TOP FLANGE HANGERS WPU/WNP/HW/HWU

The WPU, HWU and HW series purlin hangers offer the greatest design flexibility and versatility.

MATERIAL: WNP/WPI/WPU—7 ga. top flange, 12 ga. stirrup; HW—3 ga. top flange, 11 ga. stirrup; HWU—3 ga. top flange, 10 ga, stirrup.

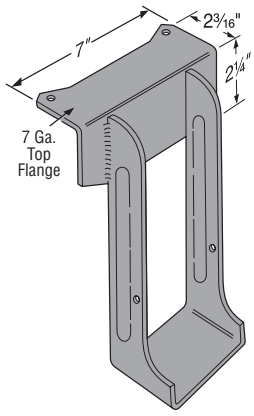
FINISH: Simpson gray paint; hot-dipped galvanized available: specify HDG.

FACTORED RESISTANCES: For hanger heights exceeding the joist height, the factored resistance is 0.50 of the tabulated resistance.

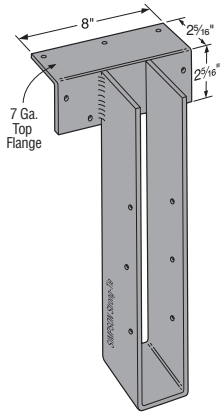
INSTALLATION:

- Hangers may be welded to steel headers with 3⁄16" for WPU/WNP/WP, and ¼" for HW/HWU, by 1½" fillet welds located at each end of the top flange. Weld-on applications produce maximum factored resistance listed. Uplift resistances 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.
- H dimensions are sized to account for normal joist shrinkage. W dimensions are for dressed timber widths.

OPTIONS: • See Hanger Options, page 183, for hanger modifications and associated load reductions.



WNP412 and WNP414

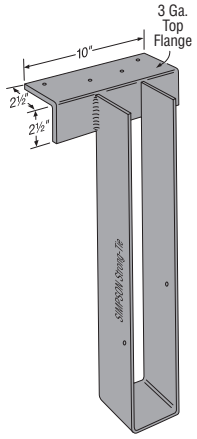


WPU

NAILER TABLE

The table indicates the maximum factored normal resistances for WP/WNP hanger 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.

Model	Nailer	Top Flange Nailing	Factored Resistance (K_D=1.00) D.Fir-L	S-P-F	LSL
			lbs	lbs	lbs
			kN	kN	kN
WP/ WNP	2x	2-10dx1½	3665	3630	4900
			16.33	16.17	21.82
	2-2x	2-10d	4125	3760	4900
			18.37	16.75	21.82
	3x	2-16dx2½	4475	3760	—
			19.93	16.75	—
	4x	2-10d	4475	3760	—
			19.93	16.75	—



HW
(HWU similar)

Model	Joist Width (in)	Joist Depth (in)	Fasteners Top	Fasteners Face	Fasteners Joist	Factored Resistance Uplift (K_D=1.15)	Normal (K_D=1.00) D.Fir-L	S-P-F	LVL[4]	PSL	LSL
						lbs	lbs	lbs	lbs	lbs	lbs
						kN	kN	kN	kN	kN	kN
WP/ WNP	1½ to 7½	3½ to 30	3-10dx1½	—	2-10dx1½	—	4095	3545	4695	4720	—
						—	18.24	15.79	20.91	21.02	—
	1½ to 7½	3½ to 30	3-10d	—	2-10dx1½	—	4095	3550	3665	4720	5980
						—	18.24	15.81	16.33	21.02	26.64
	1½ to 7½	3½ to 30	3-16d	—	2-10dx1½	—	4430	3855	5950	5430	5980
						—	19.73	17.17	26.50	24.19	26.64
WPU	1¾ to 5½	7¼ to 18	3-16d	4-16d	6-10dx1½	1085	6390	6390	6825	7085	5980
						4.83	28.46	28.46	30.40	31.56	26.64
	1¾ to 5½	18½ to 22½	3-16d	4-16d	6-10dx1½	560	6390	6390	6825	7085	5980
						2.49	28.46	28.46	30.40	31.56	26.64
	1¾ to 5½	23 to 28	3-16d	4-16d	6-10dx1½	365	6390	6390	6825	7085	5980
						1.63	28.46	28.46	30.40	31.56	26.64
HW	1½ to 7½	3½ to 32	4-10d	—	2-10dx1½	—	6900	5285	4695	5810	—
						—	30.73	23.54	20.91	25.88	—
	1½ to 7½	3½ to 32	4-16d	—	2-10dx1½	—	7040	5285	7695	5810	6870
						—	31.36	23.54	34.28	25.88	30.60
HWU	1¾ to 3½	9 to 18	4-16d	4-16d	6-10dx1½	1320	10375	8485	10375	8325	8925
						5.88	46.21	37.80	46.21	37.08	3976
	1¾ to 3½	18½ to 22½	4-16d	4-16d	6-10dx1½	895	10375	8485	10375	8325	8925
						3.99	46.21	37.80	46.21	37.08	3976
	1¾ to 3½	23 to 28	4-16d	4-16d	6-10dx1½	735	10375	8485	10375	8325	8925
						3.27	46.21	37.80	46.21	37.08	3976
	1¾ to 3½	28½ to 32	4-16d	4-16d	8-10dx1½	1645	10375	8485	10375	8325	8925
						7.33	46.21	37.80	46.21	37.08	3976
	4½ to 7⅛	9 to 18	4-16d	4-16d	6-10dx1½	1320	8250	8485	8250	8325	8925
						5.88	36.75	37.80	36.75	37.08	3976
	4½ to 7⅛	18½ to 22½	4-16d	4-16d	6-10dx1½	895	8250	8485	8250	8325	8925
						3.99	36.75	37.80	36.75	37.08	3976
	4½ to 7⅛	23 to 28	4-16d	4-16d	6-10dx1½	735	8250	8485	8250	8325	8925
						3.27	36.75	37.80	36.75	37.08	3976
	4½ to 7⅛	28½ to 32	4-16d	4-16d	8-10dx1½	1645	8250	8485	8250	8325	8925
						7.33	36.75	37.80	36.75	37.08	3976

Some model configurations may differ from those shown. Contact Simpson Strong-Tie for details.

1. Factored uplift resistances have been increased 15% for wind or earthquake loading; no further increase allowed. Reduce by 15% for standard term loading (K_D=1.00) like cantilever construction.
2. Factored uplift resistances shown are for D.Fir-L. Multiply tablulated loads x 0.71 for either S-P-F joist or header.
3. Factored resistances shown are for header connection only. The Designer must ensure the joist is capable of generating the factored resistances shown.
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 S-P-F column.
5. **NAILS:** 16d = 0.162" dia.x 3½" long, 10d = 0.148" dia.x 3" long, 10dx1½ = 0.148" dia. x 1½" long. See page 16-17 for other nail sizes and information.