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.

---

**Table: FA3 Fastener Schedule**

<table>
<thead>
<tr>
<th>MiTek USP Stock No.</th>
<th>Ref. No.</th>
<th>Steel Ga.</th>
<th>Plate Size</th>
<th>Min Stemwall Thickness (in)</th>
<th>Installation Type</th>
<th>Concrete Ref.</th>
<th>DF/SP Allowable Loads (Lbs.)</th>
<th>Corrosion Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>FA3</td>
<td>-- 16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Uplift 160% F1 160% F2 160%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>IBC, FL, LA</td>
</tr>
<tr>
<td>FA3</td>
<td>-- 16</td>
<td></td>
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<td></td>
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<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

1) Predrilled holes are not required.  
2) Allowable Stress Design (ASD) values have been adjusted for a load duration factor, $C_D$, 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 $f_c = 2,500$ 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
FA Foundation Anchor

Concrete & Masonry

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
• 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.
• For installation in severe corrosion environments, see Corrosion Information on pages 11-16.

Typical FA4 standard installation

Typical FA4 one-tab-up installation

Typical FA4 form board installation

<table>
<thead>
<tr>
<th>MiTek Stock No.</th>
<th>GA</th>
<th>Reference No.</th>
<th>Plate Size</th>
<th>Top Qty</th>
<th>Stud Qty</th>
<th>Type</th>
<th>Installation Type</th>
<th>Concrete</th>
<th>Uplift</th>
<th>End F1</th>
<th>End F2</th>
<th>End F3</th>
</tr>
</thead>
<tbody>
<tr>
<td>FA4 MASA 16</td>
<td>3</td>
<td>6</td>
<td>10d x 1-1/2</td>
<td>Standard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single 2x</td>
<td>3</td>
<td>3</td>
<td>10d x 1-1/2</td>
<td>One-Tab-Up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single 3x</td>
<td>5</td>
<td>4</td>
<td>10d x 1-1/2</td>
<td>Standard</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varies</td>
<td>9</td>
<td>--</td>
<td>10d x 1-1/2</td>
<td>Two-Tabs-Up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FA4 MASA 16</td>
<td>3</td>
<td>6</td>
<td>10d x 1-1/2</td>
<td>Standard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single 2x</td>
<td>3</td>
<td>3</td>
<td>10d x 1-1/2</td>
<td>One-Tab-Up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single 3x</td>
<td>5</td>
<td>4</td>
<td>10d x 1-1/2</td>
<td>Standard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varies</td>
<td>9</td>
<td>--</td>
<td>10d x 1-1/2</td>
<td>Two-Tabs-Up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Anchor Bolt Diameter</th>
<th>1/2&quot;</th>
<th>5/8&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF/SP 2x Mudsill O.C. Spacing</td>
<td>6'-0&quot;</td>
<td>6'-0&quot;</td>
</tr>
<tr>
<td>4'-0&quot;</td>
<td>4'-0&quot;</td>
<td></td>
</tr>
<tr>
<td>3'-0&quot;</td>
<td>3'-0&quot;</td>
<td></td>
</tr>
<tr>
<td>Hem-Fir 2x Mudsill O.C. Spacing</td>
<td>6'-0&quot;</td>
<td>6'-0&quot;</td>
</tr>
<tr>
<td>4'-0&quot;</td>
<td>4'-0&quot;</td>
<td></td>
</tr>
<tr>
<td>3'-0&quot;</td>
<td>3'-0&quot;</td>
<td></td>
</tr>
<tr>
<td>Min End Distance</td>
<td>5'-1/2&quot;</td>
<td>5'-1/2&quot;</td>
</tr>
<tr>
<td>Min C-C Spacing</td>
<td>7-1/4&quot;</td>
<td>7-1/4&quot;</td>
</tr>
</tbody>
</table>
**ST Foundation Anchors**

**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.

### Fastener Schedule

<table>
<thead>
<tr>
<th>Plate Size</th>
<th>MiTek USP Stock No.</th>
<th>Ref. No.</th>
<th>Steel Gauge</th>
<th>Qty</th>
<th>Type</th>
<th>Qty</th>
<th>Type</th>
<th>Min. Embed. (E)</th>
<th>Max. Spacing (Feet)</th>
<th>Allowable Loads (Lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 4 - 6</td>
<td>ST1-TZ</td>
<td>MAB15, MAB15Z</td>
<td>18</td>
<td>4</td>
<td>8d x 1-1/2 HDG</td>
<td>4</td>
<td>8d x 1-1/2 HDG</td>
<td>8-1/2” ”3’-3”</td>
<td>825 565 745</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST2-TZ</td>
<td>--</td>
<td>18</td>
<td>4</td>
<td>8d x 1-1/2 HDG</td>
<td>4</td>
<td>8d x 1-1/2 HDG</td>
<td>16-1/2” ”3’-3”</td>
<td>825 565 745</td>
<td></td>
</tr>
</tbody>
</table>

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
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

**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 type connecting the rim board.

**Typical FWAN-TZ Centered on Joist/Blocking**

**Typical FWAN-TZ Offset Max 4" from Joist/Blocking**

<table>
<thead>
<tr>
<th>MiTek USP Stock No.</th>
<th>Ref. No.</th>
<th>Sill Plate</th>
<th>Fastener Schedule</th>
<th>Rim Board</th>
<th>Material</th>
<th>DF/SP Allowable Load (Lbs.)</th>
<th>Hem-Fir Allowable Load (Lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x4, 2x4, 3x4, 4x4</td>
<td>FWANZ</td>
<td>8</td>
<td>10d x 1-1/2 HDG</td>
<td>4</td>
<td>10d x 1-1/2 HDG</td>
<td>415 415 415 915 1000 1070 330 330 330 800 855 855</td>
<td>420 420 420 800 870 1110</td>
</tr>
<tr>
<td>2x6, 2x6, 3x6, 4x6</td>
<td></td>
<td>12</td>
<td>10d x 1-1/2 HDG</td>
<td>4</td>
<td>10d x 1-1/2 HDG</td>
<td>415 415 415 915 1000 1070 330 330 330 800 870 1110</td>
<td>420 420 420 800 870 1110</td>
</tr>
</tbody>
</table>

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

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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 SCRP 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.

---

### Typical SRCP installation without shim, 1/2” max setback

**Figure 1**

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

**Figure 2**

### Typical SRCP installation with shim, 1/2” max overhang

**Figure 3**

---

**Fastener Schedule**

<table>
<thead>
<tr>
<th>Maximum Spacing to Replace 1/2” or 5/8” Anchor Bolt</th>
<th>Fastener Schedule</th>
<th>DF/SP Allowable Load (Lbs.)</th>
<th>Code Ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6’</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>Concrete</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Steel</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Gage</strong></td>
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<td></td>
</tr>
<tr>
<td></td>
<td><strong>Type</strong></td>
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<td></td>
</tr>
<tr>
<td></td>
<td><strong>Type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Type</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
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".**

### SRC components

1. SRC channel
2. SRC Plate
3. 1/2" Ø Post-Installed concrete/masonry anchor
4. WS6 structural wood screw

### Recommended Installation Sequence

1) Install 5 - WS6 structural wood screws
2) Drill and install concrete anchors

<table>
<thead>
<tr>
<th>MiTek USP Stock No.</th>
<th>SRC</th>
<th>Dimensions (in)</th>
<th>Maximum Spacing to Replace 1/2&quot; or 5/8&quot; Anchor Bolt</th>
<th>Fastener Schedule</th>
<th>DF/SP Allowable Load (Lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRC Ref. No.</td>
<td>URFP</td>
<td>Width (W)</td>
<td>Height (H)</td>
<td>Concrete³,4 Sill Plate²</td>
<td>Qty</td>
</tr>
<tr>
<td>Channel</td>
<td>12</td>
<td>11</td>
<td>1-1/4</td>
<td>6'</td>
<td>2</td>
</tr>
<tr>
<td>Plate</td>
<td>10</td>
<td>11</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 / SFJA Foundation Anchors

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.

<table>
<thead>
<tr>
<th>Steel Gauge</th>
<th>QTY</th>
<th>Dia.</th>
<th>QTY</th>
<th>Type</th>
<th>Dia.</th>
<th>160%</th>
<th>160%</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFA8</td>
<td>12</td>
<td>5/8</td>
<td>--</td>
<td></td>
<td></td>
<td>2</td>
<td>5/8</td>
</tr>
<tr>
<td>SFJA</td>
<td>--</td>
<td>1/2</td>
<td>7</td>
<td>10d x 1-1/2</td>
<td>1-1/2</td>
<td>875</td>
<td>--</td>
</tr>
</tbody>
</table>

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.

Corrosion Finish
- Stainless Steel
- Gold Coat
- HDG
- Triple Zinc

Typical SFA8 installation

Typical SFJA installation

Typical RP6 installation