

EasyClip™ QuickTwist™ Web Stiffener (QTWS)

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

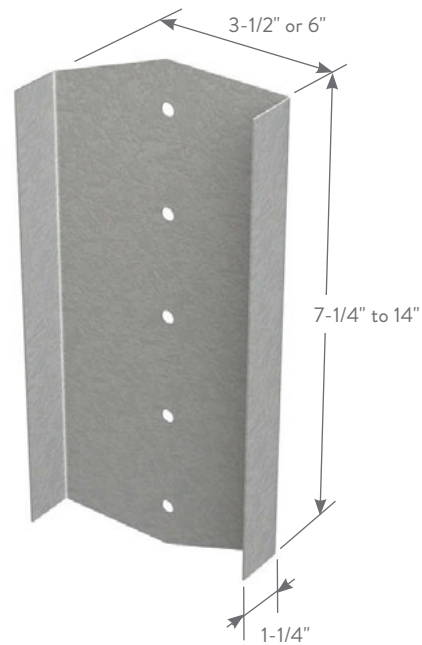
3-1/2" x 7-1/4"-14" x 1-1/4"
 6" x 7-1/4"-14" x 1-1/4"

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 joint with (3) #10-16 screws. Screws shall be driven through the top, bottom and middle prepunched holes as shown in the illustrations.

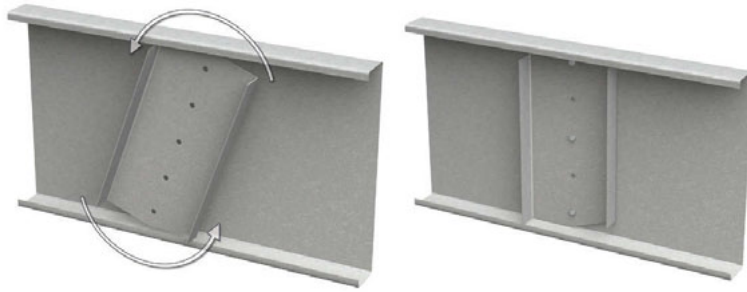


EasyClip QuickTwist Web Stiffener

EasyClip™ QuickTwist™ WEB STIFFENERS

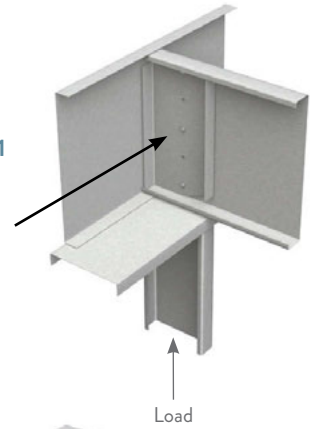
Product code	Size (in)	Thickness			Size* (in)	Packaging
		Gauge	Mils	Design thickness (in)		
QTWS	3-1/2	12	97	0.1017	7.25	Dependent on order quantity
					8.00	
					9.25	
					10.00	
					11.25	
					12.00	
QTWS	6	12	97	0.1017	7.25	Dependent on order quantity
					8.00	
					9.25	
					10.00	
					11.25	
					12.00	
					14.00	

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



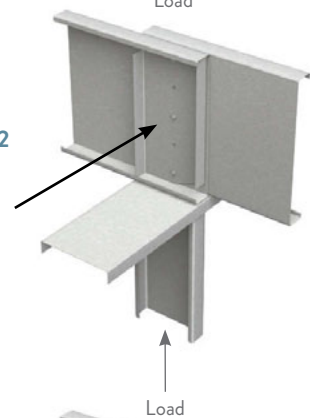
CONDITION 1

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



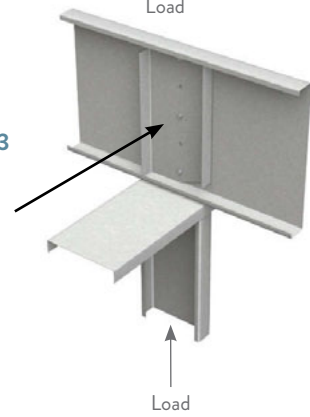
CONDITION 2

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



CONDITION 3

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



ALLOWABLE WEB CRIPPLING LOADS (LBS)

Joist size (in)	Joist gauge (mils)	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	18 (43)	33	5,360	5,781	5,659	5,932	6,403	6,265
		50	5,457	6,155	5,924	6,042	6,817	6,558
	16 (54)	33	5,574	6,632	6,282	6,177	7,351	6,959
		50	5,615	6,761	6,346	6,220	7,482	7,021
	14 (68)	33	5,813	7,550	6,921	6,447	8,359	7,660
		50	6,074	8,524	7,559	6,733	9,401	8,340
12 (97)	33	6,509	10,222	8,759	7,224	11,267	9,659	
	50	6,509	10,222	8,759	7,224	11,267	9,659	
8	18 (43)	33	5,350	5,752	5,645	5,920	6,370	6,249
		50	5,443	6,116	5,905	6,027	6,773	6,537
	16 (54)	33	5,553	6,573	6,253	6,153	7,285	6,926
		50	5,596	6,708	6,320	6,200	7,424	6,992
	14 (68)	33	5,786	7,470	6,882	6,416	8,270	7,617
		50	6,045	8,438	7,516	6,700	9,307	8,293
12 (97)	33	6,465	10,092	8,694	7,174	11,124	9,588	
	50	6,465	10,092	8,694	7,174	11,124	9,588	
9.25	18 (43)	33	5,334	5,707	5,623	5,902	6,320	6,224
		50	5,422	6,056	5,875	6,002	6,706	6,503
	16 (54)	33	5,521	6,481	6,208	6,116	7,182	6,876
		50	5,568	6,626	6,279	6,167	7,332	6,947
	14 (68)	33	5,742	7,345	6,820	6,366	8,132	7,548
		50	5,999	8,304	7,450	6,649	9,159	8,220
12 (97)	33	6,396	9,888	8,594	7,096	10,900	9,477	
	50	6,396	9,888	8,594	7,096	10,900	9,477	
10	16 (54)	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
	14 (68)	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
	12 (97)	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
11.25	16 (54)	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
	14 (68)	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
	12 (97)	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
12	16 (54)	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
	14 (68)	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
	12 (97)	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
14	14 (68)	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
	12 (97)	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:

- 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.