



EXTENDED Uni-Clip™ ALLOWABLE LOADS (KIPS)

Base connection	Stud thickness gauge (mils)	Stud fy (ksi)	8" Extended Uni-Clip														
			2" Offset						4" Offset								
			F1 Load (kips)				F2 Load (kips)				F3 Load (kips)				F3 Load (kips)		
			4 screws	6 screws	8 screws	10 screws	4 screws	6 screws	8 screws	10 screws	4 screws	6 screws	8 screws	10 screws	4 screws	6 screws	8 screws
Weld (Fillet/Flare Groove)	20 (33)	33	0.381	0.453	0.453	0.453	0.754	1.131	1.508	1.884	0.310	0.435	0.572	0.686	0.214	0.306	0.363
	18 (43)	33	0.453	0.453	0.453	0.453	1.122	1.683	2.243	2.278	0.462	0.647	0.851	1.022	0.318	0.456	0.540
	16 (54)	33	0.453	0.453	0.453	0.453	1.577	2.278	2.278	2.278	0.649	0.909	1.196	1.436	0.447	0.640	0.759
	16 (54)	50	0.453	0.453	0.453	0.453	2.278	2.278	2.278	2.278	0.938	1.313	1.728	2.075	0.645	0.925	1.097
	14 (68)	50	0.453	0.453	0.453	0.453	2.278	2.278	2.278	2.278	1.098	1.538	2.022	2.278	0.756	1.083	1.284
(4) #12-24 (3/16" steel)	12 (97)	50	0.453	0.453	0.453	0.453	2.278	2.278	2.278	2.278	1.098	1.538	2.022	2.278	0.756	1.083	1.284
	20 (33)	33	0.301	0.301	0.301	0.301	0.754	1.131	1.256	1.256	0.310	0.435	0.572	0.686	0.214	0.306	0.363
	18 (43)	33	0.301	0.301	0.301	0.301	1.122	1.256	1.256	1.256	0.462	0.647	0.851	1.022	0.318	0.456	0.540
	16 (54)	33	0.301	0.301	0.301	0.301	1.256	1.256	1.256	1.256	0.649	0.909	1.196	1.436	0.447	0.640	0.759
	16 (54)	50	0.301	0.301	0.301	0.301	1.256	1.256	1.256	1.256	0.938	1.313	1.728	1.864	0.645	0.925	1.097
(4) Hilti X-U (3/16" steel)	14 (68)	50	0.301	0.301	0.301	0.301	1.256	1.256	1.256	1.256	1.098	1.538	1.864	1.864	0.756	1.083	1.284
	12 (97)	50	0.301	0.301	0.301	0.301	1.256	1.256	1.256	1.256	1.098	1.538	1.864	1.864	0.756	1.083	1.284
	20 (33)	33	0.301	0.301	0.301	0.301	0.754	0.875	0.875	0.875	0.310	0.435	0.572	0.686	0.214	0.306	0.363
	18 (43)	33	0.301	0.301	0.301	0.301	0.875	0.875	0.875	0.875	0.462	0.647	0.851	1.022	0.318	0.456	0.540
	16 (54)	33	0.301	0.301	0.301	0.301	0.875	0.875	0.875	0.875	0.649	0.909	1.196	1.436	0.447	0.640	0.759
(4) Hilti X-U (1" embedment in 3000 psi concrete)	16 (54)	50	0.301	0.301	0.301	0.301	0.875	0.875	0.875	0.875	0.938	1.313	1.728	1.864	0.645	0.925	1.097
	14 (68)	50	0.301	0.301	0.301	0.301	0.875	0.875	0.875	0.875	1.098	1.538	1.864	1.864	0.756	1.083	1.284
	12 (97)	50	0.301	0.301	0.301	0.301	0.875	0.875	0.875	0.875	1.098	1.538	1.864	1.864	0.756	1.083	1.284
	20 (33)	33	0.301	0.301	0.301	0.301	0.360	0.360	0.360	0.360	0.310	0.435	0.572	0.686	0.214	0.306	0.363
	18 (43)	33	0.301	0.301	0.301	0.301	0.360	0.360	0.360	0.360	0.462	0.647	0.747	0.747	0.318	0.456	0.540
(2) Kwik-Cons II (1-3/4" embedment in 3000 psi concrete)	16 (54)	33	0.301	0.301	0.301	0.301	0.360	0.360	0.360	0.360	0.649	0.747	0.747	0.747	0.447	0.640	0.747
	16 (54)	50	0.301	0.301	0.301	0.301	0.360	0.360	0.360	0.360	0.747	0.747	0.747	0.747	0.645	0.747	0.747
	14 (68)	50	0.301	0.301	0.301	0.301	0.360	0.360	0.360	0.360	0.747	0.747	0.747	0.747	0.747	0.747	0.747
	12 (97)	50	0.301	0.301	0.301	0.301	0.360	0.360	0.360	0.360	0.747	0.747	0.747	0.747	0.747	0.747	0.747
	20 (33)	33	0.301	0.301	0.301	0.301	0.754	0.922	0.922	0.922	0.310	0.435	0.572	0.686	0.214	0.306	0.363
(2) Kwik-Cons II (1-3/4" embedment in 3000 psi concrete)	18 (43)	33	0.301	0.301	0.301	0.301	0.922	0.922	0.922	0.922	0.462	0.647	0.851	1.022	0.318	0.456	0.540
	16 (54)	33	0.301	0.301	0.301	0.301	0.922	0.922	0.922	0.922	0.649	0.909	1.160	1.160	0.447	0.640	0.759
	16 (54)	50	0.301	0.301	0.301	0.301	0.922	0.922	0.922	0.922	0.938	1.160	1.160	1.160	0.645	0.925	1.097
	14 (68)	50	0.301	0.301	0.301	0.301	0.922	0.922	0.922	0.922	1.098	1.160	1.160	1.160	0.756	1.083	1.160
	12 (97)	50	0.301	0.301	0.301	0.301	0.922	0.922	0.922	0.922	1.098	1.160	1.160	1.160	0.756	1.083	1.160

Notes:

- Capacities listed in the table/notes assume that no load reductions are required for spacing or edge distance of Hilti X-U pins in steel, Kwik-Cons, or screws. Load reductions are enforced for spacing or edge distance of Hilti X-U in concrete.
- Weld capacities are calculated for 2" long weld assuming 1" from the edges on the outer radius of the bend.
- Allowable loads have not been increased for wind, seismic, or other factors.
- The F1 values are calculated based on the moment capacity of the clip cross section.
- Capacities are based on the use of #12 screws to clip-stud interface.
- The embedment depth of Kwik-Cons in 3000psi normal weight concrete is 1-3/4". The embedment depth of Hilti X-U in 3000psi normal weight concrete is 1".
- The Hilti X-U pins and #12-24 screws are embedded in 3/16" structural steel.
- Torsional effects are considered on screw group for F3 allowable loads.
- Use a linear interaction equation for connections involving any combination of F1, F2, and F3.
- Hilti is a registered trademark of the Hilti Aktiengesellschaft Corporation.
- Hilti X-U PAFs shown in table may not be substituted without prior approval from ClarkDietrich Engineering Services.

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