

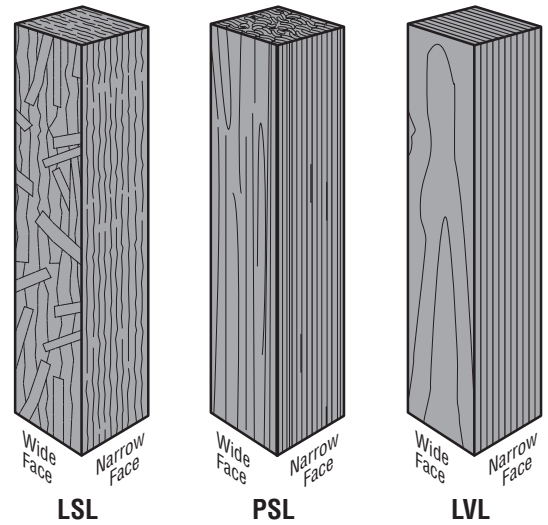
CONNECTORS INSTALLED ON SCL COLUMNS

Attachments made to structural composite lumber (SCL) often use a variety of Simpson Strong-Tie® connectors. It is important to observe that there are two different surface sides to SCL, each having different structural properties. This technical bulletin addresses the difference in connector capacity based upon which surface the attachments are made.

SCL is made from layers of either thin veneer sheets (LVL), long thin veneer strands (PSL) or smaller thin strands (LSL). Even on square posts, each of these SCL types has a lumber face that can be referred to as “wide” and another that can be referred to as “narrow.”

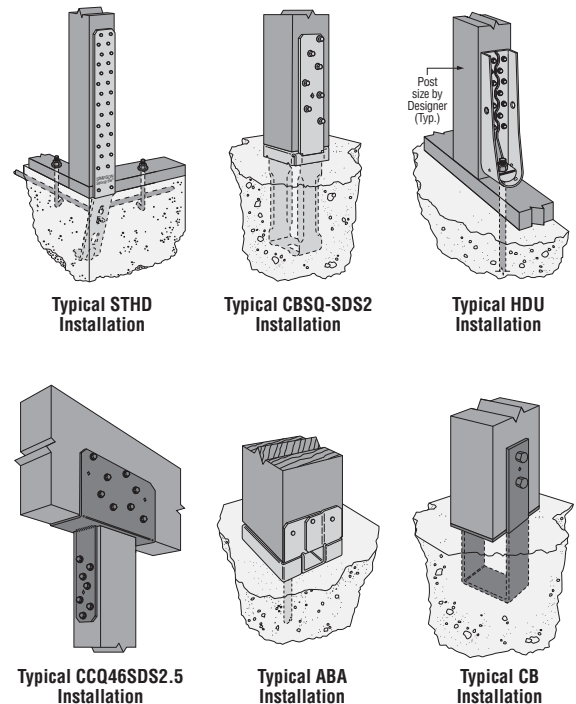
The narrow face is the surface that shows all of the thin edges of the SCL layers. If the cross section dimensions are not square (e.g. 3½ x 5¼), then the narrow dimension will show the edges. In contrast, the wide face is the surface that shows the broader, wider strand or veneer face.

Simpson Strong-Tie recommends that connectors be attached to the wide face of SCL columns to achieve full current catalog load values. If connectors are installed onto the narrow face of SCL columns, reduction factors may apply (see table below). For fastener design information, refer to the SCL manufacturer’s code reports or literature.



Reduction Factors for Narrow Face SCL Installations

Connector Type	Applicable Simpson Strong-Tie® Connector Series	Reduction Factors ¹ by SCL Type		
		LSL	PSL	LVL
Column Bases and Column Caps	CCQ, ECCQ, CBSQ, CBQ, CC, ECC, CB, LCB (bolted only), BC, AC, ACE, PC, LPC, ABA, ABE, HUCQ	1.00	0.90	0.90
	ABU, PB, PBS, EPB, LCB (nailed only)	Do not use in narrow face		
Miscellaneous Nailed Applications	STHD ³ , LSTHD ³ , HTT22, LTT20B, LTT131, FSC	0.90	0.75	0.75
	HTT16, LTT19, LCE	0.80	0.65	0.65
	Nailed Straps, PAI, PAHD, HPAHD	Do not use in narrow face		
Holdown – Special Application	HTT4 ⁴ , HTT5 ⁴ Do not use nails – use SD10x1½ screws	1.00	0.90	0.90
Holdowns – SDS Screw Applications	HDU2, HDU4, HDU5, HDC5	0.90	0.75	0.75
	HDU8, HDU11, HDU14, HDC10, HDQ8, HHDQ	0.75	0.75	0.75
Holdowns – Bolted Applications	HD2A, HD5	0.80	0.75	0.60
	HD7, HD9, HD12, HD19	0.80	0.45	0.45



- Reduction factors apply to narrow face installations only and are applied to allowable loads published in the current Wood Construction Connectors catalog. Published DF/SP and SPF allowable loads assume a specific gravity of 0.50 and 0.42 respectively. Refer to SCL manufacturer’s literature to determine equivalent specific gravity.
- For column caps and bases reduction factors apply to uplift loads only. For download and lateral directions use full published allowable loads.
- The STHD and LSTHD values are based on tests assuming the post was directly on the sill plate and that the maximum sill plate thickness is 1½ inches. For thicker sill plates the STHDRJ or LSTHDRJ may be used with the same reductions as the STHD. The reduction factors apply to the highest catalog load in the table (5785 lbs).
- The HTT4 and HTT5 can use 16d x 2½ nails into the wide face only at full catalog load. If attached to the narrow face of SCL, they must be installed with Simpson Strong-Tie SD10x1½ screws and apply the reduction factors shown above to the catalog loads for 16d x 2½ inch nails.

This technical bulletin is effective until January 31, 2012, and reflects information available as of September 1, 2009. This information is updated periodically and should not be relied upon after January 31, 2012; contact Simpson Strong-Tie for current information and limited warranty or see www.strongtie.com.