

CPTZ
Concealed Post Base



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Concealed Post Base Offers Clean Look with Code-Required 1" Standoff

The new 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.

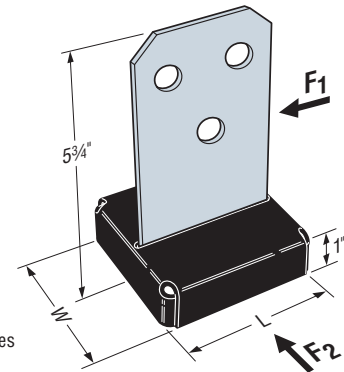
- The CPTZ is tested and load-rated for uplift, download and lateral load.
- Simpson Strong-Tie saves installers time by providing all the necessary components to make the connection in one box.
- The CPTZ anchorage can either be cast-in-place or retrofitted with adhesive or mechanical anchors.
- Solutions 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 pins are mechanically galvanized in accordance with ASTM B695, class 55. If substituting ½" diameter machine bolts, a hot-dip galvanized finish is recommended.



CPT44Z



CPT44Z
(others similar)

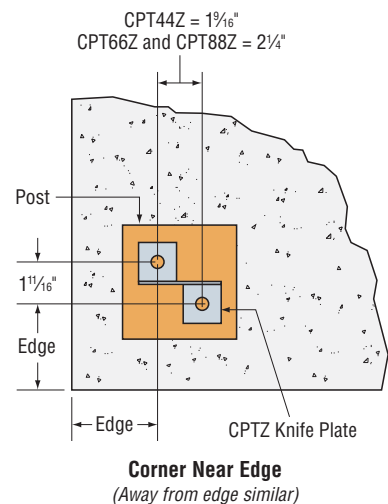
Model No.	Post Size	Base (Ga)	Knife Plate (Ga)	Dim. (in.)		Fasteners			Allowable Loads (DF/SP) (lbs.)				
						Anchor		Post Type ³	Uplift (160)	Down (100)	Lateral		
						Qty.	Dia.				Qty.	F ₁ (160)	F ₂ (160)
CPT44Z	4x4, RGH 4x4	12	10	3½	3½	2	½	3	½ x 2¾ dowel	3035	11455	600	605
									½" MB	3350			
CPT66Z	6x6, RGH 6x6	12	10	5¾	5¾	2	½	3	½ x 4¾ dowel	4430	22315	655	1025
									½" MB	4475			
CPT88Z	8x8, RGH 8x8	12	10	7¼	7¼	2	½	3	½ x 4¾ dowel	3625	22805	740	1080
									½" MB	4475			

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 pages 226-227 of the 2013 *Wood Construction Connectors* catalog 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.
6. 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.

CPTZ Anchorage Using SET-XP® Anchoring Adhesive

Model No.	Embed. (in.)	Edge Distance (in.)	Allowable Uplift (lbs.)		CPTZ
			Anchorage		
			Uncracked	Cracked	
Corner – Flush Edge					
CPT44Z	2¼	—	505	405	3035
CPT66Z	2¼	—	580	465	4430
CPT88Z	2¼	—	625	500	3625
Corner – Near Edge					
CPT44Z	5	4	1480	1185	3035
CPT66Z	5	5	2025	1620	4430
CPT88Z	5	6	2430	1945	3625
Corner – Away from Edge					
CPT44Z	6	9	4005	3205	3035
CPT66Z	7½	11¼	5440	4350	4430
CPT88Z	7½	11¼	5440	4350	3625
10" Diameter Circular Pedestal					
CPT44Z	5	4	1560	1245	3035
CPT66Z	5	3¾	1460	1165	4430
12" Diameter Circular Pedestal					
CPT44Z	5	5	2025	1620	3035
CPT66Z	5	4¾	1935	1550	4430
CPT88Z	5	4¾	1935	1550	3625

1. Uplift loads have been increased for wind or earthquake load with no further increase allowed, reduce where other loads govern.
2. Edge distance is measured from the center line of the nearest anchor bolt to the edge of concrete.
3. All anchorage loads are calculated per ACI 318-11, Appendix D.
4. Foundation dimensions are for anchorage only. Foundation design by others. Refer to ACI318-11.
5. Lateral loads (F₁ = F₂) for Corner – Flush Edge conditions are CPT44Z = 395 lbs., CPT66Z = 570 lbs., CPT88Z = 740 lbs. For all other installations using CPTZ with SET-XP® anchoring adhesive, use the allowable loads from the CPTZ table above.



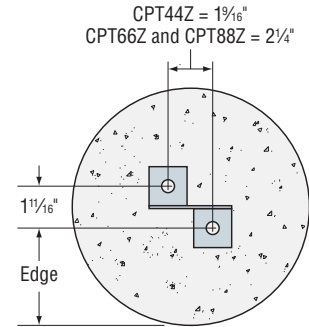
Corner Near Edge
(Away from edge similar)

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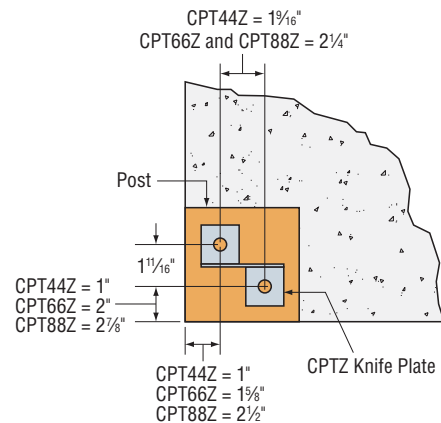
CPTZ Cast-in-Place Anchorage

Model No.	Embedment (in.)	Edge Distance (in.)	Allowable Uplift (lbs.)		
			Anchorage		CPTZ
			Uncracked	Cracked	
Corner – Flush Edge					
CPT44Z	2¼	—	870	695	3035
CPT66Z	2¼	—	1590	1270	4430
CPT88Z	2¼	—	2435	1950	3625
Corner – Away from Edge					
CPT44Z	5	4	3760	3010	3035
CPT66Z	6	5	5390	4310	4430
CPT88Z	6	5	5390	4310	3625
10" Diameter Circular Pedestal					
CPT44Z	5	4	3945	3155	3035
CPT66Z	5	3¾	3860	3090	4430
12" Diameter Circular Pedestal					
CPT44Z	5	5	5170	4135	3035
CPT66Z	5	4¾	5140	4110	4430
CPT88Z	5	4¾	5140	4110	3625

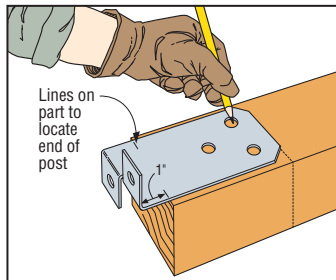
- Uplift loads have been increased for wind or earthquake load with no further increased allowed, reduce where other loads govern.
- Edge distance is considered to be measured from the center line of the nearest anchor bolt to the edge of concrete.
- Tabulated anchor embedments will also achieve the maximum lateral loads from the CPTZ table above.
- Foundation dimensions are for anchorage only. Foundation design by others. Refer to ACI318-11.



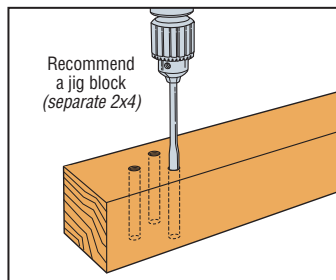
Circular Pedestal Edge Distance



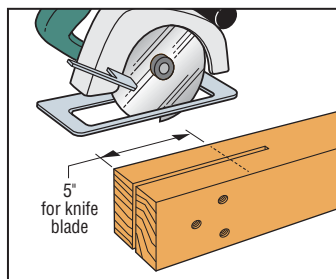
Corner Flush Edge



1a. Using parts as template



1b. Drilling holes



2. Cutting slot

Installation

PREPARE THE POST

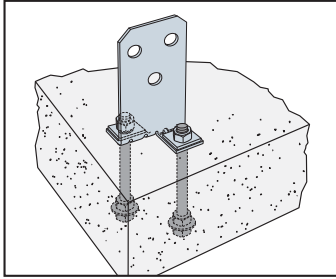
1. Drill holes

- Use knife-plate portion of the CPTZ as a template to mark the pin/bolt locations on the post. See drawing 1a.
- Drill ½" diameter holes perpendicular to the post at marked locations. See drawing 1b.
 - A commercially available drill-guide attachment will aid in this process. If drilling multiple posts, it is suggested that a drill block is created out of a short length of a 2x4. This will accomplish the same purpose and is easier to use in repetitive applications.
 - If not drilling all the way through, the hole depth should be calculated to leave the pin roughly centered ($\pm 1/4$ ") in the post. Using a 3/4" pin in a 4x post would imply a 3 1/8" deep hole. Similarly, using a 4/4" pin in a 6x post would require a 5 1/8" deep hole.
 - Note:** Drilling the holes before cutting the slot is recommended to avoid interference in the slot.

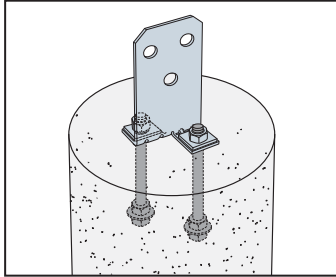
2. Cut Slot

- Cut a 3/16" wide slot in the end of the post. Cut slot on the face adjacent to the one with the holes. See drawing 2.
 - If using a circular saw, cut the slot as follows: 4x4 = 6 1/2" up the post; 6x6 = 7 1/2" up the post; 8x8 = 9 1/2" up the post. To cut a 6x6 or 8x8 post, a 10" diameter circular saw is required.
 - If a smaller slot height is desired, mark the post at 5". Cut from both sides with a circular saw and then finish removing material with a reciprocating blade saw or a hand-held saw.
 - A chain saw (3/16" chain) can also be used to cut the slot.
 - If no visible slot is desired, making a plunge cut is necessary. Great care and safety precautions should be taken if attempting to make a plunge cut with a chain saw or like device.
- Check that the knife plate slides freely in the slot and that the holes in the post line up with the holes in the knife plate.

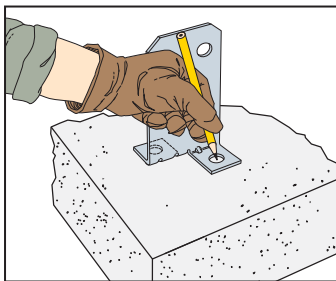
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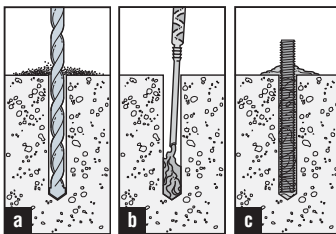
3. Corner Installation



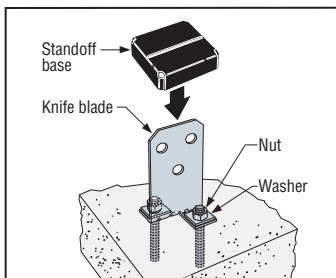
4. Circular Pedestal Installation



5. Marking the anchor locations



6. Retrofit Anchor Installation
a) Drill hole; b) fill hole with adhesive; c) install threaded rod



7. Installing CPTZ on concrete

Installation (cont.)

SET THE ANCHORS

The anchorage details shown are recommended but not required, the Designer can specify alternate anchorage details to accommodate different substrates and configurations. If specifying alternate anchorage, the allowable load for the connection will be the lower of the load for the anchorage or the table values for the CPTZ.

Note: the holes in the CPTZ tabs are sized for 1/2" diameter anchors.

Cast-in-Place Anchors

1. Place the anchors before concrete is poured. There should be 7/8" ($\pm 1/8$ ") of anchor above the top surface of the concrete.
 - The CPTZ can be used as a template for anchor bolt location. One possible approach is shown.
2. Pour concrete and allow it to be set before attaching CPTZ.
3. See drawings 3 and 4 for potential details in common applications. Note that there are reduced values for near-edge conditions.

Retrofit Anchors

The following is based on Simpson Strong-Tie® SET-XP® anchoring adhesive. See our *Anchoring and Fastening Systems for Concrete and Masonry* catalog (C-SAS) for other alternate anchors and additional information concerning retrofit solutions

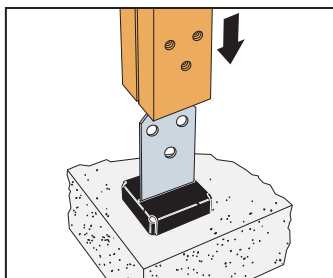
1. Use the CPTZ to mark the anchor locations (as shown in drawing 5).
2. Drill holes in concrete. Follow the requirements for diameter and depth found in the latest C-SAS catalog. (See drawing 6a).
3. Fill holes two-thirds of the way with SET-XP® anchoring adhesive. For best results, material should be between 70° to 80° F at time of application. Note that it must be above 50° F. (See drawing 6b).
4. Install 1/2" diameter threaded rod in holes. There should be 7/8" ($\pm 1/8$ ") of threads above the top surface of the concrete. (See drawing 6c).
5. Allow SET-XP™ anchoring adhesive to set before attaching CPTZ.

INSTALL CPTZ POST BASE

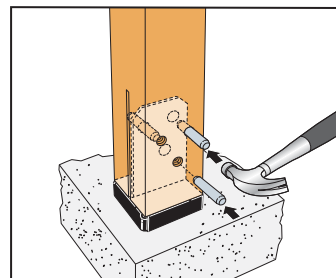
1. Install the knife-plate portion of the connector on the anchor bolts.
2. Install supplied rectangular washers on top of the CPTZs tabs.
3. Attach nuts and tighten. The CPTZ assembly should look like drawing 7.
4. Slide the stand off base over the knife plate.

INSTALL POST

1. Install the post over the CPTZ (as shown in drawing 8). The post must be installed perpendicular to the concrete. The connections components may be damaged if the post is rotated during or after installation. Damaged components may be noticeable and reduce the capacity of the connector.
2. Drive in the pins supplied with the connector. The pins should be roughly centered within the post. Plug and finish the post as desired.
 - a. Alternate bolt installation. Use 1/2" diameter machine bolts, with nuts and washers, instead of the supplied pins. The bolts, nuts and washers are sold separately. Simpson Strong-Tie recommends a hot-dip galvanized finish on the bolts, nuts and washers for exterior applications.



8. Installing post on CPTZ



9. Installing pins

This flier is effective until June 30, 2015, and reflects information available as of May 1, 2013. This information is updated periodically and should not be relied upon after June 30, 2015; contact Simpson Strong-Tie for current information and limited warranty or see www.strongtie.com.