

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 (97mil)

Design Thickness: 0.1017 inches

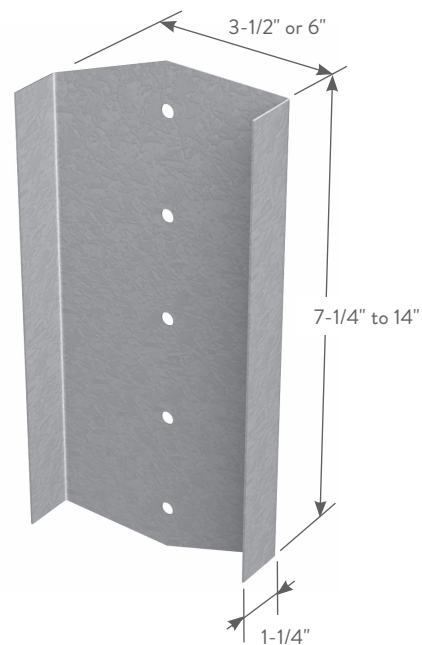
Coating: G90

Yield Strength: 50ksi

ASTM: A653/A653M

INSTALLATION

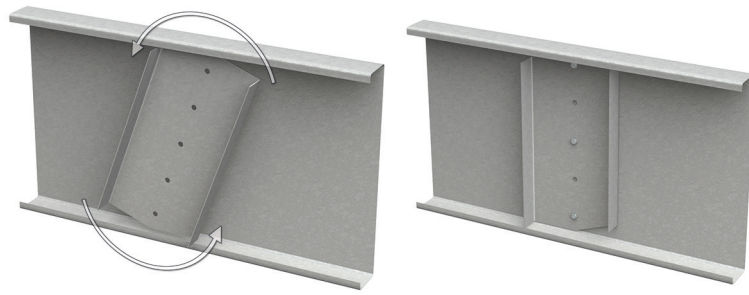
The unique design of the EasyClip QuickTwist web stiffener allows it to be easily rotated in-place for a tight fit between flanges. The web stiffener shall be secured to the web of the joist with (3) #10-16 screws. Screws shall be driven through the top, bottom and middle prepunched holes as shown in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



EasyClip™ QuickTwist™ Web Stiffeners (QTWS)

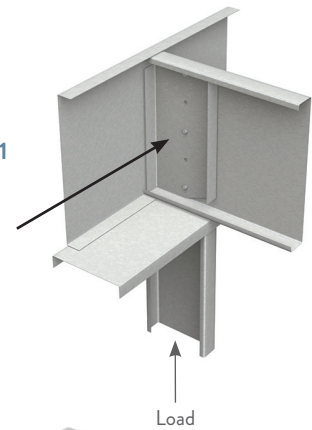
Product code	Size (in) width	Thickness		Size* (in) length	Packaging
		Mils (Gauge)	Design thickness (in)		
QTWS	3-1/2	97mil (12ga)	0.1017	6	Dependent on order quantity
				7-1/4	
				8	
				9-1/4	
				10	
				11-1/4	
				12	
QTWS	6	97mil (12ga)	0.1017	6	Dependent on order quantity
				7-1/4	
				8	
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

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



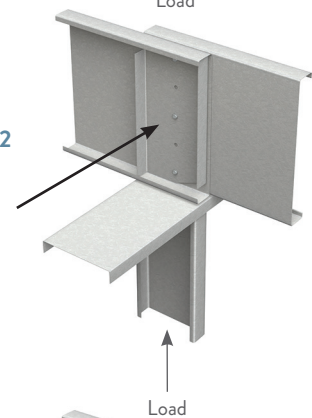
CONDITION 1

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



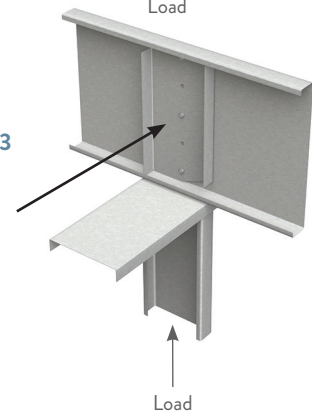
CONDITION 2

(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	5,334	5,707	5,623	5,902	6,320	6,224
		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	5,422	6,056	5,875	6,002	6,706	6,503
		50	5,521	6,481	6,208	6,116	7,182	6,876
	54 (16)	33	5,568	6,626	6,279	6,167	7,332	6,947
		50	5,742	7,345	6,820	6,366	8,132	7,548
	68 (14)	33	5,999	8,304	7,450	6,649	9,159	8,220
		50	6,396	9,888	8,594	7,096	10,900	9,477
97 (12)	33	5,410	6,021	5,858	5,988	6,667	6,484	
	50	5,503	6,429	6,182	6,095	7,124	6,847	
10	54 (16)	33	5,552	6,579	6,256	6,148	7,280	6,922
		50	5,718	7,275	6,785	6,338	8,053	7,510
	68 (14)	33	5,973	8,228	7,412	6,619	9,076	8,179
		50	6,356	9,773	8,537	7,052	10,773	9,415
	97 (12)	33	5,391	5,967	5,831	5,966	6,606	6,454
		50	5,474	6,347	6,141	6,062	7,032	6,802
11.25	54 (16)	33	5,526	6,505	6,220	6,119	7,198	6,881
		50	5,679	7,163	6,730	6,294	7,929	7,448
	68 (14)	33	5,932	8,108	7,353	6,573	8,943	8,114
		50	6,294	9,590	8,447	6,981	10,573	9,316
	97 (12)	33	5,380	5,936	5,816	5,954	6,571	6,437
		50	5,457	6,300	6,118	6,043	6,979	6,775
12	54 (16)	33	5,511	6,463	6,199	6,102	7,151	6,858
		50	5,657	7,099	6,699	6,268	7,858	7,413
	68 (14)	33	5,908	8,039	7,319	6,547	8,867	8,076
		50	6,258	9,486	8,395	6,941	10,458	9,259
	97 (12)	33	5,474	6,356	6,146	6,060	7,033	6,800
		50	5,601	6,937	6,619	6,204	7,678	7,325
14	68 (14)	33	5,849	7,865	7,233	6,480	8,677	7,982
		50	6,169	9,223	8,265	6,840	10,169	9,116

Notes:

- The tabulated values indicate the total allowable web crippling capacities of a ClarkDietrich joist of the listed size, stiffened with the QuickTwist web stiffener.
- The joist flanges must be fastened to the support at the bearing location.
- 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.
- Use (3) #10 screws to attach the QuickTwist web stiffener to the joist. Drive screws through the top, bottom, and middle prepunched holes.
- 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.
- Contact ClarkDietrich at 888-437-3244 for technical assistance.