

# RPBZ Retrofit Post Base

The new RPBZ Retrofit Post Base is designed to reinforce existing posts and columns. The single, versatile model will fit on any size post consisting of a double 2x4 or larger. RPBZ can also be used to reinforce new post-base connections, such as braced carports, patio covers, decks and other structures. The RPBZ can be installed with the CPS composite plastic standoff to meet a 1" post standoff code requirement. A single RPBZ can be installed on a post that is flush to a corner, and two RPBZs can be installed at away from edge conditions to fortify the post base connection to resist both wind and seismic forces.

Simpson Strong-Tie® Strong-Drive® SDS Heavy-Duty Connector screws install easily and provide excellent holding strength for post-to-flange connections. Additionally, the RPBZ can be purposed as a temporary base fixture for posts when shoring beams. RPBZ comes standard in ZMAX® finish to meet exposure conditions in many environments. See additional Corrosion information at [www.strongtie.com/corrosion](http://www.strongtie.com/corrosion).

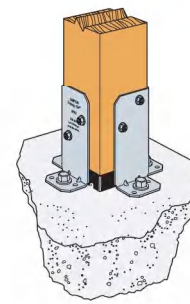
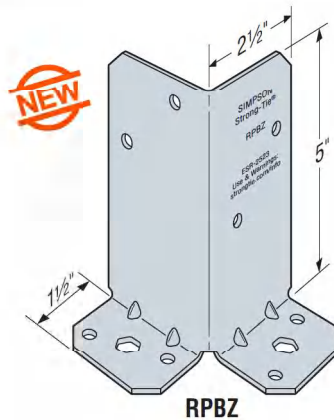
**MATERIAL:** 12 gauge

**FINISH:** ZMAX coating

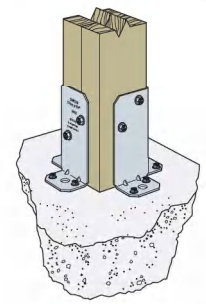
**INSTALLATION:** • Use all specified fasteners. See General Notes.

- Simpson Strong-Tie ¼" x 1½" Strong-Drive SDS Heavy-Duty Connector and base connection fasteners are not provided with RPBZ. Simpson Strong-Tie CPS series Composite Post Stand-Off sold separately.
- Post bases do not provide adequate resistance to prevent members from rotating about the base and therefore are not recommended for non top-supported installations, such as fences or unbraced car ports.

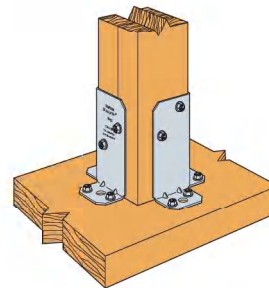
**CODES:** See page 12 for Code Reference Key Chart.



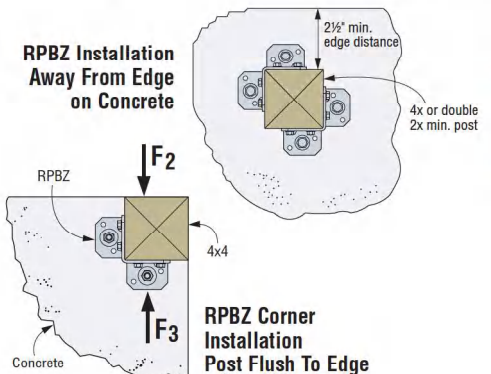
**RPBZ Installation With CPS Away From Edge on Concrete**



**RPBZ Installation in Interior-Dry Environment with Titen® Masonry Screws**



**RPBZ Installation on Wood**



**RPBZ Installation Away From Edge on Concrete**

**RPBZ Corner Installation Post Flush To Edge**

These products are available with additional corrosion protection. Additional products on this page may also be available with this option, check with Simpson Strong-Tie for details.

## RPBZ Connector-Only Values

Model No.	Part Qty.	Post Size <sup>6,7</sup>	Fasteners				Allowable Connector Loads (DF/SP)			Code Ref.	
			Base Connection <sup>4,5</sup>		Post		Uplift (160)	F <sub>2</sub> (160)	F <sub>3</sub> (160)		
			Type	Qty.	Type	Qty.					
RPBZ	<b>Connection To Concrete</b>										
	1	4x, 6x	¾" Anchor Bolt or ¼" Titen® Screw	2 Anchors or 4 Screws	¼x1½" SDS	4	1500	860	485	160	
	2			4 Anchors or 8 Screws		8	2235	1115	1115		
	<b>Connection To Wood Framing<sup>2,3</sup></b>										
	1	4x, 6x	¼x3" SDS	¼x1½" SDS	4	4	1335	860	485		
	2				8	8	2235	1115	1115		
	1				¼x1½" SDS	4	4	845	860		485
	2					8	8	1825	1115		1115

## RPBZ Anchorage-to-Concrete Values

Model No.	Part Qty.	Post Size <sup>3,4</sup>	Fasteners		Allowable Anchorage Loads			
			Base Connection		Uplift		F <sub>2</sub>	F <sub>3</sub>
			Type	Qty.	Uncracked	Cracked		
RPBZ	<b>Corner – Post Flush to Edge</b>							
	1	4x, 6x	Titen ¼"x1¾"	4	750	—	820	820
			¾" Diameter Anchor	2	1520	1085	510	510
	<b>Away From Edge</b>							
	1	4x, 6x	Titen ¼"x1¾"	4	850	—	935	935
			¾" Diameter Anchor	2	2190	1565	1265	1265
			Titen ¼"x1¾"	8	1500	—	1645	1645
			¾" Diameter Anchor	4	3635	2595	1730	1730

1. Allowable load for design shall not exceed minimum of Connector Only Value and Anchorage to Concrete Value.
2. Allowable connector loads are based on DF/SP lumber. For SPF/HF, multiply table loads by 0.72.
3. Double 2x4s may be used in lieu of 4x4 post.
4. For installation on 6x members, if four RPBZs are used, allowable loads may be taken to be 1.5 x the tabulated two-part value.
5. For installations into concrete, minimum compressive strength,  $f'_c = 2500$  psi. Designer is responsible for concrete member uplift design.
6. Away From Edge loads require face of wood post to be a minimum of 2½" away from near edge of concrete on all four sides of the post.
7. Allowable anchorage to concrete uplift and shear loads for the ¾" diameter anchors are calculated per ACI 318-11, Appendix D. Shear loads assume cracked concrete

8. Embedment depth for these post-install anchors must be a minimum 2¾" and are for use with SET-XP® or AT-XP® structural anchoring adhesives or Titen HD® screw anchors.
9. Allowable uplift and shear loads for the Titen® masonry screws do not carry a particular "cracked" or "uncracked" designation.
10. Titen® masonry screws and Titen HD screw anchors should only be used in interior-dry and non-corrosive environments.
11. Threads on Strong-Drive® SDS Heavy-Duty Connector screws into wood framing must be fully engaged into a structural wood member.

# ABA/ABU/ABW Adjustable and Standoff Post Bases

Additional standoff bases are on page 232.

The AB series of retrofit adjustable post bases provide a 1" standoff for the post, are slotted for adjustability and can be installed with nails, Strong-Drive® SD Connector screws or bolts (ABU). Depending on the application needs, these adjustable standoff post bases are designed for versatility, cost-effectiveness and maximum uplift performance.

### Features:

- The slot in the base enables flexible positioning around the anchor bolt, making precise post placement easier
- The 1" standoff helps prevent rot at the end of the post and meets code requirements for structural posts installed in basements or exposed to weather or water splash

**MATERIAL:** Varies (see table)

**FINISH:** All galvanized, most offered in ZMAX®; see Corrosion Information, pages 13-15.

**INSTALLATION:** • Use all specified fasteners. See General Notes.

- See our *Anchoring and Fastening Systems for Concrete and Masonry* catalog, or visit [www.strongtie.com](http://www.strongtie.com) for retrofit anchor options or reference technical bulletin T-ANCHORSPEC.
- Post bases do not provide adequate resistance to prevent members from rotating about the base and therefore are not recommended for non top-supported installations (such as fences or unbraced carports).
- Place the base, load transfer plate and nut on the anchor bolt. Loosely tighten the nut.

**ABW**—Place the standoff base and then the post in the ABW and fasten on three vertical sides, using nails or Strong-Drive SD Connector screws.

- Make any necessary adjustments to post placement and tighten the nut securely on the anchor bolt.
- Bend up the fourth side of the ABW and fasten using the correct fasteners.

**ABU**—Place the standoff base and then the post in the ABU.

- Fasten using nails or Strong-Drive SD Connector screws or bolts (ABU88Z, ABU1010Z – SDS optional).

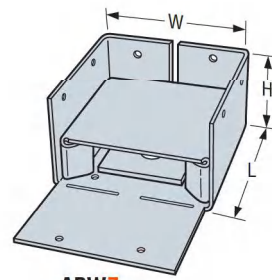
**ABA**—Place the post in the ABA.

- Fasten using nails or Strong-Drive SD Connector screws.

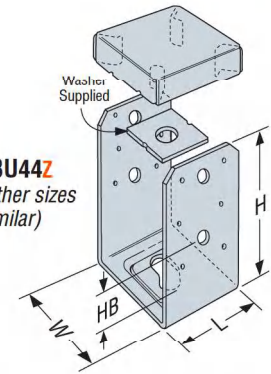
**CODES:** See page 12 for Code Reference Key Chart.

These products are available with additional corrosion protection. Additional products on this page may also be available with this option, check with Simpson Strong-Tie for details.

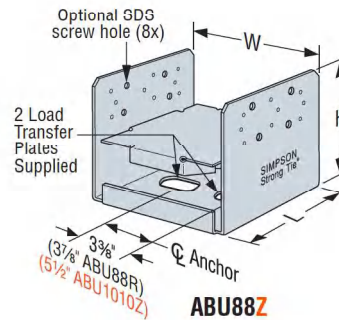
These products are approved for installation with the Strong-Drive® SD Connector screw. See page 27 for more information.



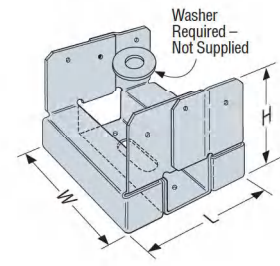
**ABWZ**



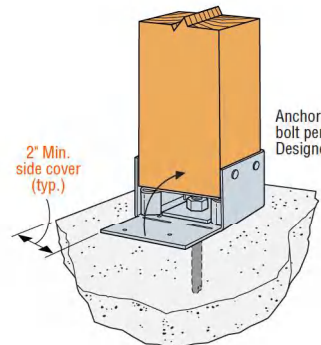
**ABU44Z**  
(other sizes similar)



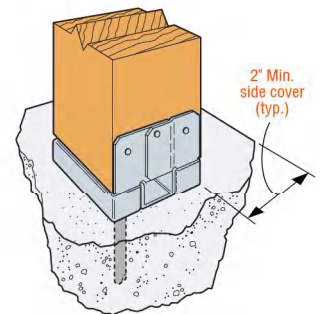
**ABU88Z**  
(ABU1010Z similar)



**ABA44Z**  
(other sizes similar)



Typical ABWZ Installation



Typical ABA44Z Installation

Model No.	Nominal Post Size	Material		Dimensions (in.)				Anchor Dia. (in.)	Fasteners		Allowable Loads			Code Ref.
		Base (Ga)	Strap (Ga)	W	L	H	HB*		Nails	Machine Bolts	Uplift		Down (100)	
									Qty.	Dia.	Nails	Bolts		
ABA44Z	4x4	16	16	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	—	1/2	6-10d	—	555	—	6000	I3, F1, L5
ABW44Z	4x4	16	16	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	—	1/2	8-10d	—	1005	—	7180	170
ABU44Z	4x4	16	12	3 <sup>1</sup> / <sub>16</sub>	3	5 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	5/8	12-16d	2	2200	2160	6665	I3, F1, L2, L5
ABU44RZ	Rough 4x4	16	12	4	4	5 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	5/8	12-16d	2	2200	2160	6665	I3, F1, L5
ABA44RZ	Rough 4x4	16	16	4 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	—	1/2	6-10d	—	555	—	8000	I3, F1, L2, L5
ABW44RZ	Rough 4x4	16	16	4	4 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>32</sub>	—	1/2	8-10d	—	835	—	7180	170
ABW46Z	4x6	12	16	3 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	3	—	1/2	10-10d	—	845	—	4590	170
ABA46Z	4x6	14	14	3 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	—	5/8	8-16d	—	700	—	9435	I3, F1, L5
ABU46Z	4x6	12	12	3 <sup>1</sup> / <sub>16</sub>	5	7	2 <sup>1</sup> / <sub>8</sub>	5/8	12-16d	2	2300	2300	10335	I3, F1, L2
ABU46RZ	Rough 4x6	12	12	4	8	6 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>8</sub>	5/8	12-16d	2	2300	2300	10335	170
ABW46RZ	Rough 4x6	12	16	4	6	2 <sup>1</sup> / <sub>16</sub>	—	1/2	10-10d	—	780	—	4590	170
ABA46RZ	Rough 4x6	14	14	4 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	—	5/8	8-16d	—	700	—	12000	I3, F1, L5
ABU5-5	5 <sup>1</sup> / <sub>8</sub> x5 <sup>1</sup> / <sub>8</sub>	12	10	5 <sup>1</sup> / <sub>4</sub>	5	6 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	5/8	12-16d	2	2235	2235	12000	170
ABU5-6	5 <sup>1</sup> / <sub>8</sub> x6	12	10	6 <sup>1</sup> / <sub>8</sub>	5	6 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	5/8	12-16d	2	2235	2235	12000	170
ABA66Z	6x6	14	14	5 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	—	5/8	8-16d	—	720	—	10665	I3, F1, L5
ABW66Z	6x6	12	14	5 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub>	3	—	1/2	12-10d	—	1190	—	12935	170
ABU66Z	6x6	12	10	5 <sup>1</sup> / <sub>2</sub>	5	6 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	5/8	12-16d	2	2300	2300	12000	I3, F1, L2
ABU66RZ	Rough 6x6	12	10	6	6	5 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5/8	12-16d	2	2300	2300	12000	170
ABA66RZ	Rough 6x6	14	14	6	5 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	—	5/8	8-16d	—	720	—	12665	I3, F1, L5
ABW66RZ	Rough 6x6	12	14	6	6	2 <sup>1</sup> / <sub>16</sub>	—	1/2	12-10d	—	1065	—	12935	170
ABU88Z	8x8	14	12	7 <sup>1</sup> / <sub>2</sub>	7	7	—	2-5/8	18-16d	—	2320	—	24335	I3, F1
ABU88R	Rough 8x8	14	12	8	7	7	—	2-5/8	18-16d	—	2320	—	24335	170
ABU1010Z	10x10	12	12	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>1</sup> / <sub>4</sub>	—	2-5/8	22-16d	—	2270	—	32020	170
ABU1010RZ	Rough 10x10	12	12	10	9	7	—	2-5/8	22-16d	—	2270	—	32020	170

- Uplift loads have been increased for wind or earthquake with no further increase allowed; reduce where other loads govern.
- Downloads may not be increased for short-term loading.
- Specifier to design concrete for uplift capacity.
- ABU products may be installed with either bolts or nails (not both) to achieve table loads. ABU88Z, ABU88R, ABU1010Z and ABU1010RZ may be installed with 8-1/4"x3" Strong-Drive® SDS Heavy-Duty Connector screws (sold separately) for the same table load.
- For AB bases, higher download can be achieved by solidly packing grout under 1" standoff plate before installation. Base download on column, grout, or concrete according to the code.
- HB dimension is the distance from the bottom of the post up to the first bolt hole.
- 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.
- Downloads shall be reduced where limited by the capacity of the post. See pages 245-246 for common post allowable loads.
- NAILS:** 16d = 0.162" dia. x 3 1/2" long, 10d = 0.148" dia. x 3" long. See pages 22-23 for other nail sizes and information.