CONNECTOR SELECTION GUIDE

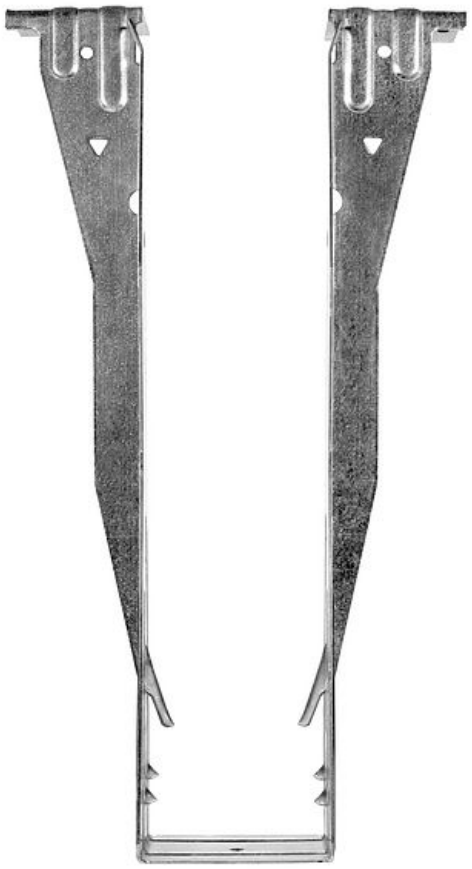
for Residential Construction

SIMPSON Strong-Tie

FOR USE WITH PRODUCTS MANUFACTURED BY:

NORDIC STRUCTURES

For Nordic product support call: 219-802-0510



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 ***Wood Construction Connectors*** catalog for detailed hanger information.

ALLOWABLE STRESS DESIGN

(800) 999-5099
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CONNECTOR SELECTOR NOTES

1. See current *Wood Construction Connectors* catalog 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. Loads listed in tables are in pounds and address the attachment of the hanger to a solid support member. Loads listed under the DF heading cover Douglas Fir, Southern Pine, and engineered lumber made from D.Fir-L or Southern Pine equivalents. Loads listed under the SPF heading cover Spruce-Pine-Fir headers. 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 for top flange hangers and must be equal or greater to hanger height for face mount hangers. The horizontal thickness of the support member must be equal to or greater than the length of the nail being used and must be equal to or greater than the length of the hanger top flange (TF). 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. Uplift loads listed for I-joists assume either LVL or SPF flanges and have been increased by 60% for earthquake and wind loading with no further increase allowed. Reduce loads 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.

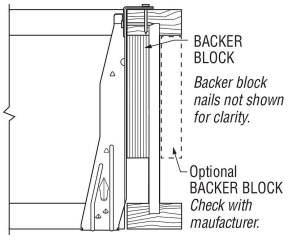
Sloped Joists:
For joists sloped up to ¼:12, there is no reduction of load. For slopes greater than ¼:12, see table.

Sloped Joist		
Model	**Slope**	**Reduction**
ITS, IUS, MIT, MIU, BA, HB	½:12 max	10%
WP	¾:12 max	15%
HU	½:12 max	0%
HU	¾:12 max	10%

Top-Flange Hangers:
Use 0.148" dia. x 1½" nails for all top-flange hangers attached to an I-joist header. See table for allowable loads.

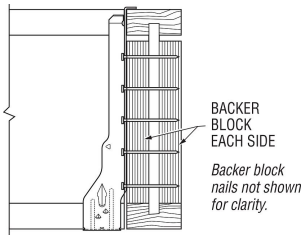
Model	I-Joist Header: 1 ½" Thick Flange Material[1]	
	DF/SCL	SPF
ITS	1,085	940
MIT	1,230	885
BA	1,495	1,495

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

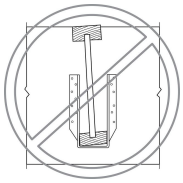
Face-Mount Hangers:
Nails that get less than 2 inches of penetration must be clinched on the back side. Double I-joist headers must be attached together to act as a single unit.



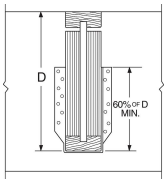
Face Mount

Prevent Rotation

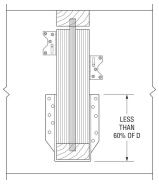
Hangers provide some joist rotation reistance; however, additional lateral restraint may be required for deep joists.



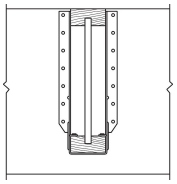
No Rotation Resistance
Lack of web stiffeners combined with short hanger allows unwanted rotation.



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 allowable load.
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 *Wood Construction Connectors* catalog or call Simpson Strong-Tie at (800) 999-5099. You will need the following information: • Download • Uplift • Header condition • Bearing length requirement

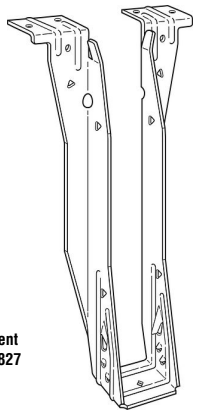
SINGLE I-JOISTS – US/Allowable Load (lb.)

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
	NI-20, NI-40x, NI-60					Joist Width = 2½"									
9½	ITS2.56/9.5	(6) 10d	—	1,045	1,045	IUS2.56/9.5	(8) 10d	—	950	815	SUR/L2.56/9	(14) 16d	(2) N10	1,090	1,090
11⅞	ITS2.56/11.88	(6) 10d	—	1,265	1,150	IUS2.56/11.88	(10) 10d	—	1,185	1,020	SUR/L2.56/11	(16) 16d	(2) N10	1,355	1,355
14	ITS2.56/14	(6) 10d	—	1,350	1,150	IUS2.56/14	(12) 10d	—	1,350	1,220	SUR/L2.56/14	(18) 16d	(2) N10	1,470	1,470
16	ITS2.56/16	(6) 10d	—	1,390	1,150	IUS2.56/16	(14) 10d	—	1,390	1,390	SUR/L2.56/14	(18) 16d	(2) N10	1,935	1,935
	NI-80, NI-90					Joist Width = 3½"									
9½	ITS3.56/9.5	(6) 10d	—	1,200	1,150	IUS3.56/9.5	(10) 10d	—	1,185	1,020	SUR/L410	(14) 16d	(6) 16d	1,200	1,200
11⅞	ITS3.56/11.88	(6) 10d	—	1,365	1,150	IUS3.56/11.88	(12) 10d	—	1,365	1,220	SUR/L410	(14) 16d	(6) 16d	1,480	1,480
14	ITS3.56/14	(6) 10d	—	1,465	1,150	IUS3.56/14	(12) 10d	—	1,420	1,220	SUR/L414	(18) 16d	(8) 16d	1,705	1,705
16	ITS3.56/16	(6) 10d	—	1,470	1,150	IUS3.56/16	(14) 10d	—	1,550	1,425	SUR/L414	(18) 16d	(8) 16d	1,910	1,910

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* catalog for nailing options with higher loads.

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

ITS

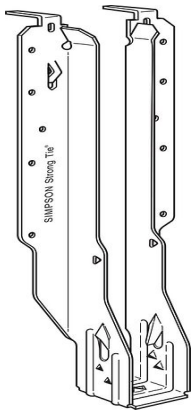


US Patent 8,250,827

B = 2"

ITS – 18 gauge
The ITS top-flange hanger with its Strong-Grip™ seat and Funnel Flange™ installs faster than any other top-flange hanger. Joist nails are not required. Has uplift resistance of 120 lb.

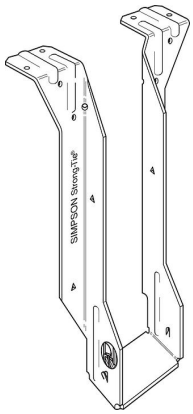
IUS



B = 2"

IUS – 18 gauge
The IUS is a hybrid hanger that incorporates the advantages of both face-mount and top-flange hangers. Joist nails are not required. Has uplift resistance of 70 lb.

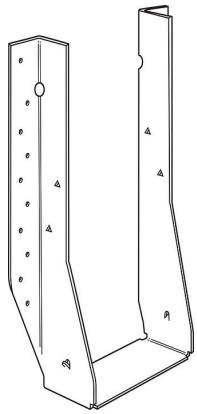
MIT



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 uplift resistance of 215 lb.

MIU



B = 2½"

MIU – 16 gauge
The MIU series features 16-gauge steel and extra nailing for higher loads. Has uplift resistance of 230 lb.

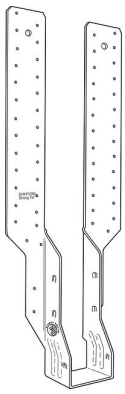
SINGLE I-JOISTS – US/Allowable Load (lb.)

Joist Height	Adjustable Height					Field Slope & Skew				
	Model	Fastener Type		Download		Model	Fastener Type		Download	
		Header	Joist	DF	SPF		Header	Joist	DF	SPF
NI-20, NI-40x, NI-60						**Joist Width = 2½"**				
9½	THAI322	(6) 10d	(2) N10	1,055	1,055	LSSR2.56Z	(13) 10DN	(9) N10	1,040	950
11⅞	THAI322	(6) 10d	(2) N10	1,285	1,285	LSSR2.56Z	(13) 10DN	(9) N10	1,105	950
14	THAI322	(6) 10d	(2) N10	1,700	1,680	LSSR2.56Z	(13) 10DN	(9) N10	1,105	950
16	*Reference Connector Catalog*					*Reference Connector Catalog*				
NI-80, NI-90						**Joist Width = 3½"**				
9½	THAI422	(6) 10d	(2) N10	1,200	1,200	LSSR410Z	(20) N16	(13) N16	1,200	1,200
11⅞	THAI422	(6) 10d	(2) N10	1,480	1,480	LSSR410Z	(20) N16	(13) N16	1,480	1,480
14	THAI422	(6) 10d	(2) N10	1,700	1,680	LSSR410Z	(20) N16	(13) N16	1,690	1,555
16	*Reference Connector Catalog*					*Reference Connector Catalog*				

1. See notes on page 4.

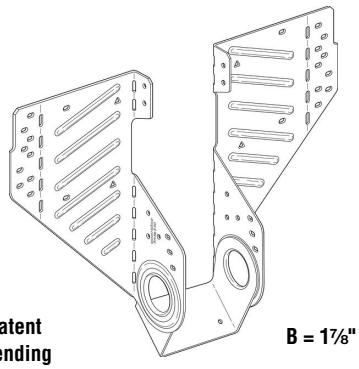
Fastener Sizes
N10 = 0.148" x 1½"
10DN = 0.148" x 2½"
10d = 0.148" x 3"
N16 = 0.162" x 2½"

THAI



B = 2¼"

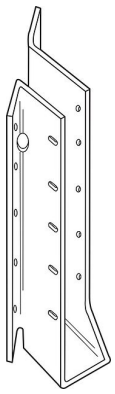
LSSR



Patent Pending

B = 1⅞"

SUL



B = See *Wood Construction Connectors* catalog.

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 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 resistance of 165 lb.

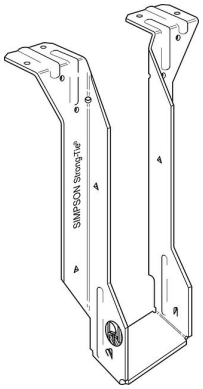
DOUBLE I-JOISTS — US Allowable Loads (lb.)

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	2,125	1,665	MIU5.12/9	(16) 16d	(2) N10	2,125	1,980	HSUR/L5.12/9	(12) 16d	(2) N10	1,785	1,535
11⅞	MIT311.88-2	(8) 16d	(2) N10	2,575	1,665	MIU5.12/11	(20) 16d	(2) N10	2,605	2,475	HSUR/L5.12/11	(16) 16d	(2) N10	2,380	2,045
14	MIT314-2	(8) 16d	(2) N10	2,575	1,665	MIU5.12/14	(22) 16d	(2) N10	3,170	2,725	HSUR/L5.12/14	(20) 16d	(2) N10	2,975	2,560
16	MIT5.12/16	(8) 16d	(2) N10	2,575	1,665	MIU5.12/16	(24) 16d	(2) N10	3,455	2,970	HSUR/L5.12/16	(24) 16d	(2) N10	3,330	2,865
Double NI-80, NI-90						**Joist Width = 7"**									
9½	BA7.12/9.5	(16) 16d	(8) N10	2,400	2,400	HU410-2	(18) 16d	(8) 16d	2,400	2,305	HU410-2X	(18) 16d	(8) 16d	2,145	1,845
11⅞	BA7.12/11.88	(16) 16d	(8) N10	2,960	2,960	HU412-2	(22) 16d	(8) 16d	2,960	2,815	HU412-2X	(22) 16d	(8) 16d	2,625	2,250
14	BA7.12/14	(16) 16d	(8) N10	3,425	3,425	HU414-2	(26) 16d	(12) 16d	3,405	3,330	HU414-2X	(26) 16d	(12) 16d	3,100	2,665
16	BA7.12/16	(16) 16d	(8) N10	3,855	3,855	HU414-2	(26) 16d	(12) 16d	3,815	3,330	HU414-2X	(26) 16d	(12) 16d	3,100	2,665

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 catalog 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)

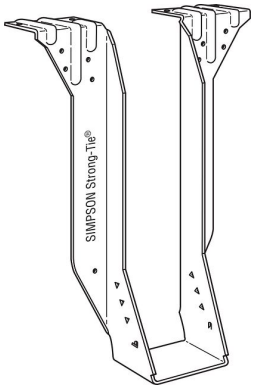
Fastener Sizes
N10 = 0.148" x 1½"
16d = 0.162" x 3½"

MIT



B = 2½"

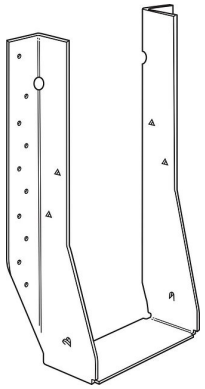
BA



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 uplift resistance of 215 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 uplift resistance of 1225 lb.

MIU – 16 gauge
The MIU series features 16 gauge steel and extra nailing for higher loads. Has uplift resistance of 230 lb.

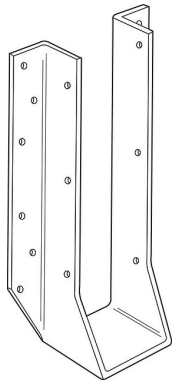
DOUBLE I-JOISTS — US Allowable Loads (lb.)

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	2,095	2,095	LSU5.12	(24) 16d	(16) N10	1,790	1,550
11⅞	THAI-2 (W=5.125)	(6) 10d	(2) N10	2,095	2,095	LSU5.12	(24) 16d	(16) N10	1,790	1,550
14	THAI-2 (W=5.125)	(6) 10d	(2) N10	2,095	2,095	LSU5.12	(24) 16d	(16) N10	1,790	1,550
16	*Reference Connector Catalog*					*Reference Connector Catalog*				
Double NI-80, NI-90						**Joist Width = 7"**				
9½ - 16	*Reference Connector Catalog*					*Reference Connector Catalog*				

1. See notes on page 6.

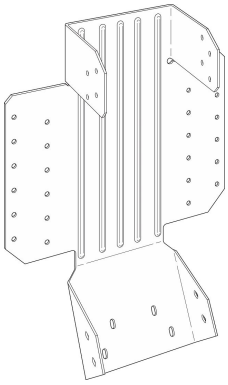
Fastener Sizes
N10 = 0.148" x 1½"
10d = 0.148" x 3"
16d = 0.162" x 3½"

HU



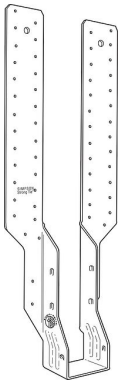
B = 2½"

LSU



B = 3½"

THAI/ THAI-2



B = See *Wood Construction Connectors* catalog.

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 Wood Construction Connectors catalog 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 catalog for uplift resistance.

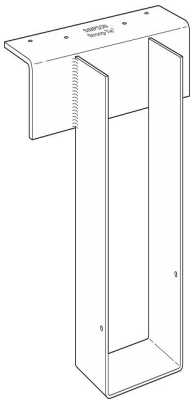
THAI – 18 gauge
THAI-2 – 14 gauge
This hanger has extra-long straps and can be field-formed to give height adjustability and top-flange hanger convenience. Positive angle nailing helps minimize splitting. Strap must be field-formed over the top of the header by a minimum of 2½". Web stiffeners required. No uplift resistance.

BEAMS and HEADERS — US Allowable Loads (lb.)

Beam Height	Top Flange					Face Mount				
	Model	Fastener Type		Uplift (160)	Download	Model	Fastener Type		Uplift (160)	Download
		Header	Joist				Header	Joist		
	1¾" NORDIC LAM									
9½	MIT9.5	(8) 16d	(2) N10	185	1,665	HU9	(24) 16d	(10) N10	1,545	3,075
	BA1.81/9.5	(16) 16d	(8) N10	1,055	4,005	HUS1.81/10	(30) 16d	(10) 16d	2,300	4,360
11⅞	MIT11.88	(8) 16d	(2) N10	185	1,665	HU11	(30) 16d	(10) N10	1,545	3,845
	BA1.81/11.88	(16) 16d	(8) N10	1,055	4,005	HUS1.81/10	(30) 16d	(10) 16d	2,300	4,360
14	MIT1.81/14	(8) 16d	(2) N10	185	1,665	HUS1.81/10	(30) 16d	(10) 16d	2,300	4,360
	BA1.81/14	(16) 16d	(8) N10	1,055	4,005	HU14	(36) 16d	(14) N10	1,545	4,615
16	MIT1.81/16	(8) 16d	(2) N10	185	1,665	HUS1.81/10	(30) 16d	(10) 16d	2,300	4,360
	BA1.81X(H=16)	(16) 16d	(8) N10	1,055	4,005	HU14	(36) 16d	(14) N10	1,545	4,615
	2 Ply 1¾" or 3½" NORDIC LAM									
9½	HB3.56/9.5	(22) 16d	(10) 16d	1,785	3,820	HHUS410	(30) 16d	(10) 16d	3,065	4,845
	BA3.56/9.5	(16) 16d	(8) N10	1,055	4,005	HGUS410	(46) 16d	(16) 16d	3,520	7,825
11⅞	HB3.56/11.88	(22) 16d	(10) 16d	1,785	3,820	HHUS410	(30) 16d	(10) 16d	3,065	4,845
	BA3.56/11.88	(16) 16d	(8) N10	1,055	4,005	HGUS410	(46) 16d	(16) 16d	3,520	7,825
14	HB3.56/14	(22) 16d	(10) 16d	1,785	3,820	HHUS410	(30) 16d	(10) 16d	3,065	4,845
	HGLTV3.514	(18) 16d	(6) 16d	1,115	6,770	HGUS414	(66) 16d	(22) 16d	4,610	11,115
16	HB3.56/16	(22) 16d	(10) 16d	1,785	3,820	HHUS410	(30) 16d	(10) 16d	3,065	4,845
	HGLTV3.516	(18) 16d	(6) 16d	1,115	6,770	HGUS414	(66) 16d	(22) 16d	4,610	11,115
18	HB3.56/18	(22) 16d	(10) 16d	1,785	3,820	HGU3.63-SDS(H=18)	(36) SDS25212	(24) SDS25212	6,810	10,185
	HGLTV3.518	(18) 16d	(6) 16d	1,115	6,770	HGUS414	(66) 16d	(22) 16d	4,610	11,115

1. Download 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 the EGQ, HGU, HHGU specify height.

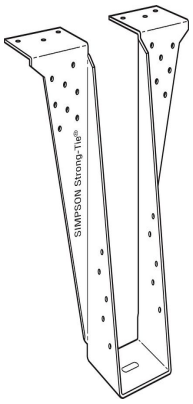
WP



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.

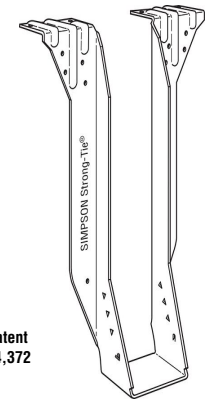
HB



B = 3½"

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

BA

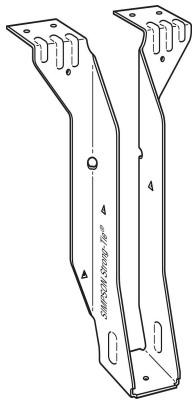


US Patent 7,334,372

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"

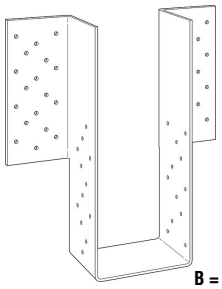
MIT – 16 gauge
The MIT's positive-angle nailing helps minimize splitting of the I-joists' bottom flange.

BEAMS and HEADERS — US Allowable Loads (lb.)

Beam Height	Top Flange					Face Mount				
	Model	Fastener Type		Uplift (160)	Download	Model	Fastener Type		Uplift (160)	Download
		Header	Joist				Header	Joist		
3 Ply 1¾" or 5¼" NORDIC LAM										
9½	HB5.37X(H=9.5)	(22) 16d	(10) 16d	1,785	3,820	HHUS5.50/10	(30) 16d	(10) 16d	3,065	4,845
	HGLTV5.37(H=9.5)	(18) 16d	(6) 16d	1,115	6,770	HGUS5.50/10	(46) 16d	(16) 16d	3,520	7,825
11⅞	HB5.37X(H=11.875)	(22) 16d	(10) 16d	1,785	3,820	HHUS5.50/10	(30) 16d	(10) 16d	3,065	4,845
	HGLTV5.37 (H=11.875)	(18) 16d	(6) 16d	1,115	6,770	HGUS5.50/12	(56) 16d	(20) 16d	4,475	10,280
14	HB5.37X(H=14)	(22) 16d	(10) 16d	1,785	3,820	HHUS5.50/10	(30) 16d	(10) 16d	3,065	4,845
	EGQ5.37-SDS3 (H=14)	(28) SDS25300	(12) SDS25300	6,845	12,830	HGUS5.50/14	(66) 16d	(22) 16d	4,610	11,960
16	HGLTV5.37(H=16)	(18) 16d	(6) 16d	1,115	6,770	HGU5.50-SDS(H=16)	(36) SDS25212	(24) SDS25212	6,810	9,475
	EGQ5.37-SDS3 (H=16)	(28) SDS25300	(12) SDS25300	6,845	12,830	HGUS5.50/14	(66) 16d	(22) 16d	4,610	11,960
18	HGLTV5.37(H=18)	(18) 16d	(6) 16d	1,115	6,770	HGU5.50-SDS(H=18)	(36) SDS25212	(24) SDS25212	6,810	9,475
	EGQ5.37-SDS3 (H=18)	(28) SDS25300	(12) SDS25300	6,845	12,830	HGUS5.50/14	(66) 16d	(22) 16d	4,610	11,960
4 Ply 1¾" or 7" NORDIC LAM										
9½	HB7.12/9.5	(22) 16d	(10) 16d	1,785	3,820	HHUS7.25/10	(30) 16d	(10) 16d	3,065	4,845
	HGLTV7.12(H=9.5)	(18) 16d	(6) 16d	1,115	6,770	HGUS7.25/10	(46) 16d	(16) 16d	3,520	7,825
11⅞	HB7.12/11.88	(18) 16d	(6) 16d	1,115	6,770	HHUS7.25/10	(30) 16d	(10) 16d	3,065	4,845
	EGQ7.25-SDS3 (H=11.875)	(28) SDS25300	(12) SDS25300	6,845	12,830	HGUS7.25/12	(56) 16d	(20) 16d	4,475	10,280
14	HGLTV414-2	(18) 16d	(6) 16d	1,115	6,770	HGU7.25-SDS(H=14)	(36) SDS25212	(24) SDS25212	6,810	9,475
	EGQ7.25-SDS3 (H=14)	(28) SDS25300	(12) SDS25300	6,845	12,830	HGUS7.25/14	(66) 16d	(22) 16d	4,610	11,960
16	EGQ7.25-SDS3 (H=16)	(28) SDS25300	(12) SDS25300	6,845	12,830	HHGU7.25-SDS (H=16)	(44) SDS25212	(28) SDS25212	12,525	13,200
18	EGQ7.25-SDS3 (H=18)	(28) SDS25300	(12) SDS25300	6,845	12,830	HHGU7.25-SDS (H=18)	(44) SDS25212	(28) SDS25212	12,525	13,200

1. See notes on page 8.

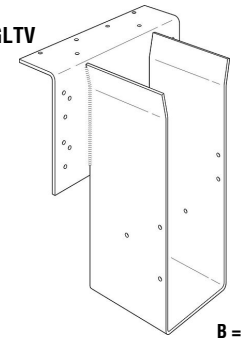
HGU



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.

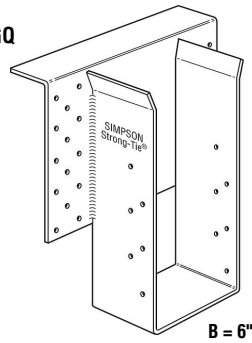
HGLTV



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.

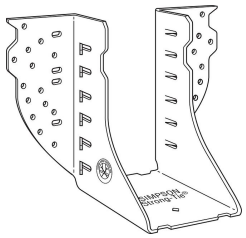
EGQ



B = 6"

EGQ – Top flange – 3 gauge
Stirrup – 7 gauge
A high-capacity top-flange connector designed for use with Structural Composite Lumber beams.

HGUS

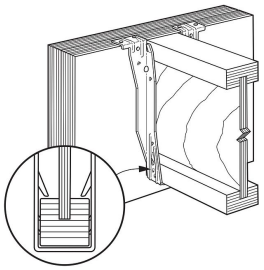


B = 4"

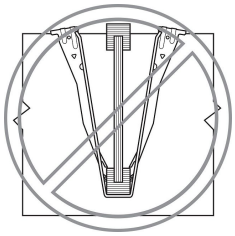
HGUS – 12 gauge
HHUS – 14 gauge
Features double shear nailing for high strength and lowest installed cost due to the reduced nail quantity requirement. Not suitable for use with I-joists.

GENERAL CONNECTOR INSTALLATION

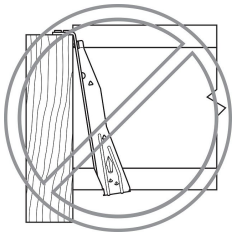
Top-Flange Hangers



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

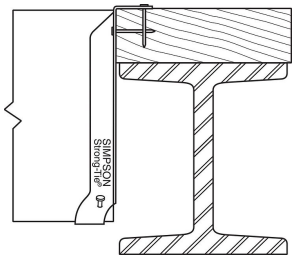


Hanger Over-Spread
Hanger over-spread can raise the I-Joist above the header and may cause uneven surfaces and squeaky floors.

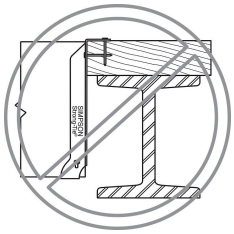


Hanger Not Plumb
A hanger "kicked out" from the header can cause uneven surfaces and squeaky floors.

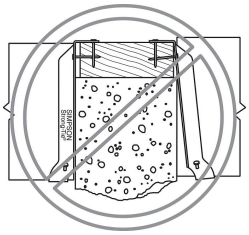
Wood Nailers



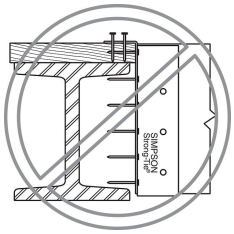
Correct Attachment



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

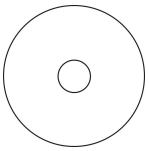


Nailer Too Narrow
Nailer should be full width.

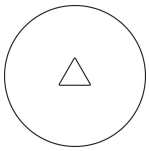


Nailer Too Thin and the wrong hanger for a nailer application.

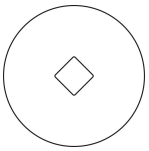
Nail Hole Shapes



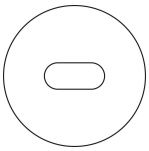
Round Holes
All holes must be filled except for the THAI adjustable height hanger.



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.



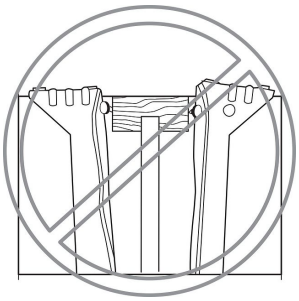
Diamond Holes
Optional holes to temporarily secure connectors to the member during installation.



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

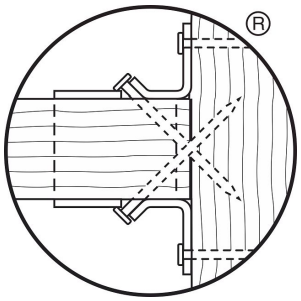
Toenailed I-Joist

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



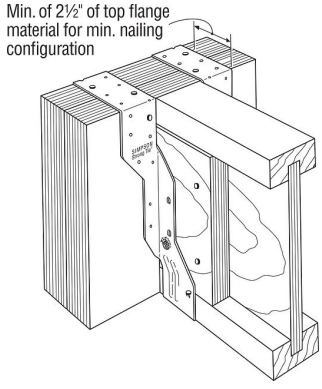
Double-Shear Nailing

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



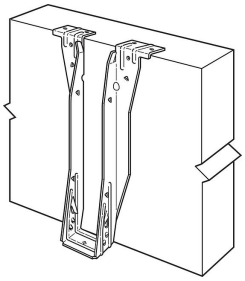
THAI/THAI-2 Minimum Nailing

Do not nail within ¼" of multiple ply seam.

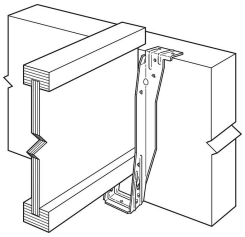


GENERAL CONNECTOR INSTALLATION

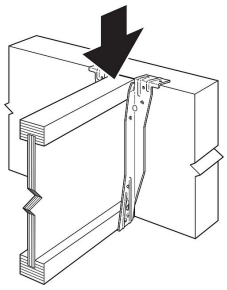
ITS Installation Sequence (IUS Similar)



STEP 1
Attach the ITS to the header

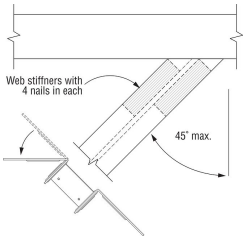


STEP 2
Slide the joist downward into the ITS until it rests above the Strong-Grip™ seat.

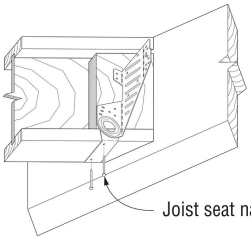


STEP 3
Firmly push or snap joist fully into the seat of the ITS.

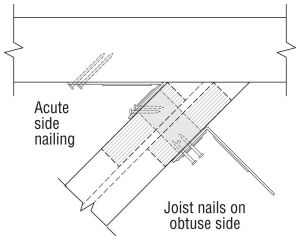
LSSR Installation



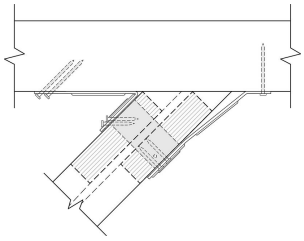
STEP 1
Fold acute side in.



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

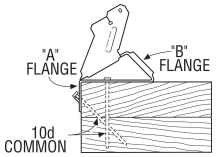


STEP 3
Install all obround nails on acute side first. Then install all joist nails on the obtuse side.

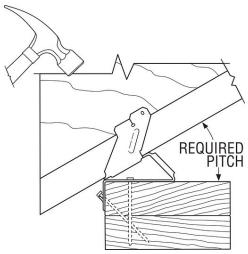


STEP 4
Bend remaining flange backward and install nails in all obround holes.

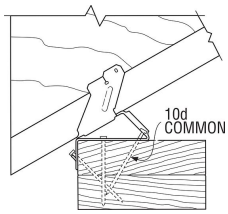
VPA Installation



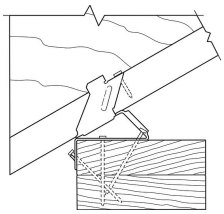
STEP 1
Install top nails and face PAN nails in “A” flange to outside wall top plate.



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.

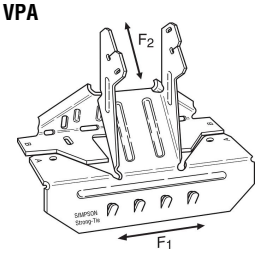


STEP 4
Bend tab with hammer and install nail into tab nail hole. Hammer nail in at approx. 45° angle.

VPA - Variable Pitch Connectors

Joist Width	Model No.	Fasteners		Allowable Loads							
		Top Plate	Rafter	Uplift (160)		Download (100)		Lateral Load (160)			
								DF/SP		SPF	
				DF/SP	SPF	DF/SP	SPF	F1	F2	F1	F2
2½	VPA3	(9) 10d	(2) N10	255	220	1,245	1,070	345	300	295	260
3½	VPA4	(11) 10d	(2) N10	255	220	1,245	1,070	345	300	295	260

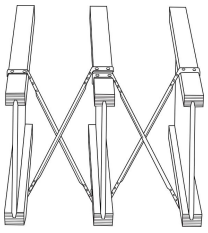
VPA



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

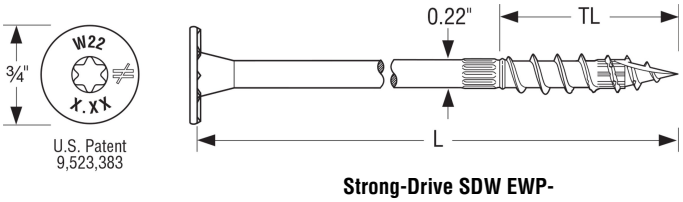


For all bridging avoid contact between steel members (this may cause squeaks).

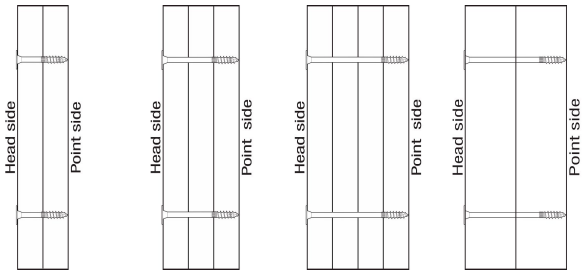
Typical TB Installation

Strong-Drive® SDW EWP-PLY Structural Wood Screws

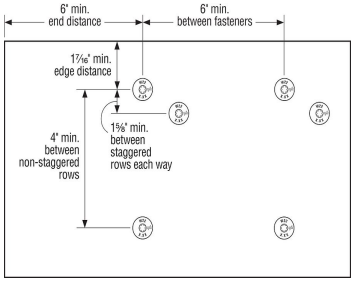
- SDW screws install best with a low-speed ½" drill and a T40 6-lobe bit. The matched bit included with the screws is recommended for best results.
- Screw heads that are countersunk flush to the wood surface are acceptable if the screw has not spun out.
- Individual screw locations may be adjusted up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



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	1⁹⁄₁₆	3.37
SDW22500	5	1⁹⁄₁₆	5.00
SDW22634	6¾	1⁹⁄₁₆	6.75

Sideloaded Multi-Ply NL Assemblies — Allowable Uniform Load

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	1,020	1,530	765	1,150	510	765
			Point	1,020	1,530	765	1,150	510	765
B-W	3-Ply 1¾ NL	5	Head	975	1,465	730	1,095	490	730
			Point	765	1,150	575	860	385	575
C-W	4-Ply 1¾ NL	6¾	Head	1,025	1,540	770	1,155	515	770
			Point	680	1,020	510	765	340	510
F-W	2-Ply 3½ NL	6¾	Head	1,020	1,530	765	1,150	510	765
			Point	1,020	1,530	765	1,150	510	765

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 allowable load is exceeded. *(Example: a 3-ply SCL (SG-0.50) assembly with a head side load of 1,300 plf and point side load of 1,000 plf may be fastened together with 3 rows of SDW @ 16" o.c.)*

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

CSG-NIUS23 06/23 exp. 06/25

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