THGQ/THGQH/HTHGQ

Girder Hangers for SCL or Truss Girders Attached to Truss

This product is preferable to similar connectors because of (a) easier installation, (b) higher loads, (c) lower installed cost, or a combination of these features.

A lower-cost alternative to bolted hangers, the THGQ and THGQH hangers for multi-ply girder trusses use Strong-Drive® SDS Heavy-Duty Connector screws to provide high load capacities and easier installation compared to bolts. The Strong-Drive SDS Heavy-Duty Connector screws help transfer the load between the plies of the supporting girder when they penetrate all plies.

THGQ and THGQH models offer minimum and optional maximum fastener quantities to accommodate varying design needs. Allowable loads for various girder web member sizes provide additional installation options.

The HTHGQ is a high-load version designed to carry multi-ply trusses up to 5-ply girder trusses. For high-load capacities and easier installation compared to bolts, the HTHGQ is designed for use with Strong-Drive SDS Heavy-Duty Connector screws.

Material: THGQ — 7 gauge; THGQH/HTHGQ — 3 gauge

Finish: THGQ — galvanized;
THGQH/HTHGQ — Simpson Strong-Tie gray paint

Installation:

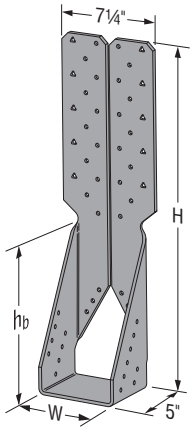
- Use all specified fasteners. See General Notes.
- Can be installed filling round holes only, or filling round and triangle holes for maximum values.
- Strong-Drive SDS Heavy-Duty Connector screws supplied for all round and triangle holes. Installation may not require use of all Strong-Drive SDS Heavy-Duty Connector screws.
- All multi-ply members must be fastened together to act as a single unit.
- The thickness of the supporting girder must be equal to or greater than the screw length. For applications where the length of the supplied screws exceeds the thickness of the supporting girder, 3" or 4½" screws may be substituted for the longer length screws with no load reduction, or a shim block may be used as approved by the designer.
- Girders must be adequately laterally braced to prevent excessive displacement due to secondary torsional stresses (Ref ANSI/TPI 1-2014 Section 7.5.3.5).

Options:

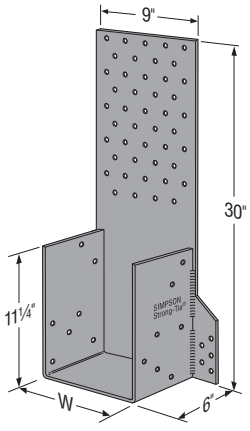
- See Hanger Options information on pp. 101–103.
- THGQH may be skewed 45° for the models shown. See p. 227.
- For Hem-Fir or Spruce-Pine-Fir members, multiply tabulated allowable loads for the skewed THGQH by 0.86. Connector must be installed centered on girder vertical webs.

Codes: See p. 13 for Code Reference Key Chart

Web Applications: Visit **app.strongtie.com/hs** to access our Hanger Selector web application.

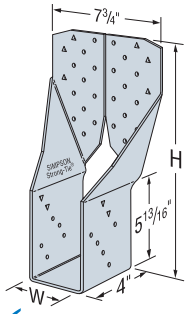


THGQH5.50-SDS
(others similar)

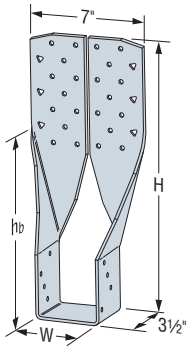


HTHGQ-SDS
(others similar)

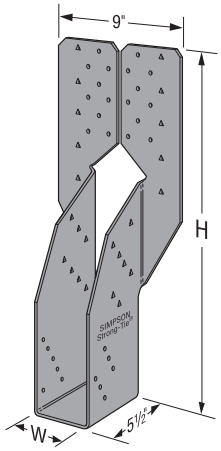
US Patent 9,228,338



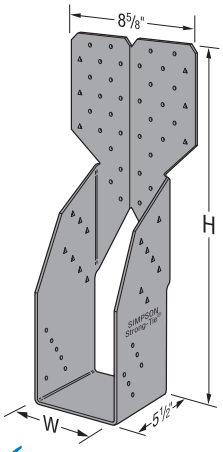
THGQ2-SDS3
(THGQ3-SDS4.5 similar)



THGQ3.62-SDS
(others similar)



THGQH2-SDS3



THGQH3-SDS4.5
(THGQH4-SDS6 similar)

THGQ/THGQH/HTHGQ

Girder Hangers for SCL or Truss Girders Attached to Truss (cont.)

Allowable Loads for Multi-Ply Truss Girder

Model No.	Dimensions (in.)		Support Member		SDS Fasteners		DF/SP Allowable Loads					SPF/HF Allowable Loads					Code Ref.
	W	H	Max. B.C. Depth	Min. Vert. Web Size	Face	Joist	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	
THGQ2-SDS3 (Min.)	3⁵⁄₁₆	16	2x12	2x6	(22) ¼" x 3"	(10) ¼" x 3"	3,600	7,920	7,920	7,920	7,920	3,095	6,600	6,810	6,810	6,810	FL
				2x8	(28) ¼" x 3"		3,600	10,080	10,080	10,080	10,080	3,095	8,400	8,670	8,670	8,670	
THGQ2-SDS3 (Max.)	3⁵⁄₁₆	16	2x12	2x6	(22) ¼" x 3"	(14) ¼" x 3"	4,535	9,240	9,770	9,770	9,770	3,900	6,600	7,590	8,250	8,400	
				2x8	(28) ¼" x 3"		4,535	11,760	12,435	12,435	12,435	3,900	8,400	9,660	10,500	10,695	
THGQH2-SDS3 (Min.)	3⁵⁄₁₆	25	2x12	2x6	(18) ¼" x 3"	(12) ¼" x 3"	3,875	7,560	7,685	7,685	7,685	3,335	5,400	6,210	6,610	6,610	
				2x8	(28) ¼" x 3"		3,875	11,760	11,950	11,950	11,950	3,335	8,400	9,660	10,275	10,275	
THGQH2-SDS3 (Max.)	3⁵⁄₁₆	25	2x12	2x6	(18) ¼" x 3"	(26) ¼" x 3"	7,635	7,560	7,940	7,940	7,940	6,565	5,400	6,210	6,750	6,830	
				2x8	(28) ¼" x 3"		9,900	11,760	12350	12,350	12,350	8,515	8,400	9,660	10,500	10,620	
THGQ3-SDS4.5 (Min.)	4¹⁵⁄₁₆	16	2x12	2x6	(22) ¼" x 4½"	(10) ¼" x 4½"	3,600	7,920	7,920	7,920	7,920	3,095	6,600	6,810	6,810	6,810	
				2x8	(28) ¼" x 4½"		3,600	10,080	10,080	10,080	10,080	3,095	8,400	8,670	8,670	8,670	
THGQ3-SDS4.5 (Max.)	4¹⁵⁄₁₆	16	2x12	2x6	(22) ¼" x 4½"	(14) ¼" x 4½"	4,535	9,240	9,770	9,770	9,770	3,900	6,600	7,590	8,250	8,400	
				2x8	(28) ¼" x 4½"		4,535	11,760	12,435	12,435	12,435	3,900	8,400	9,660	10,500	10,695	
THGQH3-SDS4.5 (Min.)	4¹⁵⁄₁₆	25	2x12	2x8	(32) ¼" x 4½"	(12) ¼" x 4½"	3,875	12,565	12,565	12,565	12,565	3,335	9,600	10,805	10,805	10,805	
				2x10	(38) ¼" x 4½"		3,875	14,920	14,920	14,920	14,920	3,335	11,400	12,830	12,830	12,830	
THGQH3-SDS4.5 (Max.)	4¹⁵⁄₁₆	25	2x12	2x8	(32) ¼" x 4½"	(26) ¼" x 4½"	9,900	12,980	12,980	12,980	12,980	8,515	9,600	11,040	11,165	11,165	
				2x10	(38) ¼" x 4½"		9,900	15,415	15,415	15,415	15,415	8,515	11,400	13,110	13,255	13,255	
THGQH4-SDS6 (Min.)	6⁹⁄₁₆	25	2x12	2x8	(34) ¼" x 6"	(12) ¼" x 6"	3,875	13,875	13,875	13,875	13,875	3,335	10,200	11,730	11,935	11,935	
				2x10	(40) ¼" x 6"		3,875	16,320	16,320	16,320	16,320	3,335	12,000	13,800	14,035	14,035	
THGQH4-SDS6 (Max.)	6⁹⁄₁₆	25	2x12	2x8	(34) ¼" x 6"	(26) ¼" x 6"	9,900	14,280	14,335	14,335	14,335	8,515	10,200	11,730	12,330	12,330	
				2x10	(40) ¼" x 6"		9,900	16,800	16,865	16,865	16,865	8,515	12,000	13,800	14,505	14,505	

1. Uplift loads have been increased for earthquake or wind loading with no further increase allowed. Reduce where other loads govern.
2. Connector must be installed centered on girder vertical webs.
3. Strong-Drive® SDS Heavy-Duty Connector screws may be installed through metal truss plates as approved by the Truss Designer, provided the requirements of ANSI/TPI 1-2014, Sections 7.5.3.4 and 8.9.2 are met (predrilling required through the plate using a ⁵⁄₃₂" bit maximum).
4. Strong-Drive SDS Heavy-Duty Connector screws that penetrate all plies of the supporting girder (screws must penetrate a minimum of 1" into the last truss ply) may also be used to transfer the load through all the plies of the supporting girder. When SDS Heavy-Duty Connector screws do not penetrate all plies of the supporting girder truss, supplemental SDS screws at the hanger locations may be required to transfer the load to the truss plies not penetrated by the face fasteners, as determined by the designer.
5. The supporting girder truss must have adequate thickness to accommodate the screw length, so that the screw does not protrude out the back of the girder. 3"- or 4½"-long Strong-Drive SDS Heavy-Duty Connector screws may be substituted for longer SDS screws with no load reduction.
6. For installations to LSL, use ¼" x 3" Strong-Drive SDS Heavy-Duty Connector screws and use the DF/SP table loads.
7. Wind (160) is a download rating.

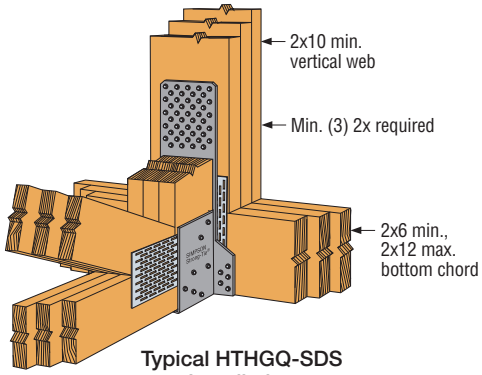
Allowable Loads for Heavy Multi-Ply Truss Girder

Model No.	Width (W) (in.)	SDS Fasteners		DF/SP Allowable Loads					SPF/HF Allowable Loads					Code Ref.
		Carrying Member	Carried Member	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	
HTHGQ2-SDS	3⁵⁄₁₆	(55) ¼"x 4½"	(14) ¼"x 3"	3,940	17,130	18,010	18,600	20,660	3,390	11,885	12,520	12,940	14,425	—
HTHGQ3-SDS	4¹⁵⁄₁₆			3,940	20,735	20,735	20,735	20,735	3,390	15,710	16,345	16,765	17,835	
HTHGQ4-SDS	6⁹⁄₁₆			3,940	20,735	20,735	20,735	20,735	3,390	16,630	17,835	17,835	17,835	
HTHGQ5-SDS	8⅛			3,940	20,735	20,735	20,735	20,735	3,390	16,630	17,835	17,835	17,835	

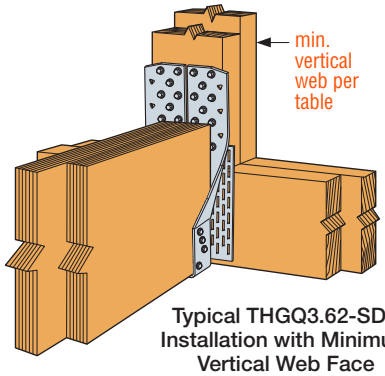
1. Tabulated allowable loads must be selected based on duration of load as permitted by the applicable building code.
2. Uplift loads have been increased for earthquake or wind loading with no further increase allowed. Reduce where other loads govern.
3. Wind (160) is a download rating.
4. Connector must be installed centered on a minimum 2x10 vertical web.
5. A minimum three-ply carrying member is required for the tabulated loads.
6. Carrying truss plies must be adequately fastened together as determined by the designer.
7. Strong-Drive SDS Heavy-Duty Connector screws may be installed through metal truss plates as approved by the Truss Designer, provided the requirements of ANSI/TPI 1-2014, Sections 7.5.3.4 and 8.9.2 are met (predrilling required through the plate using a ⁵⁄₃₂" bit maximum).

THGQ/THGQH/HTHGQ

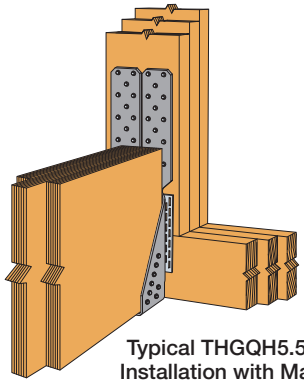
Girder Hangers for SCL or Truss Girders Attached to Truss (cont.)



Typical HTHGQ-SDS Installation



Typical THGQ3.62-SDS Installation with Minimum Vertical Web Face Fasteners



Typical THGQH5.50-SDS Installation with Maximum Vertical Web Face Fasteners

Allowable Loads for Structural Composite Lumber (SCL)

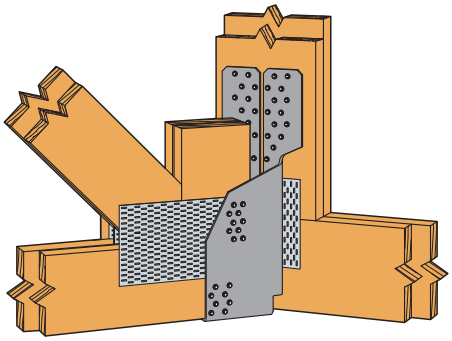
Model No.	Dimensions (in.)			Support Member		SDS Fasteners		DF/SP Allowable Loads					SPF/HF Allowable Loads					Code Ref.
	W	H	h_b	Max B.C Depth	Min. Vert. Web Size	Face	Joist	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	
THGQ3.62-SDS (Min.)	3⅝	16⅛	10	2x12	2x6	(22) ¼" x 3"	(8) ¼" x 3"	2,620	6,310	6,310	6,310	6,310	2,250	5,425	5,425	5,425	5,425	
THGQ3.62-SDS (Max.)					2x8	(28) ¼" x 3"	(8) ¼" x 3"	2,620	8,825	8,825	8,825	8,825	2,250	7,360	7,590	7,590	7,590	
THGQH3.62-SDS (Min.)	3⅝	24½	11	2x12	2x6	(26) ¼" x 3"	(18) ¼" x 3"	3,525	10,920	11,080	11,080	11,080	3,030	7,800	8,970	9,530	9,530	
THGQH3.62-SDS (Max.)					2x8	(36) ¼" x 3"	(18) ¼" x 3"	3,525	12,080	12,080	12,080	12,080	3,030	10,390	10,390	10,390	10,390	
THGQ5.50-SDS (Min.)	5½	17¼	8¼	2x12	2x6	(24) ¼" x 4½"	(8) ¼" x 4½"	2,620	7,315	7,315	7,315	7,315	2,250	6,295	6,295	6,295	6,295	
THGQ5.50-SDS (Max.)					2x8	(32) ¼" x 4½"	(8) ¼" x 4½"	2,620	8,655	8,655	8,655	8,655	2,250	7,445	7,445	7,445	7,445	—
THGQH5.50-SDS (Min.)	5½	25	11¼	2x12	2x6	(28) ¼" x 4½"	(16) ¼" x 4½"	3,525	10,640	10,640	10,640	10,640	3,030	8,400	9,150	9,150	9,150	
THGQH5.50-SDS (Max.)					2x8	(38) ¼" x 4½"	(16) ¼" x 4½"	3,525	15,960	17,325	17,325	17,325	3,030	11,400	13,110	14,250	14,900	
THGQH7.25-SDS (Min.)	7¼	24½	11¼	2x12	2x6	(28) ¼" x 6"	(16) ¼" x 6"	3,525	11,760	12,070	12070	12,070	3,030	8,400	9,660	10,380	10,380	
THGQH7.25-SDS (Max.)					2x8	(38) ¼" x 6"	(16) ¼" x 6"	3,525	15,565	15,565	15,565	15,565	3,030	11,400	13,110	13,385	13,385	
					2x10	(46) ¼" x 6"	(16) ¼" x 6"	3,525	18,360	18,360	18,360	18,360	3,030	13,800	15,790	15,790	15,790	

See THGQ foonotes on p. 226.

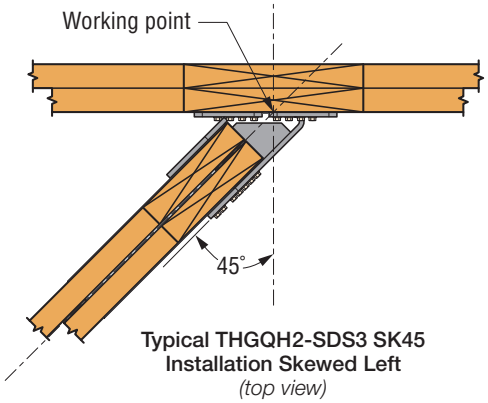
Model No.	Max. B.C. Depth (in.)	Min. Vertical Web Size	SDS Fasteners		DF/SP Allowable Loads	
			Face	Joist	Uplift (160)	Down (100/115/125)
THGQH2 SK45	17	2x6	(18) ¼" x 3"	(18) ¼" x 3"	4,570	6,090
		2x8	(28) ¼"x 3"			9,470
THGQH3 SK45	14	2x8	(30) ¼" x 4½"	(18) ¼" x 4½"	3,875	10,270
		2x10	(36) ¼" x 4½"			12,480
THGQH4 SK45	13	2x8	(34) ¼" x 6"	(18) ¼" x 6"	3,180	11,890
		2x10	(40) ¼" x 6"			13,990

1. For Hem-Fir or Spruce-Pine-Fir members, multiply tabulated allowable loads for the skewed THGQH by 0.86. Connector must be installed centered on girder vertical webs.

Visit **app.strongtie.com/hs** to access our Hanger Selector web application.



Typical THGQH2X-SDS3 SKL 45° Installation Skewed Left



Typical THGQH2-SDS3 SK45 Installation Skewed Left *(top view)*