

ANCHOR SYSTEMS



Simpson Strong-Tie Anchor Systems® manufactures a full line of anchoring and fastening products for concrete and masonry. The product line includes adhesives for anchoring and crack injection, mechanical anchors, powder actuated fasteners and drill bits. Anchor Systems products offer unique solutions to applications in the light framed construction market when used with, and without, Simpson Strong-Tie® connectors.

For complete information on product performance, installation requirements and appropriate code listings for Anchor Systems products please refer to the Anchor Systems catalogue (*form C-SAS, see page 190 for details*) or visit www.simpsonanchors.com.



Anchor



Adhesive



P.A.T.

IN THE SPECS • ON THE JOB • AT YOUR SERVICE™

Anchors

ADHESIVE ANCHOR SOLUTIONS

ACRYLIC-TIE® HIGH STRENGTH, ALL TEMPERATURE ADHESIVE

Acrylic-Tie® is a two-component, 10:1 ratio acrylic based adhesive for use as a high strength, anchor grouting material. Formulated for use in all types of weather, AT is designed to dispense easily and cure at temperatures down to 0°F. Resin and initiator are dispensed and mixed simultaneously through the mixing nozzle.

CODES: ICC-ER 5791; City of L.A. RR 25459; FL 2304.1



AT13

SET HIGH STRENGTH EPOXY

Epoxy-Tie® SET epoxy is a two-component, low odor, 1:1 ratio, 100% solids epoxy-based adhesive for use as a high strength, non-shrink anchor grouting material. SET is ideal for high load applications where strength is the main concern. Resin and hardener are dispensed and mixed simultaneously through the mixing nozzle.

CODES: ICC ESR-1772; City of L.A. RR 25279; FL 5550.3



SET22

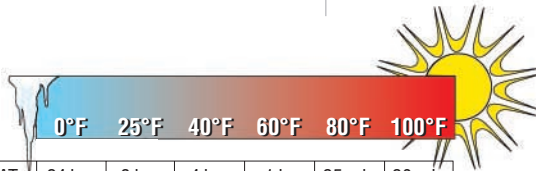
ET EPOXY-TIE ADHESIVE

Epoxy-Tie® ET is a two-component, low odor, 1:1 ratio, 100% solids epoxy-based system for use as a high strength, non-shrink anchor grouting material. ET offers an economical solution for general anchoring applications. Resin and hardener are dispensed and mixed simultaneously through the mixing nozzle.

CODES: ICC ER-4945; City of L.A. RR 25185 & RR 25120; FL 5550.1



ET22



Refer to the *Anchors and Fasteners for Concrete and Masonry* catalogue for other Adhesive Solutions

MECHANICAL ANCHOR SOLUTIONS

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.

TITEN HD® Heavy-Duty Screw Anchor

The Titen HD is a patented, high-strength screw anchor for concrete and masonry. The self-undercutting, non-expansion characteristics of the Titen HD makes it the ideal anchor for structural applications, even at minimum edge distances and under reduced spacing conditions. **WARNING:** Recommended for permanent dry, interior, non-corrosive environments or temporary outdoor applications. Contact Simpson Strong-Tie for more information.

CODES: ICC ESR-1056; City of L.A. RR 25560; FL 2304.2



Titen HD

U.S. Patent 5,674,035 & 6,623,228

STRONG-BOLT™ Wedge Anchor

The Strong-Bolt is a wedge anchor specifically designed for optimum performance in both cracked and uncracked concrete; as per the requirements of CSA A23.3-04 Annex D. Rigorously tested according to the newest industry-wide criteria, the Strong-Bolt anchor is proven to offer increased reliability in adverse conditions, including proper functioning in cracked concrete under static and seismic loading.

CODES: ICC-ES ESR-1771; Florida FL 8668.1



Strong-Bolt

WEDGE-ALL® Wedge Anchor

The Wedge-All is a non-bottom bearing, wedge style expansion anchor for use in solid concrete or grout filled masonry. A one-piece clip ensures uniform holding capacity that increases as tension is applied.

CODES: ICC ER-3631; City of L.A. RR 24682; FL 5415.3



Wedge-All

Refer to the *Anchors and Fasteners for Concrete and Masonry* catalogue for other Mechanical Anchor Solutions

ANCHOR SYSTEMS

Simpson Strong-Tie Anchor Systems® products offer several post-installed anchorage solutions for holdowns and bases. Often times these products are used when cast-in-place anchors are omitted or mislocated, or in retrofit applications.

For a complete solution guide refer to the *Anchor Systems Specifications for Connectors* technical bulletin T-ANCHORSPEC. For complete information on product performance, installation requirements and appropriate code listings for Anchor Systems products please refer to the Anchor Systems catalogue (*form C-SAS*) or visit www.simpsonanchors.com. Also refer to pages 12-14 for Important Instructions to Designer.

For Corrosion Information, see pages 10-11.



EXTERIOR/INTERIOR SILL PLATE ANCHORAGE SOLUTIONS

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.

Titen HD® Anchor: As a Direct 1 to 1 Replacement for Equivalent Diameter Sill Bolts

Titen HD Size (in.)	Titen HD Model No.	Sill Plate Size (in.)	Minimum Edge Distance	Minimum End Distance
1/2 x 6	THD50600H ²	2x or 3x	1 3/4	8
1/2 x 8	THD50800H ²	Double 2x	1 3/4	8
5/8 x 6	THD62600H ²	2x	1 3/4	10
5/8 x 6 1/2	THD62612H ²	3x	1 3/4	10
5/8 x 8	THD62800H ²	Double 2x	1 3/4	10

1. Minimum concrete strength 2500 psi.
2. For ACQ or CA pressure-treated wood order products Mechanically Galvanized (MG). For additional information, visit www.strongtie.com/info.
3. Designs based on a minimum embedment of 3 1/4" for 1/2" Titen HDs and 3 3/4" for 5/8" Titen HDs.
4. For additional information, refer to the latest *Simpson Anchor and Fastening Systems for Concrete & Masonry* catalogue.
5. Direct 1 to 1 replacement is based on parallel-to-plate, perpendicular-to-plate, and tension comparisons to a cast-in-place anchor bolt of equivalent diameter.
6. For concrete foundation only, 6" minimum stemwall width.
7. Minimum edge and end distances are based on distance from edge of concrete to center of bolt.
8. Use bearing plate as required by code (*see page 22*).
9. Other Titen HD sizes available.
10. Some jurisdictions may require special inspection.

RFB and SET/AT/ET: As a Direct 1 to 1 Replacement for Equivalent Diameter Sill Bolts

RFB Size	Minimum Embed.	Sill Plate Size (in.)	Minimum Edge Distance	Minimum End Distance
RFB #4x7	4 1/4	2x	1 3/4	8 1/2
RFB #4x10		Double 2x or 3x		
RFB #5x8	5	2x	1 3/4	10
RFB #5x10		Double 2x or 3x		

1. Minimum concrete strength 2500 psi.
2. For ACQ or CA pressure-treated wood, order products HDG. For additional information, visit www.strongtie.com/info.
3. Direct 1 to 1 replacement is based on parallel-to-plate, perpendicular-to-plate, and tension comparisons to a cast-in-place anchor bolt of equivalent diameter.
4. For concrete foundations only.
5. Minimum edge and end distances are based on distance from edge of concrete to center of bolt.
6. Use bearing plate as required by code (*see page 22*).



Titen HD®



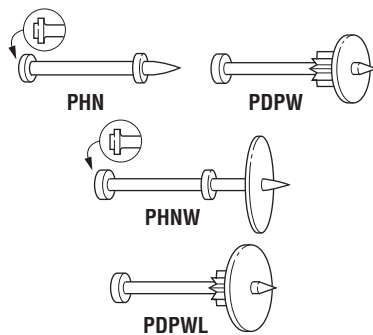
RFB



INTERIOR (ONLY) SILL PLATE ANCHORAGE SOLUTIONS

Simpson Strong-Tie Anchor Systems offers a full line of powder actuated tools, fasteners and powder loads for fastening to concrete and steel. Powder actuated pins are often used to fasten the sill plate to concrete slabs.

For complete information on product performance, installation requirements and appropriate code listings for Anchor Systems products please refer to the Anchor Systems catalogue (*form C-SAS*) or visit www.simpsonanchors.com.



(PDPWL Available in galvanized coating for pressure-treated wood applications)

Catalog Number	Overall Length (in.)	Head Diameter (in.)	Shank Diameter (in.)	Maximum Spacing (in.)	
				Interior Braced Walls ³	Interior Walls ²
PDPW-300	3	5/16	0.145	12	24
PDPWL-300	3	5/16	0.145	12	24
PHN-72	2 7/8	5/16	0.145	18	36
PHNW-72	2 7/8	5/16	0.145	18	36

1. Spacings are based upon the attachment of 2-inch (*nominal thickness*) wood sill plates, with specific gravity of 0.50 or greater, to concrete floor slabs or footings. For species of wood with specific gravity of 0.42 to 0.49, multiply required spacing of fasteners for shear walls by 0.81. For species of wood with specific gravity of 0.31 to 0.41, multiply the required spacing of fasteners for shear walls by 0.65.
2. All walls shall have fasteners placed at 6 inches from ends of sill plates, with maximum spacing as shown in the table.
3. Fasteners indicated shall have two pins placed 6 inches and 10 inches, respectively, from each end of sill plates, with maximum spacing as shown in the table.
4. All fasteners must be installed with a minimum 3/4-inch-diameter, No. 16 gauge (0.0598 inch) steel washer.
5. Fasteners shall not be driven until the concrete has reached a compressive strength of 2,000 psi. Minimum edge distance is 1 3/4 inches.
6. The fasteners shall not be used for the attachment of shear walls having a unit shear in excess of 100 pounds per foot. Spacings shown are independent of the number of building stories.

ANCHOR SYSTEMS

Get the rest of the information on Simpson Strong-Tie Anchor Systems®

The information in this catalogue is an introduction to *Anchoring and Fastening Systems for Concrete & Masonry* catalogue. You can get the rest of the technical information three ways:

- Call Simpson Strong-Tie at (800) 999-5099 and request the current *Anchors and Fasteners for Concrete and Masonry* catalogue.
- For a full Simpson Anchor Systems Technical Manual/Binder, call Simpson and ask to speak with your local Technical Sales Representative or Field Engineer. This binder features the C-SAS catalogue in easy-to-use tabular format, as well as code reports, MSDS sheets and more!

- Visit Simpson Anchor Systems at www.simpsonanchors.com. You can access technical and product application information, code reports, new product information and much more. E-mail Ask Simpson at www.simpsonanchors.com/ask for answers to your questions or check our Frequently Asked Questions section for the information you are looking for.
- Call Simpson Strong-Tie and request an Anchor Systems CD-ROM which contains all of the information you need for your anchoring and fastening needs. In addition to complete product information and the Anchor Designer, Drill Bit Selector and Adhesive Estimator programs, the CD also contains product code reports, MSDS sheets and product fliers.

Anchors

ATS The Next Generation Anchor Tiedown System



The New ATS Catalogue

The new *Anchor Tiedown System for Multi-Storey Overturning Restraint* catalogue (C-ATSCAN08) puts all the product and design information right at your fingertips, including technical information, multi-storey rod system design concepts and schematics for runs up to four stories.

Visit www.strongtie.com to download the ATS Catalogue or call 800-999-5099 to request copies.



The new Coupling Take-Up Device utilizes fewer parts, thereby streamlining installation and reducing labor costs

The NEW ATS reduces installation time without sacrificing performance:

- Higher load capacities address more applications.
- The NEW patent-pending Coupling Take-Up Device (CTUD) streamlines installation, eliminating up to 60–70% of labor costs when compared to other systems.
- Color-coded and stamped parts make it easy to match system components.

THE ATS SOLUTION

The Simpson Strong-Tie® Anchor Tie-down System (ATS) is designed to anchor stacked shearwalls in multi-storey wood frame buildings while compensating for construction shrinkage and settling within the structure. The system resists overturning forces through bearing plates and Simpson Strong-Rod™ – connecting rods specifically designed for the ATS system. It is a high capacity restraint (*50,000 lbs. plus*) which exceeds bolted connections.

The Strong-Rods within the system are joined together by the new Coupling Take-Up Device (CTUD). The CTUD is a spring driven rod coupling device which contracts to compensate for rod movement caused by construction shrinkage and settling of the structure. This helps ensure that no gaps develop in the system that could compromise performance. The simplicity of the CTUD also greatly simplifies installation, reducing labour costs over alternative systems.

