

# VertiClip® SLB

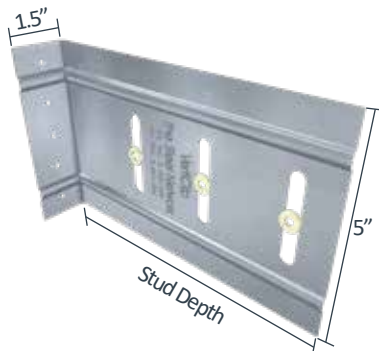
Bypass Slab

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### 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 SLB 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) Loads¹

VertiClip® SLB, Recommended Allowable Load (lbs): F1 & F2											
Screw Patterns with #12 Screws	F1 Load Direction					F2 Load Direction					
	SLB250 & SLB362/400		SLB600		SLB800	SLB250 & SLB362/400		SLB600 & SLB800		SLBxxx-10, SLBxxx-12, SLB1000 & SLB1200	
	w/2 #12 Screws	w/2 #12 Screws	w/3 #12 Screws	w/2 #12 Screws	w/3 #12 Screws	w/2 #12 Screws	w/2 #12 Screws	w/3 #12 Screws	w/2 #12 Screws	w/3 #12 Screws	
33mil (20ga), 33ksi Stud	95	95	95	95	95	376	376	564	376	564	
33mil (20ga), 50ksi Stud	138	138	138	118	118	544	544	816	544	816	
43mil (18ga), 33ksi Stud	124	124	124	118	118	560	560	840	560	840	
43mil (18ga), 50ksi Stud	179	179	179	118	118	810	810	1,215	810	933	
54mil (16ga), 33ksi Stud	156	156	156	118	118	788	788	1,182	788	933	
54mil (16ga), 50ksi Stud	225	225	225	118	118	1,138	1,138	1,600	933	933	
68mil (14ga), 50ksi Stud	226	226	226	118	118	1,434	1,434	1,600	933	933	
97mil (12ga), 50ksi Stud	226	226	226	118	118	1,434	1,434	1,600	933	933	
<b>Max Allowable Clip Load</b>	<b>226</b>	<b>226</b>	<b>226</b>	<b>118</b>	<b>118</b>	<b>1,600</b>	<b>1,600</b>	<b>1,600</b>	<b>933</b>	<b>933</b>	

### Notes:

1. VertiClip SLB is designed to support horizontal loads, and should not be used in axial load-bearing walls.
2. Allowable loads have not been increased for wind, seismic, or other factors.
3. Use of strengthening ribs and return bends vary with each clip.
4. #12 screws are provided with each step bushing for attachment to the stud web. Load requirements do not always justify the use of a third screw.
5. Guide holes for attachment to structure are 0.172" diameter for SLB250, SLB362/400, SLBxxx-10, SLBxxx-12, SLB1000, and SLB1200. Guideholes are 0.141" diameter for SLB600 and SLB800.
6. Fasten within 3/4" of the angle heel (centerline of the 1-1/2" leg) to minimize eccentric load transfer.
7. Total vertical deflection of up to 2" (1" up and 1" down). Deflection requirements greater than 1" (up and down) are available.
8. Allowable load tables incorporate eccentric loading of fasteners. Values with welded connection may increase.
9. 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.
10. Three slots are standard in 6" and higher web depths to accommodate construction tolerances. Use of a third screw and bushing is dependent upon load configuration. 250 and 362/400 sizes have only two slots and two screws.
11. For LRFD strengths contact TSN technical services.

### 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

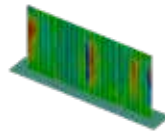


Standard offset of a stud from the heel of a clip should not exceed 1.0". Step bushings and screws may be installed in the middle and outer slots of SLB600 or 800 to accommodate greater building tolerances. Note that this may affect the F1 and F2 allowable load capacity and may require a row of bridging at a maximum distance of 12" of the connection to resist stud torsional effects. Call TSN Tech Support for test data and recommendations.

The VertiClip SLB600-10 and 600-12 accommodate an even greater construction tolerance of studs from structure and are now standard products. The VertiClip SLB600-10 is 10" in depth with slot spacing designed for a 6" stud, and the VertiClip SLB600-12 is 12" in depth with slot spacing designed for a 6" 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/light-steel-framing-design-resources>