

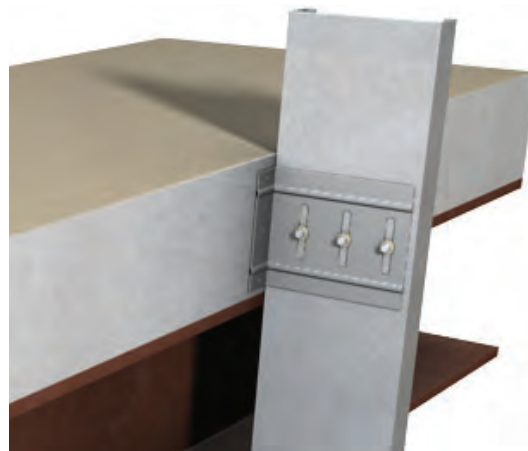
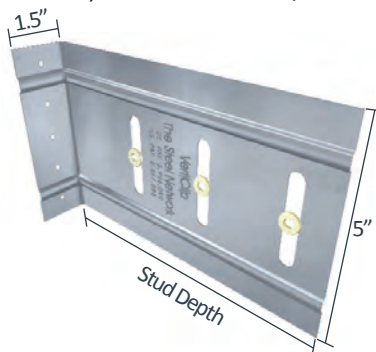
# VertiClip® SLB

Bypass Slab

### Material Composition

ASTM A1003/A1003M Structural Grade 50 (340) Type H, ST50H (ST340H): 50ksi (340MPa) minimum yield strength, 65ksi (450MPa) minimum tensile strength, 68mil minimum thickness (14 gauge, 0.0713" design thickness) with ASTM A653/A653M G90 (Z275) hot dipped galvanized coating.

The attachment of VertiClip to the primary structure may be made with PAFs, screw/bolt anchors or weld and is dependent upon the base material (steel or concrete) and the design configuration.



US Patents #5,467,566 & #5,906,080

### VertiClip SLB Allowable (Unfactored) Loads<sup>1</sup>

VertiClip® SLB, Recommended Allowable Load (lbs): F1 & F2								
Stud		F1 Load Direction			F2 Load Direction			
		SLB250 & SLB362/400	SLB600	SLB800	SLB250, SLB362/400*, SLB600 & SLB800	SLBxxx-10, SLBxxx-12, SLB1000 & SLB1200		
Thickness Mils (ga)	Yield Strength (ksi)	w/2 #12 Screws	w/2-3 #12 Screws	w/2-3 #12 Screws	w/2 #12 Screws	w/3 #12 Screws	w/2 #12 Screws	w/3 #12 Screws
33 (20)	33	95	95	95	377	565	376	564
33 (20)	50	138	138	107	544	817	544	817
43 (18)	33	124	124	107	561	841	560	840
43 (18)	50	179	179	107	810	1,215	810	933
54 (16)	33	156	156	107	789	1,183	788	933
54 (16)	50	225	225	107	1,139	1,567	933	933
68 (14)	50	227	227	107	1,567	1,567	933	933
97 (12)	50	227	227	107	1,567	1,567	933	933
<b>Max Allowable Clip Load</b>		<b>227</b>	<b>227</b>	<b>107</b>	<b>1,567</b>		<b>933</b>	

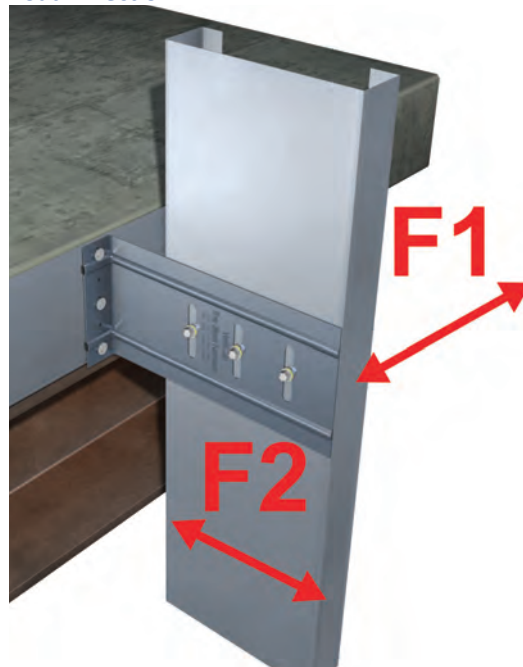
\* SLB362/400 only allows 2 screws

### Notes:

- Allowable load tables incorporate eccentric loading of fasteners. Values with welded connection may increase.
- Fasten within 3/4" from the angle heel (centerline of the 1 1/2" leg) to minimize eccentric load transfer.
- Fasteners attaching clip to structure should be installed symmetrically around the center line of the clip. The allowable load of the clip may be reduced if fasteners are not installed symmetrically.
- Guide holes in the 1 1/2" leg measure 0.172" in diameter for SLB362, 0.141" in diameter for SLB600 and SLB800.
- Total vertical deflection of up to 2" (1" up and 1" down). Deflection requirements greater than 1" up and down are available.
- VertiClip SLB series is designed to support horizontal loads and should not be used in axial-load-bearing wall construction.
- Allowable loads have not been increased for wind, seismic, or other factors.
- #12 screws are provided with each step bushing. Load requirements don't always justify use of a third screw.
- Three slots are standard in 6" and higher web depths to accommodate construction tolerances. Use of a 3rd screw and bushing is dependent upon load configuration. 250 and 362/400 sizes have only 2 slots and 2 screws.
- Use of strengthening ribs and return bends varies with each clip.

<sup>1</sup> For LRFD Design Strengths refer to ICC-ESR-2049.

### Load Direction



## Nomenclature

VertiClip SLB is designated by multiplying stud depth by 100.

**Example:** 6" stud.

**Designate:** VertiClip® SLB600

\* Use of strengthening ribs and return bends varies with each clip.

\*\* The VertiClip SLB600-10 and 600-12 accommodate an even greater construction tolerance of studs from structure.

The VertiClip SLB600-10 is 10" in depth and the VertiClip SLB600-12 is 12" in depth with slot spacings designed for a 6" stud

## Example Details

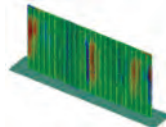


Standard offset of stud from heel of the clip should not exceed ¼" for SLB250, 1" for SLB362/400 and SLB600, or 2 ¼" for SLB800. Step bushings and screws may be installed in the middle and outer slots of SLB600 or SLB800 to accommodate greater building tolerances. Without the use of the slot closest to the heel of the clip, this may affect the F1 and F2 allowable load capacities. An additional row of bridging may be required at a maximum distance of 12" from the connection to resist stud torsional effects. Contact TSN Technical Support for test data and recommendations.

The VertiClip SLB600-10, SLB600-12, SLB800-10, and SLB800-12 accommodate even greater construction tolerance of studs from the structure and are offered as standard products. The VertiClip SLB600-10 is 10" in depth with a slot spacing designed for a 6" stud, and the VertiClip SLB600-12 is 12" in depth with slot spacing designed for a 6" stud. The VertiClip SLB800-10 is 10" in depth with a slot spacing designed for an 8" stud, and the VertiClip SLB800-12 is 12" in depth with slot spacing designed for an 8" stud.



VertiClip SLB600  
ICC-ESR-2049  
www.icc-es.org



VertiClip SLB Series  
Blast and Seismic Design Data  
www.steelnetwork.com

\*\* For more information or to review a copy of each of these reports, please visit our website at <http://www.steelnetwork.com/Site/TechnicalData>