

EasyClip™ QuickTwist™ Web Stiffener

Excellent reinforcement at critical load points to prevent web crippling.

ClarkDietrich EasyClip™ QuickTwist™ web stiffeners are used to provide reinforcement of joist webs to prevent crippling. Web reinforcement is often required by design to enhance the load capacity of joists. The unique design of QTWS allows the installer to easily insert the stiffener on the inside of the joist *after* the joist is installed. This stiffener eliminates the need to pre-insert traditional web stiffeners prior to joist installation. The one-piece assembly is easily rotated in-place for a tight fit.

PRODUCT DIMENSIONS

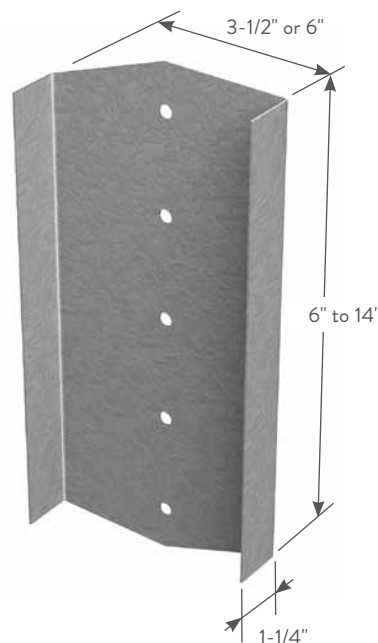
3-1/2" x 6"-14" x 1-1/4"
 6" x 6"-14" x 1-1/4"

MATERIAL SPECIFICATIONS

Gauge: 12 gauge (97mils)
Design Thickness: 0.1017 inches
Coating: G90
Yield Strength: 50ksi
ASTM: A653/A653M

INSTALLATION

The unique design of the EasyClip QuickTwist web stiffener allows it to be easily rotated in-place for a tight fit between flanges. The web stiffener shall be secured to the web of the joist with (3) #10-16 screws. Screws shall be driven through the top, bottom and middle prepunched holes as shown in the illustrations.



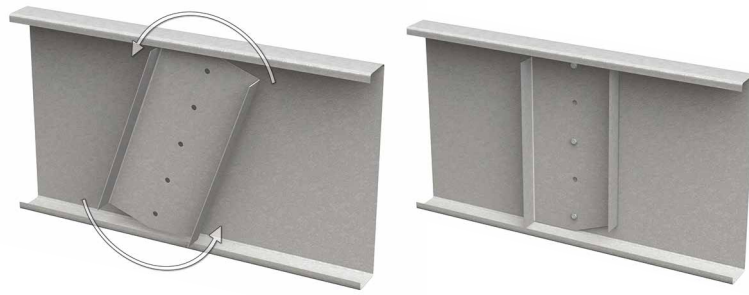
EasyClip™ QuickTwist™ Web Stiffeners (QTWS)

Product code	Size (in) width	Thickness		Size* (in) length	Packaging
		Mils (Gauge)	Design thickness (in)		
QTWS	3-1/2	97mils (12ga)	0.1017	6**	Dependent on order quantity
				7-1/4	
				8	
				9-1/4	
				10	
				11-1/4	
				12	
				14	
QTWS	6	97mils (12ga)	0.1017	6**	Dependent on order quantity
				7-1/4	
				8	
				9-1/4	
				10	
				11-1/4	
				12	
				14	

*Dimension is nominal size. Actual product is shorter to fit inside joist.

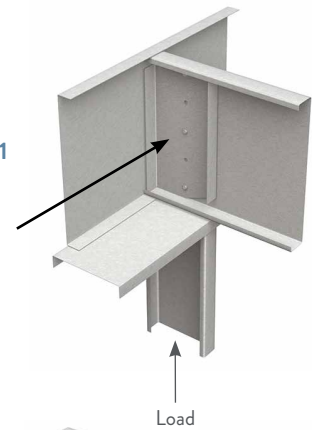
**Load data is not available for 6" length.

Note: The QTWS is designed to work with all floor joist flanges but the length of the QTWS clip shall match the depth of the supporting floor joist.



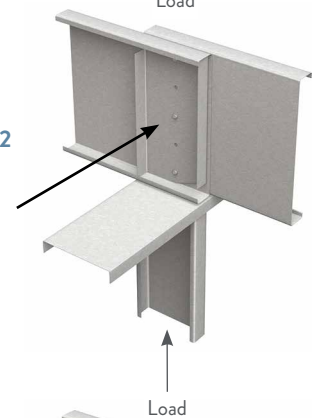
CONDITION 1

(3) #10-16 screws, top, bottom, and middle holes



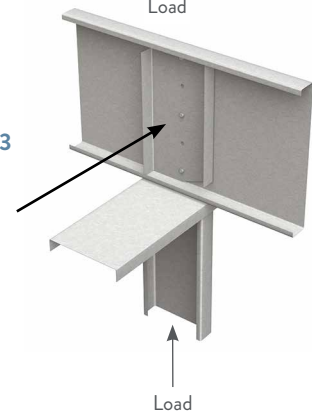
CONDITION 2

(3) #10-16 screws, top, bottom, and middle holes



CONDITION 3

(3) #10-16 screws, top, bottom, and middle holes



QTWS Allowable Web Crippling Loads (lbs)

Joist size (in)	Joist Mils (gauge)	F _y (ksi)	3-1/2" Web Stiffener			6" Web Stiffener		
			Cond. 1	Cond. 2	Cond. 3	Cond. 1	Cond. 2	Cond. 3
7.25	43 (18)	33	5,360	5,781	5,659	5,932	6,403	6,265
		33	5,457	6,155	5,924	6,042	6,817	6,558
	54 (16)	50	5,574	6,632	6,282	6,177	7,351	6,959
		33	5,615	6,761	6,346	6,220	7,482	7,021
	68 (14)	50	5,813	7,550	6,921	6,447	8,359	7,660
		33	6,074	8,524	7,559	6,733	9,401	8,340
97 (12)	50	6,509	10,222	8,759	7,224	11,267	9,659	
	33	5,350	5,752	5,645	5,920	6,370	6,249	
8	43 (18)	33	5,350	5,752	5,645	5,920	6,370	6,249
		33	5,443	6,116	5,905	6,027	6,773	6,537
	54 (16)	50	5,553	6,573	6,253	6,153	7,285	6,926
		33	5,596	6,708	6,320	6,200	7,424	6,992
	68 (14)	50	5,786	7,470	6,882	6,416	8,270	7,617
		33	6,045	8,438	7,516	6,700	9,307	8,293
97 (12)	50	6,465	10,092	8,694	7,174	11,124	9,588	
	33	5,334	5,707	5,623	5,902	6,320	6,224	
9.25	43 (18)	33	5,334	5,707	5,623	5,902	6,320	6,224
		33	5,422	6,056	5,875	6,002	6,706	6,503
	54 (16)	50	5,521	6,481	6,208	6,116	7,182	6,876
		33	5,568	6,626	6,279	6,167	7,332	6,947
	68 (14)	50	5,742	7,345	6,820	6,366	8,132	7,548
		33	5,999	8,304	7,450	6,649	9,159	8,220
97 (12)	50	6,396	9,888	8,594	7,096	10,900	9,477	
	33	5,410	6,021	5,858	5,988	6,667	6,484	
10	54 (16)	50	5,503	6,429	6,182	6,095	7,124	6,847
		33	5,552	6,579	6,256	6,148	7,280	6,922
	68 (14)	50	5,718	7,275	6,785	6,338	8,053	7,510
		33	5,973	8,228	7,412	6,619	9,076	8,179
	97 (12)	50	6,356	9,773	8,537	7,052	10,773	9,415
		33	5,391	5,967	5,831	5,966	6,606	6,454
11.25	54 (16)	50	5,474	6,347	6,141	6,062	7,032	6,802
		33	5,526	6,505	6,220	6,119	7,198	6,881
	68 (14)	50	5,679	7,163	6,730	6,294	7,929	7,448
		33	5,932	8,108	7,353	6,573	8,943	8,114
	97 (12)	50	6,294	9,590	8,447	6,981	10,573	9,316
		33	5,380	5,936	5,816	5,954	6,571	6,437
12	54 (16)	50	5,457	6,300	6,118	6,043	6,979	6,775
		33	5,511	6,463	6,199	6,102	7,151	6,858
	68 (14)	50	5,657	7,099	6,699	6,268	7,858	7,413
		33	5,908	8,039	7,319	6,547	8,867	8,076
	97 (12)	50	6,258	9,486	8,395	6,941	10,458	9,259
		33	5,474	6,356	6,146	6,060	7,033	6,800
14	68 (14)	50	5,601	6,937	6,619	6,204	7,678	7,325
		33	5,849	7,865	7,233	6,480	8,677	7,982
	97 (12)	50	6,169	9,223	8,265	6,840	10,169	9,116

*Load data is not available for 6" length.

Notes:

- 1 The tabulated values indicate the total allowable web crippling capacities of a ClarkDietrich joist of the listed size, stiffened with the QuickTwist web stiffener.
- 2 The joist flanges must be fastened to the support at the bearing location.
- 3 The 3-1/2" web stiffeners are to be used with bearing widths of 3-1/2" to 5-1/2" in the direction of the joist. The 6" web stiffeners are to be used with bearing widths 6" and greater, in the direction of the joist. A minimum-bearing dimension of 3" in the direction perpendicular to the joist is assumed.
- 4 Use (3) #10 screws to attach the QuickTwist web stiffener to the joist. Drive screws through the top, bottom, and middle prepunched holes.
- 5 This table is intended for use by qualified engineers only. It is the responsibility of the engineer to verify that the QuickTwist web stiffener configuration and tabulated values apply to a specific web crippling application.
- 6 Contact ClarkDietrich at 888-437-3244 for technical assistance.