

VertiClip® SLS

Bypass Structure

Material Composition

ASTM A1003/A1003M Structural Grade 50 (340) Type H, ST50H (ST340H): 50ksi (340 MPa) minimum yield strength, 65ksi (450 MPa) 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 SLS 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.



VertiClip SLS Allowable (Unfactored) Loads¹

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

VertiClip® SLS, Recommended Allowable Load (lbs): F1											
Screw Patterns with #12 Screws	SLS362/400-9, -12	SLS600-12		SLS600-15, -18, -20		SLS600-24		SLS800-12		SLS800-15, 18, -20	
	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/3 #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	95	95	95	95	95	95
33mil (20ga), 50ksi Stud	124	138	138	130	130	100	100	138	138	125	125
43mil (18ga), 33ksi Stud	124	124	124	124	124	100	100	124	124	124	124
43mil (18ga), 50ksi Stud	124	164	165	130	130	100	100	141	141	125	125
54mil (16ga), 33ksi Stud	124	156	156	130	130	100	100	141	141	125	125
54mil (16ga), 50ksi Stud	124	164	164	130	130	100	100	141	141	125	125
68mil (14ga), 50ksi Stud	124	164	164	130	130	100	100	141	141	125	125
97mil (12ga), 50ksi Stud	124	164	164	130	130	100	100	141	141	125	125
Max Allowable Clip Load	124	164		130		100		141		125	

VertiClip® SLS, Recommended Allowable Load (lbs): F2											
Screw Patterns with #12 Screws	SLS362/400-9, -12	SLS600-12		SLS600-15, -18, -20		SLS600-24		SLS800-12		SLS800-15, 18, -20	
	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/3 #12 screws	w/2 #12 screws	w/3 #12 screws	w/2 #12 screws	w/3 #12 screws
33mil (20ga), 33ksi Stud	376	376	564	376	564	376	564	376	564	376	564
33mil (20ga), 50ksi Stud	544	544	816	544	816	544	816	544	816	544	816
43mil (18ga), 33ksi Stud	560	560	840	560	840	560	840	560	840	560	840
43mil (18ga), 50ksi Stud	810	810	1,215	810	1,215	810	1,215	810	1,215	810	1,215
54mil (16ga), 33ksi Stud	788	788	1,182	788	1,182	788	1,182	788	1,182	788	1,182
54mil (16ga), 50ksi Stud	1,138	1,138	1,707	1,138	1,707	1,138	1,707	1,138	1,707	1,138	1,707
68mil (14ga), 50ksi Stud	1,245	1,434	2,070	1,434	2,122	1,434	1,896	1,434	1,816	1,434	1,816
97mil (12ga), 50ksi Stud	1,245	1,434	2,070	1,434	2,122	1,434	1,896	1,434	1,816	1,434	1,816
Max Allowable Clip Load	1,245	2,070		2,122		1,896		1,816		1,816	

Notes:

1. VertiClip SLS 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. Return lip added for clips longer than 20".
4. #12 screws are provided with each step bushing for attachment to the stud web.
5. Minimum 3" of SLS required for attachment to steel structure and minimum 5-1/2" for attachment to concrete structure.
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 1-1/2" (3/4" up and 3/4" down). Deflection requirements greater than 3/4" (up and down) are available.
8. Allowable load tables incorporate eccentric loading of fasteners. Values with welded connection may increase.
9. For LRFD strengths contact TSN technical services.

Load Direction



Nomenclature

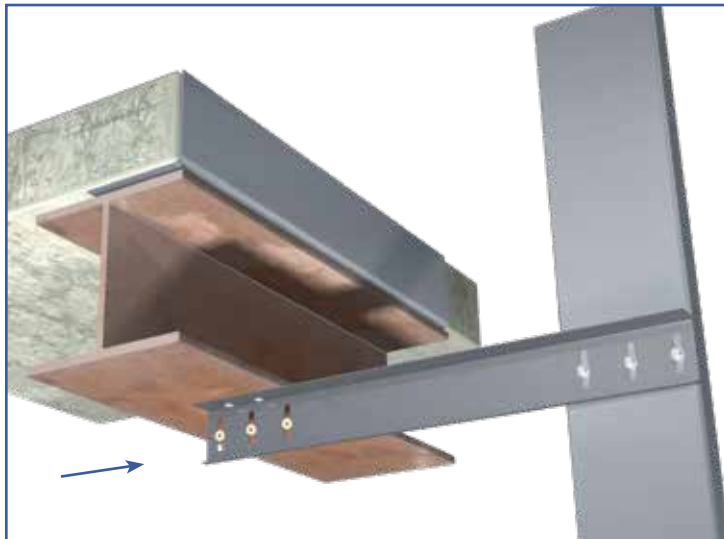
VertiClip SLS is designated by stud depth and clip length required. Clip length includes a minimum of 3" for steel (5.5" for concrete) of clip material for attachment to structure added to stud depth, plus the distance of the stud from the structure.

Example: 6" stud, 6" tolerance, 3" to structure

Designate: VertiClip® SLS600-15

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

Example Details



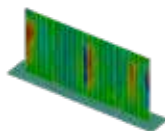
Return lip added for clips longer than 20" (up to 36")



VertiClip SLS at jamb (studs facing each other).



VertiClip SLS600-12
ICC-ESR-2049
www.icc-es.org



VertiClip SLS 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>