

## ECCLQ/CCCQ/CCTQ Column Caps

The ECCLQ, CCCQ and CCTQ column caps provide high capacity, multiple beam to column connector options. The design uses Simpson Strong-Tie® Strong-Drive® screws (SDS) to provide faster installation and a lower profile compared to standard through bolts. Screws are configured to provide high uplift design values.

**MATERIAL:** 7 gauge

**FINISH:** Simpson Strong-Tie® gray paint, also available in HDG

### INSTALLATION:

- Install Simpson Strong-Tie SDS 1/4"x2 1/2" wood screws, which are provided, in all round holes. (*Lag screws will not achieve the same load.*)
- No additional welding is allowed.

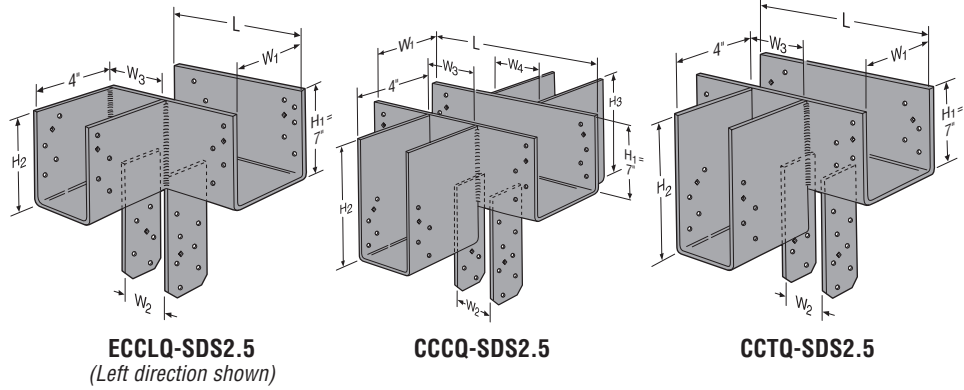
### OPTIONS:

- Many combinations of beam and post sizes can be manufactured (*refer to worksheet T-CCQLTC-WS*).
- Available in widths up to 8" wide.
- ECCLQ is available in left or right side beam orientations. Specify ECCLLQ or ECCLRQ.
- Straps may be rotated where  $W_1 > W_2$ .
- Column caps may be ordered without the column straps for field welding to a column. No loads apply. Specify CCCQ/CCTQ/ECCLQ.

### ORDERING:

- The L dimension varies depending on the width of the side stirrup ( $W_3$  or  $W_4$ ). Contact Simpson Strong-Tie for exact dimensions.
- Main beam stirrup height ( $H_1$ ) is 7". Side beam stirrups ( $H_2$  or  $H_3$ ) can vary in height with the minimum height of 7". Specify the side stirrup height from the top of the cap.
- Example Order: 4x Main Beam, 6x Post, 4x Side Beam (*oriented to the left*) is ordered as an ECCLLQ464SDS

**CODES:** See page 12 for Code Reference Key Chart.



Series	Allowable Loads			Code Ref.	
	Uplift (160)				Download (100/115/125)
	Main Beam	Side Beam	Total <sup>2</sup>		
ECCLQ-SDS2.5	2835	2835 <sup>3</sup>	3795	Refer to note #4 170	
CCCQ-SDS2.5	4780	2390 <sup>1</sup>	4780		
CCTQ-SDS2.5	4910	2350	5315		

- Allowable load is per seat. Side beams must be loaded symmetrically for the CCCQ.
- The combined uplift loads applied to all beams in the connector must not exceed the total allowable uplift load listed in the table.
- Where noted, the ECCLQ side beam may deflect an additional 1/8" beyond the standard 1/8" limit at the maximum uplift.
- The combined download for all of the carried beams shall not exceed the allowable download for the unmodified product on page 54 (*CCQ load for CCCQ and CCTQ, or ECCQ load for ECCLQ*). The download for each side beam shall not exceed the lesser of 35% of the allowable download or **9265 lbs.** for the unmodified product.
- Column width in the direction of the beam width must be the same as the main beam width ( $W_1$ ).

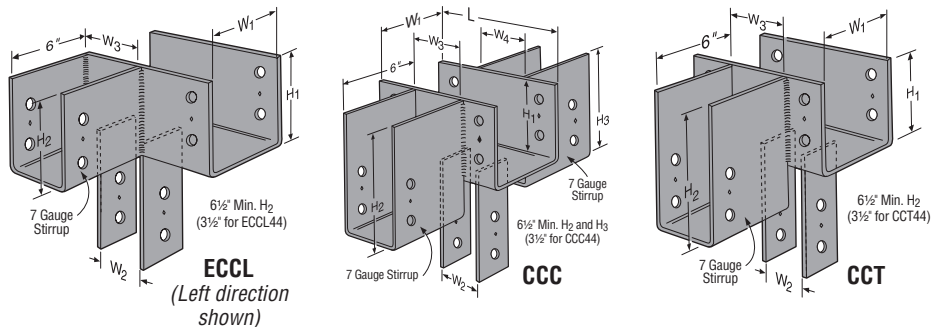
## ECCL/CCC/CCT Column Caps

Column to beam connections often have multiple beams framing on top of a column. L, T, and Cross column caps provide design solutions for this application. Many combinations of beam and post sizes can be manufactured (*refer to worksheet T-CCLTC-WS for details*) with the following criteria applied:

- The download capacity shall be determined from the capacity for the unmodified product (*see page 55*). The side beam can take a maximum of 40% of the download and shall not exceed 10,665 lbs. The sum of the loads for the side beam(s) and main beam can not exceed the table load.
- Uplift loads do not apply for ECCL caps. For CCC and CCT, uplift loads from table apply for main beam only.
- The column width in the direction of the main beam width must be the same as the main beam width ( $W_1$ ).
- Specify the stirrup height from the top of the cap. The minimum side stirrup heights ( $H_2$  or  $H_3$ ) is 6 1/2" (3 1/2" for 44's).
- The L dimension may vary depending on the width of the side stirrup ( $W_3$  or  $W_4$ ).
- Column caps may be ordered without the column straps for field welding to a column. No loads apply. Specify CCOC/CCOT/ECCL.

### Ordering Examples:

- A CCC66 with  $W_3 = 5 1/2"$ ,  $H_2$  and  $H_3 = 6 1/2"$  is a CC66 column cap with 5 1/2" beams on each side with all beam seats flush.
- An ECCLR66 with  $W_3 = 3 5/8"$ ,  $H_2 = 7 1/2"$  is an ECC66 end column cap with a 4x beam on the right side (*specify direction left (which is shown) or right for stirrup*) and stirrup seat 1" below the cap seat.



There are cost-effective alternatives for replacing column caps by using a combination of connectors. Here is an example. Designer must specify the options required.

