift (115)	Download		Model	B Dim	Fastener Type		Uplift (115)	Download		Model	B Dim	Fastener Type		Uplift (115)	Download	
			Header	Joist		DF	SPF			Header	Joist		DF	SPF			Header	Joist		DF	SPF
A310E, B310E											Joist Width = 2½"										
9½	SUR/L2.56/9	3⅞	14-16d	2-10dx1½	385	3945	2780	THAI322	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUH310	3½	14-16d	12-10dx1½	1220	2620	1850
A312E, B312E											Joist Width = 2½"										
11⅞	SUR/L2.56/11	3⅞	16-16d	2-10dx1½	385	3945	2780	THAI322	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUH310	3½	14-16d	12-10dx1½	1220	2620	1850
A314E, A314M, B314E											Joist Width = 2½"										
14	SUR/L2.56/14	3⅞	18-16d	2-10dx1½	385	3945	2780	THAI322	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUH310	3½	14-16d	12-10dx1½	1220	2620	1850

- Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required for non-shaded hangers by I-Joist Manufacturer.
- Skewed option must be special ordered. Specify skew angle and direction (i.e. HU410-2X, SKR 45°).
- LSU5.12 skew options must be factory ordered.
- THAI hangers require a minimum of 4 top and 2 face nails installed. THAI-2 must be special ordered, specify hanger seat width between 3⅞" and 5⅞".
- The B Dim is the depth of the hanger seat.
- Loads listed assume a solid header. See page 4 for I-Joist headers.

Nail Callout	Specified Nail
8d	2½" common wire
10d	3" common wire
16d	3½" common wire

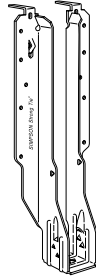


LF



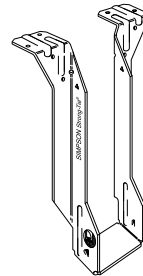
LT

LF – 18 gauge
LT – 18 gauge
 The LF and LT series feature fast and easy installation. No web stiffeners required and only one screw secures joist in hanger.



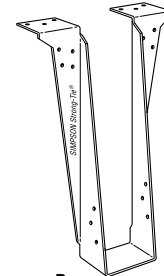
IUS

IUS – 18 gauge
 The IUS is a hybrid hanger that incorporates the advantages of face-mount and top-flange hangers. Joist nails are not required.



MIT

MIT – 16 gauge
 The MIT's Positive Angle Nailing helps minimize splitting of the I-joists' bottom flange. Features uplift capacity and extended seat design.



B
 (LBV similar)

B – 12 gauge
LBV – 14 gauge
 The B series offers versatility for I-joists and SCL lumber. Enhanced load capacity widens the range of applications for these hangers.

The LBV is designed especially for use with multiple ply headers 1½" to 1¾" thick, and may be used for weld-on applications.

DOUBLE I-JOISTS – Canadian/Factored Resistance (lbs)

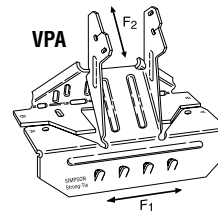


Joist Height	Top Flange						Face Mount						45° Skew								
	Model	B Dim	Fastener Type		Uplift (115)	Download		Model	B Dim	Fastener Type		Uplift (115)	Download		Model	B Dim	Fastener Type		Uplift (115)	Download	
			Header	Joist		DF	SPF			Header	Joist		DF	SPF			Header	Joist		DF	SPF
Double A310E, B310E Joist Width = 5"																					
9½	MIT39.5-2	2½	8-16d	2-10dx1½	380	3480	2415	MIU5.12/9	2½	16-16d	2-10dx1½	270	4550	3215	HSUR/L5.12/9	2 ¹³ / ₁₆	12-16d	2-10dx1½	195	2995	2350
Double A312E, B312E Joist Width = 5"																					
11 ⁷ / ₈	MIT311.88-2	2½	8-16d	2-10dx1½	380	3480	2415	MIU5.12/11	2½	20-16d	2-10dx1½	270	4550	3215	HSUR/L5.12/11	2 ¹³ / ₁₆	16-16d	2-10dx1½	195	4195	2965
Double A314E, A314M, B314E Joist Width = 5"																					
14	MIT314-2	2½	8-16d	2-10dx1½	380	3480	2415	MIU5.12/14	2½	22-16d	2-10dx1½	270	4930	3485	HSUR/L5.12/14	2 ¹³ / ₁₆	20-16d	2-10dx1½	195	4195	2965

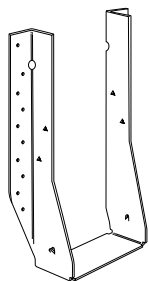
Joist Height	Adjustable Height						Field Slope and Skew							
	Model	B Dim	Fastener Type		Uplift (115)	Download		Model	B Dim	Fastener Type		Uplift (115)	Download	
			Header	Joist		DF	SPF			Header	Joist		DF	SPF
Double A310E, B310E Joist Width = 5"														
9½	THAI-2 ⁴	2½	6-10d	2-10dx1½	—	2935	2935	LSU5.12 ³	3½	24-16d	16-10dx1½	910	2600	1835
Double A312E, B312E Joist Width = 5"														
11 ⁷ / ₈	THAI-2 ⁴	2½	6-10d	2-10dx1½	—	2935	2935	LSU5.12 ³	3½	24-16d	16-10dx1½	910	2600	1835
Double A314E, A314M, B314E Joist Width = 5"														
14	THAI-2 ⁴	2½	6-10d	2-10dx1½	—	2935	2935	LSU5.12 ³	3½	24-16d	16-10dx1½	910	2600	1835

1. See notes on page 2.

Joist Height	Variable Pitch						
	Model	B Dim	Fastener Type		Uplift (115)	Down Load	
			Header	Joist		DF	SPF
Joist Width = 2½"							
All	VPA3	2½	9-10d	2-10dx1½	390	1785	1785

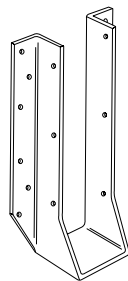


VPA – 18 gauge
This variable pitch connector allows a sloped beam to sit on a top plate without having to notch, birdmouth, bevel, or toe nail. It also provides uplift capacity. Adjustable from 3:12 to 12:12 pitch.



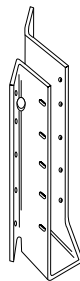
MIU

MIU – 16 gauge
The MIU series features 16 gauge steel and extra nailing for higher loads.



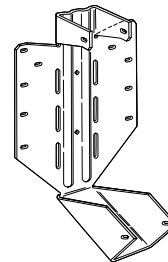
HU

HU – 14 gauge
The HU series features uplift capacity and a large selection of sizes and load ranges. HU hangers have triangle holes that can be filled for increased loads. Web stiffeners required when used with I-joists.



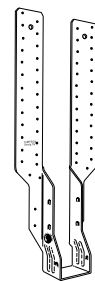
SUL

SUR/L – 16 gauge
HSUR/L – 14 gauge
All models are skewed 45°. Normally accommodates a 40° - 50° skew. The installation of these hangers does not require a beveled end cut. Web stiffeners required when used with I-joists.



LSSU

LSSUH310 and LSSU410 – 16 gauge
LSSU models provide uplift capacity and can be field sloped and/or skewed to 45°. Web stiffeners required when used with I-joists.



THAI

THAI – 18 gauge
THAI-2 – 14 gauge
This hanger has extra long straps and can be field-formed to give height adjustability and top flange hanger convenience. Positive angle nailing helps minimize splitting of the I-joist's bottom flange. Minimum nailing is shown in the table above. Strap must be field-formed over the top of the header by a minimum of 2½". Web stiffeners required when used with I-joists.

GENERAL CONNECTOR INSTALLATION



General Notes

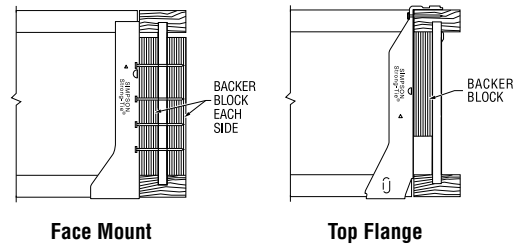
- See current Canadian *Wood Construction Connectors* catalogue for Important Information and General Notes sections and for hanger models, joist sizes, and header situations not shown.
- Loads listed address hanger/header/fastener limitations assuming header material is Douglas Fir-Larch or Spruce Pine Fir. For LVL headers made primarily of Douglas Fir/Southern Pine, use the values found in the DF column. For LVL headers made primarily from Spruce Pine Fir or similar less dense veneers, use the values found in the SPF column. Loads are in pounds. Joist reaction should be checked by a qualified designer to ensure proper hanger selection.
- Factored uplift resistances have been increased by 15% for earthquake and wind loading with no further increase allowed. Reduce loads according to code for normal duration loading such as cantilever construction.
- For this publication, carrying members are assumed to be at least 5½" tall. The horizontal thickness of the carrying member must be at least the length of nail being used or the top flange dimension, whichever is greater. Exception: narrower carrying members may be used with face mount hangers but the horizontal thickness must be at least 1¼" for 10d nails; 2" for 16d nails. Clinch nails on back side.
- THAI hangers in this publication are based on a "top flange" installation and require that the carrying member have a horizontal thickness of at least 2½" backer blocks are required when the header is an I-joist.
- All nails shown are common nails unless otherwise noted.

I-Joist Headers

I-Joist Headers: When supporting one I-joist from another, backer blocks must be used. Backer blocks are to be made from plywood, OSB, or dimension lumber. The thickness of a backer block should be the same thickness as the void in the side of the I-joist and a minimum of 12" wide. Attach with 10-10d common nails clinched as necessary, prior to installing the hanger. For Top Flange hangers, install backer blocks tight to top flange. For Face Mount hangers, install backer blocks tight to bottom flange. Use 10dx1½" nails for all Top Flange hangers attached to an I-joist header. See table for factored resistance.

For face mount hangers using 10d nails with headers less than 1¼" wide horizontally but at least 1½" wide, apply a reduction factor of 0.77 to all table loads.

Model	I-Joist Header Flange Material
	SPF
LT	1695
MIT	1900
LBV	2200
BA	2420



VPA Installation

STEP 1
Install top nails and face PAN nails in "A" flange to outside wall top plate.

STEP 2
Seat rafter with a hammer, adjusting "B" flange to the required pitch.

STEP 3
Install "B" flange nails in the obround nail holes, locking the pitch.

STEP 4
Bend tab with hammer and install nail into tab nail hole. Hammer nail in at approx. 45° angle to limit splitting.

LSSU Installation

- Nail hanger to slope-cut joist, installing seat nail first. No bevel necessary for skewed installation.

IUS Installation Sequence

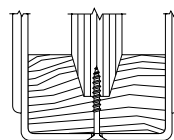
STEP 1
Attach the IUS to the header

STEP 2
Slide the I-joist into the IUS until it rests above the large tear drop.

STEP 3
Firmly push or snap I-joist fully into the seat of the IUS.

LF/LT Screw Installation

Use 8 gauge (0.164" diameter) x 1¼" wood screw (#8x1¼") to secure joist to hanger. To avoid stripping of the bottom chord screw hole, DO NOT over tighten screw. Use specified screw to seat joist into hanger (required only for LF and LT hangers).



- Skew flange to form acute angle. Bend other flange back. Bend along the centerline of slots. Bend one time only.
- Attach hanger to header, acute angle first. Install nails at an angle.

Refer to the current Canadian *Wood Construction Connectors* catalogue for General Notes, Warranty Information and other important information, including Terms and Conditions of Sale, Building Code Evaluation listings and Corrosion Resistance.