

StiffClip® LB

Spandrel Wall Bypass

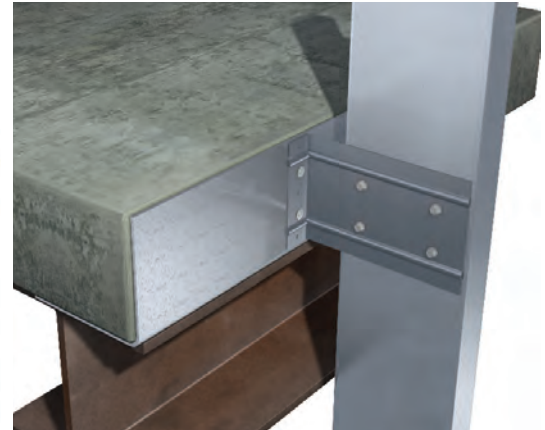
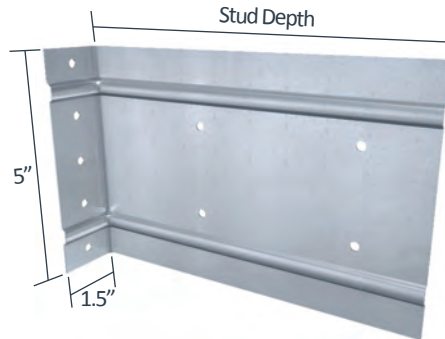
The Steel Network, Inc.
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Material Composition

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 StiffClip 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.



StiffClip LB Allowable Loads

StiffClip® LB, Recommended Allowable Load (lbs): F1 & F2												
Stud		F1 Allowable Loads				F2 Allowable Loads						
		LB362	LB600	LB800 (Standard 2" Offset)	LB1000 & LB1200 (Standard 2" Offset)	LB362 & LB600			LB800 (Standard 2" Offset)		LB1000 (Standard 2" & 4" Offset) & LB1200 (Standard 2" Offset)	
		w/3 #12 Screws	w/3-4 #12 Screws	w/3-4 #12 Screws	w/3 #12 Screws	w/2 #12 Screws	w/3 #12 Screws	w/4 #12 Screws	w/3 #12 Screws	w/4 #12 Screws	w/3 #12 Screws	w/4 #12 Screws
Thickness Mils (ga)	Yield Strength (ksi)	Pattern 2	Patterns 2 & 3	Patterns 4 & 5	Pattern 12	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 12	Pattern 13
33 (20)	33	190	191	182	190	377	565	754	565	754	565	752
33 (20)	50	275	275	182	275	544	817	1,089	817	1,089	816	1,062
43 (18)	33	248	248	182	248	561	841	1,122	841	1,122	840	1,062
43 (18)	50	359	359	182	359	810	1,215	1,620	1,215	1,620	1,062	1,062
54 (16)	33	312	312	182	312	789	1,183	1,577	1,183	1,577	1,062	1,062
54 (16)	50	450	450	182	450	1,139	1,709	1,811	1,709	1,811	1,062	1,062
68 (14)	50	568	536	182	532	1,610	1,811	1,811	1,811	1,811	1,062	1,062
97 (12)	50	768	536	182	532	1,698	1,811	1,811	1,811	1,811	1,062	1,062
Max Allowable Clip Load		768	536	182	532	1,811			1,811		1,062	

StiffClip® LB, Recommended Allowable Load (lbs): F3														
Stud		LB362			LB600 (Standard 1" Offset)			LB800 (Standard 2" Offset)				LB800 (4" Offset)		
		w/2 #12 Screws	w/3 #12 Screws	w/4 #12 Screws	w/2 #12 Screws	w/3 #12 Screws	w/4 #12 Screws	w/3 #12 Screws	w/4 #12 Screws	w/6 #12 Screws	w/10 #12 Screws	w/4 #12 Screws	w/6 #12 Screws	w/8 #12 Screws
		Pattern 1	Pattern 2	Pattern 3	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	Pattern 7	Pattern 8	Pattern 9	Pattern 10
33 (20)	33	235	350	468	251	377	503	332	441	534	793	259	331	417
33 (20)	50	340	506	678	362	544	727	479	637	773	1,149	376	479	604
43 (18)	33	350	522	697	373	561	749	494	656	795	1,182	386	493	622
43 (18)	50	506	753	1,009	539	810	1,082	713	948	1,150	1,710	559	713	899
54 (16)	33	493	733	981	524	789	1,053	694	923	1,119	1,663	544	693	875
54 (16)	50	711	1,059	1,417	757	1,139	1,521	1,002	1,269	1,616	2,401	785	1,001	1,263
68 (14)	50	1,006	1,498	2,004	1,071	1,610	1,792	1,269	1,269	2,286	3,397	1,111	1,417	1,561
97 (12)	50	1,061	1,579	2,114	1,129	1,698	1,792	1,269	1,269	2,411	3,583	1,172	1,494	1,561
Max Allowable Clip Load		2,658			1,792			1,269		3,863		1,561		

****StiffClip LB Allowable Load tables and important notes continued on next page.**

Nomenclature

StiffClip LB is available for various stud depths. To specify, multiply stud depth by 100.

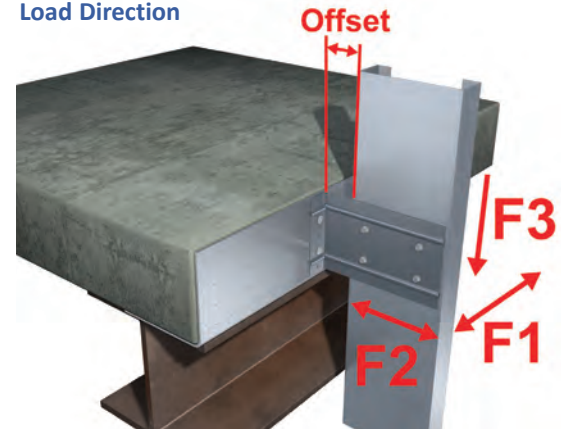
Example: 6" stud depth

Designate: StiffClip® LB600

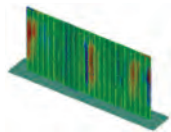
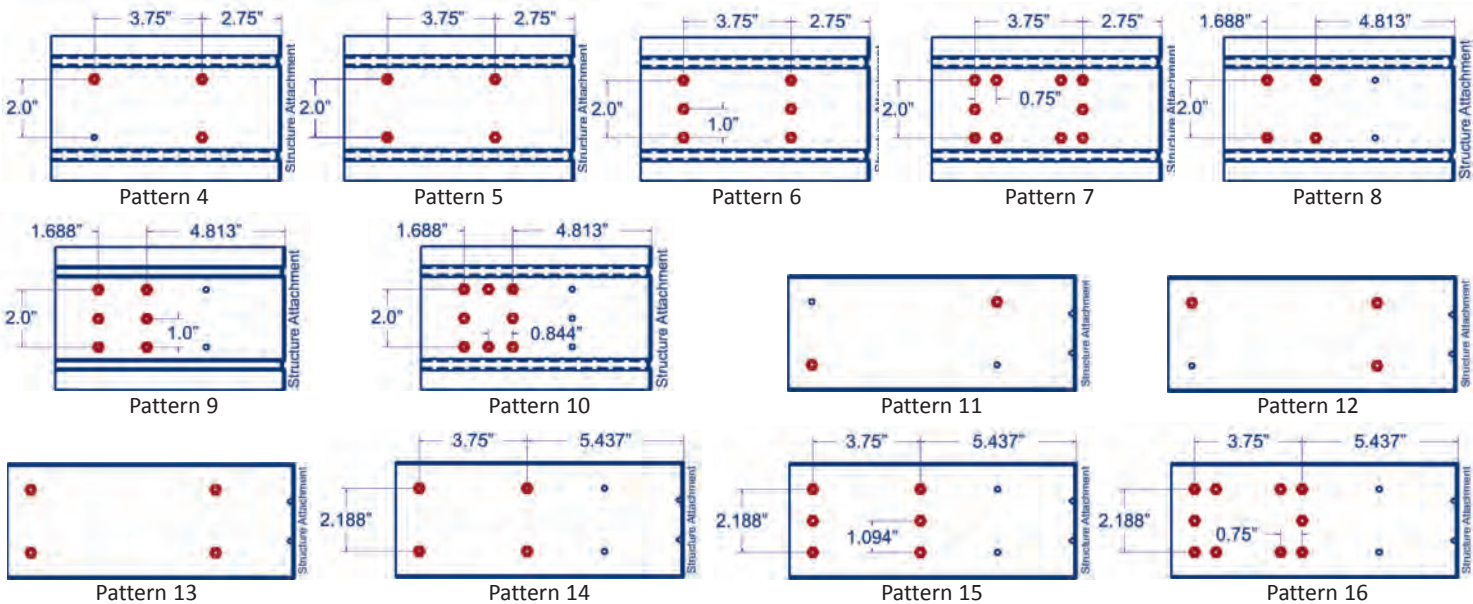
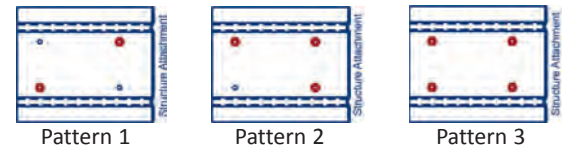
StiffClip® LB, Recommended Allowable Load (lbs): F3										
Stud		LB1000 (Standard 2" Offset)			LB1200 (Standard 2" Offset)			LB1000 (4" Offset)		
Thickness Mils (ga)	Yield Strength (ksi)	w/2 #12 Screws	w/3 #12 Screws	w/4 #12 Screws	w/2 #12 Screws	w/3 #12 Screws	w/4 #12 Screws	w/4 #12 Screws	w/6 #12 Screws	w/10 #12 Screws
		Pattern 11	Pattern 12	Pattern 13	Pattern 11	Pattern 12	Pattern 13	Pattern 14	Pattern 15	Pattern 16
33 (20)	33	203	364	406	211	381	421	290	410	602
33 (20)	50	294	525	588	305	550	610	419	593	871
43 (18)	33	302	541	605	314	566	627	431	610	896
43 (18)	50	438	782	875	454	818	907	624	883	1,192
54 (16)	33	426	761	851	441	796	883	607	859	1,192
54 (16)	50	615	1,099	1,229	637	1,150	1,275	876	1,192	1,192
68 (14)	50	869	1,554	1,739	902	1,627	1,803	1,192	1,192	1,192
97 (12)	50	917	1,639	1,793	951	1,715	1,899	1,192	1,192	1,192
Max Allowable Clip Load		1,793			1,899			1,192		

Notes:

- Allowable load tables incorporate eccentric loading of fasteners. Values with a welded connection may increase.
- Fasten within $\frac{3}{4}$ " from the angle heel (centerline of the $1\frac{1}{2}$ " leg) to minimize eccentric load transfer.
- StiffClip LB resists horizontal and vertical loads.
- Allowable loads have not been increased for wind, seismic, or other factors.
- 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.
- 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.
- Design loads consider loads on the clip and #12 screw fasteners to the stud web.
- Strengthening ribs are present in 3 $\frac{5}{8}$ ", 6", and 8" sizes. StiffClip LB's 10" and 12" sizes contain $\frac{1}{2}$ " return lips on the top and bottom of the leg attaching to the stud for increased stiffness.

Load Direction**Screw Patterns**

****Important Consideration:** Pattern diagrams indicate fastener placement only. Standard StiffClip LB products come with 4 predrilled guide holes as depicted in Patterns 3, 5, & 13 (LB362/LB600, LB800, & LB1000/1200). Alternate patterns can be utilized in the field or be accommodated as a TSN special part request. Contact TSN Sales for information regarding special part requests.



StiffClip LB Series
Blast and Seismic Design Data
www.steelnetwork.com

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