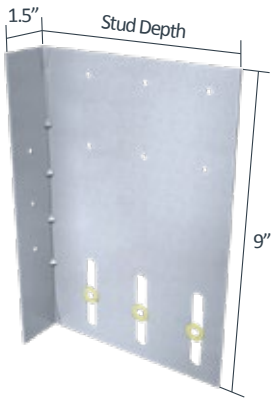
VertiClip® Splice

Multi-Stud Bypass



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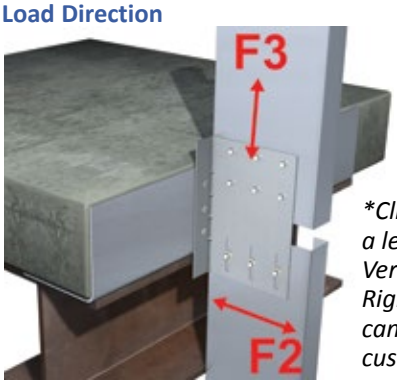
US Patent # 5,906,080

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.

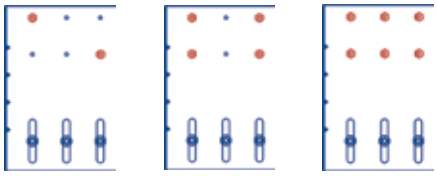
The attachment of VertiClip to the primary structure may be made with PAFs, screw/bolt anchors or weld and is dependent upon the base material (steel or concrete) and the design configuration.

Load Direction



**Clip shown is a left version of VertiClip Splice. Right side versions can be made as a custom part.*

Screw Patterns



2 Screw Pattern | 4 Screw Pattern | 6 Screw Pattern

VertiClip Splice Allowable Loads

VertiClip® Splice, Recommended Allowable Load (lbs): F2 & F3					
Screw Patterns with #12 Screws	F2 Load Direction				
	Splice600 & Splice800				
	2 Screws / 2 Screws	4 Screws / 2 Screws	4 Screws / 3 Screws	6 Screws / 2 Screws	6 Screws / 3 Screws
33mil (20ga),33ksi Stud	752	1,040	1,228	1,040	1,228
33mil (20ga), 50ksi Stud	1,088	1,208	1,328	1,208	1,328
43mil (18ga), 33ksi Stud	1,120	1,224	1,328	1,224	1,328
43mil (18ga), 50ksi Stud	1,328	1,328	1,328	1,328	1,328
54mil (16ga), 33ksi Stud	1,328	1,328	1,328	1,328	1,328
54mil (16ga), 50ksi Stud	1,328	1,328	1,328	1,328	1,328
68mil (14ga), 33ksi Stud	1,328	1,328	1,328	1,328	1,328
68mil (14ga), 50ksi Stud	1,328	1,328	1,328	1,328	1,328
97mil (12ga), 33ksi Stud	1,328	1,328	1,328	1,328	1,328
97mil (12ga), 50ksi Stud	1,328	1,328	1,328	1,328	1,328
118mil (10ga), 50ksi Stud	1,328	1,328	1,328	1,328	1,328
Maximum Allowable Clip Load	1,328				

VertiClip® Splice, Recommended Allowable Load (lbs): F2 & F3						
Screw Patterns with #12 Screws	F3 Load Direction					
	Splice600			Splice800 (up to 2" offset for 6" Studs)		
	2 Screws in Upper Half	4 Screws in Upper Half	6 Screws in Upper Half	2 Screws in Upper Half	4 Screws in Upper Half	6 Screws in Upper Half
33mil (20ga),33ksi Stud	216	432	562	171	340	427
33mil (20ga), 50ksi Stud	313	626	813	248	492	617
43mil (18ga), 33ksi Stud	322	644	837	255	507	636
43mil (18ga), 50ksi Stud	466	932	1,211	369	733	919
54mil (16ga), 33ksi Stud	455	911	1,184	359	713	894
54mil (16ga), 50ksi Stud	654	1,309	1,701	518	1,030	1,292
68mil (14ga), 33ksi Stud	641	1,281	1,665	507	1,008	1,264
68mil (14ga), 50ksi Stud	825	1,649	2,144	652	1,298	1,628
97mil (12ga), 33ksi Stud	825	1,649	2,144	652	1,298	1,628
97mil (12ga), 50ksi Stud	825	1,649	2,144	652	1,298	1,628
118mil (10ga), 50ksi Stud	825	1,649	2,144	652	1,298	1,628
Maximum Allowable Clip Load	2,432			2,272		

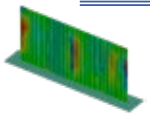
Load Table Notes:

1. Design loads are for attachment of VertiClip Splice to stud only. Load tables reflect horizontal loads (F2) and vertical loads (F3).
2. Design loads consider loads on the clip and #12 screw fasteners to the stud web.
3. Loads listed reflect force in a single direction. When multiple loads react on the connection, it is the responsibility of the designer to check the interaction of forces.
4. Torsional effects are considered on screw group for F3 allowable loads. It is assumed that half of the torsional moment is taken by the connection to the structure and half is taken by the connection to the stud.
5. Attachment to structure engineered by others.
6. Allowable loads have not been increased for wind, seismic, or other factors.
7. Total vertical deflection of up to 2" (1" up and 1" down). Deflection requirements greater than 1" up and down are available.
8. Fasten withn 3/4" from the angle heel (centerline of the 1-1/2" leg) to minimize eccentric load transfer.
9. For LRFD strengths contact TSN technical services.

Nomenclature

VertiClip Splice is designated by multiplying stud depth by 100.

Example: *6" stud.* ***Designate:*** *VertiClip® Splice600*



VertiClip Splice Series
Blast and Seismic Design Data
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