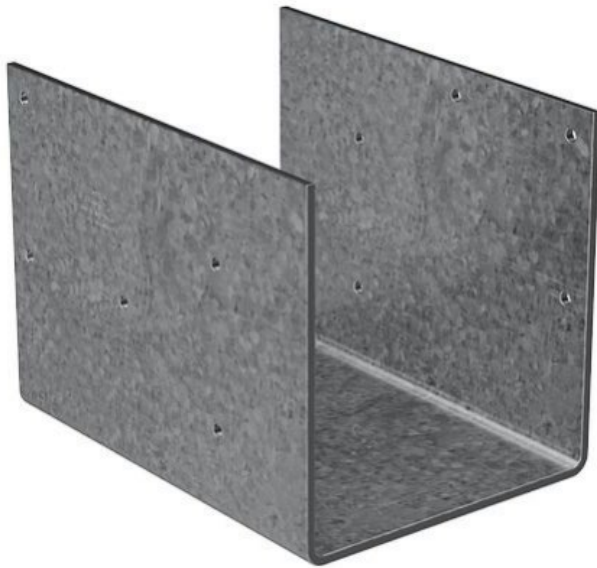


# CCOS

## Steel-Column Cap



The CCOS provides a high-capacity connection for column-to-beam combinations. This design without the column straps was created specifically for field welding to a steel column. For faster installation, the CCOS requires that Simpson Strong-Tie Quik Drive® screws be used to attach the column cap to the column cap plate.

### Key Features

- Simpson Strong-Tie Quik Drive self-tapping screws included
- Provides adequate bearing length for larger girder reactions
- Sizes available for both solid sawn lumber and engineered wood products

### Material

- 7 gauge

### Finish

- Galvanized (G90)

### Installation

- Use all specified fasteners; see General Notes.
- Attach steel column cap to column end plate with (4) CCOS tap screws (provided) and attach to girder. Install with 5/16"-hex driver.

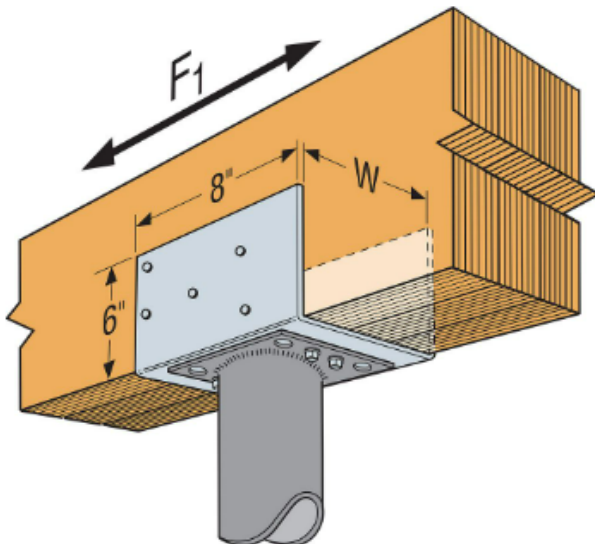
# CCOS

## Steel-Column Cap

### Load Tables

Model No.	W (in.)	Girder	Nails <sup>7</sup>	Allowable Loads			
				Download <sup>1,2,3</sup>		Uplift (160)	F <sub>1</sub> (160)
				DF/SP/SPF	LVL/PSL/LSL		
CCOS3.12	3 1/8	Double 2x10/12	(10) 10d	11,590	—	1,490	2,120
CCOS3.62	3 5/8	3.5 LVL/PSL/LSL	(10) 10d	—	18,285	1,490	2,120
CCOS4.62	4 5/8	Triple 2X10/12	(10) 10d	16,690	—	1,490	2,120
CCOS5.50	5 1/2	5.25 LVL/PSL/LSL	(10) 10d	—	23,720	1,490	2,120
CCOS7.25	7 1/4	7 LVL/PSL/LSL	(10) 10d	—	24,625	1,490	2,120

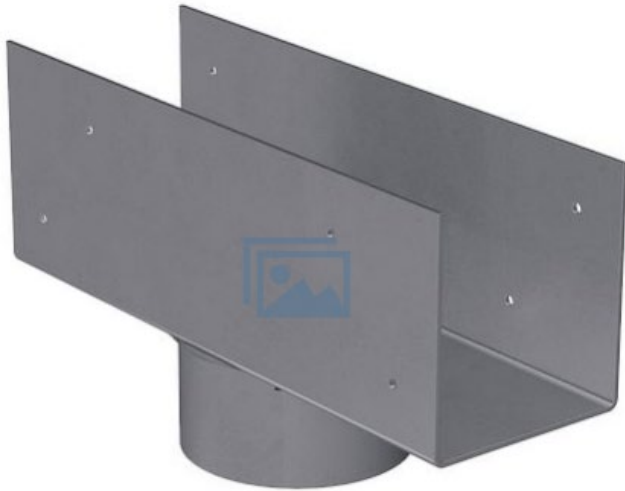
1. Loads may not be increased for short-term loading.
  2. Allowable loads are determined using the lowest of the bearing loads using  $F_c$ -perp equal to 425 psi for SPF, 625 psi for DF and 700 psi for LVL/PSL/LSL.
  3. Loads are for a continuous beam.
  4. The CCOS must be attached to the column cap plate with (4) CCOS self-tapping screws through the end plate and into the bottom of the CCOS. Max column cap plate thickness = 1/2" and 3/16" Min.
  5. All pipe columns need to be designed by a qualified designer. CCOS minimum column diameter is 3".
  6. CCOS caps can resist out-of-plane ( $F_2$ ) forces up to 2120 lbs. provided the beam is braced to resist torsional rotation.
  7. NAILS: 16d = 0.162" dia. x 3 1/2" long, 10d = 0.148" dia. x 3" long.
- See [other nail sizes and information](#).



Typical CCOS5.50 Installation connecting a 3-ply LVL and a steel column

# LCC

## Lally-Column Cap



The LCC is designed specifically to be welded to the lally column and attach to the girder. The column cap provides a higher-capacity column-to-beam connection for new or replacement applications. Side plates capture the beam enabling a safer installation process than standard cap plates.

### Key Features

- Provides adequate bearing length for larger girder reactions
- Cap fits over column for precise positioning and welding
- Designed specifically to work with 3 1/2"- and 4"-diameter lally columns

### Material

- 12 gauge

### Finish

- Simpson Strong-Tie® gray paint

### Installation

- Use all specified fasteners; see General Notes
- Fit the lally column cap over the lally column and attach to the girder

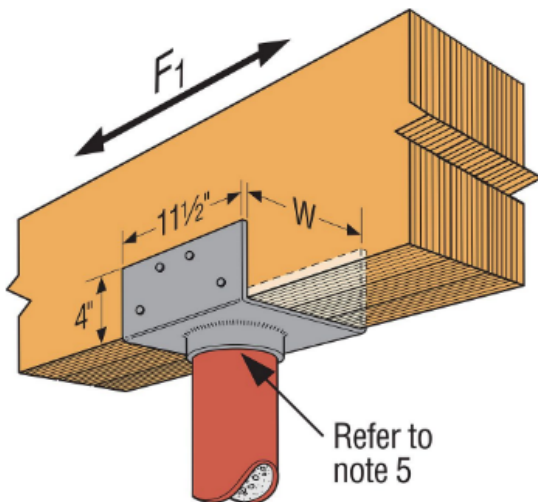
# LCC

## Lally-Column Cap

### Load Tables

Model No.	W (in.)	Girder	Nails <sup>7</sup>	Lally Column Outside Diameter (in.)	Allowable Loads			
					Download <sup>1,2,3,4</sup>		Uplift (160)	F <sub>t</sub> <sup>5</sup> (160)
					DF/SP/SPF	LVL/PSL/LSL		
LCC4.5-3.5	4 5/8	Triple 2X10/12	(8) 16d	3 1/2	15,280	—	—	1,615
LCC3.5-3.5	3 5/8	3.5 LVL/PSL/LSL	(8) 16d	3 1/2	—	15,820	—	1,615
LCC3.5-4	3 5/8	3.5 LVL/PSL/LSL	(8) 16d	4	—	20,670	—	1,615
LCC4.5-4	4 5/8	Triple 2X10/12	(8) 16d	4	20,670	—	—	1,615
LCC5.25-3.5	5 3/8	5.25 LVL/PSL/LSL	(8) 16d	3 1/2	—	15,820	—	1,615
LCC5.25-4	5 3/8	5.25 LVL/PSL/LSL	(8) 16d	4	—	20,670	—	1,615
LCC6-3.5	6 1/8	Quad 2x10/12	(8) 16d	3 1/2	15,820	—	—	1,615
LCC6-4	6 1/8	Quad 2x10/12	(8) 16d	4	20,670	—	—	1,615
LCC7-3.5	7 1/8	7 LVL/PSL/LSL	(8) 16d	3 1/2	—	15,820	—	1,615
LCC7-4	7 1/8	7 LVL/PSL/LSL	(8) 16d	4	—	20,670	—	1,615

1. Loads may not be increased for short-term loading.
2. Allowable loads are determined using the lowest of the bearing loads using  $F_c$ -perp equal to 425 psi for SPF, 625 psi for DF and 700 psi for LVL/PSL/LSL.
3. Loads are for a continuous beam.
4. Spliced conditions for the LCC must be detailed by the designer to transfer tension loads between spliced members by means other than the lally column. The splice condition load is 6,750 lbs per beam side for LCC must be evenly loaded.
5. To achieve lateral loads, the LCC pipe must be welded to the column with an 1/8" fillet weld around the entire pipe.
6. NAILS: 16d = 0.162" dia. x 3 1/2" long, 10d = 0.148" dia. x 3" long.  
See [other nail sizes and information](#).



Typical LCC5.25-3.5 Installation connecting a 3-ply LVL and a 3 1/2" diameter (O.D.) steel column