

CONNECTOR SELECTION GUIDE

SIMPSON
Strong-Tie
®

FOR USE WITH PRODUCTS
MANUFACTURED BY:



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:

800-999-5099
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CSG-PINKWDCAN11 10/11
exp. 12/13

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



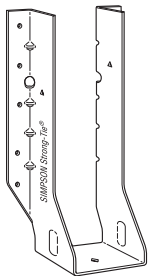
Joist Height	Top Flange						Snap In Face Mount						Face Mount								
	Model	B Dim	Fastener Type		Uplift K _o = 1.15	Down Load DF SPF	Model	B Dim	Fastener Type		Uplift K _o = 1.15	Down Load DF SPF	Model	B Dim	Fastener Type		Uplift K _o = 1.15	Down Load DF SPF			
			Header	Joist					Header	Joist					Header	Joist			Header	Joist	
PKI15/NJ Series																					
Joist Width = 1 1/2"																					
9 1/2	ITS1.56/9.25	2	6-10d	--	125	1845	1690	See LF Hangers						LF159	2	10-10d	1-#8x1 1/4 WS	105	1845	1845	
9 1/2	LT159	2	6-10d	1-#8x1 1/4 WS	105	1845	1725							LF159	2	10-10d	1-#8x1 1/4 WS	105	1845	1845	
11 1/2	LT151188	2	6-10d	1-#8x1 1/4 WS	105	1845	1725							LF1511	2	12-10d	1-#8x1 1/4 WS	105	1845	1845	
PKI25/NJH Series																					
Joist Width = 2 1/2"																					
9 1/2	LT259	2	6-10d	1-#8x1 1/4 WS	105	2625	1725	IUS2.56/9.5	2	8-10d	--	105	2385	1690	LF259	2	10-10d	1-#8x1 1/4 WS	105	2525	2155
11 1/2	LT251188	2	6-10d	1-#8x1 1/4 WS	105	2625	1725	IUS2.56/11.88	2	10-10d	--	105	2565	1820	LF2511	2	12-10d	1-#8x1 1/4 WS	105	2880	2270
14	LT2514	2	6-10d	1-#8x1 1/4 WS	105	2625	1725	IUS2.56/14	2	12-10d	--	105	2565	1820	LF2514	2	14-10d	1-#8x1 1/4 WS	105	3070	2385
16	LT2516	2	6-10d	1-#8x1 1/4 WS	105	2625	1725	IUS2.56/16	2	14-10d	--	105	2725	1935	MIU2.56/16	2 1/2	24-16d	2-10dx1 1/2	410	3840	3485
PKI35/45/NJU Series																					
Joist Width = 3 1/2"																					
9 1/2	LT359	2	6-10d	2-#8x1 1/4 WS	105	2625	1725	IUS3.56/9.5	2	10-10d	--	105	2370	1685	LF359	2	10-10d	2-#8x1 1/4 WS	105	2525	2155
11 1/2	LT351188	2	6-10d	2-#8x1 1/4 WS	105	2625	1725	IUS3.56/11.88	2	12-10d	--	105	2370	1685	LF3511	2	12-10d	2-#8x1 1/4 WS	105	2880	2270
14	LT3514	2	6-10d	2-#8x1 1/4 WS	105	2625	1725	IUS3.56/14	2	12-10d	--	105	2370	1685	LF3514	2	14-10d	2-#8x1 1/4 WS	105	3235	2385
16	LT3516	2	6-10d	2-#8x1 1/4 WS	105	2625	1725	IUS3.56/16	2	14-10d	--	105	2370	1685	MIU3.56/16	2 1/2	24-16d	2-10dx1 1/2	410	4930	3485
18	MIT418	2 1/2	8-16d	2-10dx1 1/2	320	3490	2420	No IUS for this depth.						MIU3.56/18	2 1/2	26-16d	2-10dx1 1/2	410	4930	3485	

Joist Height	45° Skew						Adjustable Height						Field Slope & Skew								
	Model	B Dim	Fastener Type		Uplift K _o = 1.15	Down Load DF SPF	Model	B Dim	Fastener Type		Uplift K _o = 1.15	Down Load DF SPF	Model	B Dim	Fastener Type		Uplift K _o = 1.15	Down Load DF SPF			
			Header	Joist					Header	Joist					Header	Joist			Header	Joist	
PKI15/NJ Series																					
Joist Width = 1 1/2"																					
9 1/2	SUR/L210	2	10-16d	10-10dx1 1/2	1480	3635	2710	THAI222 ²	2 1/4	6-10d	2-10dx1 1/2	--	2075	2075	LSSU210	3 1/2	9-10d	7-10dx1 1/2	910	2090	1485
9 1/2	SUR/L210	2	10-16d	10-10dx1 1/2	1480	3635	2710	THAI222 ²	2 1/4	6-10d	2-10dx1 1/2	--	2075	2075	LSSU210	3 1/2	9-10d	7-10dx1 1/2	910	2090	1485
11 1/2	SUR/L210	2	10-16d	10-10dx1 1/2	1480	3635	2710	THAI222 ²	2 1/4	6-10d	2-10dx1 1/2	--	2075	2075	LSSU210	3 1/2	9-10d	7-10dx1 1/2	910	2090	1485
PKI25/NJH Series																					
Joist Width = 2 1/2"																					
9 1/2	SUR/L2.56/9	3 3/8	14-16d	2-10dx1 1/2	385	3950	2805	THAI322 ²	2 1/4	6-10d	2-10dx1 1/2	--	3000	2385	LSSUH310	3 1/2	14-16d	12-10dx1 1/2	1155	2620	1860
11 1/2	SUR/L2.56/11	3 3/8	16-16d	2-10dx1 1/2	385	3950	2805	THAI322 ²	2 1/4	6-10d	2-10dx1 1/2	--	3000	2385	LSSUH310	3 1/2	14-16d	12-10dx1 1/2	1155	2620	1860
14	SUR/L2.56/14	3 3/8	18-16d	2-10dx1 1/2	385	3950	2805	THAI322 ²	2 1/4	6-10d	2-10dx1 1/2	--	3000	2385	LSSUH310	3 1/2	14-16d	12-10dx1 1/2	1155	2620	1860
16	SUR/L2.56/14	3 3/8	18-16d	2-10dx1 1/2	385	3950	2805	See current Canadian Limit States catalogue for hanger selection.						See current Canadian Limit States catalogue for hanger selection.							
PKI35/45/NJU Series																					
Joist Width = 3 1/2"																					
9 1/2	SUR/L410	2 1/2	14-16d	6-16d	1540	4065	2875	THAI422 ²	2 1/4	6-10d	2-10dx1 1/2	--	3000	2385	LSSU410	3 1/2	14-16d	12-10dx1 1/2	1155	3055	2170
11 1/2	SUR/L410	2 1/2	14-16d	6-16d	1540	4065	2875	THAI422 ²	2 1/4	6-10d	2-10dx1 1/2	--	3000	2385	LSSU410	3 1/2	14-16d	12-10dx1 1/2	1155	3055	2170
14	SUR/L414	2 1/2	18-16d	8-16d	2090	4095	2895	THAI422 ²	2 1/4	6-10d	2-10dx1 1/2	--	3000	2385	LSSU410	3 1/2	14-16d	12-10dx1 1/2	1155	3055	2170
16	SUR/L414	2 1/2	18-16d	8-16d	2090	4095	2895	See current Canadian Limit States catalogue for hanger selection.						See current Canadian Limit States catalogue for hanger selection.							
18	SUR/L414	2 1/2	18-16d	8-16d	2090	4095	2895	See current Canadian Limit States catalogue for hanger selection.						See current Canadian Limit States catalogue for hanger selection.							

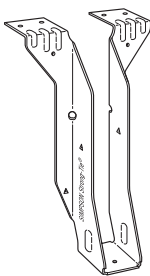
- See General Notes on page 4.
- Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required for non-shaded hangers by others.
- THAI hangers require a minimum of 4 top and 2 face nails installed.
- THAI-2 must be special ordered, specify hanger seat width between 3 1/8" and 5 1/8"

- The B Dim is the depth of the hanger seat.
- Capacities listed assume a solid header. See page 4 for I-Joist headers.

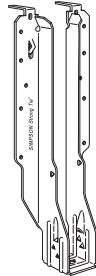
Nail Callout	Specified Nail
8d	2 1/2" common wire
10d	3" common wire
16d	3 1/2" common wire



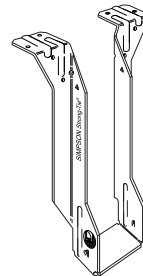
LF



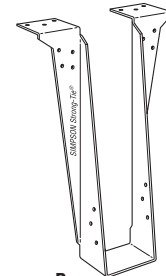
LT



IUS



MIT



B (LBV similar)

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

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 – 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 – 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.

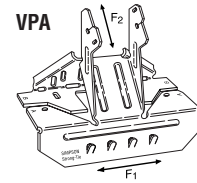
The LBV is designed especially for use with multiple ply headers 1 1/2" to 1 3/4" thick, and may be used for weld-on applications.

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

Joist Height	Top Flange						Face Mount						45° Skew								
	Model	B Dim	Fastener Type		Uplift $K_p = 1.15$	Down Load DF SPF	Model	B Dim	Fastener Type		Uplift $K_p = 1.15$	Down Load DF SPF	Model	B Dim	Fastener Type		Uplift $K_p = 1.15$	Down Load DF SPF			
			Header	Joist					Header	Joist					Header	Joist					
Double PKI15/NJ Series																			Joist Width = 3"		
9½	LBV3.12/9.25	2½	10-16d	2-10dx1½	310	3905	3125	MIU3.12/9	2½	16-16d	2-10dx1½	410	4550	3230	SUR/L210-2	2%	14-16d	6-10dx1½	1540	4065	2875
9½	MIT29.5-2	2½	8-16d	2-10dx1½	320	3490	2420	MIU3.12/9	2½	16-16d	2-10dx1½	410	4550	3230	SUR/L210-2	2%	14-16d	6-10dx1½	1540	4065	2875
11½	MIT211.88-2	2½	8-16d	2-10dx1½	320	3490	2420	MIU3.12/11	2½	20-16d	2-10dx1½	410	4550	3230	SUR/L210-2	2%	14-16d	6-10dx1½	1540	4065	2875
Double PKI25/NJH Series																			Joist Width = 5"		
9½	MIT39.5-2	2½	8-16d	2-10dx1½	320	3490	2420	MIU5.12/9	2½	16-16d	2-10dx1½	410	4550	3230	HSUR/L5.12/9	2% ¹⁶	12-16d	2-10dx1½	195	2995	2350
11½	MIT311.88-2	2½	8-16d	2-10dx1½	320	3490	2420	MIU5.12/11	2½	20-16d	2-10dx1½	410	4550	3230	HSUR/L5.12/11	2% ¹⁶	16-16d	2-10dx1½	195	4190	2965
14	MIT314-2	2½	8-16d	2-10dx1½	320	3490	2420	MIU5.12/14	2½	22-16d	2-10dx1½	410	4930	3485	HSUR/L5.12/14	2% ¹⁶	20-16d	2-10dx1½	195	4190	2965
16	MIT5.12/16	2½	8-16d	2-10dx1½	320	3490	2420	MIU5.12/16	2½	24-16d	2-10dx1½	410	4930	3485	HSUR/L5.12/16	2% ¹⁶	24-16d	2-10dx1½	195	4190	2965
Double PKI35/45/NJU Series																			Joist Width = 7"		
9½	B7.12/9.5	2½	14-16d	6-16d	1170	5940	3910	HU410-2	2½	18-16d	8-16d	2280	5780	4690	HU410-2X ^a	2½	18-16d	8-16d	1710	3755	3050
11½	B7.12/11.88	2½	14-16d	6-16d	1170	5940	3910	HU412-2	2½	22-16d	8-16d	2280	5780	4690	HU412-2X ^a	2½	22-16d	8-16d	1710	3755	3050
14	B7.12/14	2½	14-16d	6-16d	1170	5940	3910	HU414-2	2½	26-16d	12-16d	3420	7025	5780	HU414-2X ^a	2½	26-16d	12-16d	2565	4565	3755
16	B7.12/16	2½	14-16d	6-16d	1170	5940	3910	HU414-2	2½	26-16d	12-16d	3420	7025	5780	HU414-2X ^a	2½	26-16d	12-16d	2565	4565	3755
18	B7.12/18	2½	14-16d	6-16d	1170	5940	3910	HU414-2	2½	26-16d	12-16d	3420	7025	5780	HU414-2X ^a	2½	26-16d	12-16d	2565	4565	3755

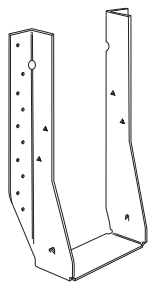
Joist Height	Adjustable Height						Field Slope & Skew								
	Model	B Dim	Fastener Type		Uplift $K_p = 1.15$	Down Load DF SPF	Model	B Dim	Fastener Type		Uplift $K_p = 1.15$	Down Load DF SPF			
			Header	Joist					Header	Joist					
Double PKI15/NJ Series													Joist Width = 3"		
9½	THAI-2 ²	2½	6-10d	2-10dx1½	—	2800	2800	LSSU210-2	3½	14-16d	12-10dx1½	1155	3055	2170	
9½	THAI-2 ²	2½	6-10d	2-10dx1½	—	2800	2800	LSSU210-2	3½	14-16d	12-10dx1½	1155	3055	2170	
11½	THAI-2 ²	2½	6-10d	2-10dx1½	—	2800	2800	LSSU210-2	3½	14-16d	12-10dx1½	1155	3055	2170	
Double PKI25/NJH Series													Joist Width = 5"		
9½	THAI-2 ²	2½	6-10d	2-10dx1½	—	2800	2800	LSU5.12 ³	3½	24-16d	16-10dx1½	910	2600	1845	
11½	THAI-2 ²	2½	6-10d	2-10dx1½	—	2800	2800	LSU5.12 ³	3½	24-16d	16-10dx1½	910	2600	1845	
14	THAI-2 ²	2½	6-10d	2-10dx1½	—	2800	2800	LSU5.12 ³	3½	24-16d	16-10dx1½	910	2600	1845	
16	See current Canadian Limit States catalogue for hanger selection.						See current Canadian Limit States catalogue for hanger selection.								
Double PKI35/45/NJU Series													Joist Width = 7"		
9½	See current Canadian Limit States catalogue for hanger selection.						See current Canadian Limit States catalogue for hanger selection.								
11½															
14															
16															
18															

Joist Height	Variable Pitch								
	Model	B Dim	Fastener Type		Uplift (115)	Down Load DF SPF			
			Header	Joist					
PKI15/NJ Series							Joist Width = 1½"		
All	VPA2	2½	8-10d	2-10dx1½	370	1695	1555		
PKI25/NJH Series							Joist Width = 2½"		
All	VPA3	2½	9-10d	2-10dx1½	370	2050	1855		
PKI35/45/NJU Series							Joist Width = 3½"		
All	VPA4	2½	11-10d	2-10dx1½	370	2050	1855		



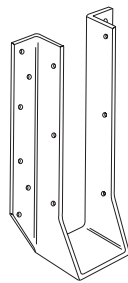
VPA – 18 gauge
This variable pitch connector allows a sloped beam to sit on a top plate without having to notch, birdmouth, bevel, or toe nail. It also provides uplift capacity. Adjustable from 3:12 to 12:12 pitch.

- See General Notes on page 4.
- THAI hangers require a minimum of 4 top and 2 face nails installed. THAI-2 must be special ordered, specify hanger seat width between 3½" and 5¾"
- LSU5.12 skew options must be factory ordered.
- Skewed option must be special ordered. Specify skew angle and direction (i.e. HU410-2X, SKR 45°)
- Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required for non-shaded hangers by others.
- Capacities listed assume a solid header. See page 4 for I-joist headers.



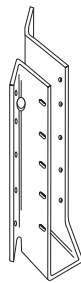
MIU

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



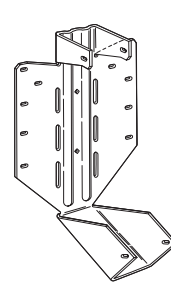
HU

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.



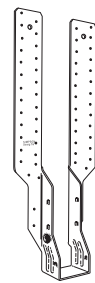
SUL

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.



LSSU

LSSU210 – 18 gauge
LSU – 14 gauge
Others – 16 gauge
LSSU models provide uplift capacity 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.



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.
- Capacities 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. Capacities 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 according to code for normal duration loading such as cantilever construction.
- For this publication, carrying members are assumed to be at least 5 1/2" 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 1 3/4" 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 2 1/2". Backer blocks are required when the header is an I-joist.
- All nails shown are common nails unless otherwise noted.

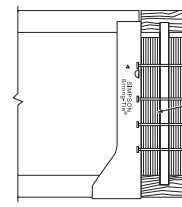
I-Joist Headers

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.

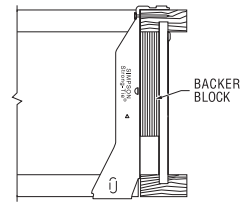
Use 10dx1 1/2" nails for all Top Flange hangers attached to an I-joist header. See table for factored resistance. For face mount hangers using 10d nails with headers less than 1 3/4" wide horizontally but at least 1 1/2" wide, apply a reduction factor of 0.77 to all table values.

Factored Resistance Hangers on I-Joist Headers (lbs.)

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

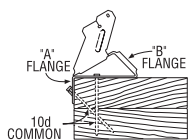


Face Mount

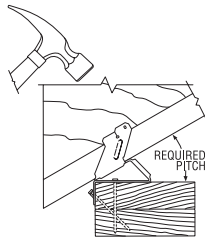


Top Flange

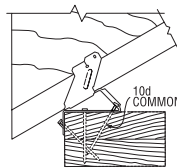
VPA Installation



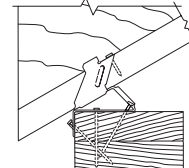
STEP 1
Install top nails and face PAN nails in "A" flange to outside wall top plate.



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

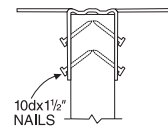


STEP 3
Install "B" flange nails in the obround nail holes, locking the pitch.

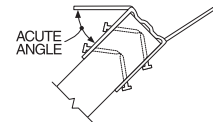


STEP 4
Bend tab with hammer and install nail into tab nail hole. Hammer nail in at approx. 45° angle to limit splitting.

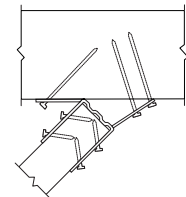
LSSU Installation



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

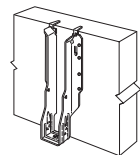


2. Skew flange to form acute angle. Bend other flange back. Bend along the centerline of slots. Bend one time only.

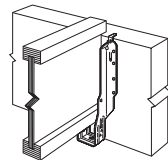


3. Attach hanger to header, acute angle first. Install nails at an angle.

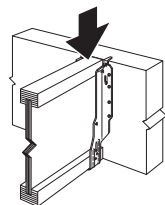
IUS Installation Sequence



STEP 1
Attach the IUS to the header



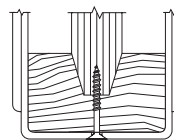
STEP 2
Slide the I-joist into the IUS until it rests above the large tear drop.



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 1 1/4" wood screw (#8x1 1/4") 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).



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.