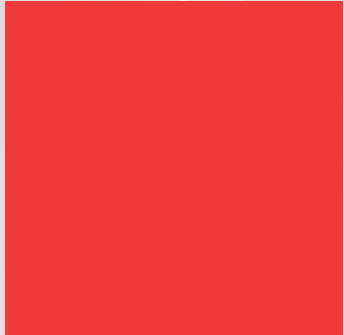


STEEL FRAMING CONNECTIONS

Catalog 300



**Steel
Construction
Systems™**


www.SteelConSystems.com

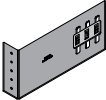
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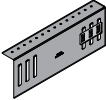
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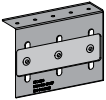
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 Clip Comparison Table 6
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DEFLECTION CLIPS

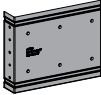
 **PLC4** - Bypass Slab Slide Clip 8-10
In Stock

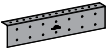
 **PLC2** - Bypass Slab Slide Clip 11

 **PLS2** - Bypass Slab Slide Strut 12

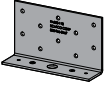
 **ESC** - Exterior Head-of-Wall 13
In Stock

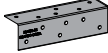
SECURE CLIPS

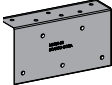
 **AC** - Bypass Slab Secure Clip 14-15
In Stock


 **AS** - Load-Bearing Secure Strut 16


SECURE CLIPS (CONT.)

 **FA** - Secure Floor Anchor Kit 17
In Stock

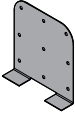
 **MA** - Multi-Use Secure Clip 18-19
In Stock

 **MB** - Multi-Use Secure Clip 20-21
In Stock

 **MC** - Multi-Use Secure Clip 22-23
In Stock

 **BC** - Secure Bridge Clip 24
In Stock

BACKING, BLOCKING, & STIFFENERS

 **KB** - Kwik-Back Wall Support 25
In Stock


 **ELEV** - Elevator Stud Splice Clip 26-27
In Stock



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Important Information and General Notes

Credentials

Steel-Con offers a series of high-quality products to meet the emerging needs of the steel framing industry. All products are manufactured from mill certified steel with hot-dipped galvanized coatings, which guarantees long-term durability and performance. Steel-Con also offers an extensive line of various clips and specialty products designed for floor framing, load bearing walls, curtain walls, and roof trusses.

The light gauge steel framing industry demands improved solutions for connection configurations. That is why Steel-Con products are engineered to ensure the most efficient load transfer paths. These provisions meet design requirements while maintaining profitable benefits for the contractor/owner. All products have undergone comprehensive assessments and field analyses to provide the most advanced product solutions for both the designer and the installer.

Industry Benefit

Steel-Con's line of connectors and specialty products is manufactured from mill certified prime steel. Steel-Con is capable of designing and manufacturing non-standard specialty products for any application.

Steel-Con delivers absolute satisfaction and improvement to the steel framing industry by:

- Providing top quality products
- Reducing labor and installation costs
- Reducing waste with precise product dimensions
- Guaranteeing long-term durability and quality

Terms and Conditions

Products identified in this catalog are manufactured and designed for multiple purposes, and should only be used in applications as specified by a qualified architect or engineer. Product modifications or changes in installation procedures should only be implemented after consultation with a qualified architect or engineer. Steel-Con is not responsible for damages, claims, or losses resulting from improper installation or unapproved alterations of the product. Consult with your contractor and/or architect/engineer to obtain appropriate engineering and application specifications prior to the installation of any product.

Products and loads specified in this catalog are subject to the described specific applications and proper installation. Modified products, incorrect loading methods or installation procedures, or any other applications will affect the product's load capacities. Exposure of the product to chemicals, fertilizers, or other corrosive materials or environments may affect the galvanizing properties of the product. This catalog supersedes all information in previously published Steel-Con catalogs and technical reports. All previous Steel-Con publications regarding the products and their technical specifications should be discarded. Steel-Con reserves the right to make changes or corrections to this catalog and the products' specifications at any time. All product sales are subject to these Terms, Conditions, and Limited Warranty.

Patented Products and Technology

Steel-Con products and technology are protected by United States and international patent laws, including U.S. patent 5876006, 7478508, and patents pending.

Limited Warranty

For a period of 90 days from purchase, Steel-Con warrants to the original owner that the products are free from defects in material and workmanship when used in compliance with Steel-Con's design limits and specified installation methods. This limited warranty does not cover defects in product resulting from: (i) the modification or alteration of the product; (ii) misapplication or improper use; (iii) improper installation; (iv) damage resulting from exposure to corrosive chemicals, corrosive fumes, condensation, water, or fire; or (v) accident, negligent operation, or improper maintenance. This Steel-Con Limited Warranty is non-transferable and only applies to products purchased from a Steel-Con-authorized dealer.

Steel-Con's sole obligation under this Limited Warranty is, at its option, to repair or replace the defective product, and in no event shall Steel-Con's warranty obligation exceed the original purchase price of the defective product. This warranty is in lieu of all other warranties, whether expressed, implied, or statutory, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, non-infringement, or any implied warranty arising from the course of performance, course of dealing, or usage of trade. This warranty and performance hereunder shall be governed by and construed in accordance with the laws of the State of Washington without reference to its choice of law principles.

Return Policy

Steel-Con will accept returns for refund or exchange within 30 days of purchase on stock product only. Returned material is subject to a 25% restocking fee. All merchandise will need to be accompanied by the original packaging, sales receipt or proper identification. Steel-Con shall not be liable for any damages attributable to product abuse, misuse, neglect or any other cause, which is not the fault of Steel-Con.

No allowances will be made for labor, repairs, or alterations performed by the Buyer without the Seller's written consent.

Custom brake shapes and radius products are non-returnable – no credit for overages in length for radius products. Material cut or altered by customer is non-returnable. Custom length accessory items and track are non-returnable. Steel-Con reserves the right to refuse returns based on quantity. Non-standard steel products and non-standard lengths are non-returnable.

Return of standard steel product is subject to Steel-Con's prior written approval and subject to a restocking charge equal to 25% of the net order value or \$25, whichever is greater. Returns of products with a value less than \$25 (after applying the restocking charge) will not be credited.

Thickness & Connection Capacities

Thickness - Steel Components

Steel Thickness Table				
Designation Thickness (mil)	Minimum Thickness (in)	Design Thickness (in)	Design Inside Corner Radii (in)	Reference Only Gauge No.
18	0.0179	0.0188	0.0843	25
D20	0.0179	0.0188	0.0844	20-Drywall
D24	0.0223	0.0235	0.0820	20-Drywall
30	0.0296	0.0312	0.0781	20 - Drywall
33EQS	0.0280	0.0295	0.0790	20-Structural
33	0.0329	0.0346	0.0764	20 - Structural
43EQS	0.0380	0.0400	0.0712	18
43	0.0428	0.0451	0.0712	18
54	0.0538	0.0566	0.0849	16
68	0.0677	0.0713	0.1069	14
97	0.0966	0.1017	0.1525	12
118	0.1180	0.1242	0.1863	10 - SSMA
127	0.1270	0.1337	0.2005	10 - Steel-Con

Table Notes

- Minimum thickness represents 95 percent of the design thickness and is the minimum acceptable thickness delivered to the jobsite based on Section A2.4 of AISI S100-12.
- The values in this catalog are calculated based on inside corner radii listed in this table. The inside corner radius is the maximum of $\frac{3}{32} - t/2$ or 1.5t, truncated after the fourth decimal place (t = design thickness). Centerline bend radius is calculated by adding half of the design thickness to the listed corner radius.

Weld Capacities

Allowable Welds Capacity (lbs) for 1" Long Welds							
Thickness (mil)	Design Thickness	Fy Yield (ksi)	Fu (ksi)	Fillet Welds		Flare Groove Welds	
				Parallel	Perpendicular	Parallel	Perpendicular
43EQS	0.0400	57	65	639	1106	696	849
43	0.0451	33	45	601	864	544	663
54	0.0566	50	65	1188	1566	985	1202
68	0.0713	50	65	1562	1972	1241	1514
97	0.1017	50	65	1269	1269	.*	.*
118	0.1242	50	65	1550	1550	.*	.*
127	0.1337	50	65	1668	1668	.*	.*

Table Notes

- Capacities are based on AISI S100-12 Section E2.5 for fillet welds and E2.6 for flare groove welds.
- When connecting materials of different steel thicknesses or tensile strengths, use the values that correspond to the thinner or lower yield material.
- Capacities are based on Allowable Strength Design (ASD) and include appropriate safety factors.
- Weld capacities are based on either $\frac{3}{32}$ " or $\frac{1}{8}$ " diameter E60 or E70 electrodes. For thinner materials, 0.030" to 0.035" diameter wire electrodes may provide best results.
- Parallel capacity is considered to be loading in the direction of the length of the weld.
- For welds greater than 1", equations E2.5-1 and E2.5-2 must be checked.
- For flare groove welds, the effective throat of weld is conservatively assumed to be less than 2t.
- *Flare groove weld capacity for material thicker than 0.10" requires engineering judgement to determine leg of welds (W_1 and W_2).

Screw Capacities

Allowable Screw Connection Capacity (lbs)																		
Thickness (Mils)	Design Thickness	Fy Yield (ksi)	Fu Tensile (ksi)	#6 Screw (Pss = 643 lbs, Pts = 419 lbs)			#8 Screw (Pss = 1278 lbs, Pts = 586 lbs)			#10 Screw (Pss = 1644 lbs, Pts = 1158 lbs)			#12 Screw (Pss = 2330 lbs, Pts = 2325 lbs)			1/4" Screw (Pss = 3048 lbs, Pts = 3201 lbs)		
				0.138" dia, 0.272" Head			0.164" dia, 0.272" Head			0.190" dia, 0.340" Head			0.216" dia, 0.340" Head			0.250" dia, 0.409" Head		
				Shear	Pull-Out	Pull-Over	Shear	Pull-Out	Pull-Over	Shear	Pull-Out	Pull-Over	Shear	Pull-Out	Pull-Over	Shear	Pull-Out	Pull-Over
18	0.0188	33	33	44	24	84	48	29	84	52	33	105	55	38	105	60	44	127
30	0.0312	33	33	95	40	140	103	48	140	111	55	175	118	63	175	127	73	211
33	0.0346	33	45	151	61	140	164	72	195	177	84	265	188	95	265	203	110	318
43	0.0451	33	45	214	79	140	244	94	195	263	109	345	280	124	345	302	144	415
54	0.0566	50	65	214	140	140	426	171	195	534	198	386	569	225	625	613	261	752
68	0.0713	50	65	214	140	140	426	195	195	548	249	386	777	284	775	866	328	948
97	0.1017	50	65	214	140	140	426	195	195	548	356	386	777	405	775	1,016	468	1,067
118	0.1242	50	65	214	140	140	426	195	195	548	386	386	777	494	775	1,016	572	1,067
D25	0.0155	50	65	111 ¹	39	137	111 ¹	47	137	111 ¹	54	171	-	-	-	-	-	-
D20	0.0188	57	65	142 ¹	48	140	150 ¹	57	166	164 ¹	66	208	109	75	208	-	-	-
D24	0.0235	57	65	174 ¹	60	140	184 ¹	71	195	236 ¹	82	260	152	93	260	-	-	-
33EQS	0.0295	57	65	171	75	140	187	89	195	201	103	326	214	117	326	231	136	392
43EQS	0.0400	57	65	270	102	140	295	121	195	317	140	386	338	159	442	364	184	532

¹Values are based on testing using AISI S100 procedures.

Table Notes

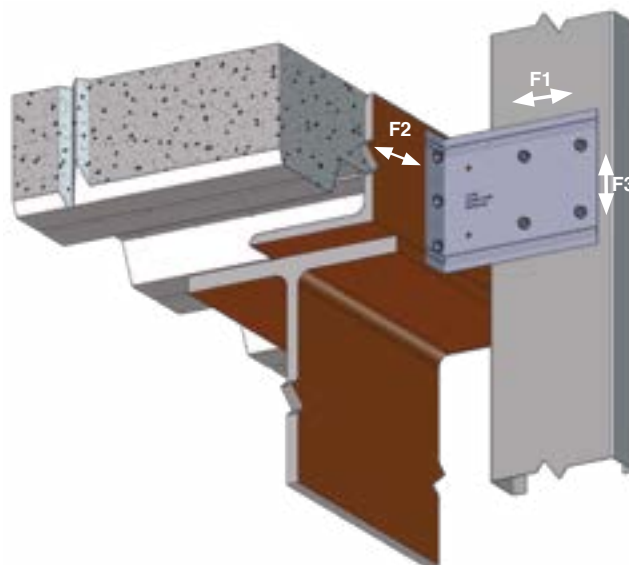
- Capacities based on AISI S100 Section E4.
- When connecting materials of different steel thicknesses or tensile strengths, use the lowest values. Tabulated values assume two sheets of equal thickness are connected.
- Capacities are based on Allowable Strength Design (ASD) and include safety factor of 3.0.
- Where multiple fasteners are used, screws are assumed to have a center-to-center spacing of at least 3 times the nominal diameter (d).
- Screws are assumed to have a center-of-screw to edge-of-steel dimension of at least 1.5 times the nominal diameter (d) of the screw.
- Pull-out capacity is based on the lesser of pull-out capacity in sheet closest to screw tip or tension strength of screw.
- Pull-over capacity is based on the lesser of pull-over capacity for sheet closest to screw header or tension strength of screw.
- Values are for pure shear or tension loads. See AISI Section E4.5 for combined shear and pull-over.
- Screw Shear (Pss), tension (Pts), diameter, and head diameter are from CFSEI Tech Note (F701-12).
- Screw shear strength is the average value, and tension strength is the lowest value listed in CFSEI Tech Note (F701-12).
- Higher values for screw strength (Pss, Pts) may be obtained by specifying screws from a specific manufacturer.

Clip Comparison Table

Load Paths

All product load capacities are calculated per North American Specification for the Design of Cold Formed Steel Structural Members, 2012 edition (hereafter referred to as "NASPEC"). Illustrations of load instructions can be found amongst their relative product load tables located throughout this catalog. Figure to the right demonstrates different types of load directions mentioned in this catalog.

- F1 = Out-of-plane lateral load
- F2 = In-Plane lateral load
- F3 = Direct vertical and uplift load



Steel-Con Clip Comparison Table

Steel-Con	Simpson	TSN	Clark Dietrich	Main Use of Product
Deflection Clips				
PLC4/PLC2	SCB, MSCB	SLB, SLB-HD, VLB	FCSC, FCEC, SD	Bypass slab vertical slide clip
PLS4/PLS2	SSB	SLS	FS	Bypass structure vertical slide strut
DPLC2	DSSCB	DSLb, DTSLb	-	Bypass slab drift clip
DPLS2	-	DSLs	-	Bypass structure drift strut
ESC	SCW, DTC	SL, VTX	FTC	Exterior head-of-wall vertical slide clip
DESC	-	DSL, DTSL	-	Exterior head-of-wall multi-direction drift clip
SSWT	-	SPLICE	-	Splicing slide clip and rigid wall tie
STP	-	SLT, SLF	FTSC	Bypass slab slide top plate
Secure Clips				
AC/PLC4	FCB, SSC	LB, LB-HD, VLB	UCEC, UXRC	Rigid wall bypass slab clip
AS	FSB, SJC, MSJC	LS	-	Rigid wall bypass slab strut
FA	SSC, MSSC, S/HDU, S/LTT, S/DDT, HTT, S/HDS, S/HDB	CL, TD	"D", "T", "MC", "CD" series	Stud stiffening to floor anchor clip
MA	SSC, SFC, RCA	-	LS, "S" series	Multiple use rigid angle clip
MB	SSC, SJC, RCA	AL	LE, "E" series	Multiple use rigid angle clip
MC	SSC, LS, RCA	-	LA, "A" series	Multiple use rigid angle clip
BC	SFC, SUBH, MSUBH, LSUBH, DBC	BridgeClip, BC	FB, "U", "B", "X" series	Bridging and bracing clips
HG	-	HE	"H" series	Header and stiffener plate
Stiffeners, Backing, and Blocking				
WST	-	-	QTWS	Web stiffener plate
KB	-	BackIt	FBBC	Wall backing
TB	-	BuckleBridge	-	Track blocking
FTB	-	-	Fire Blocking	Fire track blocking
NS	-	-	-	Notched stud backing
NT	-	NT	-	Notched track backing
Headers and Jamb				
KJS	-	JAM, SG	JS, HDS	Pre-engineered jamb system
HD/HDR	-	JAM	HS, HDS	Pre-engineered header system
FM	-	-	HDSC	Pre-engineered header clip (interior applications)
SC	-	-	DNLC	Pre-engineered header clip (exterior applications)

Certification of Materials

Submittal Builder

Steel-Con's Submittal Builder is a premium online tool that helps compile the product data that architects, engineers, and general contractors require.

- Steel-Con's Submittal Builder creates a project cover page that includes
 - Project name
 - Project location
 - Name of general contractor
 - Name of architect and engineer
- Organizes the submittal sheet by product category
 - Option to include LEED information and SDS sheets
- Generates a table of contents
- Allows you to e-mail a link or PDF of your submittal



Steel-Con hereby certifies that all light gauge steel framing products manufactured by Steel-Con are compliant with all applicable standards and codes as listed below:

Code Approvals

- IAPMO ER-0313
- IAPMO ER-0283
- IAPMO ER-0342
- IAPMO ER-0494
- UL ER3660-02

Design Specifications / Manuals

- North American Specification for the Design of Cold-Formed Steel Structural Members, NASPEC 2012 Edition S100-12
- Gypsum Association Fire Resistance Design Manual

Material / Product Specification

Nonstructural (Drywall) Products:

18-30 mil: 33 ksi
 D25: 57 ksi
 D20, D24: 57 ksi.....ASTM A1003, C645

Structural Framing Products:

33-43 mil: 33ksi
 33EQS, 43EQS: 57 ksi
 54-97 mil: 57 ksi.....ASTM A1003, C955

Coating Specification

Nonstructural (Drywall) Products:

D25, D20, 18 mil: G40
 D24: G60.....ASTM A653, C645

Structural Framing Products

33EQS, 43EQS, 33-54 mil: G60
 68-127 mil: G90.....ASTM A653, C955

Note: Contact Steel-Con for heavier coating thickness availability.

Recycled Content – LEED

For more information about recycled content, contact Steel-Con at 407-404-5292 or Technical@SteelConSys.com.

American Society for Testing and Materials (ASTM)

- A653
Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated by the Hot-Dip Process
- A924
Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process
- A1003
Standard Specification for Steel Sheet, Carbon, Metallic-Coated for Cold-Formed Framing Members
- C645
Standard Specification for Nonstructural Steel Framing Members
- C754*
Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products
- C955
Standard Specification for Load-Bearing (Transverse and Axial) Steel Studs, Runners (Tracks), and Bracing or Bridging for Screw Application of Gypsum Panel Products and Metal Plaster Bases
- C1007*
Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories
- E72
Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
- E90
Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- E119
Standard Test Methods for Fire Tests of Building Construction and Materials

For referenced ASTM standards, visit the ASTM website at www.astm.org, or contact ASTM Customer Service at service@astm.org.

** Steel-Con Recommended Installation Methods*

PLC4 - Bypass Slab Slide Clip

Product Application

The PLC4 bypass clip is a premium option for bypass curtain wall connections. The PLC4's advanced design provides secure attachment to the main building structure while allowing seamless vertical deflection. The bypass clip has multiple features specifically designed to improve the user experience.

Premium Product

- Quicker installation (custom screws)
- Safer material handling (coped corners)
- Increased load capacity

Profile Features

The PLC4 Bypass Clip has been engineered to provide the greatest allowable loads in the industry. With input from the contractor, the clip is also designed to be user friendly and save labor. The following features help make this product the leader in the industry:

Movement

- Deflection slots
 - 2 ¼" slots (allows for 2" of total deflection)
 - 3 slots for multiple screw configurations
- Proprietary Screws
 - Shouldered screws are provided for ease of installation

Strength

- Stiffening lips and ribs
 - Increased compression strength for high wind loads
 - Stiffened clip face for ease of installation
- Support gussets
 - Support gussets for transfer of tension forces from connection through the supporting structure

Versatility

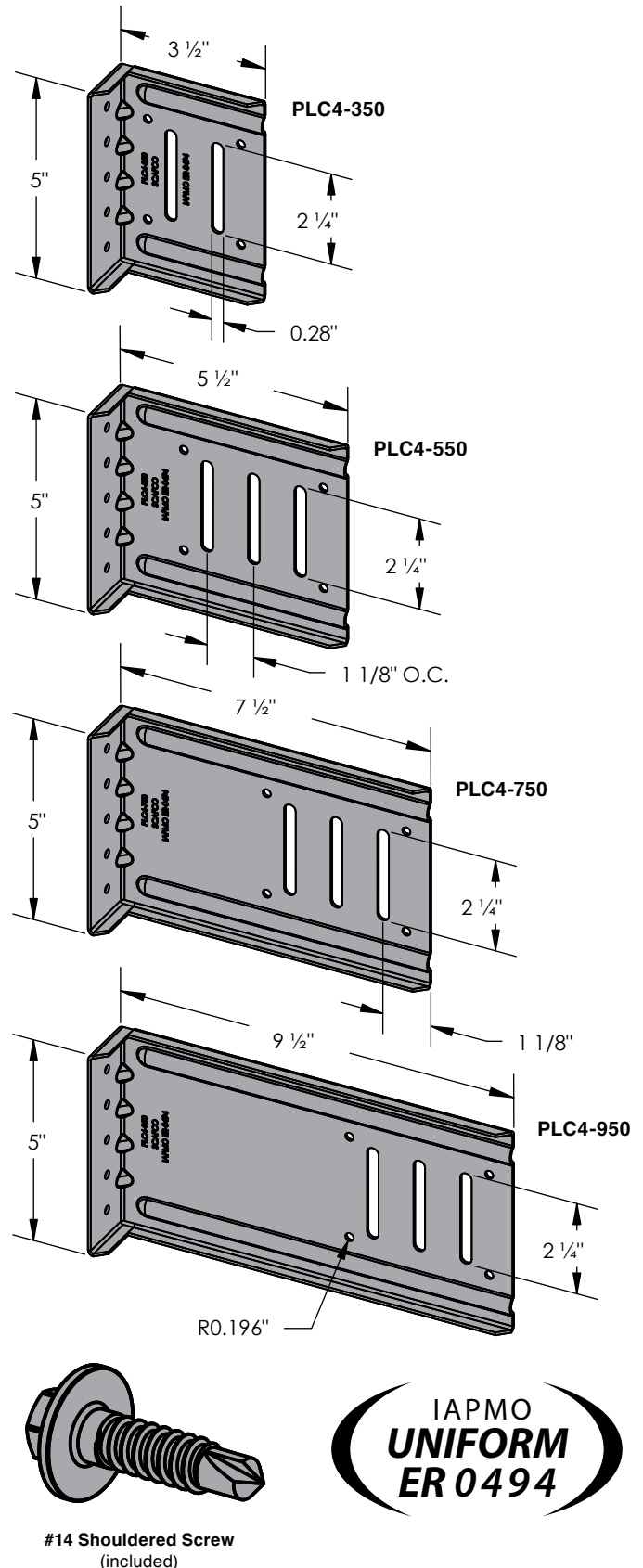
- Secure attachment
 - 4 pre-drilled holes for optional secure attachment
 - One clip for multiple uses to save labor on the job site
- Pre-punched holes
 - Pre-punched holes for multiple attachment methods to structure

Safety

- Coped corners
 - Fewer sharp corners for reduced possibility of field injury

Material Composition

- Mill certified steel
- ASTM A653/A653M
- Clip
 - 68 mil material thickness
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating
- Shouldered screw
 - ASTM C1513
 - C1022 case hardened steel
 - Zinc plated coating
 - 1000 hours salt spray life
 - Exceeds standard screw life by over 10X



PLC4 - Bypass Slab Slide Clip

Quantity / Order Information

Part No.	Width	Qty / Stack	Lbs / Stack
PLC4-350	3 1/2"	35	19
PLC4-550	5 1/2"	35	26
PLC4-750	7 1/2"	35	34
PLC4-950	9 1/2"	25	30

All PLC4 clips include shouldered screws.
Additional lengths available upon request.

Allowable Loads

Part No.	Allowable Loads (lbs) F1/F2-Direction (See Illustration)				
	Stud Properties			2 #14 Screws	
	Thickness (mil)	Gauge	Fy (ksi)	F1 (lbs)	F2 (lbs)
PLC4 350	33EQS	20	57	485	510
	33	20	33	485	510
	43EQS	18	57	601	621
	43	18	33	601	621
	54	16	50	928	935
	68	14	50	1242	1086
	97	12	50	1242	1086
	118	10	50	1242	1086

Maximum Allowable Clip Capacity - Max F1 = 1242 lbs (Tension)

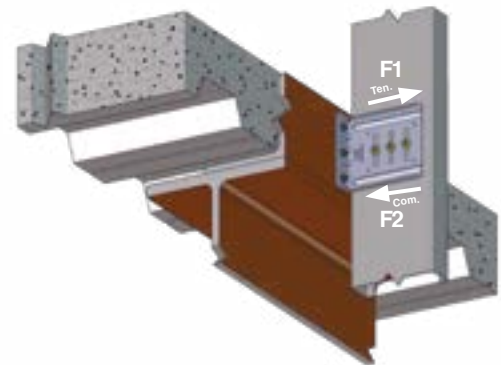
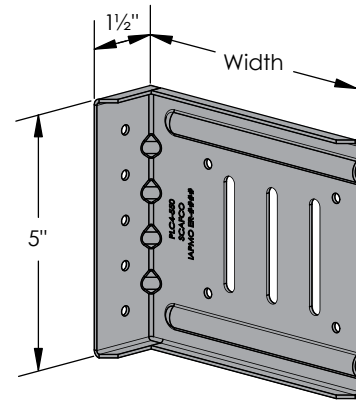
Part No.	Allowable Loads (lbs) F1/F2-Direction (See Illustration)						
	Stud Properties			2 #14 Screws		3 #14 Screws	
	Thickness (mil)	Gauge	Fy (ksi)	F1 (lbs)	F2 (lbs)	F1 (lbs)	F2 (lbs)
PLC4 550 750 950	33EQS	20	57	485	510	738	784
	33	20	33	485	510	738	784
	43EQS	18	57	601	621	950	1006
	43	18	33	601	621	950	1006
	54	16	50	928	935	1367	1411
	68	14	50	1242	1086	1480	1986
	97	12	50	1242	1086	1480	1986
	118	10	50	1242	1086	1480	1986

Maximum Allowable Clip Capacity - Max F2 = 1986 lbs (Compression)

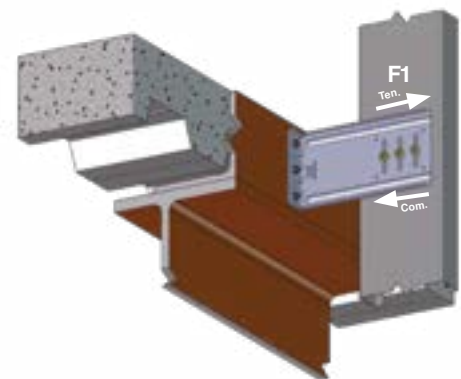
For SI: 1 mil = 0.0254 mm, 1 inch = 25.4 mm, 1 lb = 4.45N

Table Notes

- Steel-Con proprietary #14 shouldered screws described in section 3.2.2 of IAPMO ER 0494 must be used for allowable loads.
- Allowable loads are minimum of ASD allowable loads from testing and 1/8" relative deflection service limit.
- Reference figures to the right for load direction: F1 - Loads shown indicate tension force resistance. F2 - Loads shown indicate compression force resistance.
- Number of screws shall be designated by design professional to meet loading conditions.



Typical PLC4 Installation



Typical Stud Offset from Structure Installation

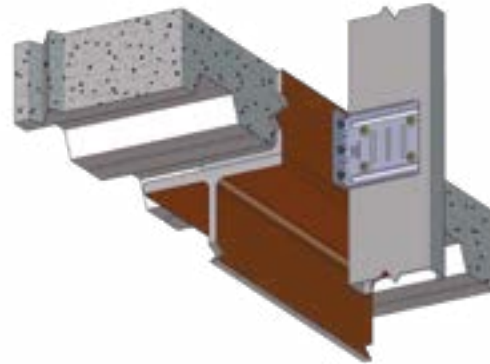


PLC4 - Bypass Slab Slide Clip

Secure Installation Instructions

PLC4 clips are multi-functional and have both deflection and secure attachment capabilities for bypass framing. The clips come pre-punched with 4 secure connection holes. Some important considerations for installation:

- Ensure the structural face that the PLC4 will be attaching to is square and free of debris.
- Pre-punched holes in the short leg are designed for size #10 fasteners.
- Attach the stud through the pre-punched holes with #10 self-tapping screws.



PLC4 Secure Attachment

Secure Attachment Allowable Loads

Part No.	Allowable Loads (lbs) F1-Direction (See Illustration Below)						
	Stud Properties			2 #10 Screws		4 #10 Screws	
	Thickness (mil)	Gauge	Fy (ksi)	Tension (lbs)	Compression (lbs)	Tension (lbs)	Compression (lbs)
PLC4 350	33EQS	20	57	353	353	485	510
	33	20	33	353	353	707	707
	43EQS	18	57	526	526	601	621
	43	18	33	526	526	601	621
	54	16	50	928	935	928	935
	68	14	50	1242	1086	1242	1086
	97	12	50	1242	1086	1242	1086
118	10	50	1242	1086	1242	1086	

Part No.	Allowable Loads (lbs) F1-Direction (See Illustration Below)						
	Stud Properties			2 #10 Screws		4 #10 Screws	
	Thickness (mil)	Gauge	Fy (ksi)	Tension (lbs)	Compression (lbs)	Tension (lbs)	Compression (lbs)
PLC4 550 750 950	33EQS	20	57	353	353	707	707
	33	20	33	353	353	707	707
	43EQS	18	57	526	526	950	1006
	43	18	33	526	526	950	1006
	54	16	50	928	935	1367	1411
	68	14	50	1242	1086	1480	1986
	97	12	50	1242	1086	1480	1986
	118	10	50	1242	1086	1480	1986

For SI: 1 mil = 0.0254 mm, 1 inch = 25.4 mm, 1 lb = 4.45N

Table Notes

1. Allowable loads have not been increased for wind, seismic activity, or other factors.
2. The allowable loads are based on the lesser of the screw capacities, per AISI S100, and those published in IAPMO ER 0494.
3. Anchorage to the supporting structure shall be analyzed by a design professional.
4. Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
5. Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.
6. The designer shall check the bending in the short leg of clip.

PLC2 - Bypass Slab Slide Clip

Product Application

The PLC2 bypass slab slide clip secures the bypass curtain wall stud to the building structure, allowing for vertical deflection while maintaining lateral rigidity.

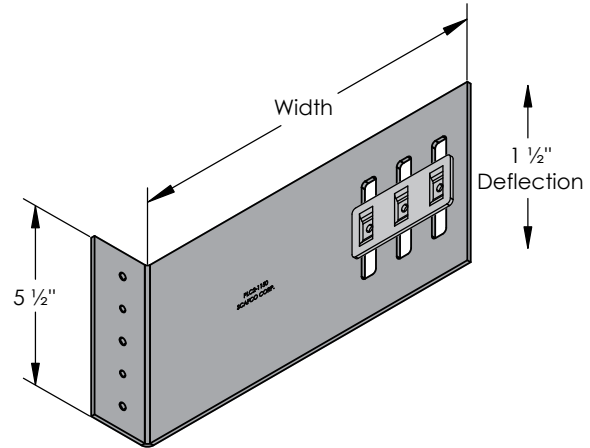
The insert is attached to the clip, making installation quick, easy, and efficient. Clips come packaged in durable buckets for convenient handling on the jobsite. Patent No. 7478508-B2.

Features and Benefits

- Insert allows for 1 ½" total vertical deflection
 - Deflection greater than 1 ½" is available
- Loads based on #12 screw connection
 - Screws are provided
- Large insert piece for easy installation
- Pre-punched guide holes
- Thicker steel for improved weld capacity to the structure
- Transfers horizontal load into structure
- Maintains lateral rigidity

Material Composition

- Mill certified steel
- ASTM A653/A653M
- Clip
 - 118 mil material thickness
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating
- Insert
 - 127 mil material thickness
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating



Quantity / Order Information

Part No.	Width	Qty / Bucket	Lbs / Bucket
PLC2-550	5 ½"	30	54
PLC2-750	7 ½"	25	54
PLC2-950	9 ½"	20	50
PLC2-1150	11 ½"	20	57

All PLC2 clips include insert. Additional lengths available upon request.

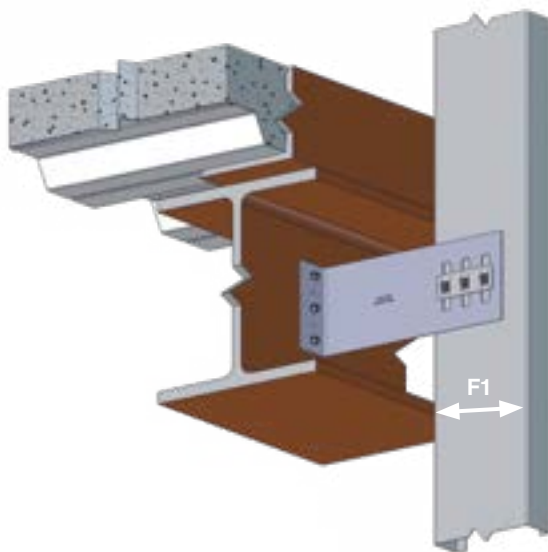
Allowable Loads

Part No.	Stud Properties			F1 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #12 Screws	3 #12 Screws
PLC2 550 750	33EQS	20	57	429	643
	33	20	33	377	565
	43EQS	18	57	677	1015
	43	18	33	561	841
	54	16	50	1139	1709
	68	14	50	1610	1975
	97	12	50	1975	1975
118	10	50	1975	1975	
Maximum Allowable Clip Capacity				Max F1 = 1975 lbs	

Part No.	Stud Properties			F1 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #12 Screws	3 #12 Screws
PLC2 950 1150	33EQS	20	57	429	643
	33	20	33	377	565
	43EQS	18	57	677	1015
	43	18	33	561	841
	54	16	50	1139	1650
	68	14	50	1650	1650
	97	12	50	1650	1650
118	10	50	1650	1650	
Maximum Allowable Clip Capacity				Max F1 = 1650 lbs	

Table Notes

1. Allowable loads have not been increased for wind, seismic activity, or other factors.
2. The allowable loads are based on the steel properties of the members being connected, per AISI S100.
3. The nominal strength of the screw must be at least 3.75 times the allowable loads.
4. Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
5. Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
6. Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.
7. The designer shall check the bending in the short leg of the clip.



PLS2 - Bypass Slab Slide Strut

Product Application

The PLS2 bypass slab slide strut secures the bypass curtain wall stud to the building structure, allowing for vertical deflection while maintaining lateral rigidity. The strut provides a non-frictional connection and prevents vertical load transfer into the curtain wall.

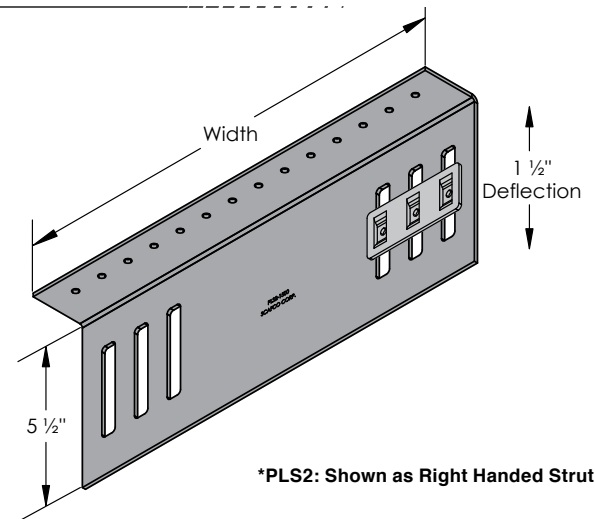
The insert is attached to the clip, making installation quick, easy, and efficient. Patent No. 7478508-B2

Features and Benefits

- Insert allows for 1 ½" total vertical deflection
 - Deflection greater than 1 ½" is available
- Loads based on #12 screws
 - Screws are provided
- Large insert piece for easy installation
- Pre-punched guide holes
- Thicker steel for improved weld capacity to the structure
- Transfers horizontal load into structure
- Maintains lateral rigidity

Material Composition

- Mill certified steel
- ASTM A653/A653M
- Clip
 - 118 mil material thickness
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating
- Insert
 - 127 mil material thickness
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating



*PLS2: Shown as Right Handed Strut.

Quantity / Order Information

Part No.	Left / Right Handed	Width	Qty / Bucket	Lbs / Bucket
PLS2-900	(L) or (R)	9"	20	53
PLS2-1200	(L) or (R)	12"	15	51
PLS2-1500	(L) or (R)	15"	-	-
PLS2-1800	(L) or (R)	18"	-	-
PLS2-2000	(L) or (R)	20"	-	-

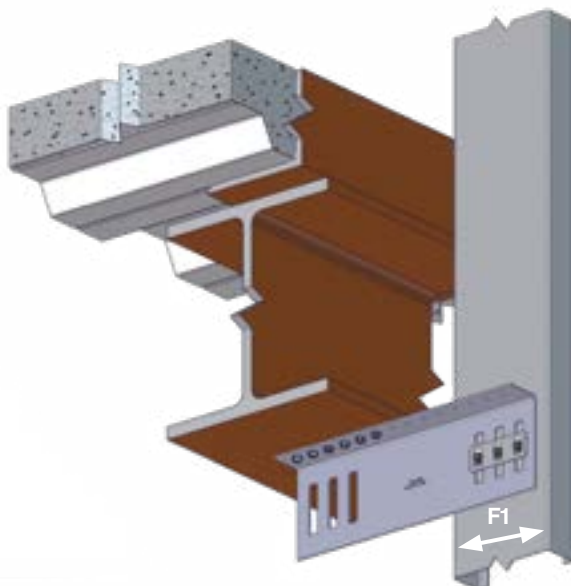
All PLS2 struts include insert. Additional lengths available upon request. Stiffening lip added for struts 20" in length and over.

Allowable Loads

Part No.	Stud Properties			F1 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #12 Screws	3 #12 Screws
PLS2	33EQS	20	57	429	643
	33	20	33	377	565
	43EQS	18	57	677	1015
	43	18	33	561	841
	54	16	50	1139	1709
	68	14	50	1610	2275
	97	12	50	2275	2275
	118	10	50	2275	2275
Maximum Allowable Clip Capacity				Max F1 = 2275 lbs	

Table Notes

1. Allowable loads have not been increased for wind, seismic activity, or other factors.
2. The allowable loads are based on the steel properties of the members being connected, per AISI S100.
3. The nominal strength of the screw must be at least 3.75 times the allowable loads.
4. Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
5. Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
6. Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.
7. The designer shall check the bending in the short leg of clip.



*PLS2: Shown as Right Handed Strut.

ESC - Exterior Head-of-Wall

Product Application

The ESC exterior head-of-wall slide clip attaches the exterior stud to the top track, which is fastened to the building structure, allowing for vertical deflection. This clip maintains lateral rigidity and provides a low friction connection, preventing vertical load transfers into the exterior wall.

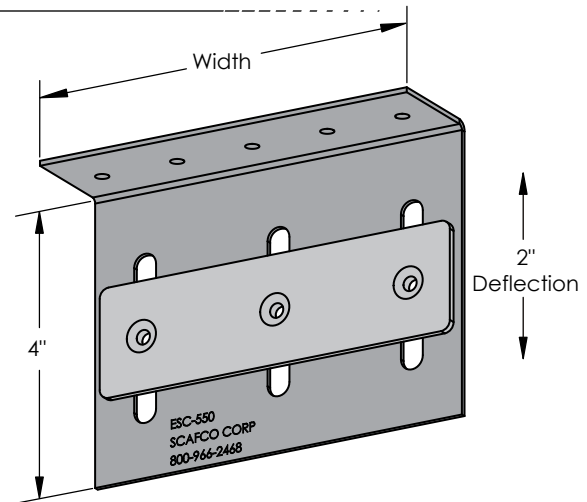
The insert is attached to the clip, making installation quick, easy, and efficient. Clips come packaged in durable buckets for convenient handling on the jobsite.

Features and Benefits

- Insert allows for 2" total vertical deflection
 - Deflection of 1" up and 1" down
- Loads based on #10 screw connection
 - Screws are provided
- Large insert piece for easy installation
- Pre-punched guide holes
- Transfers horizontal load into structure
- Maintains lateral rigidity
- Provides positive attachment at each stud

Material Composition

- Mill certified steel
- ASTM A653/A653M
- Clip
 - 68 mil material thickness
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating
- Insert
 - 97 mil material thickness
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating



Quantity / Order Information

Part No.	Width	Qty / Bucket	Lbs / Bucket
ESC337	3 3/8"	100	50
ESC550	5 1/2"	50	40
ESC750	7 1/2"	50	55
ESC950	9 1/2"	30	42
ESC1150	11 1/2"	30	51

All ESC slide clips include insert. Additional lengths available upon request.

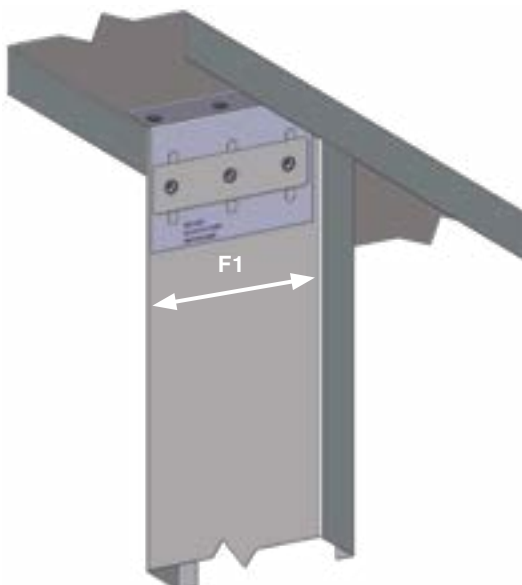
Allowable Loads

Part No.	Stud Properties			F1 Allowable Loads (lbs)
	Mil	Gauge	Fy (ksi)	2 #10 Screws
ESC 337	33EQS	20	57	402
	33	20	33	353
	43EQS	18	57	635
	43	18	33	526
	54	16	50	830
	68	14	50	830
	97	12	50	830
118	10	50	830	
Maximum Allowable Clip Capacity				Max F1 = 830 lbs

Part No.	Stud Properties			F1 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #10 Screws	3 #10 Screws
ESC 550	33EQS	20	57	402	603
	33	20	33	353	530
	43EQS	18	57	635	952
	43	18	33	526	789
	54	16	50	1068	1602
	68	14	50	1510	1855
	97	12	50	1855	1855
1150	118	10	50	1855	1855
Maximum Allowable Clip Capacity				Max F1 = 1855 lbs	

Table Notes

1. Allowable loads have not been increased for wind, seismic activity, or other factors.
2. The allowable loads are based on the steel properties of the members being connected, per AISI S100.
3. The nominal strength of the screw must be at least 3.75 times the allowable load.
4. Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
5. Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
6. Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.
7. The designer shall check the bending in the short leg of the clip.



AC - Bypass Slab Secure Clip

Product Application

The AC bypass slab secure clip connects an exterior wall stud to the building structure. Depending on the material properties of the structure and the proposed design, the AC secure clip may be attached to the structure with either an approved fastener or a weld.

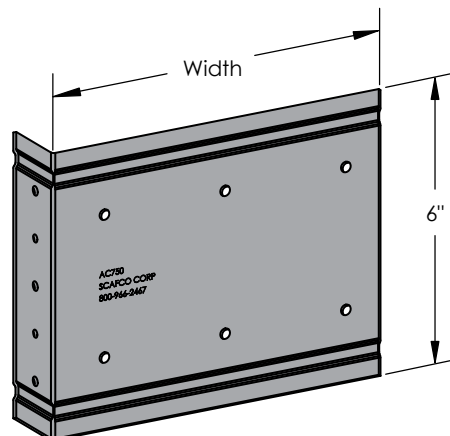
AC secure clips are designed to resist horizontal and vertical loads. Clips come packaged in durable buckets for convenient handling on the jobsite.

Features and Benefits

- Variety of lengths available
- Ribbed legs for additional strength
- Loads based on #10 screws
 - *Screws are provided*
- Pre-punched guide holes
- Transfers horizontal load into structure
- Maintains lateral rigidity

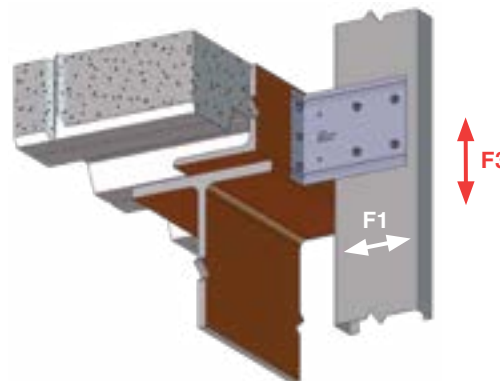
Material Composition

- Mill certified steel
- ASTM A653/A653M
- 68 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating



Quantity / Order Information

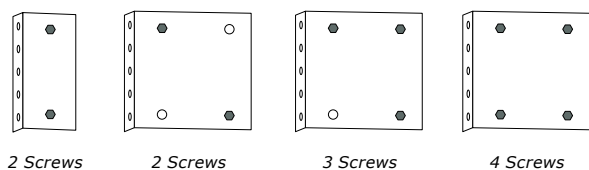
Part No.	Width	Qty / Bucket	Lbs / Bucket
AC250	2 1/2"	50	23
AC350	3 1/2"	50	29
AC550	5 1/2"	50	41
AC750	7 1/2"	50	52
AC950	9 1/2"	35	45



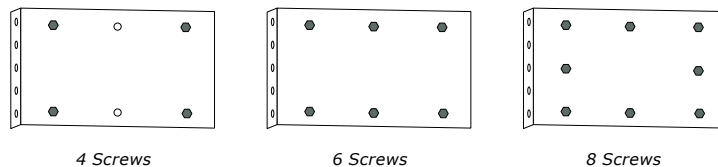
Screw Pattern Configurations

Not all detailed screw locations have pre-punched holes. Please refer to clip drawing for pre-punched hole configurations.

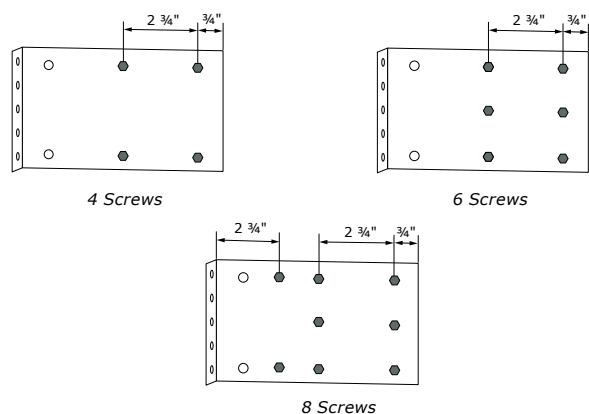
AC250, AC350, and AC550



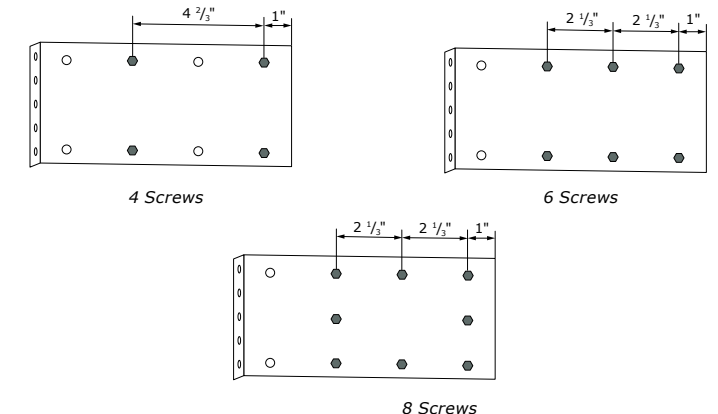
AC750



AC750 with 2" offset



AC950 with 2" offset



AC - Bypass Slab Secure Clip Allowable Loads

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	2 #10 Screws	3 #10 Screws	4 #10 Screws	2 #10 Screws	3 #10 Screws	4 #10 Screws
AC 250 350 550	33EQS	20	57	402	603	804	402	603	804
	33	20	33	353	530	707	353	530	707
	43EQS	18	57	635	952	1269	635	952	1269
	43	18	33	526	789	1052	526	789	1052
	54	16	50	1068	1602	1940	1068	1602	1940
	68	14	50	1510	1940	1940	1510	1940	1940
	97	12	50	1585	1940	1940	1940	1940	1940
	118	10	50	1585	1940	1940	1940	1940	1940
Maximum Allowable Clip Capacity				Max F1 = 1940 lbs			Max F3 = 1940 lbs		

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	4 #10 Screws	6 #10 Screws	8 #10 Screws	4 #10 Screws	6 #10 Screws	8 #10 Screws
AC 750	33EQS	20	57	804	1206	1608	804	1206	1608
	33	20	33	707	1060	1414	707	1060	1414
	43EQS	18	57	1269	1903	1940	1269	1903	1940
	43	18	33	1052	1578	1940	1052	1578	1940
	54	16	50	1940	1940	1940	1940	1940	1940
	68	14	50	1940	1940	1940	1940	1940	1940
	97	12	50	1940	1940	1940	1940	1940	1940
	118	10	50	1940	1940	1940	1940	1940	1940
Maximum Allowable Clip Capacity				Max F1 = 1940 lbs			Max F3 = 1940 lbs		

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	4 #10 Screws	6 #10 Screws	8 #10 Screws	4 #10 Screws	6 #10 Screws	8 #10 Screws
AC 750 with 2" offset	33EQS	20	57	804	1206	1550	804	1206	1550
	33	20	33	707	1060	1414	707	1060	1414
	43EQS	18	57	1269	1550	1550	1269	1550	1550
	43	18	33	1052	1550	1550	1052	1550	1550
	54	16	50	1550	1550	1550	1550	1550	1550
	68	14	50	1550	1550	1550	1550	1550	1550
	97	12	50	1550	1550	1550	1550	1550	1550
	118	10	50	1550	1550	1550	1550	1550	1550
Maximum Allowable Clip Capacity				Max F1 = 1550 lbs			Max F3 = 1550 lbs		

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	4 #10 Screws	6 #10 Screws	8 #10 Screws	4 #10 Screws	6 #10 Screws	8 #10 Screws
AC 950 with 2" offset	33EQS	20	57	804	1030	1030	804	1030	1030
	33	20	33	707	1030	1030	707	1030	1030
	43EQS	18	57	1030	1030	1030	1030	1030	1030
	43	18	33	1030	1030	1030	1030	1030	1030
	54	16	50	1030	1030	1030	1030	1030	1030
	68	14	50	1030	1030	1030	1030	1030	1030
	97	12	50	1030	1030	1030	1030	1030	1030
	118	10	50	1030	1030	1030	1030	1030	1030
Maximum Allowable Clip Capacity				Max F1 = 1030 lbs			Max F3 = 1030 lbs		

Table Notes

1. Allowable loads have not been increased for wind, seismic activity, or other factors.
2. The allowable loads are based on the steel properties of the members being connected, per AISI S100.
3. The nominal strength of the screw must be at least 3.75 times the allowable load.
4. Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
5. Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
6. Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.
7. The designer shall check the bending in the short leg of the clip.

AS - Load-Bearing Secure Strut

Product Application

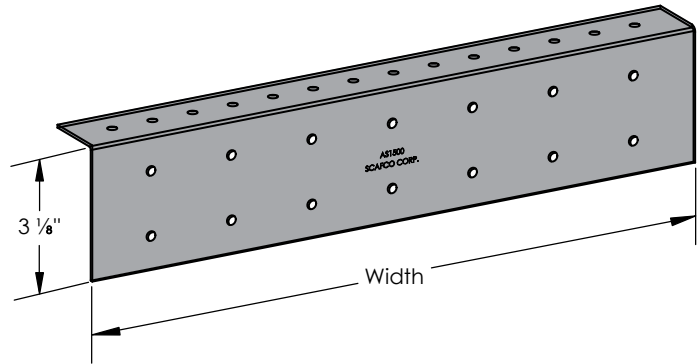
The AS load-bearing secure strut is used in various applications, but most commonly to connect an exterior wall stud that bypasses the building structure. Depending on the material properties of the structure and the proposed design, the AS secure strut may be attached to the structure with either an approved fastener or a weld. AS secure struts are designed to resist axial compression tension loads.

Features and Benefits

- Variety of lengths available
- Transfers horizontal load into structure
- Maintains lateral rigidity

Material Composition

- Mill certified steel
- ASTM A653/A653M
- 68 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating



Quantity / Order Information

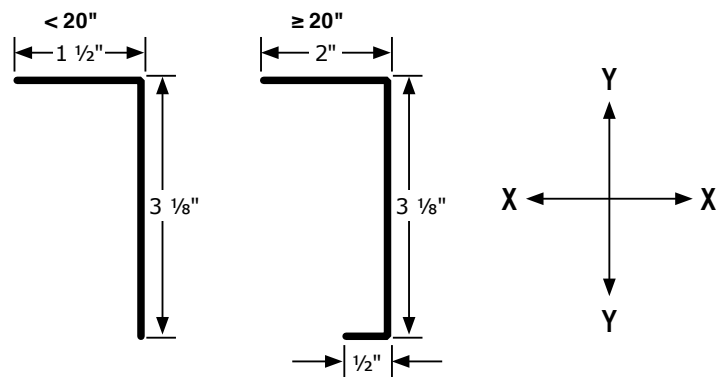
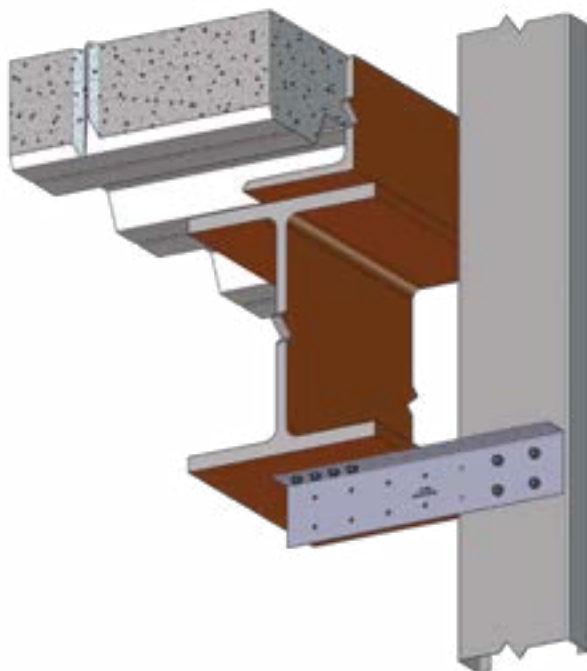
Part No.	Width	Qty / Bucket	Lbs / Bucket
AS800	8"	50	36
AS1000	10"	50	45
AS1200	12"	50	54
AS1500	15"	-	-
AS2000	20"	-	-
AS2400	24"	-	-

Additional lengths available upon request. Strengthening lip added for struts 20" in length and over.

Section Properties

AS - Secure Strut Less Than 20"						
Area (in ²)	I _{xx} (in ⁴)	I _{yy} (in ⁴)	R _x (in)	R _y (in)	S _{xx} (in ³)	S _{yy} (in ³)
0.3203	0.3392	0.0564	1.029	0.4198	0.3089	0.0461

AS - Secure Strut 20" and Greater						
Area (in ²)	I _{xx} (in ⁴)	I _{yy} (in ⁴)	R _x (in)	R _y (in)	S _{xx} (in ³)	S _{yy} (in ³)
0.3804	0.4777	0.1270	1.1026	0.5778	0.4215	0.0803



FA - Secure Floor Anchor Kit

Product Application

The FA secure floor anchor clip connects a wall stud to the floor. Designed to resist torsional, horizontal, and vertical loads, the FA secure clip is provided in 68 mil and 118 mil to meet any design criteria.

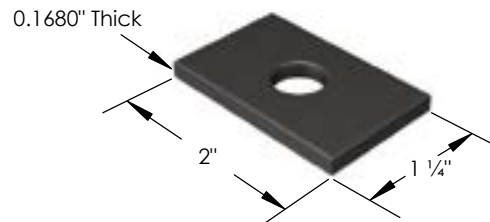
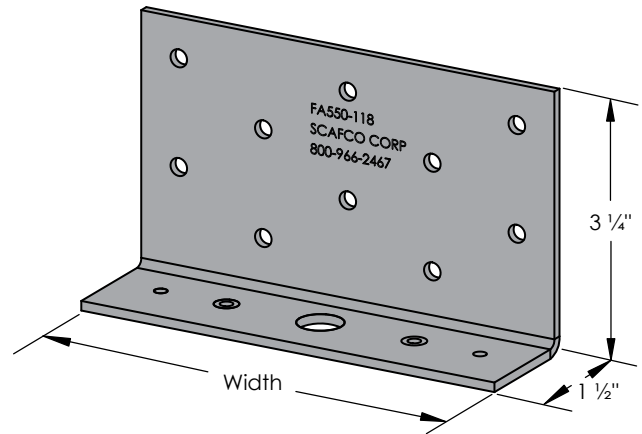
Clips come packaged in durable buckets for convenient handling on the jobsite.

Features and Benefits

- Available in 68 mil and 118 mil
- Variety of widths available
- Pre-punched guide holes
- Optional plate washer for heavy duty applications

Material Composition

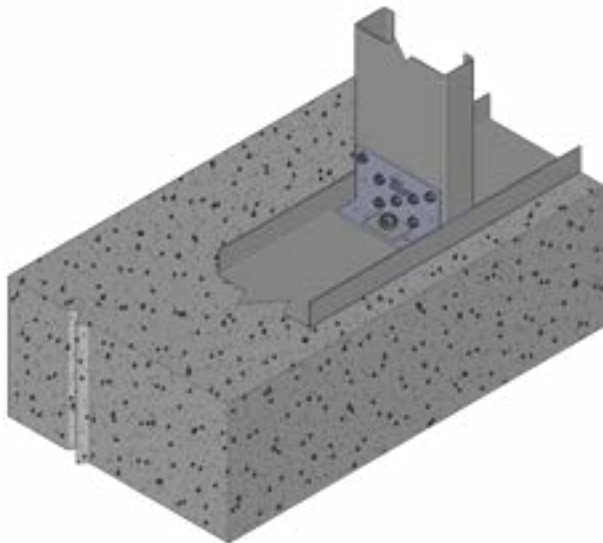
- Mill certified steel
- ASTM A653/A653M
- Small flange guide holes are 0.220" in diameter (#12 fasteners)
- Medium flange guide holes are 0.30" in diameter (¼" anchor)
- Center guide hole is 0.5625" in diameter (½" anchor)
- 1 ¼" x 2" plate washer is 168 mil with ⅝" hole
- 68 mil
 - 57 ksi yield strength
 - 65 tensile strength
 - G90 galvanized coating
- 118 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating



PW-168 Plate Washer

Quantity / Order Information

Part No.	Width	Qty / Bucket	Lbs / Bucket
FA337-68	3 ¾"	100	31
FA550-68	5 ½"	50	26
FA750-68	7 ½"	50	35
FA950-68	9 ½"	50	44
FA1150-68	11 ½"	50	53
FA337-118	3 ¾"	50	29
FA550-118	5 ½"	50	47
FA750-118	7 ½"	35	45
FA950-118	9 ½"	25	41
FA1150-118	11 ½"	25	50



MA - Multi-Use Secure Clip

Product Application

The MA multi-use secure clip is used in a variety of different applications, including head-of-wall, joist connections, rafter and truss connections, reinforcing header connections, and bridging.

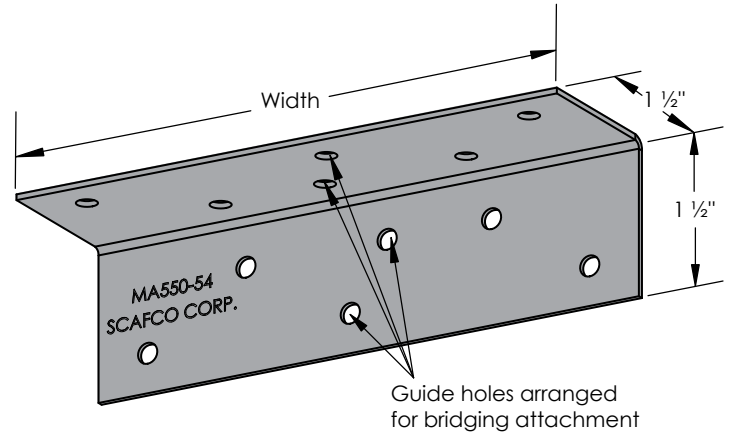
The MA secure clip is designed to resist vertical and lateral loads. Pre-punched guide holes are provided in each leg to allow for efficient installation. Clips come packaged in durable buckets for easy handling on the jobsite.

Features and Benefits

- Variety of lengths available
- Loads based on #10 screws
- Pre-punched guide holes
- No labor used cutting scrap or angle

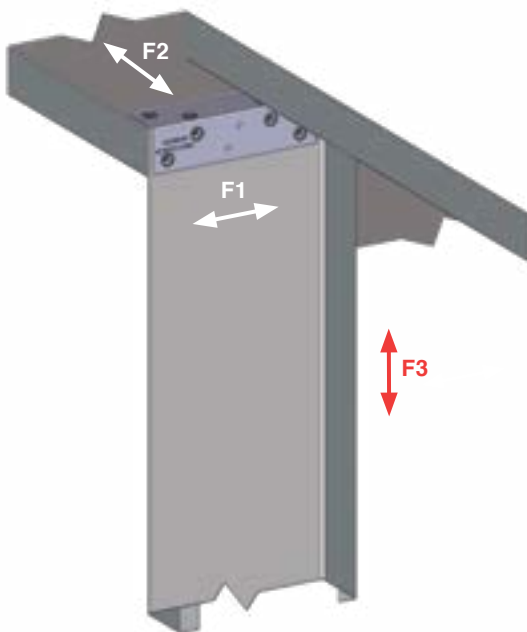
Material Composition

- Mill certified steel
- ASTM A653/A653M
- 54 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G60 galvanized coating
- 68 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating



Quantity / Order Information

Part No.	Length	Qty / Bucket	Lbs / Bucket
MA350-54	3 1/2"	100	17
MA350-68	3 1/2"	100	21
MA550-54	5 1/2"	100	26
MA550-68	5 1/2"	100	32
MA750-54	7 1/2"	100	35
MA750-68	7 1/2"	100	44
MA950-54	9 1/2"	100	44
MA950-68	9 1/2"	100	55



MA - Multi-Use Secure Clip Allowable Loads

Part No.	Stud Properties			F1 Allowable Loads (lbs)		F2 Allowable Loads (lbs)		F3 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #10 Screws	3 #10 Screws	2 #10 Screws	3 #10 Screws	2 #10 Screws	3 #10 Screws
MA350	33EQS	20	57	402	603	206	310	206	310
	33	20	33	353	530	168	251	168	251
	43EQS	18	57	635	952	280	420	280	420
	43	18	33	526	789	219	328	219	328
	54	16	50	1068	1602	396	594	396	594
	68	14	50	1510	2266	499	749	499	749
	97	12	50	2261	2420	712	965	712	965
Maximum Allowable Clip Capacity				Max F1 = 2420 lbs		Max F2 = 965 lbs		Max F3 = 965 lbs	

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F2 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	2 #10 Screws	4 #10 Screws	5 #10 Screws	2 #10 Screws	4 #10 Screws	5 #10 Screws	2 #10 Screws	4 #10 Screws	5 #10 Screws
MA550	33EQS	20	57	402	804	1005	206	413	516	206	413	516
	33	20	33	353	707	884	168	335	419	168	335	419
	43EQS	18	57	635	1269	1587	280	560	700	280	560	700
	43	18	33	526	1052	1315	219	437	547	219	437	547
	54	16	50	1068	2136	2671	396	792	855	396	792	855
	68	14	50	1510	2980	2980	499	855	855	499	855	855
	97	12	50	2261	2980	2980	712	855	855	712	855	855
Maximum Allowable Clip Capacity				Max F1 = 2980 lbs			Max F2 = 855 lbs			Max F3 = 855 lbs		

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F2 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	2 #10 Screws	4 #10 Screws	7 #10 Screws	2 #10 Screws	4 #10 Screws	7 #10 Screws	2 #10 Screws	4 #10 Screws	7 #10 Screws
MA750	33EQS	20	57	402	804	1407	206	413	722	206	413	722
	33	20	33	353	707	1237	168	335	597	168	335	597
	43EQS	18	57	635	1269	2221	280	560	980	280	560	980
	43	18	33	526	1052	1841	219	437	765	219	437	765
	54	16	50	1068	2136	3739	396	792	1387	396	792	1387
	68	14	50	1510	3021	5286	499	998	1740	499	998	1740
	97	12	50	2261	4521	6100	712	1424	1740	712	1424	1740
Maximum Allowable Clip Capacity				Max F1 = 6100 lbs			Max F2 = 1740 lbs			Max F3 = 1740 lbs		

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F2 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	2 #10 Screws	5 #10 Screws	9 #10 Screws	2 #10 Screws	5 #10 Screws	9 #10 Screws	2 #10 Screws	5 #10 Screws	9 #10 Screws
MA950	33EQS	20	57	402	1005	1809	206	516	929	206	516	929
	33	20	33	353	884	1590	168	419	754	168	419	754
	43EQS	18	57	635	1587	2856	280	700	1260	280	700	1260
	43	18	33	526	1315	2367	219	547	984	219	547	984
	54	16	50	1068	2671	4807	396	991	1740	396	991	1740
	68	14	50	1510	3776	6100	499	1248	1740	499	1248	1740
	97	12	50	2261	5652	6100	712	1740	1740	712	1740	1740
Maximum Allowable Clip Capacity				Max F1 = 6100 lbs			Max F2 = 1740 lbs			Max F3 = 1740 lbs		

Table Notes

- Allowable loads have not been increased for wind, seismic activity, or other factors.
- The allowable loads are based on the steel properties of the members being connected, per AISI S100.
- The nominal strength of the screw must be at least 3.75 times the allowable load.
- Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
- Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
- Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.

MB - Multi-Use Secure Clip

Product Application

The MB multi-use secure clip is used in a variety of different applications, including head-of-wall, joist connections, rafter and truss connections, reinforcing header connections, and bridging.

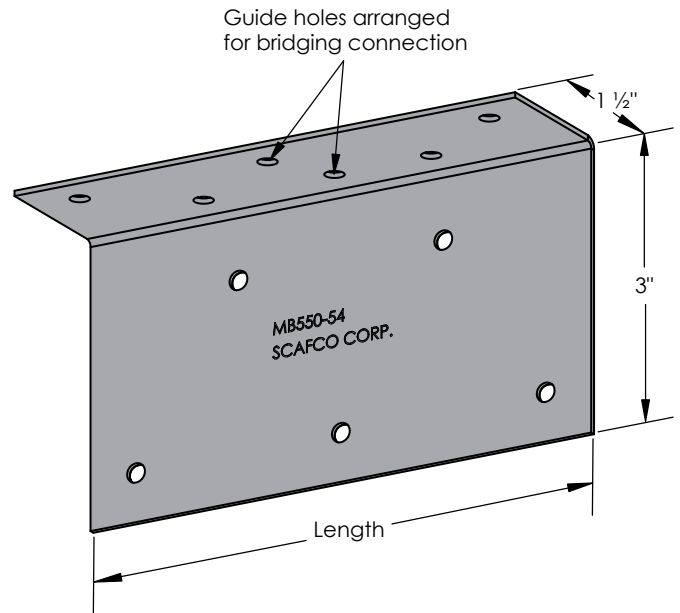
The MB secure clip is designed to resist vertical and lateral loads. Pre-punched guide holes are provided in each leg to allow for efficient installation. Clips come packaged in durable buckets for easy handling on the jobsite.

Features and Benefits

- Variety of lengths available
- Loads based on #10 screws
- Pre-punched guide holes
- No labor used cutting scrap or angle

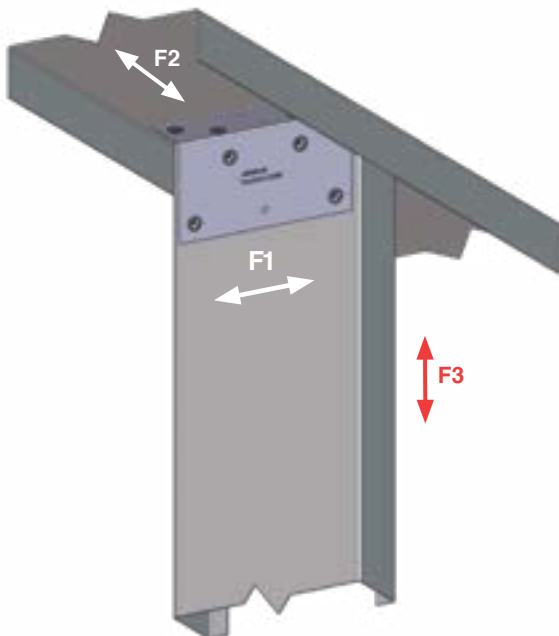
Material Composition

- Mill certified steel
- ASTM A653/A653M
- 54 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G60 galvanized coating
- 68 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating



Quantity / Order Information

Part No.	Length	Qty / Bucket	Lbs / Bucket
MB350-54	3 1/2"	100	25
MB350-68	3 1/2"	100	31
MB550-54	5 1/2"	100	38
MB550-68	5 1/2"	100	48
MB750-54	7 1/2"	75	39
MB750-68	7 1/2"	75	49
MB950-54	9 1/2"	50	33
MB950-68	9 1/2"	50	42



MB - Multi-Use Secure Clip Allowable Loads

Part No.	Stud Properties			F1 Allowable Loads (lbs)		F2 Allowable Loads (lbs)		F3 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #10 Screws	3 #10 Screws	2 #10 Screws	3 #10 Screws	2 #10 Screws	3 #10 Screws
MB350	33EQS	20	57	402	603	206	310	206	310
	33	20	33	353	530	168	251	168	251
	43EQS	18	57	635	952	280	420	280	420
	43	18	33	526	789	219	328	219	328
	54	16	50	1068	1602	396	594	396	594
	68	14	50	1510	2266	499	749	499	749
	97	12	50	2261	2420	712	965	712	965
Maximum Allowable Clip Capacity				Max F1 = 2420 lbs		Max F2 = 965 lbs		Max F3 = 965 lbs	

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F2 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	2 #10 Screws	4 #10 Screws	5 #10 Screws	2 #10 Screws	4 #10 Screws	5 #10 Screws	2 #10 Screws	4 #10 Screws	5 #10 Screws
MB550	33EQS	20	57	402	804	1005	206	413	516	206	413	516
	33	20	33	353	707	884	168	335	419	168	335	419
	43EQS	18	57	635	1269	1587	280	560	700	280	560	700
	43	18	33	526	1052	1315	219	437	547	219	437	547
	54	16	50	1068	2136	2671	396	792	855	396	792	855
	68	14	50	1510	2980	2980	499	855	855	499	855	855
	97	12	50	2261	2980	2980	712	855	855	712	855	855
Maximum Allowable Clip Capacity				Max F1 = 2980 lbs			Max F2 = 855 lbs			Max F3 = 855 lbs		

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F2 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	2 #10 Screws	4 #10 Screws	7 #10 Screws	2 #10 Screws	4 #10 Screws	7 #10 Screws	2 #10 Screws	4 #10 Screws	7 #10 Screws
MB750	33EQS	20	57	402	804	1407	206	413	722	206	413	722
	33	20	33	353	707	1237	168	335	597	168	335	597
	43EQS	18	57	635	1269	2221	280	560	980	280	560	980
	43	18	33	526	1052	1841	219	437	765	219	437	765
	54	16	50	1068	2136	3739	396	792	1387	396	792	1387
	68	14	50	1510	3021	5286	499	998	1740	499	998	1740
	97	12	50	2261	4521	6100	712	1424	1740	712	1424	1740
Maximum Allowable Clip Capacity				Max F1 = 6100 lbs			Max F2 = 1740 lbs			Max F3 = 1740 lbs		

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F2 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	2 #10 Screws	5 #10 Screws	9 #10 Screws	2 #10 Screws	5 #10 Screws	9 #10 Screws	2 #10 Screws	5 #10 Screws	9 #10 Screws
MB950	33EQS	20	57	402	1005	1809	206	516	929	206	516	929
	33	20	33	353	884	1590	168	419	754	168	419	754
	43EQS	18	57	635	1587	2856	280	700	1260	280	700	1260
	43	18	33	526	1315	2367	219	547	984	219	547	984
	54	16	50	1068	2671	4807	396	991	1740	396	991	1740
	68	14	50	1510	3776	6100	499	1248	1740	499	1248	1740
	97	12	50	2261	5652	6100	712	1740	1740	712	1740	1740
Maximum Allowable Clip Capacity				Max F1 = 6100 lbs			Max F2 = 1740 lbs			Max F3 = 1740 lbs		

Table Notes

- Allowable loads have not been increased for wind, seismic activity, or other factors.
- The allowable loads are based on the steel properties of the members being connected, per AISI S100.
- The nominal strength of the screw must be at least 3.75 times the allowable load.
- Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
- Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
- Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.

MC - Multi-Use Secure Clip

Product Application

The MC multi-use secure clip is used in a variety of different applications, including head-of-wall, joist connections, rafter and truss connections, and reinforcing header connections.

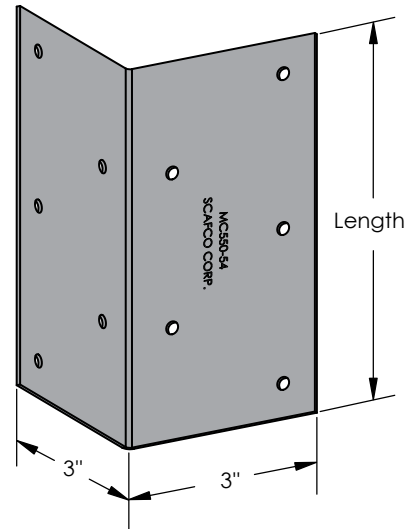
MC secure clips are designed to resist vertical and lateral loads. There are pre-punched guide holes provided in each leg to allow for efficient installation. Clips come packaged in durable buckets for easy handling on the jobsite.

Features and Benefits

- Variety of lengths available
- Loads based on #10 screws
- Pre-punched guide holes
- No labor used cutting scrap or angle

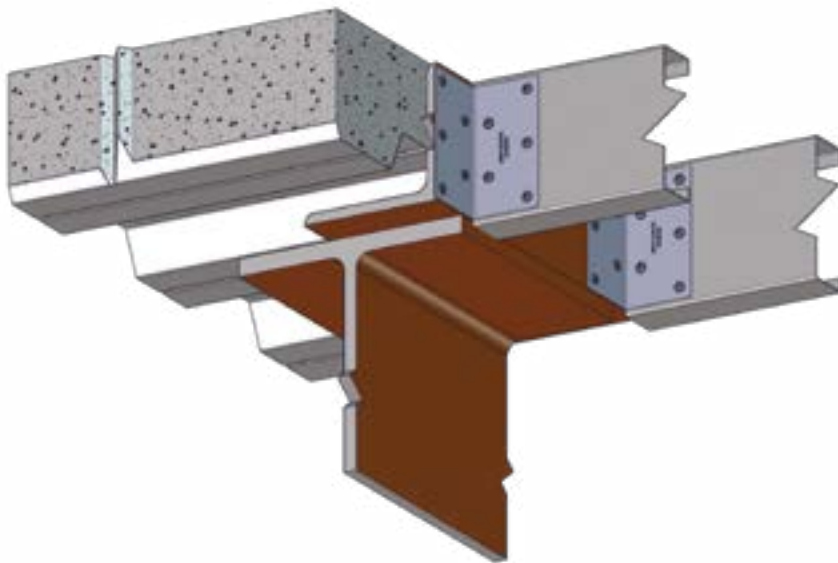
Material Composition

- Mill certified steel
- ASTM A653/A653M
- 54 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G60 galvanized coating
- 68 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating



Quantity / Order Information

Part No.	Length	Qty / Bucket	Lbs / Bucket
MC350-54	3 ½"	100	33
MC350-68	3 ½"	100	41
MC550-54	5 ½"	100	51
MC550-68	5 ½"	75	48
MC750-54	7 ½"	50	35
MC750-68	7 ½"	50	44
MC950-54	9 ½"	50	44
MC950-68	9 ½"	50	55



MC - Multi-Use Secure Clip Allowable Loads

Part No.	Stud Properties			F1 Allowable Loads (lbs)		F2 Allowable Loads (lbs)		F3 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #10 Screws	3 #10 Screws	2 #10 Screws	3 #10 Screws	2 #10 Screws	3 #10 Screws
MC350	33EQS	20	57	402	603	206	310	206	310
	33	20	33	353	530	168	251	168	251
	43EQS	18	57	635	952	280	420	280	420
	43	18	33	526	789	219	328	219	328
	54	16	50	1068	1602	396	594	396	594
	68	14	50	1510	2266	499	749	499	749
	97	12	50	2261	2420	712	965	712	965
Maximum Allowable Clip Capacity				Max F1 = 2420 lbs		Max F2 = 965 lbs		Max F3 = 965 lbs	

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F2 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	2 #10 Screws	4 #10 Screws	5 #10 Screws	2 #10 Screws	4 #10 Screws	5 #10 Screws	2 #10 Screws	4 #10 Screws	5 #10 Screws
MC550	33EQS	20	57	402	804	1005	206	413	516	206	413	516
	33	20	33	353	707	884	168	335	419	168	335	419
	43EQS	18	57	635	1269	1587	280	560	700	280	560	700
	43	18	33	526	1052	1315	219	437	547	219	437	547
	54	16	50	1068	2136	2671	396	792	855	396	792	855
	68	14	50	1510	2980	2980	499	855	855	499	855	855
	97	12	50	2261	2980	2980	712	855	855	712	855	855
Maximum Allowable Clip Capacity				Max F1 = 2980 lbs			Max F2 = 855 lbs			Max F3 = 855 lbs		

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F2 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	2 #10 Screws	4 #10 Screws	7 #10 Screws	2 #10 Screws	4 #10 Screws	7 #10 Screws	2 #10 Screws	4 #10 Screws	7 #10 Screws
MC750	33EQS	20	57	402	804	1407	206	413	722	206	413	722
	33	20	33	353	707	1237	168	335	597	168	335	597
	43EQS	18	57	635	1269	2221	280	560	980	280	560	980
	43	18	33	526	1052	1841	219	437	765	219	437	765
	54	16	50	1068	2136	3739	396	792	1387	396	792	1387
	68	14	50	1510	3021	5286	499	998	1740	499	998	1740
	97	12	50	2261	4521	6100	712	1424	1740	712	1424	1740
Maximum Allowable Clip Capacity				Max F1 = 6100 lbs			Max F2 = 1740 lbs			Max F3 = 1740 lbs		

Part No.	Stud Properties			F1 Allowable Loads (lbs)			F2 Allowable Loads (lbs)			F3 Allowable Loads (lbs)		
	Mil	Gauge	Fy (ksi)	2 #10 Screws	5 #10 Screws	9 #10 Screws	2 #10 Screws	5 #10 Screws	9 #10 Screws	2 #10 Screws	5 #10 Screws	9 #10 Screws
MC950	33EQS	20	57	402	1005	1809	206	516	929	206	516	929
	33	20	33	353	884	1590	168	419	754	168	419	754
	43EQS	18	57	635	1587	2856	280	700	1260	280	700	1260
	43	18	33	526	1315	2367	219	547	984	219	547	984
	54	16	50	1068	2671	4807	396	991	1740	396	991	1740
	68	14	50	1510	3776	6100	499	1248	1740	499	1248	1740
	97	12	50	2261	5652	6100	712	1740	1740	712	1740	1740
Maximum Allowable Clip Capacity				Max F1 = 6100 lbs			Max F2 = 1740 lbs			Max F3 = 1740 lbs		

Table Notes

- Allowable loads have not been increased for wind, seismic activity, or other factors.
- The allowable loads are based on the steel properties of the members being connected, per AISI S100.
- The nominal strength of the screw must be at least 3.75 times the allowable load.
- Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
- Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
- Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.

BC - Secure Bridge Clip

Product Application

The BC secure bridge clip attaches the cold rolled channel (CRC) to the stud. These clips resist lateral movement and twisting of the studs in a wall assembly. Pre-punched guide holes are provided to accommodate the CRC and stud attachments for installation efficiency. This clip has chamfered corners on one leg to allow for ease of installation on the inside of the stud cavity.

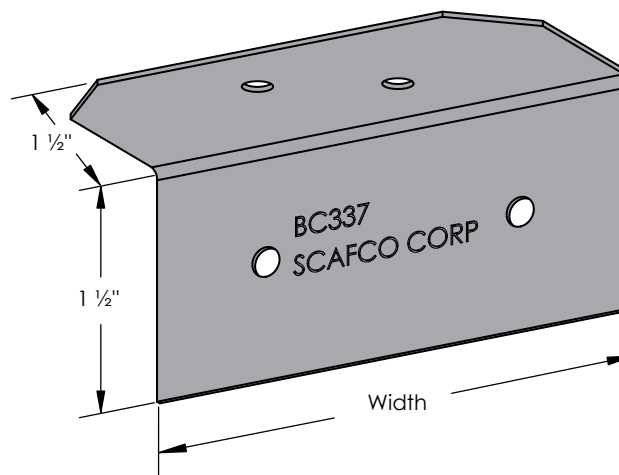
BC clips come packaged in durable buckets for convenient handling on the jobsite.

Features and Benefits

- Pre-punched guide holes
- No welding or cutting of scrap material required
- Loads based on #10 screws
- Screws are provided
- Replaces the cumbersome traditional method of bracing

Material Composition

- Mill certified steel
- ASTM A653/A653M
- 33 mil
 - 33 ksi yield strength
 - 45 ksi tensile strength
 - G60 galvanized coating
- 54 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G60 galvanized coating



Quantity / Order Information

Part No.	Length	Qty / Bucket	Lbs / Bucket
BC237	2 3/8"	250	17
BC337	3 3/8"	250	24
BC575	5 3/4"	150	40
BC775	7 3/4"	100	36

Allowable Loads

Part No.	Clip Properties			2 #10 Screws*	
	Mil	Gauge	Fy (ksi)	F2 (lbs)	M1 (lbs-in)
BC237	33	20	33	266	155
BC337	33	20	33	532	332
BC575	54	16	50	1068	1573
BC775	54	16	50	1068	2313

*Allowable loads are based on the capacity of the clip and cold rolled channel attachment. Verify screw shear and pullout of stud.

Table Notes

1. Allowable loads have not been increased for wind, seismic activity, or other factors.
2. Allowable loads are based on the steel properties of the members being connected, per AISI S100.
3. The nominal strength of the screw must be at least 3.75 times the allowable load.
4. Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
5. Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
6. Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.



KB - Kwik-Back Wall Support

Product Application

Kwik-Back clips are the most cost effective, labor saving solution to create superior backing support for wall shelving, cabinetry, heavy wall hangings, and other equipment.

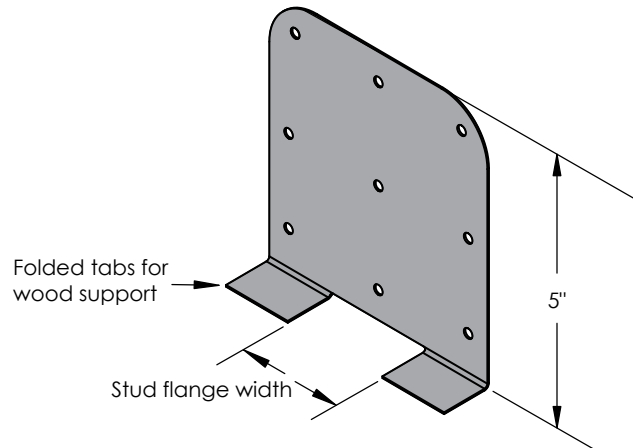
Installation is simplified by using 2 or 3 screws to attach the clip to the stud flange. No pre-determined stud layout is required and ledge tabs are added for easy alignment. Attach 2" x 6" structure grade lumber (#1 or better) as required by code or specification.

Features and Benefits

- Loads based on #8 screws
- Screws are provided
- Pre-punched guide holes
- Folded tabs for consistent wood positioning

Material Composition

- Mill certified steel
- ASTM A653/A653M
- 33 mil
 - 33 ksi yield strength
 - 45 ksi tensile strength
 - G60 galvanized coating



Quantity / Order Information

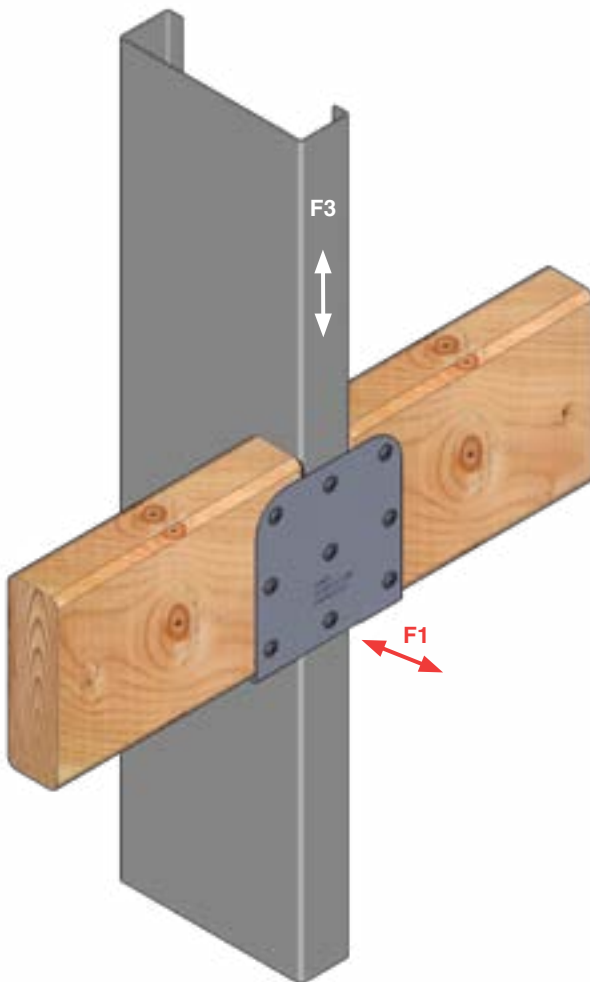
Part No.	Stud Flange Width	Qty / Bucket	Lbs / Bucket
KB162	1 1/4" to 1 5/8"	100	25
KB200	2"	100	27

Allowable Loads

Part No.	Stud Properties			F1 Allowable Loads (lbs)		F3 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #8 Screws	3 #8 Screws	2 #8 Screws	3 #8 Screws
KB	18	25	33	79	118	132	197
	D20	20	57	114	170	190	285
	30EQD	20	57	142	213	266	398
	30	20	33	130	196	281	422
	33EQS	20 (S)	57	178	267	373	560
	33	20 (S)	33	145	217	328	493
	43EQS	18	57	242	342	460	689
	43	18	33	189	283	460	689
54	16	50	342	342	460	689	

Table Notes

1. Allowable loads have not been increased for wind, seismic activity, or other factors.
2. The allowable loads are based on the steel properties of the members being connected, per AISI S100.
3. The nominal strength of the screw must be at least 3.75 times the allowable loads.
4. Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
5. Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
6. Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.
7. Designer shall check screw capacity to wood backing material.



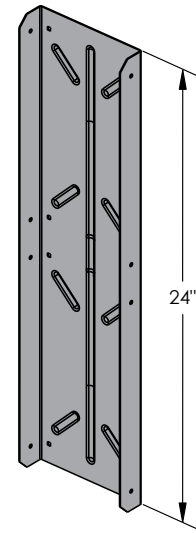
ELEV - Elevator Stud Splice Clip

Product Application

The ELEV elevator stud splice clip is used to join two shorter stud members into one long member for jobsites where elevator transportation limits the allowable stud length.

Features and Benefits

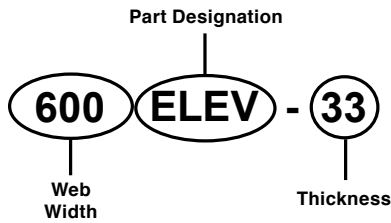
- Available in widths of 3.5" to 6"
 - Other widths available upon request
- Available in standard 24" lengths
- Pre-punched guide holes
- Customizes lengths without additional cutting
- Splice design calculations available, contact Technical@SteelConSys.com



Material Composition

- Mill certified steel
- ASTM: A653/A653M
- 33 mil
 - 33 ksi yield strength
 - 45 ksi tensile strength
 - G60 galvanized coating
- Contact Technical@SteelConSys.com for additional material thickness

Nomenclature Example



Quantity / Order Information

Part No.	Stud Dimensions	
	Width	Flange
350ELEV-33	3 1/2"	125
362ELEV-33	3 5/8"	125
400ELEV-33	4"	125
550ELEV-33	5 1/2"	125
600ELEV-33	6"	125

Table Notes

1. ELEV Clips come in 24" standard length. Custom length available upon request.
2. ELEV Clips come with standard 1 1/4" legs. Longer legs available upon request.



Web Screws



Flange Screws



Web Screw Configuration Depicted

ELEV - Elevator Stud Splice Clip**Supreme Studs - Allowable Spliced Wall Heights - Non-Composite - Fully Braced**

Section	F _y (ksi)	L _u	Spacing (in) oc	5 psf		
				L/120	L/240	L/360
350SFS-D20	57	27.6	12	17' 11"	14' 7"	12' 8"
			16	15' 6"	13' 3"	11' 7"
			24	12' 8"	11' 7"	10' 1"
350SFS-30EQD	57	27.6	12	19' 11"	15' 10"	13' 10"
			16	18' 1"	14' 4"	12' 7"
			24	15' 10"	12' 7"	10' 11"
350SFS-33EQD	57	27.6	12	19' 11"	15' 10"	13' 10"
			16	18' 1"	14' 4"	12' 7"
			24	15' 10"	12' 7"	10' 11"
362SFS-D20	57	27.6	12	18' 4"	15' 2"	13' 3"
			16	15' 10"	13' 9"	12' 0"
			24	12' 11"	11' 11"	10' 6"
362SFS-30EQD	57	27.5	12	20' 6"	16' 3"	14' 2"
			16	18' 7"	14' 9"	12' 11"
			24	16' 3"	12' 11"	11' 3"
362SFS-33EQD	57	27.5	12	20' 6"	16' 3"	14' 2"
			16	18' 7"	14' 9"	12' 11"
			24	16' 3"	12' 11"	11' 3"
400SFS-D20 ¹	57	27.5	12	19' 5"	16' 0"	14' 0"
			16	16' 10"	14' 7"	12' 9"
			24	13' 9"	12' 9"	11' 1"
400SFS-30EQD	57	27.4	12	22' 2"	17' 7"	15' 4"
			16	20' 2"	16' 0"	13' 11"
			24	17' 1"	13' 11"	12' 2"
400SFS-33EQD	57	27.4	12	22' 2"	17' 7"	15' 4"
			16	20' 2"	16' 0"	13' 11"
			24	17' 1"	13' 11"	12' 2"
550SFS-30EQD ¹	57	26.9	12	28' 5"	22' 8"	19' 10"
			16	24' 8"	20' 7"	18' 0"
			24	20' 1"	18' 0"	15' 9"
550SFS-33EQD ¹	57	26.9	12	28' 5"	22' 8"	19' 10"
			16	24' 8"	20' 7"	18' 0"
			24	20' 1"	18' 0"	15' 9"
600SFS-30EQD ¹	57	26.7	12	29' 8"	23' 7"	20' 8"
			16	25' 8"	21' 5"	18' 9"
			24	20' 11"	18' 9"	16' 4"
600SFS-33EQD ¹	57	26.7	12	29' 8"	23' 7"	20' 8"
			16	25' 8"	21' 5"	18' 9"
			24	20' 11"	18' 9"	16' 4"

¹Web height-to-thickness ratio exceeds 200. Web stiffeners are required at all support points and concentrated loads.
^eWeb stiffeners required at ends.

Table Notes

- 5 pounds per square foot (psf), 7.5 psf, and 10 psf loads have not been reduced for strength or deflection checks; full lateral load is applied.
- Web crippling check is based on 1" end bearing.
- Allowable moment is the lesser of M_{al} and M_{ad}. Stud distortional buckling based on an assumed K_φ = 0.
- Limiting heights are based on steel properties only (non-composite) without the contribution of sheathing to strengthen and stiffen the assembly. Properly fastened sheathing is still required for members to be considered fully braced.
- Published allowable wall heights assume minimum 8 screw connection with no. 8 screws utilizing either the pre-punched web holes or alternatively the pre-punched flange holes.
- Published allowable wall heights assume only one splice per span.

Ponywall Support

Product Application

Steel-Con's ponywall supports are manufactured from prime domestic steel and assembled with certified welds, providing superior strength and durability. Its unique rigid design and ease of installation makes it the preferred choice over conventional ponywall construction methods. Ponywall supports are stocked in 34", 48", and 60" heights but can be special ordered to meet required design specifications.

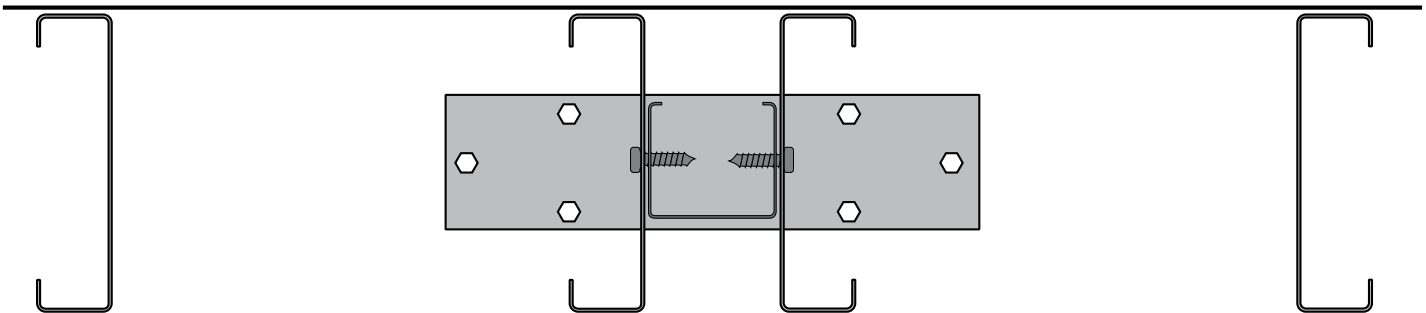
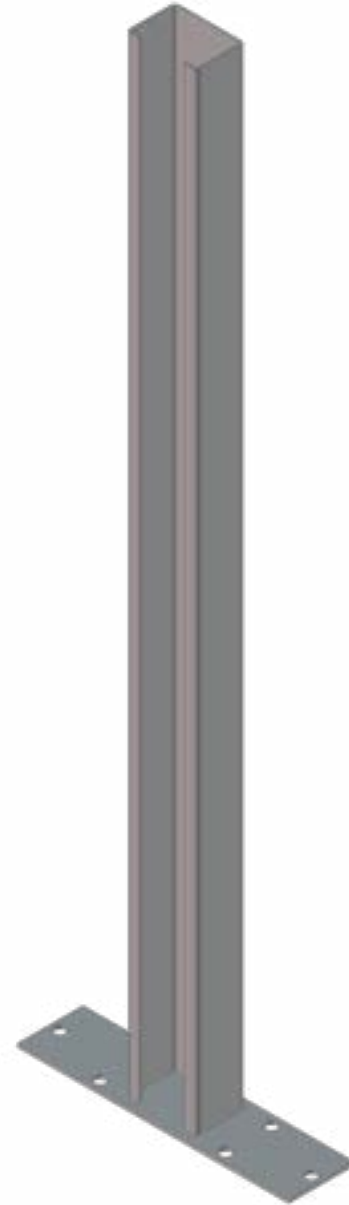
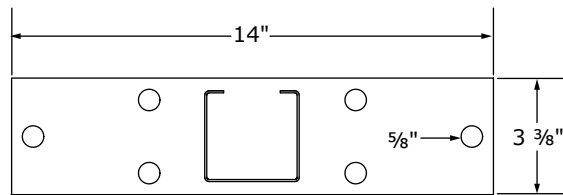
Features and Benefits

- Pre-punched guide holes
- Standard heights are 34", 48", and 60"
- Custom heights available
- Welded construction

Material Composition

- Mill certified steel
- ASTM A653/A653M
- Support stud
 - 97 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating
- Base plate
 - 200 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating
- Contact Technical@SteelConSys.com for allowable loads

The upright support stud is made from a 362S250-97 stud centered and welded to the base plate.



Custom Brake Shapes

Product Application

Steel-Con offers a broad selection of custom brake shapes for a wide range of construction applications. Each shape is custom-made using advanced forming equipment to match precise dimensions needed.

When ordering custom brake shapes, identify inside and outside measurements, as well as any angles or punchouts required.

Features and Benefits

- Corrosion-resistant galvanized-coated steel
- Manufactured exclusively to drawings and specifications
- Flat stock sheets available

Available Steel Thickness

- Mill certified steel
- ASTM: A653/A653M
- D24
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G40 galvanized coating
- 30 mil
 - 33 ksi yield strength
 - 45 ksi tensile strength
 - G40 galvanized coating
- 33EQS
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G60 galvanized coating
- 33 mil
 - 33 ksi yield strength
 - 45 ksi tensile strength
 - G60 galvanized coating
- 43EQS
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G60 galvanized coating
- 43 mil
 - 33 ksi yield strength
 - 45 ksi tensile strength
 - G60 galvanized coating
- 54 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G60 galvanized coating
- 68 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating
- 97 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating
- 127 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating
- Additional mil thickness: 145, 168, 200, and 220



Custom Angles



Deep Leg Track



Custom Studs



Custom Punching



Pitch Track



Custom Clips and Stiffening Plates



Custom Shapes



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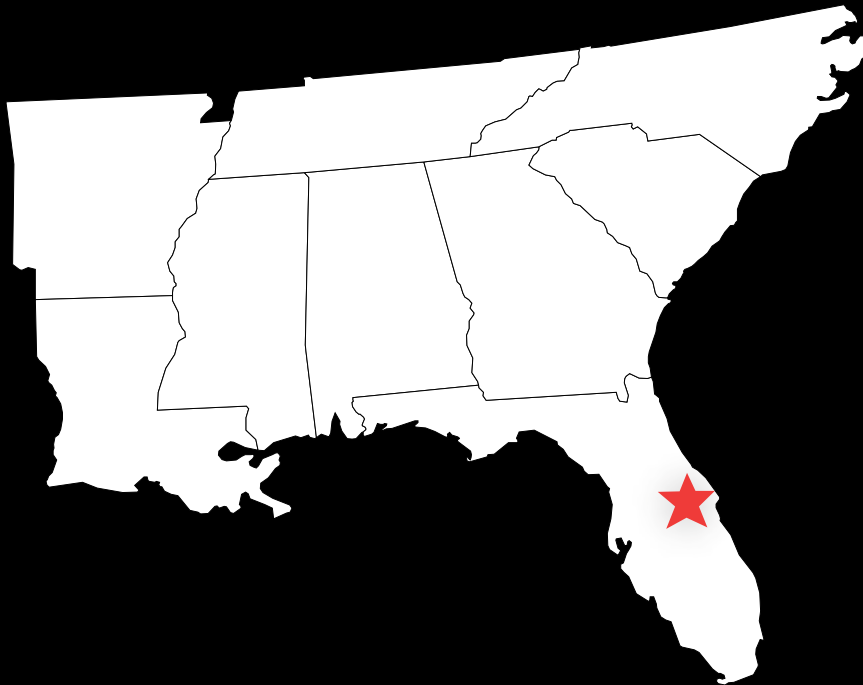
Contact Technical Services

For assistance with ordering or questions on your project, utilize Steel-Con Engineering Services:

Call: 407-404-5292
 Email: Technical@SteelConSys.com
 Website: www.SteelConSystems.com

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