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**ESR-1622**

Reissued 01/2018

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This report is subject to renewal 01/2019.

# ICC-ES Evaluation Report

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**DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES**  
**SECTION: 06 05 23—WOOD, PLASTIC, AND COMPOSITE FASTENINGS**

**REPORT HOLDER:**

**SIMPSON STRONG-TIE COMPANY INC.**

**EVALUATION SUBJECT:**

**SIMPSON STRONG-TIE® POST BASE CONNECTORS FOR WOOD CONSTRUCTION**



*“2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence”*



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# ICC-ES Evaluation Report

**ESR-1622**

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**DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES**  
**Section: 06 05 23—Wood, Plastic, and Composite Fastenings**

**REPORT HOLDER:**

**SIMPSON STRONG-TIE COMPANY INC.**

**EVALUATION SUBJECT:**

**SIMPSON STRONG-TIE® POST BASE CONNECTORS FOR WOOD CONSTRUCTION**

**1.0 EVALUATION SCOPE**

**Compliance with the following codes:**

- 2018, 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2018, 2015, 2012, 2009 and 2006 *International Residential Code*® (IRC)

For evaluation for compliance with codes adopted by the Los Angeles Department of Building and Safety (LADBS), see [ESR-1622 LABC and LARC Supplement](#).

**Property evaluated:**

Structural

**2.0 USES**

Simpson Strong-Tie® post base connectors described in this report are used as wood framing connectors in accordance with Section 2304.10.3 of the 2018 IBC or 2015 IBC or Section [2304.9.3](#) of the 2012, 2009, or 2006 IBC, and are used to resist lateral and net induced uplift forces at the bottom end of wood posts in accordance with Section [2304.9.7](#) of the IBC, and to prevent lateral displacement at the bottom end of wood posts in accordance with Section [R407.3](#) of the IRC. The products may also be used in structures regulated under the IRC when an engineered design is submitted in accordance with Section [R301.1.3](#) of the IRC.

**3.0 DESCRIPTION**

**3.1 General:**

The Simpson Strong-Tie post base connectors described in this report are die-formed brackets that connect wood posts to concrete footings complying with the IBC or IRC, as applicable, by using anchor bolts installed during the concrete pour or after the concrete hardens. For the case of the Retrofit Post Base (RPBZ), base connection to wood

decking is also considered. Since the design of anchor bolts in the concrete footings is not within the scope of this report, a footing larger than the maximum required by 2012 and 2009 IBC Section [1809](#) or 2006 IBC Section [1805](#), or IRC Section [R403](#) may be necessary to meet anchorage to concrete requirements. Untreated wood columns may be supported by the post base connectors described in this report because the connectors provide a metal pedestal projecting minimum 1 inch (25.4 mm) above the concrete footing as required by Section [2304.11.2.7](#) of the IBC, Section [R317.1.4](#) of the 2012 and 2009 IRC and Section [R319.1.4](#) of the 2006 IRC.

**3.1.1 ABA Post Base Standoff:** The ABA post base standoff is a one-piece connector that elevates the supported wood post 1<sup>1</sup>/<sub>16</sub> inches (27 mm) above a concrete footing. The ABA44 and ABA44R are formed from No. 16 gage galvanized steel and all other ABA models from No. 14 gage galvanized steel. The sides of the ABA post base connector have prepunched holes for 10d or 16d nails driven into the side grain of the wood post. Type A narrow plain washer, conforming to the dimensions shown in ASME B18.22.1 (R 1998), or a standard cut washer and nut must be used to secure the ABA post base connector to the concrete anchor bolt. See [Table 1](#) for overall dimensions, required fasteners, and allowable uplift loads and downloads. See [Figure 1](#) for drawings of an ABA post base standoff connector and a typical installation.

**3.1.2 ABU Adjustable Post Base:** The ABU44, ABU44R, ABU46, ABU46R, ABU5-5, ABU5-6, ABU66 and ABU66R adjustable post base connectors consist of three components: a U-shaped galvanized steel channel having an adjustment slot for the anchor bolt and prepunched holes for installing bolts or nails, but not both, into the side grain of the wood post; a galvanized steel standoff base that elevates the wood post 1 inch (25.4 mm) above the concrete footing, and a 0.171-inch-thick (4.3 mm) rectangular washer (bearing plate).

The ABU88, ABU88R, ABU1010, ABU1010R, ABU1212, and ABU1212R adjustable post base connector consists of the following components: a U-shaped galvanized steel channel having two 1<sup>1</sup>/<sub>16</sub>-inch-wide (27 mm) long-slotted holes for anchor bolts and prepunched holes for installing nails into the side grain of the wood post; a galvanized steel standoff base that elevates the wood post 1 inch (25.4 mm) above the concrete footing, and two nominally 1/4-inch-thick square washers (bearing plates).

See [Table 2](#) for the overall dimensions of the U-shaped channel, nominal thickness of the steel channel and standoff base, required fasteners, and allowable uplift loads and downloads. See [Figure 2](#) for drawings of the

components of an ABU44 and ABU88 adjustable post base connectors and a typical ABU connector installation.

**3.1.3 PBV Post Base:** The PBV post base is a single piece post base connector formed from No. 14 gage steel having a powder-coated paint coating. The PBV connector is circular and has a center channel section and two raised semicircular flat portions that provide a 1-inch (25.4 mm) raised bearing surface for a round post. The connector has prepunched holes for installing SDS screws into the end grain of a round post. See [Table 3](#) for the connector dimensions, required fasteners and allowable downloads.

**3.1.4 CPTZ Concealed Post Tie:** The CPTZ concealed post tie is a three-piece post base connector used to provide a concealed connection between a post and the foundation. The concealed post tie consists of the following components: a No. 10 gage galvanized steel knife plate center section having two prepunched holes for installing anchor bolts and three prepunched holes for installing chamfered steel dowel pins or bolts into the side grain of the wood post; a No. 12 gage galvanized steel standoff base that elevates the wood post 1 inch (25.4 mm) above the concrete footing; and a two 0.134-inch-thick (3.4 mm) rectangular washers (bearing plates). See [Table 4](#) for connector dimensions, required fasteners and allowable downloads; and [Figure 4](#) for CPTZ connector and typical installation.

**3.1.5 RPBZ Retrofit Post Base:** The RPBZ column base consists of a single piece of bent, cold-formed, galvanized sheet steel, consisting of two vertical faces bent at 90 degrees and two 2¼-inch-wide-by-1½-inch-long (57.2 by 38.1 mm) horizontal flat bases. The part is manufactured from No. 12 gage galvanized steel. The two vertical faces have fastener holes that are used for installing SDS Screws in order to fasten to the wood post. The two horizontal flat base pieces have three fastener holes each; two ¼-inch-diameter (6.4 mm) holes used for installing concrete screws or SDS Screws and one ⅜-inch (9.5 mm) hex hole used for installing a concrete anchor bolt at the base. See [Table 5](#) for RPBZ dimensions, fastener/anchor information and allowable loads. See [Figure 5](#) for a graphical depiction and typical installations for the RPBZ.

**3.1.6 ABWZ Adjustable Post Base:** The ABWZ post base consists of three components: A galvanized steel main body that wraps around all four sides of the post and has prepunched holes for installing the required fasteners and an adjustment slot on the bottom for the anchor bolt, a galvanized steel standoff base that elevates the wood post 1 inch (25.4 mm) above the concrete footing, and a rectangular bearing plate with a 9/16-inch-diameter (14.3 mm) hole. The ABW44Z and ABW44RZ use the LPB½ bearing plate which is 2-inches-by-2-inches (50.8 by 50.8 mm) and is 0.129 inch (3.28 mm) thick. All other ABWZ bases use the BP½EG bearing plate which is 3-inch-by-3-inch (76.2 by 76.2 mm) and 0.229 inch (5.82 mm) thick. See [Table 6](#) for ABWZ dimensions, material gauge, fastener/anchor information and allowable loads. See [Figure 6](#) for a graphical depiction and typical installations for the ABWZ.

**3.2 Materials:**

**3.2.1 Steel:** Unless noted otherwise, the connectors described in this report are manufactured from galvanized steel in accordance with [ASTM A653](#), SS designation, Grade 33, with a minimum yield strength,  $F_y$ , of 33,000 psi (227 MPa) and a minimum tensile strength,  $F_u$ , of 45,000 psi (310 MPa). The bearing plates for the ABU88 are [ASTM A36](#) with a minimum yield strength of 36,000 psi (248 MPa) and a minimum tensile strength of 58,000 psi

(400 MPa) and have no coating. Base metal thicknesses for the connectors in this report are as follows:

NOMINAL THICKNESS	MINIMUM BASE METAL THICKNESS (inches)
No. 10 Gage	0.1275
No. 12 Gage	0.0975
No. 14 Gage	0.0685
No. 16 Gage	0.0555
¼-inch (Bearing Plate)	0.2145

For SI: 1 inch = 25.4 mm.

The connectors have a minimum G90 zinc coating specification per ASTM A653 unless otherwise noted. Some models (designated with a model number ending with Z), including the CPTZ, the RPBZ, and the AWBZ, have a G185 zinc coating specification in accordance with ASTM A653. Some models (designated with a model number ending with HDG) are available with a hot-dip galvanization, also known as “batch” galvanization, in accordance with [ASTM A123](#), with a minimum specified coating weight of 2.0 ounces of zinc per square foot of surface area (610 g/m<sup>2</sup>), total for both sides. Model numbers in this report do not include the Z or HDG ending, but the information shown applies. The PBV post base has a "PC" suffix indicating a powder-coated paint coating. The lumber treater and the holder of this report (Simpson Strong-Tie Company) should be contacted for recommendations on the appropriate level of corrosion resistance to specify for use of the steel connectors in contact with the specific proprietary preservative treated or fire retardant treated lumber.

**3.2.2 Wood:** Wood members with which the connectors are used must be either sawn lumber or engineered lumber having a minimum specific gravity of 0.50 (minimum equivalent specific gravity of 0.50 for engineered lumber), and having a maximum moisture content of 19 percent (16 percent for engineered lumber), except as noted in Section 4.1. The thickness of the supporting wood main member must be equal to or greater than the length of the fasteners specified in the tables in this report, or as required by wood member design, whichever is greater. For installation in engineered wood members, minimum allowable nail spacing and end and edge distances, as specified in the applicable evaluation report for the engineered wood product, must be met.

**3.2.3 Fasteners:** Nails used for hangers described in this evaluation report must be bright or hot-dipped galvanized carbon steel nails complying with ASTM F1667 as reference in Section 2303.6 of the IBC. Alternatively, nails of other materials or finishes may be used when they are recognized in an ICC-ES evaluation report as having bending yield strength ( $F_{yb}$ ) and withdrawal capacity equal to or better than those of a bright carbon steel nail of the same nominal diameter as required by this evaluation report as shown in the following table:

FASTENER	SHANK DIAMETER (inches)	FASTENER LENGTH (inches)	$F_{yb}$ (psi)
10d	0.148	3	90,000
16d	0.162	3½	90,000

For SI: 1 inch = 25.4 mm, 1 psi = 6,895 Pa.

Nails used in contact with preservative treated or fire retardant treated lumber must be hot-dipped galvanized carbon steel nails. Nails of other materials or finishes may be used when they are recognized in an ICC-ES evaluation for use in the applicable treated lumber. Bolts used in contact with preservative-treated or fire-retardant-

treated lumber must comply with Section 2305.10.5 of the 2018 or 2015, Section [2304.9.5](#) of the 2012 and 2009 IBC, Section [R317.3](#) of the 2018, 2015, 2012 or 2009 IRC or Section [R319.3](#) of the 2006 IRC, as applicable. For use with treated lumber, the lumber treater or this report holder (Simpson Strong-Tie Company), or both, should be contacted for recommendations on the appropriate coating or material to specify for the fasteners as well as the connection capacities of fasteners used with the specific proprietary preservative treated or fire retardant treated lumber.

The SDS and SD screws must comply with Sections 3.2.4 and 3.2.5 of this evaluation report.

The bolts, at a minimum, must comply with ASTM A36 or AC307.

The dowel pins used with the CPTZ connectors are proprietary pins manufactured in compliance with [ASTM A510](#) wire rod in accordance with designation UNS G10180, Grade No. 1018, or the Baosteel Company steel specification Q/BQB 517-2009 SWRCH18A.

**3.2.4 SDS Screws:** Fasteners used with the column bases described in [Table 3](#) and [Table 5](#) must be Simpson Strong-Tie Strong-Drive SDS screws recognized in [ESR-2236](#). SDS screws used in contact with preservative-treated or fire-retardant-treated lumber must, at a minimum, comply with [ESR-2236](#). The lumber treater or Simpson Strong-Tie should be contacted for recommendations on minimum corrosion resistance and connection capacities of fasteners used with the specific proprietary preservative-treated or fire-retardant-treated lumber.

**3.2.5 SD Screws:** Fasteners used with the column bases described in [Table 6](#) must be Simpson Strong-Tie Strong-Drive SD screws recognized in [ESR-3046](#). SD screws used in contact with preservative-treated or fire-retardant-treated lumber must, at a minimum, comply with [ESR-3046](#). The lumber treater or Simpson Strong-Tie should be contacted for recommendations on minimum corrosion resistance and connection capacities of fasteners used with the specific proprietary preservative-treated or fire-retardant-treated lumber.

## 4.0 DESIGN AND INSTALLATION

### 4.1 Design:

The tabulated allowable loads shown in the product tables of this report are based on Allowable Stress Design (ASD) and include the load duration factor,  $C_D$ , corresponding with the applicable loads in accordance with the National Design Specification for Wood Construction and its supplement (NDS).

Tabulated allowable loads apply to products connected to wood used under dry conditions and where sustained temperatures are 100°F (37.8°C) or less. When products are installed to wood having a moisture content greater than 19 percent (16 percent for engineered wood products), or where wet service is expected, the allowable loads must be adjusted by the applicable wet service factor,  $C_M$ , specified for lateral loads for dowel-type fasteners in the NDS. When connectors are installed in wood that will experience sustained exposure to temperatures exceeding 100°F (37.8°C), the allowable loads in this report must be adjusted by the applicable temperature factor,  $C_t$ , specified in the NDS. Connected wood members must be analyzed for load-carrying capacity at the connection in accordance with the NDS.

### 4.2 Installation:

Installation of the connectors must be in accordance with this evaluation report and the manufacturer's published installation instructions. Bolts and nails must be installed in accordance with the applicable provisions in the NDS. In the event of a conflict between this report and the manufacturer's published installation instructions, this report governs.

## 5.0 CONDITIONS OF USE

The Simpson Strong-Tie products described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** The connectors must be manufactured, identified and installed in accordance with this report and the manufacturer's published installation instructions. A copy of the instructions must be available at the jobsite at all times during installation.
- 5.2** Calculations showing compliance with this report must be submitted to the code official. The calculations must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.3** Adjustment factors noted in Section 4.1 and the applicable codes must be considered, where applicable.
- 5.4** Connected wood members and fasteners must comply, respectively, with Sections 3.2.2 and 3.2.3 of this report.
- 5.5** Use of connectors with preservative treated or fire retardant treated lumber must be in accordance with Section 3.2.1 of this report. Use of fasteners with preservative treated or fire retardant treated lumber must be in accordance with Section 3.2.3 of this report.
- 5.6** The design of anchor bolts and the concrete footings is outside the scope of this report.

## 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Joist Hangers and Similar Devices (AC13), dated October 2010 (editorially revised December 2011).

## 7.0 IDENTIFICATION

- 7.1** The products described in this report are identified with a die-stamped label or an adhesive label indicating the name of the manufacturer (Simpson Strong-Tie), the model number, and the number of an index evaluation report ([ESR-2523](#)) that is used as an identifier for the products recognized in this report.
- 7.2** The report holder's contact information is the following:

**SIMPSON STRONG-TIE COMPANY, INC**  
**5956 WEST LAS POSITAS BOULEVARD**  
**PLEASANTON, CALIFORNIA 94588**  
**(800) 999-5099**  
[www.strongtie.com](http://www.strongtie.com)

TABLE 1—ABA ADJUSTABLE POST BASE CONNECTORS<sup>1,2,3</sup>

MODEL NO.	DIMENSIONS (inches)			FASTENERS		ALLOWABLE LOADS (lbs)	
	W	L	H	Anchor Bolt Diameter (inches)	Nails into Post (Quantity–Type)	Uplift	Downloads
						C <sub>D</sub> =1.6	C <sub>D</sub> =1.0 C <sub>D</sub> =1.15 C <sub>D</sub> =1.25
ABA44	3 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	1/2	6–10d	690	5,925
ABA44R	4 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	2 <sup>13</sup> / <sub>16</sub>	1/2	6–10d	655	7,215
ABA46	3 <sup>9</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	5/8	8–16d	870	10,500
ABA46R	4 <sup>1</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	5/8	8–16d	870	10,695
ABA66	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	850	10,245
ABA66R	6	5 <sup>3</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	5/8	8–16d	850	11,500

For SI: 1 inch = 25.4 mm, 1 lbs = 4.45 N.

<sup>1</sup>The uplift loads have been increased for wind or earthquake loading with no further increase allowed. Reduce loads when other load durations govern.

<sup>2</sup>The allowable downloads may not be increased for short term loading.

<sup>3</sup>Anchor bolts and the concrete footings must be capable of resisting all loads and forces transferred from the post base connector.

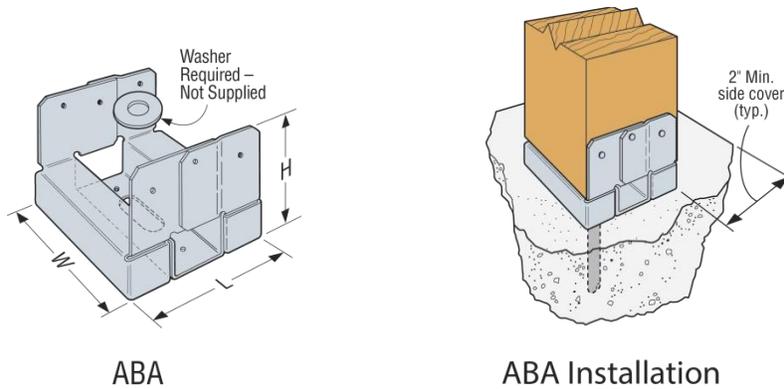


FIGURE 1—ABA ADJUSTABLE POST BASE CONNECTOR

TABLE 2—ABU ADJUSTABLE POST BASE CONNECTORS<sup>1,2,3,4</sup>

MODEL NO.	CONNECTOR DIMENSIONS					FASTENERS (Quantity-Type)			ALLOWABLE LOADS (lbs)		
	U-Channel				Standoff Base Gage No.	Nails into Post	Bolts through Post	Anchor Bolt Diameter (inches)	Uplift		Download
	W (in.)	L (in.)	H (in.)	Gage No.					Nails	Bolts	Nails or Bolts
									C <sub>D</sub> = 1.6	C <sub>D</sub> = 1.6	C <sub>D</sub> =1.0 C <sub>D</sub> =1.15 C <sub>D</sub> =1.25
ABU44	3 <sup>9</sup> / <sub>16</sub>	3	5 <sup>1</sup> / <sub>2</sub>	12	16	12-16d	2 - 1/2	1 - 5/8	1,900	2,300	7,570
ABU44R	4	4	5 <sup>1</sup> / <sub>4</sub>	12	16	12-16d	2 - 1/2	1 - 5/8	1,900	2,300	7,570
ABU46	3 <sup>9</sup> / <sub>16</sub>	5	7	12	12	12-16d	2 - 1/2	1 - 5/8	2,405	2,265	12,520
ABU46R	4	6	6 <sup>3</sup> / <sub>4</sub>	12	12	12-16d	2 - 1/2	1 - 5/8	2,405	2,265	12,520
ABU5-5	5 <sup>1</sup> / <sub>4</sub>	5	6 <sup>1</sup> / <sub>16</sub>	10	12	12-16d	2 - 1/2	1 - 5/8	2,235	2,235	10,570
ABU5-6	6 <sup>1</sup> / <sub>8</sub>	5	6 <sup>1</sup> / <sub>16</sub>	10	12	12-16d	2 - 1/2	1 - 5/8	2,235	2,235	10,570
ABU66	5 <sup>1</sup> / <sub>2</sub>	5	6 <sup>1</sup> / <sub>16</sub>	10	12	12-16d	2 - 1/2	1 - 5/8	2,475	2,190	18,205
ABU66R	6	6	5 <sup>13</sup> / <sub>16</sub>	10	12	12-16d	2 - 1/2	1 - 5/8	2,475	2,190	18,205
ABU88	7 <sup>1</sup> / <sub>2</sub>	7	7	12	14	18-16d	—	2 - 5/8	2,570	—	22,405
ABU88R	8	7	7	12	14	18-16d	—	2 - 5/8	2,450	—	19,870
ABU1010	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>1</sup> / <sub>4</sub>	14	14	22-16d	—	2 - 5/8	2,270	—	32,020
ABU1010R	10	9	7	14	14	22-16d	—	2 - 5/8	1,830	—	31,650
ABU1212	11 <sup>1</sup> / <sub>2</sub>	11	7 <sup>1</sup> / <sub>4</sub>	12	12	22-16d	—	2 - 5/8	3,000	—	34,745
ABU1212R	12	11	7	12	12	22-16d	—	2 - 5/8	3,000	—	34,745

For SI: 1 inch = 25.4 mm, 1 lbs = 4.45 N.

<sup>1</sup>The uplift loads have been increased for wind or earthquake loading with no further increase allowed. The allowable loads must be reduced when other load durations govern.

<sup>2</sup>The allowable downloads may not be increased for short term loading.

<sup>3</sup>Anchor bolts and the concrete footings must be capable of resisting all loads and forces transferred from the post base connector.

<sup>4</sup>Allowable uplift loads based on nails and bolts are not cumulative.

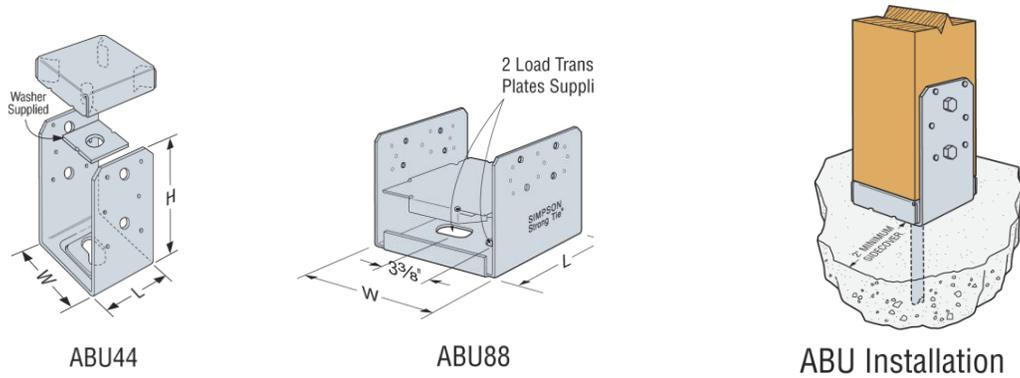


FIGURE 2—ABU ADJUSTABLE POST BASE CONNECTORS

TABLE 3—PBV POST BASE CONNECTORS<sup>1,2,3</sup>

MODEL NO.	DIMENSIONS (inches)		FASTENERS		ALLOWABLE DOWNLOADS (lbs)
	L	H	SDS Screws into Post (Quantity–Type)	Anchor Bolt (Quantity– Diameter)	C <sub>D</sub> =1.0 C <sub>D</sub> =1.15 C <sub>D</sub> =1.25
PBV6	5 <sup>1</sup> / <sub>4</sub>	1	4 –SDS 1/4 x 3	1 – 5/8	8,255
PBV10	9 <sup>3</sup> / <sub>16</sub>	1	4 –SDS 1/4 x 3	1 – 5/8	21,435

For SI: 1 inch = 25.4 mm, 1 lbs = 4.45 N.

<sup>1</sup>The allowable downloads may not be increased for short term loading.

<sup>2</sup>Anchor bolts and the concrete footings must be capable of resisting all loads and forces transferred from the post base connector.

<sup>3</sup>The model number for the SDS 1/4 x 3 inch screw is SD25300.

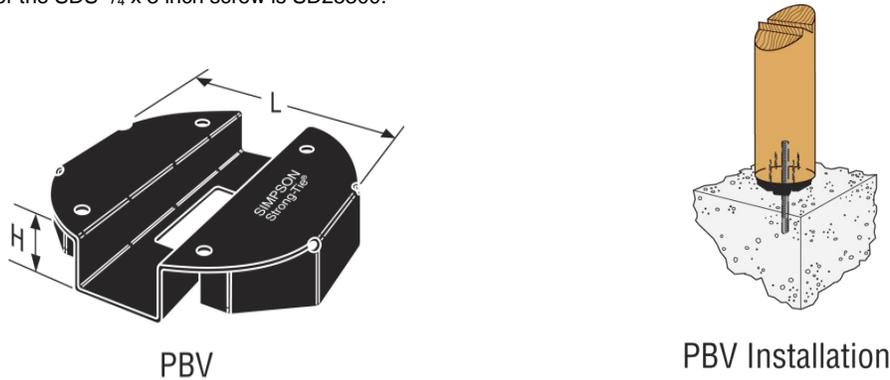


FIGURE 3—PBV POST BASE CONNECTORS

TABLE 4—CPTZ POST TIE CONNECTORS<sup>1,2,3,4</sup>

MODEL NO.	DIMENSIONS		FASTENERS				ALLOWABLE UPLIFT CD = 1.60 (lbs.)	ALLOWABLE DOWNLOAD CD = 1.00 (lbs.)	ALLOWABLE F <sub>1</sub> CD = 1.60 (lbs.)	ALLOWABLE F <sub>2</sub> CD = 1.60 (lbs.)
	W (in.)	L (in.)	Anchor		Post					
			Qty.	Dia. (in.)	Qty.	Type <sup>3</sup>				
CPT44Z	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	2	1/2	2	1/2 x 2 <sup>3</sup> / <sub>4</sub> Dowel	3,035	9,805	600	605
						1/2 MB				
CPT66Z	5 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>8</sub>	2	1/2	2	1/2 x 4 <sup>3</sup> / <sub>4</sub> Dowel	3,580	21,375	655	1,025
						1/2 MB				
CPT88Z	7 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	2	1/2	2	1/2 x 4 <sup>3</sup> / <sub>4</sub> Dowel	3,625	22,805	740	1,080
						1/2 MB				

For SI: 1 inch = 25.4 mm, 1 lbs = 4.45 N.

<sup>1</sup>The allowable uplift loads have been increased for wind and earthquake load with no further increase allowed. Reduce where other loads govern.

<sup>2</sup>The allowable downloads may not be increased for short-term loading and must not exceed the post capacity.

<sup>3</sup>Connector package come with three 1/2-inch-diameter dowel pins. Alternate 1/2-inch-diameter hex or squared head machine bolt (MB) may be used for loads listed. Lags or carriage bolts are not permitted.

<sup>4</sup>Post bases do not provide adequate resistance to prevent members from rotating about the base and therefore are not for non-braced or non-top-supported installations.

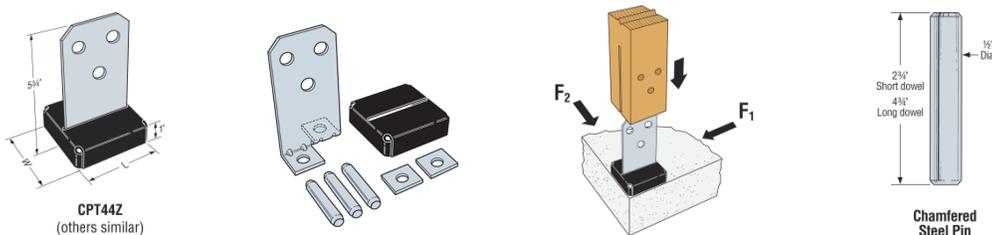


FIGURE 4—CPTZ POST TIE CONNECTOR AND TYPICAL INSTALLATION

TABLE 5—RPBZ RETROFIT POST BASE<sup>1,2,3,4,5,6,7</sup>

Model No.	Qty.	Post Size	Fasteners				Allowable Connector Loads (lbs)		
			Base Connection		Post		Uplift (160)	F <sub>2</sub> (160)	F <sub>3</sub> (160)
			Type	Qty.	Type	Qty.			
<b>Connection To Concrete</b>									
RPBZ	1	4x, 6x	3/8" Anchor or 1/4" Titen Screw	2 Bolts or 4 Screws	SDS 1/4 x 1.5"	4	1,500	1,005	480
	2			4 Bolts or 8 Screws		8	2,235	1,115	1,115
<b>Connection To Wood Framing</b>									
RPBZ	1	4x, 6x	SDS 1/4x3"	4	SDS 1/4 x 1.5"	4	1,335	1,005	480
	2			8		8	2,235	1,115	1,115
	1		SDS 1/4x1.5"	4		4	845	1,005	480
	2			8		8	1,825	1,115	1,115

For SI: 1 in = 25.4 mm, 1 lb = 4.45 N, 1 psi = 6.895 kPa.

<sup>1</sup>Allowable loads have been increased for wind or earthquake loading with no further increase allowed. The allowable loads must be reduced when other load durations govern.

<sup>2</sup>Anchor bolts and the concrete footings must be capable of resisting all loads and forces transferred from the post base connector.

<sup>3</sup>Double 2x4's may be used in lieu of 4x4 post.

<sup>4</sup>For installation on 6x members, if four RPBZ's are used, allowable loads may be taken to be 1.5 x the tabulated value.

<sup>5</sup>When the specified SDS screws at Base Connection for Connection to Wood Framing are installed in 5/4" Southern Pine decking, it is acceptable to use the allowable loads shown in the table. Otherwise, SDS screws threads should be fully engaged into a structural wood member.

<sup>6</sup>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, unbraced carports or guard rails).

<sup>7</sup>Download shall be limited by the design capacity of the post.

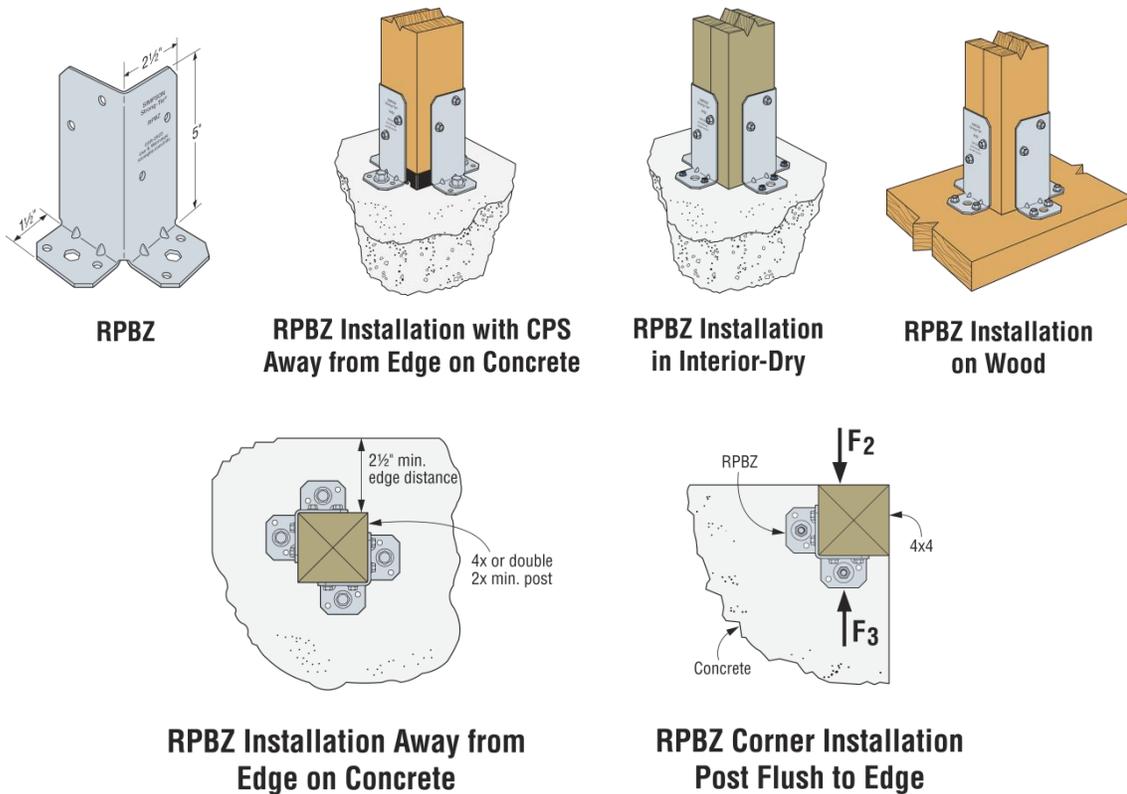


FIGURE 5—RPBZ RETROFIT POST BASE

TABLE 6—ABWZ ADJUSTABLE POST BASE CONNECTORS<sup>1,2,3</sup>

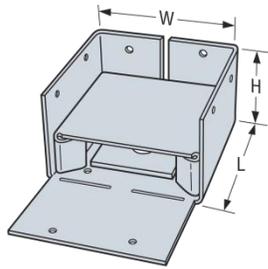
MODEL	NOMINAL POST SIZE	MATERIAL		DIMENSIONS (in)			FASTENER		ANCHOR DIAMETR (in)	ALLOWABLE LOAD (DF/SP) (lbs)	
		Base (GA)	Body (GA)	W	L	H	Type	Qty.		Uplift	Download
										(160)	(100)
ABW44Z	4x4	16	16	3 <sup>9</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	10d	8	1/2	1,005	7,180
							SD9112			1,105	
ABW44RZ	RGH 4x4	16	16	4	4 <sup>1</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	10d	8	1/2	835	7,180
							SD9112				
ABW46Z	4x6	12	16	3 <sup>9</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>32</sub>	10d	10	1/2	845	4,590
							SD9112			940	
ABW46RZ	RGH 4x6	12	16	6	4	2 <sup>13</sup> / <sub>16</sub>	10d	10	1/2	780	4,590
							SD9112				
ABW66Z	6x6	12	14	5 <sup>7</sup> / <sub>16</sub>	5 <sup>17</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>32</sub>	10d	12	1/2	1,190	12,935
							SD9112			1,225	
ABW66RZ	RGH 6x6	12	14	6	6	2 <sup>13</sup> / <sub>16</sub>	10d	12	1/2	1,190	12,935
							SD9112				
ABW7-7	7 <sup>1</sup> / <sub>8</sub> x7 <sup>1</sup> / <sub>8</sub>	12	14	7 <sup>1</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>16</sub>	3	10d	12	1/2	840	14,535

For SI: 1 inch = 25.4 mm, 1 lbs = 4.45 N.

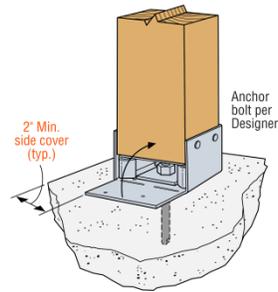
<sup>1</sup>The uplift loads have been increase for wind or earthquake loading with no further increase allowed. Reduce where other load durations govern.

<sup>2</sup>The allowable loads may not be increased for short term loading.

<sup>3</sup>Anchor bolts and the concrete footings must be capable or resisting all loads and forces transferred from the post base connector.



ABW Adjustable Post Base



Typical ABWZ Installation

FIGURE 6—ABWZ RETROFIT POST BASE

## ICC-ES Evaluation Report

## ESR-1622 LABC and LARC Supplement

Issued December 2018

This report is subject to renewal January 2019.

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**DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES**  
**Section: 06 05 23—Wood, Plastics, and Composite Fastenings**

### REPORT HOLDER:

**SIMPSON STRONG-TIE COMPANY INC.**

### EVALUATION SUBJECT:

**SIMPSON STRONG-TIE® POST BASE CONNECTORS FOR WOOD CONSTRUCTION**

### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that Simpson Strong-Tie post base connectors for wood construction, described in ICC-ES master evaluation report [ESR-1622](#), have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

#### Applicable code editions:

- 2017 *City of Los Angeles Building Code* (LABC)
- 2017 *City of Los Angeles Residential Code* (LARC)

### 2.0 CONCLUSIONS

The Simpson Strong-Tie post base connectors for wood construction, described in Sections 2.0 through 7.0 of the master evaluation report [ESR-1622](#), comply with the LABC Chapter 23, and the LARC, and are subjected to the conditions of use described in this supplement.

### 3.0 CONDITIONS OF USE

The Simpson Strong-Tie post base connectors for wood construction, described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the master evaluation report [ESR-1622](#).
- The design, installation, conditions of use and labeling are in accordance with the 2015 *International Building Code*® (2015 IBC) provisions noted in the master evaluation report [ESR-1622](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapter 23.
- The connections are not approved to resist uplift forces from wood shear walls.
- Under the LARC, an engineered design in accordance with LARC Section R301.1.3 must be submitted.
- The hillside building provisions in LABC Section 2301.1 are excluded from this supplement report.

This supplement expires concurrently with the master report, issued January 2018 and revised December 28, 2018.