Bridging Termination Clip

U-Channel lateral bracing clip

The ClarkDietrich Bridging Termination clip is used to secure U-Channel or Cold Rolled Channel (CRC) to structural wall studs when used in load-bearing or curtain wall applications. (loads for structural stud gauges of 20, 18, 16, 14 & 12). The BTC's unique design allows for quicker installation in end-of-wall conditions.

The BTC is a stiffened, G90 galvanized steel clip that's tested and designed to facilitate rapid, efficient installation of 1-1/2" U-Channel lateral bracing for exterior curtain wall framing, load-bearing walls or high interior partitions constructed of structural studs.

BTC clips are fastened using #8 self-drilling screws; 2 screws between clip and U-channel and 2 screws between clip and stud flanges. The BTC clips are designed to be used with 3-5/8", 4" or 6" structural studs only.

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U.S. Patent No. D820,664 S1

MATERIAL SPECIFICATIONS

Gauge: 18 gauge (43mils)
Design Thickness: 0.0451 inches

Gauge: 16 gauge (54mils)
Design Thickness: 0.0566 inches

Gauge: 14 gauge (68mils)
Design Thickness: 0.0713 inches

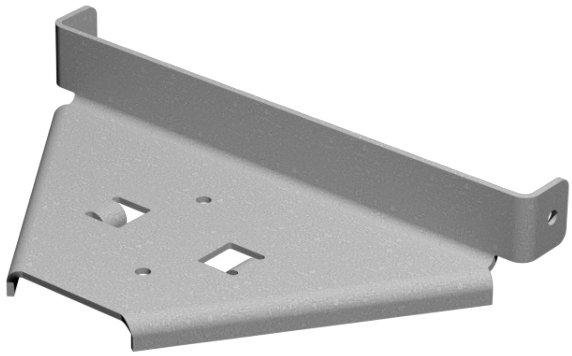
Coating: G90
ASTM: A653/A653M, A1003/A1003M

ALTERNATIVE PRODUCTS

- FastBridge™ Clip (FB33, FB43 & FB68)
- U-Channel with SwiftClip™ LS-Series™ Support Clip

INSTALLATION

Install the BTC by sliding the flanges of the clip over the open side of the stud and positioning the clip over the CRC using the guides on the underside of the clip. Once in place, fasten to the CRC using #8 screws. Finally, fasten the flanges of the clip to the stud flange by using #8 screws.



BTC for 3-5/8" studs

Clip Designation	Thickness				Packaging Pcs./Bucket
	mils (ga)	Yield Strength (ksi)	Design Thickness (in)	Min. Thickness (in)	
BTC3-43	43 (18)	50	0.0451	0.0428	100
BTC3-54	54 (16)		0.0566	0.0538	100
BTC3-68	68 (14)		0.0713	0.0677	100

BTC for 4" studs

Clip Designation	Thickness				Packaging Pcs./Bucket
	mils (ga)	Yield Strength (ksi)	Design Thickness (in)	Min. Thickness (in)	
BTC4-43	43 (18)	50	0.0451	0.0428	100
BTC4-54	54 (16)		0.0566	0.0538	100
BTC4-68	68 (14)		0.0713	0.0677	100

BTC for 6" studs

Clip Designation	Thickness				Packaging Pcs./Bucket
	mils (ga)	Yield Strength (ksi)	Design Thickness (in)	Min. Thickness (in)	
BTC6-43	43 (18)	50	0.0451	0.0428	50
BTC6-54	54 (16)		0.0566	0.0538	50
BTC6-68	68 (14)		0.0713	0.0677	50

Bridging Termination Clip Load Tables

Clip Designation	Stud Depth (in)	Clip mils (ga)	Allowable Capacities	Stud Thickness, mils (ga)				
				33mils (20ga)	43mils (18ga)	54mils (16ga)	68mils (14ga)	97mils (12ga)
BTC3	3-5/8	43 (18)	Axial Brace Stiffness (lbs/in)	2120	2120	2120	2190	2190
BTC4	4		Axial Brace Strength (lbs)	215	235	240	280	280
BTC6	6		Torsional Moment (in-lbs)	310	310	320	325	325
BTC3	3-5/8	54 (16)	Axial Brace Stiffness (lbs/in)	2965	3135	3175	3345	3345
BTC4	4		Axial Brace Strength (lbs)	320	350	375	410	410
BTC6	6		Torsional Moment (in-lbs)	510	515	520	525	525
BTC3	3-5/8	68 (14)	Axial Brace Stiffness (lbs/in)	3915	4325	4525	4825	4825
BTC4	4		Axial Brace Strength (lbs)	460	500	555	570	570
BTC6	6		Torsional Moment (in-lbs)	760	775	775	790	790

Notes:

1. Allowable loads are based on the use of cold-formed steel studs with a minimum yield strength, Fy=33 ksi and tensile strength, Fu=45 ksi for 43mils (18ga) or thinner and a minimum yield strength, Fy=50 ksi and tensile strength, Fu=65 ksi for 54 mils (16ga) or thicker.
2. Allowable loads are based on 54mils (16ga) U-Channel bridging with a minimum yield strength, Fy=33 ksi and tensile strength, Fu=45 ksi.
3. Allowable loads are for the termination bridging connection only. The strength and serviceability of the framing members is the responsibility of the designer.
4. Allowable loads are based on minimum #8 self drilling with a minimum nominal diameter of 0.163-in and a minimum head diameter of 0.437-in. Fasteners must have a minimum nominal shear strength of, Pss=1452-lbs and a nominal tensile strength of, Pts = 2089 lbs. (See ICC-ESR 1271 for fastener information.)
5. Allowable loads are based on the use of 2 screws between clip and U-Channel and 2 screws between clip and stud flanges.
6. Allowable loads may not be increased for wind or seismic load.
7. Allowable loads are for use when using ASD design methodology. For LRFD loads, multiply ASD allowable loads by 1.6.
8. Allowable brace loads were derived from nominal loads obtained from tests, divided by a safety factor. Serviceability limits are not considered. Brace stiffness requirements are detailed in AISI S100 Section C2.2.2.
9. Axial brace stiffness values apply to both ASD and LRFD designs.

The technical content of this literature is effective 01/08/26 and supersedes all previous information. Pub. No. CD-ClipExpress 01/26