

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

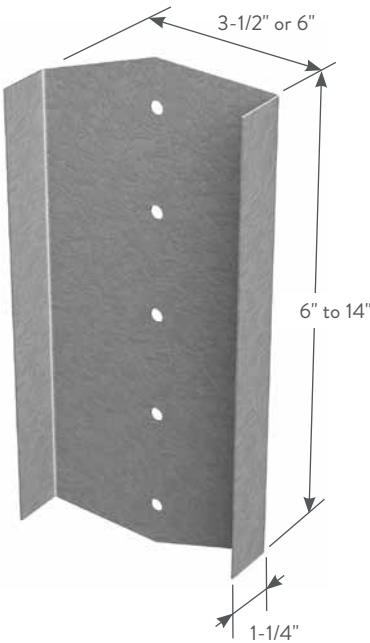
3-1/2" x 6"-14" x 1-1/4"
6" x 6"-14" x 1-1/4"

MATERIAL SPECIFICATIONS

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

INSTALLATION

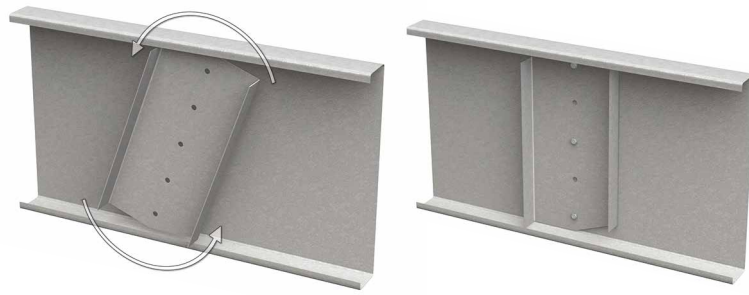
The unique design of the EasyClip QuickTwist web stiffener allows it to be easily rotated in-place for a tight fit between flanges. The web stiffener shall be secured to the web of the joist with (3) #10-16 screws. Screws shall be driven through the top, bottom and middle prepunched holes as shown in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



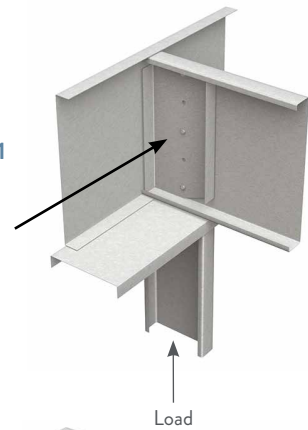
EasyClip™ QuickTwist™ Web Stiffeners (QTWS)					
Product Code	Size (W) (in)	Thickness		Size* (L) (in)	Packaging
		mils (ga)	Design Thickness (in)		
QTWS	3-1/2	97 (12)	0.1017	6**	Dependent on order quantity
				7-1/4	
				8	
				9-1/4	
				10	
				11-1/4	
				12	
				14	
QTWS	6	97 (12)	0.1017	6**	Dependent 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.

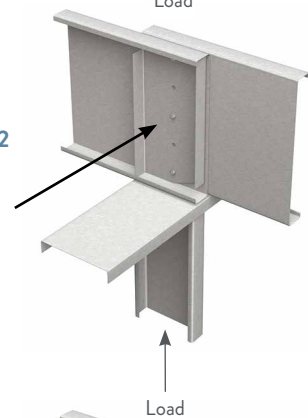
Note: The QTWS is designed to work with all floor joist flanges but the length of the QTWS clip shall match the depth of the supporting floor joist.

**CONDITION 1**

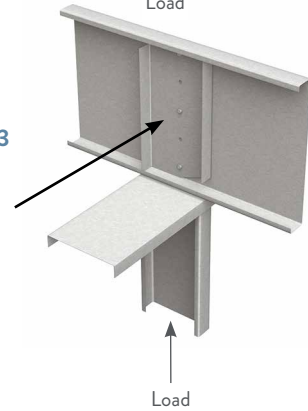
(3) #10-16 screws,
top, bottom, and
middle holes

**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 (ga)	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
		50	5,457	6,155	5,924	6,042	6,817	6,558
	54 (16)	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
	68 (14)	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
8	97 (12)	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
	43 (18)	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
	54 (16)	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
9.25	68 (14)	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
	97 (12)	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
	43 (18)	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
10	54 (16)	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
	68 (14)	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
	97 (12)	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
11.25	54 (16)	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
	68 (14)	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
	97 (12)	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
12	54 (16)	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
	68 (14)	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
	97 (12)	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
14	54 (16)	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
	68 (14)	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
	97 (12)	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	68 (14)	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
		50	5,849	7,865	7,233	6,480	8,677	7,982
14	97 (12)	33	6,169	9,223	8,265	6,840	10,169	9,116
		50	6,169	9,223	8,265	6,840	10,169	9,116

*Load data is not available for 6" length.

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.