

SCB/MSCB Bypass Framing Slide-Clip Connector



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 SCB/MSCB slide-clip connectors are high-performance connectors for bypass framing applications designed to reduce design time and overall installed cost. Various anchorage methods have been tested, and the resulting allowable loads eliminate the need to design connector anchorage. The SCB/MSCB can accommodate applications that typically require two parts with a single connector, reducing material and labor cost. These connectors are manufactured in five different lengths to accommodate a variety of stand-off conditions and steel-stud sizes.

Features:

- Provides a full 1" of both upward and downward movement
- The precision-manufactured shouldered screws provided with the SCB/MSCB connector are designed to prevent overdriving and to ensure the clip functions properly
- Strategically placed stiffeners, embossments and anchor holes maximize connector performance
- Simpson Strong-Tie® No-Equal stamps mark the center of the slots to help ensure correct shouldered-screw placement

Material: SCB — 54 mil (16 ga.); MSCB — 68 mil (14 ga.)

Finish: Galvanized (G90)

Installation:

- Use the specified type and number of anchors.
- Use the specified number of XLSH34B1414 #14 shouldered screws (included). Install shouldered screws in the slots adjacent to the No-Equal stamp.
- Use a maximum of one screw per slot.

Codes: See p. 11 for Code Reference Key Chart

Ordering Information:

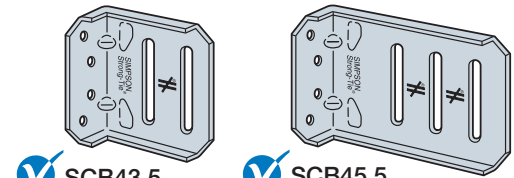
SCB43.5-KT contains:

- 25 connectors
- (55) XLSH34B1414 #14 shouldered screws

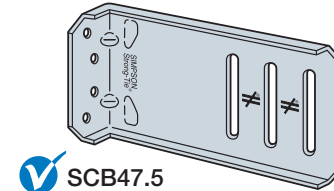
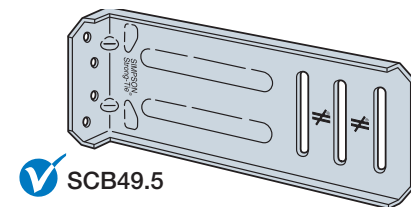
SCB45.5-KT, MSCB45.5-KT, SCB47.5-KT, MSCB47.5-KT, SCB49.5-KT, and SCB411.5-KT contain:

- 25 connectors
- (83) XLSH34B1414 #14 shouldered screws

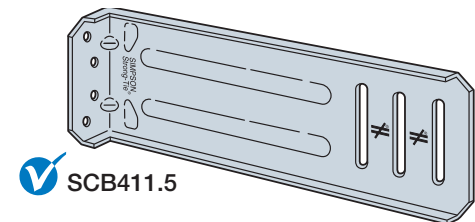
Note: Replacement #14 shouldered screws for SCB/MSCB connectors are XLSH34B1414-RP83



✓ SCB43.5

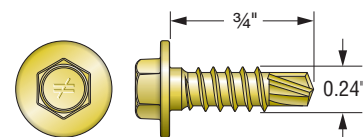
✓ SCB45.5
(MSCB45.5 similar)✓ SCB47.5
(MSCB47.5 similar)

✓ SCB49.5

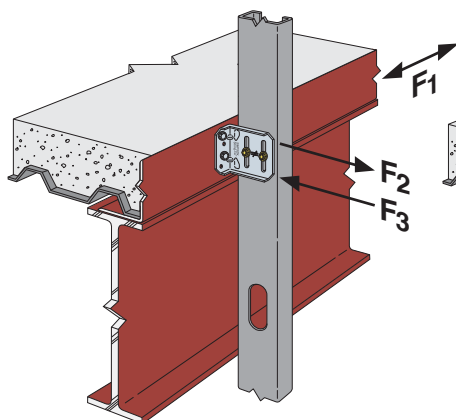


✓ SCB411.5

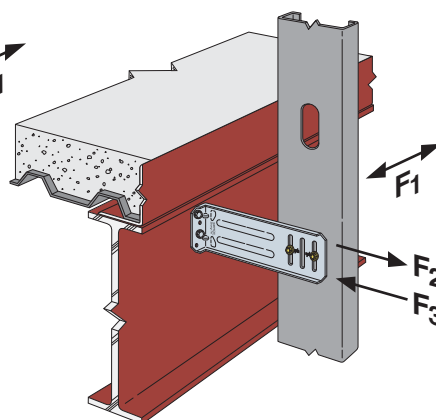
US Patent 8,555,592



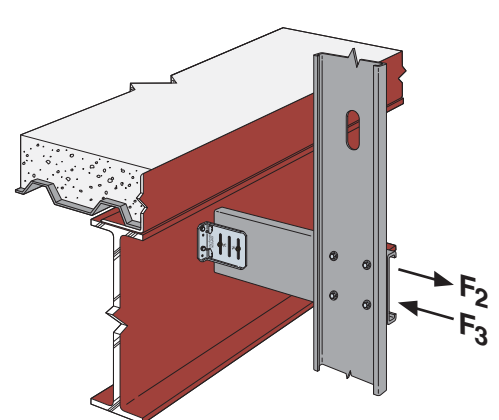
XLSH34B1414
#14 Shouldered Screw for
Attachment to Stud Framing
(included)



Typical SCB/MSCB Installation



SCB/MSCB Installation at Fascia Beam



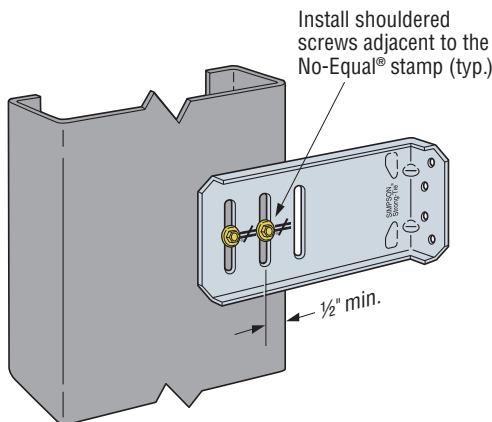
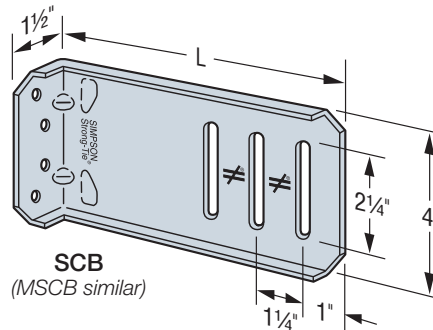
Typical SCB/MSCB Installation with Stud Strut

SCB/MSCB Bypass Framing Slide-Clip Connector

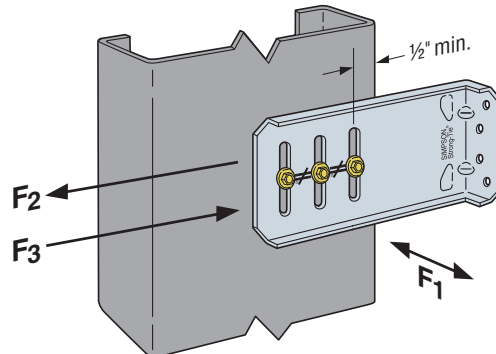
SCB/MSCB Allowable Connector Loads (lb.)

Model No.	Connector Material Thickness mil (ga.)	L (in.)	No. of #14 Shouldered Screws ¹	Stud Thickness												Code Ref.
				33 mil (20 ga.)			43 mil (18 ga.)			54 mil (16 ga.)			68 mil (14 ga.)			
				F ₁ ^{3,4}	F ₂ ²	F ₃ ²	F ₁ ^{3,4}	F ₂ ²	F ₃ ²	F ₁ ^{3,4}	F ₂ ²	F ₃ ²	F ₁ ^{3,4}	F ₂ ²	F ₃ ²	
SCB43.5	54 (16)	3½	2	100	520	520	160	610	690	215	760	975	215	760	975	IBC, FL, LA
SCB45.5	54 (16)	5½	2	120	490	520	150	610	690	200	760	975	215	760	975	
			3	120	675	675	150	895	1,000	200	990	1,260	215	990	1,260	
MSCB45.5	68 (14)	5½	2	120	490	520	185	780	690	250	1,055	1,200	270	1,195	1,475	IBC, LA
			3	120	675	675	185	1,070	1,000	250	1,220	1,930	270	1,365	1,930	
SCB47.5	54 (16)	7½	2	90	490	520	120	610	690	160	760	945	175	760	945	IBC, FL, LA
			3	90	675	675	120	895	1,000	160	990	1,260	175	990	1,260	
MSCB47.5	68 (14)	7½	2	105	490	520	140	780	690	190	1,055	1,200	205	1,195	1,475	IBC, LA
			3	105	675	675	140	1,070	1,000	190	1,220	1,930	205	1,365	1,930	
SCB49.5	54 (16)	9½	2	90	490	520	110	690	690	105	760	945	110	760	945	IBC, FL, LA
			3	90	675	675	110	895	1,000	105	990	1,260	110	990	1,260	
SCB411.5	54 (16)	11½	2	90	490	520	90	690	690	85	990	920	90	990	920	IBC, FL, LA
			3	90	675	675	90	860	1,000	85	990	1,260	90	990	1,260	

- When the SCB or MSCB connector is used with two shouldered screws, the screws may be installed in any two slots.
- Allowable loads are based on clips installed with (4) #12-14 screws in the anchor leg. For other anchorage installations, the capacity of the connection system will be the minimum of the tabulated value and the allowable load from the SCB/MSCB Allowable Anchorage Loads table on p. 27.
- Anchorage to the supporting structure using welds or a minimum of (2) fasteners is required.
- Tabulated F₁ loads are based on assembly tests with the load through the centerline of stud. Tested failure mode due to screw pullout; therefore compare F₁ against F_p calculated per ASCE 7-10 Chapter 13 with a_p = 1.25 and R_p = 1.0.



SCB/MSCB Installation with Two Shouldered Screws



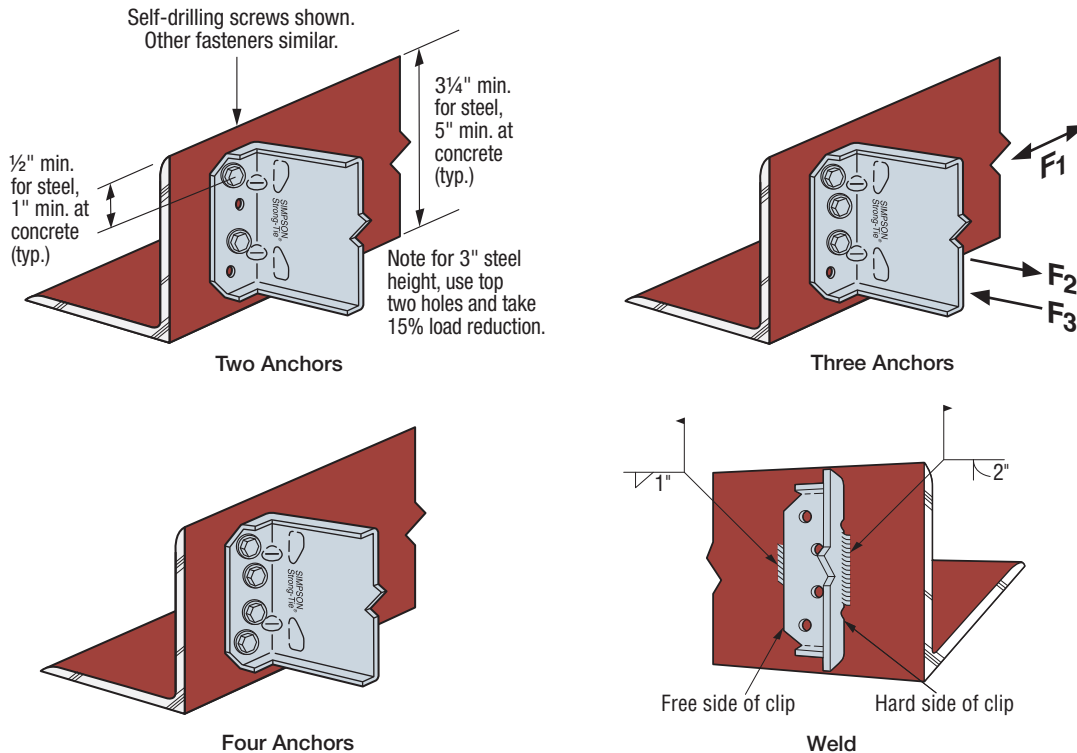
SCB/MSCB Installation with Three Shouldered Screws

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SCB/MSCB Allowable Anchorage Loads

Anchorage Type	Minimum Base Material	No. of Anchors	F ₂ and F ₃	
			SCB	MSCB
#12–24 self-drilling screws Simpson Strong-Tie® X and XL Metal screws	A36 steel 3/16" thick	2	1,115	1,150
		3	1,645	1,725
		4	2,230	2,300
Simpson Strong-Tie 0.157" x 5/16" powder-actuated fasteners PDPAT-62KP	A36 steel 3/16" thick	2	440	520
		3	585	780
		4	895	1,040
Simpson Strong-Tie 0.157" x 5/16" powder-actuated fasteners PDPAT-62KP	A572 or A992 steel 3/16" thick	2	585	610
		3	800	915
		4	1,170	1,220
Simpson Strong-Tie 1/4" x 1 3/4" Titen® 2 TTN25134H	Concrete f _c = 2,500 psi	2	380	380
		3	525	525
		4	675	675
Weld E70XX electrodes	A36 steel 3/16" thick	Hard side: 2"	1,735	2,040
		Free side: 1"		

- For additional important information, see General Information and Notes on p. 22.
- Allowable loads are for clip anchorage only. The capacity of the connection system will be the minimum of the tabulated allowable anchorage loads the allowable load from the SCB/MSCB Allowable Connector Load table on p. 26.
- Allowable loads for #12–24 self-drilling screws and PDPAT powder-actuated fasteners are based on installation in minimum 3/16" thick structural steel with F_y = 36 ksi. PDPAT values are also provided for A572 steel. Values listed above may be used where other thicknesses of steel are encountered or other manufacturers are used, provided that the fastener has equal or better tested values (see p. 22). It is the responsibility of the designer to select the proper length fasteners based on the steel thickness installation.
- For screw fastener installation into steel backed by concrete, predrilling of both the steel and the concrete is suggested. For predrilling use a maximum 3/16"-diameter drill bit.



SCB/MSCB Anchor Layout