

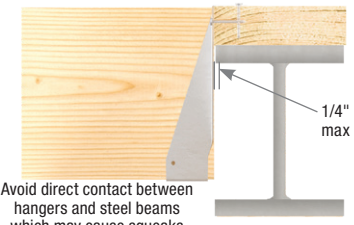
# Top Flange Hanger Nailer Options

# Specialty Options

MiTek-USP Top Mount Hangers have been tested installed to various nailers. Wood nailers may be installed to the top of steel beams, concrete and masonry walls. The table below represents maximum allowable loads for common top mount hangers installed on 2x, 2-ply 2x, 3x and 4x nailers.

For additional Nailer Installation information see page 203.

MiTek USP Series	Nailer Size	Fastener Schedule					DF/SP		SPF/HF	
		Nailer		Joist			Allowable Loads (Lbs.) <sup>1</sup>		Allowable Loads (Lbs.) <sup>1</sup>	
		Top Qty	Face Qty	Type <sup>5</sup>	Qty	Type <sup>5</sup>	Download 100%	Uplift 160% <sup>2</sup>	Download 100%	Uplift 160% <sup>2</sup>
KHW	3x	4	--	16d x 2-1/2"	2	10d	4415	--	3525	--
MSH (18 Gauge)	2x	4	--	10d x 1-1/2"	4	10d x 1-1/2"	1245	--	1045	--
	3x	4	--	10d x 1-1/2"	4	10d x 1-1/2"	1245	--	1045	--
	(2) 2x	4	2	10d	4	10d x 1-1/2"	1950	--	1540	--
	4x	4	2	10d	4	10d x 1-1/2"	1950	--	1540	--
MSH (16 or 14 Gauge)	2x	4	2	10d x 1-1/2"	6	10d x 1-1/2"	2355	--	1860	--
	3x	4	2	10d x 1-1/2"	6	10d x 1-1/2"	2355	--	1860	--
	(2) 2x	4	2	16d x 2-1/2"	6	10d x 1-1/2"	2080	--	1745	--
	4x	4	2	16d x 2-1/2"	6	10d x 1-1/2"	2080	--	1745	--
PHM	2x	2	--	10d x 1-1/2"	2	10d x 1-1/2"	3010	--	2140	--
	3x	2	--	16d x 2-1/2"	2	10d x 1-1/2"	3060	--	2140	--
	(2) 2x	2	--	10d	2	10d x 1-1/2"	3060	--	2140	--
	4x	2	--	16d	2	10d x 1-1/2"	3060	--	2140	--
PHXU <sup>3</sup> widths > 2-3/4" to < 3-1/2"	2x	4	--	10d x 1-1/2"	6	10d x 1-1/2"	2585	--	2170	--
	3x	4	2	16d x 2-1/2"	6	10d x 1-1/2"	3855	--	3150	--
	(2) 2x	4	2	10d	6	10d x 1-1/2"	3590	--	3015	--
	4x	4	4	16d	6	10d x 1-1/2"	4420	870	3150	730
PHXU widths ≥ 3-1/2"	2x	4	--	10d x 1-1/2"	6	10d	2765	--	2325	--
	3x	4	2	16d x 2-1/2"	6	10d	3895	--	3270	--
	(2) 2x	4	2	10d	6	10d	3785	--	3180	--
	4x	4	4	16d	6	10d x 1-1/2"	5285	970	4545	835
	4x	4	4	16d	6	10d	5285	1120	4545	940
SW <sup>4</sup> widths ≥ 2-9/16"	2x	2	--	10d x 1-1/2"	2	10d x 1-1/2"	1635	--	1115	--
	3x	2	--	16d x 2-1/2"	2	10d x 1-1/2"	2390	--	2010	--
	(2) 2x	2	--	16d x 2-1/2"	2	10d x 1-1/2"	2390	--	2010	--
	4x	2	--	16d x 2-1/2"	2	10d x 1-1/2"	2390	--	2010	--
SWH	2x	2	--	10d x 1-1/2"	2	10d	2600	--	1770	--
	3x	2	--	16d x 2-1/2"	2	10d	3305	--	2280	--
	(2) 2x	2	--	16d x 2-1/2"	2	10d	3305	--	2280	--
	4x	2	--	16d x 2-1/2"	2	10d	3305	--	2280	--
TFI	2x	4	2	10d x 1-1/2"	2	10d x 1-1/2"	1985	215	1665	180
	3x	4	6	16d x 2-1/2"	2	10d x 1-1/2"	2715	215	2075	180
	(2) 2x	4	6	10d	2	10d x 1-1/2"	2715	215	2075	180
	4x	4	2	16d	2	10d x 1-1/2"	2560	215	2075	180
	4x	4	6	16d	2	10d x 1-1/2"	3245	215	2075	180
TFL	2x	4	2	10d x 1-1/2"	2	10d x 1-1/2"	1270	130	1090	110
	3x	4	2	16d x 2-1/2"	2	10d x 1-1/2"	1600	130	1260	110
	(2) 2x	4	2	10d	2	10d x 1-1/2"	1280	130	1100	110
	4x	4	2	16d	2	10d x 1-1/2"	1745	130	1260	110
THO	2x	4	2	10d x 1-1/2"	2	10d x 1-1/2"	1235	230	950	195
	3x	4	2	16d x 2-1/2"	2	10d x 1-1/2"	1235	230	950	195
	(2) 2x	4	2	16d x 2-1/2"	2	10d x 1-1/2"	1235	230	950	195
	4x	4	2	16d	2	10d x 1-1/2"	1235	230	950	195
THO (Double)	2x	4	2	10d x 1-1/2"	2	10d	1455	230	1250	195
	3x	4	2	16d x 2-1/2"	2	10d	2335	230	1815	195
	(2) 2x	4	2	10d	2	10d	2370	230	1815	195
	4x	4	2	16d	2	10d	2525	230	1815	195



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

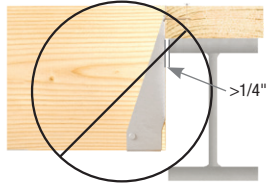
### Correct Attachment

### Improper Installation:



### 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" maximum per side.



### Too Thin

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

1) Allowable loads are valid for hanger height ≤ 20". For hanger height ≥ 22", consult MiTek Engineering.  
 2) Uplift loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.  
 3) PHXU hangers with a width of less than 2-3/4" are limited to 4,350 lbs of download.  
 4) SW hangers with a width of less than 2-9/16" are limited to 2,315 lbs. of download.  
 5) NAILS: 10d x 1-1/2" nails are 0.148" x 1-1/2" long, 10d nails are 0.148" dia x 3" long, NA16D-RS nails are 0.148" x 3-1/2" long, 16d x 2-1/2" nails are 0.162" dia. x 2-1/2" long, 16d nails are 0.162" dia. x 3-1/2" long.  
 Updated product information is designated in blue font.

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Specialty Options