SB

Anchor Bolt

This product is preferable to similar connectors because of (a) easier installation, (b) higher loads, (c) lower installed cost, or a combination of these features.

The SB anchor bolt offers an anchorage solution for our holdowns that call for a ⅝"-diameter, a ⅞"-diameter and a 1"-diameter anchor.

SB anchor bolts are code listed by ICC-ES under the 2012/2015/2018 IBC and IRC.

Features:

- Identification on the bolt head showing embedment angle and model
- Sweep geometry to optimize position in form
- Rolled thread for higher tensile capacity
- Hex nuts and plate washer fixed in position
- Available in HDG for additional corrosion resistance

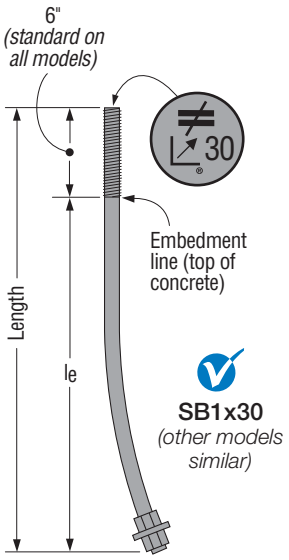
Material: ASTM F1554, Grade 36

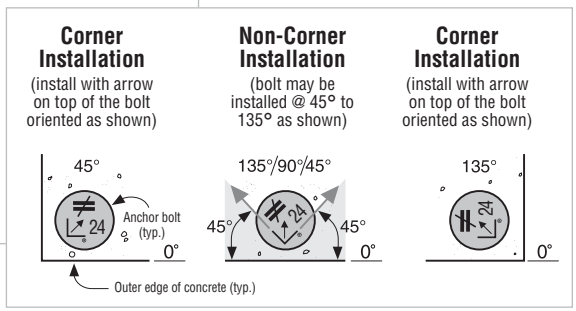
Finish: None. May be ordered HDG; contact Simpson Strong-Tie.

Installation:

- SB is only for concrete applications poured monolithically except where noted.
- Top nuts and washers for holdown attachment are not supplied with the SB; install standard nuts, couplers and/or washers as required.
- On HDG SB anchors, chase the threads to use standard nuts or couplers or use overtapped products in accordance with ASTM A563, for example Simpson Strong-Tie NUT⅝-OST, NUT⅞-OST and NUT1-OST, CNW⅝-OST, CNW⅞-OST and CNW1-OST.
- Install SB before the concrete pour using AnchorMate® anchor bolt holders. Install the SB per the plan view detail.
- Minimum concrete compressive strength is 2,500 psi.
- When rebar is required it does not need to be tied to the SB.

Codes: See p. 12 for Code Reference Key Chart





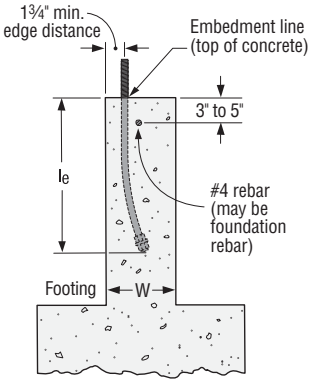
Plan View of SB Placement in Concrete

These products are available with additional corrosion protection. For more information, see p. 15.

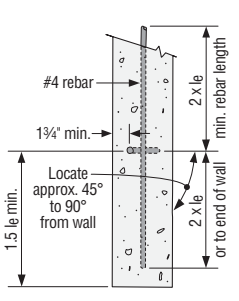
SB Bolts at Stemwall

Model No.	Dimensions (in.)				Allowable Tension Loads						Code Ref.
	Stemwall Width	Dia.	Length	Min. Embed. (l_e)	Wind and SDC A&B			SDC C–F			
					Midwall	Corner	End Wall	Midwall	Corner	End Wall	
SB5/8X24	6	⅝	24	18	6,675	6,550	6,550	6,675	5,730	5,730	IBC, FL, LA
SB7/8X24	8	⅞	24	18	10,055	8,980	6,550	8,795	7,855	5,730	
SB1X30	8	1	30	24	13,110	9,505	6,930	11,470	8,315	6,065	

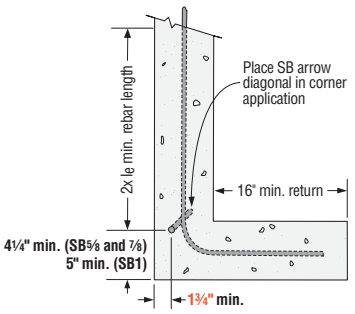
1. Rebar is required at the top of stem wall foundations, but is not required for slab-on-grade edge and garage curb, or stem wall garage front installations.
2. Minimum end distances for SB bolts are as shown in graphics.
3. To obtain LRFD values, multiply ASD seismic load values by 1.4 and wind load values by 1.67 (1.6 for 2012 IBC).
4. Per Section 1613 of the IBC, detached one- and two-story dwellings in SDC C may use "Wind and SDC A&B" allowable loads.
5. Midwall loads apply when anchor is 1.5 l_e or greater from the end. For bolts acting in tension simultaneously, the minimum bolt center-to-center spacing is 3 l_e.
6. Full catalog loads apply for two-pour installation for slab-on-grade: edge.



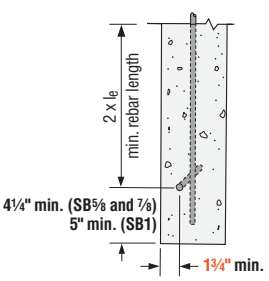
Typical SB Installation



Midwall

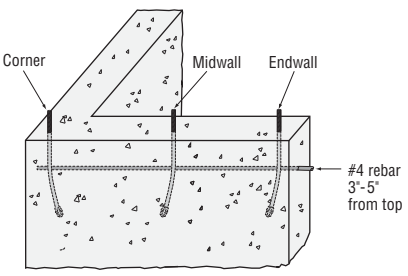


Corner



End Wall

Stemwall Plan Views



Perspective View

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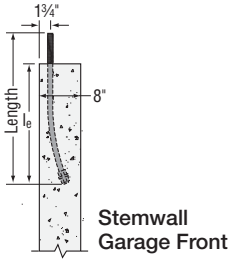
Anchor Bolt (cont.)

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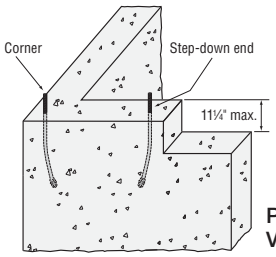
SB Bolts at Stemwall: Garage Front

Model No.	Dimensions (in.)				Allowable Tension Loads				Code Ref.
	Stemwall Width	Diameter	Length	Min. Embed. (l_e)	Wind and SDC A&B		SDC C–F		
					Step-Down End	Corner	Step-Down End	Corner	
SB7/8X24	8	7/8	24	18	6,935	7,355	6,070	6,435	IBC, FL, LA
SB1X30	8	1	30	24	10,850	9,400	9,495	8,030	

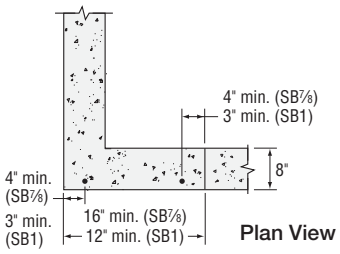
1. Rebar is required at the top of stem wall foundations, but is not required for slab-on-grade edge and garage curb, or stem wall garage front installations.
2. Minimum end distances for SB bolts are as shown in graphics.
3. To obtain LRFD values, multiply ASD seismic load values by 1.4 and wind load values by 1.67 (1.6 for 2012 IBC).
4. Per Section 1613 of the IBC, detached one- and two-story dwellings in SDC C may use "Wind and SDC A&B" allowable loads.
5. Midwall loads apply when anchor is 1.5 l_e or greater from the end. For bolts acting in tension simultaneously, the minimum bolt center-to-center spacing is 3 l_e.



Stemwall Garage Front



Perspective View

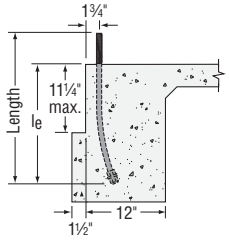


Plan View

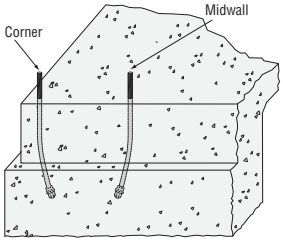
SB Bolts at Slab on Grade: Edge

Model No.	Dimensions (in.)				Allowable Tension Loads				Code Ref.
	Footing Width	Diameter	Length	Min. Embed. (l_e)	Wind and SDC A&B		SDC C–F		
					Midwall	Corner	Midwall	Corner	
SB5/8X24	12	5/8	24	18	6,675	6,550	6,675	5,730	IBC, FL, LA
SB7/8X24	12	7/8	24	18	13,080	11,650	12,320	10,190	
SB1X30	12	1	30	24	17,080	14,960	16,300	13,090	

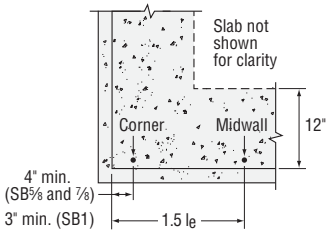
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2. Minimum end distances for SB bolts are as shown in graphics.
3. To obtain LRFD values, multiply ASD seismic load values by 1.4 and wind load values by 1.67 (1.6 for 2012 IBC).
4. Per Section 1613 of the IBC, detached one- and two-story dwellings in SDC C may use "Wind and SDC A&B" allowable loads.
5. Midwall loads apply when anchor is 1.5 l_e or greater from the end. For bolts acting in tension simultaneously, the minimum bolt center-to-center spacing is 3 l_e.
6. Full catalog loads apply for two-pour installation for slab-on-grade: edge.



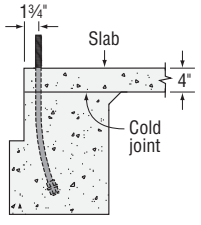
Slab Edge



Perspective View



Plan View



Two-Pour Installation

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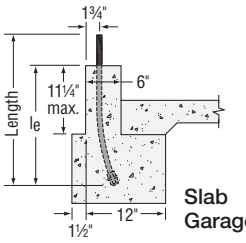
Anchor Bolt (cont.)

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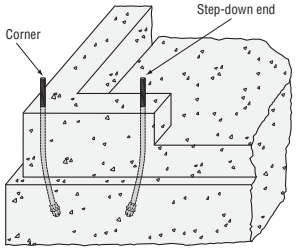
SB Bolts at Slab on Grade: Garage Curb

Model No.	Dimensions (in.)				Allowable Tension Loads				Code Ref.
	Curb Width	Diameter	Length	Min. Embed. (l_e)	Wind and SDC A&B		SDC C–F		
					Step-Down End	Corner	Step-Down End	Corner	
SB7/8X24	6	⅞	24	18	8,805	10,635	7,705	9,305	IBC, FL, LA
SB1X30	6	1	30	24	14,960	14,960	13,090	13,090	

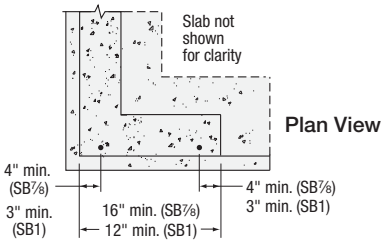
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2. Minimum end distances for SB bolts are as shown in graphics.
3. To obtain LRFD values, multiply ASD seismic load values by 1.4 and wind load values by 1.67 (1.6 for 2012 IBC).
4. Per Section 1613 of the IBC, detached one- and two-story dwellings in SDC C may use "Wind and SDC A&B" allowable loads.



Slab Garage Curb



Perspective View



Plan View

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