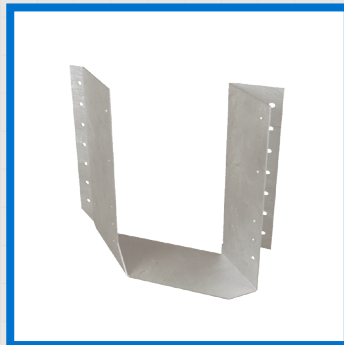


# EWP PRODUCT GUIDE

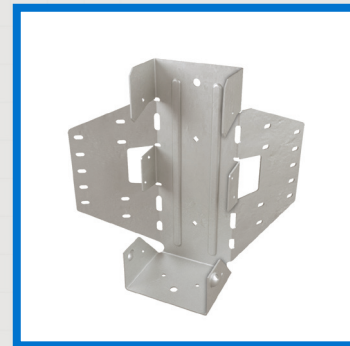


LIMIT  
STATES  
DESIGN

For Use With Products Manufactured by



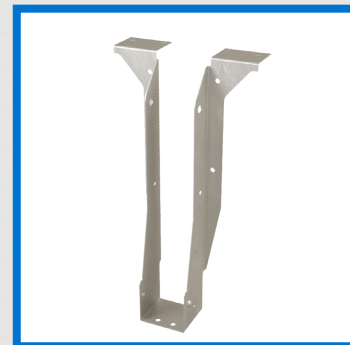
SKH2520R-2



LSSH35



THFI2514



TFL25118

Canadian Specifiers Guide

MiTek®

1-800-268-3434  
MiTek.ca

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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 (D Fir-L) or LVL. For S-P-F header material, refer to the current MiTek catalog. Joist reaction should be checked by a qualified designer to ensure proper hanger selection.
- Uplift loads have been increased 15% 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 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 factored resistances shown in this document are based on Limit States Design methodology.
- **Multiple Joist Plies:** Fasten together multiple plies of wood 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".

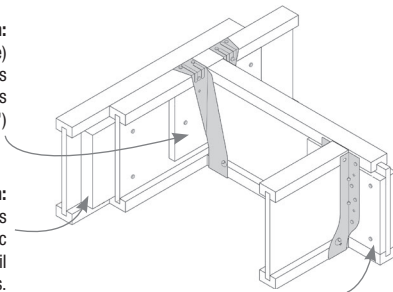
**Backer Blocks** — Pattern the nails used to install backer blocks or web stiffeners in wood Joists to avoid splitting the block. The nail pattern should be sufficiently spaced to avoid the same grain line, particularly with solid sawn backer blocks. Backer blocks must be installed on wood Joists acting as the header, or supporting member. Install in accordance with the I-Joist manufacturer's installation guidelines. The nails used to install hangers mounted to a Joist header must penetrate through the web and into the backer block on the opposite side.

### Backer Block Installation:

(minimum 12" wide)  
Nail with (10) 8d nails  
(use 10d nails for flanges  
wider than 2-1/2")

### Filler Block Installation:

Nail with 8d nails (10d for flanges  
wider than 2-1/2") spaced 6" oc  
per row. Drive every other nail  
from opposite sides.



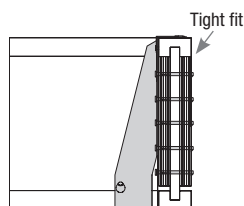
Backer Block (both sides)  
of web with single LPI® Joist

### Filler and Backer Block Sizes

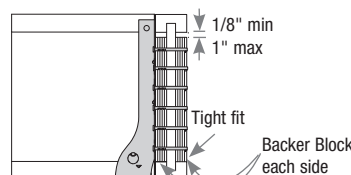
| LPI Series | Filler Block Thickness | Backer Block Thickness |
|------------|------------------------|------------------------|
| LPI 18     | 2-1/8"                 | 1"                     |
| LPI 20Plus |                        |                        |
| LPI 32Plus |                        |                        |
| LPI 42Plus | 3"                     | 1-1/2"                 |
| LPI 52Plus |                        |                        |
| LPI 56     | 3"                     | 1-1/2"                 |

- Backer blocks and filler blocks shall consist of APA Rated wood structural panel (OSB or plywood), or 2x lumber (SPF or better).
- LP LVL, LSL or OSB Rim Board may also be used.

With top flange hangers, backer block required only for factored downward loads exceeding 360 lbs or for uplift conditions



Typical THO (top mount)  
backer block installation

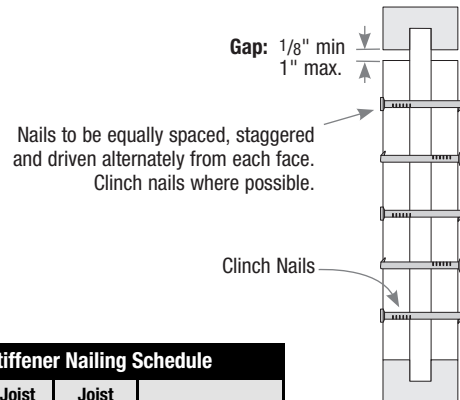


Typical THF (face mount)  
backer block installation

## Web Stiffener Attachment —

**Web Stiffeners are optional except as noted below:**

- Web stiffeners required at bearing locations for 18" & 24" deep joists.
- Web stiffeners are always required in hangers that do not extend up to support the top flange of the LPI® Joist. Web stiffeners may be required with certain sloped or skewed hangers or to achieve uplift values. Refer to MiTek's installation requirements.



### Web Stiffener Nailing Schedule

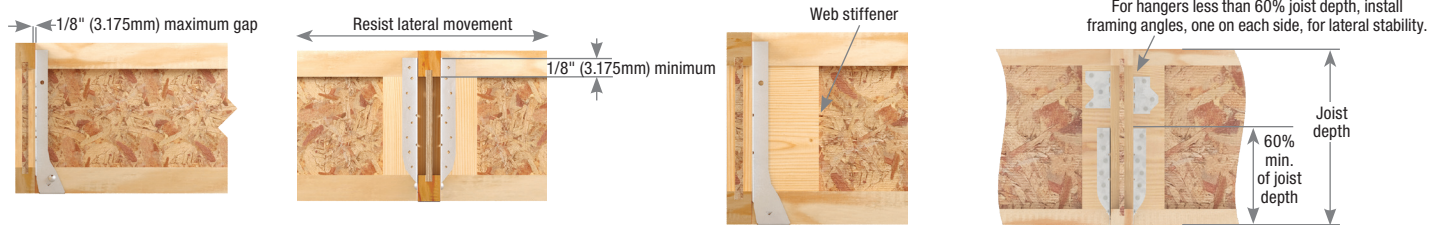
| LPI Series | Joist Width | Joist Height | Nailing         |
|------------|-------------|--------------|-----------------|
| LPI 18     | 2-1/2       | 9-1/2        | (3) 8d (2-1/2") |
| LPI 20Plus |             | 11-7/8       |                 |
| LPI 32Plus |             | 14           |                 |
|            |             | 16           |                 |
| LPI 42Plus | 3-1/2       | 9-1/2        | (3) 10d (3")    |
| LPI 52Plus |             | 11-7/8       |                 |
|            |             | 14           |                 |
|            |             | 16           |                 |
| LPI 56     | 3-1/2       | 11-7/8       | (4) 10d (3")    |
|            |             | 14           | (5) 10d (3")    |
|            |             | 16           | (6) 10d (3")    |

- Web stiffeners shall be cut from APA Rated OSB (or equal) or from LP LVL, LSL, or OSB Rim Board.
- For joist depths not shown in this table, consult Louisiana-Pacific for nailing schedule.

## 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 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

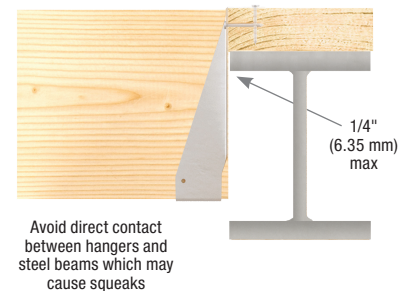
### Correct Hanger Attachment to Nail

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

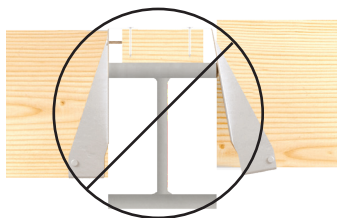
Top flange of hanger is fully supported and recommended nails have full penetration into nailer, resulting in a carried member hanging safely at the proper height.

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.



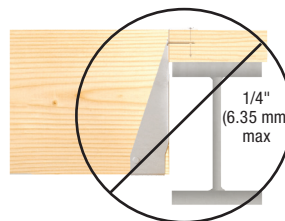
### Correct Attachment

## Wrong Nailer Size Causes Component Failure



### ⚠ Too Narrow

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.



### ⚠ Too Wide

Loading can cause cross grain breaking of nailer. The recommended nailer overhang is 1/4" (6.35mm) maximum per side.



### ⚠ Too Thin

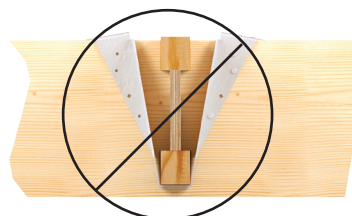
Top flange nailing cannot fully penetrate nailer, causing reduced factored resistance. Never use hangers which require multiple face nails with a nailer or sill plate since the factored resistance are dependent on all nail holes being used.

## 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

## Hanger Factored Resistance (Lbs)

| Joist Height                   | Top Mount Hangers <sup>4,6</sup> |                            |                                |      |       |             |                        |                          | Face Mount Hangers           |                            |         |                                |      |       |             |                        |                          |  |
|--------------------------------|----------------------------------|----------------------------|--------------------------------|------|-------|-------------|------------------------|--------------------------|------------------------------|----------------------------|---------|--------------------------------|------|-------|-------------|------------------------|--------------------------|--|
|                                | MiTek Stock No. <sup>1</sup>     | Length of Hanger Seat (in) | Fastener Schedule <sup>5</sup> |      |       |             | D Fir-L                |                          | MiTek Stock No. <sup>1</sup> | Length of Hanger Seat (in) | Min/Max | Fastener Schedule <sup>5</sup> |      |       |             | D Fir-L                |                          |  |
|                                |                                  |                            | Header                         |      | Joist |             | Down <sup>2</sup> 100% | Uplift <sup>3</sup> 115% |                              |                            |         | Header                         |      | Joist |             | Down <sup>2</sup> 100% | Uplift <sup>3</sup> 115% |  |
|                                |                                  |                            | Qty                            | Type | Qty   | Type        |                        |                          |                              |                            |         | Qty                            | Type |       |             |                        |                          |  |
|                                |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      |       |             |                        |                          |  |
| LPI 18, LPI 20PLUS, LPI 32PLUS |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      |       |             |                        |                          |  |
| Joist Width = 2-1/2"           |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      |       |             |                        |                          |  |
| 9-1/2                          | TFL2595                          | 2                          | 6                              | 10d  | 2     | 10d x 1-1/2 | 2495                   | 265                      | THFI2595                     | 2                          | --      | 8                              | 10d  | --    | --          | 2345                   | 235                      |  |
| 11-7/8                         | TFL25118                         | 2                          | 6                              | 10d  | 2     | 10d x 1-1/2 | 2495                   | 265                      | THFI25118                    | 2                          | --      | 10                             | 10d  | --    | --          | 2345                   | 235                      |  |
| 14                             | TFL2514                          | 2                          | 6                              | 10d  | 2     | 10d x 1-1/2 | 2495                   | 265                      | THFI2514                     | 2                          | --      | 12                             | 10d  | --    | --          | 4605                   | 235                      |  |
| 16                             | TFL2516                          | 2                          | 6                              | 10d  | 2     | 10d x 1-1/2 | 2495                   | 265                      | IHFL2516                     | 2-1/2                      | Min/Max | 14                             | 10d  | --    | --          | 4420                   | 90                       |  |
|                                |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      | 2     | 10d x 1-1/2 |                        | 405                      |  |
| LPI 42PLUS, LPI 52PLUS, LPI 56 |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      |       |             |                        |                          |  |
| Joist Width = 3-1/2"           |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      |       |             |                        |                          |  |
| 9-1/2                          | TH035950                         | 2-3/8                      | 10                             | 10d  | 2     | 10d x 1-1/2 | 3335                   | 485                      | IHFL35925                    | 2-1/2                      | Min/Max | 10                             | 10d  | --    | --          | 4420                   | 90                       |  |
|                                |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      | 2     | 10d x 1-1/2 |                        | 405                      |  |
| 11-7/8                         | TH035118                         | 2-3/8                      | 10                             | 10d  | 2     | 10d x 1-1/2 | 3335                   | 485                      | IHFL35112                    | 2-1/2                      | Min/Max | 10                             | 10d  | --    | --          | 4420                   | 90                       |  |
|                                |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      | 2     | 10d x 1-1/2 |                        | 405                      |  |
| 14                             | TH035140                         | 2-3/8                      | 12                             | 10d  | 2     | 10d x 1-1/2 | 4310                   | 485                      | IHFL3514                     | 2-1/2                      | Min/Max | 12                             | 10d  | --    | --          | 4420                   | 90                       |  |
|                                |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      | 2     | 10d x 1-1/2 |                        | 405                      |  |
| 16                             | TH035160                         | 2-3/8                      | 12                             | 10d  | 2     | 10d x 1-1/2 | 4310                   | 485                      | IHFL3516                     | 2-1/2                      | Min/Max | 14                             | 10d  | --    | --          | 4420                   | 90                       |  |
|                                |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      | 2     | 10d x 1-1/2 |                        | 405                      |  |
| 18                             | TFI418                           | 2-1/2                      | 6                              | 16d  | 2     | 10d x 1-1/2 | 4190                   | 505                      | IHFL3516                     | 2-1/2                      | Min/Max | 14                             | 10d  | --    | --          | 4420                   | 90                       |  |
|                                |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      | 2     | 10d x 1-1/2 |                        | 405                      |  |
| 20                             | TFI420                           | 2-1/2                      | 6                              | 16d  | 2     | 10d x 1-1/2 | 4190                   | 505                      | IHFL3516                     | 2-1/2                      | Min/Max | 14                             | 10d  | --    | --          | 4420                   | 90                       |  |
|                                |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      | 2     | 10d x 1-1/2 |                        | 405                      |  |
| 22                             | TFI422                           | 2-1/2                      | 10                             | 16d  | 2     | 10d x 1-1/2 | 5315                   | 505                      | IHFL3516                     | 2-1/2                      | Min/Max | 14                             | 10d  | --    | --          | 4420                   | 90                       |  |
|                                |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      | 2     | 10d x 1-1/2 |                        | 405                      |  |
| 24                             | TFI424                           | 2-1/2                      | 10                             | 16d  | 2     | 10d x 1-1/2 | 5315                   | 505                      | IHFL3516                     | 2-1/2                      | Min/Max | 14                             | 10d  | --    | --          | 4420                   | 90                       |  |
|                                |                                  |                            |                                |      |       |             |                        |                          |                              |                            |         |                                |      | 2     | 10d x 1-1/2 |                        | 405                      |  |

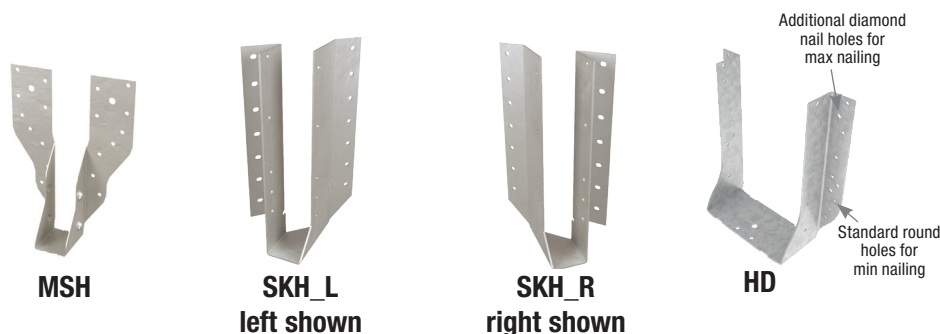
- 1) Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required for non-shaded hangers by I-joist manufacturers.
- 2) Factored resistance is based on hanger attachment to a D Fir-L species solid sawn or LP® LVL header.
- 3) Factored uplift resistances have been increased 15% for short-term loads such as wind and earthquake; reduce for other load durations in accordance with the code.
- 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) 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) For top mount hangers supported by I-Joist headers with a flange thickness less than 1-1/2", consult MiTek and Louisiana-Pacific for hanger limitations.



## Hanger Factored Resistance (Lbs)

| Joist Height                   | Adjustable Height Hangers      |                            |                                |      |       |             |                        |                          | Skewed 45° Hangers              |                            |            |                                |      |         |             |                        |                          |  |
|--------------------------------|--------------------------------|----------------------------|--------------------------------|------|-------|-------------|------------------------|--------------------------|---------------------------------|----------------------------|------------|--------------------------------|------|---------|-------------|------------------------|--------------------------|--|
|                                | MiTek Stock No. <sup>1,7</sup> | Length of Hanger Seat (in) | Fastener Schedule <sup>4</sup> |      |       |             | D Fir-L                |                          | MiTek Stock No. <sup>1</sup>    | Length of Hanger Seat (in) | Min/Max    | Fastener Schedule <sup>4</sup> |      |         |             | D Fir-L                |                          |  |
|                                |                                |                            | Header                         |      | Joist |             | Down <sup>2</sup> 100% | Uplift <sup>3</sup> 115% |                                 |                            |            | Header                         |      | Joist   |             | Down <sup>2</sup> 100% | Uplift <sup>3</sup> 115% |  |
|                                |                                |                            | Qty                            | Type | Qty   | Type        |                        |                          |                                 |                            |            | Qty                            | Type | Qty     | Type        |                        |                          |  |
| LPI 18, LPI 20PLUS, LPI 32PLUS |                                |                            |                                |      |       |             |                        |                          | Joist Width = 2-1/2"            |                            |            |                                |      |         |             |                        |                          |  |
| 9-1/2                          | MSH322 <sup>9</sup>            | 1-3/4                      | 6                              | 10d  | 4     | 10d x 1-1/2 | 3370                   | --                       | SKH2520L/R                      | 1-7/8                      | --         | 14                             | 10d  | 10      | 10d x 1-1/2 | 3440                   | 2855                     |  |
| 11-7/8                         | MSH322                         | 1-3/4                      | 6                              | 10d  | 4     | 10d x 1-1/2 | 3370                   | --                       | SKH2520L/R                      | 1-7/8                      | --         | 14                             | 10d  | 10      | 10d x 1-1/2 | 3440                   | 2855                     |  |
| 14                             | MSH322                         | 1-3/4                      | 6                              | 10d  | 4     | 10d x 1-1/2 | 3370                   | --                       | SKH2524L/R                      | 1-7/8                      | --         | 16                             | 10d  | 10      | 10d x 1-1/2 | 4640                   | 2855                     |  |
| 16                             | MSH322                         | 1-3/4                      | 6                              | 10d  | 4     | 10d x 1-1/2 | 3370                   | --                       | SKH2524L/R                      | 1-7/8                      | --         | 16                             | 10d  | 10      | 10d x 1-1/2 | 4640                   | 2855                     |  |
| LPI 42PLUS, LPI 52PLUS         |                                |                            |                                |      |       |             |                        |                          | Joist Width = 3-1/2"            |                            |            |                                |      |         |             |                        |                          |  |
| 9-1/2                          | MSH422                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 3215                   | --                       | SKH410L/R <sup>6</sup>          | 2-1/2                      | --         | 16                             | 16d  | 10      | 10d         | 4130                   | 2855                     |  |
| 11-7/8                         | MSH422                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 3215                   | --                       | SKH410L/R <sup>6</sup>          | 2-1/2                      | --         | 16                             | 16d  | 10      | 10d         | 4130                   | 2855                     |  |
| 14                             | MSH422                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 3215                   | --                       | SKH414L/R <sup>6</sup>          | 2-1/2                      | --         | 20                             | 16d  | 10      | 16d         | 8720                   | 2855                     |  |
| 16                             | MSH422                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 3215                   | --                       | SKH414L/R <sup>6</sup>          | 2-1/2                      | --         | 20                             | 16d  | 10      | 16d         | 8720                   | 2855                     |  |
| 18                             | MSH422                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 3215                   | --                       | SKH414L/R <sup>6</sup>          | 2-1/2                      | --         | 20                             | 16d  | 10      | 16d         | 8720                   | 2855                     |  |
| 20                             | MSH426                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 4340                   | 905                      | SKH414L/R <sup>6</sup>          | 2-1/2                      | --         | 20                             | 16d  | 10      | 16d         | 8720                   | 2855                     |  |
| 22                             | MSH426                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 4340                   | 905                      | --                              | --                         | --         | --                             | --   | --      | --          | --                     | --                       |  |
| 24                             | MSH426                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 4340                   | 905                      | --                              | --                         | --         | --                             | --   | --      | --          | --                     | --                       |  |
| LPI 56                         |                                |                            |                                |      |       |             |                        |                          | Joist Width = 3-1/2"            |                            |            |                                |      |         |             |                        |                          |  |
| 9-1/2                          | MSH422 <sup>9</sup>            | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 3215                   | --                       | HD410_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | Min<br>Max | 14<br>20                       | 16d  | 6<br>10 | 10d         | 5030<br>5870           | 1845<br>3055             |  |
| 11-7/8                         | MSH422                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 3215                   | --                       | HD410_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | Min<br>Max | 14<br>20                       | 16d  | 6<br>10 | 10d         | 5030<br>5870           | 1845<br>3055             |  |
| 14                             | MSH422                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 3215                   | --                       | HD414_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | Min<br>Max | 18<br>26                       | 16d  | 8<br>12 | 10d         | 5030<br>7540           | 2080<br>3055             |  |
| 16                             | MSH422                         | 1-3/4                      | 6                              | 10d  | 6     | 10d         | 3215                   | --                       | HD414_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | Min<br>Max | 18<br>26                       | 16d  | 8<br>12 | 10d         | 5030<br>7540           | 2080<br>3055             |  |

- 1) Shaded hangers require web stiffeners at joist ends.
- 2) Factored resistance is based on hanger attachment to a D Fir-L species solid sawn or LP® LVL header.
- 3) Factored uplift resistances have been increased 15% for short-term loads such as wind and earthquake; reduce for other load durations in accordance with the code.
- 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 LPI® joists.
- 6) Bevel cut required on end of joist to achieve design loads.
- 7) MSH factored resistances 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. Consult MiTek for pricing and lead times.
- 9) Flanges on the bucket of the hanger may extend above the top of the joist.

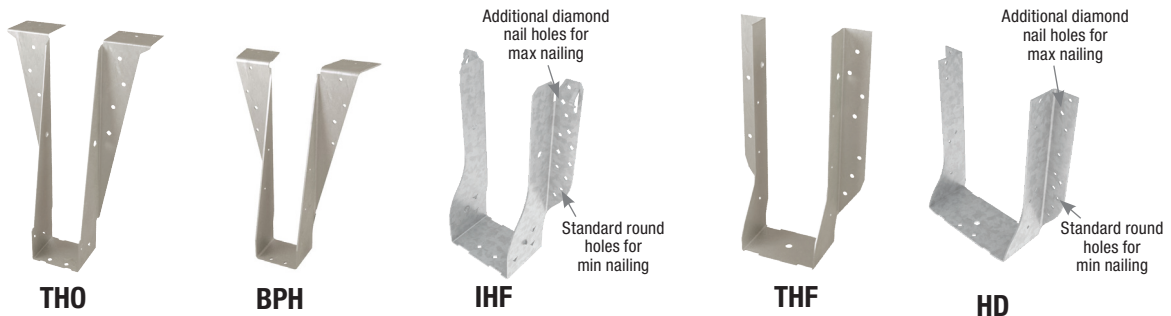




## Hanger Factored Resistance (Lbs)

| Joist Height                          | Top Mount Hangers <sup>4,7</sup> |                            |                                |      |       |      |                        |                          | Face Mount Hangers           |                            |         |                                |      |       |             |                        |                          |
|---------------------------------------|----------------------------------|----------------------------|--------------------------------|------|-------|------|------------------------|--------------------------|------------------------------|----------------------------|---------|--------------------------------|------|-------|-------------|------------------------|--------------------------|
|                                       | MiTek Stock No. <sup>1</sup>     | Length of Hanger Seat (in) | Fastener Schedule <sup>5</sup> |      |       |      | D Fir-L                |                          | MiTek Stock No. <sup>1</sup> | Length of Hanger Seat (in) | Min/Max | Fastener Schedule <sup>5</sup> |      |       |             | D Fir-L                |                          |
|                                       |                                  |                            | Header                         |      | Joist |      | Down <sup>2</sup> 100% | Uplift <sup>3</sup> 115% |                              |                            |         | Header                         |      | Joist |             | Down <sup>2</sup> 100% | Uplift <sup>3</sup> 115% |
|                                       |                                  |                            | Qty                            | Type | Qty   | Type |                        |                          |                              |                            |         | Qty                            | Type | Qty   | Type        |                        |                          |
| Double LPI 18, LPI 20PLUS, LPI 32PLUS |                                  |                            |                                |      |       |      |                        |                          |                              |                            |         |                                |      |       |             | Joist Width = 5"       |                          |
| 9-1/2                                 | THO25950-2                       | 3                          | 10                             | 16d  | 6     | 10d  | 5820                   | 2140                     | IHF25925-2                   | 2-1/2                      | Min     | 10                             | 10d  | --    | --          | 3845                   | 90                       |
|                                       |                                  |                            |                                |      |       |      |                        |                          |                              |                            | Max     | 24                             | 16d  | 2     | 10d x 1-1/2 | 5655                   | 605                      |
| 11-7/8                                | THO25118-2                       | 3                          | 10                             | 16d  | 6     | 10d  | 5820                   | 2140                     | IHF25112-2                   | 2-1/2                      | Min     | 10                             | 10d  | --    | --          | 3845                   | 90                       |
|                                       |                                  |                            |                                |      |       |      |                        |                          |                              |                            | Max     | 24                             | 16d  | 2     | 10d x 1-1/2 | 5655                   | 605                      |
| 14                                    | THO25140-2                       | 3                          | 12                             | 16d  | 6     | 10d  | 7060                   | 2140                     | THF25140-2                   | 2-1/2                      | --      | 20                             | 10d  | 6     | 10d         | 6680                   | 3185                     |
| 16                                    | THO25160-2                       | 3                          | 12                             | 16d  | 6     | 10d  | 7060                   | 2140                     | THF25160-2                   | 2-1/2                      | --      | 24                             | 10d  | 6     | 10d         | 6680                   | 3185                     |
| Double LPI 42PLUS, LPI 52PLUS, LPI 56 |                                  |                            |                                |      |       |      |                        |                          |                              |                            |         |                                |      |       |             | Joist Width = 7"       |                          |
| 9-1/2                                 | BPH7195                          | 3                          | 10                             | 16d  | 6     | 10d  | 5530                   | 2935                     | HD7100                       | 2-1/2                      | Min     | 14                             | 16d  | 6     | 16d         | 5030                   | 2460                     |
|                                       |                                  |                            |                                |      |       |      |                        |                          |                              |                            | Max     | 18                             |      | 8     |             |                        | 3745                     |
| 11-7/8                                | BPH71118                         | 3                          | 10                             | 16d  | 6     | 10d  | 5485                   | 2935                     | HD7120                       | 2-1/2                      | Min     | 16                             | 16d  | 6     | 16d         | 5030                   | 2460                     |
|                                       |                                  |                            |                                |      |       |      |                        |                          |                              |                            | Max     | 22                             |      | 8     |             | 5585                   | 3930                     |
| 14                                    | BPH7114                          | 3                          | 10                             | 16d  | 6     | 10d  | 5485                   | 2935                     | HD7140                       | 2-1/2                      | Min     | 20                             | 16d  | 8     | 16d         | 5030                   | 3745                     |
|                                       |                                  |                            |                                |      |       |      |                        |                          |                              |                            | Max     | 26                             |      | 12    |             | 7670                   | 4070                     |
| 16                                    | BPH7116                          | 3                          | 10                             | 16d  | 6     | 10d  | 5485                   | 2935                     | HD7160                       | 2-1/2                      | --      | 24                             | 16d  | 8     | 10d         | 5585                   | 3930                     |
| 18                                    | BPH7118                          | 3                          | 10                             | 16d  | 6     | 10d  | 5485                   | 2935                     | HD7180                       | 2-1/2                      | --      | 28                             | 16d  | 8     | 10d         | 7670                   | 3930                     |
| 20                                    | BPH7120                          | 3                          | 10                             | 16d  | 6     | 10d  | 5485                   | 2935                     | HD7180                       | 2-1/2                      | --      | 28                             | 16d  | 8     | 10d         | 7670                   | 3930                     |
| 22                                    | BPH7122                          | 3                          | 10                             | 16d  | 6     | 10d  | 5485                   | 2935                     | HD7180                       | 2-1/2                      | --      | 28                             | 16d  | 8     | 10d         | 7670                   | 3930                     |
| 24                                    | BPH7124                          | 3                          | 10                             | 16d  | 6     | 10d  | 5485                   | 2935                     | HD7180                       | 2-1/2                      | --      | 28                             | 16d  | 8     | 10d         | 7670                   | 3930                     |

- 1) Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required for non-shaded hangers by Louisiana-Pacific.
- 2) Factored resistance is based on hanger attachment to a D Fir-L species solid sawn or LP® LVL header.
- 3) Factored uplift resistances have been increased 15% for short-term loads such as wind and earthquake; reduce for other load durations in accordance with the code.
- 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) 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 LPI® joists.
- 7) For top mount hangers supported by I-Joist headers with a flange thickness less than 1-1/2", consult MiTek and Louisiana-Pacific for hanger limitations.



## Hanger Factored Resistance (Lbs)

| Joist Height                          | Adjustable Height Hangers                                      |                            |                                |      |       |      |                        |                          | Skewed 45° Hangers               |                            |                  |                                |      |       |           |                        |                          |  |  |  |
|---------------------------------------|--|----------------------------|--------------------------------|------|-------|------|------------------------|--------------------------|----------------------------------|----------------------------|------------------|--------------------------------|------|-------|-----------|------------------------|--------------------------|--|--|--|
|                                       | MiTek Stock No. <sup>1</sup>                                   | Length of Hanger Seat (in) | Fastener Schedule <sup>4</sup> |      |       |      | D Fir-L                |                          | MiTek Stock No. <sup>1</sup>     | Length of Hanger Seat (in) | Min/Max          | Fastener Schedule <sup>4</sup> |      |       |           | D Fir-L                |                          |  |  |  |
|                                       |  |                            | Header                         |      | Joist |      | Down <sup>2</sup> 100% | Uplift <sup>3</sup> 115% |                                  |                            |                  | Header                         |      | Joist |           | Down <sup>2</sup> 100% | Uplift <sup>3</sup> 115% |  |  |  |
|                                       |  |                            | Qty                            | Type | Qty   | Type |                        |                          |                                  |                            |                  | Qty                            | Type | Qty   | Type      |                        |                          |  |  |  |
| Double LPI 18, LPI 20PLUS, LPI 32PLUS |  |                            |                                |      |       |      |                        |                          |                                  |                            |                  |                                |      |       |           |                        | Joist Width = 5"         |  |  |  |
| 9-1/2                                 | See current MiTek Product Catalog for specialty hanger options |                            |                                |      |       |      |                        |                          | SKH2520L/R-2 <sup>6</sup>        | 3-1/2                      | --               | 14                             | 10d  | 10    | 10d       | 5320                   | 3490                     |  |  |  |
| 11-7/8                                |  |                            |                                |      |       |      |                        |                          | SKH2520L/R-2 <sup>6</sup>        | 3-1/2                      | --               | 14                             | 10d  | 10    | 10d       | 5320                   | 3490                     |  |  |  |
| 14                                    |  |                            |                                |      |       |      |                        |                          | SKH2524L/R-2 <sup>6</sup>        | 3-1/2                      | --               | 16                             | 10d  | 10    | 10d       | 4950                   | 3485                     |  |  |  |
| 16                                    |  |                            |                                |      |       |      |                        |                          | SKH2524L/R-2 <sup>6</sup>        | 3-1/2                      | --               | 16                             | 10d  | 10    | 10d       | 4950                   | 3485                     |  |  |  |
| Double LPI 42PLUS, LPI 52PLUS         |  |                            |                                |      |       |      |                        |                          |                                  |                            |                  |                                |      |       |           |                        | Joist Width = 7"         |  |  |  |
| 9-1/2                                 | See current MiTek Product Catalog for specialty hanger options |                            |                                |      |       |      |                        |                          | HD7100_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | Min 14<br>Max 18 | 16d                            | 6 8  | 16d   | 5030      | 1845 2810              |                          |  |  |  |
| 11-7/8                                |  |                            |                                |      |       |      |                        |                          | HD7120_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | Min 16<br>Max 22 | 16d                            | 6 8  | 16d   | 5030      | 1845 2950              |                          |  |  |  |
| 14                                    |  |                            |                                |      |       |      |                        |                          | HD7140_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | Min 20<br>Max 26 | 16d                            | 8 12 | 16d   | 5030      | 2810 3055              |                          |  |  |  |
| 16                                    |  |                            |                                |      |       |      |                        |                          | HD7160_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | -- 24            | 16d 8                          | 10d  | 5585  | 2950      |                        |                          |  |  |  |
| 18                                    | MSH422-2 <sup>9</sup>  | 2                          | 8                              | 16d  | 6     | 16d  | 6665                   | --                       | HD7180_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | -- 28            | 16d 8                          | 10d  | 7670  | 2950      |                        |                          |  |  |  |
| 20                                    | MSH422-2 <sup>9</sup>  | 2                          | 8                              | 16d  | 6     | 16d  | 6665                   | --                       | HD7180_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | -- 28            | 16d 8                          | 10d  | 7670  | 2950      |                        |                          |  |  |  |
| 22                                    | MSH426-2 <sup>9</sup>  | 2                          | 8                              | 16d  | 6     | 16d  | 6665                   | --                       | HD7180_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | -- 28            | 16d 8                          | 10d  | 7670  | 2950      |                        |                          |  |  |  |
| 24                                    | MSH426-2 <sup>9</sup>  | 2                          | 8                              | 16d  | 6     | 16d  | 6665                   | --                       | HD7180_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | -- 28            | 16d 8                          | 10d  | 7670  | 2950      |                        |                          |  |  |  |
| Double LPI 56                         |  |                            |                                |      |       |      |                        |                          |                                  |                            |                  |                                |      |       |           |                        | Joist Width = 7"         |  |  |  |
| 9-1/2                                 | See current MiTek Product Catalog for specialty hanger options |                            |                                |      |       |      |                        |                          | HD7100_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | Min 14<br>Max 18 | 16d                            | 6 8  | 16d   | 5030      | 1845 2810              |                          |  |  |  |
| 11-7/8                                |  |                            |                                |      |       |      |                        |                          | HD7120_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | Min 16<br>Max 22 | 16d                            | 6 8  | 16d   | 5030 5585 | 1845 2950              |                          |  |  |  |
| 14                                    |  |                            |                                |      |       |      |                        |                          | HD7140_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | Min 20<br>Max 26 | 16d                            | 8 12 | 16d   | 5030 7670 | 2810 3055              |                          |  |  |  |
| 16                                    |  |                            |                                |      |       |      |                        |                          | HD7160_SK45L/R_BV <sup>6,8</sup> | 2-1/2                      | -- 24            | 16d 8                          | 10d  | 5585  | 2950      |                        |                          |  |  |  |

1) Shaded hangers require web stiffeners at joist ends.

2) Factored resistance is based on hanger attachment to a D Fir-L species solid sawn or LP® LVL header.

3) Factored uplift resistances have been increased 15% for short-term loads such as wind and earthquake; reduce for other load durations in accordance with the code.

4) 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 LPI® joists.

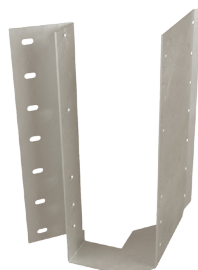
8) Hangers are special order. Consult MiTek for pricing and lead times.

9) MSH factored resistances listed in this table assume Top-Min mounting condition installed with 4-10d top nails and 4-10d face nails.

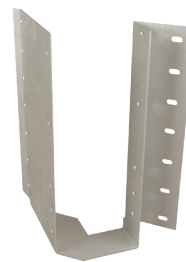
For MSH Face-Max and Top-Max mounting conditions not included in this table, refer to the current MiTek Product Catalog.



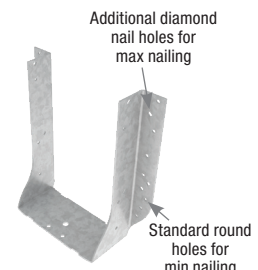
MSH



SKH\_L  
left shown



SKH\_R  
right shown



HD

## Hanger Factored Resistance (Lbs)

| Joist Height                                    | Top Mount Hangers <sup>3</sup> |                            |                                |          |       |             |                        |                          | Face Mount Hangers     |                            |         |                                |      |       |             |                        |                          |  |
|---|--------------------------------|----------------------------|--------------------------------|----------|-------|-------------|------------------------|--------------------------|------------------------|----------------------------|---------|--------------------------------|------|-------|-------------|------------------------|--------------------------|--|
|   | MiTek Stock No.                | Length of Hanger Seat (in) | Fastener Schedule <sup>4</sup> |          |       |             | D Fir-L                |                          | MiTek Stock No.        | Length of Hanger Seat (in) | Min/Max | Fastener Schedule <sup>4</sup> |      |       |             | D Fir-L                |                          |  |
|   |                                |                            | Header                         |          | Joist |             | Down <sup>1</sup> 100% | Uplift <sup>2</sup> 115% |                        |                            |         | Header                         |      | Joist |             | Down <sup>1</sup> 100% | Uplift <sup>2</sup> 115% |  |
|   |                                |                            | Qty                            | Type     | Qty   | Type        |                        |                          |                        |                            |         | Qty                            | Type | Qty   | Type        |                        |                          |  |
| 1-3/4" LP® SOLIDSTART® LVL, LSL                 |                                |                            |                                |          |       |             |                        |                          |                        |                            |         |                                |      |       |             |                        |                          |  |
| 7-1/4   | PHXU17725                      | 3-1/4                      | 8                              | 16d      | 6     | 10d x 1-1/2 | 6370                   | 1890                     | HD1770                 | 2-1/2                      | Min     | 12                             | 16d  | 4     | 10d x 1-1/2 | 3010                   | 1430                     |  |
| 9-1/4   | BPH17925                       | 2-3/8                      | 10                             | 16d      | 4     | 10d x 1-1/2 | 4890                   | 1140                     | HD17925                | 2-1/2                      | Max     | 16                             | 16d  | 8     | 10d x 1-1/2 | 5030                   | 2185                     |  |
|   | PHXU17925                      | 3-1/4                      | 8                              | 16d      | 6     | 10d x 1-1/2 | 6370                   | 1890                     | HUS179 <sup>5</sup>    | 3                          | Min     | 18                             | 16d  | 6     | 10d x 1-1/2 | 5030                   | 2185                     |  |
|   |                                |                            |                                |          |       |             |                        |                          |                        |                            | Max     | 24                             | 16d  | 10    | 10d x 1-1/2 | 5585                   | 3495                     |  |
| 9-1/2   | BPH1795                        | 2-3/8                      | 10                             | 16d      | 4     | 10d x 1-1/2 | 4890                   | 1140                     | HD17925                | 2-1/2                      | Min     | 18                             | 16d  | 6     | 10d x 1-1/2 | 5030                   | 2185                     |  |
|   | PHXU1795                       | 3-1/4                      | 8                              | 16d      | 6     | 10d x 1-1/2 | 6370                   | 1890                     | HUS179 <sup>5</sup>    | 3                          | Max     | 24                             | 16d  | 10    | 10d x 1-1/2 | 5585                   | 3495                     |  |
|   |                                |                            |                                |          |       |             |                        |                          |                        |                            | --      | 30                             | 16d  | 10    | 16d         | 9625                   | 8045                     |  |
| 11-1/4  | BPH17112                       | 2-3/8                      | 10                             | 16d      | 4     | 10d x 1-1/2 | 4890                   | 1140                     | HD17112                | 2-1/2                      | Min     | 22                             | 16d  | 6     | 10d x 1-1/2 | 5585                   | 2185                     |  |
|   | PHXU17112                      | 3-1/4                      | 8                              | 16d      | 6     | 10d x 1-1/2 | 6370                   | 1890                     | HUS179 <sup>5</sup>    | 3                          | Max     | 30                             | 16d  | 12    | 10d x 1-1/2 | 7715                   | 3495                     |  |
|   |                                |                            |                                |          |       |             |                        |                          |                        |                            | --      | 30                             | 16d  | 10    | 16d         | 9625                   | 8045                     |  |
| 11-7/8  | BPH17118                       | 2-3/8                      | 10                             | 16d      | 4     | 10d x 1-1/2 | 4890                   | 1140                     | HD17112                | 2-1/2                      | Min     | 22                             | 16d  | 6     | 10d x 1-1/2 | 5585                   | 2185                     |  |
|   | PHXU17118                      | 3-1/4                      | 8                              | 16d      | 6     | 10d x 1-1/2 | 6370                   | 1890                     | HUS179 <sup>5</sup>    | 3                          | Max     | 30                             | 16d  | 12    | 10d x 1-1/2 | 7715                   | 3495                     |  |
|   |                                |                            |                                |          |       |             |                        |                          |                        |                            | --      | 30                             | 16d  | 10    | 16d         | 9625                   | 8045                     |  |
| 14  | BPH1714                        | 2-3/8                      | 10                             | 16d      | 4     | 10d x 1-1/2 | 4890                   | 1140                     | HD1714                 | 2-1/2                      | Min     | 28                             | 16d  | 8     | 10d x 1-1/2 | 5585                   | 2775                     |  |
|   | PHXU1714                       | 3-1/4                      | 8                              | 16d      | 6     | 10d x 1-1/2 | 6370                   | 1890                     | HUS179 <sup>5</sup>    | 3                          | Max     | 36                             | 16d  | 14    | 10d x 1-1/2 | 7715                   | 3495                     |  |
|   |                                |                            |                                |          |       |             |                        |                          |                        |                            | --      | 30                             | 16d  | 10    | 16d         | 9625                   | 8045                     |  |
| 16  | BPH1716                        | 2-3/8                      | 10                             | 16d      | 4     | 10d x 1-1/2 | 4890                   | 1140                     | HD1714                 | 2-1/2                      | Min     | 28                             | 16d  | 8     | 10d x 1-1/2 | 5585                   | 2775                     |  |
|   |                                |                            |                                |          |       |             |                        |                          |                        |                            | Max     | 36                             | 16d  | 14    | 10d x 1-1/2 | 7715                   | 3495                     |  |
| 2 Ply 1-3/4" or 3-1/2" LP® SOLIDSTART® LVL, LSL |                                |                            |                                |          |       |             |                        |                          |                        |                            |         |                                |      |       |             |                        |                          |  |
| 7-1/4   | PHXU35725                      | 3-1/4                      | 8                              | 16d      | 6     | 10d         | 9575                   | 2355                     | THD48                  | 3                          | --      | 28                             | 16d  | 16    | 10d         | 7545                   | 4480                     |  |
| 9-1/4   | HBPH35925                      | 3-1/2                      | 22                             | 16d      | 10    | 16d         | 11005                  | 5530                     | THD410                 | 3                          | --      | 38                             | 16d  | 20    | 10d         | 10625                  | 7715                     |  |
|   | HLBH35925                      | 6                          | 15                             | NA16D-RS | 6     | 16d         | 15295                  | 2530                     | THDH410 <sup>5</sup>   | 4                          | --      | 46                             | 16d  | 12    | 16d         | 12470                  | 7575                     |  |
| 9-1/2   | HBPH3595                       | 3-1/2                      | 22                             | 16d      | 10    | 16d         | 11005                  | 5530                     | THD410                 | 3                          | --      | 38                             | 16d  | 20    | 10d         | 10625                  | 7715                     |  |
|   | HLBH3595                       | 6                          | 15                             | NA16D-RS | 6     | 16d         | 15295                  | 2530                     | THDH410 <sup>5</sup>   | 4                          | --      | 46                             | 16d  | 12    | 16d         | 12470                  | 7575                     |  |
| 11-1/4  | HBPH35112                      | 3-1/2                      | 22                             | 16d      | 10    | 16d         | 11005                  | 5530                     | THD410                 | 3                          | --      | 38                             | 16d  | 20    | 10d         | 10625                  | 7715                     |  |
|   | HLBH35112                      | 6                          | 15                             | NA16D-RS | 6     | 16d         | 15295                  | 2530                     | THDH412 <sup>5</sup>   | 4                          | --      | 56                             | 16d  | 14    | 16d         | 14330                  | 9820                     |  |
| 11-7/8  | HBPH35118                      | 3-1/2                      | 22                             | 16d      | 10    | 16d         | 11005                  | 5530                     | THD410                 | 3                          | --      | 38                             | 16d  | 20    | 10d         | 10625                  | 7715                     |  |
|   | HLBH35118                      | 6                          | 15                             | NA16D-RS | 6     | 16d         | 15295                  | 2530                     | THDH412 <sup>5</sup>   | 4                          | --      | 56                             | 16d  | 14    | 16d         | 14330                  | 9820                     |  |
| 14  | HBPH3514                       | 3-1/2                      | 22                             | 16d      | 10    | 16d         | 11005                  | 5530                     | THD410                 | 3                          | --      | 38                             | 16d  | 20    | 10d         | 10625                  | 7715                     |  |
|   | HLBH3514                       | 6                          | 15                             | NA16D-RS | 6     | 16d         | 15295                  | 2530                     | THDH414 <sup>5</sup>   | 4                          | --      | 66                             | 16d  | 16    | 16d         | 17720                  | 10790                    |  |
| 16  | HBPH3516                       | 3-1/2                      | 22                             | 16d      | 10    | 16d         | 11005                  | 5530                     | THD412                 | 3                          | --      | 48                             | 16d  | 20    | 10d         | 10625                  | 7715                     |  |
|   | HLBH3516                       | 6                          | 15                             | NA16D-RS | 6     | 16d         | 15295                  | 2530                     | THDH414 <sup>5</sup>   | 4                          | --      | 66                             | 16d  | 16    | 16d         | 17720                  | 10790                    |  |
| 18  | HBPH3518                       | 3-1/2                      | 22                             | 16d      | 10    | 16d         | 11005                  | 5530                     | THD412                 | 3                          | --      | 48                             | 16d  | 20    | 10d         | 10625                  | 7715                     |  |
|   | HLBH3518                       | 6                          | 15                             | NA16D-RS | 6     | 16d         | 15295                  | 2530                     | THDH414 <sup>5</sup>   | 4                          | --      | 66                             | 16d  | 16    | 16d         | 17720                  | 10790                    |  |
| 20  | HBPH3520                       | 3-1/2                      | 22                             | 16d      | 10    | 16d         | 11005                  | 5530                     | THD414 <sup>5</sup>    | 3                          | --      | 58                             | 16d  | 20    | 10d         | 10625                  | 7715                     |  |
|   | HLBH3520                       | 6                          | 15                             | NA16D-RS | 6     | 16d         | 15295                  | 2530                     | THDH414 <sup>5,6</sup> | 4                          | --      | 66                             | 16d  | 16    | 16d         | 17720                  | 10790                    |  |
| 22  | PHXU3522                       | 3-1/4                      | 8                              | 16d      | 6     | 10d         | 9575                   | 2355                     | HD418                  | 2-1/2                      | --      | 28                             | 16d  | 8     | 10d         | 7540                   | 3930                     |  |
|   | HBPH3522                       | 3-1/2                      | 22                             | 16d      | 10    | 16d         | 11005                  | 5530                     | THDH414 <sup>5,6</sup> | 4                          | --      | 66                             | 16d  | 16    | 16d         | 17720                  | 10790                    |  |
| 24  | PHXU3524                       | 3-1/4                      | 8                              | 16d      | 6     | 10d         | 9575                   | 2355                     | HD418                  | 2-1/2                      | --      | 28                             | 16d  | 8     | 10d         | 7540                   | 3930                     |  |
|   | HBPH3522                       | 3-1/2                      | 22                             | 16d      | 10    | 16d         | 11005                  | 5530                     | THDH414 <sup>5,6</sup> | 4                          | --      | 66                             | 16d  | 16    | 16d         | 17720                  | 10790                    |  |



BPH



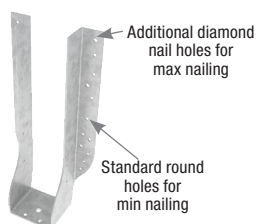
PHXU



HBPH



HLBH



HD



HUS



THD



THDH

- Factored resistance is based on hanger attachment to a D Fir-L species LP® LVL header.
- Factored uplift resistances have been increased 15% for short-term loads such as wind and earthquake; reduce for other load durations in accordance with the code.
- 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.
- 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, NA16D-RS are 10d (0.148" dia.) x 3-1/2" long ring shank nails. 16d sinkers are 0.148" dia. x 3-1/4" long and may be used where 10d commons are specified.
- Joist nails need to be toe nailed at a 30° to 45° angle to achieve listed loads for THDH and HUS models.
- Supplemental lateral support connection recommended when hanger height is less than 60% of joist height.



## Hanger Factored Resistance (Lbs)

| Joist Height                                   | Top Mount Hangers <sup>3</sup> |                            |                                |          |       |      |                        |                          | Face Mount Hangers           |                            |         |                                |      |       |      |                        |                          |
|--|--------------------------------|----------------------------|--------------------------------|----------|-------|------|------------------------|--------------------------|------------------------------|----------------------------|---------|--------------------------------|------|-------|------|------------------------|--------------------------|
|  | MiTek Stock No. <sup>6</sup>   | Length of Hanger Seat (in) | Fastener Schedule <sup>4</sup> |          |       |      | D Fir-L                |                          | MiTek Stock No. <sup>6</sup> | Length of Hanger Seat (in) | Min/Max | Fastener Schedule <sup>4</sup> |      |       |      | D Fir-L                |                          |
|  |                                |                            | Header                         |          | Joist |      | Down <sup>1</sup> 100% | Uplift <sup>2</sup> 115% |                              |                            |         | Header                         |      | Joist |      | Down <sup>1</sup> 100% | Uplift <sup>2</sup> 115% |
|  |                                |                            | Qty                            | Type     | Qty   | Type |                        |                          |                              |                            |         | Qty                            | Type | Qty   | Type |                        |                          |
| 3 Ply 1-3/4" LP® SOLIDSTART® LVL, LSL          |                                |                            |                                |          |       |      |                        |                          |                              |                            |         |                                |      |       |      |                        |                          |
| 7-1/4  | BPH55725                       | 2-1/4                      | 10                             | 16d      | 6     | 10d  | 5300                   | 2935                     | --                           | --                         | --      | --                             | --   | --    | --   | --                     | --                       |
| 9-1/4  | HBPH55925                      | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD610                       | 3                          | --      | 38                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH55925                      | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH610 <sup>5</sup>         | 4                          | --      | 46                             | 16d  | 16    | 16d  | 12470                  | 10030                    |
| 9-1/2  | HBPH5595                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD610                       | 3                          | --      | 38                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH5595                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH610 <sup>5</sup>         | 4                          | --      | 46                             | 16d  | 16    | 16d  | 12470                  | 10030                    |
| 11-1/4   | HBPH55112                      | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD610                       | 3                          | --      | 38                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH55112                      | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH612 <sup>5</sup>         | 4                          | --      | 56                             | 16d  | 20    | 16d  | 14725                  | 10030                    |
| 11-7/8   | HBPH55118                      | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD610                       | 3                          | --      | 38                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH55118                      | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH612 <sup>5</sup>         | 4                          | --      | 56                             | 16d  | 20    | 16d  | 14725                  | 10030                    |
| 14   | HBPH5514                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD610                       | 3                          | --      | 38                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH5514                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH614 <sup>5</sup>         | 4                          | --      | 66                             | 16d  | 22    | 16d  | 17720                  | 10185                    |
| 16   | HBPH5516                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD612                       | 3                          | --      | 48                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH5516                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH614 <sup>5</sup>         | 4                          | --      | 66                             | 16d  | 22    | 16d  | 17720                  | 10185                    |
| 18   | HBPH5518                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD612                       | 3                          | --      | 48                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH5518                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH614 <sup>5</sup>         | 4                          | --      | 66                             | 16d  | 22    | 16d  | 17720                  | 10185                    |
| 20   | HBPH5520                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD614 <sup>8</sup>          | 3                          | --      | 58                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH5520                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH614 <sup>5</sup>         | 4                          | --      | 66                             | 16d  | 22    | 16d  | 17720                  | 10185                    |
| 22   | XHLBH5522 <sup>7</sup>         | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THD614 <sup>8</sup>          | 3                          | --      | 58                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | --                             | --                         | --                             | --       | --    | --   | --                     | --                       | THDH614 <sup>5</sup>         | 4                          | --      | 66                             | 16d  | 22    | 16d  | 17720                  | 10185                    |
| 24   | XHLBH5524 <sup>7</sup>         | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THD614 <sup>8</sup>          | 3                          | --      | 58                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | --                             | --                         | --                             | --       | --    | --   | --                     | --                       | THDH614 <sup>5</sup>         | 4                          | --      | 66                             | 16d  | 22    | 16d  | 17720                  | 10185                    |
| 4 Ply 1-3/4" or 2 Ply LP® SOLIDSTART® LVL, LSL |                                |                            |                                |          |       |      |                        |                          |                              |                            |         |                                |      |       |      |                        |                          |
| 9-1/4  | HBPH71925                      | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD7210                      | 3                          | --      | 38                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH71925                      | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH7210 <sup>5</sup>        | 4                          | --      | 46                             | 16d  | 12    | 16d  | 12430                  | 7575                     |
| 9-1/2  | HBPH7195                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD7210                      | 3                          | --      | 38                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH7195                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH7210 <sup>5</sup>        | 4                          | --      | 46                             | 16d  | 12    | 16d  | 12430                  | 7575                     |
| 11-1/4   | HBPH71112                      | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD7210                      | 3                          | --      | 38                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH71112                      | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH7212 <sup>5</sup>        | 4                          | --      | 56                             | 16d  | 14    | 16d  | 12430                  | 9820                     |
| 11-7/8   | HBPH71118                      | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD7210                      | 3                          | --      | 38                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH71118                      | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH7212 <sup>5</sup>        | 4                          | --      | 56                             | 16d  | 14    | 16d  | 12430                  | 9820                     |
| 14   | HBPH7114                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | THD7210                      | 3                          | --      | 38                             | 16d  | 20    | 10d  | 11705                  | 7715                     |
|  | HLBH7114                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH7214 <sup>5</sup>        | 4                          | --      | 66                             | 16d  | 16    | 16d  | 17720                  | 10185                    |
| 16   | HBPH7116                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | HD7120                       | 2-1/2                      | Min Max | 16 22                          | 16d  | 6 8   | 16d  | 5030 5585              | 2460 3930                |
|  | HLBH7116                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH7214 <sup>5</sup>        | 4                          | --      | 66                             | 16d  | 16    | 16d  | 17720                  | 10185                    |
| 18   | HBPH7118                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | HD7140                       | 2-1/2                      | Min Max | 20 26                          | 16d  | 8 12  | 16d  | 5030 7670              | 3745 4070                |
|  | HLBH7118                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH7214 <sup>5</sup>        | 4                          | --      | 66                             | 16d  | 16    | 16d  | 17720                  | 10185                    |
| 20   | HBPH7120                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | HD7140                       | 2-1/2                      | Min Max | 20 26                          | 16d  | 8 12  | 16d  | 5030 7670              | 3745 4070                |
|  | HLBH7120                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH7214 <sup>5</sup>        | 4                          | --      | 66                             | 16d  | 16    | 16d  | 17720                  | 10185                    |
| 22   | HBPH7122                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | HD7180                       | 2-1/2                      |         | 28                             | 16d  | 8     | 10d  | 7670                   | 3930                     |
|  | HLBH7122                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH7214 <sup>5</sup>        | 4                          | --      | 66                             | 16d  | 16    | 16d  | 17720                  | 10185                    |
| 24   | HBPH7124                       | 3-1/2                      | 22                             | 16d      | 10    | 16d  | 10405                  | 5620                     | HD7180                       | 2-1/2                      |         | 28                             | 16d  | 8     | 10d  | 7670                   | 3930                     |
|  | HLBH7124                       | 6                          | 15                             | NA16D-RS | 6     | 16d  | 15295                  | 2860                     | THDH7214 <sup>5</sup>        | 4                          | --      | 66                             | 16d  | 16    | 16d  | 17720                  | 10185                    |

1) Factored resistance is based on hanger attachment to a D Fir-L species LP® LVL header.

2) Factored uplift resistances have been increased 15% for short-term loads such as wind and earthquake; reduce for other load durations in accordance with the code.

3) 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.

4) 10d nails are 0.148" dia. x 3" long, and 16d nails are 0.162" dia. x 3-1/2" long, NA16D-RS are 10d (0.148" dia.) x 3-1/2" long ring shank nails.

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 to achieve listed loads for THDH models.

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

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

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



BPH



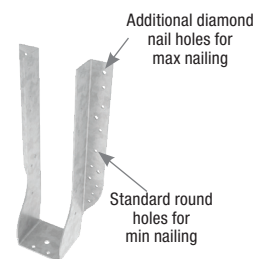
HBPH



HLBH



THD



HD



THDH

# Field Slope/Skew Hangers



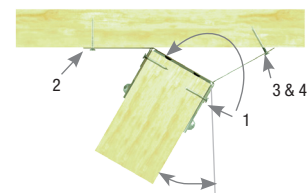
The LSSH series connects rafters to ridge beams in vaulted roof structures. This series is field adjustable to meet a variety of skew and/or slope applications. Slopes and skews 0° to 45°.

## Installation:

- Use all specified fasteners.

## Steps:

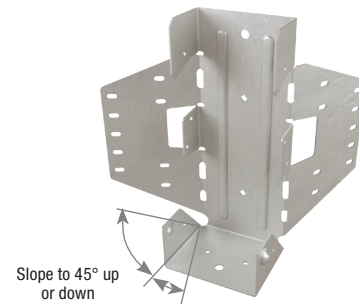
1. Position LSSH connector against plumb-cut end of joist. Fasten joist side flanges on both sides with 10d (0.148") x 1-1/2" HDG nails. Bend seat up to fit against joist bottom and drive (1) 10d (0.148") x 1-1/2" HDG nail through bottom seat into joist bottom flange. Drive (2) 10d (0.148") x 1-1/2" HDG nails at downward angle through dimpled nailing guides.
  2. Lean connector and rafter end against ridge beam at desired position. Install 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 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.



Skew to 45° maximum



Typical LSSH installation



Slope to 45° up or down

LSSH

## Hanger Factored Resistance (Lbs)

| Joist Height                   | MiTek Stock No. <sup>1</sup> | Length of Hanger Seat (in) | Installation Type              | Fastener Schedule <sup>4</sup> |         |       |                 | D Fir-L                |                          |
|--------------------------------|------------------------------|----------------------------|--------------------------------|--------------------------------|---------|-------|-----------------|------------------------|--------------------------|
|                                |                              |                            |                                | Header                         |         | Joist |                 | Down <sup>2</sup> 100% | Uplift <sup>3</sup> 115% |
|                                |                              |                            |                                | Qty                            | Type    | Qty   | Type            |                        |                          |
| LPI 18, LPI 20PLUS, LPI 32PLUS |                              |                            |                                | Joist Width = 2-1/2"           |         |       |                 |                        |                          |
| All                            | LSSH25-TZ                    | 3                          | Sloped Only                    | 18                             | 16d HDG | 12    | 10d x 1-1/2 HDG | 3735                   | 1705                     |
|                                |                              |                            | Skewed Only or Sloped & Skewed | 14                             | 16d HDG | 12    | 10d x 1-1/2 HDG | 2245                   | 1705                     |
| LPI 42PLUS, LPI 52PLUS, LPI 56 |                              |                            |                                | Joist Width = 3-1/2"           |         |       |                 |                        |                          |
| All                            | LSSH35-TZ                    | 3                          | Sloped Only                    | 18                             | 16d HDG | 12    | 10d x 1-1/2 HDG | 4505                   | 2315                     |
|                                |                              |                            | Skewed Only or Sloped & Skewed | 14                             | 16d HDG | 12    | 10d x 1-1/2 HDG | 2670                   | 2315                     |

1) Shaded hangers require web stiffeners at joist ends.

2) Factored resistance is based on hanger attachment to a D Fir-L species solid sawn or LP<sup>®</sup> LVL header.

3) Factored uplift resistances have been increased 15% for short-term loads such as wind and earthquake; reduce for other load durations in accordance with the code.

4) 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.

5) Hangers utilizing 16d nails are not compatible with LPI 56 joists.

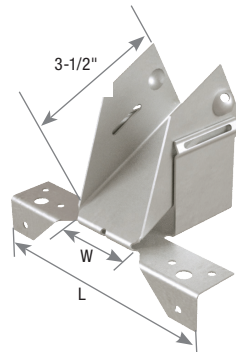
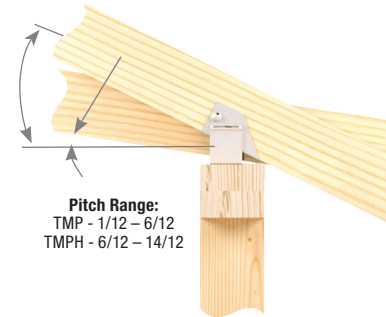
6) Supplemental lateral support connection recommended when hanger height is less than 60% of joist height.

# Variable Pitch Connectors

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 specified 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

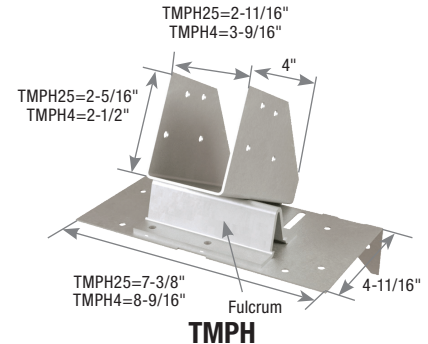


Typical TMPH installation

## TMP Hanger Factored Resistance (Lbs)

| Joist Height                   | MiTek Stock No. | Fastener Schedule <sup>4</sup> |      |       |             | D Fir-L                |                          |
|--------------------------------|-----------------|--------------------------------|------|-------|-------------|------------------------|--------------------------|
|                                |                 | Header                         |      | Joist |             | Down <sup>2</sup> 100% | Uplift <sup>3</sup> 115% |
|                                |                 | Qty                            | Type | Qty   | Type        |                        |                          |
| LPI 18, LPI 20PLUS, LPI 32PLUS |                 | Joist Width = 2-1/2"           |      |       |             |                        |                          |
| All                            | TMP25           | 6                              | 10d  | 4     | 10d x 1-1/2 | 2770                   | 400                      |
| LPI 42PLUS, LPI 52PLUS, LPI 56 |                 | Joist Width = 3-1/2"           |      |       |             |                        |                          |
| All                            | TMP4            | 6                              | 10d  | 4     | 10d x 1-1/2 | 2770                   | 400                      |

- 1) Web stiffeners are required for all Wood I-Joist installations.
- 2) Factored resistance is based on hanger attachment to a DF species solid sawn or LP® LVL header.
- 3) Factored uplift resistances have been increased 15% for short-term loads such as wind and earthquake; reduce for other load durations in accordance with the code.
- 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

## TMPH Hanger Factored Resistance (Lbs)

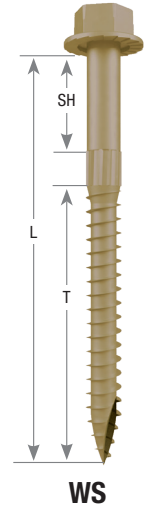
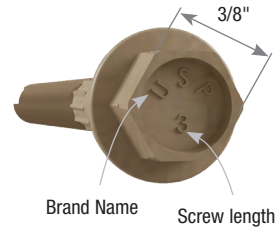
| Joist Height                   | MiTek Stock No. | Fastener Schedule <sup>4</sup> |      |        |             | D Fir-L                         |      |      |       |       |                          |
|--------------------------------|-----------------|--------------------------------|------|--------|-------------|---------------------------------|------|------|-------|-------|--------------------------|
|                                |                 | Plate                          |      | Rafter |             | According to Pitch <sup>2</sup> |      |      |       |       | Uplift <sup>3</sup> 115% |
|                                |                 | Qty                            | Type | Qty    | Type        | 6/12                            | 7/12 | 8/12 | 10/12 | 12/12 |                          |
| LPI 18, LPI 20PLUS, LPI 32PLUS |                 | Joist Width = 2-1/2"           |      |        |             |                                 |      |      |       |       |                          |
| All                            | TMPH25          | 10                             | 10d  | 8      | 10d x 1-1/2 | 5220                            | 5385 | 5540 | 4470  | 4120  | 375                      |
| LPI 42PLUS, LPI 52PLUS, LPI 56 |                 | Joist Width = 3-1/2"           |      |        |             |                                 |      |      |       |       |                          |
| All                            | TMPH4           | 10                             | 10d  | 8      | 10d x 1-1/2 | 5220                            | 5385 | 5540 | 4470  | 4120  | 375                      |

- 1) Web stiffeners are required for all Wood I-Joist installations.
- 2) Factored resistance is based on hanger attachment to a D Fir-L species solid sawn or LP® LVL header.
- 3) Factored uplift resistances have been increased 15% for short-term loads such as wind and earthquake; reduce for other load durations in accordance with the code.
- 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.

## WS Interior Structural Wood Screw Application - Joining 2, 3, or 4 Ply LP® LVL Members

### Installation:

- Screws are self-drilling.
- Install using a low speed clutch drill with 3/8" hex head driver. The washer head should be flat to the surface and the serrations will oppose turning and release the clutch. Do not over-tighten the screws.
- For 2 ply members, wood screws shall be installed with the screw heads in the loaded ply.
- For 3 or 4 ply members, wood screws shall be installed in both outer plies.
- Designer shall specify all wood screw locations.
- Increase edge and end distances if wood splitting occurs.
- Stagger all screws installed into the opposite face.
- A minimum of 2 rows of screws shall be used for all members 5-1/2" and deeper.



WS

### Recommended Row Guidelines

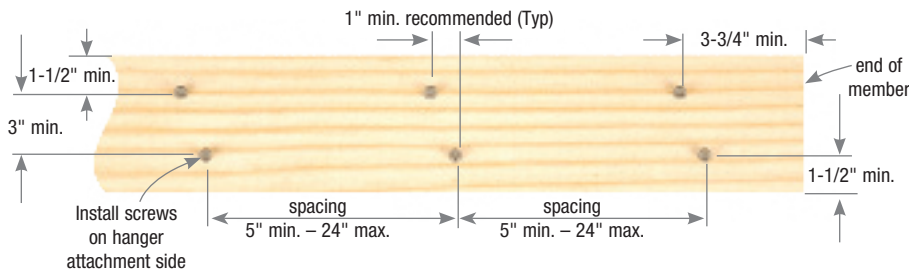


Figure 1



WS35 installed  
in (2) 1-3/4" Ply

Figure 2



WS35 installed  
in (3) 1-3/4" Ply

Figure 3



WS6 installed  
in (4) 1-3/4" Ply

Figure 4



WS35 installed  
in (1) 1-3/4",  
(1) 3-1/2" Ply

Figure 5



WS35 installed  
in (2) 1-3/4",  
(1) 3-1/2" Ply

Figure 6



WS6 installed  
in (2) 3-1/2" Ply

| Size (in) | MiTek<br>Stock No. | Dimensions (in) |       |       | Multiple<br>Members<br>Installation<br>Figure <sup>3,7,9,10</sup> | Maximum Factored Uniform Loads<br>that can be applied to either outside member <sup>1,2,3,4,5,6</sup> |       |        |        |          |       |        |       |          |       |        |       |
|-----------|--------------------|-----------------|-------|-------|---|---|-------|--------|--------|----------|-------|--------|-------|----------|-------|--------|-------|
|           |                    | L               | SH    | T     |   | Wood Screw Spacing  |       |        |        |          |       |        |       |          |       |        |       |
|           |                    |                 |       |       |   | 12" O.C.  |       |        |        | 18" O.C. |       |        |       | 24" O.C. |       |        |       |
|           |                    |                 |       |       |   | 2 Rows  |       | 3 Rows |        | 2 Rows   |       | 3 Rows |       | 2 Rows   |       | 3 Rows |       |
|           |                    |                 |       |       |   | Lbs/ft  | kN/m  | Lbs/ft | kN/m   | Lbs/ft   | kN/m  | Lbs/ft | kN/m  | Lbs/ft   | kN/m  | Lbs/ft | kN/m  |
|           |                    |                 |       |       |   | 1/4 x 3-1/2   | WS35  | 3-1/2  | 3/4    | 2-1/2    | 1     | 1845   | 26.93 | 2765     | 40.35 | 1230   | 17.95 |
| 2         | 1385               | 20.21           | 2075  | 30.28 | 920   |   |       |        |        |          | 13.43 | 1385   | 20.21 | 690      | 10.07 | 1035   | 15.11 |
| 4         | 1385               | 20.21           | 2075  | 30.28 | 920   |   |       |        |        |          | 13.43 | 1385   | 20.21 | 690      | 10.07 | 1035   | 15.11 |
| 5         | 1230               | 17.95           | 1845  | 26.93 | 820   |   |       |        |        |          | 11.97 | 1230   | 17.95 | 615      | 8.98  | 920    | 13.43 |
| 1/4 x 6   | WS6 <sup>8</sup>   | 6               | 1-3/4 | 4     | 3   | 1560  | 22.77 | 2340   | 34.15  | 1040     | 15.18 | 1560   | 22.77 | 780      | 11.38 | 1170   | 17.08 |
|           |                    |                 |       |       | 6   | 5470  | 79.83 | 8210   | 119.82 | 3650     | 53.27 | 5470   | 79.83 | 2735     | 39.92 | 4105   | 59.91 |

1) Factored Resistance values determined in accordance with CSA 086:19 Clause 12.11.

2) Loads are based on SCL with an equivalent S.G. = 0.50 and a side member thickness of 1-3/4", except for Figure 6 installation with a side member thickness of 3-1/2".

3) Load values depicted assume that the uniform load is applied to the most narrow outside ply only.

4) Except for Figure 6 installation, load values neglect any contribution of screws installed to opposite side, even if they extend significantly into the loaded ply.

5) Loads are for normal (100%) duration of load, and may be increased in accordance with the code.

6) Uniform loads in table represent the capacity of the fasteners. The capacity of the LVL or PSL beam may be less and should be checked by a qualified designer or with the manufacturer's literature.

7) A qualified designer shall ensure the adequacy of a 7" wide beam to resist the applied load on one edge; otherwise, the loads shall be uniformly distributed across the width or applied equally on both sides.

8) Wood screws longer than 3-1/2" are not recommended for use with Parallam® PSL or TimberStrand® LSL.

9) For Figure 1 and 4: The head of the wood screw is on the same side as the loaded ply.

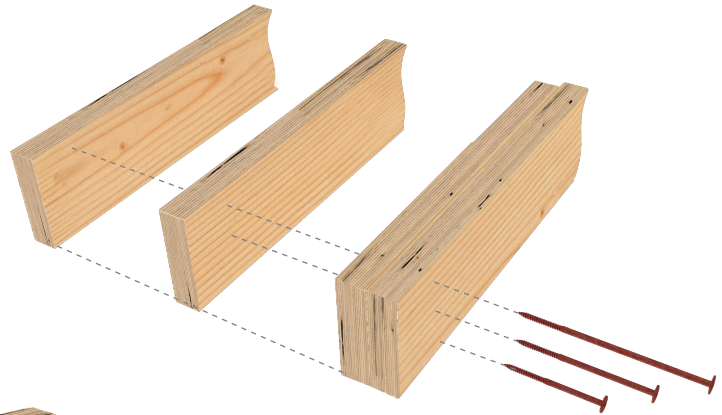
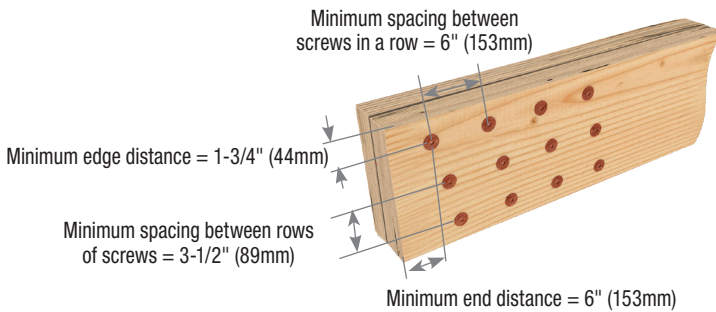
10) For Figures 2, 3, 5, and 6: Stagger the screws on opposite face by half minimum spacing requirements.



## MIFLK Exterior Structural Wood Screw Application – Joining 2, 3, or 4 Ply Microllam® LVL members

The MIFLK FlatLOK structural wood screw has been designed for use in joining multiple-ply structural wood beams. Using an impact driver, standard corded or cordless 1/2" low speed /high torque drill, install screws into the side of the outermost ply. As the thread fully engages the final ply, allow the underside of the washer head to pull the plies firmly together.

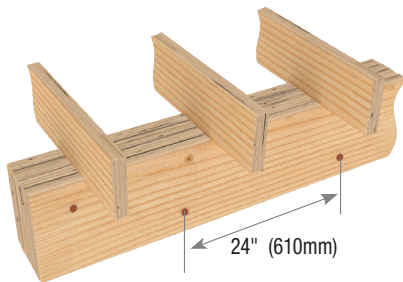
### Minimum Spacing Requirements:



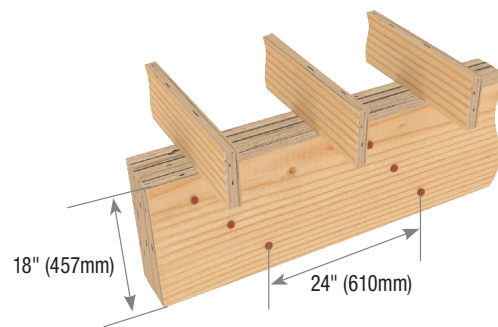
MIFLK

### Top Loaded Beams

Where floor joists rest on all plies of the beam measuring less than 18" (457mm), MIFLK screws should be installed in two staggered rows at 24" (610mm) O.C. spacing.



For beam depths of 18" or more, this pattern should be increased to three staggered rows of MIFLK screws every 24" on center.



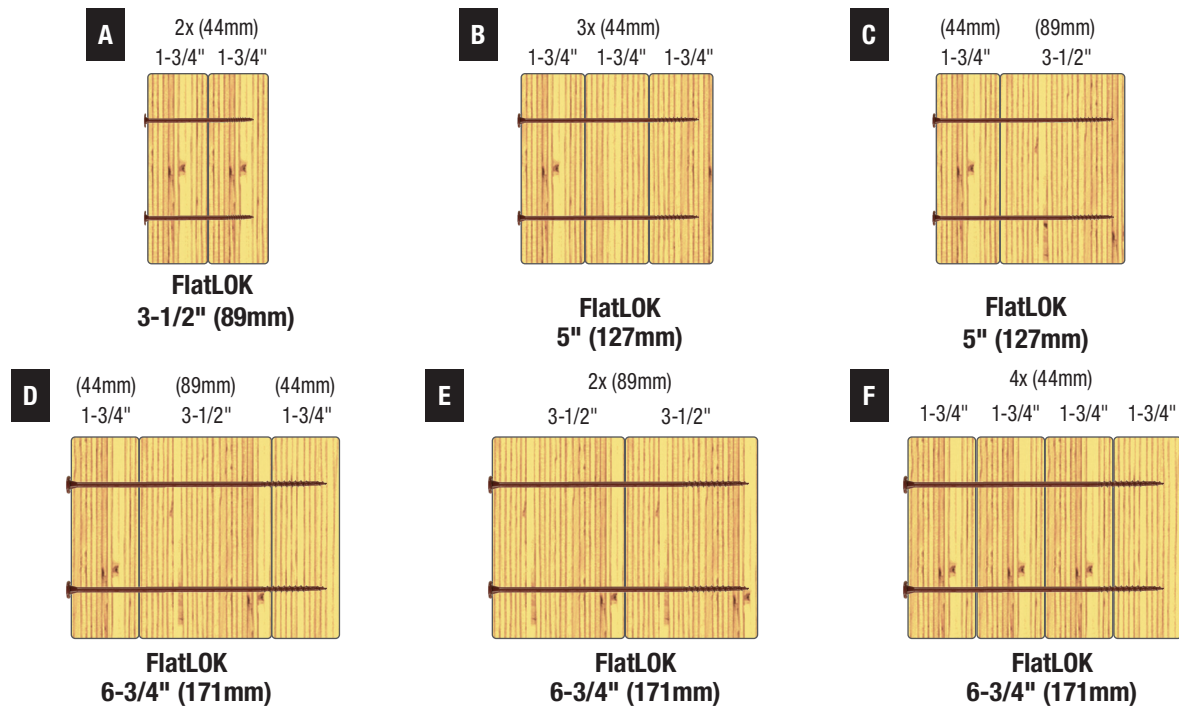
### General Guidelines:

- Beams wider than 7" require special consideration by the design professional. The values on the next page 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.
- To avoid damaging the beam, fastener heads must not be countersunk.
- The MIFLK312, MIFLK005, and MIFLK634 are not designed for use with dimensional lumber.
- A qualified designer or engineer should always be consulted for critical assemblies and fastening requirements.



## MIFLK Exterior Structural Wood Screw Application – Joining 2, 3, or 4 Ply LP® LVL members

### Fastener Size Selection by Assembly Type (2 rows shown)



### Side Loaded Beams

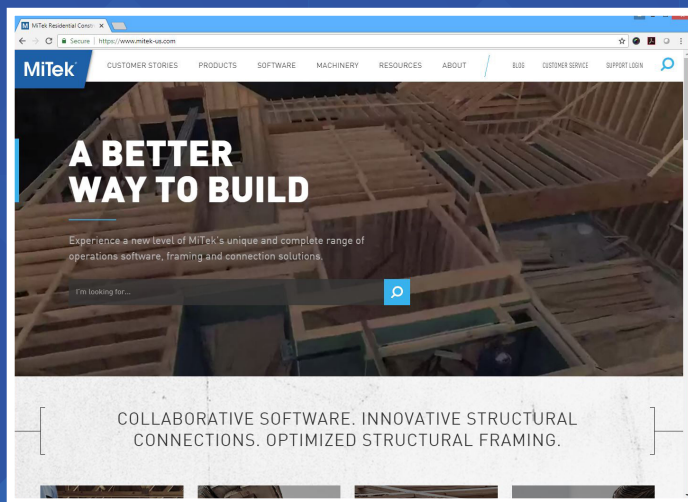
Where floor joists are joined to the side of the beam (typically using a joist hanger), this load chart must be used to establish the proper pattern based on the design load as determined by the engineer and noted on the plans.

| Length         | Product Code | Head Marking | No. of Screws Vertical Column | Spacing between screws in a row |     | Factored Uniform Load Capacities by Assembly Type (lb/ft) <sup>1,2,3,4,5</sup> |      |      |      |      |      |
|----------------|--------------|--------------|-------------------------------|---------------------------------|-----|--|------|------|------|------|------|
|                |              |              |                               | in                              | mm  | EWP Wood Specific Gravity $G \geq 0.50$  |      |      |      |      |      |
|                |              |              |                               |                                 |     | A  | B    | C    | D    | E    | F    |
| 3-1/2" (89mm)  | MIFLK312     | F3.5FL       | 2                             | 24                              | 610 | 770  |      |      |      |      |      |
|                |              |              |                               | 19.2                            | 488 | 960  | --   | --   | --   | --   | --   |
|                |              |              |                               | 16                              | 406 | 1160   |      |      |      |      |      |
|                |              |              | 3                             | 24                              | 610 | 1160   |      |      |      |      |      |
|                |              |              |                               | 19.2                            | 488 | 1440   | --   | --   | --   | --   | --   |
|                |              |              |                               | 16                              | 406 | 1730   |      |      |      |      |      |
| 5" (127mm)     | MIFLK005     | F5.0FL       | 2                             | 24                              | 610 |  | 600  | 780  |      |      |      |
|                |              |              |                               | 19.2                            | 488 | --   | 750  | 980  | --   | --   | --   |
|                |              |              |                               | 16                              | 406 |  | 900  | 1170 |      |      |      |
|                |              |              | 3                             | 24                              | 610 |  | 900  | 1170 |      |      |      |
|                |              |              |                               | 19.2                            | 488 | --   | 1130 | 1460 | --   | --   | --   |
|                |              |              |                               | 16                              | 406 |  | 1350 | 1760 |      |      |      |
| 6-3/4" (171mm) | MIFLK634     | F6.75FL      | 2                             | 24                              | 610 |  |      |      | 530  | 1220 | 530  |
|                |              |              |                               | 19.2                            | 488 | --   | --   | --   | 670  | 1530 | 670  |
|                |              |              |                               | 16                              | 406 |  |      |      | 800  | 1830 | 800  |
|                |              |              | 3                             | 24                              | 610 |  |      |      | 800  | 1830 | 800  |
|                |              |              |                               | 19.2                            | 488 | --   | --   | --   | 1000 | 2290 | 1000 |
|                |              |              |                               | 16                              | 406 |  |      |      | 1200 | 2750 | 1200 |

- 1) The factored uniform loads are derived from tested fastener properties as reported in Technical Evaluation Report TER 1501-08. This report can be referenced at FastenMaster.com.
- 2) A specific gravity of 0.5 was used for all engineered wood (EW) calculations.
- 3) The uniform loads relate only to the capacity of the fastener to transfer shear loads between plies. The capacity of the EWP beam may be less and should be checked against the manufacturer's literature.
- 4) Values listed reflect 100% stress level ( $K_p=1.0$ ). The designer may apply adjustment factors to increase or decrease the loads per CSA 086:19.
- 5) The values assume that the fasteners are loaded on either the point side or head side.

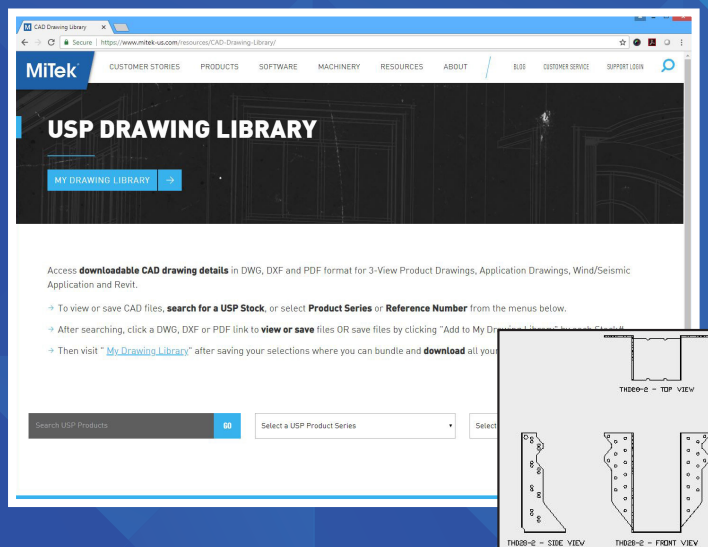
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