

Universal Strut Connector

The Universal Strut Connector (USC) is a single connector for long stand-off curtain wall connections

The Universal Strut Connector (USC) is a high-performance curtain-wall connection system that combines long-reach stand-off capability with a rigid, high-strength clip — all in a single, universal connector. It is designed to support either rigid or deflection connections, giving engineers and contractors maximum flexibility for medium to large stand-off curtain-wall conditions.

The connector comes with proprietary deflection screws for when vertical movement is required, allowing the stud to slide freely while maintaining lateral and axial load transfer. When deflection is not required, the same connector can be installed as a rigid attachment using standard fasteners. With strut lengths up to 24", the Universal Strut Connector eliminates the need for built-up framing or stacked clips — simplifying details while improving performance.

ALTERNATIVE PRODUCTS

FastStrut™
Extended SwiftClip™ LE-Series

MATERIAL SPECIFICATIONS

Gauge: 14 gauge (68mils)
Design Thickness: 0.0713 inches
Material: 50ksi
Protective Coating: G90

CODE APPROVALS & PERFORMANCE STANDARDS

AISI S100
IAPMO ER-731 (USC20 & USC22 not included in report)



Universal Strut Connector (USC)				
Clip Designation	Thickness		Clip Dimensions (in)	Packaging Pcs./Box
	mils (ga)	Design Thickness (in)		
USC12-68	68 (14)	0.0713	4 x 1-1/2 x 12	10
USC16-68	68 (14)	0.0713	4 x 1-1/2 x 16	10
USC18-68	68 (14)	0.0713	4 x 1-1/2 x 18	10
USC20-68	68 (14)	0.0713	4 x 1-1/2 x 20	10
USC22-68	68 (14)	0.0713	4 x 1-1/2 x 22	10
USC24-68	68 (14)	0.0713	4 x 1-1/2 x 24	10

Includes 55 Proprietary Deflection Screws per box.

INSTALLATION

For a Deflection Connection:

Connections to the building can be made with screws, powder-actuated fasteners, drill-in concrete anchors or welding. Mechanical fasteners shall be equally spaced along the 1-1/2" flange. The strut must engage the building structure a minimum of 4". When using tabulated allowable loads, connections to the building structure must be made according to the table notes. Two or three Proprietary Deflection screws are used to attach the strut to the cold-formed steel framing. Screws shall be driven through the slotted holes and positioned to allow for the appropriate building deflection.

Proprietary Deflection Screws

Many of the ClarkDietrich deflection clips include our Proprietary Deflection Screws that has been specifically designed to provide friction-free deflection. These fasteners eliminate drag, binding or resistance that can often occur with common fasteners.

Clip Designation	Framing Member Details		Maximum Stand Off (in)	Framing Screws	Load Capacities (lbs) / Clip							
	Stud Depth (in)	Thickness mils (ga)			In-Plane (F1)		Tension (F2)			Compression (F3)		
					Nominal Load	ASD Load	1/8" Service Load	Nominal Load	ASD Load	1/8" Service Load	Nominal Load	ASD Load
USC12-68	3-5/8	33 (20)	4-3/4	(2) #14 - Deflection Screws	355	120	1345	1470	505	1170	1310	450
		43 (18)			565	195	1390	1760	605	1480	1780	610
		54 (16)			760	255	1730	2370	815	1755	2445	840
		68 (14)			1000	335	1825	3145	1080	2135	3435	1180
		97 (12)			1280	440	1910	3530	1215	2470	4300	1480
USC12-68	6	33 (20)	2-3/8	(3) #14 - Deflection Screws	325	110	1140	2160	745	1665	2280	785
		43 (18)			500	170	1510	2625	905	2005	2690	925
		54 (16)			760	255	2050	3810	1310	2380	3980	1370
		68 (14)			1000	335	2145	4635	1595	2810	4815	1660
		97 (12)			1495	505	2220	5475	1885	3370	5830	1945
USC16-68	6	33 (20)	6-3/8	(3) #14 - Deflection Screws	385	135	1815	2170	745	2070	2215	760
		43 (18)			580	195	1945	2575	885	2420	2745	945
		54 (16)			760	255	2315	3905	1345	2670	3860	1330
		68 (14)			1000	335	2255	4600	1585	3280	4765	1640
		97 (12)			1515	505	2490	5590	1925	3735	5830	1945
USC18-68	6	33 (20)	8-3/8	(3) #14 - Deflection Screws	330	115	1930	2115	730	2205	2125	730
		43 (18)			580	195	2055	2505	860	2685	2685	925
		54 (16)			760	255	2345	3810	1310	3040	4030	1385
		68 (14)			1000	335	2835	4420	1520	3940	4815	1655
		97 (12)			1515	505	2935	5830	1945	4430	5830	1945
USC24-68	6	33 (20)	14-3/8	(3) #14 - Deflection Screws	425	140	1970	2170	745	1850	2200	755
		43 (18)			500	195	2145	2545	875	2040	2610	900
		54 (16)			690	255	2905	3860	1330	2895	3785	1305
		68 (14)			885	335	3010	4440	1530	3440	4640	1945
		97 (12)			1020	505	3355	5830	1945	4160	4860	1945

Notes:

- For deflection connection, ClarkDietrich Proprietary Deflection screws (0.25-in dia.) shall be used to attach clips to framing members through the provided slotted holes. The 0.25-in (6mm) HWH x 0.75-in (19mm) long self-drilling screws for use with the 68mil (14ga) clips.

