

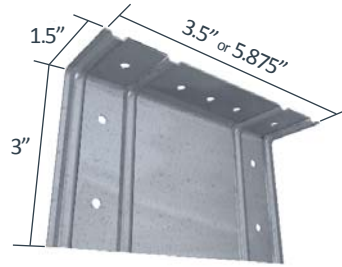
# StiffClip® AL

Multi-Directional Load Resistant Angle

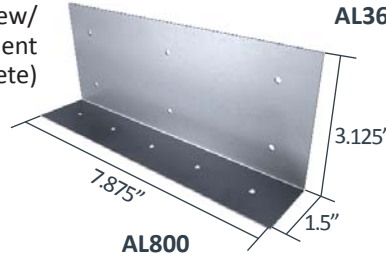
### Material Composition

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.



AL362 & AL600



AL800

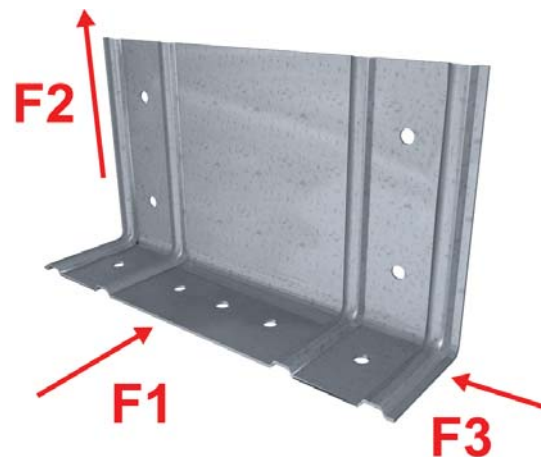


### StiffClip AL Allowable Loads

StiffClip® AL, Recommended Allowable Load (lbs): F1 & F2													
Stud		F1 Load Direction					F2 Load Direction						
Thickness Mils (ga)	Yield Strength (ksi)	AL362			AL600		AL362			AL600		AL800	
		w/3 #12 Screws	w/3 #12 Screws	w/4 #12 Screws	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/2 #12 Screws	w/4 #12 Screws	w/6 #12 Screws
33 (20)	33	191	191	191	377	490	754	377	463	752	377	754	1,131
33 (20)	50	275	275	275	544	708	1,089	544	670	1,089	544	1,089	1,633
43 (18)	33	248	248	248	561	729	1,122	560	690	1,120	561	1,122	1,683
43 (18)	50	359	359	359	810	1,053	1,470	810	997	1,620	810	1,620	2,430
54 (16)	33	312	312	312	789	1,025	1,470	788	970	1,577	789	1,577	2,366
54 (16)	50	450	450	450	1,139	1,470	1,470	1,138	1,401	2,091	1,139	2,278	2,516
68 (14)	50	567	567	567	1,470	1,470	1,470	1,610	1,981	2,091	1,610	2,516	2,516
97 (12)	50	809	809	809	1,470	1,470	1,470	1,698	2,089	2,091	1,698	2,516	2,516
118 (10)	50	856	856	856	1,470	1,470	1,470	1,698	2,089	2,091	1,698	2,516	2,516
<b>Max Allowable Clip Load</b>		<b>975</b>	<b>866</b>	<b>1,768</b>	<b>1,470</b>			<b>2,091</b>			<b>2,516</b>		

StiffClip® AL, Recommended Allowable Load (lbs): F3										
Stud		F3 Load Direction								
Thickness Mils (ga)	Yield Strength (ksi)	AL362			AL600			AL800		
		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/2 #12 Screws	w/4 #12 Screws	w/6 #12 Screws
33 (20)	33	256	409	511	324	495	650	347	692	987
33 (20)	50	370	591	738	468	716	939	501	999	1,426
43 (18)	33	381	609	760	482	737	967	516	1,029	1,469
43 (18)	50	551	879	1,098	697	1,065	1,398	745	1,487	2,123
54 (16)	33	536	856	1,069	678	1,037	1,360	726	1,447	2,066
54 (16)	50	775	1,236	1,543	980	1,498	1,965	1,048	2,090	2,984
68 (14)	50	1,095	1,747	2,182	1,385	2,118	2,778	1,482	2,955	4,219
97 (12)	50	1,155	1,842	2,301	1,460	2,233	2,929	1,562	3,116	4,449
118 (10)	50	1,155	1,842	2,301	1,460	2,233	2,929	1,562	3,116	4,449
<b>Maximum Allowable Clip Load</b>		<b>2,458</b>			<b>3,015</b>			<b>6,128</b>		

### Load Direction

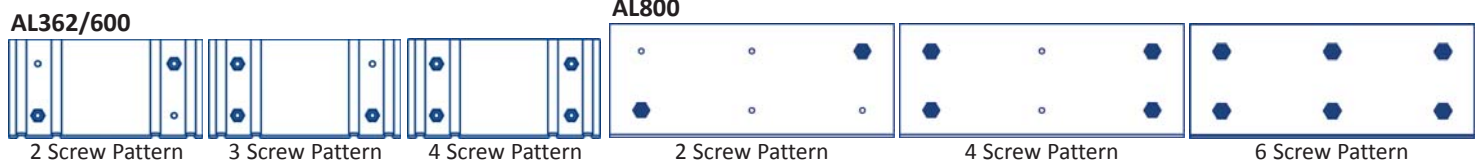


**\*\*Important notes for StiffClip AL Allowable Load tables continued on next page.**

**Notes:**

- Allowable load tables incorporate eccentric loading of fasteners attached 3/4" from the heel of the clip. Values with welded connection may increase.
- The attachment of the 1.5" leg of StiffClip AL is dependent on the allowable loads of the fasteners, and is to be designed by others.
- Fasten within 3/4" from the angle heel (centerline of the 1 1/2" leg).
- All guide holes may not require fasteners. Number of fasteners used is to be determined by designer.
- Stiffening ribs are not present in the AL800.
- StiffClip AL is tested to resist loads in horizontal, vertical, and lateral directions.
- 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.
- Allowable loads are for attachment through 3" leg only. Attachment through 1.5" leg should be engineered. (See material composition above for calculation purposes.)
- Allowable loads have not been increased for wind, seismic, or other factors.
- Torsional effects are considered on screw group for F2 & 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.

**Screw Patterns**



**Nomenclature**

StiffClip AL is available for various stud depths. To specify, multiply stud depth by 100.\*

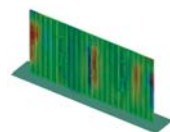
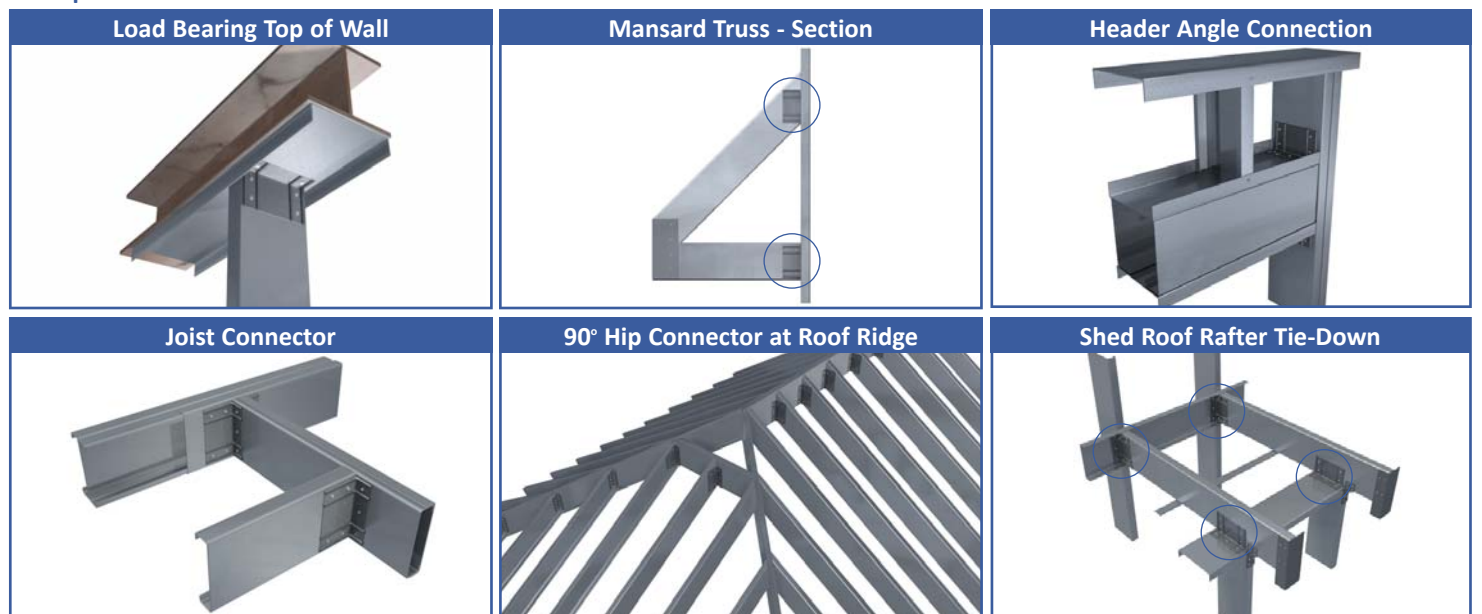
**Example:** 6" stud depth

**Designate:** StiffClip® AL600

\* The AL362 fits 3 5/8" and 4" member depths

\*\* Stiffening ribs are not present in the AL800.

**Example Details**



StiffClip AL 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>