

**SB Anchor Bolt**

The geometry of the SB bolt is the latest development in high capacity anchors. The smooth transition angle of the bolt positions the head of the anchor into an optimum position in the concrete stem wall without creating excessive horizontal forces. The SB7/8x24 is designed to maximize performance with minimum embedment while the SB1x30 is intended to cover holdown devices that exceed the capacity of SSTB anchors.

**Special Features:**

- Identification on the bolt head showing embedment angle and model
- Stamped embedment line
- Rolled thread for higher tensile capacity
- Tested in different compressive strength concretes for versatility in specification

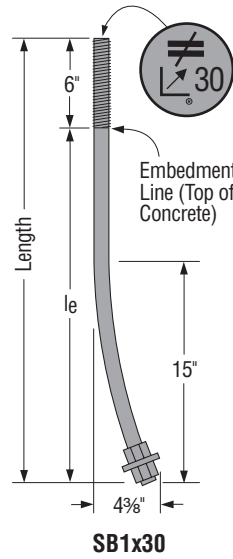
**MATERIAL:** ASTM A36

**FINISH:** None. May be ordered HDG. Contact Simpson Strong-Tie.

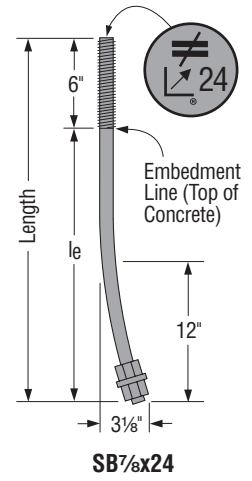
**INSTALLATION:**

- SB is only for concrete applications poured monolithically.
- Install 1-#4 rebar in the area 3" to 5" (may be foundation rebar not post-tension cable) from the top of the foundation.
- Top nuts and washers for holdown attachment are not supplied with the SB; install standard nuts, couplers and/or washers as required.

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



U.S. Patent  
5,317,850

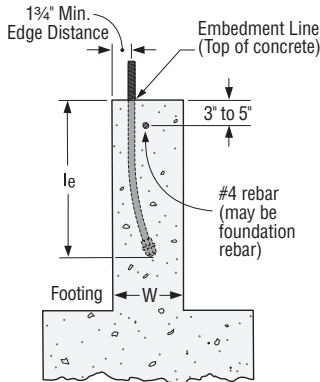


Model No.	Dimensions (in.)				Allowable Tension Loads (lbs.)									Code Ref.
	Stemwall Width (W)	Dia.	Length	Min. Embed. (le)	Continuous Stemwall			Corner Installation			End Wall			
					f'c = 2500 psi	f'c = 3000 psi	f'c = 4000 psi	f'c = 2500 psi	f'c = 3000 psi	f'c = 4000 psi	f'c = 2500 psi	f'c = 3000 psi	f'c = 4000 psi	
SB7/8x24	8	7/8	24	18	8330	8930	10130	8330	8930	10130	6325	7150	8795	F24, 170 <sup>5</sup>
SB1x30	10	1	30	24	13675	15560	15560	13675	15560	15560	8605	11475	11475	
	12	1	30	24	14940	—	—	14940	—	—	8605	—	—	

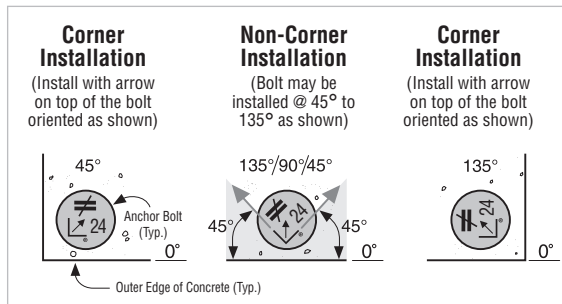
**SELECTION GUIDE**

Anchor Diameter	2x, 3x, 2-2x Sill Plates	
	Holdown Model No.	Anchor Model No.
7/8	HDU8	SB7/8x24
	HD7 <sup>7</sup>	
	HD9 <sup>5,7</sup>	
	HQ8	See SSTB (Page 28)
	HDC10/22 HDC10/4	
1	HDU11	SB1x30
	HDU14 <sup>4</sup>	
	HHQ11	
	HHQ14 <sup>4</sup>	
	HD7 <sup>7</sup>	
	HD12 <sup>6,7</sup>	

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 3 le for anchors acting in tension at the same time for full load.
3. Allowable loads are based on ultimate test load divided by a factor of 3.0. Contact Simpson Strong-Tie for testing and design information.
4. For two pour installations (see drawing below) with a SB1x30, use the table loads for the SB7/8x24.
5. Testing to new ICC-ES acceptance criteria to be completed in 2009. Reference [www.strongtie.com](http://www.strongtie.com) for latest loads and information.

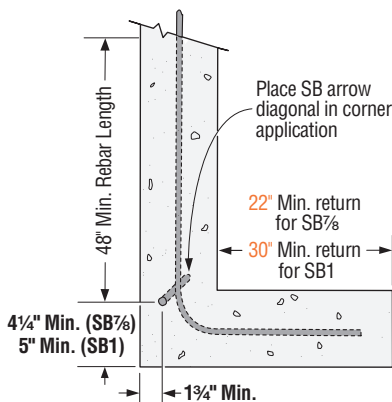


Typical SB Installation

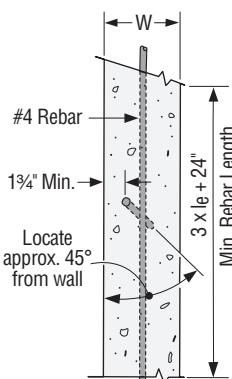


Plan View of SB Placement in Concrete

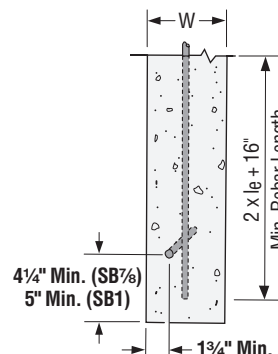
1. Selections assume installations into a continuous stemwall or in a corner. Minimum f'c = 2500 psi.
2. No cold joint within the embedment depth.
3. The Design Engineer may specify an alternate anchorage system provided the diameter is the same.
4. Where noted, the allowable load for this application is 13675 lbs. which is less than the published loads for these holdowns. For concrete strengths 3000 psi or greater, the maximum allowable load for the holdown can be achieved.
5. Where noted SB7/8x24 may be used on 3" (post) wood member thickness when using f'c = 3000 psi for the foundation concrete.
6. Where noted SB1x30 may be used for 5 1/2" (post) wood member thickness when 3000 psi foundation concrete is used. 3 1/2" and 4 1/2" (post) wood member thicknesses may be used when using 2500 psi foundation concrete. See catalog page 41 for (post) wood member thickness info.
7. When SB is used with the HD holdown and a sill plate greater in thickness than 1 1/2", then provisions must be taken to extend the SB.



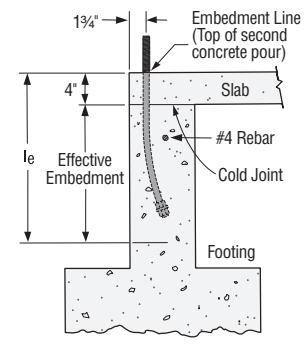
Corner Installation



Continuous Stemwall



End Wall



Two Pour Installation (SB1x30)