TOP FLANGE HANGERS W/WP/WPU/WM/WMU/HW/HWU

I-JOIST AND STRUCTURAL COMPOSITE LUMBER HANGERS

The W, WP, WPU, HWU and HW series purlin hangers offer the greatest design flexibility and versatility. WMs are designed for use on standard 8″ grouted masonry block wall construction.

MATERIAL: See tables on pages 80 to 93; W, WI—12 ga. top flange and stirrup; WM, WMI, WMU—12 ga. top flange and stirrup; WPU, WP—7 ga. top flange, 12 ga. stirrup; HW, HWI—3 ga. top flange, 11 ga. stirrup; HWU—3 ga. top flange, 10 ga, stirrup.

FINISH: Simpson gray paint; hot-dipped galvanized available: specify HDG.

ALLOWABLE LOADS: For hanger heights exceeding the joist height, the allowable load is 0.50 of the table load.

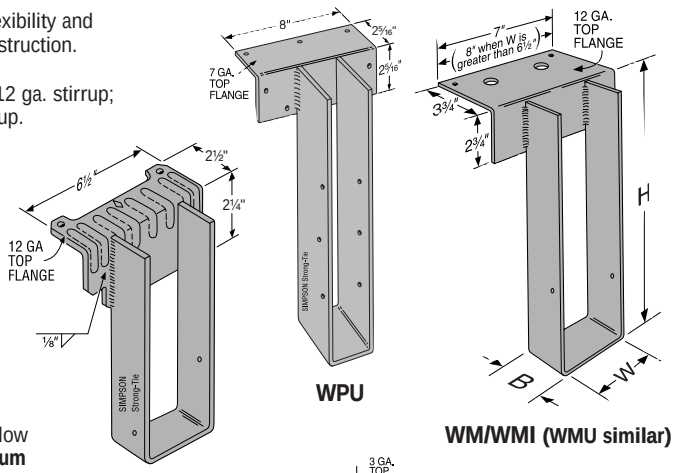
INSTALLATION: • Use all specified fasteners. WM—two 16d duplex nails must be installed into the top flange and embedded into the grouted wall. Verify that the header can take the required fasteners specified in the table.

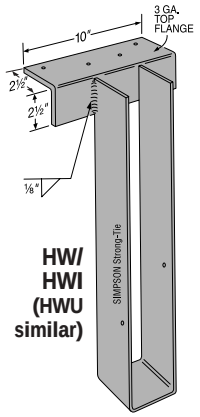
- Hangers may be welded to steel headers with ⅛″ for W, WI, 3⁄16″ for WP, WPI, and ¼″ for HW, HWI, by 1½″ fillet welds located at each end of the top flange. Weld-on applications produce maximum allowable load listed. Uplift loads do not apply to this application.
- Hangers can support multi-ply carried members; the individual members must be secured together to work as a single unit before installation into the hanger.
- Embed WM into block with a minimum of one course above and one course below the top flange with one #5 vertical rebar minimum 24″ long in each cell. **Minimum grout strength is 2000 psi.**
- Web stiffeners are required for standard joist nailing configuration with this hanger.

OPTIONS: • Specify alternate nailing pattern when web stiffeners are not being used (up to 16″ in depth). Add X ANP after model number for nailing into the flange, available for 90° applications only. Uplift loads do not apply to this application.

- **See Hanger Options, page 147 for hanger modifications and associated load reductions.**

CODES: See page 8 for Code Listing Key Chart.



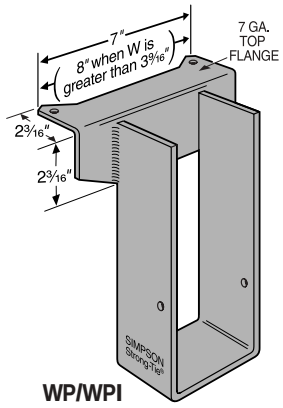


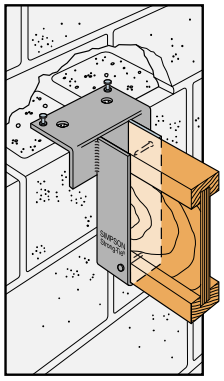
Some model configurations may differ from those shown. Contact factory for details.

Model	Nailer	Top Flange Nailing	Allowable Loads DF/SP	SPF	LSL
W/WI	2x	2-10dx1½	1600	1600	—
	3x	2-16dx2½	1765	1740	—
	2-2x	2-10d	1665	1665	—
	4x	2-10d	2200	2200	—
WP/WPI	2x	2-10dx1½	2525	2500	3375
	3x	2-16dx2½	3000	2510	—
	2-2x	2-10d	3255	3255	—
	4x	2-10d	3255	3255	—
HW/HWI	4x	4-16d	5285	—	—

NAILER TABLE

The table indicates the maximum allowable loads for W, WP and HW hangers used on wood nailers. Nailers are wood members attached to the top of a steel I-beam, concrete or masonry wall. This table also applies to sloped-seat hangers.





Typical WM Installation with Alternate Nailing Pattern (ANP)

W SERIES WITH VARIOUS HEADER APPLICATIONS

Model	Joist Width	Joist Depth	Fasteners Top	Face	Joist	Allowable Loads Header Type Uplift (133 & 160)	DF/SP LVL[4]	PSL	LSL	DF/SP	SPF	DF/SCL I-Joist[5]	Masonry	Code Ref.
WI	1½ to 4	3½ to 30	2-10dx1½	—	2-10dx1½	—	1635	1740	—	1600	1415	—	—	170
	1½ to 4	3½ to 30	2-10d	—	2-10dx1½	—	2150	2020	—	2200	1435	—	—	26, 83
	1½ to 4	3½ to 30	2-16d	—	2-10dx1½	—	2335	1950	2335	1765	1435	—	—	
WMI	1½ to 4	3½ to 30	2-16d DPLX	—	2-10dx1½	—	—	—	—	—	—	—	4175	1, 36, 84, 120
WMU	1½ to 7½	9 to 18	2-16d DPLX	4-¼x1¼" Titens	6-10dx1½	660	—	—	—	—	—	—	4175	170
	1½ to 7½	18½ to 22½	2-16d DPLX	4-¼x1¼" Titens	6-10dx1½	660	—	—	—	—	—	—	4175	
	1½ to 7½	23 to 28	2-16d DPLX	4-¼x1¼" Titens	6-10dx1½	625	—	—	—	—	—	—	4175	
WP/ WPI	1½ to 7⅛	3½ to 30	3-10dx1½	—	2-10dx1½	—	2865	3250	—	2500	2000	2030	—	
	1½ to 7⅛	3½ to 30	3-10d	—	2-10dx1½	—	2525	3250	3650	3255	2525	—	—	26, 83 (widths greater than 2")
	1½ to 7⅛	3½ to 30	3-16d	—	2-10dx1½	—	3635	3320	3650	3255	2600	—	—	
WPU/ WNPU	1¾ to 5½	7¼ to 18	3-16d	4-16d	6-10dx1½	775	4700	4880	3650	4165	4165	—	—	26 (widths up to 3⁹⁄16")
	1¾ to 5½	18½ to 22½	3-16d	4-16d	6-10dx1½	485	4700	4880	3650	4165	4165	—	—	
	1¾ to 5½	23 to 28	3-16d	4-16d	6-10dx1½	315	4700	4880	3650	4165	4165	—	—	
HWI	1½ to 7½	3½ to 32	4-10d	—	2-10dx1½	—	3100	4000	—	5285	3100	—	—	26, 83
	1½ to 7½	3½ to 32	4-16d	—	2-10dx1½	—	5100	4000	4500	5285	3665	—	—	
HWU	1¾ to 3½	9 to 18	4-16d	4-16d	6-10dx1½	810	6335	5500	5535	6335	5415	—	—	26
	1¾ to 3½	18½ to 22½	4-16d	4-16d	6-10dx1½	765	6335	5500	5535	6335	5415	—	—	
	1¾ to 3½	23 to 28	4-16d	4-16d	6-10dx1½	635	6335	5500	5535	6335	5415	—	—	
	1¾ to 3½	28½ to 32	4-16d	4-16d	8-10dx1½	1005	6335	5500	5535	6335	5415	—	—	
	4½ to 7	9 to 18	4-16d	4-16d	6-10dx1½	810	6000	5500	5535	6000	5415	—	—	170
	4½ to 7	18½ to 22½	4-16d	4-16d	6-10dx1½	765	6000	5500	5535	6000	5415	—	—	
	4½ to 7	23 to 28	4-16d	4-16d	6-10dx1½	635	6000	5500	5535	6000	5415	—	—	
	4½ to 7	28½ to 32	4-16d	4-16d	8-10dx1½	1005	6000	5500	5535	6000	5415	—	—	

1. 16d sinkers (9 ga x 3″) may be used where 10d commons are called out with no load reduction.
2. Uplift loads are based on Doug Fir, and have been increased 33% and 60% for wind or earthquake loading; no further increase allowed. Divide by 1.33 and 1.60 for normal loading like cantilever construction.
3. Structural composite lumber is laminated veneer lumber, Parallam® PSL and TimberStrand® LSL.
4. **Applies to LVL headers made primarily from Douglas Fir or Southern Pine. For LVL made primarily from Spruce Pine Fir or similar less dense veneers, use the values found in the SPF column.**
5. **I-joist header with SPF flanges will support 2030 lbs.**

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