

HRC Hip Ridge Connectors

For complementary top plate connection, see page 126

The HRC series are field slopeable connectors that attach hips to ridge members or trusses. The HRC may be sloped to 45° with no reduction in loads.

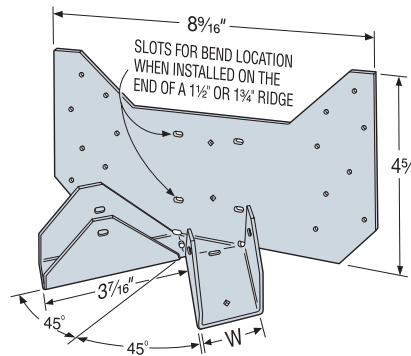
MATERIAL: 16 gauge

FINISH: Galvanized

INSTALLATION:

- Use all specified fasteners. See General Notes.
- On end of ridge—use optional diamond holes to secure the HRC. Bend face flanges back flush with ridge, and complete nailing.
- On face of ridge—adjust to correct height and install nails.
- Double bevel-cut hip members to achieve full bearing capacity.
- The HRC may be sloped to 45° with no reduction in loads.

CODES: See page 20 for Code Reference Key Chart.

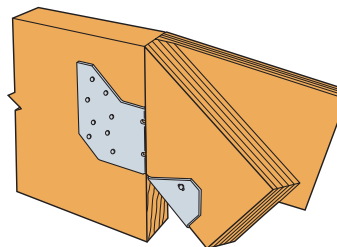


HRC1.81
U.S. Patent
5,380,116

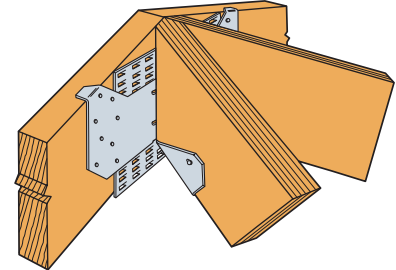
Engineered Wood & Structural Composite Lumber Connectors

Model No.	W	Member Size		Fasteners		DF/SP Allowable Loads				SPF/HF Allowable Loads				Code Ref.
		Hip	Ridge	Carrying Member	Each Hip	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	
HRC1.81	1 13/16	1 3/4"	2x or 1 3/4" wide	16-10dx1 1/2	2-10dx1 1/2	290	720	830	900	250	625	720	780	I8, L15, F7

1. Allowable loads shown are for each hip. Total load carried by the connector is double this number.
2. Uplift loads include a 60% increase for wind or earthquake loading with no further increase allowed; reduce where other loads govern.
3. Roof loads are 125% of floor loads unless limited by other criteria.
4. **NAILS:** 10dx1 1/2 = 0.148" dia. x 1 1/2" long. See page 24-25 for other nail sizes and information.



Typical HRC Installation on the End of a Ridge



Optional HRC1.81 Installation

SUR/SUL/HSUR/HSUL Skewed 45° Hangers for I-Joist and SCL



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.

The SUR/L1.81, 2.06, 2.1, 2.37, 2.56 and HSUR/L series are 45° skewed hangers designed specifically to ease the installation of single and double I-joists. In addition to Positive Angle Nailing these hangers encapsulate the top flange of the I-joist, so no web stiffeners are required for standard installation.

The full range of 45° skewed hangers feature obround nail holes on the acute side allowing nails to be easily installed parallel to the joist. Installation is further simplified with no required bevel cuts.

MATERIAL: See table on page 125.

FINISH: Galvanized. Some products available in ZMAX® coating; see Corrosion Information, page 18-19.

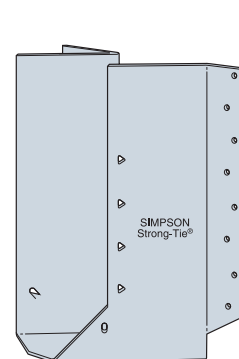
INSTALLATION: • Use all specified fasteners. See General Notes.

- Illustrations show left and right skews SUR/L (SUR = skewed right; SUL = skewed left).
- The joist end may be square cut or bevel cut.
- Fill all round and obround nail holes with specified fasteners to achieve table loads. Where noted, triangle holes in the joist flange may be filled for additional uplift capacity (see footnote on page 125).
- For I-joists with flanges less than 1 5/16", web stiffeners are required for all double joist hangers when using hangers that are 14 gauge and lighter.
- For installations to masonry or concrete, see page 156.

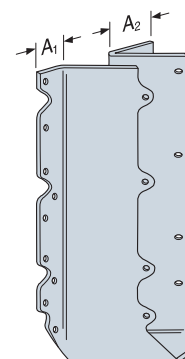
OPTIONS: • These hangers will accommodate a 40° to 50° skew.

- Available with the A₂ flange turned in on 2-2x and 4x models only (see illustration). For example, specify HSURC410, HSULC410, SURC210-2, or SULC210-2.

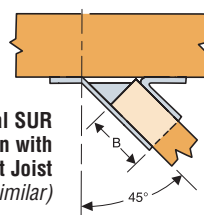
CODES: See page 20 for Code Reference Key Chart.



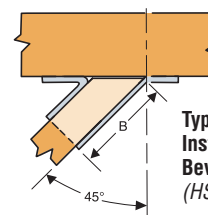
SUR2.56/11



HSUR414

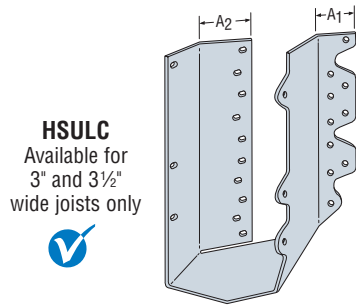


Typical SUR Installation with Square Cut Joist (HSUR similar)

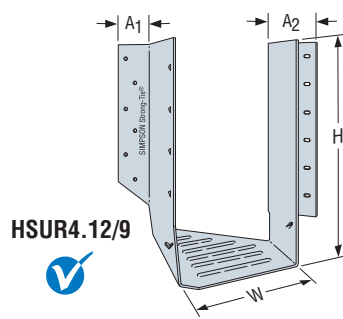


Typical SUL Installation with Bevel Cut Joist (HSUL similar)

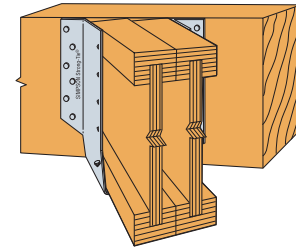
SUR/SUL/HSUR/HSUL Skewed 45° Hangers for I-Joist and SCL



HSUL
Available for
3" and 3½"
wide joists only



HSUR4.12/9



Typical HSUR4.12/9 Installation

These products are available with additional corrosion protection. Additional products on this page may also be available with this option, check with Simpson Strong-Tie for details.

Actual Joist Size	Model No.	Web Stiff Req'd	Ga	Dimensions					Fasteners		Allowable Loads							Code Ref.	
				W	H	B	A1	A2	Face	Joist	DF/SP Species Header			SPF/HF Species Header					
											Uplift ² (160)	Floor (100)	Snow (115)	Roof (125)	Uplift ² (160)	Floor (100)	Snow (115)		Roof (125)
1½x9¼-12	SUR/L210	✓	16	1⅞	8	2	1⅞	1⅞	10-16d	10-10dx1½	1250	1440	1635	1760	1075	1240	1405	1515	I9, F6, L17
1½x10-16	SUR/L214	✓	16	1⅞	10	2	1⅞	1⅞	12-16d	12-10dx1½	2165	1730	1960	2115	1860	1485	1685	1820	
1¾x9¼-9½	SUR/L1.81/9	—	16	1⅞	9	3	1⅞	2⅞	12-16d	2-10dx1½	225	1730	1960	2030	195	1485	1685	1745	160
1¾x11¼-11½	SUR/L1.81/11	—	16	1⅞	11	3	1⅞	2⅞	16-16d	2-10dx1½	225	2305	2615	2730	195	1980	2245	2350	
1¾x14	SUR/L1.81/14	—	16	1⅞	13¾	3	1⅞	2⅞	20-16d	2-10dx1½	225	2500	2500	2500	195	2150	2150	2150	I9, F8, L12
2x9½	SUR/L2.06/9	—	16	2⅞	9⅞	3⅞	1⅞	2⅞	14-16d	2-10dx1½	225	2015	2285	2465	195	1735	1965	2120	
2x11½	SUR/L2.06/11	—	16	2⅞	11¼	3⅞	1⅞	2⅞	16-16d	2-10dx1½	225	2305	2615	2665	195	1980	2245	2290	160
2x14	SUR/L2.06/14	—	16	2⅞	13¾	3⅞	1⅞	2⅞	18-16d	2-10dx1½	225	2590	2665	2665	195	2230	2290	2290	
2x16	SUR/L2.06/14	✓	16	2⅞	13¾	3⅞	1⅞	2⅞	18-16d	2-10dx1½	225	2590	2665	2665	195	2230	2290	2290	
2⅞x9½	SUR/L2.1/9	—	16	2⅞	9⅞	3⅞	1⅞	2⅞	14-16d	2-10dx1½	225	2015	2285	2465	195	1735	1965	2120	160
2⅞x11½	SUR/L2.1/11	—	16	2⅞	11¾	3⅞	1⅞	2⅞	16-16d	2-10dx1½	225	2305	2615	2665	195	1980	2245	2290	
2⅞x14	SUR/L2.1/14	—	16	2⅞	13¾	3⅞	1⅞	2⅞	18-16d	2-10dx1½	225	2590	2665	2665	195	2230	2290	2290	160
2⅞x16	SUR/L2.1/14	✓	16	2⅞	13¾	3⅞	1⅞	2⅞	18-16d	2-10dx1½	225	2590	2665	2665	195	2230	2290	2290	
2¼-2⅞x9½	SUR/L2.37/9	—	16	2⅞	8⅞	3⅞	1⅞	2⅞	14-16d	2-10dx1½	225	2015	2285	2465	195	1735	1965	2120	160
2¼-2⅞x11½	SUR/L2.37/11	—	16	2⅞	11¾	3⅞	1⅞	2⅞	16-16d	2-10dx1½	225	2305	2615	2665	195	1980	2245	2290	
2¼-2⅞x14	SUR/L2.37/14	—	16	2⅞	13¾	3⅞	1⅞	2⅞	18-16d	2-10dx1½	225	2590	2665	2665	195	2230	2290	2290	160
2¼-2⅞x16	SUR/L2.37/14	✓	16	2⅞	13¾	3⅞	1⅞	2⅞	18-16d	2-10dx1½	225	2590	2665	2665	195	2230	2290	2290	
2½x9½ (3x10,12)	SUR/L2.56/9	—	16	2⅞	8⅞	3⅞	1⅞	2⅞	14-16d	2-10dx1½	225	2015	2285	2465	195	1735	1965	2120	160
2½-2⅞x11¼-11½	SUR/L2.56/11	—	16	2⅞	11¾	3⅞	1⅞	2⅞	16-16d	2-10dx1½	225	2305	2615	2665	195	1980	2245	2290	
2½x14 (3x14)	SUR/L2.56/14	—	16	2⅞	13¾	3⅞	1⅞	2⅞	18-16d	2-10dx1½	225	2590	2665	2665	195	2230	2290	2290	160
2½x16	SUR/L2.56/14	✓	16	2⅞	13¾	3⅞	1⅞	2⅞	18-16d	2-10dx1½	225	2590	2665	2665	195	2230	2290	2290	
3x9¼-14	SUR/L210-2	✓	16	3⅞	8⅞	2⅞	1⅞	2⅞	14-16d	6-10dx1½	1300	2015	2285	2465	1120	1735	1965	2120	I9, F6, L17
	HSUR/L210-2	✓	14	3⅞	8⅞	2⅞	1¼	2⅞	20-16d	6-10dx1½	1300	2975	3360	3610	1120	2565	2895	3110	
3x14-20	SUR/L214-2	✓	16	3⅞	12⅞	2⅞	1⅞	2⅞	18-16d	8-10dx1½	1765	2500	2500	2500	1520	2150	2150	2150	160
	HSUR/L214-2	✓	14	3⅞	12⅞	2⅞	1¼	2⅞	26-16d	8-10dx1½	1795	3870	4365	4695	1550	3330	3760	4045	I9, F6, L17
3½x9¼-14	SUR/L410	✓	16	3⅞	8½	2⅞	1	2⅞	14-16d	6-16d	1300	2015	2285	2465	1120	1735	1965	2120	I9, F8, L12
	HSUR/L410	✓	14	3⅞	8½	2⅞	1	2⅞	20-16d	6-16d	1300	2975	3360	3610	1120	2565	2895	3110	
3½x14-20	SUR/L414	✓	16	3⅞	12½	2⅞	1	2⅞	18-16d	8-16d	1765	2500	2500	2500	1520	2150	2150	2150	160
	HSUR/L414	✓	14	3⅞	12½	2⅞	1	2⅞	26-16d	8-16d	1795	3870	4365	4695	1550	3330	3760	4045	
4x9½	HSUR/L4.12/9	—	14	4⅞	9	3	1⅞	2⅞	12-16d	2-10dx1½	165	1785	2015	2025	140	1540	1735	1740	160
4x11½	HSUR/L4.12/11	—	14	4⅞	11½	3	1⅞	2⅞	16-16d	2-10dx1½	165	2380	2685	2890	140	2050	2315	2490	
4x14	HSUR/L4.12/14	—	14	4⅞	13¾	3	1⅞	2⅞	20-16d	2-10dx1½	165	2975	3330	3330	140	2565	2865	2865	160
4x16	HSUR/L4.12/16	—	14	4⅞	15¾	3	1⅞	2⅞	24-16d	2-10dx1½	165	3330	3330	3330	140	2865	2865	2865	
4⅞x9½	HSUR/L4.28/9	—	14	4⅞	9	3	1⅞	2⅞	12-16d	2-10dx1½	165	1785	2015	2025	140	1540	1735	1740	160
4⅞x11½	HSUR/L4.28/11	—	14	4⅞	11½	3	1⅞	2⅞	16-16d	2-10dx1½	165	2380	2685	2890	140	2050	2315	2490	
4⅞x14-16	HSUR/L4.28/11	✓	14	4⅞	11½	3	1⅞	2⅞	16-16d	2-10dx1½	165	2380	2685	2890	140	2050	2315	2490	160
4⅞x9½	HSUR/L4.75/9	—	14	4⅞	8⅞	2⅞	1⅞	2⅞	12-16d	2-10dx1½	165	1785	2015	2025	140	1540	1735	1740	
4⅞x11½	HSUR/L4.75/11	—	14	4⅞	10⅞	2⅞	1⅞	2⅞	16-16d	2-10dx1½	165	2380	2685	2890	140	2050	2315	2490	160
4⅞x14	HSUR/L4.75/14	—	14	4⅞	13¾	2⅞	1⅞	2⅞	20-16d	2-10dx1½	165	2975	3330	3330	140	2565	2865	2865	
4⅞x16	HSUR/L4.75/16	✓	14	4⅞	15¾	2⅞	1⅞	2⅞	24-16d	2-10dx1½	165	3330	3330	3330	140	2865	2865	2865	
5x9½	HSUR/L5.12/9	—	14	5⅞	9	2⅞	1⅞	2⅞	12-16d	2-10dx1½	165	1785	2015	2025	140	1540	1735	1740	160
5x11½	HSUR/L5.12/11	✓	14	5⅞	11	2⅞	1⅞	2⅞	16-16d	2-10dx1½	165	2380	2685	2890	140	2050	2315	2490	
5x14	HSUR/L5.12/14	—	14	5⅞	13¾	2⅞	1⅞	2⅞	20-16d	2-10dx1½	165	2975	3330	3330	140	2565	2865	2865	160
5x16	HSUR/L5.12/16	—	14	5⅞	15¾	2⅞	1⅞	2⅞	24-16d	2-10dx1½	165	3330	3330	3330	140	2865	2865	2865	

- Uplift loads have been increased for wind or earthquake loading with no further increase allowed; reduce where other loads govern.
- Triangle nail holes may be filled (requires web stiffeners) with 10dx1½" nails for additional uplift.
 - SUR/SUL 9- and 11-inch and all HSUR/HSUL models have (4) additional holes, that when filled can resist 795 lbs. for Douglas Fir or Southern Pine or 685 lbs. for SPF/HF.
 - SUR/SUL 14-inch models have (6) additional holes, that when filled can resist 1190 lbs. for DF/SP and 1025 lbs. for SPF/HF.
- When the supported member is an I-joist with flanges less than 1⅞" inches thick, the allowable uplift shall not exceed 190 lbs. without web stiffeners.
- Allowable downloads are based on a joist bearing capacity of 750 psi.
- NAILS: 16d = 0.162" dia. x 3⅞" long, 10dx1½" = 0.148" dia. x 1½" long. See page 24-25 for other nail sizes and information.