

For installation into concrete slabs. The FA3 features a split flange for nailing to both mudsill and stud for greater framing versatility.

**Materials:** 16 gauge

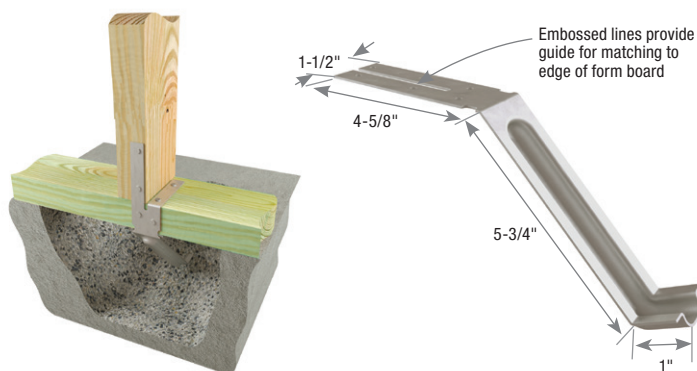
**Finish:** G90 galvanizing

**Options:** See chart for Corrosion Finish Options

**Codes:** See chart for code references

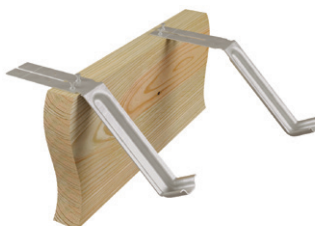
**Installation:**

- Use all specified fasteners. See Product Notes, page 18.
- Use a minimum of two anchors per mudsill. An anchor should always be within 12" of the end of each mudsill section.
- Do not rely on these anchors to secure concrete sections together between cold joints.
- Insert into wet concrete (minimum strength of 2,500 psi). Place mudsill after concrete cures. Secure flanges to sill (and stud, if applicable), bending flanges as needed to achieve a tight fit. Fasten as directed in chart.
- Do not use in red clay brick.
- For installation in severe corrosion environments, see Corrosion Information on pages 11-16.



**Typical FA3 one-tab-up installation**

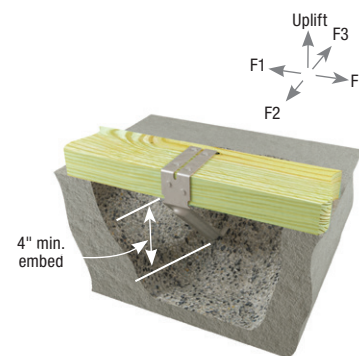
**FA3**



**Typical FA3 form board installation**



**Alternate FA3 installation**



**Typical FA3 standard installation in concrete**

MiTek USP Stock No.	Ref. No.	Steel Ga.	Plate Size	Fastener Schedule <sup>1,7</sup>				Min Stemwall Thickness (in)	Installation Type	Concrete <sup>6</sup>	DF/SP Allowable Loads (Lbs.) <sup>2,3,4</sup>			Corrosion Finish	Code Ref.
				Sill Plate		Stud	Type				Uplift 160%	F1 160%	F2 160%		
				Side Qty	Top Qty										
<b>Wind and SDC A &amp; B</b>															
FA3	--	16	Single 2x	2	4	--	10d x 1-1/2	6	Standard	Uncracked	1350	750	1015	IBC, FL, LA	
				2	2	2				One-Tab-Up	Uncracked	1350	750		1015
				2	2	2			One-Tab-Up		Cracked	945	525		710
				2	2	2				One-Tab-Up	Cracked	945	525		710
			Single 3x	2	4	--	10d x 1-1/2	6	Standard		Uncracked	--	515		--
				2	4	--				Cracked	--	475	--		
<b>SDC C-F</b>															
FA3	--	16	Single 2x	2	4	--	10d x 1-1/2	6	Standard	Uncracked	1120	550	890	IBC, FL, LA	
				2	2	2				One-Tab-Up	Uncracked	830	460		625
				2	2	2			One-Tab-Up		Cracked	1120	550		890
				2	2	2				One-Tab-Up	Cracked	830	460		625
			Single 3x	2	4	--	10d x 1-1/2	6	Standard		Uncracked	--	515		--
				2	4	--				Cracked	--	405	--		

1) Predrilled holes are not required.  
 2) Allowable Stress Design (ASD) values have been adjusted for a load duration factor, C<sub>D</sub>, of 1.6 corresponding to a ten-minute load duration (i.e. wind or earthquake loading) in accordance with the NDS. The ASD loads do not apply to loads of other durations.  
 3) FA3 capacities are based on using a single-ply 2x sill plate.  
 4) Allowable loads are based on a minimum stemwall thickness of 6", minimum distance from the end of the concrete wall of 4" and minimum anchor spacing of 8".  
 5) Uplift deformation based on wood connection strength.  
 6) Minimum concrete strength f'<sub>c</sub> = 2,500 psi.  
 7) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long.  
 New products or updated product information are designated in **blue font**.

**Corrosion Finish** ■ Stainless Steel ■ Gold Coat ■ HDG ■ Triple Zinc

FA4 foundation anchors can be installed as a replacement for 5/8" or 1/2" diameter anchor bolts while achieving the same load capacity.

**Materials:** 16 gauge

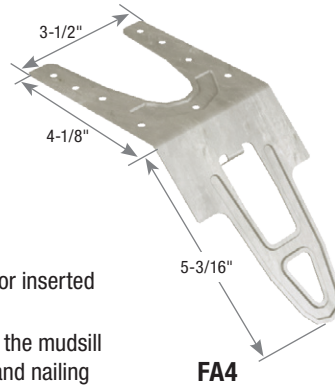
**Finish:** G90 galvanizing

**Options:** See chart for Corrosion Finish Options

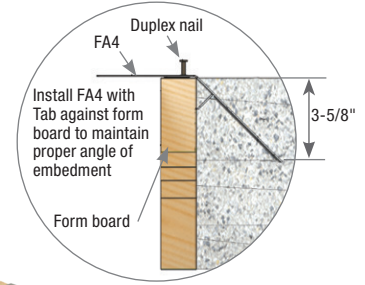
**Codes:** See chart for code references

**Installation:**

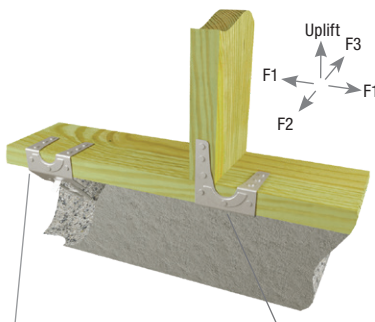
- The FA4 can be mounted to the form board before placing the concrete or inserted into the wet concrete after it is poured. See Detail A installation.
- Place the mudsill in position after the concrete cures. Secure the FA4 to the mudsill (and stud, if applicable) by bending the flanges as needed for a tight fit and nailing into place with the size and quantity of fasteners specified in the chart.
- For installation in severe corrosion environments, see Corrosion Information on pages 11-16.



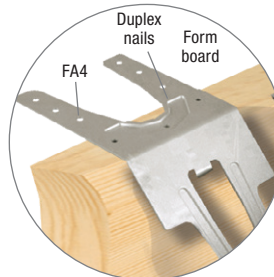
FA4



Detail B



Typical FA4 standard installation



Detail A



Typical FA4 form board installation

MiTek USP Stock No.	Ref. No.	GA	Plate Size	Fastener Schedule <sup>4</sup>			Type	Installation Type	Concrete <sup>3</sup>	DF/SP Allowable Loads (Lbs.) <sup>1,2</sup>				Corrosion Finish	Code Ref.
				Sill Plate		Stud Qty				Uplift 160%	F1 160%	F2 160%	F3 160%		
				Side Qty	Top Qty										
<b>Wind and SDC A &amp; B</b>															
FA4	MASA	16	Single 2x	3	6	--	10d x 1-1/2	Standard	Uncracked	905	1460	<b>1070</b>	655	IBC, FL, LA	
				3	3	3			Cracked	<b>750</b>	<b>1225</b>	<b>750</b>	<b>585</b>		
			Single 3x	5	4	--	10d x 1-1/2	Standard	Uncracked	1070	1130	--	--		--
				Cracked	750	1130			--	--					
			Varies	9	--	--	10d x 1-1/2	Two-Tabs-Up	Uncracked	1070	650	650	400		
				Cracked	750	650			650	400					
<b>SDC C-F</b>															
FA4	MASA	16	Single 2x	3	6	--	10d x 1-1/2	Standard	Uncracked	875	1460	875	655	IBC, FL, LA	
				3	3	3			Cracked	<b>655</b>	<b>1075</b>	<b>655</b>	<b>510</b>		
			Single 3x	5	4	--	10d x 1-1/2	Standard	Uncracked	875	1130	--	--		--
				Cracked	655	1075			--	--					
			Varies	9	--	--	10d x 1-1/2	Two-Tabs-Up	Uncracked	875	650	650	400		
				Cracked	655	650			650	400					

- Allowable loads have been increased 60% for wind and seismic loads; no further increase shall be permitted.
- Allowable loads are based on a minimum stemwall thickness of 6", minimum distance from the end of the concrete wall of 4" and minimum anchor spacing of 8".
- Minimum concrete strength  $f'c = 2,500$  psi.
- NAILS:** 10d x 1-1/2" nails are 0.148" dia. x 1-1/2" long.

New products or updated product information are designated in **blue font**.

**Corrosion Finish**  
■ Stainless Steel ■ Gold Coat  
■ HDG ■ Triple Zinc

**Prescriptive Spacing to Replace 1/2" or 5/8" Diameter Bolts**

Anchor Bolt Diameter	Anchor Bolt Spacing	DF/SP 2x Mudsill O.C. Spacing			Hem-Fir 2x Mudsill O.C. Spacing			Min End Distance	Min C-C Spacing
		Wind	SDC A & B	SDC C-E	Wind	SDC A & B	SDC C-E		
1/2"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	5-1/2"	7-1/4"
	4'-0"	4'-0"	4'-0"	4'-0"	4'-0"	4'-0"	4'-0"		
5/8"	6'-0"	5'-4"	5'-4"	5'-4"	5'-0"	5'-0"	5'-0"	5-1/2"	7-1/4"
	4'-0"	3'-7"	3'-7"	3'-7"	3'-4"	3'-4"	3'-4"		

- Place anchors not more than 1'-0" from end of each mudsill per code.
- Spacing is based on parallel to mudsill load direction only.
- Concrete shall have a minimum  $f'c = 2,500$  psi.
- Spacing applies to a maximum of 1 in 4 FA4 Foundation Anchors being installed to mudsill and stud.
- Spacing requirements are based on lateral load capacities of anchor bolts published in the 2018 NDS.

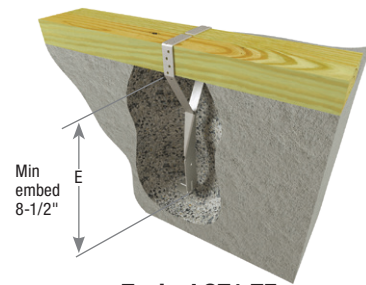
**ST1-TZ** – For installation into concrete slab or poured stemwalls.  
The ST1-TZ features a prebent base flange to assure proper anchoring into concrete

**ST2-TZ** – For installation into concrete slab, poured stemwalls or concrete/masonry.  
The ST2-TZ features a prebent base flange to assure proper anchoring into concrete

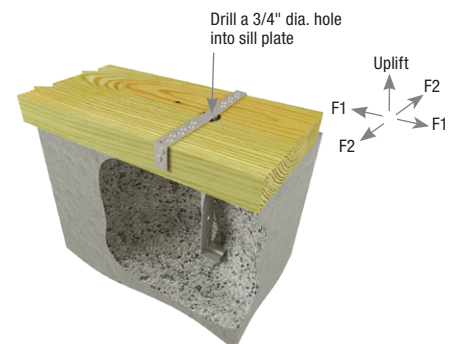
**Materials:** 18 gauge  
**Finish:** G-185 galvanizing

**Installation:**

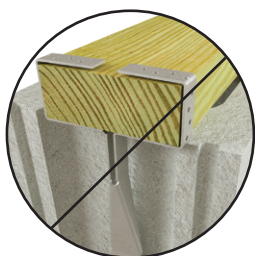
- Use all specified fasteners. See Product Notes, page 18.
- Use a minimum of two anchors per mudsill. An anchor should always be within 12" of the end of each mudsill section. Follow spacing guidelines in chart.
- Do not rely on these anchors to secure concrete sections together between cold joints.
- Spread sill flanges to mudsill width prior to insertion into wet concrete (minimum strength of 2,500 psi). Alternate installation is possible by inserting unbent flanges through 3/4" center hole pre-drilled in mudsill. Foundation anchors may also be attached to mudsill and then inserted into wet concrete. When installing ST2-TZ into concrete block, fill cells with grout with a minimum strength of 2,500 psi. Concrete block edges may need to be beveled to facilitate installation.
- ST2-TZ in masonry construction shall be installed in the core of the block and grouted with concrete grout designed for that purpose. In no case, shall they be installed in a mortar joint.
- Do not use in red clay brick.



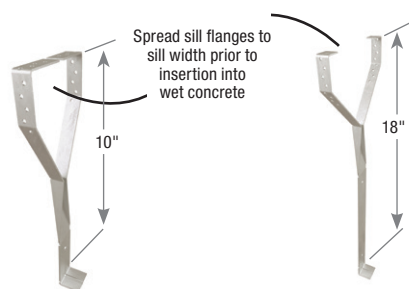
**Typical ST1-TZ installation in concrete**



**Alternate ST1-TZ installation with 3/4" center hole**



**DO NOT install ST1-TZ and ST2-TZ without pre-bending sill flanges in "Y" configuration**



**ST1-TZ**

**ST2-TZ**



**Alternate ST2-TZ installation with 3/4" center hole in mudsill**

Plate Size	MiTek USP Stock No.	Ref. No.	Steel Gauge	Fastener Schedule <sup>4</sup>				Min. Embed. <sup>3</sup> (E)	Max. Spacing <sup>2</sup> (Feet)	DF/SP Allowable Loads (Lbs.) <sup>1</sup>			Corrosion Finish	Code Ref.
				Mudsill Top		Mudsill Side				Uplift	F1	F2		
				Qty	Type	Qty	Type			160%	160%	160%		
2 x 4 - 6	ST1-TZ	MAB15, MAB15Z	18	4	8d x 1-1/2 HDG	4	8d x 1-1/2 HDG	8-1/2"	*3'-3"	825	565	745	Green	--
	ST2-TZ	--	18	4	8d x 1-1/2 HDG	4	8d x 1-1/2 HDG	16-1/2"	*3'-3"	825	565	745		

1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.  
 2) Anchor spacing and design loads assume treated Douglas Fir-Larch with Fc perpendicular @ 625 psi; replaces code prescribed 1/2" anchor bolt with standard washer, spaced 6 ft. on center.  
 3) If installed in the alternate configuration, the ST1-TZ shall be embedded 7-1/4" and ST2-TZ 15".  
 4) **NAILS:** 8d x 1-1/2 nails are 0.131" dia. x 1-1/2" long.  
 \*When a 2 x 8 mudsill is used for ST1-TZ or ST2-TZ, maximum spacing is 3 feet unless alternate installation is used.

**Corrosion Finish** ■ Stainless Steel ■ Gold Coat ■ HDG ■ Triple Zinc

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Concrete & Masonry

MiTek's FWAN-TZ Foundation Wall Anchor is designed to transfer in-plane and out-of-plane foundation wall loads imposed by soil through the joist/blocking into the floor diaphragm. The unique design allows for installations that straddle the joist/blocking eliminating bending stresses in the rim board that result from offset installations.

**The FWAN-TZ offers two methods of installation:**

**1. Centered Installation**

- Compatible with joist/blocking up to 3-1/2" wide
- Highest load capacities for transfer of out-of-plane loads into floor framing
- Rim board splices allowed anywhere along the wall

**2. Offset Installation**

- Installs in the space between the joists/blocking
- Out-of-plane loads are transferred thru the rim board into the floor framing
- Offsets up to 4"

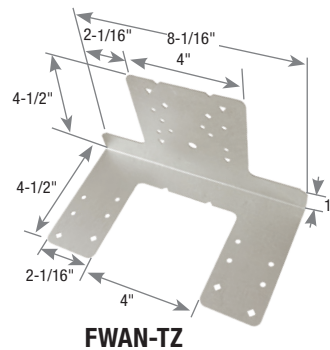
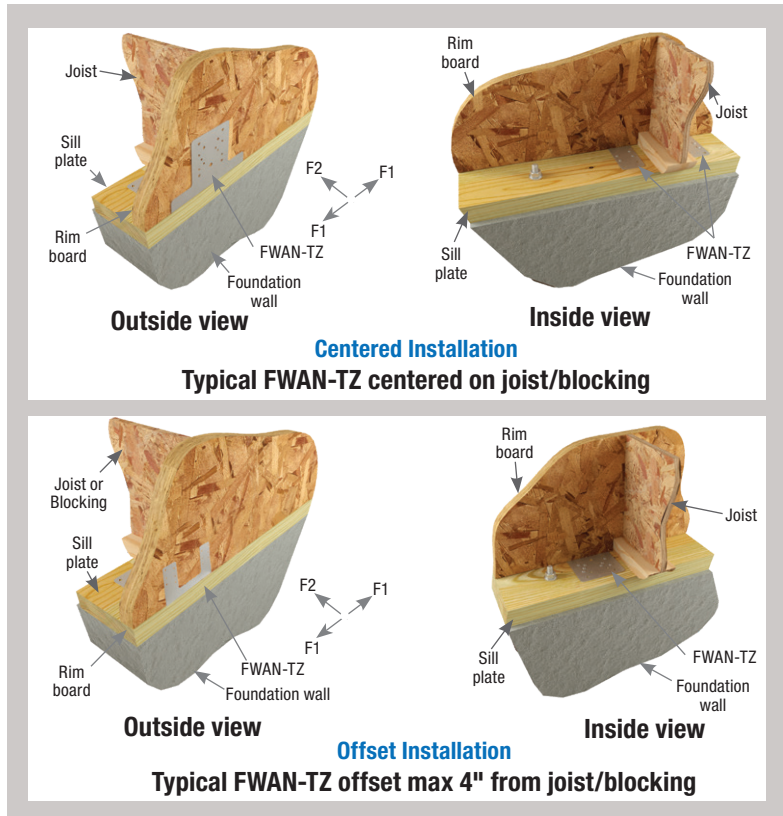
**Materials:** 16 gauge

**Finish:** G-185 galvanizing

**Codes:** IBC, FL, LA

**Installation:**

- **Centered Installation** – Fill only triangle holes when nailing to the rim board.
- **Offset Installation** – Fill only diamond holes when nailing to the rim board.
- FWAN-TZ must be installed tight to the outside face of the rim board.
- Minimum sill plate thickness is 1-1/2".
- Offset Installations require that the FWAN-TZ be installed within 4" of the joist/blocking.
- For Offset Installations, install with two narrow tabs against rim board. Splices in the rim board are not permitted in the space between the joists/blocking where the FWAN-TZ is installed.
- The designer must specify the anchor bolt size, spacing and embedment necessary to transfer the foundation loads into the sill plate. Stresses in the sill plate must be considered when determining the maximum spacing of the anchor bolts.



**FWAN-TZ**

MiTek USP Stock No.	Ref. No.	Sill Plate	Fastener Schedule <sup>6</sup>				Rim Board Material	DF/SP Allowable Load (Lbs.) <sup>1,2</sup>						Hem-Fir Allowable Load (Lbs.) <sup>1,2</sup>						Corrosion Finish	Code Ref.
			Sill Plate		Rim Board			F1 <sup>3,4</sup>			F2 <sup>3,4</sup>			F1 <sup>3,4</sup>			F2 <sup>3,4</sup>				
			Qty	Type	Qty	Type		90%	100%	160%	90%	100%	160%	90%	100%	160%	90%	100%	160%		
FWAN-TZ	FWANZ	2x4, 2-2x4, 3x4, 4x4	8	10d x 1-1/2 HDG	4	10d x 1-1/2 HDG	Centered on Joist/Blocking												IBC, FL, LA		
							1-1/8" OSB	415	415	415	915	1000	1070	330	330	330	800	855		855	
							2x Rim	455	500	525	915	1000	1385	420	420	420	800	870		1110	
		1-3/4" LVL	455	500	525	915	1000	1385	420	420	420	800	870	1110							
		2x6, 2-2x6, 3x6, 4x6	12	10d x 1-1/2 HDG	4	10d x 1-1/2 HDG	1-1/8" OSB	415	415	415	1370	1500	1475	330	330	330	1180	1180		1180	
		2x Rim					455	500	525	1370	1500	1660	420	420	420	1200	1310	1330			
	1-3/4" LVL	455					500	525	1370	1500	1660	420	420	420	1200	1310	1330				
	Offset from Joist Blocking (Max Offset 4")																				
	2x4, 2-2x4, 3x4, 4x4	8	10d x 1-1/2 HDG	4	10d x 1-1/2 HDG	1-1/8" OSB	415	415	415	525	525	525	330	330	330	420	420	420			
						2x Rim	455	500	525	915	995	995	420	420	420	795	795	795			
						1-3/4" LVL	455	500	525	915	995	995	420	420	420	795	795	795			
	2x6, 2-2x6, 3x6, 4x6	12	10d x 1-1/2 HDG	4	10d x 1-1/2 HDG	1-1/8" OSB	415	415	415	525	525	525	330	330	330	420	420	420			
2x Rim						455	500	525	995	995	995	420	420	420	795	795	795				
1-3/4" LVL						455	500	525	995	995	995	420	420	420	795	795	795				

1) Allowable loads have been reduced 10% for permanent sustained loads, no further reduction is required.  
 2) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.  
 3) F1 loads are parallel to the sill plate.  
 4) F2 loads are perpendicular toward the sill plate.

5) The designer must specify the type, size and spacing of fasteners connecting the sill plate to the foundation wall.  
 6) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long.  
 New products or updated product information are designated in **blue font**.

**Corrosion Finish** ■ Stainless Steel ■ Gold Coat ■ HDG ■ Triple Zinc



MiTek's SRCP Sill Retrofit Connector Plate is designed as a retrofit sill-to-foundation connection that can be installed where there is minimal space between the floor framing and top of the foundation wall. The economical design is targeted for use in seismic regions and yet is also suitable for use as a supplementary connection in high wind areas.

The SRCP Sill Retrofit Connector Plate can be installed without shims anywhere the face of the sill plate is within 1/2" of the face of the foundation wall.

**Materials:** 10 gauge

**Finish:** G90 galvanizing

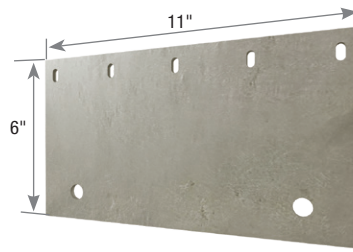
**Codes:** See chart for code references

**Installation:**

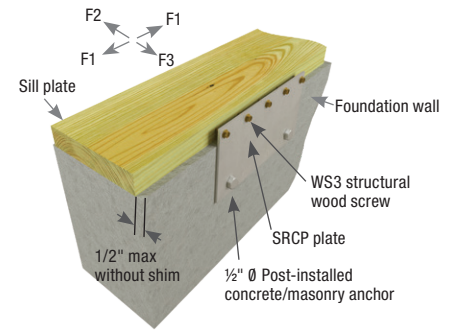
- For sill plate setbacks from 1/2" to 1-1/2", install a wood shim (a minimum of 15" long) tight against the sill plate and flush with the foundation wall. See Figure 3.

Note: For any installations with a sill plate setback, a shim plate is required to transfer load in the F3 direction.

- Install the five MiTek WS3 structural wood screws (included) in the slotted holes of the SRCP plate, thru the shim (if applicable) and into the sill plate. MiTek's WS3 structural wood screws should be installed 3/4" above the bottom of the sill plate (i.e. centered in the narrow face for a 2x sill).
- Drill and install two 1/2" diameter Power-Stud® anchors (or equivalent) into the foundation wall. See manufacturer's literature for proper installation of post-installed anchors.

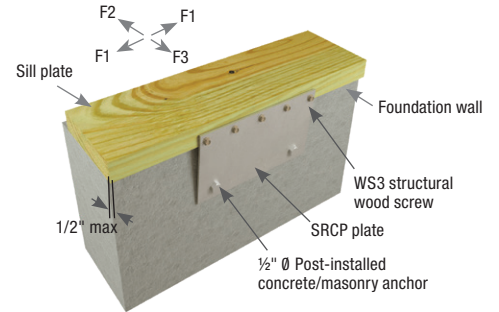


SRCP



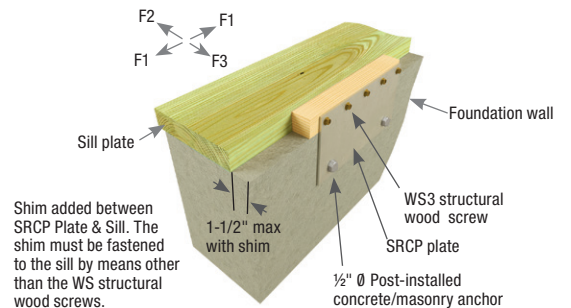
Typical SRCP installation without shim, 1/2" max setback

Figure 1



Typical SRCP installation without shim, 1/2" max overhang

Figure 2



Typical SRCP installation with shim, 1-1/2" max setback

Figure 3

MiTek USP Stock No.	Ref. No.	Steel Gauge	Dimensions (in)		Maximum Spacing to Replace 1/2" or 5/8" Anchor Bolt	Fastener Schedule				Installation Type	DF/SP Allowable Load (Lbs.) <sup>1</sup>			Code Ref.
			W	H		Concrete <sup>3,4</sup>		Sill Plate <sup>2</sup>			F1 160%	F2 160%	F3 160%	
						Qty	Dia.	Qty	Type					
SRCP	FRFP	10	11	6	6'	2	1/2	5	WS3	Figure 1	1560	360	--	--
										Figure 2	1560	--	360	
										Figure 3 <sup>5</sup>	1560	360	360	

1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.  
 2) MiTek's WS3 structural wood screws are 1/4" dia. x 3" long and are included with each SRCP connector.  
 3) Use 1/2" diameter Power-Stud® anchors with minimum 3" embedment or equivalent.  
 4) Minimum concrete strength f'c = 2,500 psi.  
 5) The shim must be fastened to the sill by means other than MiTek's WS3 structural wood screws.  
 New products or updated product information are designated in blue font.

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Concrete & Masonry

The SRC Sill Retrofit Connector has been engineered as a ductile retrofit for older buildings in high seismic zone regions that require additional reinforcement. It can be installed where there is minimal space between the floor framing and top of the foundation wall. The SRC can also be used to reinforce buildings in high velocity wind zones.

The two-piece design easily adjusts to foundations of varying thickness and can also be used where the sill plate may not be parallel to the face of the foundation wall.

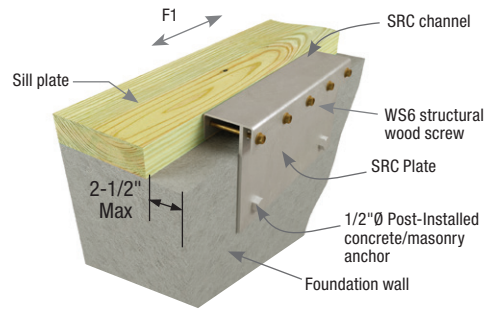
**Materials:** Channel - 12 gauge, Plate - 10 gauge

**Finish:** G90 galvanizing

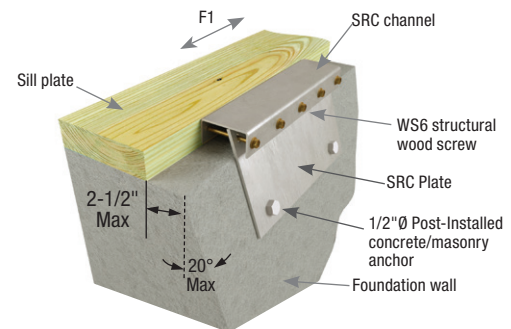
**Codes:** IBC, FL, LA

**Installation:**

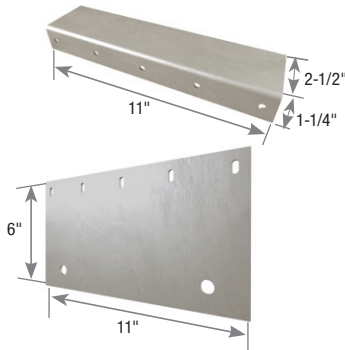
- Use all specified fasteners.
- MiTek's WS6 structural wood screws are supplied with each SRC connector.
- **Contact Customer Service for offsets more than 2-1/2".**



**Typical SRC installation on rectangular foundation**

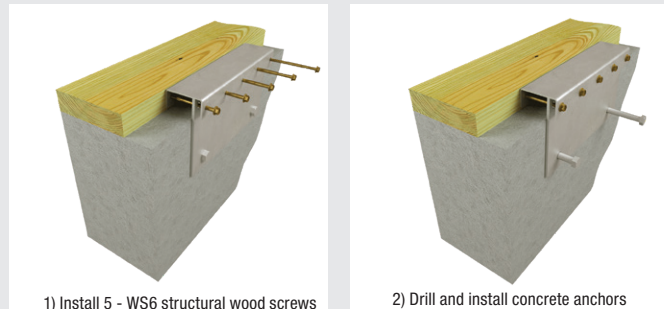


**Typical SRC installation on trapezoidal foundation**



**SRC components**

**Recommended Installation Sequence**



MiTek USP Stock No.	Ref. No.	Components	Steel Gauge	Dimensions (in)		Maximum Spacing to Replace 1/2" or 5/8" Anchor Bolt	Fastener Schedule				DF/SP Allowable Load (Lbs.) <sup>1</sup>	Code Ref.
				W	H		Concrete <sup>3,4</sup>		Sill Plate <sup>2</sup>			
							Qty	Dia.	Qty	Type	F1 160%	
SRC	URFP	Channel	12	11	1-1/4	6'	2	1/2	5	WS6	<b>1405</b>	IBC, FL, LA
		Plate	10	11	6							

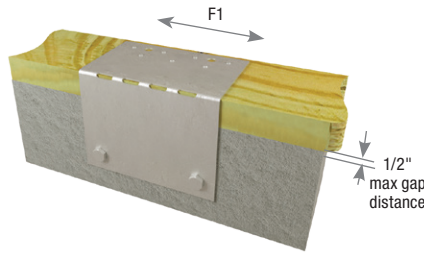
1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.  
 2) MiTek's WS6 structural wood screws are 1/4" dia. x 6" long and are included with each connector.  
 3) Use 1/2" dia. Power-Stud® anchors with minimum 3" embedment or equivalent.  
 4) Minimum concrete strength f'c = 2,500 psi.  
 New products or updated product information are designated in **blue font**.

**SFA** – Mudsill anchors for retrofit applications. Features a slotted bend line for easy adjustment when foundation walls are slanted

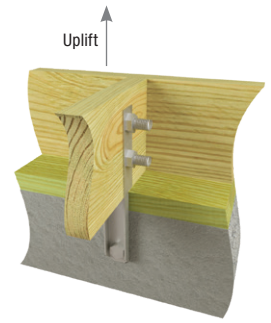
**SFJA** – Ties floor joists directly to foundations with bolt fastening

**Materials:** 12 gauge  
**Finish:** G90 galvanizing

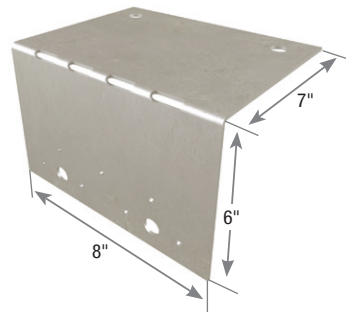
- Installation:**
- Use all specified fasteners. See Product Notes, page 18.
  - A design professional must specify anchor bolt type, length, and embedment. Anchor bolts are laterally loaded. Follow installation instructions for epoxy adhesive.



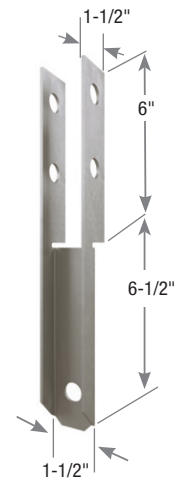
Typical SFA8 installation



Typical SFJA installation



SFA8



SFJA

MiTek USP Stock No.	Ref. No.	Steel Gauge	Fastener Schedule						DF/SP Allowable Loads (Lbs.) <sup>1</sup>		Code Ref.
			Anchor Bolts		Framing				F1	Uplift	
					Nails <sup>4</sup>		Bolts <sup>2</sup>				
Qty	Dia.	Qty	Type	Qty	Dia.	F1	Uplift				
SFJA	FJA	12	1	5/8	--	--	2	5/8	--	1305	--
SFA8	--	12	2	1/2	7	10d x 1-1/2	--	--	875	--	--

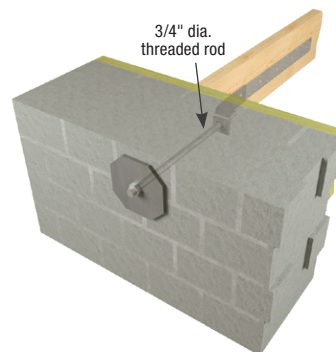
- 1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
- 2) All bolts shall meet or exceed the specifications of ASTM A 307.
- 3) Fasteners shall be installed to fully grouted and reinforced masonry units (CMU) type S or better mortar or reinforced concrete (f'c = 2,500 psi at 28 days).
- 4) **NAILS:** 10d x 1-1/2 nails are 0.148" diameter by 1-1/2" long.

## RP Retro Plate

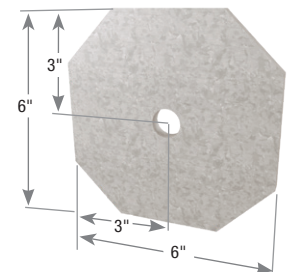
Uses heavy gauge HRPO steel and a large surface area to distribute seismic forces on masonry exteriors.

**Materials:** 3/8" plate  
**Finish:** Primer  
**Options:** See Chart for Corrosion Finish Options

- Installation:**
- Install with a 3/4" diameter steel threaded rod.



Typical RP6 installation



RP6

MiTek USP Stock No.	Ref. No.	Corrosion Finish	Code Ref.
RP6	RP6		--

**Corrosion Finish** ■ Stainless Steel ■ Gold Coat ■ HDG ■ Triple Zinc