MiTek® USP® Structural Connectors

Fire Wall Hangers

FWH series

2015 & 2018 IBC/IRC Code Compliant

The Fire Wall Hanger is designed for attaching truss, I-joist, solid sawn lumber, or engineered wood floor framing members to double wall top plates or minimum 2-ply 2x solid sawn header fire rated wood frame walls. The advanced design allows the installation of the FWH ***before*** the 5/8" gypsum wallboard (drywall) is attached and permits the building project to be completely framed-up, and weather-tight before the gypsum wallboard sheathing work starts.

Features:

- Hangers can be installed before gypsum wallboard is attached
- Code Evaluated
- 2-hour tested fire rating per ASTM E814
- No additional connectors required to prevent top plate rotation typical of other fire wall hangers.
- Skewed Specialty Option up to 70°

Materials: 14 gauge
Finish: G90 galvanizing
Options: See Specialty Options chart on back
Codes: IBC, FL, LABC
Patents: U.S. Patent No. 10,316,510

2 Hour Fire-Rating

FWH hangers are tested per ASTM E814 standards. When installed on one side of a maximum 2 hour fire-rated wall assembly, the penetration of the MiTek FWH Fire Wall Hanger through the gypsum wallboard will not reduce the fire resistive rating of the 2 hour fire resistive assembly.

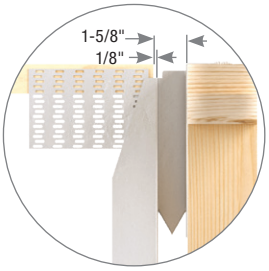
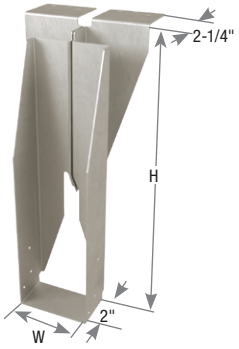
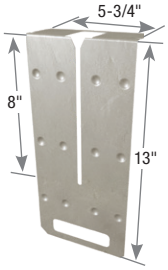


Figure 1

Typical FWH Side View



FWH

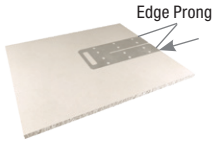


FWH-T template
(must be ordered separately)

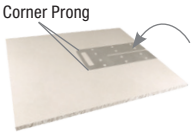
Installation:

- Install the face of hanger flanges tight to stud wall framing.
- For wall framing, hangers do NOT need to be installed at stud locations for full design values.
- The end of the truss/joist should measure 1-5/8" from the face of the supporting wall. See Figure 1.
- The truss/joist should bear fully on the FWH seat with a gap no greater than 1/8" between the end of the supported member and the hanger. See Figure 1.
- **Gypsum Wallboard Installation** - Use the FWH-T template to slot cut the gypsum wallboard. See FWH-T Template Installation Sequence on next page. Slide the gypsum wallboard into position and fasten to the framing members meeting minimum requirements specified by code.

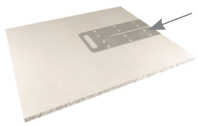
FWH-T Template Installation Sequence



1) Align the FWH-Template slot with the mark in the gypsum wallboard and engage the prongs into edge of gypsum wallboard



2) Rotate the template and press down on the end to engage the corner prongs



3) Run the gypsum wallboard cutter down the template to cut the slot

Joist Size (in)	MiTek USP Stock No.	Ref. No.	Dimensions (in)	
			W	H
2 x 8	FWH28	--	1-9/16	7-1/8
2 x 10	FWH210	--	1-9/16	9-1/8
2 x 12	FWH212	--	1-9/16	11-1/8
1-3/4 x 9-1/2	FWH1795	DGHF1.81/9.5	1-13/16	9-7/16
1-3/4 x 11-7/8	FWH17118	DGHF1.81/11.88	1-13/16	11-13/16
1-3/4 x 14	FWH1714	DGHF1.81/14	1-13/16	13-15/16
1-3/4 x 16	FWH1716	DGHF1.81/16	1-13/16	15-15/16
2 - 2-1/8 x 9-1/2	FWH2095	DGHF2.1/9.5	2-1/8	9-7/16
2 - 2-1/8 x 11-7/8	FWH20118	DGHF2.1/11.88	2-1/8	11-13/16
2 - 2-1/8 x 14	FWH2014	DGHF2.1/14	2-1/8	13-15/16
2 - 2-1/8 x 16	FWH2016	DGHF2.1/16	2-1/8	15-15/16
2-5/16 x 9-1/2	FWH2395	DGHF2.37/9.5	2-3/8	9-7/16
2-5/16 x 11-7/8	FWH23118	DGHF2.37/11.88	2-3/8	11-13/16
2-5/16 x 14	FWH2314	DGHF2.37/14	2-3/8	13-15/16
2-5/16 x 16	FWH2316	DGHF2.37/16	2-3/8	15-15/16
2-5/16 x 18	FWH2318	DGHF2.37/18	2-3/8	17-15/16
2-5/16 x 20	FWH2320	DGHF2.37/20	2-3/8	19-15/16

Joist Size (in)	MiTek USP Stock No.	Ref. No.	Dimensions (in)	
			W	H
2-1/2 x 9-1/2	FWH2595	DGHF2.56/9.5	2-9/16	9-7/16
2-1/2 x 11-7/8	FWH25118	DGHF2.56/11.88	2-9/16	11-13/16
2-1/2 x 14	FWH2514	DGHF2.56/14	2-9/16	13-15/16
2-1/2 x 16	FWH2516	DGHF2.56/16	2-9/16	15-15/16
2-1/2 x 18	FWH2518	DGHF2.56/18	2-9/16	17-15/16
2-1/2 x 20	FWH2520	DGHF2.56/20	2-9/16	19-15/16
3-1/2 x 9-1/2	FWH3595	DGHF3.62/9.5	3-9/16	9-7/16
3-1/2 x 11-7/8	FWH35118	DGHF3.62/11.88	3-9/16	11-13/16
3-1/2 x 14	FWH3514	DGHF3.62/14	3-9/16	13-15/16
3-1/2 x 16	FWH3516	DGHF3.62/16	3-9/16	15-15/16
3-1/2 x 18	FWH3518	DGHF3.62/18	3-9/16	17-15/16
3-1/2 x 20	FWH3520	DGHF3.62/20	3-9/16	19-15/16
3-1/2 x 22	FWH3522	DGHF3.62/22	3-9/16	21-15/16
3-1/2 x 24	FWH3524	DGHF3.62/24	3-9/16	23-15/16
FWH-Template	FWH-T	--	5-3/4	13

continued on back

MiTek
USP
Structural Connectors

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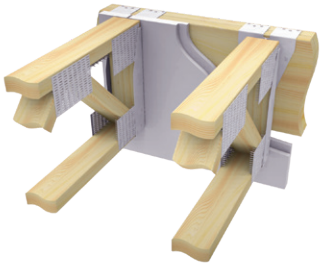
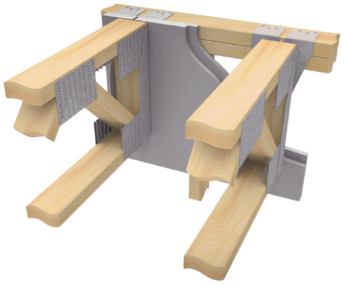


Typical FWH solid sawn header installation

Typical FWH stud wall installation



Typical FWH stud wall with (2) layers of 5/8" gypsum wallboard installation

Fastener / Allowable Load Table

Installation Type	Fastener Schedule[4]					DF Allowable Loads (Lbs.)					
	Header			Joist		Solid Sawn Header		2-Ply, 2x Wall Top Plate		2-Ply 2x Wall Top Plate with Stud Below	
	Top Qty	Face Qty	Type	Qty	Type	Download (100/115/125%)	Uplift[1] 160%	Download (100/115/125%)	Uplift[1] 160%	Download[2] (100/115/125%)	Uplift[1] 160%
Without 5/8" gypsum wallboard or structural sheathing	6	--	10d	6	10d x 1-1/2	2240	180	2045	180	--	--
		2				2625	380		380		
		4								2980 [3]	380
After (1) layer of 5/8" gypsum wallboard is installed	6	--	10d	6	10d x 1-1/2	2400	180	2400	180	--	--
		2				2625	380		380		
		4								2980 [3]	380
After (2) layers of 5/8" gypsum wallboard are installed	6	--	10d	6	10d x 1-1/2	2400	180	2400	180	--	--
		2				2625	380		380		
		4								2980 [3]	380
Two-sided after (2) layers of 5/8" gypsum wallboard are installed (min. 2x6 wall)	6	--	10d	6	10d x 1-1/2	2400	180	2400	180	--	--
		2				2625	380		380		
		4								2980 [3]	380
After (1) layer of structural sheathing & (1) layer of 5/8" gypsum wallboard is installed	6	--	10d	6	10d x 1-1/2	2400	180	2400	180	--	--
		2				2625	380		380		
		4								2980 [3]	380

1) Uplift Loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
2) Allowable downloads require at least one 2x stud at each hanger location and 4 face nails into 2-ply top plate.
3) FWH 1-9/16" wide hangers have an allowable download of 2,665 lb. at 100%, 2,765 lb. at 115% and 2,830 lb. at 125%.
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.

Specialty Options Chart

Option	Skewed[1]
Range	1° to 70°
Allowable Loads	80% of table load on skews up to 45°. 70% of table load on skews 46° to 70°.
Ordering	Add *SK,* angle required, right *(R)* or left *(L),* and square cut *(SQ)* to product number. Ex. FWH3514_SK45R_SQ

1) Skewed hangers with skews greater than 15° may have all joist nailing on outside flange.