TOP FLANGE HANGERS HHB/GB/HGB *Beam & Purlin Hangers*

See table on page 115. See Hanger Options on pages 181-183 for hanger modifications, which may result in reduced loads.

This series of beam and purlin hangers may be used for wood to wood or wood to steel applications. Precision forming provides dimensional accuracy and helps ensure proper bearing area and connection.

MATERIAL: See table on page 115

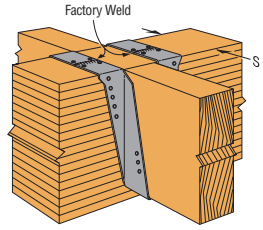
FINISH: HHB, GB, HGB, all saddle hangers and all welded sloped and special hangers—Simpson Strong-Tie® gray paint. HHB may be ordered hot-dip galvanized; specify HDG.

INSTALLATION: • Use specified fasteners. See General Notes.

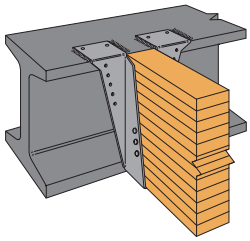
- HHB, GB and HGB may be used for weld-on applications. The minimum required weld to the top flanges is 3⁄16" x 2" fillet weld to each side of each top flange tab. Distribute the weld equally on both top flanges. Welding cancels the top and face nailing requirements. Consult the code for special considerations when welding galvanized steel. The area should be well-ventilated. See page 14 for weld information. Weld on applications produce the maximum allowable load listed. Uplift loads do not apply to welded applications.
- Ledgers must be evaluated for each application separately. Check TF dimension, nail length and nail location on ledger.

OPTIONS: • HHB–other widths are available; specify W dimension *(the minimum W dimension is 2½")*.

- Saddle hangers are made to order; add "D" to model *(e.g. HHBD3)*; specify S *(for saddle)* dimension. They may be used for most conditions except at end wall locations, and are preferred for nailer applications.
- The coating on special B hangers will depend on the manufacturing process used. Check with your Simpson Strong-Tie representative for details. Hot-dip galvanized available: specify HDG.
- B dimensions may be increased on some models.
- See Hanger Options, pages 181-183.



Typical HHB, GB and HGB Saddle Installation



HHB, GB and HGB are acceptable for weld-on applications. See Installation Information.

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

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

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

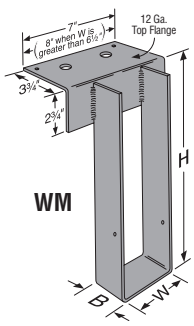
FINISH: Simpson Strong-Tie gray paint; hot-dip galvanized available: specify HDG.

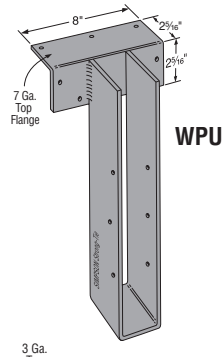
INSTALLATION: • Hangers may be welded to steel headers with 3⁄16" for WPU/WP, and ¼" for HW/HWU, by 1½" fillet welds located at each end of the top flange. Weld-on applications produce maximum allowable load listed. See page 14 for weld information. For uplift loads refer to technical bulletin T-WELDUPLFT *(see page 191 for details)*.

- 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.
- **MID-WALL INSTALLATION:** Installed between blocks with duplex nails cast into grout with a minimum of one grouted course above and below the top flange and one #5 vertical rebar minimum 24" long in each adjacent cell.
- **TOP OF WALL INSTALLATION:** Install on top of wall to a grouted beam with masonry screws.

OPTIONS: See Hanger Options, pages 181-183, for hanger modifications and associated load reductions.

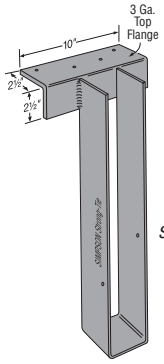
CODES: See page 12 for Code Reference Key Chart.

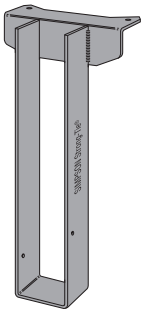




Model	Nailer	Top Flange Nailing	Allowable Loads			
			Uplift (160)	DF/SP	SPF/HF	LSL
WP	2x	2-10dx1½	—	2525	2500	3375
	2-2x	2-10d	—	3255	3255	—
	3x	2-16dx2½	—	3000	2510	3375
	4x	2-10d	—	3255	3255	—
WPU	2-2x	7-10d	700	3255	—	—
	3x	7-16dx2½	775	3000	—	—
	4x	4-16d	775	3255	—	—
HW	2-2x	4-10d	—	4845	—	—
	3x	4-16dx2½	—	4860	—	—
	4x	4-16d	—	5285	—	—
HWU	2-2x	8-16dx2½	710	5430	—	—
	3x	8-16dx2½	810	5430	—	—
	4x	8-16d	810	5430	—	—

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





NAILER TABLE

The table indicates the maximum allowable loads for WP, WPU, HW or HWU hanger used on wood nailers. Nailers are wood members attached to the top of a steel I-beam, concrete or masonry wall.

1. Uplift value for the HWU hanger is for depth ≤ 18". Refer to uplift values in table below for taller depths.
2. Attachment of nailer to supporting member is the responsibility of the Designer. See page 19 for TB screws attachment option.

Model	Joist		Fasteners			Allowable Loads Header Type								Code Ref.
	Width	Depth	Top	Face	Joist	Uplift (160)	LVL	PSL	LSL	DF/SP	SPF/HF	I-Joist	Masonry	
WM	1½ to 7½	3½ to 30	2-16d DPLX	—	2-10dx1½	—	MID-WALL INSTALLATIONS						4175	IL12
	1½ to 7½	3½ to 30	2-¼x1¾ Titens	—	2-10dx1½	—	TOP OF WALL INSTALLATIONS						3380	
WMU	1½ to 7½	9 to 28	2-16d DPLX	4-¼x1¾ Titens	6-10dx1½	625	MID-WALL INSTALLATIONS						4175	170
	1½ to 7½	9 to 28	2-¼x1¾ Titens	4-¼x1¾ Titens	6-10dx1½	545	TOP OF WALL INSTALLATIONS						3380	
WP	1½ to 7½	3½ to 30	3-10dx1½	—	2-10dx1½	—	2865	3250	—	2500	2000	2030	—	
	1½ to 7½	3½ to 30	3-10d	—	2-10dx1½	—	2525	3250	3650	3255	2525	—	—	
	1½ to 7½	3½ to 30	3-16d	—	2-10dx1½	—	3635	3320	3650	3255	2600	—	—	
WPU	1¾ to 5½	7¼ to 18	3-16d	4-16d	6-10dx1½	775	4700	4880	3650	4165	4165	—	—	I19, F18
	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	—	—	
HW	1½ to 7½	3½ to 32	4-10d	—	2-10dx1½	—	3100	4000	—	5285	3100	—	—	I10, I19, F9, F18
	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	—	—	I19, F18
	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	—	—	
	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 (0.148" dia.x 3¼" long) may be used where 10d commons are called out with no load reduction.
2. Uplift loads are based on DF/SP lumber and have been increased 60% for wind or earthquake loading with no further increase allowed. For normal loading applications such as cantilever construction refer to Simpson Strong-Tie® Connector™ software or conservatively divide the uplift load by 1.6.
3. Minimum f'_m = 1500 psi. See Installation Notes on page 93.
4. For hanger heights exceeding the joist height, the allowable load is 0.50 of the table load.
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.