

# CONNECTOR SELECTION GUIDE

for Residential Construction

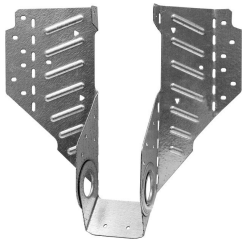
**SIMPSON**

**Strong-Tie®**

FOR USE WITH PRODUCTS  
MANUFACTURED BY:

*Trus Joist*™  
Weyerhaeuser

For Weyerhaeuser  
product support call:  
(888) 453-8358



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-TJCAN23 06/23 exp. 06/25

1. See current Canadian *Wood Construction Connectors* catalogue for Important Information and General Notes section and for hanger models, joist sizes, and support conditions not shown. See pp. 10-11 of this guide for installation information.
2. Factored resistances listed in tables are in pounds and address the attachment of the hanger to a solid support member. Loads listed under the Factored Resistance DF heading cover D.Fir-L. Loads listed under Factored Resistance SPF cover SPF or LVL made primarily from lower-density material such as spruce or pine species. Factored load resistance shown in I-joist tables is the lower of either the hanger capacity or the I-joist bearing capacity published by the manufacturer.
3. An I-joist must be laterally supported to prevent rotation; see Prevent Rotation below.

4. Some joists are not available in every height shown. Check with the manufacturer for availability.
5. Support members are assumed to be at least 5½" tall. The horizontal thickness of the support member must be at least the length of the nail being used and at least the length of the hanger top flange. Exception: Face-mount hangers may be mounted on support members narrower than the nail length provided that the nail penetration is at least 1¼" for 0.148" dia. x 3" long or 2 inches for 0.162" dia. x 3½" long. Clinch nails on back side.
6. Factored uplift resistances listed for I-joists assume either LVL or SPF flanges and have been increased by 15% for earthquake and wind loading with no further increase allowed. Reduce resistances according to code for normal duration loading such as cantilever construction.
7. The B dimension is the length of the hanger seat.

## I-Joist Headers

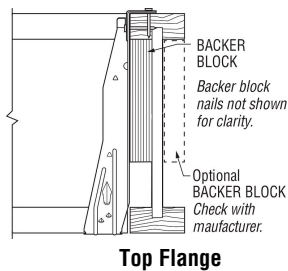
When supporting one I-joist from another, backer blocks must be used. Backer blocks are to be made from plywood, OSB, or dimension lumber. The thickness of a backer block should be the same thickness as the void in the side of the I-joist and a minimum of 12" wide. Attach with (10) 0.148" dia. x 3" long 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. Refer to I-Joist manufacturer literature for specific guidelines.

### Top-Flange Hangers:

Use 10dx1½" nails for all top-flange hangers attached to an I-Joist header. See table for factored resistance.

Model	I-Joist Header: 1 ½" Thick Flange Material <sup>1</sup>	
	DF/SCL	SPF
ITS	1375	1375
LT	1695	1695
MIT	1900	1900
BA	2420	2420

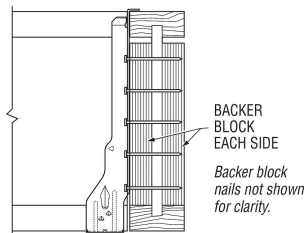
1. For flanges with thicknesses from 1⅞" to 1⅝", use 0.85 of the I-joist header load. For flanges with thicknesses from 1⅝" to 1¼", use 0.75 of the I-joist header load.



**Top Flange**

### Face-Mount Hangers:

Nails that get less than 2 inches of penetration must be clinched on the back side. Double I-joist headers must be attached together to act as a single unit.



**Face Mount**

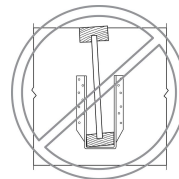
### Sloped Joists:

For joists sloped up to ¼:12, there is no reduction of load. For slopes greater than ¼:12, see table.

Sloped Joist		
Model	Slope	Reduction
ITS, IUS, MIT, MIU, BA, HB	½:12 max	10%
WP	¾:12 max	15%

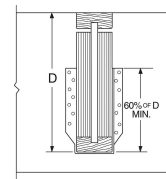
## Prevent Rotation

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



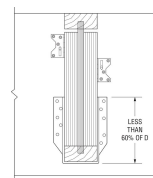
### No Rotation Resistance

Lack of web stiffeners combined with short hanger allows unwanted rotation.



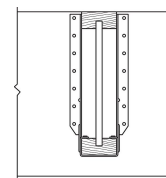
### Rotation Prevented By Web Stiffeners

Hanger height should be at least 60% of the joist height.



### Rotation Prevented By Lateral Blocking At Top

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-joist. No web stiffeners required!

# HOW TO PICK A HANGER



Follow these simple steps to choose your hanger:  
(For I-joist headers, see page 2)

1	Find your joist type in this guide. (Single I-joist, Double I-joist, Beam)
2	Locate your connector type in the table. <ul style="list-style-type: none"><li>• Face mount, top flange, skewed, sloped, etc.</li></ul>
3	Select a hanger from the table.
4	Confirm that your joist load is less than the hanger factored resistance.
5	Check to see if the bearing length “B dim” meets the bearing length requirement of the I-Joist. If yes, you have successfully selected your hanger.
	<p>If you did not find a suitable hanger; Please see the current Canadian <i>Wood Construction Connectors</i> catalogue or call Simpson Strong-Tie at (800) 999-5099. You will need the following information:</p> <ul style="list-style-type: none"><li>• Download</li><li>• Uplift</li><li>• Header condition</li><li>• Bearing length requirement</li></ul>

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



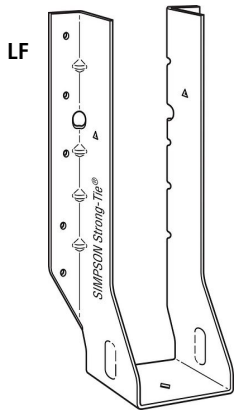
Joist Height	Top Flange					Snap-In					Face Mount				
	Model	Fastener Type		Download		Model	Fastener Type		Download		Model	Fastener Type		Download	
		Header	Joist	DF	SPF		Header	Joist	DF	SPF		Header	Joist	DF	SPF
TJI® 110															
Joist Width = 1¾"															
9½	ITS1.81/9.5	(6) 10d	—	1505	1505	IUS1.81/9.5	(8) 10d	—	1505	1505	MIU1.81/9	(16) 16d	(2) N10	1645	1645
11½	ITS1.81/11.88	(6) 10d	—	1540	1540	IUS1.81/11.88	(10) 10d	—	1540	1540	MIU1.81/11	(20) 16d	(2) N10	1750	1750
14	ITS1.81/14	(6) 10d	—	1540	1540	IUS1.81/14	(12) 10d	—	1540	1540	MIU1.81/14	(22) 16d	(2) N10	1750	1750
TJI® 210															
Joist Width = 2⅞"															
9½	ITS2.06/9.5	(6) 10d	—	1660	1660	IUS2.06/9.5	(8) 10d	—	1660	1660	HU2.1/9	(14) 16d	(6) N10	1805	1805
11½	ITS2.06/11.88	(6) 10d	—	1690	1690	IUS2.06/11.88	(10) 10d	—	1690	1690	LF2111	(12) 10d	(1) WS	1690	1690
14	ITS2.06/14	(6) 10d	—	1690	1690	IUS2.06/14	(12) 10d	—	1690	1690	LF2114	(14) 10d	(1) WS	1690	1690
16	ITS2.06/16	(6) 10d	—	1690	1690	IUS2.06/16	(14) 10d	—	1690	1690	MIU2.1/11	(20) 16d	(2) N10	2405	2405
TJI® 230															
Joist Width = 2⅝"															
9½	LT239	(6) 10d	(1) WS	1735	1725	IUS2.37/9.5	(8) 10d	—	1735	1690	LF239	(10) 10d	(1) WS	1735	1735
11½	LT231188	(6) 10d	(1) WS	1770	1725	IUS2.37/11.88	(10) 10d	—	1770	1770	LF2311	(12) 10d	(1) WS	1770	1770
14	LT2314	(6) 10d	(1) WS	1770	1725	IUS2.37/14	(12) 10d	—	1770	1770	LF2314	(14) 10d	(1) WS	1770	1770
16	ITS2.37/16	(6) 10d	—	1770	1690	IUS2.37/16	(14) 10d	—	1770	1770	MIU2.37/16	(24) 16d	(2) N10	1960	1960
TJI® 360															
Joist Width = 2⅞"															
11½	LT231188	(6) 10d	(1) WS	1800	1725	IUS2.37/11.88	(10) 10d	—	1800	1800	LF2311	(12) 10d	(1) WS	1800	1800
14	LT2314	(6) 10d	(1) WS	1800	1725	IUS2.37/14	(12) 10d	—	1800	1800	LF2314	(14) 10d	(1) WS	1800	1800
16	ITS2.37/16	(6) 10d	—	1800	1690	IUS2.37/16	(14) 10d	—	1800	1800	MIU2.37/16	(24) 16d	(2) N10	1995	1995
18	MIT3518	(8) 16d	(2) N10	2510	2420	IUS2.37/16	(14) 10d	(2) N10	2320	1935	MIU2.37/18	(26) 16d	(2) N10	2510	2510
20	MIT3520	(8) 16d	(2) N10	2510	2420	IUS2.37/16	(14) 10d	(2) N10	2320	1935	MIU2.37/20	(28) 16d	(2) N10	2510	2510
TJI® 560															
Joist Width = 3½"															
11½	LT351188	(6) 10d	(2) WS	2100	1725	IUS3.56/11.88	(12) 10d	—	2100	1685	LF3511	(12) 10d	(2) WS	2100	2100
14	LT3514	(6) 10d	(2) WS	2100	1725	IUS3.56/14	(12) 10d	—	2100	1685	LF3514	(14) 10d	(2) WS	2100	2100
16	LT3516	(6) 10d	(2) WS	2100	1725	IUS3.56/16	(14) 10d	—	2100	1685	MIU3.56/16	(24) 16d	(2) N10	2305	2305
18	MIT418	(8) 16d	(2) N10	2995	2420	IUS3.56/16	(14) 10d	(2) N10	2370	1685	MIU3.56/18	(26) 16d	(2) N10	2995	2995
20	MIT420	(8) 16d	(2) N10	2995	2420	IUS3.56/16	(14) 10d	(2) N10	2370	1685	MIU3.56/20	(28) 16d	(2) N10	2995	2995

- Shaded hangers require web stiffeners at joist ends. Joist manufacturers may also require web stiffeners for non-shaded areas.
- THAI hangers shown are based on the "top flange" installation and require that the carrying member have a horizontal thickness of at least 2½". Install four top nails and two face nails.

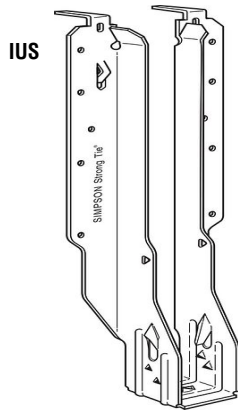
- The LSSR requires web stiffeners that are 4" wide and attached with (4) nails each side.
- LSSR nails and loads shown are for skewed rafter condition. See Canadian *Wood Construction Connectors* catalogue for nailing options with higher loads.

## Fastener Sizes

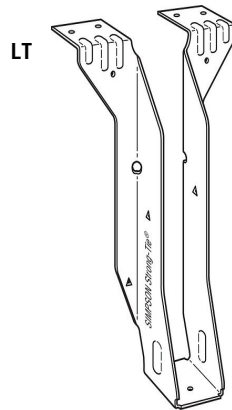
N10 = 0.148" x 1½"  
 10d = 0.148" x 3"  
 16d = 0.162" x 3½"  
 WS = #8 x 1 ¼" Wood Screw



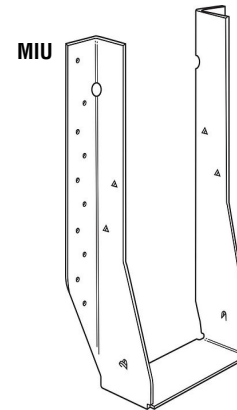
B = 2"



B = 2"



B = 2"



B = 2½"

### LF – 18 gauge

The LF series features fast and easy installation. No web stiffeners required. Has uplift factored resistance of 105 lb.

### 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. Has uplift factored resistance of 175 lb.

### LT – 18 gauge

The LT series feature fast and easy installation. No web stiffeners required. Has uplift factored resistance of 105 lb.

### MIU – 16 gauge

The MIU series features 16-gauge steel and extra nailing for higher loads. Has uplift factored resistance of 375 lb.

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



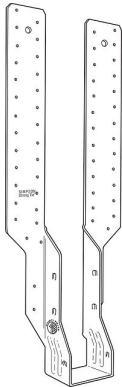
Joist Height	45° Skew					Adjustable Height					Field Slope & Skew				
	Model	Fastener Type		Download		Model	Fastener Type		Download		Model	Fastener Type		Download	
		Header	Joist	DF	SPF		Header	Joist	DF	SPF		Header	Joist	DF	SPF
TJI® 110															
Joist Width = 1¾"															
9½	SUR/L1.81/9	(12) 16d	(2) N10	1785	1785	THAI1.81/22	(6) 10d	(2) N10	1575	1575	LSSR1.81Z	(13) 10d	(9) N10	1470	1200
11½	SUR/L1.81/11	(16) 16d	(2) N10	1960	1960	THAI1.81/22	(6) 10d	(2) N10	2050	2050	LSSR1.81Z	(13) 10d	(9) N10	1695	1200
14	SUR/L1.81/14	(20) 16d	(2) N10	1960	1960	THAI1.81/22	(6) 10d	(2) N10	2115	2115	LSSR1.81Z	(13) 10d	(9) N10	1695	1200
TJI® 210															
Joist Width = 2¼"															
9½	SUR/L2.1/9	(14) 16d	(2) N10	2010	2010	THAI2.1/22	(6) 10d	(2) N10	1730	1730	LSSR2.1Z	(13) 10d	(9) N10	1620	1200
11½	SUR/L2.1/11	(16) 16d	(2) N10	2175	2175	THAI2.1/22	(6) 10d	(2) N10	2250	2250	LSSR2.1Z	(13) 10d	(9) N10	1695	1200
14	SUR/L2.1/14	(18) 16d	(2) N10	2175	2175	THAI2.1/22	(6) 10d	(2) N10	2310	2310	LSSR2.1Z	(13) 10d	(9) N10	1695	1200
16	SUR/L2.1/14	(18) 16d	(2) N10	2675	2675	Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue				
TJI® 230															
Joist Width = 2½"															
9½	SUR/L2.37/9	(14) 16d	(2) N10	2025	2025	THAI3522	(6) 10d	(2) N10	1795	1795	LSSR2.37Z	(13) 10d	(9) N10	1695	1200
11½	SUR/L2.37/11	(16) 16d	(2) N10	2225	2225	THAI3522	(6) 10d	(2) N10	2310	2310	LSSR2.37Z	(13) 10d	(9) N10	1695	1200
14	SUR/L2.37/14	(18) 16d	(2) N10	2225	2225	THAI3522	(6) 10d	(2) N10	2380	2380	LSSR2.37Z	(13) 10d	(9) N10	1695	1200
16	Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue				
TJI® 360															
Joist Width = 2½"															
11½	SUR/L2.37/11	(16) 16d	(2) N10	2260	2260	THAI3522	(6) 10d	(2) N10	2355	2355	LSSR2.37Z	(13) 10d	(9) N10	1695	1200
14	SUR/L2.37/14	(18) 16d	(2) N10	2260	2260	THAI3522	(6) 10d	(2) N10	2415	2385	LSSR2.37Z	(13) 10d	(9) N10	1695	1200
16 - 20	Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue				
TJI® 560															
Joist Width = 3½"															
11½	SUR/L410	(14) 16d	(6) 16d	2955	2875	THAI422	(6) 10d	(2) N10	2840	2385	LSSR410Z	(20) 16d	(13) N16	2585	1835
14	SUR/L414	(18) 16d	(8) 16d	3045	2895	THAI422	(6) 10d	(2) N10	2890	2385	LSSR410Z	(20) 16d	(13) N16	2585	1835
16 - 20	Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue				

1. See notes on page 4.

## Fastener Sizes

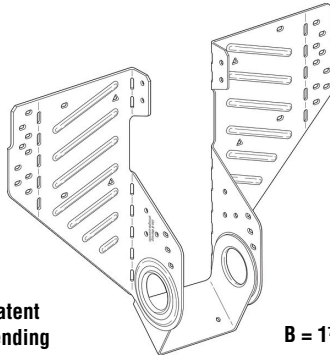
N10 = 0.148" x 1½"  
 10d = 0.148" x 3"  
 N16 = 0.162" x 2½"  
 16d = 0.162" x 3½"

## THAI



B = 2¼"

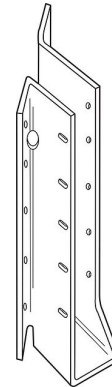
## LSSR



Patent Pending

B = 1⅞"

## SUL



B = See Canadian Wood Construction Connectors catalogue.

### THAI – 18 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. Strap must be field-formed over the top of the header by a minimum of 2½". Web stiffeners required. No uplift resistance.

### LSSR – 18 gauge most models

#### LSSR410Z – 16 gauge

The LSSR is the next generation of a field-adjustable rafter hanger. It can be installed after all the rafters have been tacked into place, is field-adjustable for skews up to 45°, and features a hinged swivel seat that can adjust its slope 45° either up or down. Has uplift factored resistance of 510 lb.

### 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. Has uplift factored resistance of 385 lb.

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

**SIMPSON**  
Strong-Tie

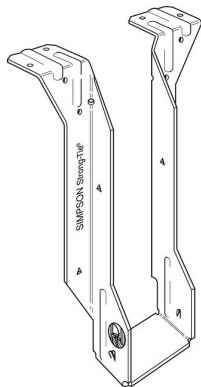
Joist Height	Top Flange					Face Mount					45° Skew				
	Model	Fastener Type		Download		Model	Fastener Type		Download		Model	Fastener Type		Download	
		Header	Joist	DF	SPF		Header	Joist	DF	SPF		Header	Joist	DF	SPF
Double TJI® 110															
Joist Width = 3½"															
9½	MIT49.5	(8) 16d	(2) N10	3290	2420	MIU3.56/9	(16) 16d	(2) N10	3290	3230	SUR/L410	(14) 16d	(6) 16d	3360	2875
11½	MIT411.88	(8) 16d	(2) N10	3490	2420	MIU3.56/11	(20) 16d	(2) N10	4265	3230	SUR/L410	(14) 16d	(6) 16d	4065	2875
14	MIT414	(8) 16d	(2) N10	3490	2420	MIU3.56/14	(22) 16d	(2) N10	4460	3485	SUR/L414	(18) 16d	(8) 16d	4095	2895
Double TJI® 210															
Joist Width = 4½"															
9½	MIT4.28/9.5	(8) 16d	(2) N10	3490	2420	MIU4.28/9	(16) 16d	(2) N10	3610	3230	HSUR/L4.28/9	(12) 16d	(2) N10	2995	2350
11½	MIT4.28/11.88	(8) 16d	(2) N10	3490	2420	MIU4.28/11	(20) 16d	(2) N10	4550	3230	HSUR/L4.28/11	(16) 16d	(2) N10	4190	2965
14	MIT4.28/14	(8) 16d	(2) N10	3490	2420	MIU4.28/14	(22) 16d	(2) N10	4825	3485	HSUR/L4.28/11	(16) 16d	(2) N10	4190	2965
16	BA4.28/16	(16) 16d	(2) N10	4535	4030	MIU4.28/16	(24) 16d	(2) N10	4805	3485	HSUR/L4.28/11	(16) 16d	(2) N10	4190	2965
Double TJI® 230															
Joist Width = 4¾"															
9½	BA4.75/9.5	(16) 16d	(2) N10	3955	3955	MIU4.75/9	(16) 16d	(2) N10	3715	3230	HSUR/L4.75/9	(12) 16d	(2) N10	2995	2350
11½	MIT3511.88-2	(8) 16d	(2) N10	3490	2420	MIU4.75/11	(20) 16d	(2) N10	4550	3230	HSUR/L4.75/11	(16) 16d	(2) N10	4190	2965
14	MIT3514-2	(8) 16d	(2) N10	3490	2420	MIU4.75/14	(22) 16d	(2) N10	4930	3485	HSUR/L4.75/14	(20) 16d	(2) N10	4190	2965
16	MIT4.75/16	(8) 16d	(2) N10	3490	2420	MIU4.75/16	(24) 16d	(2) N10	4930	3485	HSUR/L4.75/16	(24) 16d	(2) N10	4190	2965
Double TJI® 360															
Joist Width = 4¾"															
11½	MIT3511.88-2	(8) 16d	(2) N10	3490	2420	MIU4.75/11	(20) 16d	(2) N10	4550	3230	HSUR/L4.75/11	(16) 16d	(2) N10	4190	2965
14	MIT3514-2	(8) 16d	(2) N10	3490	2420	MIU4.75/14	(22) 16d	(2) N10	4930	3485	HSUR/L4.75/14	(20) 16d	(2) N10	4190	2965
16	MIT4.75/16	(8) 16d	(2) N10	3490	2420	MIU4.75/16	(24) 16d	(2) N10	4930	3485	HSUR/L4.75/16	(24) 16d	(2) N10	4190	2965
18	BA4.75/18	(16) 16d	(2) N10	4535	4030	MIU4.75/18	(26) 16d	(2) N10	4930	3485	HSUR/L4.75/16	(24) 16d	(2) N10	4190	2965
20	BA4.75/20	(16) 16d	(2) N10	4535	4030	MIU4.75/20	(28) 16d	(2) N10	4930	3485	HSUR/L4.75/16	(24) 16d	(2) N10	4190	2965
Double TJI® 560															
Joist Width = 7"															
11½	BA7.12/11.88	(16) 16d	(8) N10	4535	4030	HU412-2	(22) 16d	(8) 16d	5780	4690	HU412-2X	(22) 16d	(8) 16d	3755	3050
14	BA7.12/14	(16) 16d	(8) N10	4535	4030	HU414-2	(26) 16d	(12) 16d	5985	5985	HU414-2X	(26) 16d	(12) 16d	4565	4020
16	BA7.12/16	(16) 16d	(8) N10	4535	4030	HU414-2	(26) 16d	(12) 16d	5985	5985	HU414-2X	(26) 16d	(12) 16d	4565	4020
18	BA7.12/18	(16) 16d	(8) N10	4535	4030	HU414-2	(26) 16d	(12) 16d	5985	5985	HU414-2X	(26) 16d	(12) 16d	4565	4020
20	BA7.12/20	(16) 16d	(8) N10	4535	4030	HU414-2	(26) 16d	(12) 16d	5985	5985	HU414-2X	(26) 16d	(12) 16d	4565	4020

- Shaded hangers require web stiffeners at joist ends. Joist manufacturers may also require web stiffeners for non-shaded areas.
- THAI hangers shown are based on the "top flange" installation and require that the carrying member have a horizontal thickness of at least 2½". Install four top nails and two face nails.
- The LSSR requires web stiffeners that are 4" wide and attached with (4) nails each side.
- LSSR nails and loads shown are for skewed rafter condition. See Wood Construction Connectors catalogue for nailing options with higher loads.
- LSUs are not field skewable. (Field-slope only.) Skewed option must be special ordered, specify skew angle.
- Skewed option must be special ordered. Specify skew angle and direction (e.g. HU414-2X R45°)

## Fastener Sizes

N10 = 0.148" x 1½"  
16d = 0.162" x 3½"

MIT

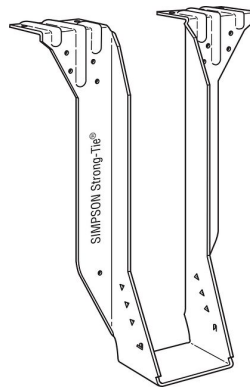


B = 2½"

**MIT – 16 gauge**

The MIT's Positive Angle Nailing helps minimize splitting of the I-joist's bottom flange. Features uplift capacity and extended seat design (to allow installation of slightly undercut joists). Has factored uplift resistance of 375 lb.

BA



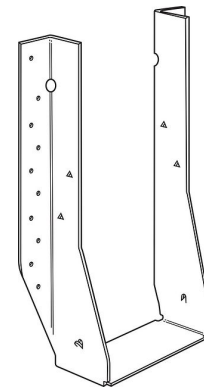
B = 3"

US Patent  
7,334,372

**BA – 14 gauge**

The BA is designed especially for use with multiple ply headers 1½" to 1¾" thick, and may be used for weld-on applications. Has factored uplift resistance of 1740 lb.

MIU



B = 2½"

**MIU – 16 gauge**

MIU series features 16 gauge steel and extra nailing for higher loads. Has factored uplift resistance of 375 lb.

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



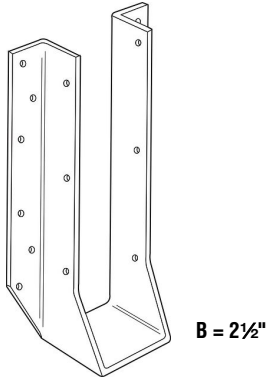
Joist Height	Adjustable Height					Field Slope & Skew				
	Model	Fastener Type		Download		Model	Fastener Type		Download	
		Header	Joist	DF	SPF		Header	Joist	DF	SPF
Double TJI® 110						Joist Width = 3½"				
9½	THAI422	(6) 10d	(2) N10	3000	2385	LSSR410Z	(20) 16d	(13) N16	2585	1835
11½	THAI422	(6) 10d	(2) N10	3000	2385	LSSR410Z	(20) 16d	(13) N16	2585	1835
14	THAI422	(6) 10d	(2) N10	3000	2385	LSSR410Z	(20) 16d	(13) N16	2585	1835
Double TJI® 210						Joist Width = 4⅝"				
9½	THAI-2(W=4.25)	(6) 10d	(2) N10	2800	2800	LSU4.28	(24) 16d	(16) N10	2450	2030
11½	THAI-2(W=4.25)	(6) 10d	(2) N10	2800	2800	LSU4.28	(24) 16d	(16) N10	2450	2030
14	THAI-2(W=4.25)	(6) 10d	(2) N10	2800	2800	LSU4.28	(24) 16d	(16) N10	2450	2030
16	Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue				
Double TJI® 230						Joist Width = 4⅝"				
9½	THAI-2(W=4.75)	(6) 10d	(2) N10	2800	2800	LSU3510-2	(24) 16d	(16) N10	2450	2030
11½	THAI-2(W=4.75)	(6) 10d	(2) N10	2800	2800	LSU3510-2	(24) 16d	(16) N10	2450	2030
14	THAI-2(W=4.75)	(6) 10d	(2) N10	2800	2800	LSU3510-2	(24) 16d	(16) N10	2450	2030
16	Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue				
Double TJI® 360						Joist Width = 4⅝"				
11½	THAI-2(W=4.75)	(6) 10d	(2) N10	2800	2800	LSU3510-2	(24) 16d	(16) N10	2450	2030
14	THAI-2(W=4.75)	(6) 10d	(2) N10	2800	2800	LSU3510-2	(24) 16d	(16) N10	2450	2030
16 - 20	Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue				
Double TJI® 560						Joist Width = 7"				
11½ - 20	Reference Canadian Connector Catalogue					Reference Canadian Connector Catalogue				

1. See notes on page 6.

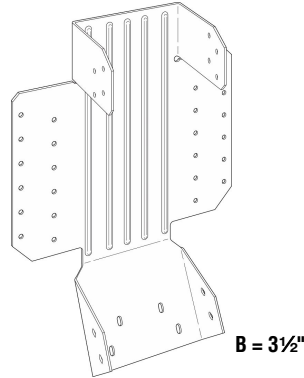
## Fastener Sizes

N10 = 0.148" x 1½"  
 10d = 0.148" x 3"  
 N16 = 0.162" x 2½"  
 16d = 0.162" x 3½"

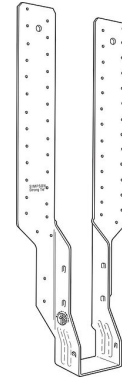
**HU**



**LSU**



**THAI/  
THAI-2**



**B = See  
Canadian Wood  
Construction  
Connectors  
catalogue.**

### 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. See Canadian Wood Construction Connectors catalogue for uplift resistance.

### LSU – 14 gauge

LSU models provide uplift capacity and can be field sloped and/or skewed to 45°. Web stiffeners required when used with I-Joists. See Wood Construction Connectors catalogue for uplift resistance.

### 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. Strap must be field-formed over the top of the header by a minimum of 2½". Web stiffeners required. No uplift resistance.



# BEAMS and HEADERS – Canadian/Factored Resistance (lbs)

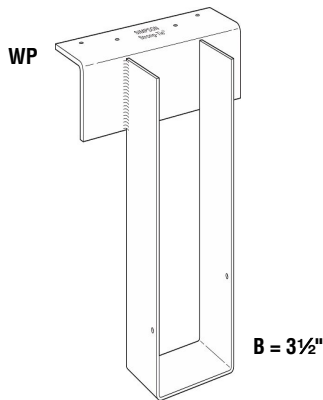


Beam Height	Top Flange							Face Mount				
	Model	Fastener Type		Uplift (KD=1.15)	Download			Model	Fastener Type		Uplift (KD=1.15)	Download
		Header	Joist		LVL	LSL	PSL		Header	Joist		
1¾" Microllam® LVL or Parallam® PSL or TimberStrand® LSL												
7¼	BA1.81/7.25	(16) 16d	(8) N10	1740	7125	6795	—	HU7	(16) 16d	(8) N10	1960	5445
9¼	BA1.81/9.25	(16) 16d	(8) N10	1740	7125	6795	—	HUS1.81/10	(30) 16d	(10) 16d	4505	6405
9½	MIT9.5	(8) 16d	(2) N10	375	3550	3465	—	HU9	(24) 16d	(10) N10	2450	5685
	BA1.81/9.5	(16) 16d	(8) N10	1740	7125	6795	—	HUS1.81/10	(30) 16d	(10) 16d	4505	6405
11¼	WP1.81X(H=11.25)	(4) 16d	(2) N10	—	5950	5980	—	HU11	(30) 16d	(10) N10	2450	5685
	BA1.81/11.25	(16) 16d	(8) N10	1740	7125	6795	—	HUS1.81/10	(30) 16d	(10) 16d	4505	6405
11⅞	MIT11.88	(8) 16d	(2) N10	375	3550	3465	—	HU11	(30) 16d	(10) N10	2450	5685
	BA1.81/11.88	(16) 16d	(8) N10	1740	7125	6795	—	HUS1.81/10	(30) 16d	(10) 16d	4505	6405
14	MIT1.81/14	(8) 16d	(2) N10	375	3550	3465	—	HU14	(36) 16d	(14) N10	3430	5780
	BA1.81/14	(16) 16d	(8) N10	1740	7125	6795	—	HUS1.81/10	(30) 16d	(10) 16d	4505	6405
16	MIT1.81/16	(8) 16d	(2) N10	375	3550	3465	—	HU14	(36) 16d	(14) N10	3430	5780
	BA1.81X(H=16)	(16) 16d	(8) N10	1740	7125	6795	—	HUS1.81/10	(30) 16d	(10) 16d	4505	6405
2 Ply 1¾" or 3½" Microllam® LVL or Parallam® PSL or TimberStrand® LSL												
7¼	BA3.56/7.25	(16) 16d	(8) N10	1740	7125	6795	6520	HHUS48	(22) 16d	(8) 16d	3765	8940
9¼	BA3.56/9.25	(16) 16d	(8) N10	1740	7125	6795	6520	HHUS410	(30) 16d	(10) 16d	4670	9855
	HB3.56/9.25	(22) 16d	(10) 16d	3555	9525	10475	9240	HGUS410	(46) 16d	(16) 16d	6840	14015
9½	BA3.56/9.5	(16) 16d	(8) N10	1740	7125	6795	6520	HHUS410	(30) 16d	(10) 16d	4670	9855
	HB3.56/9.5	(22) 16d	(10) 16d	3555	9525	10475	9240	HGUS410	(46) 16d	(16) 16d	6840	14015
11¼	BA3.56/11.25	(16) 16d	(8) N10	1740	7125	6795	6520	HHUS410	(30) 16d	(10) 16d	4670	9855
	HB3.56/11.25	(22) 16d	(10) 16d	3555	9525	10475	9240	HGUS410	(46) 16d	(16) 16d	6840	14015
11⅞	BA3.56/11.88	(16) 16d	(8) N10	1740	7125	6795	6520	HHUS410	(30) 16d	(10) 16d	4670	9855
	HB3.56/11.88	(22) 16d	(10) 16d	3555	9525	10475	9240	HGUS410	(46) 16d	(16) 16d	6840	14015
14	HB3.56/14	(22) 16d	(10) 16d	3555	9525	10475	9240	HHUS410	(30) 16d	(10) 16d	4670	9855
	SCL3.62/14	(6) 16d	(6) 16d	2155	15850	—	15855	HGUS414	(66) 16d	(22) 16d	10130	16400
16	HB3.56/16	(22) 16d	(10) 16d	3555	9525	10475	9240	HHUS410	(30) 16d	(10) 16d	4670	9855
	SCL3.62/16	(6) 16d	(6) 16d	2155	15850	—	15855	HGUS414	(66) 16d	(22) 16d	10130	16400
18	HB3.56/18	(22) 16d	(10) 16d	3555	9525	10475	9240	HGUS414	(66) 16d	(22) 16d	10130	16400
	HGLTV3.518	(18) 16d	(6) 16d	2145	10565	13795	11325	HGU3.63-SDS(H=18)	(36) SDS25212	(24) SDS25212	14300	20320

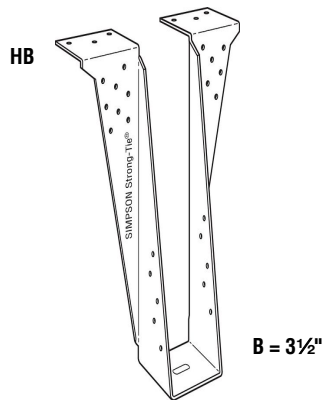
1. Download load column for top flange hangers represents floor loads (100%) and may not be increased for other load durations.

2. HU hangers use both round and triangle holes.

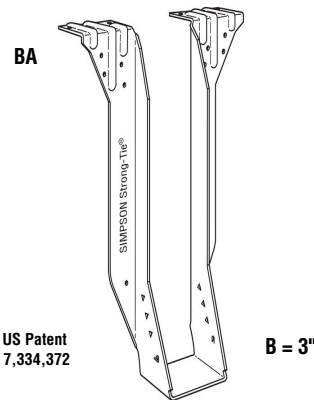
3. When ordering HGU or HHGU specify height.



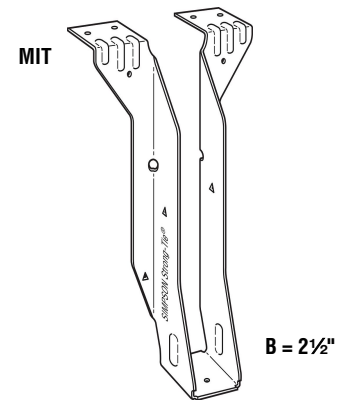
**WP** – Top flange – 7 gauge; Stirrup – 12 gauge  
This welded series offers the greatest design flexibility and versatility, and a large selection of sizes. Suitable for welded and nailer applications, and modifications including slopes and skews. No uplift resistance.



**HB** — 10 gauge  
The HB hanger is available with higher capacity for structural composite lumber and heavier I-joist applications.



**BA** – 14 gauge  
The BA is designed especially for use with multiple ply headers 1½" to 1¾" thick, and may be used for weld-on applications.



**MIT** – 16 gauge  
The MIT's positive-angle nailing helps minimize splitting of the I-joists' bottom flange.



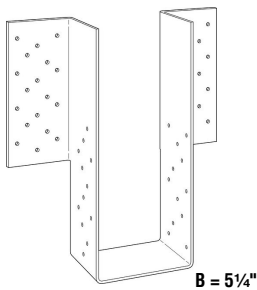
# BEAMS and HEADERS – Canadian/Factored Resistance (lbs)



Beam Height	Top Flange							Face Mount				
	Model	Fastener Type		Uplift (KD=1.15)	Download			Model	Fastener Type		Uplift (KD=1.15)	Download
		Header	Joist		LVL	LSL	PSL		Header	Joist		
3 Ply 1¾" or 5¼" Microllam® LVL or Parallam® PSL or TimberStrand® LSL												
7¼	BA5.37X(H=7.25)	(16) 16d	(8) N10	1740	7125	6795	6520	HGUS5.50/8	(36) 16d	(12) 16d	6070	12980
9¼	HB5.37X(H=9.25)	(22) 16d	(10) 16d	3555	9525	10475	9240	HHUS5.50/10	(30) 16d	(10) 16d	4670	10155
	HGLTV5.37(H=9.25)	(18) 16d	(6) 16d	2145	10565	13795	11325	HGUS5.50/10	(46) 16d	(16) 16d	6840	14645
9½	HB5.37X(H=9.5)	(22) 16d	(10) 16d	3555	9525	10475	9240	HHUS5.50/10	(30) 16d	(10) 16d	4670	10155
	SCL5.37/9.5	(6) 16d	(6) 16d	2155	15850	—	15855	HGUS5.50/10	(46) 16d	(16) 16d	6840	14645
11¼	HB5.37X(H=11.25)	(22) 16d	(10) 16d	3555	9525	10475	9240	HHUS5.50/10	(30) 16d	(10) 16d	4670	10155
	HGLTV5.37(H=11.25)	(18) 16d	(6) 16d	2145	10565	13795	11325	HGUS5.50/12	(56) 16d	(20) 16d	7640	14995
11½	HB5.37X(H=11.875)	(22) 16d	(10) 16d	3555	9525	10475	9240	HHUS5.50/10	(30) 16d	(10) 16d	4670	10155
	SCL5.37/11.88	(12) 16d	(12) 16d	3255	21600	—	20915	HGUS5.50/12	(56) 16d	(20) 16d	7640	14995
14	HB5.37X(H=14)	(22) 16d	(10) 16d	3555	9525	10475	9240	HHUS5.50/10	(30) 16d	(10) 16d	4670	10155
	SCL5.37/14	(12) 16d	(12) 16d	3255	21600	—	20915	HGUS5.50/14	(66) 16d	(22) 16d	10130	16400
16	HGLTV5.37(H=16)	(18) 16d	(6) 16d	2145	10565	13795	11325	HGUS5.50/14	(66) 16d	(22) 16d	10130	16400
	SCL5.37/16	(10) 16d	(12) 16d	4305	29000	—	27350	HGU5.50-SDS(H=16)	(36) SDS25212	(24) SDS25212	14300	20320
18	HGLTV5.37(H=18)	(18) 16d	(6) 16d	2145	10565	13795	11325	HGUS5.50/14	(66) 16d	(22) 16d	10130	16400
	SCL5.37/18	(10) 16d	(12) 16d	4305	29000	—	27350	HGU5.50-SDS(H=18)	(36) SDS25212	(24) SDS25212	14300	20320
4 Ply 1¾" or 7" Microllam® LVL or Parallam® PSL or TimberStrand® LSL												
9¼	HB7.12/9.25	(22) 16d	(10) 16d	3555	9525	10475	9240	HHUS7.25/10	(30) 16d	(10) 16d	4670	10155
	HGLTV7.12(H=9.25)	(18) 16d	(6) 16d	2145	10565	13795	11325	HGUS7.25/10	(46) 16d	(16) 16d	6840	15760
9½	HB7.12/9.5	(22) 16d	(10) 16d	3555	9525	10475	9240	HHUS7.25/10	(30) 16d	(10) 16d	4670	10155
	SCL7.25/9.5	(6) 16d	(6) 16d	2155	15845	—	15855	HGUS7.25/10	(46) 16d	(16) 16d	6840	15760
11¼	HGLTV411.25-2	(18) 16d	(6) 16d	2145	10565	13795	11325	HHUS7.25/10	(30) 16d	(10) 16d	4670	10155
	EGQ7.25-SDS3 (H=11.25)	(28) SDS25300	(12) SDS25300	9040	32435	—	30605	HGUS7.25/12	(56) 16d	(20) 16d	7640	16110
11½	HGLTV411.88-2	(18) 16d	(6) 16d	2145	10565	13795	11325	HHUS7.25/10	(30) 16d	(10) 16d	4670	10155
	SCL7.25/11.88	(12) 16d	(12) 16d	3255	21600	—	20915	HGUS7.25/12	(56) 16d	(20) 16d	7640	16110
14	HGLTV414-2	(18) 16d	(6) 16d	2145	10565	13795	11325	HGUS7.25/14	(66) 16d	(22) 16d	10130	18200
	SCL7.25/14	(12) 16d	(12) 16d	3255	21600	—	20915	HGU7.25-SDS(H=14)	(36) SDS25212	(24) SDS25212	14300	20320
16	SCL7.25/16	(10) 16d	(12) 16d	4305	29000	—	27350	HHGU7.25-SDS (H=16)	(44) SDS25212	(28) SDS25212	15655	26665
18	SCL7.25/18	(10) 16d	(12) 16d	4305	29000	—	27350	HHGU7.25-SDS (H=18)	(44) SDS25212	(28) SDS25212	15655	26665

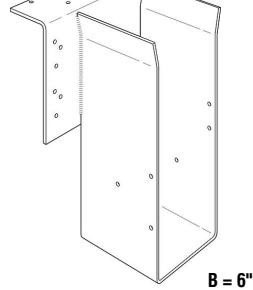
1. See notes on page 8.

HGU



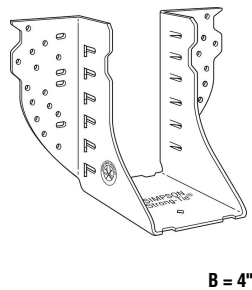
**HGU** – 7 gauge  
**HHGU** – 3 gauge  
 The GU hangers are a high-capacity girder hanger designed for situations where the header and joist are flush at top.

HGLTV



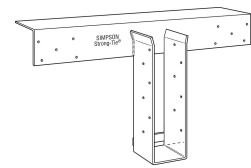
**HGLTV** – Top flange – 3 gauge  
 Stirrup – 7 gauge  
 This welded series provides high load carrying capacity and design flexibility and versatility. May be sloped, skewed and modified in other ways, and may be welded to steel I-beams.

HGUS



**HGUS** – 12 gauge  
**HHUS** – 14 gauge  
 Features double shear nailing for high strength and lowest installed cost due to the reduced nail quantity requirement. Not suitable for use with I-joists.

SCL

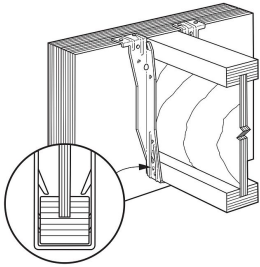


**B = See Canadian Wood Construction Connectors catalogue.**

**SCL** – Top flange – ¼ or ⅜ hot rolled angle  
 Stirrup – 3 gauge  
 This series offers high load capacities. The large top flange distributes the load to the carrying member.

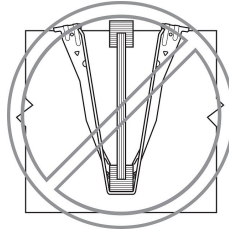
# GENERAL CONNECTOR INSTALLATION

## Top-Flange Hangers



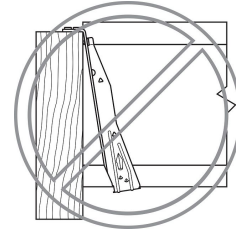
### Flush Framing

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



### Hanger Over-Spread

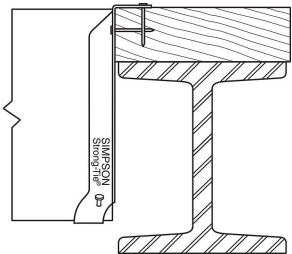
Hanger over-spread can raise the I-Joist above the header and may cause uneven surfaces and squeaky floors.



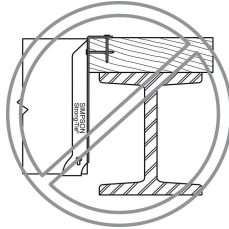
### Hanger Not Plumb

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

## Wood Nailers

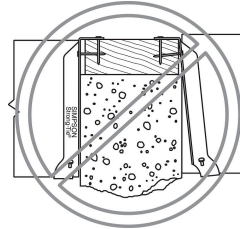


**Correct Attachment**



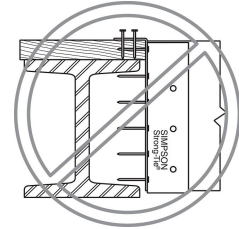
### Nailer Too Wide

The loading may cause cross-grain bending.



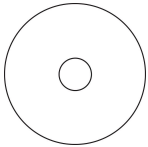
### Nailer Too Narrow

Nailer should be full width.



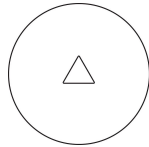
**Nailer Too Thin** and the wrong hanger for a nailer application.

## Nail Hole Shapes



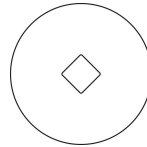
### Round Holes

All holes must be filled except for the THAI adjustable height hanger.



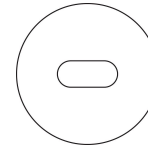
### Triangle Holes

Provided on some products in addition to round holes. Round and triangle holes must be filled to achieve the published maximum load value.



### Diamond Holes

Optional holes to temporarily secure connectors to the member during installation.

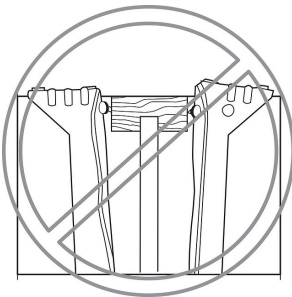


### Obround Holes

Used to provide easier nailing access in tight locations. All holes must be filled except for the LSSR hanger when skewed.

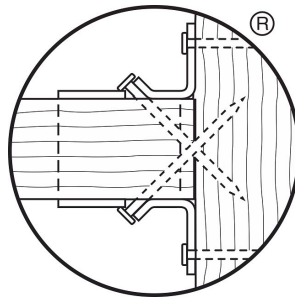
## Toenailed I-Joist

Toenailing causes squeaks and improper hanger installations. **Do not toe nail I-joists prior to installing either top flange or face mount hangers.**



## Double-Shear Nailing

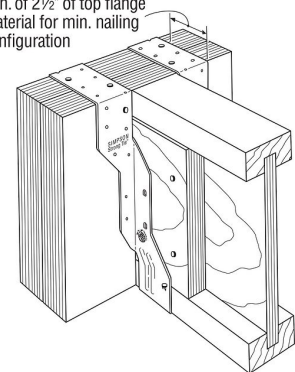
The nail is installed into joist and header, distributing load through two points on each nail for greater strength.



## THAI/THAI-2 Minimum Nailing

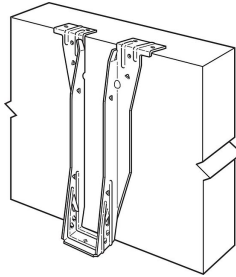
Min. of 2 1/2" of top flange material for min. nailing configuration

Do not nail within 1/4" of multiple ply seam.

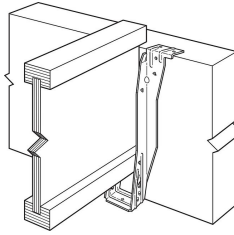


# GENERAL CONNECTOR INSTALLATION

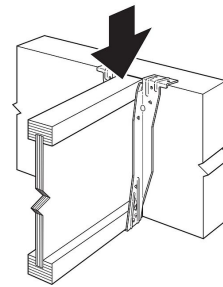
## ITS Installation Sequence (IUS Similar)



**STEP 1**  
Attach the ITS to the header

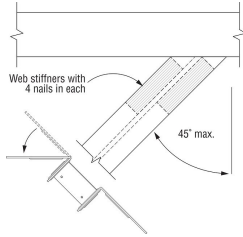


**STEP 2**  
Slide the joist downward into the ITS until it rests above the Strong-Grip™ seat.

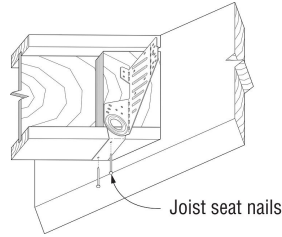


**STEP 3**  
Firmly push or snap joist fully into the seat of the ITS.

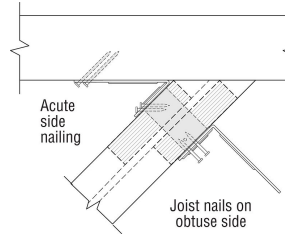
## LSSR Installation



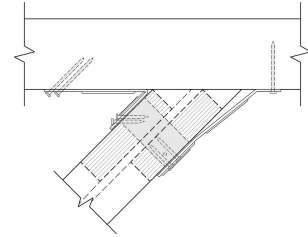
**STEP 1**  
Fold acute side in.



**STEP 2**  
Set hanger snug against header and install seat nails.

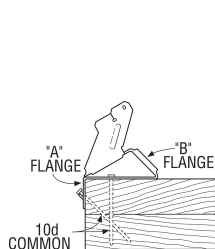


**STEP 3**  
Install all obround nails on acute side first. Then install all joist nails on the obtuse side.

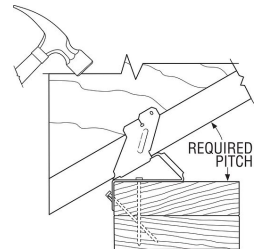


**STEP 4**  
Bend remaining flange backward and install nails in all obround holes.

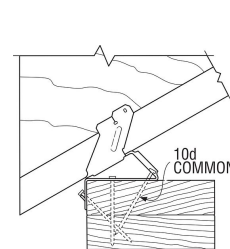
## VPA Installation



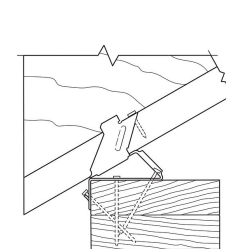
**STEP 1**  
Install top nails and face PAN nails in "A" flange to outside wall top plate.



**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.

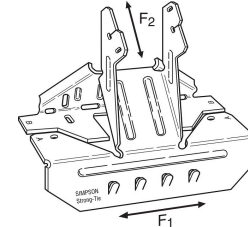


**STEP 4**  
Bend tab with hammer and install nail into tab nail hole. Hammer nail in at approx. 45° angle.

## VPA - Variable Pitch Connectors

Joist Width	Model No.	Fasteners		Factored Resistance							
		Top Plate	Rafter	Uplift (KD=1.15)		Download (KD=1.0)		Lateral Load (KD=1.15)			
				DF/SP	SPF	DF/SP	SPF	DF/SP		SPF	
1 3/4	VPA25	(8) 10d	(2) N10	405	370	1540	1540	695	405	615	370
2 1/16	VPA2.1	(9) 10d	(2) N10	405	370	1690	1690	695	405	615	370
2 5/16	VPA35	(9) 10d	(2) N10	405	370	1770	1770	695	405	615	370
3 1/2	VPA4	(11) 10d	(2) N10	405	370	2050	1855	695	405	615	370

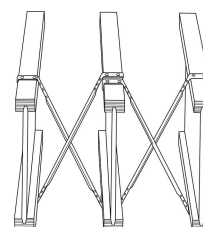
### VPA



**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.

## TB — Tension Bridging

Joist Height	Joist Spacing (Inches)								
	12	16	19.2	24	30	32	36	42	48
9 1/2	TB20	TB27	TB27	TB30	TB36	TB36	TB42	TB48	TB54
11 7/8	TB20	TB27	TB27	TB30	TB36	TB36	TB42	TB48	TB54
14	TB27	TB27	TB27	TB36	TB36	TB42	TB42	TB48	TB54
16	TB27	TB27	TB30	TB36	TB42	TB42	TB42	TB48	TB54



For all bridging avoid contact between steel members (this may cause squeaks).

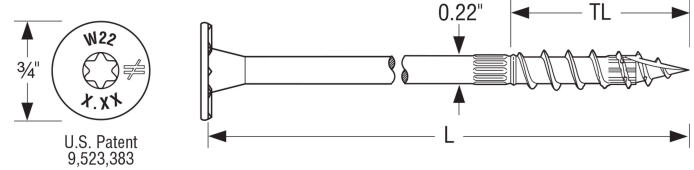
**Typical TB Installation**

# GENERAL CONNECTOR INSTALLATION



## Strong-Drive® SDW EWP-PLY Structural Wood Screws

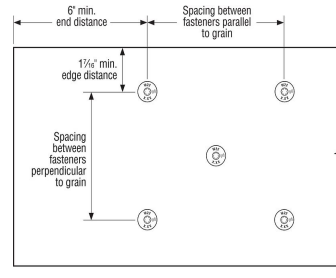
- SDW screws install best with a low-speed ½" drill and a T40 6-lobe bit. The matched bit included with the screws is recommended for best results.
- Screw heads that are countersunk flush to the wood surface are acceptable if the screw has not spun out.
- Individual screw locations may be adjusted up to 3" to avoid conflicts with other hardware or to avoid lumber defects.
- Predrilling is typically not required.



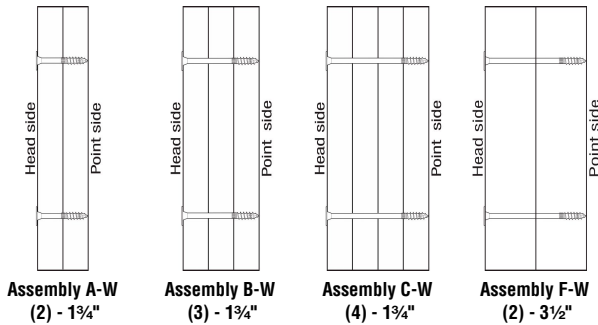
Strong-Drive SDW EWP-PLY Screw

### Screw Dimensions

Model No.	Nominal Screw Length (L) (in.)	Thread Length (TL) (in.)	Head Stamp Length
SDW22338	3 3/8	1 1/16	3.37
SDW22500	5	1 1/16	5.00
SDW22634	6 3/4	1 1/16	6.75



Spacing Requirements



## Sideloaded Multi-Ply SCL Assemblies – Uniform Factored Resistance

Multiple Members		Nominal Screw Length (in.)	Loaded Side	Structural Composite Lumber (SG=0.5)					
				SDW @ 12" o.c.		SDW @ 16" o.c.		SDW @ 24" o.c.	
				2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows
A-W	2-Ply 1 3/4 SCL	3 3/8	Head	1560	2340	1170	1755	780	1170
			Point	1360	2040	1020	1530	680	1020
B-W	3-Ply 1 3/4 SCL	5	Head	1485	2230	1115	1670	745	1115
			Point	1245	1870	935	1400	625	935
C-W	4-Ply 1 3/4 SCL	6 3/4	Head	1320	1980	990	1485	660	990
			Point	1105	1660	830	1245	555	830
F-W	2-Ply 3 1/2 SCL	6 3/4	Head	2280	3420	1710	2565	1140	1710
			Point	2280	3420	1710	2565	1140	1710

- Each ply is assumed to carry same proportion of load.
- Loads may be applied to the head side and point side concurrently provided neither published factored resistance is exceeded. (Example: A 3 ply SCL (SG=0.5) assembly with a head side load of 1300 plf and point side load of 1000 plf may be fastened together with 3 rows of 5" SDW@16" o.c.)

## LSC Adjustable Stringer Connector

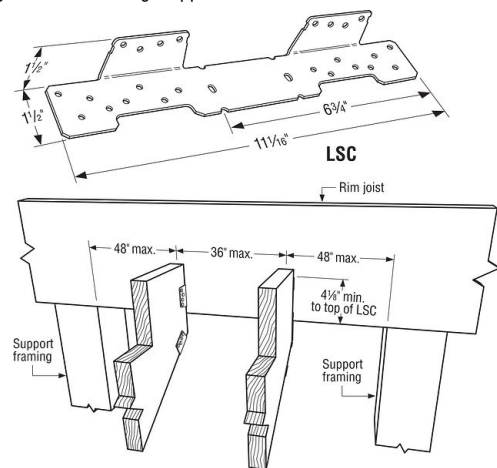
The LSC adjustable stair-stringer connector offers a versatile, concealed connection between the stair stringer and the carrying header or rim joist while replacing costly framing. Field slopeable to all common stair stringer pitches, the LSC connector is suitable for either solid or notched stringers.

Model No.	Fastener Schedule			DF/SP Factored Resistance		SPF/HF Factored Resistance	
	Rim Joist	Stringer Wide Face	Stringer Narrow Face	Floor (KD=1.0)	Snow (KD=1.0)	Floor (KD=1.0)	Snow (KD=1.0)
	(8) N10	(8) N10	(1) N10	1165	1165	825	825
LSCZ	(8) SD9112	(8) SD9112	(1) SD9112	1165	1165	825	825

- Stair stringer must be minimum 1 5/8" LVL or minimum 1 1/4" LSL. Allowable loads for DF/SP species material shall apply.
- When cross-grain tension forces cannot be avoided in the members, mechanical reinforcement to resist such forces may be considered.
- A minimum distance of 3/4" measured from the lowest rim-joist fastener to edge of rim joist is required.

### INSTALLATION

Suitable for most installations on 2x10 or 2x12 header/rim joist. May be installed flush with the top of the carrying member or lower on the face. Interchangeable for left or right applications.



Standard LSC Installation

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.

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