

MiTek's MSHA Series 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 MSHA hanger provides economical solutions for 1-ply or 2-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 mounting conditions as required.

### Features:

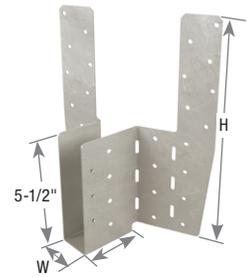
- Field adjustable straps that can be used straight or bent to accommodate web-chord geometry.
- A bend line makes field adjustments and installation quick and easy, especially for high skews.
- Eliminates the need for ordering special hangers.
- All models can be installed on 2x6 and larger carrying members.

**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".
- Hanger is factory skewed 22-1/2° and may be field skewed from 22-1/2° to 75°. See installation sequence on back 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



**MSHA29R-2**  
right 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.

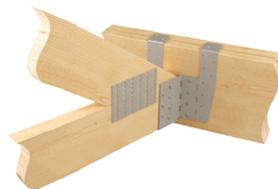


**Typical MSHA**  
face-max installation

#### 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 allowable loads apply to this type of installation.



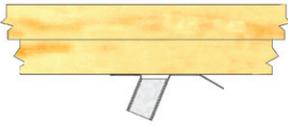
**Typical MSHA**  
combination installation

### CONNECTION TO CARRIED MEMBER

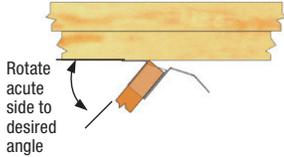
#### Mounting Conditions:

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

### Installation Sequence for Skews > 22½°:

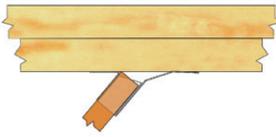


**Step 1:** Install acute side top and/or face header nails.

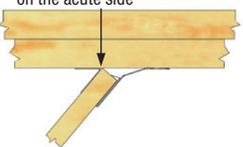


Rotate acute side to desired angle

**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 nails as noted below.



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

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

Joist Material & Width	MiTek Stock No.	Ref. No.	Dimensions (in)		Min H <sub>eff</sub> <sup>2</sup> (in)	Mounting Condition <sup>4</sup>	Skew Angle (degrees)	Fastener Schedule <sup>2,4</sup>				DF/SP Allowable Loads (Lbs.)				S-P-F Allowable Loads (Lbs.)			Ctn Qty	
			W	H				Carrying Member		Carried Member		Allowable Loads (Lbs.)				Allowable Loads (Lbs.)				
								Top Qty	Face Qty	Type	Qty	Type	100%	115%	125%	Uplift <sup>1</sup>	100%	115%		125%
2x Trusses	MSHA29L/R	THASR/L29	1-5/8	10-3/4	7-1/4	face-max	22-1/2	--	12	10d	7	10d x 1-1/2	1500	1615	1615	975	1250	1275	1275	770
							23 to 45	--	12	10d	4	10d x 1-1/2	1485	1485	1485	560	1250	1350	1350	435
							46 to 75	--	12	10d	4	10d x 1-1/2	1500	1615	1615	720	1250	1315	1315	560
						top-max	22-1/2	4	8	10d	7	10d x 1-1/2	1985	1985	1985	975	1510	1510	1510	745
							23 to 45	4	8	10d	4	10d x 1-1/2	1705	1705	1705	560	1255	1255	1255	415
							46 to 75	4	8	10d	4	10d x 1-1/2	1605	1605	1605	720	1605	1605	1605	560
			top-min	22-1/2	4	4	10d	7	10d x 1-1/2	1350	1350	1350	--	1045	1045	1045	--			
				23 to 45	4	4	10d	4	10d x 1-1/2	1335	1335	1335	--	1060	1060	1060	--			
				46 to 75	4	4	10d	4	10d x 1-1/2	695	695	695	--	695	695	695	--			
2-2x Trusses	MSHA29L/R-2	THASR/L29-2	3-1/8	10-3/4	7-1/4	face-max	22-1/2	--	12	10d	7	10d	1500	1615	1615	975	1215	1215	1215	735
							23 to 45	--	12	10d	4	10d	1485	1485	1485	560	1210	1260	1260	405
							46 to 75	--	12	10d	4	10d	1500	1615	1615	720	1250	1300	1300	555
						top-max	22-1/2	4	8	10d	7	10d	1985	1985	1985	975	1495	1495	1495	735
							23 to 45	4	8	10d	4	10d	1705	1705	1705	560	1275	1275	1275	420
							46 to 75	4	8	10d	4	10d	1605	1605	1605	720	1565	1565	1565	535
			top-min	22-1/2	4	4	10d	7	10d	1350	1350	1350	--	1040	1040	1040	--			
				23 to 45	4	4	10d	4	10d	1335	1335	1335	--	1060	1060	1060	--			
				46 to 75	4	4	10d	4	10d	695	695	695	--	695	695	695	--			
4x Trusses	MSHA422L/R	THASR/L422	3-5/8	22	7-1/4	face-max	22-1/2	--	12	10d	7	10d	1500	1590	1590	960	1250	1250	1250	755
							23 to 45	--	12	10d	4	10d	1485	1485	1485	550	1250	1335	1335	430
							46 to 75	--	12	10d	4	10d	1500	1615	1615	705	1250	1300	1300	555
						top-max	22-1/2	4	8	10d	7	10d	1955	1955	1955	960	1490	1490	1490	735
							23 to 45	4	8	10d	4	10d	1680	1680	1680	550	1270	1270	1270	420
							46 to 75	4	8	10d	4	10d	1605	1605	1605	705	1565	1565	1565	535
			top-min	22-1/2	4	4	10d	7	10d	1330	1330	1330	--	1040	1040	1040	--			
				23 to 45	4	4	10d	4	10d	1335	1335	1335	--	1060	1060	1060	--			
				46 to 75	4	4	10d	4	10d	695	695	695	--	695	695	695	--			

- 1) Uplift loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
- 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.

### Customer Service & Technical Assistance

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