

CCQM/CCTQM/ECCLQM/CCCQM/ECCLQMD

Column Caps for GFCMU and Concrete Piers

The CCQM/CCTQM/CCCQM/ECCLQM embedded column caps are designed for use in raised pier foundations and applications where heavy timbers rest on concrete or concrete block columns. The heavy-gauge beam seats and unique SSTB-style anchor bolts provide the high uplift and lateral resistance needed to help resist high-wind events. The ECCLQMD is a variation that incorporates an additional seat to support a third member at the corner connection. The CCCQM is a variation that incorporates a stirrup on each side for intermediate support beams perpendicular to the main channel.

Framing is fastened with Strong-Drive® SDS Heavy-Duty Connector screws (included) that install with no predrilling and feature a corrosion-resistant double-barrier coating.

CCQM — Intended for use along a floor support beam and non-corner locations

CCTQM — Also for use along a floor support beam and non-corner locations with a side stirrup that accommodates intermediate support beams coming at 90°

CCCQM — For use along a floor support beam with a stirrup on each side of the main channel that accommodates intermediate support beams coming at 90°

ECCLQM-KT — Intended for use at the corners with MSTQM straps to make the connection from the ECCLQM to the wall framing above

ECCL/RQMD-KT — Ideal for applications where a member is needed off the corner of the structure, such as a deck joist/beam

Material: Column caps — 7 gauge; strap (MSTQM) — 12 gauge

Finish: Column caps — hot-dip galvanized or Simpson Strong-Tie gray paint; strap (MSTQM) — galvanized (ZMAX®)

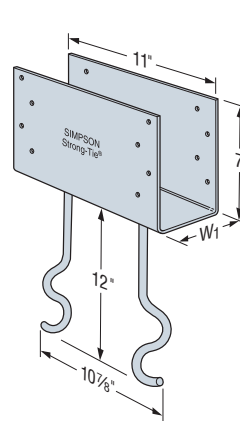
Installation:

- Use all specified fasteners; see General Notes
- Reference T-C-CCQM-WS special order worksheet at strongtie.com for ordering assistance

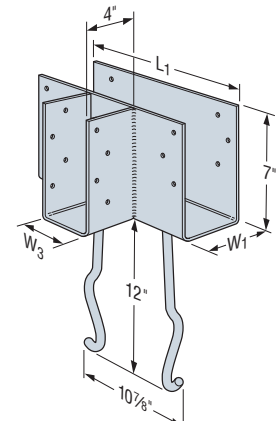
Options:

- For variable widths on side stirrups specify W_3 or W_4 ($3\frac{1}{4}$ " to $7\frac{1}{2}$ "") and add an "X" to the end of the core model name. Example: CCTQM5.50X-SDSG, $W_3 = 3\frac{3}{8}$ ".

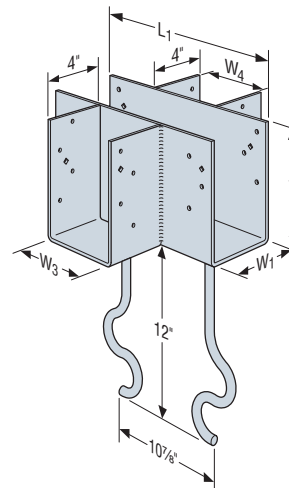
Codes: See p. 11 for Code Reference Key Chart



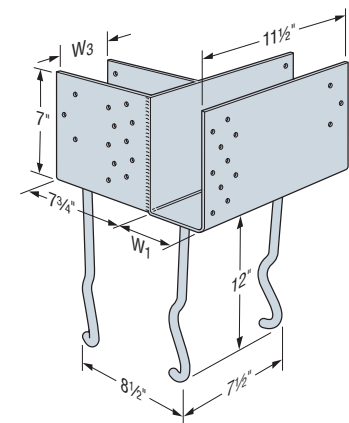
CCQM



CCTQM

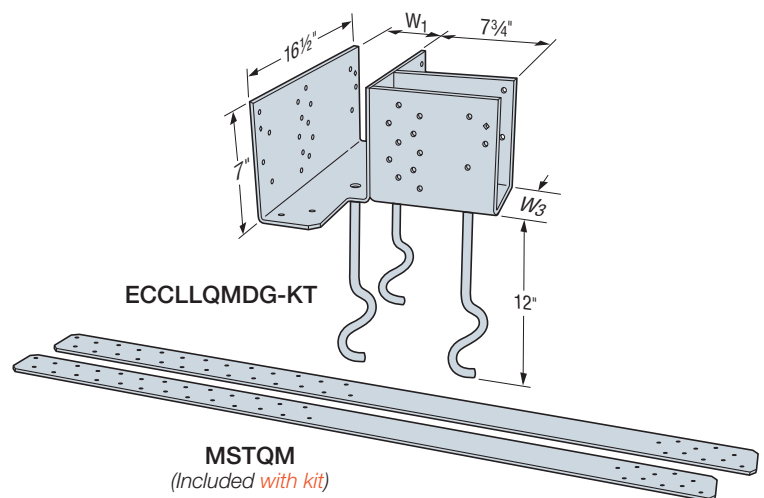


CCCQM



ECCLRQM

(right-hand model shown)



ECCLQMDG-KT

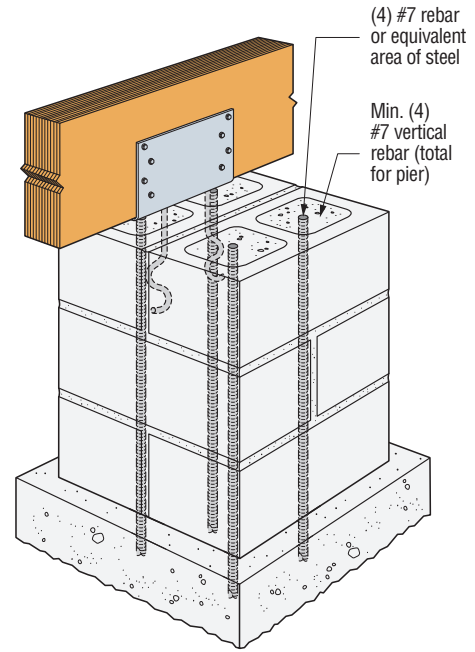
MSTQM
(Included with kit)

CCQM/CCTQM/ECCLQM/CCCQM/ECCLQMD

Column Caps for GFCMU and Concrete Piers (cont.)

Dimensions

Model No.	Main Channel Width (W ₁) (in.)	Side Stirrup Width (W ₃ and W ₄) (in.)	Main Channel Length (L ₁) (in.)	Side Stirrup Length (L ₂) (in.)
CCQM3.62-SDSHDG	3%	—	11	—
CCQM4.62-SDSHDG	4%	—	11	—
CCQM5.50-SDSHDG	5½	—	11	—
CCTQM3.62-SDSG	3%	3%	11½	4
CCTQM4.62-SDSG	4%	4%	13½	4
CCTQM5.50-SDSG	5½	5½	13½	4
CCCQM3.62-SDSG	3%	3%	11½	4
CCCQM4.62-SDSG	4%	4%	13½	4
CCCQM5.50-SDSG	5½	5½	13½	4
ECCLQM3.62G-KT	3%	3%	11½	7¾
ECCLQM4.62G-KT	4%	4%	11½	7¾
ECCLQM5.50G-KT	5½	5½	11½	7¾
ECCLQMD3.62G-KT	3%	3%	16½	7¾
ECCLQMD3.62G-KT	3%	3%	16½	7¾
ECCLQMD4.62G-KT	4%	4%	16½	7¾
ECCLQMD5.50G-KT	5½	5½	16½	7¾
ECCLQMD5.50G-KT	5½	5½	16½	7¾



Typical CCQM Installation
For other installations and pier construction, see strongtie.com

1. The MSTQM strap is a component of the ECCLQMD kits. It is 12 ga. (0.101"), 3" wide, and 48" long.

These products are available with additional corrosion protection. For more information, see p. 14.

Model No.	No. of ¼" x 2½" SDS Screws			16" Square Grout-Filled CMU Pier ^{3,6}				16" Square CMU Shell Filled with 3,000 psi Concrete ^{3,7}				Deck Joist Connection		Code Ref.
				Uplift (160)			Lateral (160)	Uplift (160)			Lateral (160)	Download	Uplift	
	Main Beam	Side Beam	Deck Beam	Main Beam	Side Beam	Total		Main Beam	Side Beam	Total				
CCQM-SDSHDG	12	—	—	6,750	—	6,750	2,460	6,495	—	6,495	2,650	—	—	FL
CCTQM-SDSG	12	8	—	6,750	5,375	6,750	2,460	6,495	5,375	6,495	2,650	—	—	
CCCQM-SDSG	12	8	—	6,750	5,375	6,750	2,460	6,495	5,375	6,495	2,650	—	—	
ECCLQM-KT ⁸	16	16	—	6,240	6,240	7,340	2,220	6,240	6,240	7,830	2,565	—	—	
ECCLQMDG-KT ⁹	16	16	6	6,240	6,240	7,340	2,220	6,240	6,240	7,830	2,565	5,475	2,010	

1. Loads have been increased for wind or earthquake loading, with no further increase allowed. Reduce where other loads govern.
2. Total uplift load and lateral load is based on tested anchor failure in the pier.
3. Allowable loads are based on either a 16" square grout-filled CMU pier with f_m of 1,500 psi or a 16" square CMU shell filled with 3,000 psi concrete. A minimum of four #7 vertical rebars are required. The designer shall design and detail the GFCMU/concrete pier to resist all forces including uplift, shear and moment.
4. Pier height per designer.
5. Side beam and main beam uplift loads assume DF/SP members and are not additive.
6. The allowable loads listed for grout-filled CMU apply to solid concrete piers of 2,500 psi concrete a minimum of 16" square.
7. The allowable loads listed for CMU shell-filled with 3,000 psi concrete apply to solid concrete piers of 3,000 psi concrete a minimum of 14" square.
8. The ECCLQM-KT is a kit packaged with two MSTQM straps and (32) ¼" x 2½" Strong-Drive® SDS Heavy-Duty Connector screws. One strap may be installed on each face of the ECCLQM, using the SDS Heavy-Duty Connector screws in the beams and (26) 0.162" x 2½" nails (not provided) in the wall framing. The MSTQM strap's allowable tension load is 6,240 lb. If straps are not installed, table uplift applies to beam only.
9. The ECCLQMDG-KT is a kit packaged with two MSTQM straps and (32) ¼" x 2½" Strong-Drive SDS Heavy-Duty Connector screws. The allowable download for the deck joist connection requires 2-2x deck joist. For single 2x joist, allowable download is 5,240 lb.
10. Any side stirrup not fully supported by grout- or concrete-filled CMU has an allowable download of 7,000 lb.
11. **Fasteners:** SDS screws are Simpson Strong-Tie® Strong-Drive SDS Heavy-Duty Connector screws. See pp. 21–22 for fastener information.