

SSTB®: Anchor Bolts

The SSTB is designed for maximum performance as an anchor bolt for holdowns and Wood Strong-Wall® shearwalls. Extensive SSTB testing has been done to determine the design load capacity at a common application, the garage stem wall. Design loads are based on a series of five tests, with a three-times reduction factor.

SPECIAL FEATURES:

- Rolled threads for higher tensile capacity.
- Offset angle reduces side-bursting, provides more concrete cover.
- Stamped embedment line aids installation.
- Configuration results in minimum rebar interference.

MATERIAL: ASTM A36

FINISH: None. May be ordered HDG; contact Simpson Strong-Tie.

INSTALLATION:

- SSTB is used for monolithic and two-pour installations.
- Nuts and washers are not supplied with the SSTB; install standard nuts, couplers and/or washers as required. On HDG SSTB anchors, chase the threads to use standard nuts or couplers or use overtapped products in accordance with ASTM A563 (*Simpson NUT[®]-OST or CNW[®]-[®]OST*).

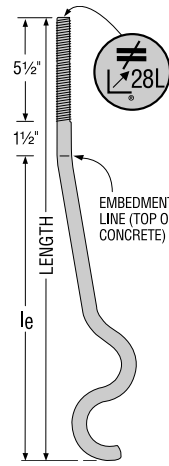
REINFORCED CONCRETE FOUNDATION

- Install the SSTB per plan view detail shown on this page. Install one #4 rebar 3" to 5" (*may be foundation rebar not post-tension cable*) from the top of the foundation.
- The SSTB does not need to be tied to the rebar.
- Minimum concrete compression strength is 2500 psi. Unless noted otherwise, no special inspection is required for foundation concrete when the structural design is based on concrete no greater than 2500 psi (*UBC Section 1701.5.1 and IBC Section 1704.4*).
- Unless otherwise noted, do NOT install where: (a) a horizontal cold joint exists within the embedment depth between the slab and foundation wall or footing beneath, unless provisions are made to transfer the load, or the slab is designed to resist the load imposed by the anchor; or (b) slabs are poured over concrete block foundation walls.

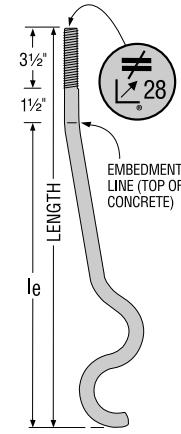
REINFORCED CONCRETE BLOCK

- Before concrete pour, install diagonally at approx. 45° in the cell per plan view detail shown on the right.
- Horizontal #4 rebar (*minimum 56" long centered about the anchor bolt*)—approximately one rebar 12" from the top and two rebars approximately 28" from the top. Vertical #4 rebar (*minimum 24" long*) install with maximum 24" o.c. spacing.
- Grout all cells with minimum 2000 psi concrete. Vibrate the grout per the International Building Code®, Section 2104.1.

CODES: ICC-ES ER-4935



SSTB28L



SSTB28

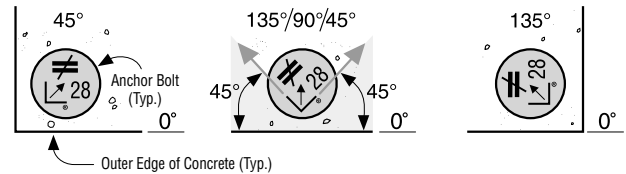
Identification on the bolt head showing embedment angle and model.

U.S. Patent 5,317,850

Corner Installation
(Install with arrow on top of the bolt oriented as shown)

Non-Corner Installation
(Bolt may be installed @ 45° to 135° as shown)

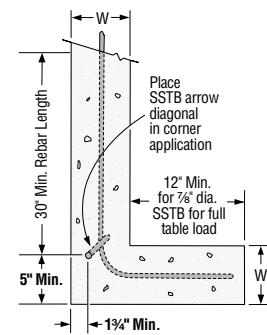
Corner Installation
(Install with arrow on top of the bolt oriented as shown)



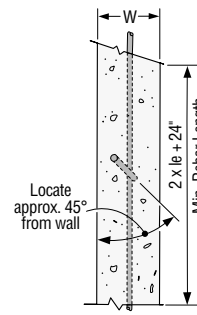
Plan View of SSTB Placement in Concrete

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.

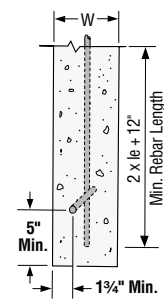
Model ⁶ No.	Stem-wall Width (W)	Dia.	Length	Min. Embed. <i>l_e</i>	Allowable Tension Load ^{1,2,11}		
					Concrete ⁴ f'c = 2500 psi	Concrete 8" CMU Block ⁹	Concrete 8" CMU Block End ¹⁰
SSTB28	8	7/8	29 7/8 (SSTB28L = 32 7/8)	24 7/8	10100	6385	4815
SSTB34	8	7/8	34 7/8	28 7/8	10100	6385	4815



Corner Installation



Continuous Stemwall



End Wall (Note 4)

Typical Plan Views of Rebar Installation

1. Loads may not be increased for short-term loading. Loads apply to earthquake and wind loading.
2. Minimum anchor center-to-center spacing is 2*l_e* for anchors acting in tension at the same time for full load.
3. The SSTB was tested in a stem wall with a minimum amount of concrete cover.
4. Use full table load when installed 24" from the end or installed in a corner condition (*see illustrations*). When used 5" from the end of a concrete foundation (*see end wall graphic*), the maximum allowable load is 9045 lbs. for SSTB28, 9585 lbs. for SSTB34 (*these loads are not Code listed – contact Simpson Strong-Tie for test data*).
5. Connection is limited by the lowest of bolt or holdown capacity.
6. Order the SSTBL models for longer thread length (5 1/2") ex. SSTB28L. SSTBL and SSTB loads are the same.
7. SSTB34 has 4 1/2" of thread and is not available in SSTBL versions.
8. Use 90% of the table load for 2000 psi concrete.
9. Minimum end distance required to achieve CMU table loads is *l_e*.
10. Minimum end distance required to achieve CMU Block End table loads is 4 1/4".
11. Testing to new ICC-ES acceptance criteria to be completed in 2009. Reference www.strongtie.com for latest loads and information.