

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 connection in one box
- The CPTZ anchorage can either be cast-in-place or retrofitted with adhesive or mechanical anchors
- Solutions have been calculated per ACI 318, Appendix D to determine their allowable load in different concrete configurations

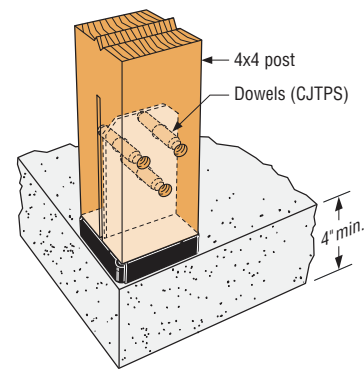
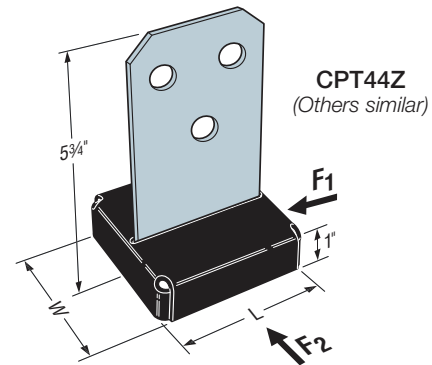
Material: See table below

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 machine 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
- 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. 14 for Code Reference Key Chart



Typical CPT44Z Installation

These products are available with additional corrosion protection. For more information, see p. 18.

Model No.	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 ₁ (160)	F ₂ (160)	
						Qty.	Dia.	Qty.	Type ³					
SS CPT44Z	4x4, RGH 4x4	12	10	3½	3½	2	½	3	½" x 2¾" dowel	3,035	11,455	600	605	I3, FL, L2
									½" MB	3,350				
CPT66Z	6x6, RGH 6x6	12	10	5%	5%	2	½	3	½" x 4¾" dowel	4,430	21,375	655	1,025	
									½" MB	4,475				
CPT88Z	8x8, RGH 8x8	12	10	7¼	7¼	2	½	3	½" x 4¾" dowel	3,625	22,805	740	1,080	
									½" MB	4,475				

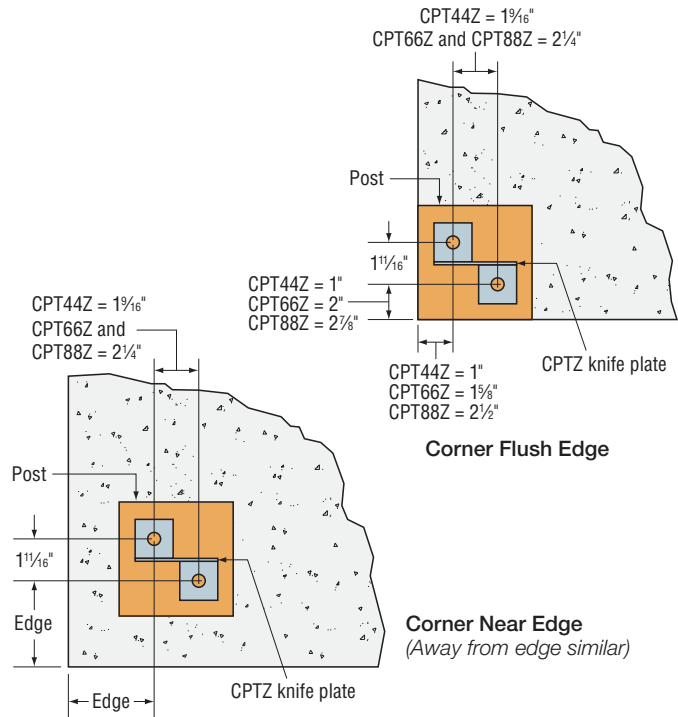
1. Uplift loads have been increased for wind or earthquake load with no further increase allowed; reduce where other loads govern.
2. Downloads may not be increased for short-term loading and shall not exceed the post capacity. See pp. 383-385 for common post capacities.
3. CPTZs are supplied with (3) ½"-diameter dowel pins. Alternate ½"-diameter hex- or square-head machine bolts may be used for loads listed.
4. Lag 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. Values in the tables reflect dowel or bolt installation into the wide face.

CPTZ

Concealed Post Tie (cont.)

CPTZ Anchorage Using SET-XP® Anchoring Adhesive

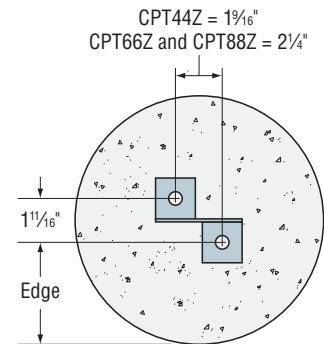
Model No.	Embed. (in.)	Edge Distance (in.)	Allowable Uplift		
			Anchorage		CPTZ
			Uncracked	Cracked	
Corner – Flush Edge					
CPT44Z	2¼	—	505	405	3,035
CPT66Z	2¼	—	580	465	4,430
CPT88Z	2¼	—	625	500	3,625
Corner – Near Edge					
CPT44Z	5	4	1,480	1,185	3,035
CPT66Z	5	5	2,025	1,620	4,430
CPT88Z	5	6	2,430	1,945	3,625
Corner – Away from Edge					
CPT44Z	6	9	4,005	3,205	3,035
CPT66Z	7½	11¼	5,440	4,350	4,430
CPT88Z	7½	11¼	5,440	4,350	3,625
10"-Diameter Circular Pedestal					
CPT44Z	5	4	1,560	1,245	3,035
CPT66Z	5	3¾	1,460	1,165	4,430
12"-Diameter Circular Pedestal					
CPT44Z	5	5	2,025	1,620	3,035
CPT66Z	5	4¾	1,935	1,550	4,430
CPT88Z	5	4¾	1,935	1,550	3,625



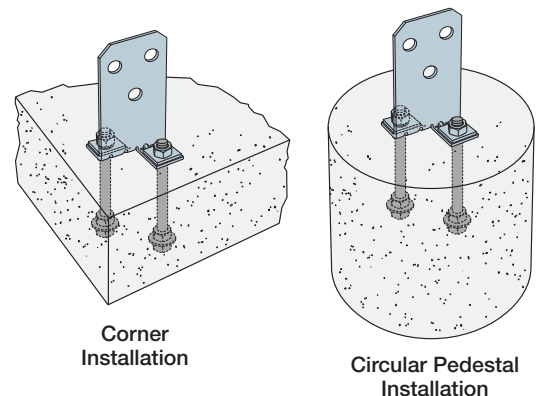
1. Allowable uplift loads are calculated per ACI 318-14 considering cracked and uncracked concrete and are qualified for Wind and Seismic Design Categories A&B. Allowable loads are also applicable to detached one- and two-family dwellings in SDC C per IBC Section 1613. No further increases allowed.
2. Edge distance is measured from the center line of the nearest anchor bolt to the edge of concrete.
3. Foundation dimensions are for anchorage only. Foundation design by others. Refer to ACI318-11.
4. Lateral loads ($F_1 = F_2$) for Corner – Flush Edge conditions are CPT44Z = 395 lb., CPT66Z = 570 lb., CPT88Z = 740 lb. For all other installations using CPTZ with SET-XP® anchoring adhesive, use the allowable loads from the CPTZ table above.
5. Concrete shall have a minimum compressive strength, $f'_c = 2,500$ psi.

CPTZ Cast-in-Place Anchorage

Model No.	Embedment (in.)	Edge Distance (in.)	Allowable Uplift		
			Anchorage		CPTZ
			Uncracked	Cracked	
Corner – Flush Edge					
CPT44Z	2¼	—	870	695	3,035
CPT66Z	2¼	—	1,590	1,270	4,430
CPT88Z	2¼	—	2,435	1,950	3,625
Corner – Away from Edge					
CPT44Z	5	4	3,760	3,010	3,035
CPT66Z	6	5	5,390	4,310	4,430
CPT88Z	6	5	5,390	4,310	3,625
10"-Diameter Circular Pedestal					
CPT44Z	5	4	3,945	3,155	3,035
CPT66Z	5	3¾	3,860	3,090	4,430
12"-Diameter Circular Pedestal					
CPT44Z	5	5	5,170	4,135	3,035
CPT66Z	5	4¾	5,140	4,110	4,430
CPT88Z	5	4¾	5,140	4,110	3,625



Circular Pedestal Edge Distance



1. Allowable uplift loads are calculated per ACI 318-14 considering 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. 94.
4. Foundation dimensions are for anchorage only. Foundation design by others. Refer to ACI318-14.