



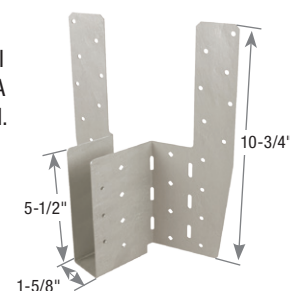
# MSHA29L/R Adjustable Strap Skewed Hangers

The MSHA29L/R hanger offers the most flexible field solution for truss-to-truss connections accommodating a range of skews and challenging web-chord geometry often found in truss framing. Eliminating the need for special orders, the MSHA29L/R hanger provides economical solutions for 1-ply roof trusses and 1-ply floor trusses skewed between 22-1/2° to 75°. MSHA hangers can be installed in top-min, top-max, face-max or combination conditions as required.

**Materials:** 16 gauge  
**Finish:** G90 galvanizing

### Installation:

- Install the required number of fasteners according to the load table.
- Install fasteners into the carrying member at the locations described below based on the proper "Mounting Condition".
- Product is factory skewed 22-1/2° and may be field skewed from 22-1/2° to 75°. See Installation Sequence on next page for skews greater than 22-1/2°.
- Face-Max and Combination mounting conditions require a minimum chord or header height of 7-1/4". Top-Max and Top-Min mounting conditions require a minimum chord or header height of 5-1/2".



**MSHA29L**  
Left Shown

### CONNECTION TO CARRYING MEMBER

#### Mounting Conditions:

#### Face-Max

Fill the lowest four holes nearest each side of the bucket. For a 22-1/2° skew, fill the four diamond holes on one side and 4 round holes on the other. For skews greater than 22-1/2°, fill the 4 round holes on each side.

Add an equal amount of nails in each side of the hanger in any of the remaining nail holes to meet the minimum fastener requirements listed in the table on the next page.

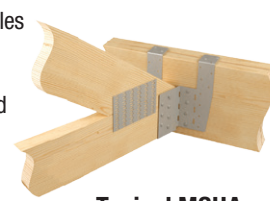


**Typical MSHA**  
face-max installation

#### Top-Max

Field bend the strap over the supporting member. The bent strap must extend a minimum of 2" over the carrying member to allow for the four top flange nail holes to be filled.

Fill the lowest four nail holes nearest each side of the bucket. For a 22-1/2° skew, fill the four diamond holes on one side and 4 round holes on the other. For skews greater than 22-1/2°, fill the 4 round holes on each side.

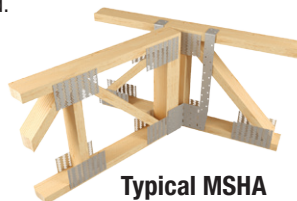


**Typical MSHA**  
top-max installation

#### Top-Min

Field bend the strap over the supporting member. The bent strap must extend a minimum of 2" over the carrying member to allow for the four top flange nail holes to be filled.

Fill the four nail holes (two each strap) nearest the top of the carrying member.



**Typical MSHA**  
top-min installation

#### Combination (Face-Max/Top-Max)

Follow the Face-Max installation for one side of the connector. Follow the Top-Max installation for the opposite side of the connector.

The Face-Max factored resistance apply to this type of installation.



**Typical MSHA**  
combination installation

### CONNECTION TO CARRIED MEMBER

#### Mounting Conditions:

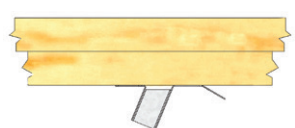
For the 22-1/2° skew installation, all round holes must be filled.  
For skews greater than 22-1/2°, only the diamond holes must be filled.

Use in conjunction with MiTek's current Canadian Product Catalogue for detailed hanger information.

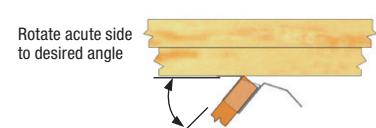


# MSHA29L/R Adjustable Strap Skewed Hangers

## Installation Sequence for Skews > 22-1/2°

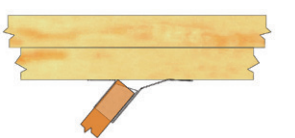


**Step 1:** Install acute side top and/or face header fasteners.

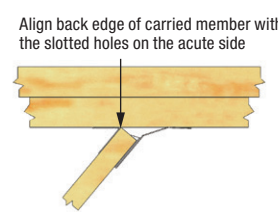


Rotate acute side to desired angle

**Step 2:** Utilizing a piece of scrap fastened to the hanger on the obtuse side, bend the hanger to the desired angle.



**Step 3:** Bend the obtuse side of hanger back toward the header until the flange lies flat against the header, and install header top and/or face fasteners as noted above.

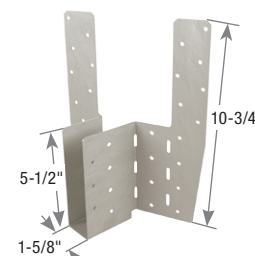


Align back edge of carried member with the slotted holes on the acute side

**Step 4:** Install carried truss and all required fasteners working from the bottom up.

Joist Width	MiTek Stock No.	Min H <sub>eff</sub> <sup>2</sup> (in)	Mounting Condition <sup>3</sup>	Skew Angle (degrees)	Fastener Schedule <sup>4</sup>					Unit	DF Factored Resistance		S-P-F Factored Resistance			
					Carrying Member			Carried Member			Vertical	Uplift <sup>1</sup>	Vertical	Uplift <sup>1</sup>		
					Top Qty	Face Qty	Type	Qty	Type						100%	115%
2x Trusses	MSHA29L/R	7-1/4	face-max	22-1/2	--	12	10d	7	10d x 1-1/2	Lbs	2335	1625	2015	1400		
					kN	10.39	7.23	8.96	6.23							
				23 to 45	--	12	10d	4	10d x 1-1/2	Lbs	2025	930	1590	805		
				kN	9.01	4.14	7.07	3.58								
			46 to 75	--	12	10d	4	10d x 1-1/2	Lbs	2025	930	1590	805			
				kN	9.01	4.14	7.07	3.58								
				5-1/2	top-max	22-1/2	4	8	10d	7	10d x 1-1/2	Lbs	2870	1625	2260	1360
			kN			12.77	7.23	10.05	6.05							
		23 to 45	4			8	10d	4	10d x 1-1/2	Lbs	2435	930	1915	755		
			kN		10.83	4.14	8.52	3.36								
		46 to 75	4		8	10d	4	10d x 1-1/2	Lbs	2190	930	1720	755			
			kN		9.74	4.14	7.65	3.36								
			top-min	22-1/2	4	4	10d	7	10d x 1-1/2	Lbs	1955	--	1685	--		
	kN	8.70		--	7.50	--										
23 to 45	4	4		10d	4	10d x 1-1/2	Lbs	1765	--	1385	--					
	kN	7.85	--	6.16	--											
46 to 75	4	4	10d	4	10d x 1-1/2	Lbs	950	--	745	--						
	kN	4.23	--	3.31	--											

- 1) 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.
- 2) H<sub>eff</sub> is the minimum distance from the top of the hanger seat to the top of the carrying member.
- 3) For tabulated top-mount installation loads, the straps must be wrapped over the header a minimum of 2".
- 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.



**MSHA29L Left Shown**

Use in conjunction with MiTek's current Canadian Product Catalogue for detailed hanger information.

PEO  
Certificate No. 10889485

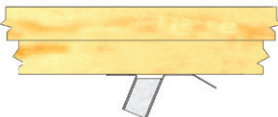


Nov. 13, 2017

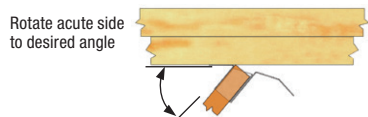


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## Installation Sequence for Skews > 22-1/2°

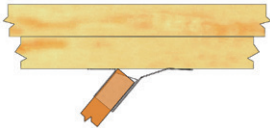


**Step 1:** Install acute side top and/or face header fasteners.

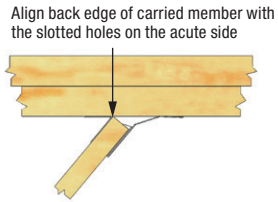


Rotate acute side to desired angle

**Step 2:** Utilizing a piece of scrap fastened to the hanger on the obtuse side, bend the hanger to the desired angle.



**Step 3:** Bend the obtuse side of hanger back toward the header until the flange lies flat against the header, and install header top and/or face fasteners as noted above.

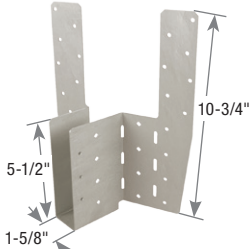


Align back edge of carried member with the slotted holes on the acute side

**Step 4:** Install carried truss and all required fasteners working from the bottom up.

Joist Width	MiTek Stock No.	Min H <sub>eff</sub> <sup>2</sup> (in)	Mounting Condition <sup>3</sup>	Skew Angle (degrees)	Fastener Schedule <sup>4</sup>					Unit	DF Factored Resistance		S-P-F Factored Resistance			
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46 to 75	4	4	10d	4	10d x 1-1/2	Lbs	950	--	745	--						
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- 1) 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.
- 2) H<sub>eff</sub> is the minimum distance from the top of the hanger seat to the top of the carrying member.
- 3) For tabulated top-mount installation loads, the straps must be wrapped over the header a minimum of 2".
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MSHA29L Left Shown

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MiTek supplies quality products to build Stronger Safer Structures

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Valid through Dec. 31, 2018





# MSHA29L/R Adjustable Strap Skewed Hangers

APENS  
Permit No. 15800 0



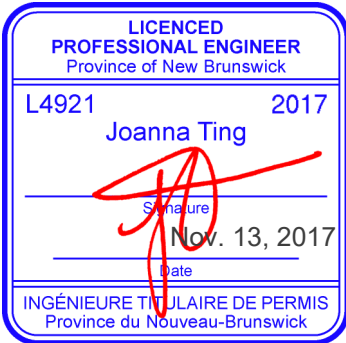
Nov. 13, 2017

PEG  
Permit No. D0027



Nov. 13, 2017

APEGNB  
Certificate No. F0649



Nov. 13, 2017

Signature

Date

INGÉNIEURE TITULAIRE DE PERMIS  
Province du Nouveau-Brunswick

APEPEI  
Permit No. A195



DATE: Nov. 13, 2017

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PROVINCE OF  
PRINCE EDWARD ISLAND

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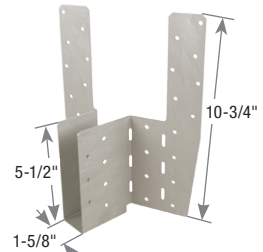
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