# **EWP PRODUCT GUIDE**

For Use With Products Manufactured by





TH017118

**THFI2514** 



LSSH179



SKH1720L

# MiTek®

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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 assuming header material is Douglas Fir-Larch, Southern Pine, or LVL manufactured in the U.S. 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.
- If hanger height is less than 60% of joist height, joist rotation may occur, therefore supplemental lateral restraints are required, see page 3.
- The type and quantity of fasteners used to install MiTek products is critical to connector performance. To achieve the allowable loads shown in this guide. install with the fasteners specified for that particular product. All specified

Backer Blocks - Pattern the nails used to install backer blocks or web stiffeners in wood I-Joists 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 I-Joists fasteners must be properly installed prior to applying load of any kind to the connection.

- Throughout this guide, dimensions are expressed in inches and allowable loads in pounds, unless specifically noted otherwise.
- Load values for 10d and 16d designations in the fastener schedules throughout this guide refer to common wire nails, unless noted otherwise.
- The allowable loads shown in this guide are based on Allowable Stress Design methodology.
- Multiple I-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 I-Joists: Use hangers with sloped seats and beveled web stiffeners whenever the slope exceeds the following: 1/2:12 for seat bearing lengths of  $2\frac{1}{2}$ " or less;  $\frac{3}{8}$ :12 for bearing lengths between  $2\frac{1}{2}$ " and  $3\frac{1}{2}$ "; and  $\frac{1}{4}$ :12 for bearing lengths in excess of 31/2".

acting as the header, or supporting member. Install in accordance with the Roseburg Forest Products installation guidelines. The nails used to install hangers mounted to an I-Joist header must penetrate through the web and into the backer block on the opposite side.

1" x 2-5/16"

minimum width

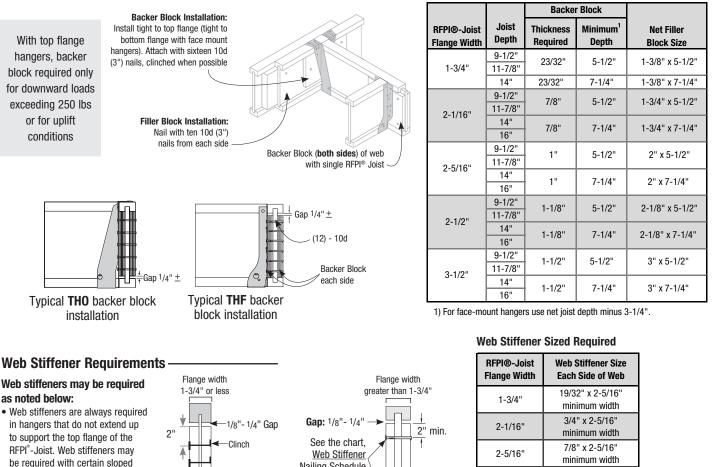
1-1/2" x 2-5/16"

minimum width

2-1/2"

3-1/2"

2" min.



### Filler and Backer Block sizes

**Customer Service & Technical Assistance** 1-800-328-5934 · 1-952-898-8772

Nailing Schedule

to right

No Gap

(4) 8d box or

common nails

Clinched

No Gap

2

or skewed hangers or to achieve

Forest Products installation

requirements.

uplift values.Refer to the Roseburg

### **EWP Installation**

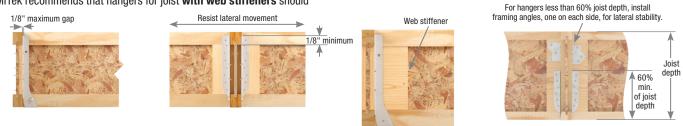


### Support Height & Lateral Stability

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.

MiTek recommends that hangers for joist with web stiffeners should

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



(Top flance support requirements can be verified in EWP Top Mount Hangers charts under Web stiffener Read, column) of MiTek's Product Cataloa.

### **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.

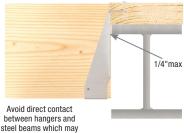
### Wrong Nailer Size Causes Component Failure



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



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







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.



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### Single RFPI®– Joists

			Тс	op Mount	Hanger	'S <sup>4,8</sup>					I	Face Mo	ount Hang	gers			
				Fasten	er Sche	dule <sup>5</sup>						Fast	ener Sch	edule <sup>5</sup>			
Joist	MiTek	D	He	ader		Joist	Uplift <sup>3</sup>	Down <sup>2</sup>	MiTek	D	Min/	He	ader	J	oist	Uplift <sup>3</sup>	Down <sup>2</sup>
Height	Stock No. <sup>1,6</sup>	Dim <sup>7</sup>	Qty	Туре	Qty	Туре	160%	100%	Stock No. <sup>1,6</sup>	Dim <sup>7</sup>	Max	Qty	Туре	Qty	Туре	160%	100%
RFPI® 2	0						Joist	Width =	1-3/4"								
9-1/2	TH017950	2	6	10d	2	10d x 1-1/2	230	1235	IHFL17925	2-1/2		8	10d			50	960
11-7/8	TH017118	2	6	10d	2	10d x 1-1/2	230	1235	IHFL17112	2-1/2		10	10d			50	1200
14	TFL1714	2	6	10d	2	10d x 1-1/2	130	1585	IHFL1714	2-1/2	Min	12	10d			50	1440
		2	Ŭ	Tou	-	100 X 1 1/2				2 172	Max	14	Tou			00	1680
RFPI <sup>®</sup> 40								Width = 2	2-1/16"								
9-1/2	TFL2095	2	6	10d	2	10d x 1-1/2	130	1585	IHFL20925	2-1/2		8	10d			50	960
11-7/8	TFL20118	2	6	10d	2	10d x 1-1/2	130	1585	IHFL20112	2-1/2		10	10d			50	1200
14	TFL2014	2	6	10d	2	10d x 1-1/2	130	1585	IHFL2014	2-1/2	Min	12	10d			50	1440
		-		Tou			100	1000		22	Max	14	100				1680
16	TFL2016	2	6	10d	2	10d x 1-1/2	130	1585	IHFL2016	2-1/2	Min	14	10d			50	1680
		_	Ű		_	100					Max	16					1920
RFPI <sup>®</sup> 40								Width = 2									
9-1/2	TFL2395	2	6	10d	2	10d x 1-1/2	130	1585	IHFL23925	2-1/2		8	10d			50	960
11-7/8	TFL23118	2	6	10d	2	10d x 1-1/2	130	1585	IHFL23112	2-1/2		10	10d			50	1200
14	TFL2314	2	6	10d	2	10d x 1-1/2	130	1585	IHFL2314	2-1/2	Min	12	10d			50	1440
											Max	14					1680
16	TFL2316	2	6	10d	2	10d x 1-1/2	130	1585	IHFL2316	2-1/2	Min	14	10d			50	1680
®											Max	16					1920
RFPI <sup>®</sup> 40		0	0	101	0			Width =		0.1/0		0	101		_	105	000
9-1/2	TFL2595	2	6	10d	2	10d x 1-1/2	130	1585	THFI2595	2-1/2		8	10d			125	960
11-7/8	TFL25118	2	6	10d	2	10d x 1-1/2	130	1585	THFI25118	2-1/2		10 12	10d			125	1200
14	TFL2514	2	6	10d	2	10d x 1-1/2	130	1585	THFI2514	2-1/2	Min	12	10d			125	1440 1680
											Max						
16	TFL2516	2	6	10d	2	10d x 1-1/2	130	1585	IHFL2516	2-1/2	Min Max	14 16	10d			50	1680 1920
RFPI® 8	06 8 00						laiot	Width =	2 1/21		IVIAX	10					1920
9-1/2	TH035950	2-3/8	10	10d	2	10d x 1-1/2	230	2370	3-1/2" IHFL35925	2-1/2		10	10d			50	1200
9-1/2	11033930	2-3/8	10	TUU	2	100 X 1-1/2	230	2370	INFL33923		 Min	10	TUU	<u> </u>		50	1200
11-7/8	TH035118	2-3/8	10	10d	2	10d x 1-1/2	230	2525	IHFL35112	2-1/2	Max	10	10d			50	1200
											Min	12		<u> </u>			1440
14	TH035140	2-3/8	12	10d	2	10d x 1-1/2	230	2400	IHFL3514	2-1/2	Max	12	10d			50	1680
											Min	14		<u> </u>			1680
16	TH035160	2-3/8	12	10d	2	10d x 1-1/2	230	2400	IHFL3516	2-1/2	Max	14	10d			50	1920
		I								1	IVIAX	10					1920

**MiTek**<sup>®</sup>

1) Web stiffeners may be required for non-shaded hangers by Roseburg Forest Products. See notes on page 2.

2) Loads listed are based on hanger attachment to a DF or SP species solid sawn, or RigidLam<sup>®</sup> LVL header.

Some loads may be increased for duration of load adjustments. Refer to MiTek's 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 require minimum 3" header thickness for THO series hangers; 3-1/2" minimum header thickness for all other stock numbers.

5) 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 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.

6) Hangers utilizing 16d nails are not compatible with RFPI<sup>®</sup>-Joists.

7) D Dim is the length of the hanger seat.

8) For top mount hangers supported by I-Joist headers with a flange thickness less than 1-1/2", consult MiTek and Roseburg Forest Products for hanger limitations.



### Single RFPI®-Joists

			Adjust	able Heig	ght Han	gers					Skew	/ed 45°	Hangers				
				Fasten	er Sche	dule <sup>4</sup>	11-1:64	Daum				Fa	stener S	chedule	4 <sup>4</sup>	11-1:44	Daw
Joist Height	MiTek	D	He	ader		Joist	Uplift 3	Down 2	MiTek	D	Min/	Hea	ader		Joist		Down 2
noight	Stock No. <sup>1,7</sup>	Dim <sup>9</sup>	Qty	Туре	Qty	Туре	160%	100%	Stock No. <sup>1,5</sup>	Dim <sup>9</sup>	Max	Qty	Туре	Qty	Туре	160%	100%
RFPI <sup>®</sup> 20								Joi	st Width = 1-3/4"								
9-1/2	MSH1722 <sup>10</sup>	1-3/4	6	10d	4	10d x 1-1/2		2390	SKH1720L/R	1-7/8		14	10d	10	10d x 1-1/2	1530	1650
11-7/8	MSH1722	1-3/4	6	10d	4	10d x 1-1/2		2390	SKH1720L/R	1-7/8		16	10d	10	10d x 1-1/2	1530	1650
14	MSH1722	1-3/4	6	10d	4	10d x 1-1/2		2390	SKH1724L/R	1-7/8		16	10d	10	10d x 1-1/2	1530	1890
RFPI <sup>®</sup> 40	0							Jois	t Width = 2-1/16"								
9-1/2	MSH2022 <sup>10</sup>	1-3/4	6	10d	4	10d		2390	SKH2020L/R	1-7/8		14	10d	10	10d x 1-1/2	1530	1650
11-7/8	MSH2022	1-3/4	6	10d	4	10d		2390	SKH2020L/R	1-7/8		14	10d	10	10d x 1-1/2	1530	1650
14	MSH2022	1-3/4	6	10d	4	10d		2390	SKH2024L/R	1-7/8		16	10d	10	10d x 1-1/2	1530	1890
16	MSH2022	1-3/4	6	10d	4	10d		2390	SKH2024L/R	1-7/8		16	10d	10	10d x 1-1/2	1530	1890
RFPI <sup>®</sup> 40	& 70							Jois	t Width = 2-5/16"								
9-1/2	MSH2322	1-3/4	6	10d	4	10d x 1-1/2		2395	SKH2320L/R	1-7/8		14	10d	10	10d x 1-1/2	1530	1650
11-7/8	MSH2322	1-3/4	6	10d	4	10d x 1-1/2		2395	SKH2320L/R	1-7/8		14	10d	10	10d x 1-1/2	1530	1650
14	MSH2322	1-3/4	6	10d	4	10d x 1-1/2		2395	SKH2324L/R	1-7/8		16	10d	10	10d x 1-1/2	1530	1890
16	MSH2322	1-3/4	6	10d	4	10d x 1-1/2		2395	SKH2324L/R	1-7/8		16	10d	10	10d x 1-1/2	1530	1890
RFPI <sup>®</sup> 40	S & 60S							Joi	st Width = 2-1/2"								
9-1/2	MSH322 <sup>10</sup>	1-3/4	6	10d	4	10d x 1-1/2		2395	SKH2520L/R	1-7/8		14	10d	10	10d x 1-1/2	1530	1650
11-7/8	MSH322	1-3/4	6	10d	4	10d x 1-1/2		2395	SKH2520L/R	1-7/8		14	10d	10	10d x 1-1/2	1530	1650
14	MSH322	1-3/4	6	10d	4	10d x 1-1/2		2395	SKH2524L/R	1-7/8		16	10d	10	10d x 1-1/2	1530	1890
16	MSH322	1-3/4	6	10d	4	10d x 1-1/2		2395	SKH2524L/R	1-7/8		16	10d	10	10d x 1-1/2	1530	1890
RFPI® 8	DS & 90							Joi	st Width = 3-1/2"								
9-1/2	MSH422	1-3/4	6	10d	6	10d		2530	HD410_SK45L/R_BV <sup>6,8</sup>	2-1/2	Min	14	16d	6	10d	880	2155
5-1/2	1011422	1-3/4	0	Tou	0	100		2000	HD410_SK43L/K_DV	2-1/2	Max	20	Tou	10	Tu	1465	3080
11-7/8	MSH422	1-3/4	6	10d	6	10d		2530	HD410 SK45L/R BV <sup>6,8</sup>	2-1/2	Min	14	16d	6	10d	880	2155
11-770	WIGH422	1-5/4	U	lou	0	iuu		2000		2-1/2	Max	20	TOU	10	TUU	1465	3080
14	MSH422	1-3/4	6	10d	6	10d		2530	HD414_SK45L/R_BV <sup>6,8</sup>	2-1/2	Min	18	16d	8	10d	1135	2770
14	WIGH422	1-5/4	U	100	0	iu		2000	HD414_SK43D/K_BV	2-1/2	Max	26	TOU	12	100	1755	4005
16	MSH422	1-3/4	6	10d	6	10d		2530	HD414 SK45L/R BV <sup>6,8</sup>	2-1/2	Min	18	16d	8	10d	1135	2770
10	WIGH422	1-5/4	U		0	iu		2000	HD414_SK43L/K_BV	2-1/2	Max	26	TOU	12	100	1755	4005

1) Shaded hangers require web stiffeners at joist ends.

2) Loads listed are based on hanger attachment to a DF or SP species solid sawn, or RigidLam<sup>®</sup> LVL header.

Some loads may be increased for duration of load adjustments. Refer to MiTek's Product Catalog for details. 3) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.

4) 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 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.

5) Hangers utilizing 16d nails are not compatible with RFPI<sup>®</sup>-Joists.

6) Bevel cut required on end of joist to achieve design loads.

7) 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.

8) Hangers are special order. Contact MiTek for pricing and lead times.

9) D Dim is the length of the hanger seat.

10) Flanges on the bucket of the hanger may extend above the top of the joist.



MiTek

### **Double RFPI®– Joists**

			То	op Mount	Hanger	ʻs <sup>4,8</sup>						Face	Mount H	langers			
					er Sche							Fa	stener S	chedule	9 <sup>5</sup>		
Joist	MiTek	D	He	ader		Joist	Uplift <sup>3</sup>	Down <sup>2</sup>	MiTek	D	Min/		ader		Joist	Uplift <sup>3</sup>	Down <sup>2</sup>
Height	Stock No. <sup>1,6</sup>	Dim <sup>7</sup>	Qty	Туре	Qty	Туре	160%	100%	Stock No. <sup>1,6</sup>	Dim <sup>7</sup>	Max	Qty	Type	Qty	Туре	160%	100%
Double R								Joist W	idth = 3-1/2"								
9-1/2	TH035950	2-3/8	10	10d	2	10d x 1-1/2	230	2370	IHF35925	2-1/2	Min	10	10d	2	10d x 1-1/2	330	1250
9-1/Z	11033930	2-3/0	10	Tou	2	100 x 1-1/2	230	2370	111 33923	2-1/2	Max	24	16d		100 x 1-1/2	550	3530
11-7/8	TH035118	2-3/8	10	10d	2	10d x 1-1/2	230	2525	IHF35112	2-1/2	Min	10	10d	2	10d x 1-1/2	330	1250
		2 0/0				100					Max	24	16d				3530
14	TH035140	2-3/8	12	10d	2	10d x 1-1/2	230	2400	IHF3514	2-1/2	Min	12	10d	2	10d x 1-1/2	330	1500
											Max	28	16d				4115
Double R	FPI <sup>®</sup> 400				_		-	Joist W	idth = 4-1/8"			10	40.1				1050
9-1/2	TH020950-2	3	10	16d	6	10d	1135	2920	IHF20925-2	2-1/2	Min	10 24	10d	2	10d x 1-1/2	330	1250
										-	Max Min	10	16d 10d				3530 1250
11-7/8	TH020118-2	3	10	16d	6	10d	1135	2920	IHF20112-2	2-1/2	Max	24	100 16d	2	10d x 1-1/2	330	3530
				<u> </u>							Min	12	100				1500
14	TH020140-2	3	10	16d	6	10d	1145	3640	IHF2014-2	2-1/2	Max	28	16d	2	10d x 1-1/2	330	3960
											Min	12	10d				1500
16	TH020160-2	3	10	16d	6	10d	1145	3640	IHF2014-2	2-1/2	Max	28	16d	2	10d x 1-1/2	330	3960
Double B	FPI <sup>®</sup> 40 & 70							Joist W	idth = 4-5/8"		max	20	Tou				0000
				101		101				0.4/0	Min	10	10d				1250
9-1/2	TH023950-2	3	10	16d	6	10d	1145	3640	IHF23925-2	2-1/2	Max	24	16d	2	10d x 1-1/2	330	3530
11-7/8	TH023118-2	3	10	16d	6	10d	1145	3640	THF23118-2	2-1/2		16	10d	6	10d	1135	1890
14	TH023140-2	3	12	16d	6	10d	1145	4420	THF23140-2	2-1/2		20	10d	6	10d	1275	2660
16	TH023160-2	3	12	16d	6	10d	1145	4420	THF23160-2	2-1/2		24	10d	6	10d	1275	3190
Double R	FPI <sup>®</sup> 40S & 60S							Joist W	idth = 5"								
9-1/2	TH025950-2	3	10	16d	6	10d	1145	3640	IHF25925-2	2-1/2	Min	10	10d	2	10d x 1-1/2	330	1250
5-1/2	111023330-2	5	10	Tou	0	Tou	1145	5040	111 20020-2	2-1/2	Max	24	16d		100 x 1-1/2	550	3530
11-7/8	TH025118-2	3	10	16d	6	10d	1145	3640	IHF25112-2	2-1/2	Min	10	10d	2	10d x 1-1/2	330	1250
		Ű									Max	24	16d				3530
14	TH025140-2	3	12	16d	6	10d	1145	4420	THF25140-2	2-1/2		20	10d	6	10d	1275	2660
16	TH025160-2	3	12	16d	6	10d	1145	4420	THF25160-2	2-1/2		24	10d	6	10d	1275	3190
Double R	FPI <sup>®</sup> 80S & 90							Joist W	idth = 7"								
9-1/2	BPH7195	3	10	16d	6	10d	1275	3100	HD7100	2-1/2	Min	14	16d	6	16d	1305	2155
					<u> </u>					<u> </u>	Max	18	16d	8	16d	1845	2770
11-7/8	BPH71118	3	10	16d	6	10d	1275	3075	HD7120	2-1/2	Min	16	16d	6	16d	1305	2465
											Max	22		8		1845	3390
14	BPH7114	3	10	16d	6	10d	1275	3075	HD7140	2-1/2	Min	20	16d	8	16d	1845	3080
16	DDUZ110	3	10	16d	6	10d	1075	3075	1107100	0.1/0	Max	26 24	16d	12 8	10d	2765	4005
	BPH7116	-					1275		HD7160	2-1/2		24	100	Ŏ	100	1560	3695

1) Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required for non-shaded hangers by Roseburg Forest Products. See notes on page 2.

2) Loads listed are based on hanger attachment to a DF or SP species solid sawn, or RigidLam<sup>®</sup> LVL header.

Some loads may be increased for duration of load adjustments. Refer to MiTek's 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 require minimum 3" header thickness for THO series hangers; 3-1/2" minimum header thickness for all other stock numbers.

5) 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 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.

6) Hangers utilizing 16d nails are not compatible with  ${\sf RFPI}^{\circledast}$ -Joists.

7) D Dim is the length of the hanger seat.

 For top mount hangers supported by I-Joist headers with a flange thickness less than 1-1/2", consult MiTek and Roseburg Forest Products for hanger limitations.



**THO Double** 







Standard round holes for min nailing

Additional diamond nail holes for

**MiTek**<sup>®</sup>

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ΠЛ	<b>IT</b>	
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			Adjusta	ble Heig	ht Hang	ers					Skewe	d 45° Ha	angers				
			F	astener	Schedu	le <sup>4</sup>						Faste	ener Sch	edule <sup>4</sup>			
Joist	MiTek	D	He	ader	Jo	oist	Uplift <sup>3</sup>	Down <sup>2</sup>	MiTek	D	Min/	Hea	ader	Jo	oist	Uplift <sup>3</sup>	Down <sup>2</sup>
Height	Stock No. <sup>1,5,10</sup>	Dim <sup>9</sup>	Qty	Туре	Qty	Туре	160%	100%	Stock No. <sup>1,6</sup>	Dim <sup>9</sup>	Max	Qty	Туре	Qty	Туре	160%	100%
Double R	<b>RFPI<sup>®</sup> 20</b>							Joist W	idth = 3-1/2"								
9-1/2	MSH422	1-3/4	6	10d	6	10d		2530	HD410 SK45L/R BV <sup>6,8</sup>	2-1/2	Min	14	16d	6	10d	880	2155
0 172	MOTTLE	1 0/ 1		100	Ŭ	100		2000			Max	20	lou	10	Tou	1465	3080
11-7/8	MSH422	1-3/4	6	10d	6	10d		2530	HD410 SK45L/R BV <sup>6,8</sup>	2-1/2	Min	14	16d	6	10d	880	2155
		, .						2000			Max	20		10		1465	3080
14	MSH422	1-3/4	6	10d	6	10d		2530	HD414_SK45L/R_BV <sup>6,8</sup>	2-1/2	Min	18	16d	8	10d	1135	2770
		1 0/ 1	Ů	100		100				2 172	Max	26	Tou	12	liou	1755	4005
	RFPI <sup>®</sup> 400							Joist W	idth = 4-1/8"								
9-1/2									SKH2020L/R-2 <sup>7</sup>	3-1/2		14	10d	10	10d	1645	1710
11-7/8				t MiTek P					SKH2020L/R-2 <sup>7</sup>	3-1/2		14	10d	10	10d	1645	1710
14			for spec	cialty han	ger optic	ons			SKH2024L/R-27	3-1/2		16	10d	10	10d	1680	1950
16									SKH2024L/R-27	3-1/2		16	10d	10	10d	1680	1950
Double R	RFPI <sup>®</sup> 40 & 70							Joist W	idth = 4-5/8"								
9-1/2	MSH2322-2	1-3/4	6	10d	4	10d		2530	SKH2320L/R-2 <sup>7</sup>	3-1/2		14	10d	10	10d	1645	1710
11-7/8	MSH2322-2	1-3/4	6	10d	4	10d		2530	SKH2320L/R-27	3-1/2		14	10d	10	10d	1645	1710
14	MSH2322-2	1-3/4	6	10d	4	10d		2530	SKH2324L/R-2 <sup>7</sup>	3-1/2		16	10d	10	10d	1680	1950
16	MSH2322-2	1-3/4	6	10d	4	10d		2530	SKH2324L/R-27	3-1/2		16	10d	10	10d	1680	1950
Double R	RFPI <sup>®</sup> 40S & 60S							Joist W	idth = 5"								
9-1/2	MSH2622-2	1-3/4	6	10d	4	10d		2530	SKH2520L/R-27	3-1/2		14	10d	10	10d	1645	1710
11-7/8	MSH2622-2	1-3/4	6	10d	4	10d		2530	SKH2520L/R-27	3-1/2		14	10d	10	10d	1645	1710
14	MSH2622-2	1-3/4	6	10d	4	10d		2530	SKH2524L/R-27	3-1/2		16	10d	10	10d	1680	1950
16	MSH2622-2	1-3/4	6	10d	4	10d		2530	SKH2524L/R-27	3-1/2		16	10d	10	10d	1680	1950
Double R	868 & 90 <b>80</b> 8 & 80							Joist W	idth = 7"								
9-1/2	MSH422-2	2	8	16d	6	16d		3740	HD7100_SK45L/R_BV <sup>6,8</sup>	2-1/2	Min	14	16d	6	16d	980	2155
J-1/2		-	0					5740	107100_3K43L/h_BV	2-1/2	Max	18	16d	8	16d	1385	2770
11-7/8	MSH422-2	2	8	16d	6	16d		3740	HD7120_SK45L/R_BV <sup>6,8</sup>	2-1/2	Min	16	16d	6	16d	980	2465
11-770	1011422-2	2	0					3740	107120_3K43L/h_8V	2-1/2	Max	22	Tou	8		1385	3390
14	MSH422-2	2	8	16d	6	16d		3740	740 UD7140 CK45L/D DV <sup>6.8</sup>	2-1/2	Min	20	16d	8	16d	1385	3080
14	1011422-2	2	0					3740	HD7140_SK45L/R_BV <sup>6,8</sup>	2-1/2	Max	26	Tou	12		2075	4005
16	MSH422-2	2	8	16d	6	16d		3740	HD7160_SK45L/R_BV <sup>6,8</sup>	2-1/2		24	16d	8	10d	1170	3695

1) Shaded hangers require web stiffeners at joist ends.

2) Loads listed are based on hanger attachment to a DF or SP species solid sawn, or RigidLam<sup>®</sup> LVL header. Some loads may be increased for duration of load adjustments. Refer to MiTek's Product Catalog for details.

3) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.

4) 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 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.

5) For additional sizes, stock numbers, and modifications not shown, refer to MiTek's Product Catalog.

6) Bevel cut required on end of joist to achieve design loads.

7) Hangers utilizing 16d nails are not compatible with RFPI<sup>®</sup>-Joists.

8) Hangers are special order. Consult MiTek for pricing and lead times.

9) D Dim is the length of the hanger seat.

10) 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.



Left shown

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				Top Mount H	langers	s <sup>3</sup>						Face I	Mount Ha	angers			
				Fastener	Sched	lule <sup>4</sup>						Fa	astener S	chedul	e <sup>4</sup>		
Joist	MiTek	D	H	leader		Joist	Uplift <sup>2</sup>	Down <sup>1</sup>	MiTek	D	Min/	Не	ader		Joist	Uplift <sup>2</sup>	Down <sup>1</sup>
Height	Stock No.	Dim <sup>7</sup>	Qty	Туре	Qty	Туре	160%	100%	Stock No.	Dim <sup>7</sup>	Max	Qty	Туре	Qty	Туре	160%	100%
	RIGIDLAM® LVL		~ )	71		71							71	.,	71-		
	BPH17925	2-3/8	10	16d	4	10d x 1-1/2	850	2970	HD17925	2-1/2	Min	18	16d	6	10d x 1-1/2	1170	2770
9-1/4	DF1117923		10		4		000	2970		2-1/2	Max	24	Tou	10		1900	3695
	PHXU17925	3-1/4	8	16d	6	10d x 1-1/2	930	4350	HUS179 <sup>5</sup>	3		30	16d	10	16d	4110	5580
9-1/2	BPH1795	2-3/8	10	16d	4	10d x 1-1/2	850	2970	HD17925	2-1/2	Min Max	18 24	16d	6 10	10d x 1-1/2	1170 1900	2770 3695
	PHXU1795	3-1/4	8	16d	6	10d x 1-1/2	930	4350	HUS179 5	3		30	16d	10	16d	4110	5580
	BPH17112	2-3/8	10	16d	4	10d x 1-1/2	850	2970	HD17112	2-1/2	Min	22	16d	6	10d x 1-1/2	1170	3390
11-1/4	DETTT/TTZ	2-3/0	10	Tou	4	100 x 1-1/2	000	2970		2-1/2	Max	30	Tou	12	100 x 1-1/2	1900	4320
	PHXU17112	3-1/4	8	16d	6	10d x 1-1/2	930	4350	HUS179 <sup>5</sup>	3		30	16d	10	16d	4110	5580
	BPH17118	2-3/8	10	16d	4	10d x 1-1/2	850	2970	HD17112	2-1/2	Min	22	16d	6	10d x 1-1/2	1170	3390
11-7/8			-								Max	30		12		1900	4320
	PHXU17118	3-1/4	8	16d	6	10d x 1-1/2	930	4350	HUS179 <sup>5</sup>	3		30	16d	10	16d	4110	5580
	BPH1714	2-3/8	10	16d	4	10d x 1-1/2	850	2970	HD1714	2-1/2	Min	28	16d	8	10d x 1-1/2	1510	3790
14											Max	36		14		1900	4580
	PHXU1714	3-1/4	8	16d	6	10d x 1-1/2	930	4350	HUS179 5	3		30	16d	10	16d	4110	5580
16	BPH1716	2-3/8	10	16d	4	10d x 1-1/2	850	2970	HD1714	2-1/2	Min	28	16d	8	10d x 1-1/2	1510	3790
											Max	36		14		1900	4580
18									HD1714	2-1/2	Min	28 36	16d	8 14	10d x 1-1/2	1510 1900	3790 4580
2 Div 1_1	8/4" RIGIDLAM®	IVI or 2	2_1/2"		I VI						Max	30		14		1900	4580
2 F IY 1-5	HBPH35925	3-1/2	22	16d	10	16d	2705	6310	THD410	3		38	16d	20	10d	3905	5850
9-1/4	HLBH35925	6	15	NA16D-RS	6	16d	1420	10045	THD410 <sup>5</sup>	4		46	16d	12	16d	4345	9020
	HBPH3595	3-1/2	22	16d	10	16d	2705	6310	THD410	3		38	16d	20	10d	3905	5850
9-1/2	HLBH3595	6	15	NA16D-RS	6	16d	1420	10045	THDH410 5	4		46	16d	12	16d	4345	9020
	HBPH35112	3-1/2	22	16d	10	16d	2705	6310	THD410	3		38	16d	20	10d	3905	5850
11-1/4	HLBH35112	6	15	NA16D-RS	6	16d	1420	10045	THDH412 5	4		38	16d	14	16d	5290	9710
44 7/0	HBPH35118	3-1/2	22	16d	10	16d	2705	6310	THD410	3		38	16d	20	10d	3905	5850
11-7/8	HLBH35118	6	15	NA16D-RS	6	16d	1420	10045	THDH412 5	4		38	16d	14	16d	5290	9710
14	HBPH3514	3-1/2	22	16d	10	16d	2705	6310	THD410	3		38	16d	20	10d	3905	5850
14	HLBH3514	6	15	NA16D-RS	6	16d	1420	10045	THDH414 <sup>5</sup>	4		38	16d	16	16d	5305	11325
16	HBPH3516	3-1/2	22	16d	10	16d	2705	6310	THD412	3		38	16d	20	10d	3905	7045
16	HLBH3516	6	15	NA16D-RS	6	16d	1420	10045	THDH414 <sup>5</sup>	4		38	16d	16	16d	5305	11325
18	HBPH3518	3-1/2	22	16d	10	16d	2705	6310	THD412	3		38	16d	20	10d	3905	7045
10	HLBH3518	6	15	NA16D-RS	6	16d	1420	10045	THDH414 <sup>5</sup>	4		38	16d	16	16d	5305	11325

1) Loads listed are based on hanger attachment to a DF or SP species LVL header. Some loads may be increased for duration of load adjustments. Refer to MiTek's Product Catalog for details.

2) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.

3) Top Mount Hangers require a minimum 3" header thickness for THO series hangers; 3-1/2" minimum header thickness for all other stock numbers.

4) 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 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.

5) Joist nails need to be toe nailed at a 30° to 45° angle with the carried member to achieve listed loads for THDH and HUS models.

6) Supplemental lateral support connection recommended when hanger height is less than 60% of joist height.

7) D Dim is the length of the hanger seat.







Additional diamond nail holes for max nailing Standard round holes for min nailing



MiTek

			Тс	p Mount Han	gers <sup>3</sup>						F	ace Mo	ount Hang	gers			
				Fastener Sc	hedule <sup>4</sup>	ļ						Fast	ener Sch	edule <sup>4</sup>			
Joist	MiTek	D	1	Header	J	oist	Uplift <sup>2</sup>	Down <sup>1</sup>	MiTek	D	Min/	He	ader	J	oist	Uplift <sup>2</sup>	Down <sup>1</sup>
Height	Stock No. <sup>6</sup>	Dim <sup>8</sup>	Qtv	Туре	Qtv	Type	160%	100%	Stock No. <sup>6</sup>	Dim <sup>8</sup>	Max	Qtv	Type	Otv	Type	160%	100%
3 Ply 1-3	3/4" RIGIDLAM®	LVL or	5-1/4"		VL												
9-1/4	HBPH55925	3-1/2	22	16d	10	16d	2705	6185	THD610	3		38	16d	20	10d	4035	6535
9-1/4	HLBH55925	6	15	NA16D-RS	6	16d	1580	10045	THDH610 <sup>5</sup>	4		46	16d	16	16d	5290	9020
9-1/2	HBPH5595	3-1/2	22	16d	10	16d	2705	6185	THD610	3		38	16d	20	10d	4035	6535
9-1/2	HLBH5595	6	15	NA16D-RS	6	16d	1580	10045	THDH610 5	4		46	16d	16	16d	5290	9020
11-1/4	HBPH55112	3-1/2	22	16d	10	16d	2705	6185	THD610	3		38	16d	20	10d	4035	6535
11-1/4	HLBH55112	6	15	NA16D-RS	6	16d	1580	10045	THDH612 <sup>5</sup>	4		56	16d	20	16d	5290	9530
11-7/8	HBPH55118	3-1/2	22	16d	10	16d	2705	6185	THD610	3		38	16d	20	10d	4035	6535
11-7/0	HLBH55118	6	15	NA16D-RS	6	16d	1580	10045	THDH612 <sup>5</sup>	4		56	16d	20	16d	5290	9530
14	HBPH5514	3-1/2	22	16d	10	16d	2705	6185	THD610	3		38	16d	20	10d	4035	6535
14	HLBH5514	6	15	NA16D-RS	6	16d	1580	10045	THDH614 <sup>5</sup>	4		66	16d	22	16d	5305	11325
16	HBPH5516	3-1/2	22	16d	10	16d	2705	6185	THD612	3		48	16d	20	10d	4035	8255
10	HLBH5516	6	15	NA16D-RS	6	16d	1580	10045	THDH614 <sup>5</sup>	4		66	16d	22	16d	5305	11325
18	HBPH5518	3-1/2	22	16d	10	16d	2705	6185	THD612	3		48	16d	20	10d	4035	8255
10	HLBH5518	6	15	NA16D-RS	6	16d	1580	10045	THDH614 <sup>5</sup>	4		66	16d	22	16d	5305	11325
4 Ply 1-3	3/4" RIGIDLAM®	LVL or 3	7" RIGII	DLAM® LVL													
9-1/4	HBPH71925	3-1/2	22	16d	10	16d	2705	6185	THD7210	3		38	16d	20	10d	4035	6535
5-174	HLBH71925	6	15	NA16D-RS	6	16d	1580	10045	THDH7210 5	4		46	16d	12	16d	4345	9020
9-1/2	HBPH7195	3-1/2	22	16d	10	16d	2705	6185	THD7210	3		38	16d	20	10d	4035	6535
J-1/2	HLBH7195	6	15	NA16D-RS	6	16d	1580	10045	THDH7210 5	4		46	16d	12	16d	4345	9020
11-1/4	HBPH71112	3-1/2	22	16d	10	16d	2705	6185	THD7210	3		38	16d	20	10d	4035	6535
11-1/4	HLBH71112	6	15	NA16D-RS	6	16d	1580	10045	THDH7212 5	4		56	16d	14	16d	5290	9020
11-7/8	HBPH71118	3-1/2	22	16d	10	16d	2705	6185	THD7210	3		38	16d	20	10d	4035	6535
11-770	HLBH71118	6	15	NA16D-RS	6	16d	1580	10045	THDH7212 5	4		56	16d	14	16d	5290	9020
14	HBPH7114	3-1/2	22	16d	10	16d	2705	6185	THD7210	3		38	16d	20	10d	4035	6535
14	HLBH7114	6	15	NA16D-RS	6	16d	1580	10045	THDH7214 5	4		66	16d	16	16d	5305	11325
	HBPH7116	3-1/2	22	16d	10	16d	2705	6185	HD7120	2-1/2	Min	16	16d	6	16d	1305	2465
16		5-1/2	~~~	Tou	10	Tou	2105	0105		2-1/2	Max	22	Tou	8	liou	1845	3390
	HLBH7116	6	15	NA16D-RS	6	16d	1580	10045	THDH7214 5	4		66	16d	16	16d	5305	11325
	HBPH7118	3-1/2	22	16d	10	16d	2705	6185	HD7140	2-1/2	Min	20	16d	8	16d	1845	3080
18		J-1/Z	~~~	TOU	10	Tou	2103	0103	-	2-1/2	Max	26	Tou	12	100	2765	4005
	HLBH7118	6	15	NA16D-RS	6	16d	1580	10045	THDH7214 5	4		66	16d	16	16d	5305	11325

1) Loads listed are based on hanger attachment to a DF or SP species LVL header. Some loads may be increased for duration of load adjustments. Refer to MiTek's Product Catalog for details.

2) Uplift loads have been increased 60% for wind and seismic loading; no further increase shall be permitted.

3) Top Mount Hangers require a minimum 3" header thickness for THO series hangers; 3-1/2" minimum header thickness for all other stock numbers.

4) 10d nails are 0.148" dia. x 3" long, NA16D-RS nails are 0.148" dia. x 3-1/2" 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.

5) Joist nails need to be toe nailed at a  $30^{\circ}$  to  $45^{\circ}$  angle with the carried member to achieve listed loads for THDH models.

6) For additional sizes, stock numbers, and modifications not shown, refer to MiTek's Product Catalog.

7) Supplemental lateral support connection recommended when hanger height is less than 60% of joist height.

8) D Dim is the length of the hanger seat.





HBPH





MiTek

THDH

## MiTek<sup>®</sup>

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 LSSH Figure 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.



Typical LSSH installation







Fastener Schedule<sup>4</sup> DF Header Joist MiTek Uplift<sup>3</sup> Down<sup>2</sup> Joist Installation Stock No.1,6 Qty 160% 100% Height Туре Qty Туре Type RFPI<sup>®</sup> 20 Joist Width = 1-3/4 Sloped Only 10 10d HDG 10d x 1-1/2 HDG 880 1200 7 9-1/2 - 14 LSSH179-TZ Skewed Only or 10 10d HDG 7 10d x 1-1/2 HDG 880 1200 Sloped & Skewed Joist Width = 2-1/16" RFPI<sup>®</sup> 400 Sloped Only 10 10d HDG 7 10d x 1-1/2 HDG 795 1200 LSSH20-TZ 9-1/2-16 Skewed Only or 10 10d HDG 7 10d x 1-1/2 HDG 795 1200 Sloped & Skewed Joist Width = 2-5/16" RFPI<sup>®</sup> 40 & 70 Sloped Only 10 10d HDG 10d x 1-1/2 HDG 795 1200 7 9 - 1/2 - 16LSSH23-TZ Skewed Only or 10 10d HDG 7 10d x 1-1/2 HDG 795 1200 Sloped & Skewed RFPI<sup>®</sup> 40S & 60S Joist Width = 2-1/2" Sloped Only 18 16d HDG 12 10d x 1-1/2 HDG 945 2095 9-1/2-16 LSSH25-TZ Skewed Only or 14 16d HDG 12 10d x 1-1/2 HDG 945 1610 Sloped & Skewed Joist Width = 3-1/2 RFPI<sup>®</sup> 80S & 90 Sloped Only 16d HDG 10d x 1-1/2 HDG 1310 2645 18 12 9-1/2 - 16 LSSH35-TZ Skewed Only or 16d HDG 10d x 1-1/2 HDG 14 12 1310 1610

1) Shaded hangers require web stiffeners at joist ends.

2) Loads listed are based on hanger attachment to a DF species solid sawn, or RigidLam  $^{\circledast}$ 

Sloped & Skewed

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) 10d x 1-1/2 HDG nails are 0.148" dia. x 1-1/2" long, 10d HDG nails are 0.148" dia. x 3" long.

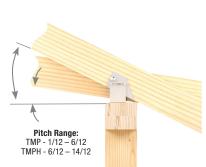
- 5) Hangers utilizing 16d nails are not compatible with RFPI<sup>®</sup>-Joists.
- 6) Supplemental lateral support connection recommended when hanger height is less than 60% of joist height.

## MiTek<sup>®</sup>

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. Installing the **TMP** require driving specified nails through the opposing slots in the pocket. **TMPH** installation involves sliding the fulcrum until it supports the pocket at the desired pitch and nailing down through the fulcrum base into the top plate to lock the fulcrum into position.





Typical TMP installation

### **TMP chart**

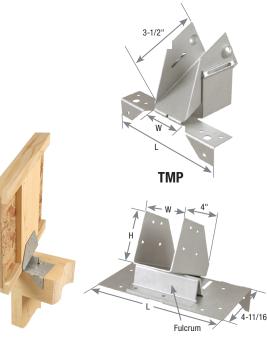
			Faste	ner S	chedule <sup>4</sup>	D	F
Joist	MiTek		Plate		Rafter	Uplift <sup>3</sup>	Down <sup>2</sup>
Height	Stock No.	Qty	Туре	Qty	Туре	160%	100%
RFPI <sup>®</sup> 20	D						
All	TMP175	6	10d	4	10d x 1-1/2	245	1705
RFPI <sup>®</sup> 40	00						
All	TMP21	6	10d	4	10d x 1-1/2	245	1705
RFPI <sup>®</sup> 40	0 & 70						
All	TMP23	6	10d	4	10d x 1-1/2	245	1705
RFPI <sup>®</sup> 40	DS & 60S						
All	TMP25	6	10d	4	10d x 1-1/2	245	1705
RFPI <sup>®</sup> 80	DS & 90						
All	TMP4	6	10d	4	10d x 1-1/2	245	1705

1) Web stiffeners may be required for hanger by Roseburg Forest Products.

2) Loads listed are based on hanger attachment to a DF species solid sawn or RigidLam<sup>®</sup> 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) 10d x 1-1/2 nails are 0.148" diameter x 1-1/2" long, 10d nails are 0.148" diameter x 3" long.



Typical TMPH installation

TMPH

### **TMPH chart**

			Fastener Schedule <sup>4</sup>									DF				
			Plate			Rafter				Aco	cording to	o Pitch <sup>2</sup>				
Joist Height	MiTek Stock No. <sup>1</sup>	Top Qty	Side Qty	Туре	Qty	Туре	6/12	7/12	8/12	9/12	10/12	11/12	12/12	13/12	14/12	Uplift <sup>3</sup> 160%
RFPI® 2	0						Joist Wi	dth = 1-	3/4"							
All	TMPH175	8	2	10d	8	10d x 1-1/2	3190	3290	3390	3140	2900	2710	2520	2230	1950	330
RFPI <sup>®</sup> 40	)0					با	loist Wic	ith = 2-	1/16"							
All	TMPH21	8	2	10d	8	10d x 1-1/2	3190	3290	3390	3140	2900	2710	2520	2230	1950	330
RFPI <sup>®</sup> 40	) & 70					J	loist Wic	ith = 2-	5/16"							
All	TMPH23	8	2	10d	8	10d x 1-1/2	3190	3290	3390	3140	2900	2710	2520	2230	1950	330
RFPI <sup>®</sup> 40	)S & 60S						Joist Wi	dth = 2-	1/2"							
All	TMPH25	8	2	10d	8	10d x 1-1/2	3190	3290	3390	3140	2900	2710	2520	2230	1950	330
RFPI® 8	0S & 90						Joist Wi	dth = 3-	1/2"							
All	TMPH4	8	2	10d	8	10d x 1-1/2	3190	3290	3390	3140	2900	2710	2520	2230	1950	330

1) Web stiffeners are required for all Wood I-Joist installations.

2) Loads listed are based on hanger attachment to a DF species solid sawn or RigidLam<sup>®</sup> 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) 10d x 1-1/2 nails are 0.148" diameter x 1-1/2" long, 10d nails are 0.148" diameter x 3" long.

### **WSWH Series Washer Head Screw Applications -**Joining 2, 3, or 4 Ply RIGIDLAM<sup>®</sup> LVL Members

## MiTek

### Installation:

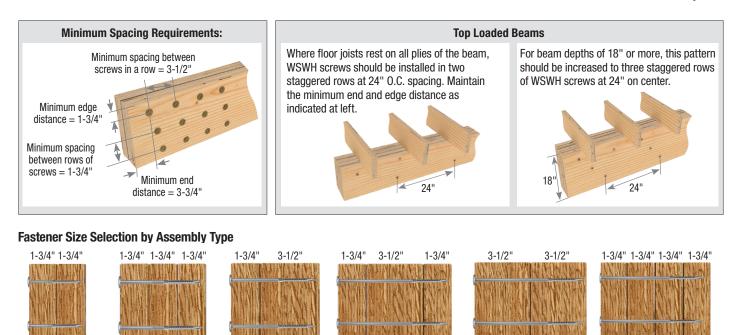
- Using a standard 1/2" low speed/high torque drill, install screws into the side of the outermost ply. As the threads fully engage the final ply, allow the underside of the washer head to pull the plies firmly together. Washer head will install flush with the surface of the wood, but do not overdrive as this may damage the beam.
- · Beams wider than 7" require special consideration by the design professional. The values in the table below do not apply.
- Excessively warped or curved LVL should never be forced into alignment by use of clamps, screws or bolts as splitting may occur, potentially decreasing the carrying capacity of the beam.
- A qualified designer or engineer should always be consulted for critical assemblies and fastening requirements.

WSWH5

5"

В





**WSWH634** 6-3/4"

**WSWH634** 

6-3/4"

Ε

Side Loaded Beams - Where floor joists are joined to the side of the beam (typically using a joist hanger), this load chart must be used to establish the proper pattern based on the design load as determined by the engineer and noted on the plans.

D

**WSWH634** 

6-3/4"

		No. of Screws	Spacing Between		Load Applied to Eitho e (lbs/lineal ft) (See							
Length	MiTek	Vertical	Screws in	EWP W	ood Specific Gravity (	G ≥ 0.50						
(in)	Stock No.	Column	a Row (in)	Α	В	C						
			24	600								
		2	19.2	755			1) Allowable loads are derived from tested fastener values as reported in					
3-3/8	WSWH338		16	905			ICC-ES ESR-2761.					
3-3/0	WSWIJSSO		24	905								
		3	19.2	1130			2) The uniform loads in this table relate only to the capacity of the					
			16	1355			fastener to transfer shear loads between plies. The equivalent specific					
			24		430	535	gravity (SG) and the capacity of the EWP should be verified with					
		2	19.2		535	670	manufacturer's literature.					
5	WSWH5		16		645	805	3) Values listed reflect 100% load duration. (CD=1.0) The designer may					
5	WOWIIJ		24		645	805	apply adjustment factors to increase or decrease these loads per the					
		3	19.2		805	1005	NDS based on conditions for each assembly.					
			16		965	1210	4) Load values depicted assume all uniform load is applied to the outer-					
			24			475	,					
		2	19.2			595	most ply.					
6-3/4	6-3/4 WSWH634 —		16			715	5) To minimize rotation, 7" wide beams shall be side loaded only when					
0 0/4			24			715	loads are applied to both sides of the beam with the lesser loaded side					
		3	19.2			895	bearing at least 25% of the overall design load.					
			16			1075	6) When the uniform load is applied to the outermost ply with the screw					
	Head Side Multiplier <sup>6</sup>			1.06	1.25	1	head, listed allowable loads can be multiplied by this value.					

WSWH5

5"

C

**WSWH338** 

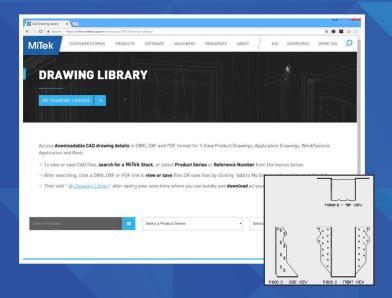
3-3/8"

# SPECIFICATION TOOLS Available at MiTek-US.com



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- High Wind/Seismic Applications
  are also available

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