

# CPTZ

## Concealed Post Tie

The CPTZ concealed post base provides a clean, concealed look while providing a 1" standoff height above concrete. The 1" standoff reduces the potential for decay at the post end and satisfies code requirements for posts that are exposed to weather, water splash or in basements. It is part of a system of concealed connectors that includes the CBTZ and CJTZ.

- The CPTZ is tested and load-rated for uplift, download and lateral load.
- Simpson Strong-Tie saves installers time by providing all the necessary components to make the post connection in one box (anchors not included).
- There are two anchorage solutions available. See tables for information.
- Solutions have been calculated per ACI 318 to determine their allowable load in different concrete configurations.

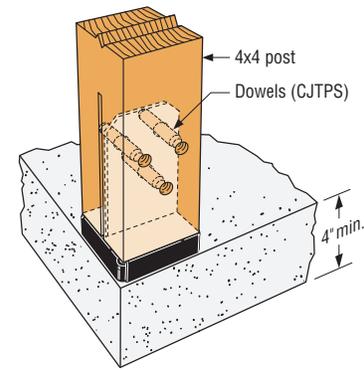
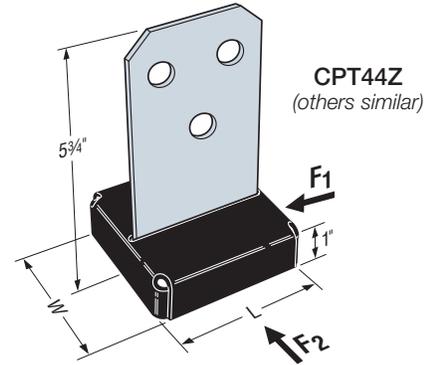
**Material:** See table below

**Finish:** Knife plate, washers and standoff base are ZMAX®-galvanized steel. The standoff base has an additional textured, flat black powder-coat finish for aesthetic purposes. The ½"-diameter drift dowels are mechanically galvanized in accordance with ASTM B695, Class 55. If substituting ½"-diameter bolts, a hot-dip galvanized finish is recommended. Some available in stainless steel (see table).

**Installation:**

- Use all specified fasteners; see General Notes
- More extensive installation instructions are available through our Literature Library app or by visiting [strongtie.com](http://strongtie.com)
- Post bases do not provide adequate resistance to prevent members from rotating about the base and therefore are not recommended for non-braced, or non-top-supported installations

**Codes:** See p. 11 for Code Reference Key Chart



Typical CPT44Z Installation

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

SS For stainless-steel fasteners, see p. 21.

Model No.	Nominal/ Rough Post Size	Base (ga.)	Knife Plate (ga.)	Dimensions (in.)		Fasteners				Allowable Loads (DF/SP)				Code Ref.
				W	L	Anchor		Post		Uplift (160)	Down (100)	F <sub>1</sub> (160)	F <sub>2</sub> (160)	
						Qty.	Dia.	Qty.	Type <sup>3</sup>					
SS CPT44Z	4x4	12	10	3½	3½	2	½	3	½" x 2¾" dowel	3,035	11,455	600	605	IBC, FL, LA
									½" MB	3,240				
CPT66Z	6x6	12	10	5¾	5¾	2	½	3	½" x 4¾" dowel	3,315	20,130	655	1,025	
									½" MB	4,055				
CPT88Z	8x8	12	10	7¼	7¼	2	½	3	½" x 4¾" dowel	3,315	22,805	740	1,080	
									½" MB	4,055				

1. Uplift loads have been increased for earthquake or wind loading with no further increase allowed. Reduce where other loads govern.
2. Downloads shall be reduced where limited by capacity of the post.
3. CPTZ concealed post ties are supplied with (3) ½"-diameter dowel pins. Alternative ½"-diameter hex- or square-head machine bolts may be used for loads listed.
4. Lag screws or carriage bolts are not permitted.
5. Structural composite lumber columns have sides that show either the wide face or the edges of the lumber strands/veneers. For SCL columns, the fasteners for these products should always be installed in the wide face. See technical bulletin T-C-SCLCLM for more information.

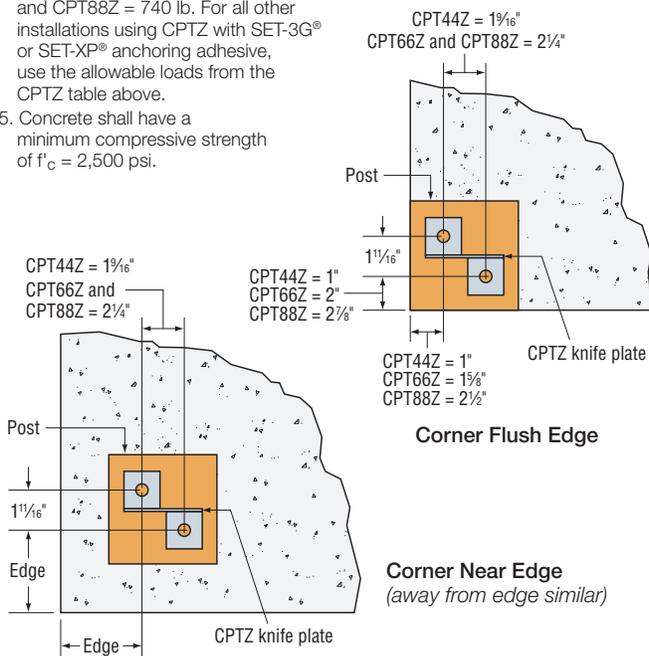
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## Concealed Post Tie (cont.)

### Anchor Option 1 — CPTZ Anchorage Using SET-3G™ Anchoring Adhesive

Model No.	Embed. (in.)	Edge Distance (in.)	Allowable Uplift		
			Anchorage		CPTZ
			Uncracked	Cracked	
<b>Corner — Flush Edge</b>					
CPT44Z	2¾	—	505	405	3,035
CPT66Z	2¾	—	580	465	3,315
CPT88Z	2¾	—	625	500	3,315
<b>Corner — Near Edge</b>					
CPT44Z	5	4	1,480	1,185	3,035
CPT66Z	5	5	2,025	1,620	3,315
CPT88Z	5	6	2,430	1,945	3,315
<b>Corner — Away from Edge</b>					
CPT44Z	6	9	4,005	3,205	3,035
CPT66Z	7½	11¼	5,440	4,350	3,315
CPT88Z	7½	11¼	5,440	4,350	3,315
<b>10"-Diameter Circular Pedestal</b>					
CPT44Z	5	4	1,560	1,245	3,035
CPT66Z	5	3¾	1,460	1,165	3,315
<b>12"-Diameter Circular Pedestal</b>					
CPT44Z	5	5	2,025	1,620	3,035
CPT66Z	5	4¾	1,935	1,550	3,315
CPT88Z	5	4¾	1,935	1,550	3,315

1. Allowable uplift loads are calculated per **ACI 318-19** with reference to cracked and uncracked concrete and are qualified for Wind and Seismic Design Categories A&B. Allowable loads are also applicable to detached one- and two-family dwellings in SDC C per IBC, Section 1613. No further increases allowed.
2. Edge distance is considered to be measured from the center line of the nearest anchor bolt to the edge of concrete.
3. Foundation dimensions are for anchorage only. Foundation design (size and reinforcement) by designer. The registered design professional may specify alternative embedment, footing size, and anchor bolt.
4. Lateral loads ( $F_1 = F_2$ ) for Corner - Flush Edge conditions are CPT44Z = 395 lb., CPT66Z = 570 lb., and CPT88Z = 740 lb. For all other installations using CPTZ with SET-3G® or SET-XP® anchoring adhesive, use the allowable loads from the CPTZ table above.
5. Concrete shall have a minimum compressive strength of  $f'_c = 2,500$  psi.



### Anchor Option 2 — CPTZ Cast-in-Place Anchorage

Model No.	Embedment (in.)	Edge Distance (in.)	Allowable Uplift		
			Anchorage		CPTZ
			Uncracked	Cracked	
<b>Corner — Flush Edge</b>					
CPT44Z	2¾	—	870	695	3,035
CPT66Z	2¾	—	1,590	1,270	3,315
CPT88Z	2¾	—	2,435	1,950	3,315
<b>Corner — Away from Edge</b>					
CPT44Z	5	4	3,760	3,010	3,035
CPT66Z	6	5	5,390	4,310	3,315
CPT88Z	6	5	5,390	4,310	3,315
<b>10"-Diameter Circular Pedestal</b>					
CPT44Z	5	4	3,945	3,155	3,035
CPT66Z	5	3¾	3,860	3,090	3,315
<b>12"-Diameter Circular Pedestal</b>					
CPT44Z	5	5	5,170	4,135	3,035
CPT66Z	5	4¾	5,140	4,110	3,315
CPT88Z	5	4¾	5,140	4,110	3,315

1. Allowable uplift loads are calculated per **ACI 318-19** with reference to cracked and uncracked concrete and are qualified for Wind and Seismic Design Categories A&B. Allowable loads are also applicable to detached one- and two-family dwellings in SDC C per IBC, Section 1613. No further increases allowed.
2. Edge distance is considered to be measured from the center line of the nearest anchor bolt to the edge of concrete.
3. Tabulated anchor embedments will also achieve the maximum lateral loads from the CPTZ table on p. 70.
4. Foundation dimensions are for anchorage only. Foundation design (size and reinforcement) by designer. The registered design professional may specify alternative embedment, footing size, and anchor bolt.

