SIMPSON Strong-Tie

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SFC Steel Framing Connectors

SFC steel framing connectors are a low-cost, multi-use utility clip for light to moderate loading conditions in CFS stud-to-stud and stud-to-structure applications where long leg lengths are not required.

Features:

- Reduced number of screws reduces installation cost
- Pre-punched holes reduce installation cost by eliminating predrilling
- Intuitive fastener hole positions ensure accurate clip installation in accordance with design, support a wide range of design and application requirements, and provide installation flexibility
- In soft-side stud installations, SFC will not interfere with stud lips up to 3/4" long
- Also suitable for U-channel bridging

Material: LSFC – 43 mil (33 ksi); SFC – 54 mil (50 ksi)

Finish: Galvanized (G90)

Packaging/Ordering Information:

Model Number	Ordering SKU	Package Quantity
SFC6.25	SFC6.25-R125	Bucket of 125
LSFC6.25	LSFC6.25-R100	Bucket of 100
SFC4.25	SFC4.25-R175	Bucket of 175
LSFC4.25	LSFC4.25-R175	
SFC2.25	SFC2.25-R300	Bucket o 125
LSFC2.25	LSFC2.25-R300	Bucket of 300

Product images
Installation images
Allowable Loads:
- Steel-to-Steel
- U-Channel Bridging

Code Reports
Drawings
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Help for downloads

Product Images:

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SFC6.25 (LSFC6.25 similar)

SFC4.25 (LSFC4.25 similar)

SFC2.25 (LSFC2.25 similar)

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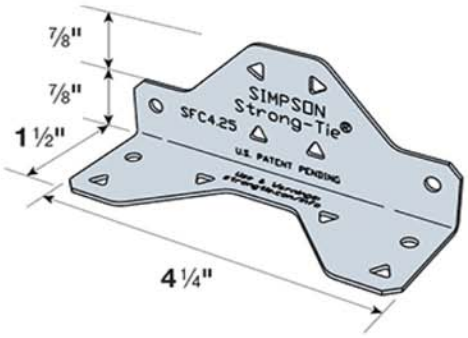

Installation Images:

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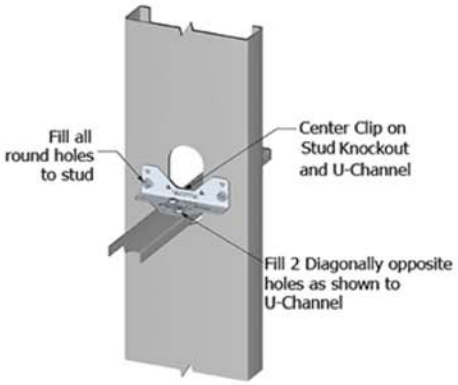
roll over images below to see larger image



Steel-to-Steel

Typical SFC Installation

U-Channel Bridging

Typical SFC4.25 Installation

Allowable Loads:

SFC Steel Framing Connectors: Steel-to-Steel

Model No.	Connector Material Thickness mil (ga.)	L (in.)	Framing Member Depth (in.)	Fasteners			Allowable F4 Loads (lbs.)[3]			
							Minimum Member Thickness			Maximum Connector Load[4]
				Pattern[2]	Carried Member	Carrying Member	33 mil (20 ga.)	43 mil (18 ga.)	54 mil (16 ga.)	
LSFC2.25	43 (18)	2¼	3⅝	Min.	2 - #10	2 - #10	295	310	475	630
SFC2.25	54 (16)	2¼	3⅝	Min.	2 - #10	2 - #10	295	355	630	630
LSFC4.25	43 (18)	4¼	6	Min.	2 - #10	2 - #10	355	525	525	1750
				Max.	6 - #10	6 - #10	440	865	1320	
SFC4.25	54 (16)	4¼	6	Min.	2 - #10	2 - #10	355	525	745	1750
				Max.	6 - #10	6 - #10	575	985	1750	
LSFC6.25	43 (18)	6¼	8	Min.	4 - #10	4 - #10	490	920	1050	2640
				Max.	8 - #10	8 - #10	510	980	1495	
SFC6.25	54 (16)	6¼	8	Min.	4 - #10	4 - #10	590	1035	1840	2640
				Max.	8 - #10	8 - #10	590	1055	1880	

1. For additional information, see General Notes for Utility Clips.
2. Min. fastener quantity and load values - fill all round holes; Max. fastener quantity and load values - fill all round and triangular holes.
3. Allowable loads are based on bracing of the members located within 12" of the connection.
4. Maximum allowable load for connector that may not be exceeded when designing custom installations. Designer is responsible for member and fastener design.

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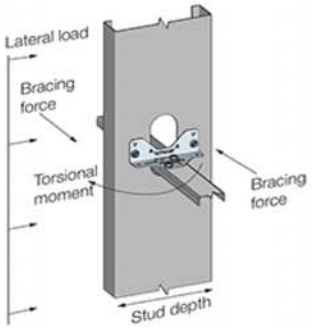
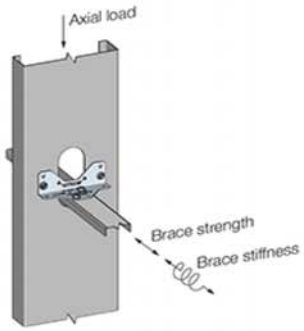
SFC Steel Framing Connectors: U-Channel Bridging

Model No.	Connector Material Thickness mil (ga.)	L (in.)	Stud Depth (in.)	Stud Thickness mil (ga.)	Fasteners[2]		Laterally Loaded C-Stud	Axially Loaded C-Stud	
					Stud	Bridging	Allowable Torsional Moment[3] (in.-lbs.)	Allowable Brace Strength[3,4] (lbs.)	Brace Stiffness[5] (lbs. / in.)
SFC4.25	54 (16)	4¼	6	33 (20)	2 - #10	2 - #10	275	125	860
				43 (18)	2 - #10	2 - #10	510	190	1220
				54 (16)	2 - #10	2 - #10	645	280	2045

1. For additional information, see General Notes for Utility Clips.
2. See illustrations for fastener placemen
3. Allowable loads are for use when utilizing Allowable Stress Design methodology. For LRFD loads, multiply the tabulated ASD values by 1.6.
4. Allowable brace strengths are based on ultimate test load divided by a safety factor. Serviceability limit is not considered, as brace stiffness requirements are given in Section D3.3 of AISI S100-2007. Contact Simpson Strong-Tie if nominal brace strength is required.
5. Tabulated stiffness values apply to both ASD and LRFD designs.



Laterally loaded C-stud



Axially loaded C-stud

How to Use SFC U-Channel Bridging Table

The tabulated strength and stiffness values are for use with Sections D3.2.1 and D3.3 of the 2007 edition of AISI North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100-2007) as follows:

Bracing Design for Laterally Loaded C-Studs

Step 1: Calculate required flange force for bracing using equation D3.2.1-3
Step 2: Multiply result by stud depth to obtain torsional moment
Step 3: Verify that tabulated allowable torsional moment exceeds torsional moment from Step 2 for the stud thickness required

Bracing Design for Axially Loaded C-Studs

Step 1: Calculate required LRFD brace strength using equation D3.3-1
Step 2: Divide result by 1.5 for ASD design[1]
Step 3: Calculate required brace stiffness using equation D3.3-2
Step 4: Verify that tabulated allowable brace strength exceeds strength from Step 2 and that tabulated brace stiffness exceeds stiffness from Step 3 for the stud thickness required

1. Page III-54 of the 2008 edition of the AISI Cold-Formed Steel Design Manual states that equation D3.3-1 is applicable to LRFD design, and recommends dividing the result by 1.5 for ASD design.

Code Reports (PDFs):

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					LEGACY REPORTS		
	IAPMO UES ER	ICC-ES ESR	CITY OF LOS ANGELES	STATE OF FLORIDA	ICC-ES NER	ICC-ES ER	ICC-ES ES
LSFC	See specific model numbers for code listings.						
LSFC2.25	No code listing. Please contact us for test data.						
LSFC4.25	No code listing. Please contact us for test data.						
LSFC6.25	No code listing. Please contact us for test data.						
SFC	See specific model numbers for code listings.						
SFC2.25	No code listing. Please contact us for test data.						
SFC4.25	No code listing. Please contact us for test data.						
SFC6.25	No code listing. Please contact us for test data.						07-14