

Product Application

The StiffClip® CL series' unique design allows for the connection of steel studs to the building's structure by incorporating stiffened legs of a 90° angle to increase bending strength. StiffClip CL resists lateral, horizontal, and torsional loads. The allowable design load table (p. 34) is based on the use of StiffClip as it is attached to various steel stud wall material thicknesses and yield strengths. Allowable loads consider loads on the clip and screw fasteners to the stud web. Pre-drilled holes for attachments to both deck and stud provide installers with increased efficiency. The designed attachment of StiffClip to the primary structure is dependent upon the base material's properties (e.g. steel or concrete) and the design configuration.

Material Composition

Steel: ASTM A653/A653M, SS Grade 50 (340), Class 1, 50ksi (340MPa) minimum yield strength, 65ksi (450MPa) minimum tensile strength, G-90 (Z275) hot-dipped galvanized coating. Material thickness = 68mil (14 gauge, 0.0713" design thickness).

"H" Plate: Z33, Carbon Steel Class C, ASTM- A 27/A 27M-95, GRADE 65-35 Zinc Plate ASTM-B-633 Type 2 Yellow.

When determining the allowable load of fasteners securing StiffClip to the base material and clip to stud, consider the following:

- ◆ Fasten within 3/4" from the angle heel (centerline of the 1 1/2" leg), using pre-drilled holes if desired.
- ◆ Center guide hole is .5" in diameter
- ◆ Middle guide holes are .30" in diameter
- ◆ Outer guide holes are .164" in diameter
- ◆ Guide holes are in place for fastener installation efficiency...number of fasteners determined by designer
- ◆ Attachment to stud is made with #12 screws, symmetrically placed

StiffClip CL Nomenclature

The StiffClip CL product group is produced in three thicknesses (68mil, 118mil, and 118mil(H)) and six stud member depths. The StiffClip CL118(H) utilizes a plate in the 1 1/2" leg. To specify StiffClip CL on drawings, multiply stud depth by 100, followed by the appropriate material thickness, based on strength required.

Example: 6" stud, uplift load of 650lbs.

Designate: StiffClip CL600-68.

StiffClip CL Installation



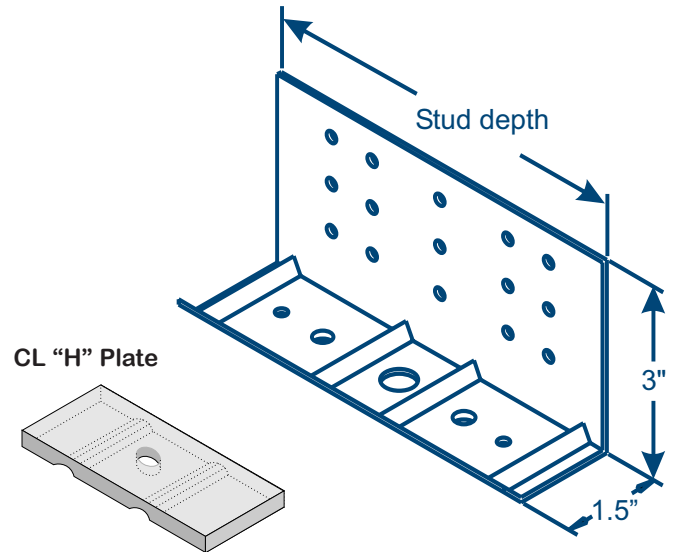
Place StiffClip CL at bottom of stud.



Attach clip to deck with approved anchor.



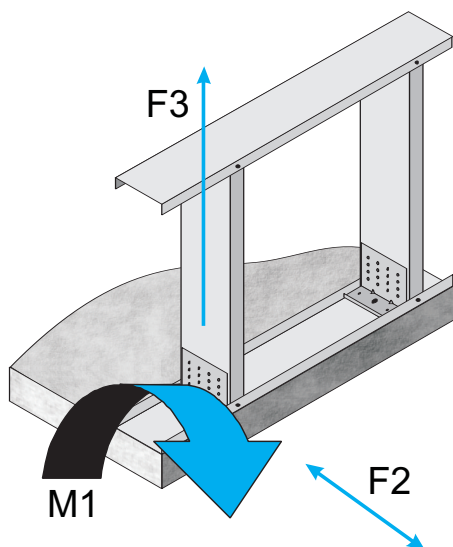
Secure clip to stud with required amount of symmetrically placed #12 screw fasteners.



StiffClip CL Features

- ◆ Guide holes for connections to stud and deck
- ◆ Stiffeners for additional strength
- ◆ Utilizes only mill-certified, 50ksi steel
- ◆ Reduces material (replaces heavy steel angles)
- ◆ Extensively tested

Load Direction



Loads:
 M1 = Moment-Carrying
 F2 = Horizontal
 F3 = Vertical

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.

All guide holes may not require fasteners. Fastener amount determined by designer. Screw fasteners should be symmetrically placed in guide holes.

Allowable Loads

StiffClip CL 68 mil

Stud Thickness Mils (ga)	Fy (yield) Stud	CL362-68 / CL400-68			CL600-68 / CL800-68		
		F2 w/4 screws (kips)	F3 w/4 screws (kips)	M1 w/4 screws (in-kips)	F2 w/4 screws (kips)	F3 w/4 screws (kips)	M1 w/4 screws (in-kips)
33 (20)	33	0.752	0.752	0.752	0.752	0.752	1.172
43 (18)	33	1.120	1.120	0.781	1.120	1.120	1.172
54 (16)	33	1.417	1.478	0.781	1.584	1.584	1.172
54 (16)	50	1.417	1.478	0.781	2.276	1.642	1.172
68 (14)	50	1.417	1.478	0.781	2.429	1.642	1.172
97 (12)	50	1.417	1.478	0.781	2.429	1.642	1.172

Allowable loads have not been increased for wind, seismic, or other factors.

StiffClip CL 118 mil

Stud Thickness Mils (ga)	Fy (yield) Stud	CL362-118 / CL400-118			CL600-118 / CL800-118		
		F2 w/4 screws (kips)	F3 w/4 screws (kips)	M1 w/4 screws (in-kips)	F2 w/4 screws (kips)	F3 w/4 screws (kips)	M1 w/4 screws (in-kips)
33 (20)	33	0.752	0.752	0.752	0.752	0.752	1.880
43 (18)	33	1.120	1.120	1.120	1.120	1.120	2.344
54 (16)	33	1.584	1.584	1.563	1.584	1.584	2.344
54 (16)	50	1.861	1.965	1.563	2.276	2.183	2.344
68 (14)	50	1.861	1.965	1.563	3.191	2.183	2.344
97 (12)	50	1.861	1.965	1.563	3.191	2.183	2.344

Allowable loads have not been increased for wind, seismic, or other factors.

StiffClip CL 118 mil (H)

Stud Thickness Mils (ga)	Fy (yield) Stud	CL362-118 H / CL400-118 H			CL600-118 H / CL800-118 H		
		F2 w/8 screws (kips)	F3 w/8 screws (kips)	M1 w/8 screws (in-kips)	F2 w/8 screws (kips)	F3 w/8 screws (kips)	M1 w/8 screws (in-kips)
33 (20)	33	1.504	1.880	1.504	1.128	1.880	1.880
43 (18)	33	2.240	2.800	2.240	1.680	2.800	2.800
54 (16)	33	2.271	3.960	3.125	2.376	3.960	3.960
54 (16)	50	2.271	5.355	3.125	3.414	5.690	4.688
68 (14)	50	2.271	5.355	3.125	3.893	5.950	4.688
97 (12)	50	2.271	5.355	3.125	3.893	5.950	4.688

Allowable loads have not been increased for wind, seismic, or other factors.