

# EWP PRODUCT GUIDE

For Use With Products Manufactured by



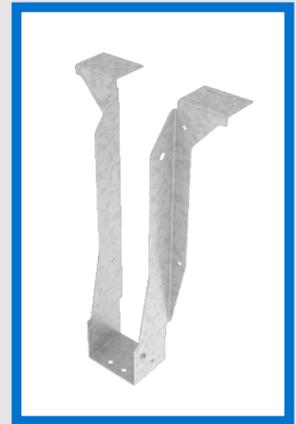
SKH2520R-2



LSSH35



THFI2514



TFL25118

**MiTek**<sup>®</sup>

1-800-328-5934  
MiTek-US.com

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## Follow these instructions to ensure the proper installation of MiTek products.

- See current MiTek Product Catalog for General Notes, Warranty, and installation information for hanger models, joist sizes, and header situations not shown.
- Loads listed address hanger/header/fastener limitations as well as joist/hanger limitations assuming header material is Douglas Fir-Larch (DF), LVL (SG  $\geq$  0.50) or Spruce-Pine-Fir (S-P-F). Joist reaction should be checked by a qualified designer to ensure proper hanger selection.
- Uplift loads have been increased 60% for wind or seismic loads and no further increase shall be permitted. Reduce loads according to code for normal duration loading such as cantilever construction.
- Hangers for joists without web stiffeners must support the I-Joist's top flange and provide lateral resistance with no less than 1/8" contact. Hangers for joists with web stiffeners must support a minimum of 60% of joist depth or potential joist rotation must be addressed. For hangers less than 60% joist depth, install framing angles, one on each side, for lateral stability. See page 3.
- The type and quantity of fasteners used to install MiTek products is critical to connector performance. To achieve the factored resistances shown in this document, install with the fasteners specified for that particular product. All specified fasteners must be properly installed prior to applying load of any kind to the connection.
- Throughout this document, dimensions are expressed in inches and loads in pounds, unless specifically noted otherwise.
- Load values for 10d and 16d designations in the fastener schedules throughout this document refer to common wire nails, unless noted otherwise.
- The allowable loads shown in this catalog are based on Allowable Stress Design methodology.
- **Multiple Joist Plies:** Fasten together multiple plies of wood I-joists, in accordance with the manufacturer's installation guidelines, such that the joists act as a single unit.
- **Sloped Joists:** Use slope seat hangers and beveled web stiffeners whenever the slope exceeds the following: 1/2:12 for seat bearing lengths of 2 1/2" or less; 3/8:12 for bearing lengths between 2 1/2" and 3 1/2"; and 1/4:12 for bearing lengths in excess of 3 1/2".

**Backer Blocks** – Pattern the nails used to install backer blocks or web stiffeners in wood PKI Joist to avoid splitting the block. The nail pattern should be sufficiently spaced to avoid the same grain line, particularly with solid sawn backer blocks. Backer blocks must be installed on wood PKI

Joists acting as the header, or supporting member. Install in accordance with the Pinkwood installation guidelines. The nails used to install hangers mounted to a PKI Joist header must penetrate through the web and into the backer block on the opposite side.

With top flange hangers, backer block required only for downward loads exceeding 250 lbs or for uplift conditions

**Backer Block Installation:**  
Install tight to top flange Use (12) 3" nails, clinched when possible. Maximum allowable load for hanger for this detail = 1620 lbs.

**Filler Block Installation:**  
Attach per table to the right. Leave 1/8" gap between top flange and filler block

Backer Block required (only on the loaded side for top-mount hangers) (on both sides for face-mount hangers)

Backer Block each side

Tight fit

**Typical Top Mount Hanger backer block installation**

**Typical Face Mount Hanger backer block installation**

### Filler and Backer Block sizes

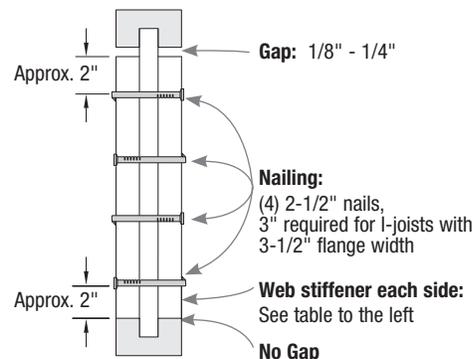
PKI Flange Width	Backer Block *		Filler Block	
	Thickness (in)	Minimum Depth (in)**	Joist Depth (in)	Filler Block Size (in)
2-1/2	1	5-1/2	9-1/2	2-1/8 to 2-1/4 x 6
			11-7/8	2-1/8 to 2-1/4 x 8
			14	2-1/8 to 2-1/4 x 10
			16	2-1/8 to 2-1/4 x 12
3-1/2	1-1/2	7-1/4	9-1/2	3 x 6
			11-7/8	3 x 8
			14	3 x 10
			16	3 x 12

\* Minimum grade for backer block material shall be Utility grade SPF (south) or better for solid sawn lumber and Rated Sheathing grade for wood structural panels.

\*\* For face-mount hangers, use net joist depth minus 3-1/4" for joist with 1-1/2" thick flanges. For 1-5/16" thick flanges, use net depth minus 2-7/8".

### Web Stiffener Attachment for Joists

PKI Flange Width	Web Stiffener Size Each Side of Web
2-1/2"	1" x 2-5/16" minimum width
3-1/2"	1-1/2" x 2-5/16" minimum width

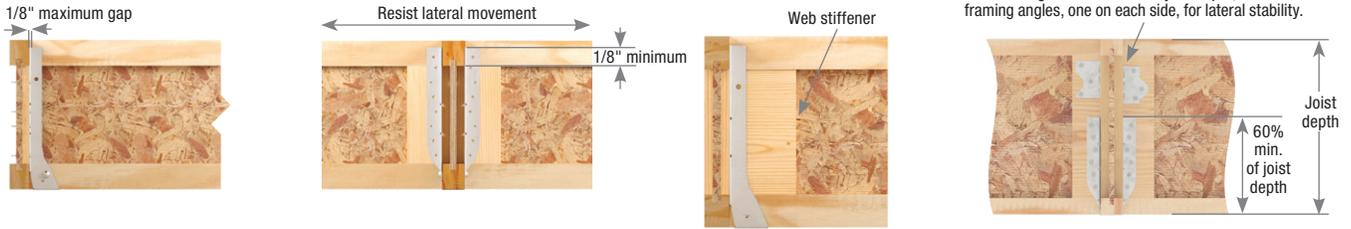


## Support Height & Lateral Stability

Hangers for joists **without web stiffeners** must support the I-Joist's top flange and provide lateral resistance with no less than 1/8" contact.

be 60% of the joist height for stability during construction. If this cannot be accomplished, potential joist rotation must be resolved by other means.

MiTek recommends that hangers for joist **with web stiffeners** should



(Top flange support requirements can be verified in **EWP Top Mount Hangers** charts under the **Web Stiffener Req.** column of **MiTek's Product Catalog.**)

## Nailer Installations

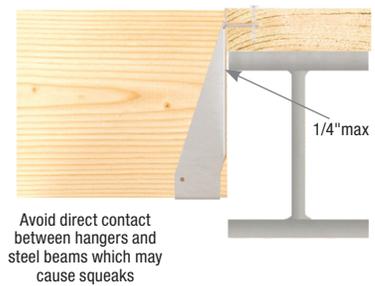
### Correct Hanger Attachment to Nailer

A nailer or sill plate is considered to be any wood member attached to a steel beam, concrete block wall, concrete stem wall, or other type of support unsuitable for nailing which is used as a nailing surface for top mount hangers to hold beams or joists.

### Nailer Sized Correctly

Top flange of hanger is fully supported and recommended nails have full penetration into nailer, resulting in a carried member hanging safely at the proper height.

The nailer must be sized to fit the support width as shown and be of sufficient thickness to satisfy recommended top flange nailing requirements. A design professional must specify nailer attachment to steel beams.



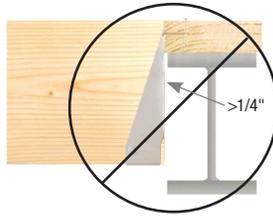
Avoid direct contact between hangers and steel beams which may cause squeaks

## Wrong Nailer Size Causes Component Failure



**! Too Narrow**

Top flange not fully supported can cause nail break-out. Or, by fully supporting top flange, hanger is tilted back, causing lifting of carried member which results in uneven surfaces and squeaky floors.



**! Too Wide**

Loading can cause cross grain breaking of nailer. The recommended nailer overhang is 1/4" maximum per side.



**! Too Thin**

Top flange nailing cannot fully penetrate nailer, causing reduced allowable loads. Never use hangers which require multiple face nails since the allowable loads are dependent on all nail holes being used.

## Top Flange Hangers

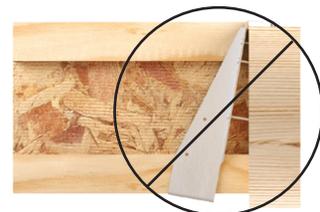
The thickness of the hanger metal and nail heads on top mount hangers must be evaluated for the effect on subsequent sheathing. Ensure the top mount hanger is installed so the flanges of the hanger are not over-spread which tends to elevate the supported I-Joist, causing uneven floor surfaces and squeaking. Similarly, ensure the hanger is installed plumb such that the face flanges of the hanger are mounted firmly against the wide-face surface of the header.



**Flush framing**



**! Hanger over-spread**



**! Hanger not plumb**

# Single PKI Joist - U.S. Allowable Load (Lbs)

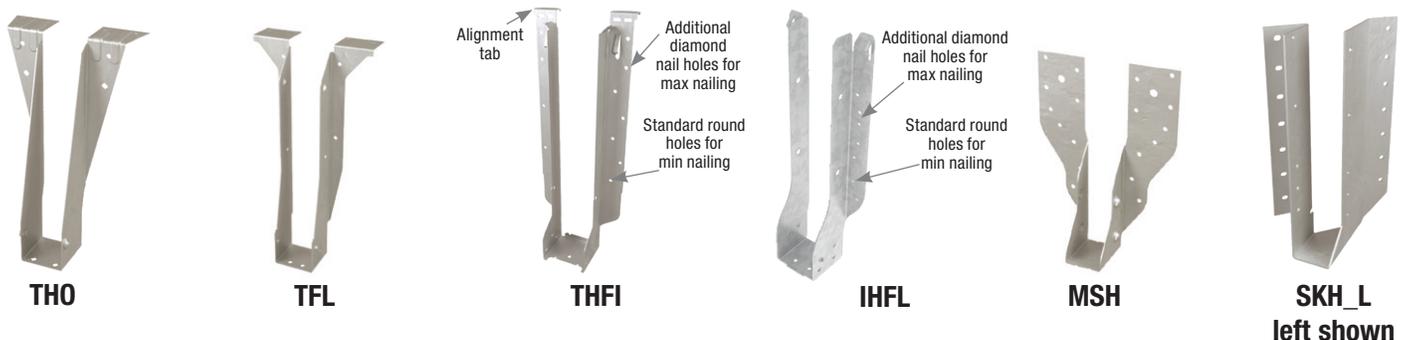


Joist Height	Top Mount Hangers <sup>4</sup>										Face Mount Hangers										
	MiTek Stock No. <sup>1</sup>	Length of Hanger Seat (in)	Fastener Schedule <sup>5</sup>				LVL		S-P-F		MiTek Stock No. <sup>1</sup>	Length of Hanger Seat (in)	Min/Max	Fastener Schedule <sup>5</sup>				LVL		S-P-F	
			Header		Joist		Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%	Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%				Header		Joist		Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%	Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%
			Qty	Type	Qty	Type								Qty	Type	Qty	Type				
<b>PKI 10, 20, 23</b>																					
Joist Width = 2-1/2"																					
9-1/2	TFL2595	2	6	10d	2	10d x 1-1/2	1585	130	1260	100	THFI2595	2-1/2	--	8	10d	--	--	960	125	845	100
11-7/8	TFL25118	2	6	10d	2	10d x 1-1/2	1585	130	1260	100	THFI25118	2-1/2	--	10	10d	--	--	1200	125	995	100
14	TFL2514	2	6	10d	2	10d x 1-1/2	1585	130	1260	100	THFI2514	2-1/2	Min	12	10d	--	--	1440	125	1265	100
												Max	14					1680		1480	
16	TFL2516	2	6	10d	2	10d x 1-1/2	1585	130	1260	100	IHFL2516	2-1/2	Min	14	10d	--	--	1680	50	1455	40
												Max	16					1920		1660	
<b>PKI 35 plus, 40, 50</b>																					
Joist Width = 3-1/2"																					
9-1/2	THO35950	2-3/8	10	10d	2	10d x 1-1/2	2370	230	2370	175	IHFL35925	2-1/2	--	10	10d	--	--	1200	50	1040	40
11-7/8	THO35118	2-3/8	10	10d	2	10d x 1-1/2	2525	230	2265	175	IHFL35112	2-1/2	Min	10	10d	--	--	1200	50	1040	40
												Max	12					1440		1245	
14	THO35140	2-3/8	12	10d	2	10d x 1-1/2	2400	230	1835	175	IHFL3514	2-1/2	Min	12	10d	--	--	1440	50	1245	40
												Max	14					1680		1455	
16	THO35160	2-3/8	12	10d	2	10d x 1-1/2	2400	230	1835	175	IHFL3516	2-1/2	Min	14	10d	--	--	1680	50	1455	40
												Max	16					1920		1660	

- 1) Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required for non-shaded hangers by PinkWood.
- 2) Loads listed are based on hanger attachment to a DF or S-P-F species solid sawn or LVL header.
- 3) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.
- 4) Top Mount Hangers assume supporting headers to have a minimum height of 5-1/2" and a minimum thickness of the length of the header nails or the depth of the top flange, whichever is greater. For wood nailer options or header materials not included in this table, refer to the current MiTek Product Catalog.
- 5) Nails: 10d x 1-1/2 nails are 0.148" diameter x 1-1/2" long, 10d nails are 0.148" diameter x 3" long.

Joist Height	Adjustable Height Hangers								Skewed 45° Hangers												
	MiTek Stock No. <sup>1</sup>	Length of Hanger Seat (in)	Fastener Schedule <sup>7</sup>				LVL		S-P-F		MiTek Stock No. <sup>1</sup>	Length of Hanger Seat (in)	Min/Max	Fastener Schedule <sup>7</sup>				LVL		S-P-F	
			Header		Joist		Down <sup>2</sup> 100%	Down <sup>2</sup> 100%	Header					Joist		Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%	Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%		
			Qty	Type	Qty	Type			Qty	Type				Qty	Type						
<b>PKI 10, 20, 23</b>																					
Joist Width = 2-1/2"																					
9-1/2	MSH322 <sup>5,7</sup>	1-3/4	6	10d	4	10d x 1-1/2	2395	1895	SKH2520L/R	1-7/8	--	14	10d	10	10d x 1-1/2	1650	1530	1380	1205		
11-7/8	MSH322 <sup>5</sup>	1-3/4	6	10d	4	10d x 1-1/2	2395	1895	SKH2520L/R	1-7/8	--	14	10d	10	10d x 1-1/2	1650	1530	1380	1205		
14	MSH322 <sup>5</sup>	1-3/4	6	10d	4	10d x 1-1/2	2395	1895	SKH2524L/R	1-7/8	--	16	10d	10	10d x 1-1/2	1890	1530	1635	1205		
16	MSH322 <sup>5</sup>	1-3/4	6	10d	4	10d x 1-1/2	2395	1895	SKH2524L/R	1-7/8	--	16	10d	10	10d x 1-1/2	1890	1530	1635	1205		
<b>PKI 35 plus, 40, 50</b>																					
Joist Width = 3-1/2"																					
9-1/2	MSH422 <sup>5,6</sup>	1-3/4	6	10d	6	10d	2530	2005	HD410_SK45L/R_BV <sup>4,8</sup>	2-1/2	Min	14	16d	6	10d	2155	880	1895	775		
											Max	20	10			3080	1465	2710	1285		
11-7/8	MSH422 <sup>5</sup>	1-3/4	6	10d	6	10d	2530	2005	HD410_SK45L/R_BV <sup>4,8</sup>	2-1/2	Min	14	16d	6	10d	2155	880	1895	775		
											Max	20	10			3080	1465	2710	1285		
14	MSH422 <sup>5</sup>	1-3/4	6	10d	6	10d	2530	2005	HD414_SK45L/R_BV <sup>4,8</sup>	2-1/2	Min	18	16d	8	10d	2770	1135	2440	905		
											Max	26	12			4005	1755	3520	1545		
16	MSH422 <sup>5</sup>	1-3/4	6	10d	6	10d	2530	2005	HD414_SK45L/R_BV <sup>4,8</sup>	2-1/2	Min	18	16d	8	10d	2770	1135	2440	905		
											Max	26	12			4005	1755	3520	1545		

- 1) Shaded hangers require web stiffeners at joist ends.
- 2) Loads listed are based on hanger attachment to a DF or S-P-F species solid sawn or LVL header. Some loads may be increased for duration of load adjustments. Refer to MiTek Product Catalog for details.
- 3) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.
- 4) Bevel cut required on end of joist to achieve design loads.
- 5) MSH allowable loads listed in this table assume Top-Min mounting condition installed with 4 - 10d top nails and 2 - 10d face nails. For MSH Face-Max and Top-Max mounting conditions not included in this table, refer to the current MiTek Product Catalog.
- 6) Flanges on the bucket of the hanger may extend above the top of the joist.
- 7) NAILS: 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 10d nails are 0.148" dia. x 3" long, 16d nails are 0.162" dia. x 3-1/2" long.



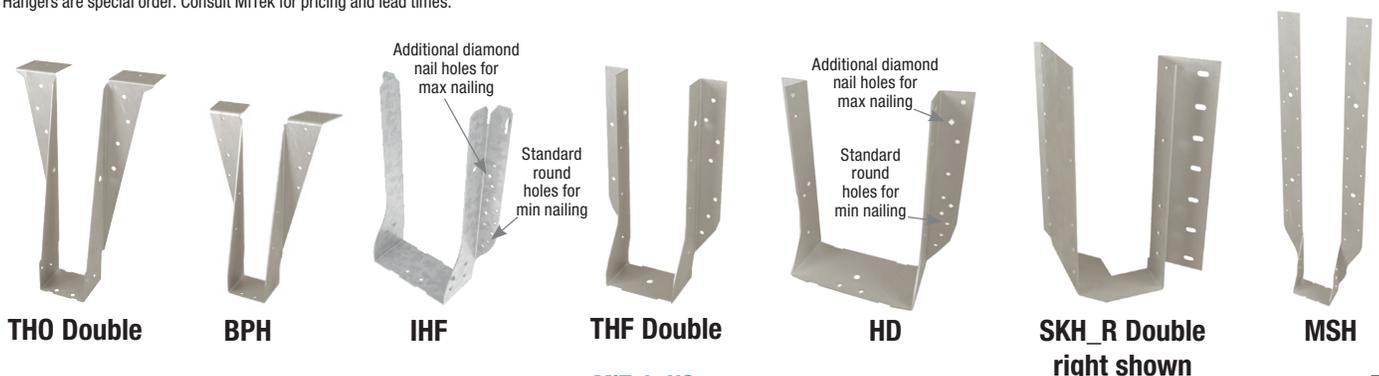
# Double PKI Joist - U.S. Allowable Load (Lbs)

Joist Height	Top Mount Hangers <sup>4</sup>										Face Mount Hangers										
	MiTek Stock No. <sup>1</sup>	Length of Hanger Seat (in)	Fastener Schedule <sup>5</sup>				LVL		S-P-F		MiTek Stock No. <sup>1</sup>	Length of Hanger Seat (in)	Min/Max	Fastener Schedule <sup>5</sup>				LVL		S-P-F	
			Header		Joist		Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%	Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%				Header		Joist		Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%	Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%
			Qty	Type	Qty	Type								Qty	Type	Qty	Type				
<b>Double PKI 10, 20, 23</b>																					
<b>Joist Width = 5"</b>																					
9-1/2	THO25950-2	3	10	16d	6	10d	3640	1145	2790	880	IHF25925-2	2-1/2	Min	10	10d	2	10d x 1-1/2	1250	330	1100	260
													Max	24	16d			3530		3105	
11-7/8	THO25118-2	3	10	16d	6	10d	3640	1145	2790	880	IHF25112-2	2-1/2	Min	10	10d	2	10d x 1-1/2	1250	330	1100	260
													Max	24	16d			3530		3105	
14	THO25140-2	3	12	16d	6	10d	4420	1145	3390	880	THF25140-2	2-1/2	--	20	10d	6	10d	2660	1275	2340	1015
16	THO25160-2	3	12	16d	6	10d	4420	1145	3390	880	THF25160-2	2-1/2	--	24	10d	6	10d	3190	1275	2810	1015
<b>Double PKI 35 plus, 40, 50</b>																					
<b>Joist Width = 7"</b>																					
9-1/2	BPH7195	3	10	16d	6	10d	3100	1275	2370	1105	HD7100	2-1/2	Min	14	16d	6	16d	2155	1305	1895	1035
													Max	18	8			2770	1845	2440	1620
11-7/8	BPH71118	3	10	16d	6	10d	3075	1275	2350	1105	HD7120	2-1/2	Min	16	16d	6	16d	2465	1305	2165	1035
													Max	22	8			3390	1845	2980	1620
14	BPH7114	3	10	16d	6	10d	3075	1275	2350	1105	HD7140	2-1/2	Min	20	16d	8	16d	3080	1845	2710	1620
													Max	26	12			4005	2765	3520	2430
16	BPH7116	3	10	16d	6	10d	3075	1275	2350	1105	HD7160	2-1/2	--	24	16d	8	10d	3695	1560	3250	1375

- 1) Shaded hangers require web stiffeners at joist ends.
- 2) Loads listed are based on hanger attachment to a DF or S-P-F species solid sawn or LVL header. Some loads may be increased for duration of load adjustments. Refer to MiTek Product Catalog for details.
- 3) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.
- 4) Top Mount Hangers assume supporting headers to have a minimum height of 5-1/2" and a minimum thickness of the length of the header nails or the depth of the top flange, whichever is greater. For wood nailer options or header materials not included in this table, refer to the current MiTek Product Catalog.
- 5) **NAILS:** 10d nails are 0.148" dia. x 3" long, 16d nails are 0.162" dia. x 3-1/2" long. 16d sinkers are 0.148" dia. x 3-1/4" long and may be used where 10d commons are specified.

Joist Height	Adjustable Height Hangers								Skewed 45° Hangers												
	MiTek Stock No. <sup>1</sup>	Length of Hanger Seat (in)	Fastener Schedule <sup>8</sup>				LVL		S-P-F		MiTek Stock No. <sup>1</sup>	Length of Hanger Seat (in)	Min/Max	Fastener Schedule <sup>8</sup>				LVL		S-P-F	
			Header		Joist		Down <sup>2</sup> 100%	Down <sup>2</sup> 100%	Header					Joist		Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%	Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%		
			Qty	Type	Qty	Type			Qty	Type				Qty	Type						
<b>Double PKI 10, 20, 23</b>																					
<b>Joist Width = 5"</b>																					
9-1/2	MSH2622-2 <sup>6</sup>	1-3/4	6	10d	4	10d	2530	2000	SKH2520L/R-2 <sup>5</sup>	3-1/2	--	14	10d	10	10d	1710	1645	1480	1265		
11-7/8	MSH2622-2 <sup>6</sup>	1-3/4	6	10d	4	10d	2530	2000	SKH2520L/R-2 <sup>5</sup>	3-1/2	--	14	10d	10	10d	1710	1645	1480	1265		
14	MSH2622-2 <sup>6</sup>	1-3/4	6	10d	4	10d	2530	2000	SKH2524L/R-2 <sup>5</sup>	3-1/2	--	16	10d	10	10d	1950	1680	1690	1295		
16	MSH2622-2 <sup>6</sup>	1-3/4	6	10d	4	10d	2530	2000	SKH2524L/R-2 <sup>5</sup>	3-1/2	--	16	10d	10	10d	1950	1680	1690	1295		
<b>Double PKI 35 plus, 40, 50</b>																					
<b>Joist Width = 7"</b>																					
9-1/2	MSH422-2 <sup>6,7</sup>	2	8	16d	6	16d	3740	2665	HD7100_SK45L/R_BV <sup>4,5</sup>	2-1/2	Min	14	16d	6	16d	2155	980	1895	775		
											Max	18	8			2770	1385	2440	1215		
11-7/8	MSH422-2 <sup>6</sup>	2	8	16d	6	16d	3740	2665	HD7120_SK45L/R_BV <sup>4,5</sup>	2-1/2	Min	16	16d	6	16d	2465	980	2165	775		
											Max	22	8			3390	1385	2980	1215		
14	MSH422-2 <sup>6</sup>	2	8	16d	6	16d	3740	2665	HD7140_SK45L/R_BV <sup>4,5</sup>	2-1/2	Min	20	16d	8	16d	3080	1385	2710	1215		
											Max	26	12			4005	2075	3520	1825		
16	MSH422-2 <sup>6</sup>	2	8	16d	6	16d	3740	2665	HD7140_SK45L/R_BV <sup>4,5</sup>	2-1/2	Min	20	16d	8	16d	3080	1385	2710	1215		
											Max	26	12			4005	2075	3520	1825		

- 1) Shaded hangers require web stiffeners at joist ends.
- 2) Loads listed are based on hanger attachment to a DF or S-P-F species solid sawn or LVL header. Some loads may be increased for duration of load adjustments. Refer to MiTek Product Catalog for details.
- 3) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.
- 4) Hangers are special order. Consult MiTek for pricing and lead times.
- 5) Bevel cut required on end of joist to achieve design loads.
- 6) MSH allowable loads listed in this table assume Top-Min mounting condition. For MSH Face-Max and Top-Max mounting conditions not included in this table, refer to the current MiTek Product Catalog.
- 7) Flanges on the bucket of the hanger may extend above the top of the joist.
- 8) **NAILS:** 10d nails are 0.148" dia. x 3" long and 16d nails are 0.162" dia. x 3-1/2" long. 16d sinkers are 0.148" dia. x 3-1/4" long and may be used where 10d commons are specified.

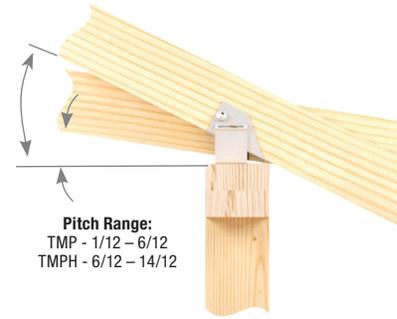


# Variable Pitch Connectors - U.S. Allowable Load (Lbs) MiTek®

The TMP and TMPH are designed to make rafter-to-plate connections and eliminate time-consuming bird's-mouth notching or bevel plate installation.

## Installation:

- Use all specified fasteners.
- Position connector on top plate. Fasten connector to outside of top plate with specified nails. Insert rafter into rafter pocket. Adjust rafter and pocket to correct pitch. Fasten rafter to connector with specified nails. For **TMP**: drive nails through the opposing slots in the pocket. For **TMPH**: slide the fulcrum until it supports the pocket at the desired pitch and drive nails down through the fulcrum base into the top plate to lock the fulcrum into position.



**TMP**



**Typical TMP installation**



**Typical TMPH installation**

## TMP Chart

Joist Height	MiTek Stock No.	Fastener Schedule <sup>4</sup>				DF		S-P-F	
		Plate		Rafter		Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%	Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%
		Qty	Type	Qty	Type				
<b>PKI 10, 20, 23</b> Joist Width = 2-1/2"									
All	TMP25	6	10d	4	10d x 1-1/2	1705	245	1705	185
<b>PKI 35 plus, 40, 50</b> Joist Width = 3-1/2"									
All	TMP4	6	10d	4	10d x 1-1/2	1705	245	1705	185



**Fulcrum**  
**TMPH**

- 1) Web stiffeners may be required for hanger by PinkWood.
- 2) Loads listed are based on hanger attachment to a DF or S-P-F species solid sawn or LVL header. Loads are governed by test results; no further increase shall be permitted.
- 3) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.
- 4) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 10d nails are 0.148" dia. x 3" long.

## TMPH Chart

Joist Height	MiTek Stock No. <sup>1</sup>	Fastener Schedule <sup>4</sup>				Wood Species	Allowable Loads (Lbs.)														
		Plate		Rafter			According to Pitch <sup>2</sup>										Uplift <sup>3</sup> 160%				
		Top Qty	Side Qty	Type	Qty		Type	6/12	7/12	8/12	9/12	10/12	11/12	12/12	13/12	14/12					
<b>PKI 10, 20, 23</b> Joist Width = 2-1/2"																					
All	TMPH25	8	2	10d	8	10d x 1-1/2	DF	3190	3290	3390	3140	2900	2710	2520	2230	1950	260				
							S-P-F	2535	2615	2695	2500	2305	2155	2000	1775	1545	205				
<b>PKI 35 plus, 40, 50</b> Joist Width = 3-1/2"																					
All	TMPH4	8	2	10d	8	10d x 1-1/2	DF	3190	3290	3390	3140	2900	2710	2520	2230	1950	260				
							S-P-F	2525	2605	2685	2495	2300	2150	1995	1770	1540	205				

- 1) Web stiffeners are required for all Wood I-Joist installations.
- 2) Loads listed are based on hanger attachment to a DF or S-P-F species solid sawn or LVL header. Loads are governed by test results; no further increase shall be permitted.
- 3) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.
- 4) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 10d nails are 0.148" dia. x 3" long.

# Slope/Skew Hangers - U.S. Allowable Load (Lbs)

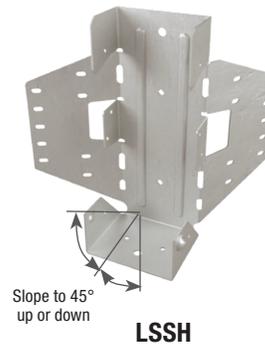
The LSSH series connects rafters to ridge beams in vaulted roof structures. This series is field adjustable to meet a variety of skew and/or slope applications. Slopes and skews 0° to 45°.

### Installation:

- Use all specified fasteners.

### Steps: (See Figure 1)

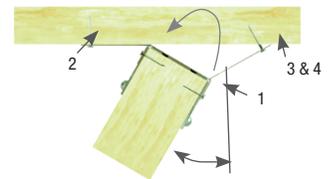
1. Position LSSH connector against plumb-cut end of joist. Fasten joist side flanges on both sides with 10d (0.148") x 1-1/2" HDG nails. Bend seat up to fit against joist bottom and drive (1) 10d (0.148") x 1-1/2" HDG nail through bottom seat into joist bottom flange. Drive (2) 10d (0.148") x 1-1/2" HDG nail at downward angle through dimpled nailing guides.
  2. Lean connector and rafter end against ridge beam at desired position. Install 10d (0.148" x 3") HDG or 16d (0.162" x 3-1/2") HDG nails through nail holes into ridge beam at right 90° angle. If skewing the rafter, only drive nails into ridge beam on inside flange.
  3. Bend flange to desired angle.
  4. Hammer outside flange until edge touches header. Fasten outside flange to ridge by driving 10d (0.148" x 3") HDG or 16d (0.162" x 3-1/2") HDG nails through nail holes.
- Web stiffeners are required for all wood I-Joist installations.
  - Designer may consider adding a tension restraint for the supported member for roof slopes exceeding 6/12.



LSSH



Typical LSSH installation



Skew to 45° maximum

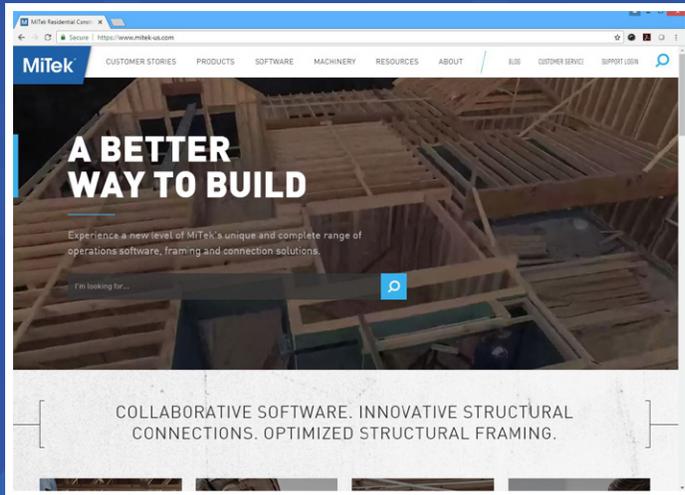
LSSH Figure 1

Joist Height	MiTek Stock No. <sup>1</sup>	Installation Type	Fastener Schedule <sup>5</sup>				DF		S-P-F	
			Header		Joist		Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%	Down <sup>2</sup> 100%	Uplift <sup>3</sup> 160%
			Qty	Type	Qty	Type				
<b>PKI 10, 20, 23</b>			<b>Joist Width = 2-1/2"</b>							
9-1/2 – 16	LSSH25-TZ	Sloped Only	18	16d HDG	12	10d x 1-1/2 HDG	2095	945	1640	740
		Skewed Only or Sloped & Skewed	14	16d HDG	12	10d x 1-1/2 HDG	1610		1260	
<b>PKI 35 plus, 40, 50</b>			<b>Joist Width = 3-1/2"</b>							
9-1/2 – 16	LSSH35-TZ	Sloped Only	18	16d HDG	12	10d x 1-1/2 HDG	2645	1310	2345	1020
		Skewed Only or Sloped & Skewed	14	16d HDG	12	10d x 1-1/2 HDG	1610		1255	

- 1) Shaded hangers require web stiffeners at joist ends.
- 2) Loads listed are based on hanger attachment to a DF or S-P-F species solid sawn or LVL header. Some loads may be increased for duration of load adjustments. Refer to MiTek Product Catalog for details.
- 3) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.
- 4) Supplemental lateral support connection recommended when hanger height is less than 60% of joist height.
- 5) **NAILS:** 10d x 1-1/2 HDG nails are 0.148" dia. x 1-1/2" long, 16d HDG nails are 0.162" dia. x 3-1/2" long.

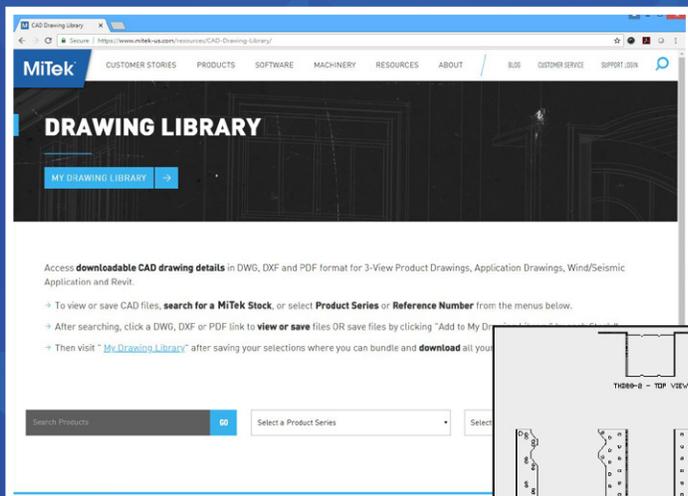
# SPECIFICATION TOOLS

Available at [MiTek-US.com](https://www.MiTek-US.com)



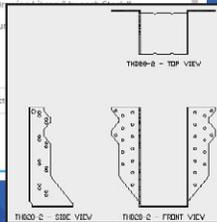
## Comprehensive Web Site

- Contains all MiTek literature in a printable .pdf format
- Drawing Library downloads



## Drawing Library

- Drawing Library contains over 350 illustrations in .DXF and .DWG formats
- Find drawings quickly by MiTek Stock No. or Reference No.
- High Wind/Seismic Applications are also available



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