CONNECTOR SELECTION GUIDE

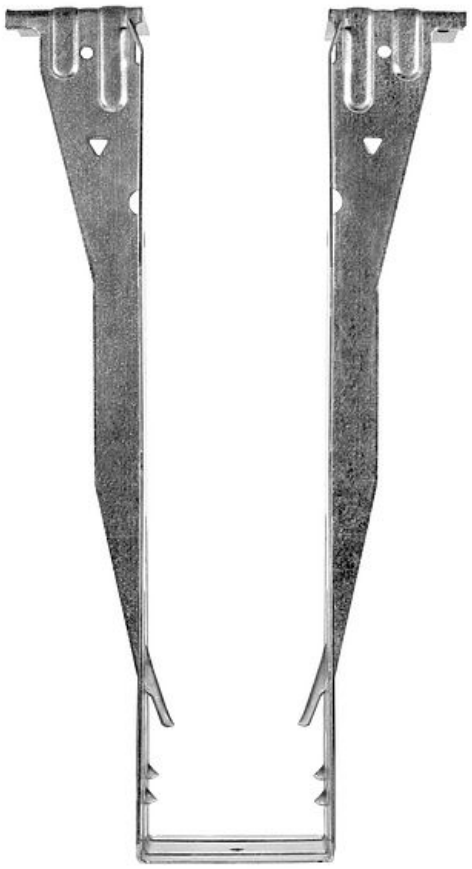
for Residential Construction

SIMPSON Strong-Tie

FOR USE WITH PRODUCTS MANUFACTURED BY:

NORDIC STRUCTURES

For Nordic product support call: 819-732-2876 ext. 225



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

(800) 999-5099
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CSG-NICAN23 06/23 exp. 06/25

CONNECTOR SELECTOR NOTES

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 1¾" 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.

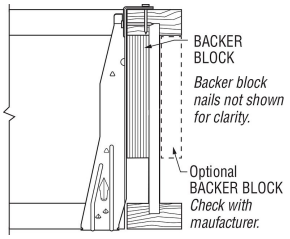
I-Joist Headers

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.

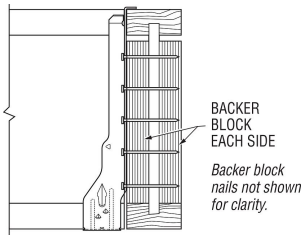
Model	I-Joist Header: 1 ½" Thick Flange Material[1]	
	DF/SCL	SPF
ITS	1375	1375
LT	1695	1695
MIT	1900	1900
BA	2420	2420

1. For flanges with thicknesses from 1⁹⁄₁₆ to 1⅜", use 0.85 of the I-joist header load. For flanges with thicknesses from 1⅛" 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.



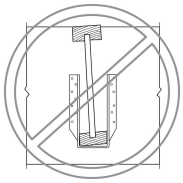
Face Mount

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

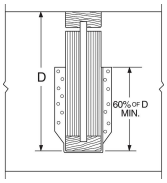
Sloped Joist		
Model	Slope	Reduction
ITS, IUS, MIT, MIU, BA, HB	½:12 max	10%
WP	¾:12 max	15%

Prevent Rotation

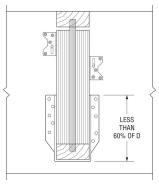
Hangers provide some joist rotation reistance; however, additional lateral restraint may be required for deep joists.



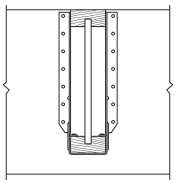
No Rotation Resistance
Lack of web stiffeners combined with short hanger allows unwanted rotation.



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. • Face mount, top flange, skewed, sloped, etc.
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.
	If you did not find a suitable hanger; Please see the current Canadian *Wood Construction Connectors* catalogue or call Simpson Strong-Tie at (800) 999-5099. You will need the following information: • Download • Uplift • Header condition • Bearing length requirement

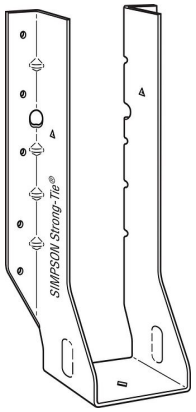
SINGLE I-JOISTS – Canadian/Factored Resistance (lbs)

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
	NI-20, NI-40x, NI-60					Joist Width = 2½"									
9½	LT259	(6) 10d	(1) WS	1645	1645	IUS2.56/9.5	(8) 10d	—	1645	1645	LF259	(10) 10d	(1) WS	1645	1645
11⅞	LT251188	(6) 10d	(1) WS	2000	1725	IUS2.56/11.88	(10) 10d	—	2000	1820	LF2511	(12) 10d	(1) WS	2000	2000
14	LT2514	(6) 10d	(1) WS	2130	1725	IUS2.56/14	(12) 10d	—	2130	1820	LF2514	(14) 10d	(1) WS	2130	2130
16	LT2516	(6) 10d	(1) WS	2255	1725	IUS2.56/16	(14) 10d	—	2255	1935	MIU2.56/16	(24) 16d	(2) N10	2305	2305
	NI-80, NI-90					Joist Width = 3½"									
9½	LT359	(6) 10d	(2) WS	1890	1725	IUS3.56/9.5	(10) 10d	—	1890	1685	LF359	(10) 10d	(2) WS	1890	1890
11⅞	LT351188	(6) 10d	(2) WS	2155	1725	IUS3.56/11.88	(12) 10d	—	2155	1685	LF3511	(12) 10d	(2) WS	2155	2155
14	LT3514	(6) 10d	(2) WS	2315	1725	IUS3.56/14	(12) 10d	—	2315	1685	LF3514	(14) 10d	(2) WS	2315	2315
16	LT3516	(6) 10d	(2) WS	2450	1725	IUS3.56/16	(14) 10d	—	2370	1685	MIU3.56/16	(24) 16d	(2) N10	2450	2450

1. Shaded hangers require web stiffeners at joist ends. Joist manufacturers may also require web stiffeners for non-shaded areas.
2. 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.
3. The LSSR requires web stiffeners that are 4" wide and attached with (4) nails each side.
4. 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

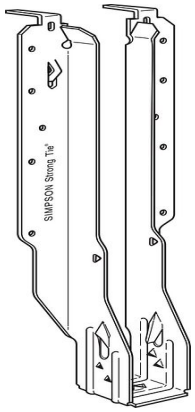
LF



B = 2"

LF – 18 gauge
The LF series features fast and easy installation. No web stiffeners required. Has uplift factored resistance of 105 lb.

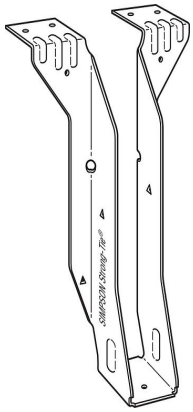
IUS



B = 2"

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.

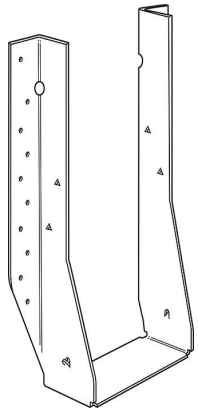
LT



B = 2"

LT – 18 gauge
The LT series feature fast and easy installation. No web stiffeners required. Has uplift factored resistance of 105 lb.

MIU



B = 2½"

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

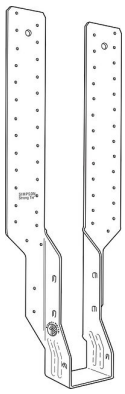
SINGLE I-JOISTS – Canadian/Factored Resistance (lbs)

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
NI-20, NI-40x, NI-60						**Joist Width = 2½"**									
9½	SUR/L2.56/9	(14) 16d	(2) N10	1720	1720	THAI322	(6) 10d	(2) N10	1660	1660	LSSR2.56Z	(13) 10d	(9) N10	1640	1200
11⅞	SUR/L2.56/11	(16) 16d	(2) N10	2145	2145	THAI322	(6) 10d	(2) N10	2030	2030	LSSR2.56Z	(13) 10d	(9) N10	1695	1200
14	SUR/L2.56/14	(18) 16d	(2) N10	2710	2710	THAI322	(6) 10d	(2) N10	2685	2385	LSSR2.56Z	(13) 10d	(9) N10	1695	1200
16	SUR/L2.56/14	(18) 16d	(2) N10	3055	2805	*Reference Canadian Connector Catalogue*					*Reference Canadian Connector Catalogue*				
NI-80, NI-90						**Joist Width = 3½"**									
9½	SUR/L410	(14) 16d	(6) 16d	1890	1890	THAI422	(6) 10d	(2) N10	1890	1890	LSSR410Z	(20) 16d	(13) N16	1890	1835
11⅞	SUR/L410	(14) 16d	(6) 16d	2340	2340	THAI422	(6) 10d	(2) N10	2340	2340	LSSR410Z	(20) 16d	(13) N16	2340	1835
14	SUR/L414	(18) 16d	(8) 16d	2695	2695	THAI422	(6) 10d	(2) N10	2685	2385	LSSR410Z	(20) 16d	(13) N16	2585	1835
16	SUR/L414	(18) 16d	(8) 16d	3020	2895	*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"

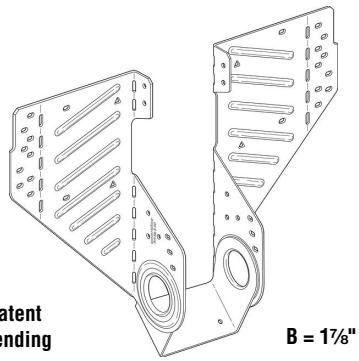
THAI



B = 2¼"

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

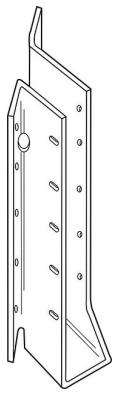


Patent Pending

B = 1⅞"

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.

SUL



B = See Canadian *Wood Construction Connectors* catalogue.

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.

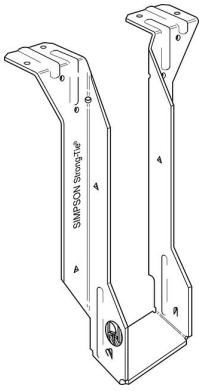
DOUBLE I-JOISTS – Canadian/Factored Resistance (lbs)

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 NI-20, NI-40x, NI-60						**Joist Width = 5"**									
9½	MIT39.5-2	(8) 16d	(2) N10	3355	2420	MIU5.12/9	(16) 16d	(2) N10	3355	3230	HSUR/L5.12/9	(12) 16d	(2) N10	2995	2350
11⅞	MIT311.88-2	(8) 16d	(2) N10	3490	2420	MIU5.12/11	(20) 16d	(2) N10	4120	3230	HSUR/L5.12/11	(16) 16d	(2) N10	4190	2965
14	MIT314-2	(8) 16d	(2) N10	3490	2420	MIU5.12/14	(22) 16d	(2) N10	4930	3485	HSUR/L5.12/14	(20) 16d	(2) N10	4190	2965
16	MIT5.12/16	(8) 16d	(2) N10	3490	2420	MIU5.12/16	(24) 16d	(2) N10	4930	3485	HSUR/L5.12/16	(24) 16d	(2) N10	4190	2965
Double NI-80, NI-90						**Joist Width = 7"**									
9½	BA7.12/9.5	(16) 16d	(8) N10	3780	3780	HU410-2	(18) 16d	(8) 16d	3780	3780	HU410-2X	(18) 16d	(8) 16d	3755	3050
11⅞	BA7.12/11.88	(16) 16d	(8) N10	4535	4030	HU412-2	(22) 16d	(8) 16d	4680	4680	HU412-2X	(22) 16d	(8) 16d	3755	3050
14	BA7.12/14	(16) 16d	(8) N10	4535	4030	HU414-2	(26) 16d	(12) 16d	5380	5380	HU414-2X	(26) 16d	(12) 16d	4565	4020
16	BA7.12/16	(16) 16d	(8) N10	4535	4030	HU414-2	(26) 16d	(12) 16d	6020	6020	HU414-2X	(26) 16d	(12) 16d	4565	4020

1. Shaded hangers require web stiffeners at joist ends. Joist manufacturers may also require web stiffeners for non-shaded areas.
2. 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.
3. The LSSR requires web stiffeners that are 4" wide and attached with (4) nails each side.
4. LSSR nails and loads shown are for skewed rafter condition. See Wood Construction Connectors catalogue for nailing options with higher loads.
5. LSUs are not field skewable. (Field-slope only.) Skewed option must be special ordered, specify skew angle.
6. Skewed option must be special ordered. Specify skew angle and direction (e.g. HU414-2X R45º)

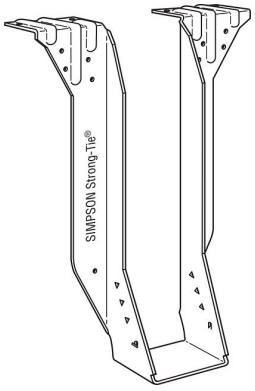
Fastener Sizes
N10 = 0.148" x 1½"
16d = 0.162" x 3½"

MIT



B = 2½"

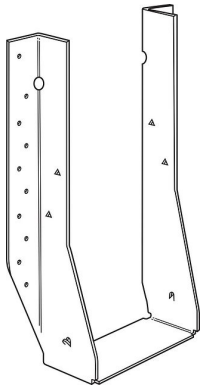
BA



US Patent 7,334,372

B = 3"

MIU



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

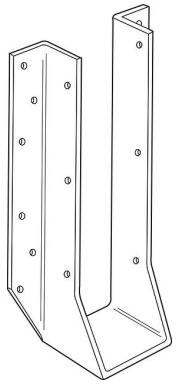
DOUBLE I-JOISTS – Canadian/Factored Resistance (lbs)

Joist Height	Adjustable Height					Field Slope & Skew				
	Model	Fastener Type		Download		Model	Fastener Type		Download	
		Header	Joist	DF	SPF		Header	Joist	DF	SPF
Double NI-20, NI-40x, NI-60						**Joist Width = 5"**				
9½	THAI-2 (W=5.125)	(6) 10d	(2) N10	2800	2800	LSU5.12	(24) 16d	(16) N10	2600	1845
11⅞	THAI-2 (W=5.125)	(6) 10d	(2) N10	2800	2800	LSU5.12	(24) 16d	(16) N10	2600	1845
14	THAI-2 (W=5.125)	(6) 10d	(2) N10	2800	2800	LSU5.12	(24) 16d	(16) N10	2600	1845
16	*Reference Canadian Connector Catalogue*					*Reference Canadian Connector Catalogue*				
Double NI-80, NI-90						**Joist Width = 7"**				
9½ - 16	*Reference Canadian Connector Catalogue*					*Reference Canadian Connector Catalogue*				

1. See notes on page 6.

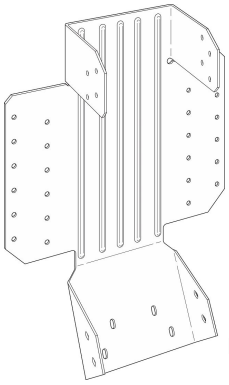
Fastener Sizes
N10 = 0.148" x 1½"
10d = 0.148" x 3"
16d = 0.162" x 3½"

HU



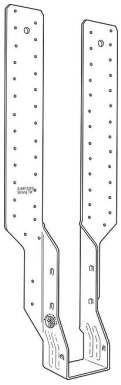
B = 2½"

LSU



B = 3½"

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.

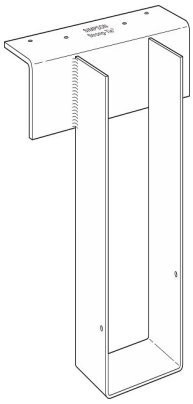
THAI – 18 gauge
THAI-2 – 14 gauge
This hanger has extra-long straps and can be field-formed to give height adjustability and top-flange hanger convenience. Positive angle nailing helps minimize splitting. Strap must be field-formed over the top of the header by a minimum of 2½". Web stiffeners required. 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				Header	Joist		
	1¾" NORDIC LAM									
9½	MIT9.5	(8) 16d	(2) N10	375	2420	HU9	(24) 16d	(10) N10	2265	4660
	BA1.81/9.5	(16) 16d	(8) N10	1235	4030	HUS1.81/10	(30) 16d	(10) 16d	4010	5200
11⅞	MIT11.88	(8) 16d	(2) N10	375	2420	HU11	(30) 16d	(10) N10	2265	4660
	BA1.81/11.88	(16) 16d	(8) N10	1235	4030	HUS1.81/10	(30) 16d	(10) 16d	4010	5200
14	MIT1.81/14	(8) 16d	(2) N10	375	2420	HUS1.81/10	(30) 16d	(10) 16d	4010	5200
	BA1.81/14	(16) 16d	(8) N10	1235	4030	HU14	(36) 16d	(14) N10	2695	5450
16	MIT1.81/16	(8) 16d	(2) N10	375	2420	HUS1.81/10	(30) 16d	(10) 16d	4010	5200
	BA1.81X(H=16)	(16) 16d	(8) N10	1235	4030	HU14	(36) 16d	(14) N10	2695	5450
	2 Ply 1¾" or 3½" NORDIC LAM									
9½	BA3.56/9.5	(16) 16d	(8) N10	1235	4030	HHUS410	(30) 16d	(10) 16d	4235	7000
	HB3.56/9.5	(22) 16d	(10) 16d	3130	5945	HGUS410	(46) 16d	(16) 16d	4855	10270
11⅞	BA3.56/11.88	(16) 16d	(8) N10	1235	4030	HHUS410	(30) 16d	(10) 16d	4235	7000
	HB3.56/11.88	(22) 16d	(10) 16d	3130	5945	HGUS410	(46) 16d	(16) 16d	4855	10270
14	HB3.56/14	(22) 16d	(10) 16d	3130	5945	HHUS410	(30) 16d	(10) 16d	4235	7000
	SCL3.62/14	(6) 16d	(6) 16d	1885	6775	HGUS414	(66) 16d	(22) 16d	7195	11645
16	HB3.56/16	(22) 16d	(10) 16d	3130	5945	HHUS410	(30) 16d	(10) 16d	4235	7000
	SCL3.62/16	(6) 16d	(6) 16d	1885	6775	HGUS414	(66) 16d	(22) 16d	7195	11645
18	HB3.56/18	(22) 16d	(10) 16d	3130	5945	HGUS414	(66) 16d	(22) 16d	7195	11645
	HGLTV3.518	(18) 16d	(6) 16d	1875	9830	HGU3.63-SDS(H=18)	(36) SDS25212	(24) SDS25212	10295	14630

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.

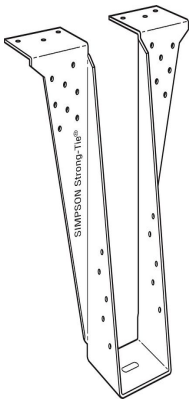
WP



B = 3½"

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.

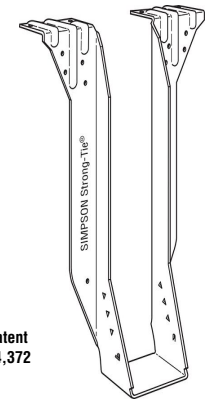
HB



B = 3½"

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

BA

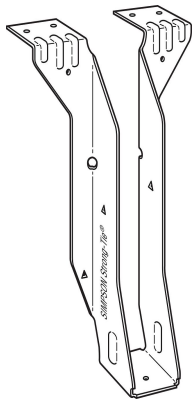


US Patent 7,334,372

B = 3"

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



B = 2½"

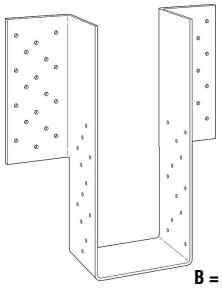
MIT – 16 gauge
The MIT's positive-angle nailing helps minimize splitting of the I-joists' bottom flange.

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				Header	Joist		
	3 Ply 1¾" or 5¼" NORDIC LAM									
9½	HB5.37X(H=9.5)	(22) 16d	(10) 16d	3130	5945	HHUS5.50/10	(30) 16d	(10) 16d	4235	7210
	SCL5.37/9.5	(6) 16d	(6) 16d	1885	6775	HGUS5.50/10	(46) 16d	(16) 16d	4855	10400
11⅞	HB5.37X(H=11.875)	(22) 16d	(10) 16d	3130	5945	HHUS5.50/10	(30) 16d	(10) 16d	4235	7210
	SCL5.37/11.88	(12) 16d	(12) 16d	2130	11490	HGUS5.50/12	(56) 16d	(20) 16d	5425	10645
14	HB5.37X(H=14)	(22) 16d	(10) 16d	3130	5945	HHUS5.50/10	(30) 16d	(10) 16d	4235	7210
	SCL5.37/14	(12) 16d	(12) 16d	2130	11490	HGUS5.50/14	(66) 16d	(22) 16d	7195	11645
16	HGLTV5.37(H=16)	(18) 16d	(6) 16d	1875	9830	HGUS5.50/14	(66) 16d	(22) 16d	7195	11645
	SCL5.37/16	(10) 16d	(12) 16d	3765	13025	HGU5.50-SDS(H=16)	(36) SDS25212	(24) SDS25212	10295	14630
18	HGLTV5.37(H=18)	(18) 16d	(6) 16d	1875	9830	HGUS5.50/14	(66) 16d	(22) 16d	7195	11645
	SCL5.37/18	(10) 16d	(12) 16d	3765	13025	HGU5.50-SDS(H=18)	(36) SDS25212	(24) SDS25212	10295	14630
	4 Ply 1¾" or 7" NORDIC LAM									
9½	HB7.12/9.5	(22) 16d	(10) 16d	3130	5945	HHUS7.25/10	(30) 16d	(10) 16d	3370	7210
	SCL7.25/9.5	(6) 16d	(6) 16d	1885	6775	HGUS7.25/10	(46) 16d	(16) 16d	4855	11190
11⅞	HB7.12/11.88	(18) 16d	(6) 16d	1875	9830	HHUS7.25/10	(30) 16d	(10) 16d	3370	7210
	SCL7.25/11.88	(12) 16d	(12) 16d	2130	11490	HGUS7.25/12	(56) 16d	(20) 16d	5425	11435
14	HGLTV414-2	(18) 16d	(6) 16d	1875	9830	HGUS7.25/14	(66) 16d	(22) 16d	7195	12920
	SCL7.25/14	(12) 16d	(12) 16d	2130	11490	HGU7.25-SDS(H=14)	(36) SDS25212	(24) SDS25212	10295	14630
16	SCL7.25/16	(10) 16d	(12) 16d	3765	13025	HHGU7.25-SDS (H=16)	(44) SDS25212	(28) SDS25212	11080	19195
18	SCL7.25/18	(10) 16d	(12) 16d	3765	13025	HHGU7.25-SDS (H=18)	(44) SDS25212	(28) SDS25212	11080	19195

1. See notes on page 8.

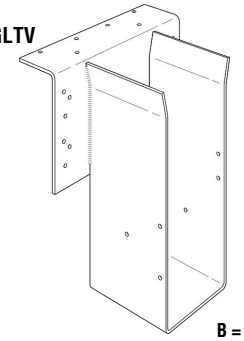
HGU



B = 5¼"

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.

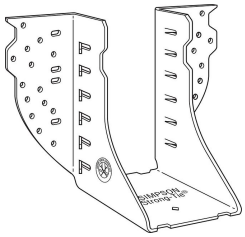
HGLTV



B = 6"

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.

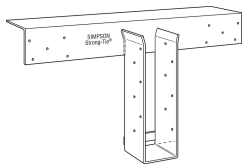
HGUS



B = 4"

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

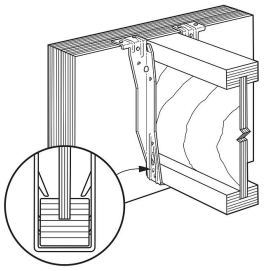


B = See Canadian Wood Construction Connectors catalogue.

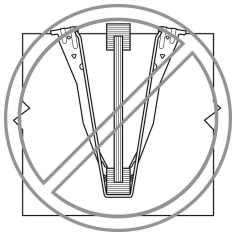
SCL – Top flange – ¼ or ⅜ hot rolled angle
Stirrup – 3 gauge
This series offers high load capacities. The large top flange distributes the load to the carrying member.

GENERAL CONNECTOR INSTALLATION

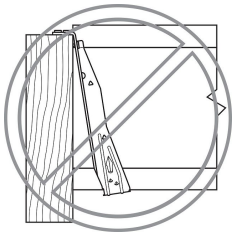
Top-Flange Hangers



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

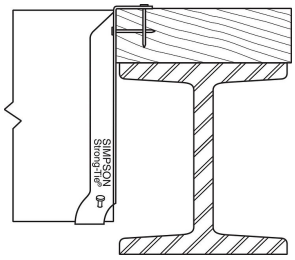


Hanger Over-Spread
Hanger over-spread can raise the I-Joist above the header and may cause uneven surfaces and squeaky floors.

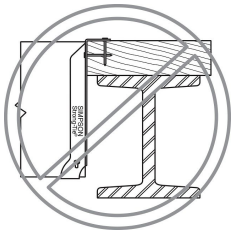


Hanger Not Plumb
A hanger "kicked out" from the header can cause uneven surfaces and squeaky floors.

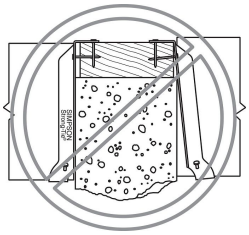
Wood Nailers



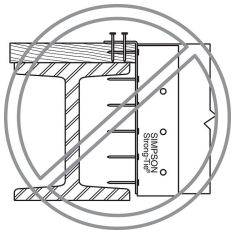
Correct Attachment



Nailer Too Wide
The loading may cause cross-grain bending.

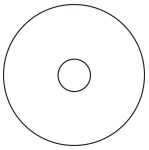


Nailer Too Narrow
Nailer should be full width.

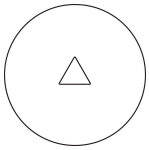


Nailer Too Thin and the wrong hanger for a nailer application.

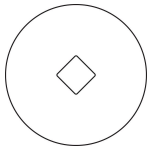
Nail Hole Shapes



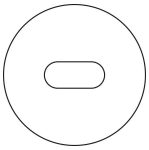
Round Holes
All holes must be filled except for the THAI adjustable height hanger.



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.



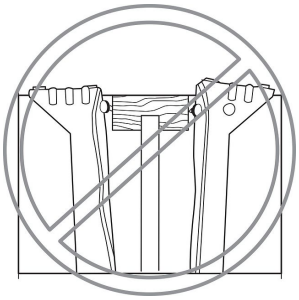
Diamond Holes
Optional holes to temporarily secure connectors to the member during installation.



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

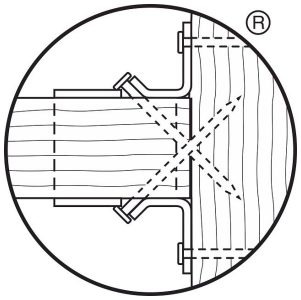
Toenailed I-Joist

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



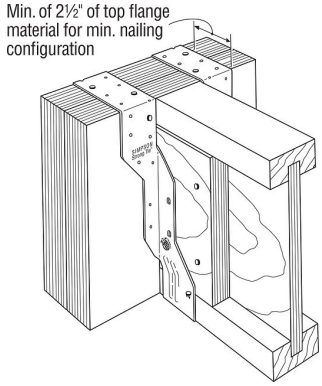
Double-Shear Nailing

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



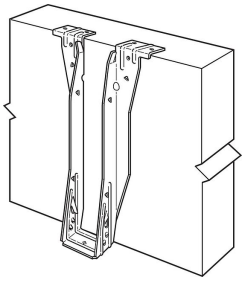
THAI/THAI-2 Minimum Nailing

Do not nail within ¼" of multiple ply seam.

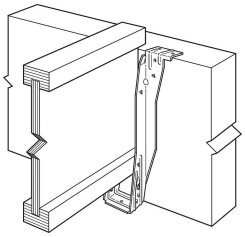


GENERAL CONNECTOR INSTALLATION

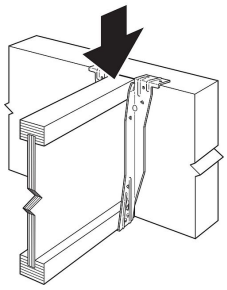
ITS Installation Sequence (IUS Similar)



STEP 1
Attach the ITS to the header

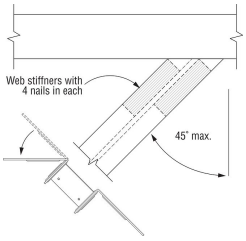


STEP 2
Slide the joist downward into the ITS until it rests above the Strong-Grip™ seat.

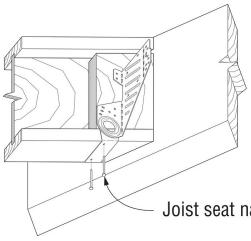


STEP 3
Firmly push or snap joist fully into the seat of the ITS.

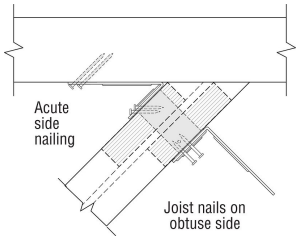
LSSR Installation



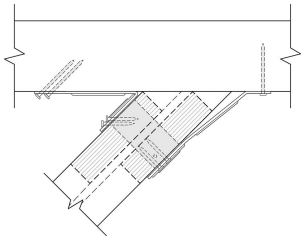
STEP 1
Fold acute side in.



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

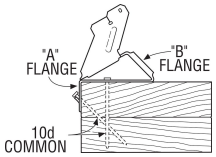


STEP 3
Install all obround nails on acute side first. Then install all joist nails on the obtuse side.

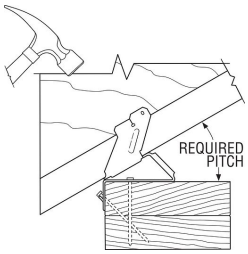


STEP 4
Bend remaining flange backward and install nails in all obround holes.

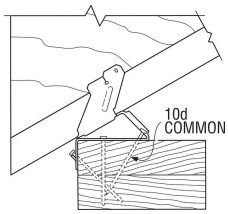
VPA Installation



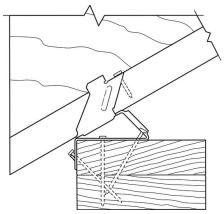
STEP 1
Install top nails and face PAN nails in "A" flange to outside wall top plate.



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.

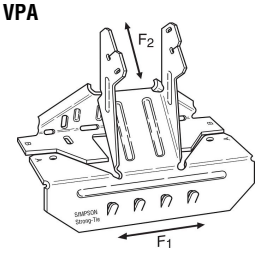


STEP 4
Bend tab with hammer and install nail into tab nail hole. Hammer nail in at approx. 45° angle.

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	F1	F2	F1	F2
2½	VPA3	(9) 10d	(2) N10	405	370	2050	1855	695	615	405	370
3½	VPA4	(11) 10d	(2) N10	405	370	2050	1855	695	615	405	370

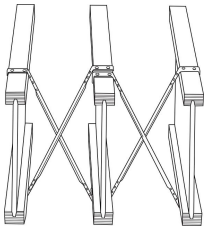
VPA



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 ½	TB20	TB27	TB27	TB30	TB36	TB36	TB42	TB48	TB54
11 ⅞	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

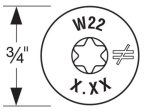


For all bridging avoid contact between steel members (this may cause squeaks).

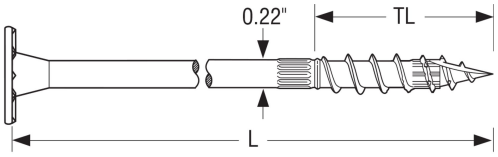
Typical TB Installation

Strong-Drive® SDW EWP-PLY Structural Wood Screws

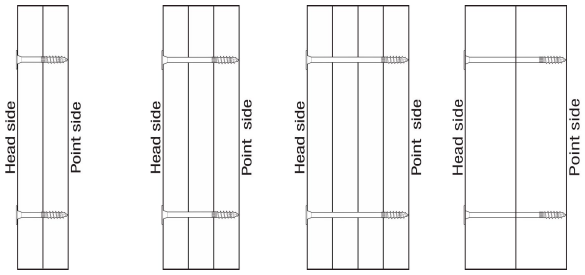
- SDW screws install best with a low-speed ½" drill and a T40 6-lobe bit. The matched bit included with the screws is recommended for best results.
- Screw heads that are countersunk flush to the wood surface are acceptable if the screw has not spun out.
- Individual screw locations may be adjusted up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



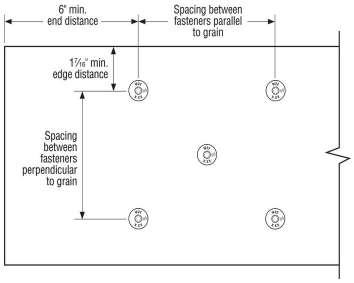
U.S. Patent 9,523,383



Strong-Drive SDW EWP-PLY Screw



Assembly A-W (2) - 1¾" | **Assembly B-W (3) - 1¾"** | **Assembly C-W (4) - 1¾"** | **Assembly F-W (2) - 3½"**



Spacing Requirements

Screw Dimensions

Model No.	Nominal Screw Length (L) (in.)	Thread Length (TL) (in.)	Head Stamp Length
SDW22338	3⅜	1 9⁄16	3.37
SDW22500	5	1 9⁄16	5.00
SDW22634	6¾	1 9⁄16	6.75

Sideloaded Multi-Ply NL Assemblies – Uniform Factored Resistance

Multiple Members		Nominal Screw Length (in.)	Loaded Side	Nordic Lam (SG=0.42)					
				SDW @ 12" o.c.		SDW @ 16" o.c.		SDW @ 24" o.c.	
Assembly	Components			2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows
A-W	2-Ply 1¾ NL	3⅜	Head	1300	1950	975	1465	650	975
			Point	1140	1710	855	1285	570	855
B-W	3-Ply 1¾ NL	5	Head	1290	1935	970	1450	645	970
			Point	1095	1645	820	1230	550	820
C-W	4-Ply 1¾ NL	6¾	Head	1145	1720	860	1290	575	860
			Point	975	1460	730	1095	485	730
F-W	2-Ply 3½ NL	6¾	Head	2020	3030	1515	2275	1010	1515
			Point	1960	2940	1470	2205	980	1470

1. Each ply is assumed to carry same proportion of load.
2. 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.)*

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.

CSG-NICAN23 06/23 exp. 06/25

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