

ICC-ES Evaluation Report

ESR-1622

Reissued January 2024

This report also contains:



- FBC Supplement

Subject to renewal January 2025

- LABC Supplement

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

Copyright © 2024 ICC Evaluation Service, LLC. All rights reserved.

| | | | |
|--|--|--|---|
| <p>DIVISION: 06 00 00— WOOD, PLASTICS AND COMPOSITES</p> <p>Section: 06 05 23— Wood, Plastic, and Composite Fastenings</p> | <p>REPORT HOLDER: SIMPSON STRONG-TIE COMPANY INC</p>  | <p>EVALUATION SUBJECT: SIMPSON STRONG-TIE® POST BASE CONNECTORS FOR WOOD CONSTRUCTION</p> |  |
|--|--|--|---|

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012, and 2009 [International Building Code® \(IBC\)](#)
- 2021, 2018, 2015, 2012, and 2009 [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 [2304.10.4](#) of the 2021 IBC, Section [2304.10.3](#) of the 2018 IBC and 2015 IBC or Section [2304.9.3](#) of the 2012 and 2009 IBC, and are used to resist lateral and net induced uplift forces at the bottom end of wood posts in accordance with Section [2304.10.8](#) of the 2021 IBC, Section [2304.10.7](#) of the 2018 and 2015 IBC or Section [2304.9.7](#) of the 2012 and 2009 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 IBC Section [1809](#), 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 [2304.12.2.2](#) of the 2021, 2018 and 2015 IBC, Section [2304.11.2.7](#) of the 2012 and 2009 IBC, Section [R317.1](#) of the 2021 IRC, Section [R317.1.4](#) of the 2018, 2015, 2012 and 2009 IRC.

3.1.1 ABA Post Base Standoff: The ABA post base standoff is a one-piece connector that elevates the supported wood post $1\frac{1}{16}$ 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, ABU65Z, 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 $1\frac{1}{16}$ -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 $\frac{1}{4}$ -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 $2\frac{1}{4}$ -inch-wide-by- $1\frac{1}{2}$ -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 $\frac{1}{4}$ -inch-diameter (6.4 mm) holes used for installing concrete screws or SDS Screws and one $\frac{3}{8}$ -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 $\frac{9}{16}$ -inch-diameter (14.3 mm) hole. The ABW44Z and ABW44RZ use the LPB $\frac{1}{2}$ 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 BP $\frac{1}{2}$ EG 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 |
| $\frac{1}{4}$ -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/m²), 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 | 3 $\frac{1}{2}$ | 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 report for use in the applicable treated lumber. Bolts used in contact with preservative-treated or fire-retardant-treated lumber must comply with Section 2304.10.6 of the 2021 IBC, Section 2304.10.5 of the

2018 and 2015 IBC, Section 2304.9.5 of the 2012 and 2009 IBC, Section R317.3 of the 2021, 2018, 2015, 2012 and 2009 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 A307.

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 2018 (editorially revised December 2020).

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number, (ICC-ES ESR-1622) along with the name registered trademark, or registered logo of the report holder [and/or listee] must be included in the product label.
- 7.2 In addition, 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.
- 7.3 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

TABLE 1—ABA ADJUSTABLE POST BASE CONNECTORS^{1,2,3}

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

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

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

²The allowable downloads may not be increased for short term loading.

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

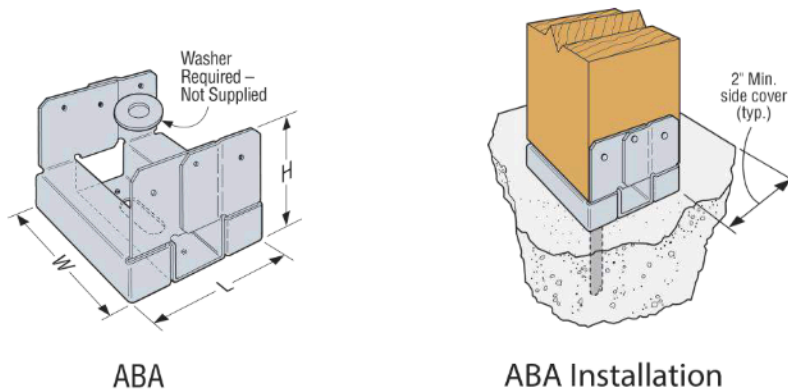


FIGURE 1—ABA ADJUSTABLE POST BASE CONNECTOR

TABLE 2—ABU ADJUSTABLE POST BASE CONNECTORS^{1,2,3,4}

| MODEL NO. | CONNECTOR DIMENSIONS | | | | | FASTENERS (Quantity-Type) | | | ALLOWABLE LOADS (lbs) | | |
|-----------|--------------------------------|---------|---------------------------------|----------|---------------|---------------------------|-----------------|--------------------|-------------------------------|----------------------|---|
| | U-Channel | | | | Standoff Base | | | | Uplift | | Download |
| | W (in.) | L (in.) | H (in.) | Gage No. | | Gage No. | Nails into Post | Bolts through Post | Anchor Bolt Diameter (inches) | Nails | Bolts |
| | | | | | | | | | C _D = 1.6 | C _D = 1.6 | C _D =1.0 C _D =1.15 C _D =1.25 |
| ABU44 | 3 ⁹ / ₁₆ | 3 | 5 ¹ / ₂ | 12 | 16 | 12–16d | 2 – 1/2 | 1 – 5/8 | 1,900 | 2,300 | 7,570 |
| ABU44R | 4 | 4 | 5 ¹ / ₄ | 12 | 16 | 12–16d | 2 – 1/2 | 1 – 5/8 | 1,900 | 2,300 | 7,570 |
| ABU46 | 3 ⁹ / ₁₆ | 5 | 7 | 12 | 12 | 12–16d | 2 – 1/2 | 1 – 5/8 | 2,405 | 2,265 | 12,520 |
| ABU46R | 4 | 6 | 6 ³ / ₄ | 12 | 12 | 12–16d | 2 – 1/2 | 1 – 5/8 | 2,405 | 2,265 | 12,520 |
| ABU5-5 | 5 ¹ / ₄ | 5 | 6 ¹ / ₁₆ | 10 | 12 | 12–16d | 2 – 1/2 | 1 – 5/8 | 2,235 | 2,235 | 10,570 |
| ABU5-6 | 6 ¹ / ₈ | 5 | 6 ¹ / ₁₆ | 10 | 12 | 12–16d | 2 – 1/2 | 1 – 5/8 | 2,235 | 2,235 | 10,570 |
| ABU65Z | 5 ¹ / ₂ | 5 | 6 ¹ / ₁₆ | 10 | 12 | 12–16d | 2 – 1/2 | 1 – 5/8 | 2,475 | — | 10,960 |
| ABU66 | 5 ¹ / ₂ | 5 | 6 ¹ / ₁₆ | 10 | 12 | 12–16d | 2 – 1/2 | 1 – 5/8 | 2,475 | 2,190 | 18,205 |
| ABU66R | 6 | 6 | 5 ¹³ / ₁₆ | 10 | 12 | 12–16d | 2 – 1/2 | 1 – 5/8 | 2,475 | 2,190 | 18,205 |
| ABU88 | 7 ¹ / ₂ | 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 ¹ / ₂ | 9 | 7 ¹ / ₄ | 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 ¹ / ₂ | 11 | 7 ¹ / ₄ | 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 |

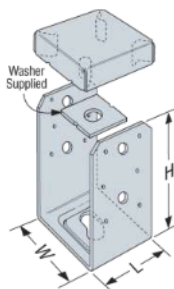
For SI: 1 inch = 25.4 mm, 1 lbs = 4.45 N.

¹The 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.

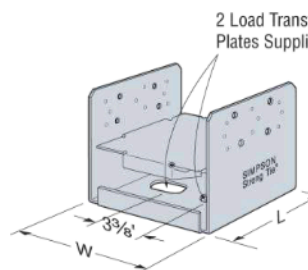
²The allowable downloads may not be increased for short term loading.

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

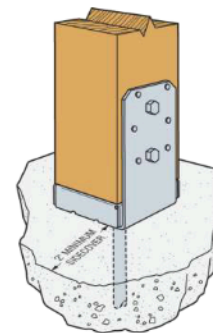
⁴Allowable uplift loads based on nails and bolts are not cumulative.



ABU44



ABU88



ABU Installation

FIGURE 2—ABU ADJUSTABLE POST BASE CONNECTORS

TABLE 3—PBV POST BASE CONNECTORS^{1,2,3}

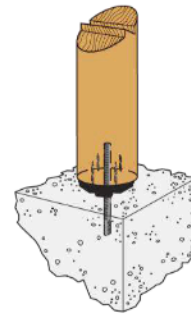
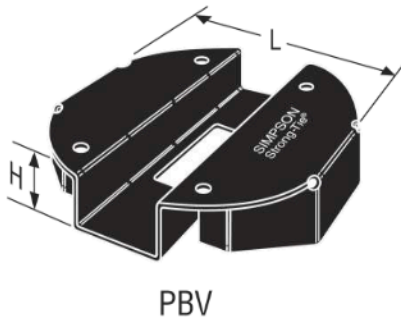
| MODEL NO. | DIMENSIONS (inches) | | FASTENERS | | ALLOWABLE DOWNLOADS (lbs) C _D =1.0 C _D =1.15 C _D =1.25 |
|-----------|--------------------------------|---|--------------------------------------|---------------------------------|--|
| | L | H | SDS Screws into Post (Quantity–Type) | Anchor Bolt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

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

¹The allowable downloads may not be increased for short term loading.

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

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



PBV Installation

FIGURE 3—PBV POST BASE CONNECTORS

TABLE 4—CPTZ POST TIE CONNECTORS^{1,2,3,4}

| MODEL NO. | DIMENSIONS | | FASTENERS | | | | ALLOWABLE UPLIFT CD = 1.60 (lbs.) | ALLOWABLE DOWNLOAD CD = 1.00 (lbs.) | ALLOWABLE F ₁ CD = 1.60 (lbs.) | ALLOWABLE F ₂ CD = 1.60 (lbs.) |
|-----------|-------------------------------|-------------------------------|-----------|------------|------|---|-----------------------------------|-------------------------------------|---|---|
| | W (in.) | L (in.) | Anchor | | Post | | | | | |
| | | | Qty. | Dia. (in.) | Qty. | Type ³ | | | | |
| CPT44Z | 3 ¹ / ₂ | 3 ¹ / ₂ | 2 | 1/2 | 2 | 1/2 x 2 ³ / ₄ Dowel | 3,035 | 9,805 | 600 | 605 |
| | | | | | | 1/2 MB | 3,200 | | | |
| CPT66Z | 5 ³ / ₈ | 5 ³ / ₈ | 2 | 1/2 | 2 | 1/2 x 4 ³ / ₄ Dowel | 3,580 | 19,840 | 655 | 1,025 |
| | | | | | | 1/2 MB | 3,565 | | | |
| CPT88Z | 7 ¹ / ₄ | 7 ¹ / ₄ | 2 | 1/2 | 2 | 1/2 x 4 ³ / ₄ Dowel | 3,625 | 22,805 | 740 | 1,080 |
| | | | | | | 1/2 MB | 3,850 | | | |

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

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

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

³Connector 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.

⁴Post 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.

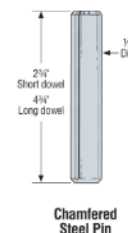
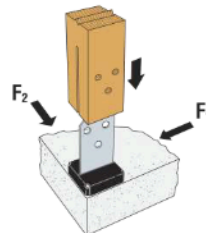
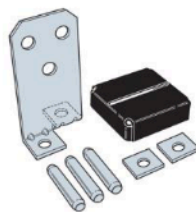
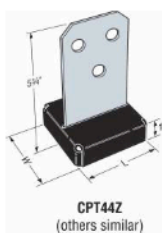


FIGURE 4—CPTZ POST TIE CONNECTOR AND TYPICAL INSTALLATION

TABLE 5—RPBZ RETROFIT POST BASE^{1,2,3,4,5,6,7}

| Model No. | Qty. | Post Size | Fasteners | | | | Allowable Connector Loads (lbs) | | |
|-----------------------------------|------|-----------|---------------------------------|---------------------|----------------|------|---------------------------------|----------------------|----------------------|
| | | | Base Connection | | Post | | Uplift (160) | F ₂ (160) | F ₃ (160) |
| | | | Type | Qty. | Type | Qty. | | | |
| Connection To Concrete | | | | | | | | | |
| 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 |
| Connection To Wood Framing | | | | | | | | | |
| RPBZ | 1 | 4x, 6x | SDS 1/4 x 3" | 4 | SDS 1/4 x 1.5" | 4 | 1,335 | 1,005 | 480 |
| | 2 | | | 8 | | 8 | 2,235 | 1,115 | 1,115 |
| | 1 | | SDS 1/4 x 1.5" | 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.

¹Allowable 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.

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

³Double 2x4's may be used in lieu of 4x4 post.

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

⁵When 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.

⁶Post 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).

⁷Download shall be limited by the design capacity of the post.

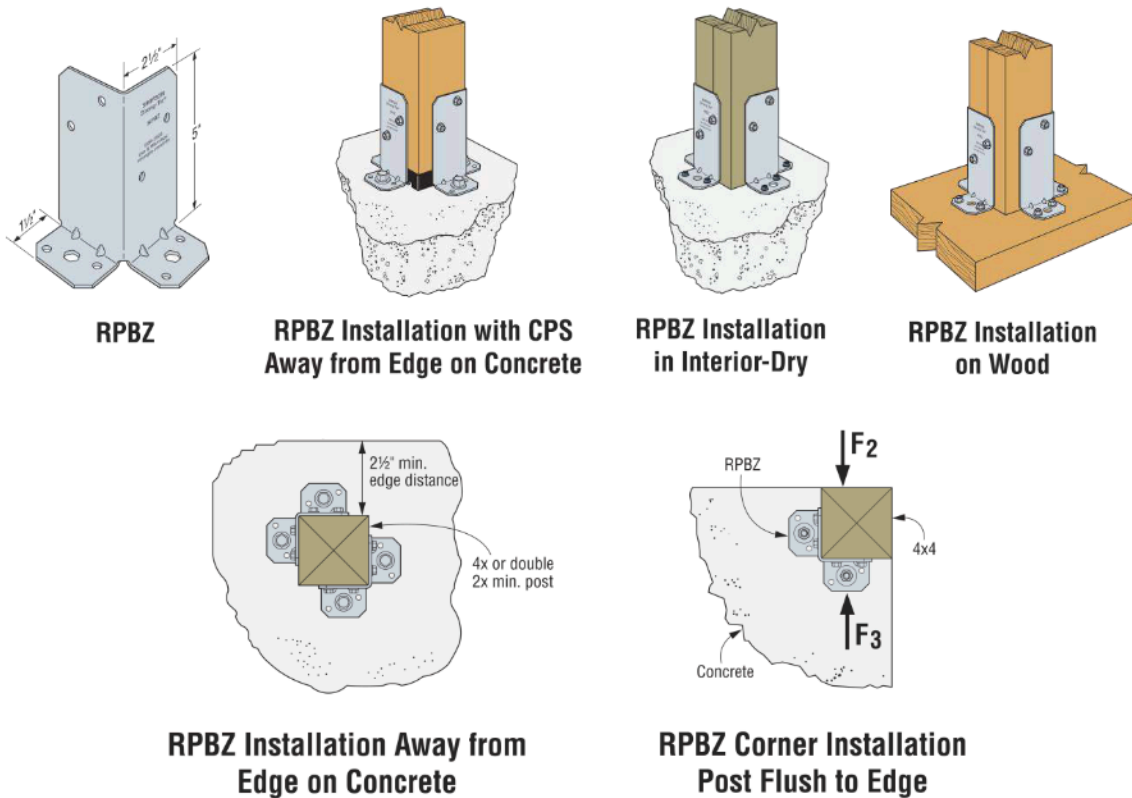


FIGURE 5—RPBZ RETROFIT POST BASE

TABLE 6—ABWZ ADJUSTABLE POST BASE CONNECTORS^{1,2,3}

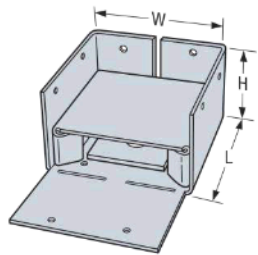
| MODEL | NOMINAL POST SIZE | MATERIAL | | DIMENSIONS (in) | | | FASTENER | | ANCHOR DIAMETER (in) | ALLOWABLE LOAD (DF/SP) (lbs) | |
|---------|--|-----------|-----------|--------------------------------|---------------------------------|---------------------------------|----------|------|----------------------|------------------------------|----------|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

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

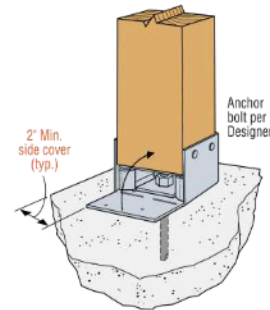
¹The uplift loads have been increase for wind or earthquake loading with no further increase allowed. Reduce where other load durations govern.

²The allowable loads may not be increased for short term loading.

³Anchor 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

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 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 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:

- 2023 *City of Los Angeles Building Code* (LABC)
- 2023 *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 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 evaluation report [ESR-1622](#).
- The design, installation, conditions of use and labeling are in accordance with the 2021 *International Building Code*® (2021 IBC) provisions noted in the 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 seismic design provisions for hillside buildings referenced in LABC Section 2301.1 have not been considered and are outside of the scope of this supplement.

This supplement expires concurrently with the evaluation report, reissued January 2024.

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 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that the Simpson Strong-Tie® post base connectors for wood construction, described in ICC-ES evaluation report ESR-1622, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2023 *Florida Building Code—Building*
- 2023 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Simpson Strong-Tie® post base connectors for wood construction, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-1622, comply with the *Florida Building Code—Building*, and the *Florida Building Code—Residential*. The design requirements must be determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-1622 for the 2021 and 2018 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable.

Use of the Simpson Strong-Tie® post base connectors for wood construction has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building*, and the *Florida Building Code—Residential* with the following condition:

- a. For connections subject to uplift, the connection must be designed for no less than 700 pounds (3114 N).

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued January 2024.